

ENGLISH

MEDICAL LCD MONITOR
VT-270AHP7(DC)
(X=0-9,A-Z,a-z, or BLANK)
27” Medical Grade Display

USER’S MANUAL

V0.A

Revision	Document Name	Date
0.A	VT-270AHP7(DC).doc	2024/02/26

Manufacturer

VITA Electronics Co., LTD.

Phone: +886-2-2659-5977

Fax: +886-2-2659-5976

Address: 5F., NO.103, Chou-Tze St., Nei-Hu,
Taipei, Taiwan, R.O.C.

World Wide Web: www.vita-color.com

Sales Email: sales@vita.com.tw

Specification are subjected to change without notice.

Thanks for your purchase of the VT-270AHP7(DC) LCD display. It incorporates high quality display into a small light-weighted module. It has power-saving capabilities and emits no radiation. You will certainly benefit from this monitor in lots of ways.

About This Manual

This user manual is intended as an aid in setting up and operating the LCD display.
We have thoroughly verified all information and hints.

The safety information given in this manual is classified as follows:

DANGER:

Indicates an imminent hazard. If not avoided, the hazard will result in death or serious injury.

DANGER:

indique un danger imminent. S'il n'est pas évité, le danger entraînera la mort ou des blessures graves.

WARNING:

Indicates a hazard. If not avoided, the hazard can result in death or serious injury.

AVERTISSEMENT:

indique un danger. S'il n'est pas évité, le danger peut entraîner la mort ou des blessures graves.

CAUTION:

Indicates a potential hazard. If not avoided, this hazard may result in minor personal injury or product/property damage.

ATTENTION:

Indique un danger potentiel. S'il n'est pas évité, ce danger peut entraîner des blessures légères ou endommager le produit ou la propriété d'autrui.

Application and Functional Description

Some Basic Facts

The medical safety approved VT-270AHP7(DC) is a versatile monitor designed for ergonomic and easy handling. The liquid crystal display (LCD) monitor supports resolution up to 3840x2160 and presents high brightness, sharp, low radiation images.

Intended Use

This monitor is only used to display and review medical digital images and can be used as an accessory to the medical system for diagnosis. Complete diagnostic capabilities are provided by the medical system. This monitor is only to use with this external power supply

Adapter Technology Co., Ltd. ATM160T-P240

Alternation current input: 100 – 240V~, 50-60Hz, Current: 1.8-0.9A

Only this combination of display and power supply is approved for use in the medical environment. The LCD display and the power supply must not be used outdoors or in areas where an explosion hazard may occur. The user has to make sure that requirements from IEC 60601-1 are fulfilled, especially in combination from monitor with other electrical equipment. It shall not be used for life supporting system.

Functional Description

The medical LCD display is built into a slim and ergonomic housing. The monitor displays 1.07B colors with a resolution of 3840x2160 pixels.

Product Features

- 27 " Medical LCD
- High contrast ratio
- Power management
- Viewing angles horizontal up to +178°, vertical up to +178°
- Optimum resolution 3840x2160
- 1.07B colors
- VGA, DVI, DP and HDMI input
- User-friendly OSD-Menu
- DDC2B Plug & Play

Applications

The VT-270AHP7(DC) Medical LCD monitor is designed to fit hospital environments. This product will not use in patient vicinity. Its durability and strength also makes it an ideal choice for public access displays. Some possible applications include:

Picture Archiving Communication System(PACS)

- X-ray imaging display
- Ultrasound image display

Preoperative Information System (PIS)

- Pre-operative data recording display
- Intra-operative patient monitor
- Post-operative data recording display

Bedside terminal

- Real-time patient data display

Patient communication system display
 Bedside entertainment display

Medical information processing
 Computer-based testing center display
 Electronic medical record display
 Mobile nursing station display
 Interactive clinical education display
 Electronic booking system display

General Notes on Electrical Safety

Connecting medical electrical equipment to other medical electrical devices and/or other non medical electrical devices, be it for diagnostic or therapeutic purposes or for monitoring, creates a medical electrical system. The standard EN 60601-1 and cUL 60601-1 describes the requirements for these systems. These systems must be composed of devices that comply either with the standard EN 60601-1 and or cUL 60601-1 or with the applicable IEC / ISO standard (PCs, for instance, must meet the requirements of the standard IEC 60601-1) or that are equipped with additional safety features, such as a protective earth conductor, isolating transformer or electrically isolated interface (e.g. optocoupler). This applies to devices of protection class I or II. It is not permitted to integrate protection class III devices in medical electrical systems.

