Avalue Intelligent Display & Systems

AID-173SHR All-In-One Medical PC

Quick Reference Guide

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Federal Communication Commission Interference Statement

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.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These 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 instruction, 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 the dealer or an experienced radio/TV technician for help.

Notice:

- (1) A Unshielded-type power cord is required in order to meet FCC emission limits and also to prevent interference to the nearby radio and television reception. It is essential that only the supplied power cord by used.
- (2) Use only shielded cables to connect I/O devices to this equipment.

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

FCC RF Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible. The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. Shielded interface cables must be used in order to comply with emission limits.

WARNING

"WARNING: Users must not allow SIP/SOPs and the patient to come into contact at the same time."

"CAUTION – Use suitable mounting apparatus to avoid risk of injury."

"CAUTION - Grounding reliability can only be achieved when the equipment is connected to an equivalent receptacle marked "Hospital Only" or "Hospital Grade"."

"CAUTION - Use a power cord that matches the voltage of the power outlet, which has been approved and complies with the safety standard of your particular country.

"WARNING - Do not modify this equipment without authorization of the manufacturer."

"WARNING – To avoid risk of electric shock, this equipment must only be connected to a supply mains with protective earth.

"WARNING – Thorough guiding shall be made to children users to ensure correct use of the product and beware of certain risk it may cause by phone cord and other small parts."

"CAUTION: This adapter AdapterTech ATM065-A190 is a forming part of the medical device"

Statement

Accessory equipment connected to the analog and digital interfaces must be in compliance with the respective nationally harmonized IEC standards (i.e. IEC 60950 for data processing equipment, IEC 60065 for video equipment, IEC 61010-1 for laboratory equipment, and IEC 60601-1 for medical equipment.) Furthermore all configurations shall comply with the system standard IEC 60601-1-1. Anyone who connects additional equipment to the signal input part or signal output part is configuring a medical system, and is therefore, responsible that the system complies with the requirements of the system standard IEC 60601-1-1. The unit is for exclusive interconnection with IEC 60601-1 certified equipment in the patient environment and IEC 60XXX certified equipment outside of the patient environment. If in doubt, consult the technical services department or your local representative.

Intended Use

AID-173 Series Medical PC is intended to be used for displaying information and providing interactive services by doctors, nurses, patients, and staff in the hospitals. It shall not be used for diagnosis purpose and shall not be used for life supporting system.

Cleaning

Materials	Lint-free cloth, microfiber cloth, damp cloth	
Method	Add rubbing alcohol, such as 70% Ethanol or Isopropyl, to the cloth	
	and clean the screen and plastic chassis of the medical PC.	
Caution	DO NOT use cleaning solution, glass cleaner, or spray detergents to clean the medical PC.	

Explanation of Graphic Symbols

4	WARNING: dangerous voltage.
\triangle	Attention, consult ACCOMPANYING DOCUMENTS.
ī	Follow operating instructions or Consult instructions for use.
\bigcirc	STAND-BY (Orange Light)
	Direct current.

<u>UL Mark</u>

E320761 XXXXX Medical Equipment With Respect To Electric Shock, Fire And Mechanical Hazards Only In Accordance With ANSI/AAMI ES60601-1 CAN/CSA C22.2 No. 60601-1	Authentication sign of Standard Inspection Bureau for U.S.A Complies with ANSI/AAMI ES60601-1 and CSA C22.2 No. 60601-1
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Troubleshooting

No Power LED Indicator	Check if power cord and adapter is plugged.
Power Button Not Working	Check the certified technician
Brightness Buttons Not Working	Check if the MAX or MIN level is reached.
Volume Buttons Not Working	Check if the MAX or MIN level is reached.
	Check audio setting in the operating system.
No Display	Check the graphic driver setting to see if the correct video output
	device is selected.
Touch Screen Not Responding	Contact your certified technician.
Touch Screen Not Working	Use software tool on the operating system to calibrate the touch
Correctly	screen and make it accurate. Or contact the technician to calibrate
	for you.
System Speakers Not Working	Check if the audio driver is properly installed in the operating system.
	Check if the volume setting reaches MAX or MIN in the operating
	system.
Camera Fails to Work	Contact your certified technician.
Other peripherals Not Working	Contact your certified technician.
Earphone Not Working	Check audio setting in the operating system.
USB Port Not Working	Unplug the peripheral and try again. Reboot the system if necessary.
Microphone Not Working	Check audio setting in the operating system.
System Fails to Boot up	Could be memory or storage failure. Contact your certified
	technician.
System freezes	Press the power button for 5 seconds to force the system reboot.

