TFT LCD MONITOR

USER MANUAL

Medical Grade Monitors
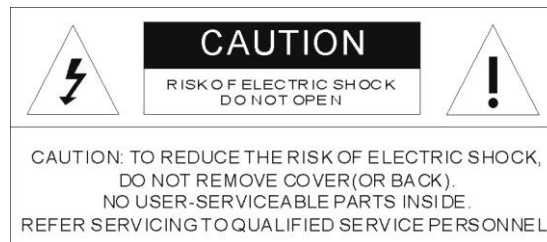
L215MED – 21.5"

L240MED – 24.0"
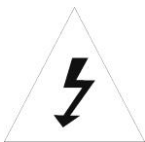
L270MED – 27.0"

CE

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT
TO RAIN OR MOISTURE.
DO NOT INSERT ANY METALLIC OBJECT THROUGH VENTILATION GRILLS.

CAUTION:


```
        ⚡              CAUTION              !
                 RISK OF ELECTRIC SHOCK
                       DO NOT OPEN

        CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
                  DO NOT REMOVE COVER(OR BACK).
                 NO USER-SERVICEABLE PARTS INSIDE.
        REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
```

Explanation of Graphical Symbols

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended
to alert the user to the presence of uninsulated "dangerous voltage" within the product=s
enclosure that may be of sufficient magnitude to constitute a risk of electric
shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the
presence of important operating and maintenance (servicing) instructions in the
literature accompanying the product.

Precautions

Safety-------------------------------------

Should any liquid or solid object fall into the
cabinet, unplug the unit and have it checked
by the qualified personnel before operating it
any further.

Unplug the unit from the wall outlet if it is not
going to be used for several days or more.
To disconnect the cord, pull it out by the plug.
Never pull the cord itself.

Allow adequate air circulation to prevent
internal heat built-up. Do not place the unit on
surfaces(rugs, blankets, etc.) or near materials
(curtains, draperies) that may block the
 ventilation holes.

Installation-------------------------------------

Do not install the unit in an extremely hot or
humid place or in a place subject to excessive
dust or mechanical vibration.

The unit is not designed to be waterproof.
Exposure to rain or water may damage the unit.

Cleaning-------------------------------------

Clean the unit with a slightly damp soft cloth.
Use a mild household detergent. Never use strong
solvents such as thinner or benzene as they might
damage the finish of the unit.

Retain the original carton and packing materials
for safe transport of this unit in the future.

Safety Precautions

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 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 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.

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

This device complies with Part 15 FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.

(2) This device must accept any interference received including interference that may cause undesired
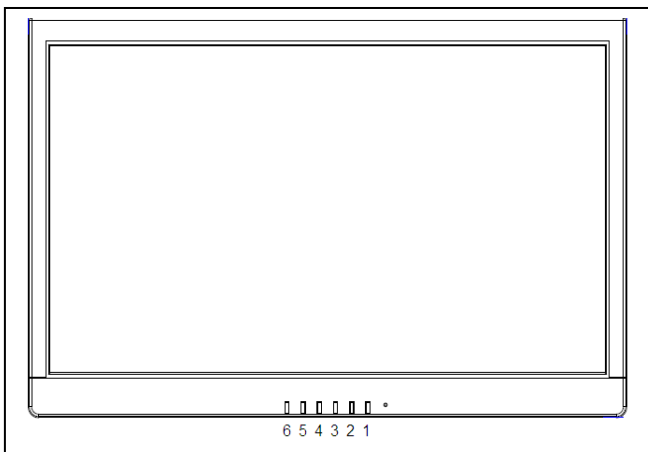