Intended User Profile(when product used for medical environment)

- (1) Education: Medical Experts
- (2) User group: Medical Professionals
- (3) Knowledge base: User should possess medical professional knowledge

Safety Information

DANGER:

Explosion Hazard – The LCD display including the power supply is not designed for use in areas of medical locations where an explosion hazard may occur.
 In appropriate usage of flammable anesthetics, skin cleansing agents and disinfectants the medical Displays can be used risk less in surgical rooms and intensive care units.
 It is not permitted to operate the devices in the presence of flammable substances (e.g. gas)

DANGER:

Risque d'explosion - L'écran LCD, y compris l'alimentation électrique, n'est pas conçu pour être utilisé dans des zones médicales où un risque d'explosion peut se produire.
 Dans l'utilisation appropriée des anesthésiques inflammables, des agents nettoyants pour la peau et des désinfectants, les affichages médicaux peuvent être utilisés de manière moins risquée dans les salles d'opération et les unités de soins intensifs.
 Il est interdit de faire fonctionner les appareils en présence de substances inflammables (par ex. gaz)

WARNING:

Personal Injury – Medical electrical devices may be connected to other devices or to parts of systems only when it has been made certain that there is no danger to the patient, the user, or the environment as a result.
 In those instances where there is any element of doubt concerning the safety of connected devices, the user must contact the manufacturers concerned or other informed experts as to

whether there is any possible danger to the patient, the operator, or the environment as a result of the proposed combination of devices.

Connecting medical electrical devices to other medical electrical devices and / or other non-medical electrical devices creates a medical system which must comply with the system standard

ES 60601-1 / cUL 60601-1. Before putting the system into service, a specialist is required to ascertain its conformity with the system standard.

AVERTISSEMENT:

Dommages corporels - Les appareils électromédicaux peuvent être connectés à d'autres appareils ou à des parties de systèmes uniquement s'il est certain que le patient, l'utilisateur ou l'environnement ne courent aucun risque.

En cas de doute concernant la sécurité des appareils connectés, l'utilisateur doit contacter les fabricants concernés ou d'autres experts informés pour savoir s'il existe un danger potentiel pour le patient, l'opérateur ou l'environnement résultant de combinaison d'appareils proposée.

La connexion d'appareils électriques médicaux à d'autres appareils électriques médicaux et / ou à d'autres appareils électriques non médicaux crée un système médical qui doit être conforme à la norme du système

ES 60601-1 / cUL 60601-1. Avant de mettre le système en service, il faut demander un spécialiste à vérifier sa conformité avec la norme du système.

WARNING:

Personal Injury – Before putting the device into service, check all cables for signs of damage. Damaged cables must be replaced immediately with the original manufacturer's cables. The safety information and certificates do not apply when cables from other manufacturers are used.

Do not open the flat-screen display or perform any service interventions. This may render your warranty claims null and void. Only authorized technicians are permitted to service the flat-screen display.

Do not put the flat-screen display into service

- when liquids have entered the device,
- when it was dropped and the housing is damaged.

Do not immerse the devices into liquids.

- Disconnect the power supply from the power line before cleaning. Use a moist cloth.

AVERTISSEMENT:

Dommages corporels - Avant la mise en service, vérifier que l'appareil n'a subi aucun dommage. Les câbles endommagés doivent être immédiatement remplacés par les câbles du fabricant d'origine. Les informations de sécurité et les certificats ne sont pas applicables lorsque les câbles d'autres fabricants sont utilisés.

N'ouvrez pas l'écran plat et n'effectuez aucune intervention de maintenance. Cela pourrait rendre vos demandes de garantie nulles et non avenues. Seuls les techniciens agréés sont autorisés à effectuer les travaux de maintenance.

Ne mettez pas l'écran plat en service

- lorsque des liquides sont entrés dans l'appareil,
- quand il est tombé et que le boîtier est endommagé.

Ne pas plonger les appareils dans des liquides.

- Débrancher l'alimentation électrique avant le nettoyage. Utilisez un chiffon humide.

WARNING:

Equipment Failure – Magnetic and electrical fields are capable of interfering with the proper performance of the devices. For this reason make sure that all devices operated in the vicinity comply with the relevant EMC requirements.

X-ray equipment, MRI devices, radio systems, and cellular telephones are possible sources of interference as they may emit higher levels of electromagnetic radiation.

Keep the system away from these devices and verify its performance before use.

AVERTISSEMENT:

Panne d'équipement

- Les champs magnétiques et électriques peuvent interférer avec le bon fonctionnement des appareils. Pour cette raison, assurez-vous que tous les appareils utilisés à proximité sont conformes aux exigences de la norme CEM.