[Note]

If you cannot get the system back to work, please contact the certified technician for further inspection or return for repair service. Do not open the system by yourself if you are not a certified technician.

WEEE Mark (European Directive 2002/96/EC)

Within the European Union

EU-wide legislation, as implemented in each Member State, requires that waste electrical and electronic products carrying the mark (left) must be disposed of separately from normal household waste. This includes monitors and electrical accessories, such as signal cables or power cords. When you need to dispose of your display products, please follow the guidance of your local authority, or ask the shop where you purchased the product, or if applicable, follow any agreements made between yourself and Avalue.

The mark on electrical and electronic products only applies to the current European Union Member States.

CAUTION: RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. ONLY A CERTIFIED SERVICE TECHNICIAN IS AUTHORIZED TO REPLACE THE BATTERY. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

System and Adapter Specifications

Display	17.3" TFT-LCD 1920x1080 LED Backlight	
Touch Screen	5-Wire Resistive Touch Panel	
Processor	Intel 2 nd Generation Core i7-2610UE1.5GHz/2340UE	
	1.3GHz/Celeron1.4GHz	
Chipset	Intel QM67	
Memory	2~16GB DDR3 1066/1333MHz SODIMM	
Storage	2.5" SATA HDD/SSD	
Expansion	1 x USB mini Card Socket	
	3 x mini-PCIe Card Sockets	
Rating	19V 3.15A	
Power Consumptions	40W (MAX)	

System Specifications

Environmental Specifications

Operating Temperature	0~40 degrees (C) or 41~104 degrees (F)	
Operating Humidity	20~80% Relative Humidity, Non-Condensing	
Operating Altitude	-380m to 3,000m or -1,246 feet to 9,842 feet	
Operating Atmospheric	700hPa to 1060hPa	
Pressure		
Transport / Storage	-20~65 degrees (C) or -4~149 degrees (F)	
Temperature		
Transport / Storage	10~90% Relative Humidity, Non-Condensing	
Humidity		
Transport / Storage	-380m to 12,000m or -1,246 feet to 39,370 feet	
Altitude		
Transport / Storage	200hPa to 1060hPa	
Atmospheric Pressure		
Vibration	1.5G	

Adapter Specifications

Manufacturer	Adapter Technology Co., LTD
Model	ATM065-A190
Input	100~240V~50-60Hz 1.6-0.7A
Output	19V DC 3.43A

EMC Table

Guidance and manufacturer's declaration – electromagnetic emissions

The model AID-173SHR is intended for use in the electromagnetic environment specified below. The customer or the user of the model AID-173SHR should assure that it is used in such an environment.

Emissions test	Compliance	Electromagnetic environment – guidance
RF emissions CISPR 11	Group 1	The model AID-173SHR uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The model AID-173SHR is suitable for use in all establishments, including domestic
Harmonic emissions IEC 61000-3-2	Class A	establishments and those directly connected to the public low-voltage power
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Complies	for domestic purposes.

Recommended separation distances between portable and mobile RF communications equipment and the model AID-173SHR

The model AID-173SHR is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the model AID-173SHR can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the model AID-173SHR as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output	Separation distance according to frequency of transmitter		
power of transmitter		m	
W	150 kHz to 80 MHz	80 MHz to 800 MHz	800 MHz to 2,5 GHz
	$d = 1, 2\sqrt{P}$	$d = 1, 2\sqrt{P}$	$d = 2, 3\sqrt{P}$
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 transmitters rated at a maximum output power not listed above, the recommended separation distance d in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

Guidance and manufacturer's declaration - electromagnetic immunity

The model AID-173SHR is intended for use in the electromagnetic environment specified below. The customer of)r
the user of the model AID-173SHR should assure that it is used in such an environment.	

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV contact ±8 kV air	±6 kV contact ±8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output	±2 kV for power supply lines ±1 kV for input/output	Mains power quality should be that of a typical commercial or hospital environment.
	lines	lines	
Surge IEC 61000-4-5	±1 kV line(s) to line(s)	±1 kV line(s) to line(s)	Mains power quality should be that of a typical
	$\pm 2 \text{ kV}$ line(s) to earth	$\pm 2 \text{ kV}$ line(s) to earth	commercial or hospital environment.
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 sec	<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 sec	Mains power quality should be that of a typical commercial or hospital environment. If the user of the model AID-173SHR requires continued operation during power mains interruptions, it is recommended that the model AID-173SHR be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE UT is the a.c. mains	voltage prior to application of	the test level.	