Table Of Contents

Features

- Full HD Wide screen with 1920 x 1080 resolution.
- Compatible to DICOM part 14 Grayscale images.
- Medical grade power supply ensures safety with low emission.
- Built-in stereo speakers for multimedia.
- Display Port offers audio and video over a single long cable.
- Compliance and standards:
  ISO 13485 certified.
  EMC: EN60601-1-2, CE Mark.
  Safety: UL /EN60601-1, CE Mark.
- Stand: Height adjustment /Rotate /Tilt /Swivel
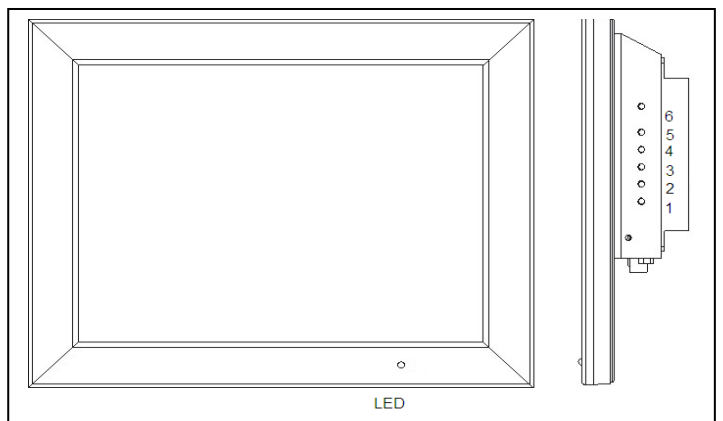- VESA Mounting – L215 VESA100 – L240/L270 VESA75/100

Operating Instructions

Frame type:

21.5"   24"/27"

Key Pad

1. Power

Push to turn on and turn off the unit.

LED Green light: Power on

LED Red light: Standby mode.

2. 3. Adjust UP /DOWN

UP: Used as UP function. Or Increase value on the OSD Menu.
And as a hot key for color adjust function.
DOWN: Used as DOWN function. Or Decrease value on the OSD Menu.
And as a hot key for auto adjust function.

4. Item:

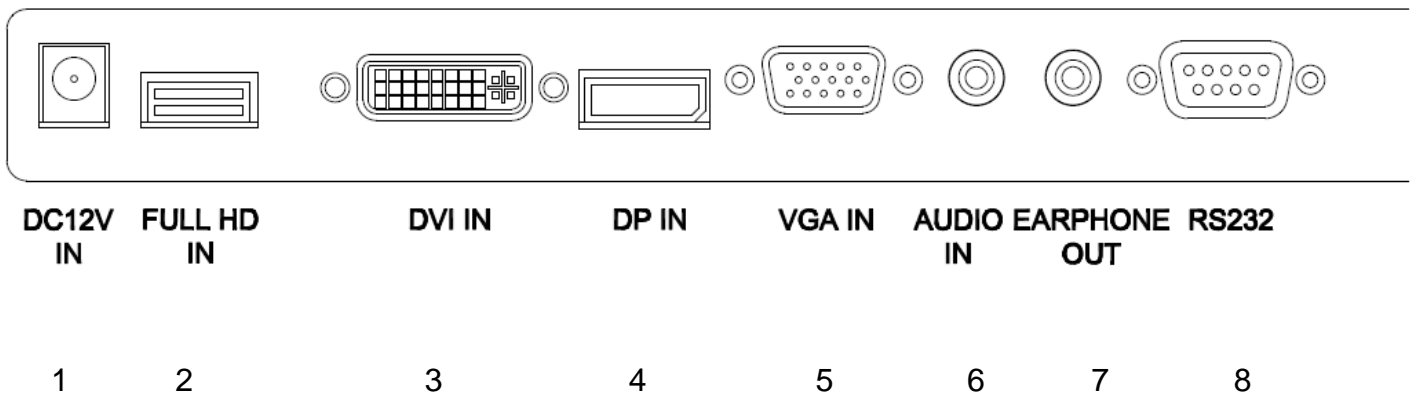Hot key for OSD adjustments of Gamma, Volume, Contrast, Backlight, and R, G, B.

5. Menu

Push to call out OSD menu. Or Used as Confirm function in OSD Menu.

6. Source

Select input signal from VGA D-SUB, HDMI, DVI .Display Port.
This button is also used as "Exit".

Connection:

DC12V IN	FULL HD IN	DVI IN	DP IN	VGA IN	AUDIO IN	EARPHONE OUT	RS232
1	2	3	4	5	6	7	8

1: Regulated DC12V Power Input
2: Full HD IN - (HDMI)
3: DVI-D IN
4: DP IN - (Display port)
5: VGA D-SUB IN
6: AUDIO IN
7: Earphone OUT
8: RS232 IN - (DICOM Calibration System)

Monitor settings via OSD menu

Various monitor settings can be made using the OSD menu (On Screen Display).
Press the Menu button to call-up the OSD main menu. Here you can make adjustments
to the following items:

☐ Picture
☐ Display
☐ Color
   Advance
   Input
☐ Audio
   Other
   Information
   Use the ▲/▼ buttons to toggle between the different items.
   Press the Menu button to select the appropriate item.