Les appareils à rayons X, les appareils d'IRM, les systèmes radio et les téléphones cellulaires sont des sources potentielles d'interférence car ils peuvent émettre des niveaux plus élevés de rayonnement électromagnétique.

Gardez le système loin de ces appareils et vérifiez ses performances avant l'utilisation.

WARNING:

Risk of suffocation – Dispose of the packaging material, observing the applicable waste-control regulations and keeping it out of children's reach.

NoApplied Part

NotaAP or APGCategory

Not forLife-Support

Continuous Operation

AVERTISSEMENT:

Risque d'étouffement

- Éliminer les matériaux d'emballage, en respectant les réglementations applicables en matière de contrôle des déchets et en les maintenant hors de la portée des enfants.

Partie non appliquée

Pas une catégorie AP ou APG

Pas pour le maintien de la vie

Opération continue

CAUTION:

Personal Injury – All devices used must comply with the applicable IEC/EN or ISO standard (PCs, for instance, must comply with IEC 60601-1). This applies to custom designs in particular.

During operation from flat-screen display (contact to monitor) do not simultaneous touch patient.

ATTENTION:

Dommages corporels - Tous les appareils utilisés doivent être conformes aux normes IEC / EN ou ISO applicables (les PC, par exemple, doivent être conformes à la norme CEI 60601-1). Ceci s'applique aux conceptions personnalisées en particulier.

Pendant le fonctionnement de l'écran plat (contacter pour surveiller), ne pas toucher le patient simultanément.

CAUTION:

Personal Injury, Equipment Damage – Check that the ambient conditions specified by the manufacturers of the different devices are ensured.

Before cleaning the flat-screen display, turn it off and remove power cord from power supply. Do not spray any cleaning agents directly onto the display.

Using a dry cloth and gently wipe the display clean without exerting any pressure.

Do not place any objects on the signal cables. Route the signal cables and the power cable to the flat-screen display such that they do not present a stumbling hazard.

ATTENTION:

Dommages corporels, dommages à l'équipement - Vérifiez que les conditions ambiantes spécifiées par les fabricants des différents appareils sont assurées.

Avant de nettoyer l' écran plat, éteignez-le et débranchez le cordon d'alimentation de la prise électrique. Ne pas vaporiser de produits de nettoyage directement sur l'écran.

Utilisez un chiffon sec et essuyez doucement l'affichage sans exercer de pression.

Ne mettez aucun objet sur les câbles de signal. Acheminez les câbles de signal et le câble d'alimentation vers l'écran plat afin qu'ils ne présentent aucun risque de chute.

CAUTION:

Equipment Damage – Do not set up the LCD display in the immediate vicinity of a window. Rain, water, humidity and sunlight may damage the flat-screen display.

Do not exert pressure on the LCD. Excessive pressure may permanently damage the display.

For safe storage of the LCD display, a temperature between -20°C to +60°C and humidity between 10% to 90% must be ensured. Temperatures and humidity above or below this range may permanently damage the LCD display.

Always store your LCD display in its original shipping box.

ATTENTION:

Dommages à l'équipement - N'installez pas l'écran LCD à proximité d'une fenêtre. La pluie, l'eau, l'humidité et la lumière du soleil peuvent endommager l'écran plat.

N'exercez pas de pression sur l'écran LCD. Une pression excessive peut endommager l'écran de façon permanente.

Pour un bon entreposage de l'écran LCD, une température comprise entre -20 + et + 60 °C et une humidité comprise entre 10% et 90% doivent être assurées. Les températures et l'humidité au-dessus ou au-dessous de cette plage peuvent endommager définitivement l'écran LCD.

Rangez toujours votre écran LCD dans son emballage d'origine.

WARNING:

A shielded-type power cord is required in order 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 be used.

Use only shielded cables to connect I/O devices to this equipment.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

AVERTISSEMENT:

Un cordon d'alimentation blindé est nécessaire pour respecter les limites d'émission de la FCC et pour empêcher les interférences avec la réception radio et télévisée à proximité. Il est essentiel que seul le cordon d'alimentation fourni soit utilisé.

Utilisez uniquement des câbles blindés pour connecter des périphériques d'E / S à cet équipement.

Vous êtes informés que les changements ou modifications non expressément approuvés par la partie responsable de la conformité peuvent entraîner la nullité du droit d'utilisation de l'équipement.

WARNING:

Do not modify this equipment without authorization of the manufacturer.