The model AID-173SHR is intended for use in the electromagnetic environment specified below. The					
customer or the user of the model AID-173SHR should assure that it is used in such an environment.					
	IEC 60601	Compliance	Electromagnetic		
Immunity test	test level	level	environment – guidance		
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	3 Vrms	Portable and mobile RF communications equipment should be used no closer to any part of the model AID-173SHR, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.		
Radiated RF			distance		
IEC 61000-4-3	3 V/m 80 MHz to 2,5 GHz	3 V/m	$d = 1, 2\sqrt{P}$		
			$d = 1, 2\sqrt{P}$ 80 MHz to 800 MHz		
			$d = 2,3\sqrt{P}$ 800 MHz to 2,5 GHz		
			where <i>P</i> is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and <i>d</i> is the recommended separation		

Guidance and manufacturer's declaration - electromagnetic immunity

distance in metres (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, ^a should be less than the compliance level in each frequency range.^b Interference may occur in the vicinity of equipment marked with the following symbol: $\left(\left((\bullet)\right)\right)$ NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies. NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people. а Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field

strength in the location in which the model AID-173SHR is used exceeds the applicable RF

compliance level above, the model AID-173SHR should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the model AID-173SHR.

^b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

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1. AID-173SHR Bedside Terminals Features

In this chapter, you will learn all of the features of AID-173SHR bedside terminals.

- 1.1 Front Look
- 1.2 Rear & Bottom Look
- 1.3 Handset

1.1 Front Look



1.2 Rear & Bottom Look



1.3 Handset



2. Setting Up AID-173SHR Bedside Terminals

In this chapter, you will learn how to set up AID-173SHR bedside terminal hardware and cable connection. Finally, with Internet ISP setting information, you will be able to connect AID-173SHR bedside terminal to the Internet.

- 2.1 Mounting
- 2.2 Cabling
- 2.3 System Activation & Registration
- 2.4 Connecting to the Internet

2.1 Mounting



Mounting Screws **Note:** 4 pieces of M6x10 screws



2.2 Cabling

- 1. Power Cable
- 2. Ethernet (RJ-45) Cable (Optional)
- 3. TV (Coaxial) Cable (Optional)



Please follow below steps to connect the power cable and the system.



2.3 System Activation & Registration

- 1. When you first receive the system, a system activation and software registration might be performed before the use of this system.
- 2. Please consult your local service providers for more details.

2.4 Connecting to the Internet

- 1. Use built-in wireless LAN to connect to the Internet.
- 2. Use Ethernet (RJ-45) to connect to the Internet.
- 3. Consult your Internet Service Provider (ISP) for software settings.

Note: ISP, IP, (wireless) router, Access Point, DSL modem, Access ID & Password, and so on, are needed for Internet access.

3. Using AID-173SHR Bedside Terminals

In this chapter, you will learn how to use all the features of AID-173SHR bedside terminal.

- 3.1 Turn ON/OFF the System
 - 3.2 Using LCD Display and Touch Screen
 - 3.3 Using Ear Phone and Microphone
 - 3.4 Using Smart Card Reader
 - 3.5 Using Magnetic Stripe Reader
 - 3.6 Using RFID Reader/Writer
 - 3.7 Using Handset
 - 3.8 Using Barcode Scanner

3.1. Turn ON/OFF the System



3.1.1 Turn ON the System

- 1. Check if the led on the Power ON/OFF icon is red.
- 2. Move your finger on the top of the Power ON/OFF icon.
- 3. The led on the Power ON/OFF icon turns green.
- 4. Now the system is turned ON.

3.1.2 Turn OFF the System

- 1. Move your finger on the top of the Power ON/OFF icon for about 4 seconds.
- 2. The led on the Power ON/OFF icon turns red.
- 3. The system is turned OFF.

Note: We recommend use the operating system shut down procedures to turn OFF the system.



3.2 Using LCD Display and Touch Screen

3.2.1 Adjust System Volume

- 1. Move your finger on the top of the Volume Up or Volume Down icon.
- 2. The volume will be adjusted accordingly.

3.2.2 Adjust LCD Display Brightness

- 1. Move your finger on the top of the Brightness Up or Brightness Down icon.
- 2. The brightness of the LCD display will be adjusted accordingly.

3.2.3 Using Touch Screen

- **1.** To select the item on the touch screen, press the item once.
- 2. To select and open the item, press the item twice quickly.
- **3.** To open the secondary menu, press and hold until the menu appears and then moving your finger to select the menu item. When you determine the menu item, release your finger and the item is selected.