AVERTISSEMENT :

Ne jamais modifier cet équipement sans l'autorisation du fabricant.

WARNING:

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

AVERTISSEMENT :

Pour éviter tout risque d'électrocution, cet équipement doit être raccordé uniquement à des réseaux d'alimentation munis d'une mise à terre.

CAUTION:

This adapter Adapter Technology Co., Ltd./ ATM160T-P240 is a forming part of the medical device

ATTENTION :

Le présent adaptateur Adapter Technology Co., Ltd./ ATM160T-P240 fait partie intégrante du dispositif médical.

CAUTION:

Do not collide or impact monitor webcam or use it as point of leverage during transporting or relocating.

ATTENTION :

Ne pas heurter ni cogner la webcam du moniteur ou l'utiliser comme point de levier pendant le transport ou le déplacement.

WARNING:

AC inlet of Power Adapter consider as disconnected device. Do not to position the ME EQUIPMENT so that it is difficult to operate the disconnection device.

-Disconnect AC inlet of Power Adapter to safely shutdown the LCD device.

No modification of this equipment is allowed.

AVERTISSEMENT:

L'adaptateur CA est considéré comme un périphérique déconnecté. Ne pas placer l'EQUIPEMENT ME pour qu'il soit difficile de faire fonctionner le dispositif de déconnexion.

- Débranchez l'adaptateur CA pour éteindre le périphérique LCD en toute sécurité.

Aucune modification de cet équipement n'est autorisée.

WARNING:

Shock Hazard – Use integrated medical power supply

(Adapter Technology Co., Ltd./ ATM160T-P240):

Alternation current input: 100 – 240V~, 50-60Hz, Current: 1.8-0.9A

AVERTISSEMENT:

Risque d'électrocution - Utiliser uniquement l'alimentation pour applications médicales.

(Adapter Technology Co., Ltd./ ATM160T-P240):

Entrée de courant alternatif: 100 - 240V ~, 50- 60Hz, Courant: 1.8-0.9A

WARNING:

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.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the 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 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 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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

Radiation Exposure Statement:

The product comply with the FCC portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual. The further RF exposure reduction can be achieved if the product can be kept as far as possible from the user body or set the device to lower output power if such function is available.

AVERTISSEMENT:

This device complies with ISED's licence-exempt RSSs. 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.

Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Radiation Exposure Statement:

The product comply with the Canada portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual. The further RF exposure reduction can be achieved if the product can be kept as far as possible from the user body or set the device to lower output power if such function is available.

Déclaration d'exposition aux radiations:

Le produit est conforme aux limites d'exposition pour les appareils portables RF pour les Etats-Unis et le Canada établies pour un environnement non contrôlé.

Le produit est sûr pour un fonctionnement tel que décrit dans ce manuel. La réduction aux expositions RF peut être augmentée si l'appareil peut être conservé aussi loin que possible du corps de l'utilisateur ou que le dispositif est réglé sur la puissance de sortie la plus faible si une telle fonction est disponible.

Federal Communications Commission (FCC) Statement

This Equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 18 of the 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 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 the dealer or an experienced radio/TV technician for help.

General Safety Precautions

1. Read all of these instructions.
2. Save these instructions for later use.
3. Do not use attachments not recommended by the monitor manufacturer as they may cause hazards.
4. Do not use this monitor near water. For example near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc..
5. Do not place this monitor on an unstable cart, stand, or table. The monitor may fall, causing serious injury to a child or adult, and serious damage to the appliance. Use only with a cart or stand recommended by the manufacturer or sold with monitor. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.
6. Slots and openings in the cabinet and the back or bottom are provided for ventilation, and to insure reliable operation of the television receiver and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the monitor on a bed, sofa, rug, or other similar surface. This monitor should never be placed near or over a radiator or heat register. This monitor should not be placed in built-in installation such as a bookcase unless proper ventilation is provided.
7. This monitor should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied in your home, consult your monitor dealer or local power company
8. To prevent the risk of electric shock, make sure power cord is unplugged from wall socket. To fully disengage the power of the unit, please disconnect the power cord from the AC outlet.
9. The signal input parts or signal output parts (SIP/SOP) need to be connected properly and any unused SIP/SOP shall not be accessible to unqualified personnel after the LCD is integrated into a medical system.
10. The unit is 60601-1 certified equipment outside the patient environment.
11. This device complies with EN60601-1-2. To minimize the interference from other equipment, a minimum 0.5M distance shall be kept from other potential electromagnetic source, such as cell phone, etc.
12. Equipment connected to the analog or digital interfaces must comply with the respective IEC standards (e.g. IEC 60950 for data processing equipment and IEC 60601-1 for medical equipment). Everybody who connects additional equipment to the signal input part or signal output part configures a medical system, and is therefore, responsible that the system complies with the requirements of the system standard IEC 60601-1.
13. Do not allow anything to rest on the power cord. Do not locate this monitor where the cord will be abused by persons working on it.
14. Follow all warnings and instructions marked on the monitor.
15. For added protection for this monitor, when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the monitor due to power-line surges.
16. Do not overload wall outlets and extension cords as this can result into fire or electric shock.
17. Never push objects of any kind into this monitor through cabinet slots as they may touch dangerous

voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the monitor.