3.3 Using Earphone and Microphone



- **1.** Open the rubber cover on the right side of the system.
- 2. Insert the earphone phone or microphone into the jacks.

3.4 Using the Smart Card Reader



- **1.** Have the IC card face up.
- 2. Insert the IC card into the Smart Card Reader slot.

3.5 Using Magnetic Stripe Reader



- **1.** Have your card with the magnetic stripe facing outside.
- **2.** Slide the card from top to the bottom.

3.6 Using RFID Reader/Writer



- 1. Attach the card to the RFID Reader/Writer. Keep card close to the reader no greater than 5cm.
- 2. The RFID will beep if the card is read or written successfully.

Note: The RFID Reader/Writer accepts ISO 14443A standard cards ONLY. Optional RFID Reader/Writer accepts ISO 14443A/14443B/15693 cards.

3.7 Using Handset



Take the Handset

- 1. When you want to use the handset, lift the handset from the cradle.
- **2.** Replace the handset back to the handset cradle with keypad facing inside.



Start and End a Phone Conversation

- To make a phone call, enter the numbers by press the number on the keypad and press "Dial" icon.
- **2.** To end a phone conversation, press the "Hang Up" icon.
- **3.** Use the volume control to adjust the volume of the handset.

Note: Phone application software and Internet connection are required.

3.8 Using Barcode Scanner



- **1.** Take the handset and turn it over.
- **2.** Aim the barcode and maintain an appropriate distance between and barcode and scanner.
- **3.** Press SCAN button.

The Barcode Scanner will "Beep" when the barcode is successfully read.

3.9 Moving the Terminal



- **1.** Use your hand to hold the handle.
- 2. Pull or push to move the terminal towards the direction you want.

Note: Make sure the terminal is fixed firmly via wall mount or other device to prevent injury by sudden fall of the terminal.

4. Upgrading AID-173S Bedside Terminals

In this chapter, you will learn several peripherals upgrade or replacement. Please perform these steps with care.

▲ WARNING: Turn OFF the system and disconnect the power cable before performing the following tasks.

▲ CAUTION: Only a certified service technician is authorized to remove the cover and access the components inside the system.

- 4.1 Adding/Removing/Replacing Memory
- 4.2 Removing and Replacing the Wireless Card
- 4.3 Adding 3rd Party Mini-PCle Cards
- 4.4 Removing and Replacing the Hard Disk Drive

4.1 Adding/Removing/Replacing Memory





- 1. Remove the two screws from the service door.
- 2. Open the service door.

- Push the two latches of the retaining clips away from the memory module.
- 2. The memory module will pop up at an angle.
- **3.** Lift the memory module from the memory socket.
- Align the correct location of the key slot on the connector edge.
- 2. Slide the memory module into the memory socket.
- Push the memory module down until the retaining clip latches catch.
- 4. Close the service door.
- **5.** Insert the two screws on the service door.

Note: Please use the correct type of memory on both memory sockets.

4.2 Removing and Replacing the Wireless Card



- **1.** Remove the two screws from the service door.
- 2. Open the service door.



- **1.** Unplug the two antennas from the wireless module.
- **2.** Unlock the mini-PCIe socket.
- **3.** Pull the wireless module out of the socket.



- 1. Place the wireless module into the mini-PCIe socket.
- **2.** Lock the mini-PCIe socket.
- **3.** Connect the two antenna to the wireless module.
- 4. Close the service door.
- 5. Insert the two screws on the service door.

4.3 Adding 3rd Party Mini-PCIe Cards



- **1.** Remove the two screws from the service door.
- 2. Open the service door.

- Insert the 3rd party mini-PCIe card into the empty mini-PCIe expansion socket.
- **2.** Lock the mini-PCIe socket.

Close the service door and insert two screws.

4.4 Removing and Replacing the Hard Disk Drive



- 1. Remove the two screws from the service door.
- 2. Open the service door.





- Remove the two top screws from the hard bracket from the hard disk cage.
- 2. Disconnect the power and data cables from the back of the hard disk drive.
- Lift the top of the hard disk drive bracket and pull the hard disk drive from the cage.

Remove the two screws on the bracket from the hard disk.

Continue on next page...



- 1. Insert the two screws on the bracket.
- 2. Place the hard disk drive into the cage.
- **3.** Insert two screws on the bracket and the cage.
- **4.** Connect the power and data cable to the hard disk drive.
- 5. Close the service door and insert two screws.

End of This Document

Thank you for purchasing and using AID-173SHR Bedside Terminals. We hope you have a joyful experience with our products and services.

Avalue Technology

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