18. Do not attempt to service this monitor yourself since opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
19. Unplug this monitor from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - a. When the power cord or plug is damaged or frayed.
 - b. If liquid has been spilled into the monitor.
 - c. If the monitor has been exposed to rain or water.
 - d. If the monitor does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the monitor to normal operation.
 - e. If the monitor has been dropped or the cabinet has been damaged.
 - f. When the monitor exhibits a distinct change in performance- this indicated a need for service.
20. When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer that has the same characteristics as the original parts. Unauthorized substitutions may result in fire, electric shock, or other hazards.
21. Upon completion of any service or repairs to this monitor, ask the service technician to perform routine safety checks to determine that the monitor is in safe operating condition.
22. 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.
23. Make sure the user not to contact SIP/SOPs and the patient at the same time.

Explanation of Graphical Symbols



This symbol alerts the user that important information concerning the operation and maintenance of this unit has been included. Therefore, the information should be read carefully in order to avoid any problems.



Follow operating instructions or Consult instructions for use.
Where failure to follow operating instructions could place the PATIENT or OPERATOR at RISK.

Suivez les instructions d'utilisation ou consultez les instructions d'utilisation.
Si le non-respect des instructions d'utilisation peut placer le PATIENT ou l'OPÉRATEUR en RISQUE



Alternating current



Direct current.



Potential Equalization Terminal

Following international standards compliance are variously acquired by different model, please check the certification tag behind this monitor to confirm what standards are actual acquired.

1. ANSI/AAMI ES60601-1:2005/A2:2021, CAN/CSA-C22.2 NO. 60601-1:14 + A2:22 (R2022)



or



MEDICAL- GENERAL MEDICAL EQUIPMENT AS TO ELECTRICAL SHOCK, FIRE AND MECHANICAL HAZARDS ONLY IN ACCORDANCE WITH ANSI/AAMI ES60601-1:2005/A2:2021 & CAN/CSA-C22.2 NO. 60601-1:14 + A2:22 (R2022)

2. EN 60601-1, EN 60601-1-2



This LCD monitor complies with the EN 60601-1 and EN 60601-1-2 of related European standards.

3. FCC



This monitor specified above conforms to the technical standards as specified in the FCC Rules.

Installing Your LCD Display

Before you start to install your medical display, make sure the carton box is not damaged and that all equipment is delivered completely.

Transport Damage

If the equipment has obviously been damaged in transit, make a written report immediately upon arrival of the goods and notify the shipping agent. The shipping agent must be informed of hidden damage in transit in writing within 2 work days.

Unpacking

Before unpacking the flat-screen display, prepare a suitable area for its set-up. Choose a location where the display will not be frequently exposed to direct sunlight or other strong sources of light. The light reflects on the display, dazzling you, and you will have problems seeing the displayed information.

After unpacking the display, check whether the shipment is complete and all items are intact:

- Medical LCD display
- User's guide CD
- Medical Grade Power cord for US standard or AC power cord for EU
- Power adaptor
- VGA cable
- DVI cable
- HDMI cable
- DP cable
- Audio cable
- USB cable

If items are missing or damaged, contact your dealer immediately. Keep the packaging material and the shipping carton for storage or shipment of the LCD display.

Setup and positioning

CAUTION:

When mounting the monitor, take care to tighten the retention screws or bolts until fully secure, but do not over tighten. Over tightening the retention screws or bolts may cause them to become stripped, rendering them useless.

ATTENTION:

Lorsque vous montez le moniteur, veillez à serrer les vis ou les boulons de fixation jusqu'à ce qu'ils soient complètement fixés, mais ne les serrez pas trop. Un serrage excessif des vis de fixation ou des boulons peut entraîner leur dénudage, les rendant inutilisables.

CAUTION:

Power off the unit while connecting cables. Make sure all the necessary audio/video cables have been connected before powering on.

ATTENTION:

Éteignez l'unité pendant la connexion des câbles. Assurez-vous que tous les câbles audio/vidéo nécessaires ont été connectés avant de mettre sous tension.

Mounting

The medical LCD monitor can be mounted onto the wall or stand.

If you intend to mount the monitor on the wall, we strongly recommend that you use wall mount kits with M4*8mm screws x4 and can load more than monitor weight ,that you ensure it is securely and safely installed.

Mounting orientation is landscape only.

Wall Mounting Installation

The medical LCD monitor has Video Electronics Standards Association (VESA) standard mounting holes tapped into the rear panel. The standard holes are M4 set at 200mm x 100mm apart.

To mount the monitor onto the wall or stand, please follow the steps below.

Step 1: Select the location on the wall for the wall-mounting bracket.

Step 2: Carefully mark the locations of the four screw holes in the bracket on the wall

Step 3: Drill four pilot holes at the marked locations on the wall for the bracket retention screws.

Step 4: Align the wall-mounting bracket screw holes with the pilot holes.

Step 5: Secure the mounting-bracket to the wall by inserting the retention screws into the four pilot holes and tightening them.

Step 6: Insert the four monitor mounting screws provided in the wall mounting kit into the four screw holes on the rear panel of the medical LCD monitor and tighten until the screw shank is secured against the rear panel.

Step 7: Align the mounting screws on the monitor rear panel with the mounting holes on the bracket.

Step 8: Carefully insert the screws through the holes and gently pull the monitor downwards until the monitor rests securely in the slotted holes. Ensure that all four of the mounting screws fit snugly into their respective slotted holes.

Step 9: Secure the medical LCD monitor by fastening the retention screw of the wall-mounting bracket.

Connector and Cabling

CAUTION:

When you disconnect the cord/cables, be sure to hold the connector and not the cable itself.

ATTENTION:

Lorsque vous déconnectez le cordon / les câbles, assurez-vous de tenir le connecteur au lieu de câble lui-même.

Installing the Monitor

This monitor is equipped with an auto sensing DC power for voltage ranges 100-240VAC, 50-60Hz.

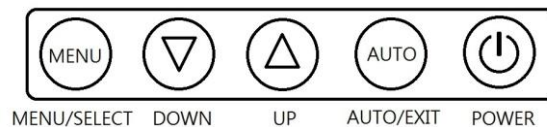
Confirm the line voltage designation on the rear panel of the monitor. Follow these steps to install the monitor:

1. Before you connect the cables, make sure that the monitor and the system unit power switches are off.
2. Plug one end of the video signal cable to the monitor and the other end to the video signal connector at the rear of the system. Tighten the two screws on the cable connector.
3. Connect the power cable.

27 " MEDICAL LCD MONITOR

1. Control Functions FOR Monitor

The monitor digital control functions are located at lower right of panel. They are shown in the figure below and described in the following paragraphs.



2. Function Select

With the $\triangle$ and ∇ knobs, you can adjust the speakers volume.

Press the "MENU" knob to show the OSD menu. Then use the $\triangle$ and ∇ knobs to select a function.

Press the "AUTO" knob to close the OSD menu.

You can hold the "AUTO" knob for more than 3 second to adjust the image quality automatically.

The OSD menu will close automatically after 3-10 seconds without operation and saves any changes you have made.

3. Function Adjustment

1. Video



Backlight- Adjust LED luminance level in the image.



Brightness- Adjust ADC level in the image.



Contrast- Adjust the difference in luminance between light and dark areas of the image.



Sharpness- Adjust sharpness level in the image

2. Display (VGA only)



Auto Tune- Adjust geometry of the image automatically.



Auto Tune- Adjust geometry of the image automatically.



H. Position- Adjust the horizontal position of the image.



V. Position- Adjust the vertical position of the image.



Clock - Adjust the horizontal sync size of signal



Phase- Adjust the horizontal sync phase of signal.

3. Color



Gamma- Select Gamma mode (Optional).



Color Temp.- Select color temperature mode.



Color Effect- Select color effect mode.



Color Format- Select color format: RGB/YUV (VGA and DVI only).



Tint- Adjust tint level of image.



Saturation- Adjust saturation level of image.

4. Advanced



Aspect Ratio- Adjust aspect ratio of image



Over Scan- Turn on/off over scan function.



DDCCI- Turn on/off DDCCI function.



Ultra Vivid - Adjust ultra vivid function: Off/L/M/H (optional).

5. Input



VGA - Select the image signal coming from the VGA port.



DVI - Select the image signal coming from the DVI port.



HDMI - Select the image signal coming from the HDMI port.



DP - Select the image signal coming from the DP port.

6. Audio



Volume - Adjust the volume of speakers.



Mute - Mute monitor speaker.



Audio Source - Select audio source: Analog/Digital.

7. System Setting



Recall- Reset OSD setting to default setting.



OSD Timer- Setup OSD display duration time.



OSD H. Position- Adjust the horizontal position of the OSD menu.



OSD V. Position- Adjust the vertical position of the OSD menu.



Language- Sets the language of the OSD windows.



Transparency- Adjust the transparency of the OSD menu.



OSD V. Rotate- Adjust rotation of the OSD menu.



Key Lock- Turn on/off key lock function.

8. Information



Shown input signal information.

4. Micro-controller Features

The micro-controller automatically detects the video board installed in your system. When you turn on the monitor, the micro-controller first checks the display mode memory stored in the user setting area of the video board, and then the factory presetting area. It then adjusts to the proper display mode.

5. Display Modes Memory

The micro-controller has the memory capacity to store different display modes, including timing formats and display-settings.

Factory Presetting Area

There are some preferred display modes preset in the micro-controller. These display modes are preset at the factory and include the most popular display modes currently available. The micro-controller searches for a proper display mode in this area if it fails to find a proper display mode in the user setting area.

Maintenance and Cleaning

WARNING:

Shock Hazard – Disconnect the AC power cord from the power input connector from LCD display before cleaning or disinfection from monitor surface.
Do not reconnect the devices to the power line before all cleaned parts are completely dry.

AVERTISSEMENT:

Risque de choc électrique - Débranchez le cordon d'alimentation secteur du connecteur d'entrée d'alimentation de l'écran LCD avant le nettoyage ou la désinfection de la surface du moniteur.
Ne pas reconnecter les appareils à la ligne d'alimentation électrique avant que toutes les pièces nettoyées ne soient complètement sèches.

Unplug this monitor from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners.
To clean the LCD panel, gently wipe it with a piece of soft dry cloth.
We recommend you clean the monitor more than once a week for best result.

CAUTION:

Personal Injury, Equipment Damage – Strictly observe the instructions for use of the cleaning agents and disinfectants supplies by the manufacturers.

ATTENTION:

Dommages corporels, dommages à l'équipement - Respectez scrupuleusement les instructions d'utilisation des produits de nettoyage et de désinfection fournies par les fabricants.

Connection Cables

Disconnect the cables from the device and remove the DC power connector before cleaning or disinfection.
When disconnecting the cable, be sure to pull on the connector, not on the cable.
Clean the cable by rubbing it down with a cloth moistened with soap water. Use a disinfectant for disinfection. Do not immerse the cable in liquid.

6. Specifications

Model	VT-270AHP7(DC)
LCD Panel	
Size:	27"
Pixel Pitch:	0.15525mm x 0.15525mm
Brightness:	800 cd/m ²
Contrast Ratio:	1000:1
Response Time:	16ms(typ.)
Maximum viewable size	27inch
Video Input	Analog:15-pin, D-sub connector Digital: DVI,DP,HDMI connector
I/O Port	USB, DVI, HDMI, DP, VGA, Audio, DC Power
Display area	596.16mm x 335.34mm(H×V)
Input voltage:	24.0V DC / 6.6A
Consumption	113 watts maximum
External controls	Power-switch, VGA, DVI,DP,HDMI Brightness, Contrast, Volume, Color temperature (6500K), Clock, Phase, H-position, V-position, OSD-control, Recall, Sharpness, Exit
Horizontal frequency	30-80KHz
Vertical frequency	56-75Hz
Dimensions(with carton)	773mm×297mm×596mm (W×D×H)
Max. Resolution	3840 × 2160 (Non-Interlaced)
Plug & Play	DDC 1/2B
Weight	N.W.: 10.9kg G.W.: 15.6kg
Ambient temperature	
Operation:	5°C – 40°C
Non-operating	-10°C – 60°C
Humidity	
Operating:	20%-80%
Storage:	10%-90%
Atmospheric Pressure	
Operating:	700-1060hPa
Storage:	
Operating Altitude	0-3000m
LCD Panel Life Time	30000 hrs

*Specifications are subject to change without notice.

Trouble Shooting

If one of the following situations arises, get the equipment checked by service personnel :

- The power cord or plug is damaged .
- Liquid has penetrated into the equipment .
- The equipment has been exposed to moisture .
- The equipment does not work well, or you cannot get it to work according to the user's manual .
- The equipment has been dropped and damaged .
- The equipment has obvious signs of breakage .

Appendix

Timings

These display modes are preset at the factory and include the most popular display modes currently available.

Timing	Hf(KHz)	Vf(Hz)	VGA	DVI	HDMI	DP
720x400@70	31.467	70.08	⊙	⊙	⊙	⊙
640x480@60	31.649	59.94	⊙	⊙	⊙	⊙
640x480@72	37.861	72.81	⊙	×	×	×
640x480@75	37.5	75	⊙	×	×	×
800x600@56	35.156	56.25	⊙	⊙	×	×
800x600@60	37.879	60.32	⊙	⊙	⊙	⊙
800x600@72	48.077	72.19	⊙	×	×	×
800x600@75	46.875	75	⊙	×	×	×
1024x768@60	48.363	60	⊙	⊙	⊙	⊙
1024x768@70	56.476	70.07	⊙	×	×	×
1024x768@75	60.023	75.03	⊙	×	×	×
1280x720@60	44.772	59.86	⊙	⊙	⊙	⊙
1280x720@75	56.456	74.78	⊙	×	×	×
1280x768@60	47.776	59.87	⊙	×	⊙	⊙
1280x800@60	49.702	59.81	⊙	⊙	⊙	⊙
1280x960@60	60	60	⊙	⊙	⊙	⊙
1280x1024@60	63.981	60.02	⊙	⊙	⊙	⊙
1280x1024@75	79.976	75.02	⊙	×	×	×
1360x768@60	47.712	60.02	⊙	⊙	⊙	⊙
1366x768@60	47.368	59.96	×	×	⊙	⊙
1440x900@60	55.935	59.89	⊙	⊙	⊙	⊙
1680x1050@60	65.29	59.95	⊙	⊙	⊙	⊙
1920x1080@60	67.5	60	⊙	⊙	⊙	⊙
2560x1440@60	88.787	59.95	×	⊙	⊙	⊙
3840x2160@60	133.313	60	×	×	⊙	⊙

Supported timing is different by the panel used on the main board ⊙Supported

Power Saving Feature

When the power saving active them the power indicator LED will be from Green Light to Amber, And power saving feature complies with these VESA power saving modes:

Mode	H. Sync.	V. Sync.	LED	Power Consumption
Normal	On	On	Green	<113W
Stand-by	Off	On	Amber	<4.5W
Suspend	On	Off	Amber	<4.5W
Off	Off	Off	Amber	<4.5W

The monitor uses the H. Sync and V. Sync signals to determine the operation mode to enter. The monitor power-saving feature automatically turns off H. Sync and V. Sync if there is no input from the system for a certain period of time. To use this feature, you need a green PC that is compliant with

the VESA power saving feature or a software utility to detect system input such as keyboard or mouse.

Time Settings

Time settings are adjusted from the system unit by software. To fulfill the requirements in the NUTEK specification 803299/94 the total time from indicated inactivity to Power Saving position A2 (VESA OFF) must not be set more than 70 minutes. We recommend you switch off the monitor when you do not intend to use it for awhile.

Product Disposal

Outside the European Union

If you wish to dispose of used electrical and electronic products outside the European Union, please contact your local authority so as to comply with the correct disposal method.

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 cord.

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

Please follow the national guidelines for electronic product disposal.

Contact Information

VITA Electronics Co., LTD.

Phone: +886-2-2659-5977

Fax: +886-2-2659-5976

Address: 5F., NO.103, Chou-Tze St., Nei-Hu, Taipei, Taiwan, R.O.C.

World Wide Web: www.vita-color.com

Sales Email: sales@vita.com.tw

Warning:

※Excessive usage may harm your vision.

※Rest for 10 minutes for every 30 minutes of usage.

※Infants under 2 years old should not be shown any screen images, while infants over 2 years old should restrict their exposure to less than one hour per day.

Avertissement:

※L'usage excessif peut nuire à votre vision.

※Reposez-vous 10 minutes après 30 minutes d'utilisation.

※Les enfants de moins de 2 ans ne doivent pas être exposés aux images à l'écran tandis que l'exposition des enfants de plus de 2 ans doit être limitée à moins d'une heure par jour.

※使用過度恐傷害視力。

※使用 30 分鐘請休息 10 分鐘。

※2 歲以下幼兒不看螢幕,兩歲以上每天看螢幕不要超過 1 小時。

USB HUB function note:

Only supports device with low electrical load, total Amps of connected device must less than 0.5 Amps(ex:mouse、keyboard、pen drive...)

Touch function note:

Please install touch driver to PC operation system before use, start use touch function after connect USB cable from PC to monitor.