Picture

Use the ▲▼ buttons to select adjusts item, and press menu button to confirm.
Then use the ▲▼ buttons to increase/decrease the values.
Press the source button to return to the previous menu item.

Item	Description
Backlight	Use the ▲▼ buttons to increase/decrease the LED backlight.
Contrast	Use the ▲▼ buttons to increase/decrease the screen contrast.
Brightness	Use the ▲▼ buttons to increase/decrease the screen brightness.
Sharpness	Use the ▲▼ buttons to increase/decrease the sharpness.

Display

Use the ▲▼ buttons to select adjusts item, and press menu button to confirm.
Then use the ▲▼ buttons to increase/decrease the values.
Press the source button to return to the previous menu item

Item	Description
Auto Adjust	Use the menu buttons to Adjust the best image.
H Position	Use the ▲▼ buttons to position the picture horizontally.
V Position	Use the ▲▼ buttons to position the picture vertically.
Pixel Clock	Use the ▲▼ buttons to Adjust image distortion appearing as vertical or "noise" on the screen.
Phase	Use the ▲▼ buttons to Adjust image distortion appearing as horizontal or "noise" on the screen.

Colour

Use the ▲▼ buttons to select adjusts item, and press menu button to confirm.
Then use the ▲▼ buttons to increase/decrease the values.
Press the source button to return to the previous menu item

Item	Description
Gamma	Use the ▲▼ buttons to set the gamma values.(off/1/DICOM/2)
Colour Temp.	Use the ▲▼ buttons to select the colour temperature: Off/9300K/7500K/6500K/5800K/SRG/, User.
Colour Effect	Use the ▲▼ buttons to select the colour effect: Standard/Game/Movie/Photo/Vivid/User.

Advance

Use the ▲▼ buttons to select adjusts item, and press menu button to confirm.
Then use the ▲▼ buttons to increase/decrease the values.
Press the source button to return to the previous menu item

Item	Description
Aspect ratio	Use the ▲▼ buttons to select the picture size: Full 16:9 - 4:3 - 5:4 - Original

Input

Use the ▲▼ buttons to select adjusts item, and press menu button to confirm.
Then use the ▲▼ buttons to increase/decrease the values.
Press the source button to return to the previous menu item

Item	Description
Input	Use the ▲▼ buttons to select the input source: VGA/HD/DP/DVI

Audio

Use the ▲▼ buttons to select adjusts item, and press menu button to confirm.
Then use the ▲▼ buttons to increase/decrease the values.
Press the source button to return to the previous menu item

Item	Description
Volume	Use the ▲▼ buttons to adjust the volume.
Mute	Use the ▲▼ buttons to change the mute: on/off.
Stand along	Use the ▲▼ buttons to change the stand along: on/off. – Portrait View
Audio source	Use the ▲▼ buttons to change the audio source: analogue /digital.

Other

Use the ▲▼ buttons to select adjusts item, and press menu button to confirm.
Then use the ▲▼ buttons to increase/decrease the values.
Press the source button to return to the previous menu item

Item	Description
Reset	Press the menu button to restore the factory settings.
Menu time	Use the ▲▼ buttons to setting the OSD menu display time.
OSD H Position	Use the ▲▼ buttons to position the OSD horizontally.
OSD V Position	Use the ▲▼ buttons to position the OSD vertically.
Language	Use the ▲▼ buttons to select the language.
Transparency	Use the ▲▼ buttons to setting the OSD menu display halftone.
Rotate	Use the ▲▼ buttons to select the OSD rotate.

PC Timing

Mode	Resolution
1	800*600@60
2	800*600@72
3	800*600@75
4	1024*768@60
5	1024*768@70
6	1024*768@75
7	1280*1024@60
8	1280*1024@75
9	1360*768@60
10	1920*1080@60

LCD monitor Mounting Guide

A. Desktop (Height Adjust Stand)

VESA Mounting Pattern: 100x100mm/75x75mm

Screw Type: M4

Dimension (W*H*D): 222*432*252 mm
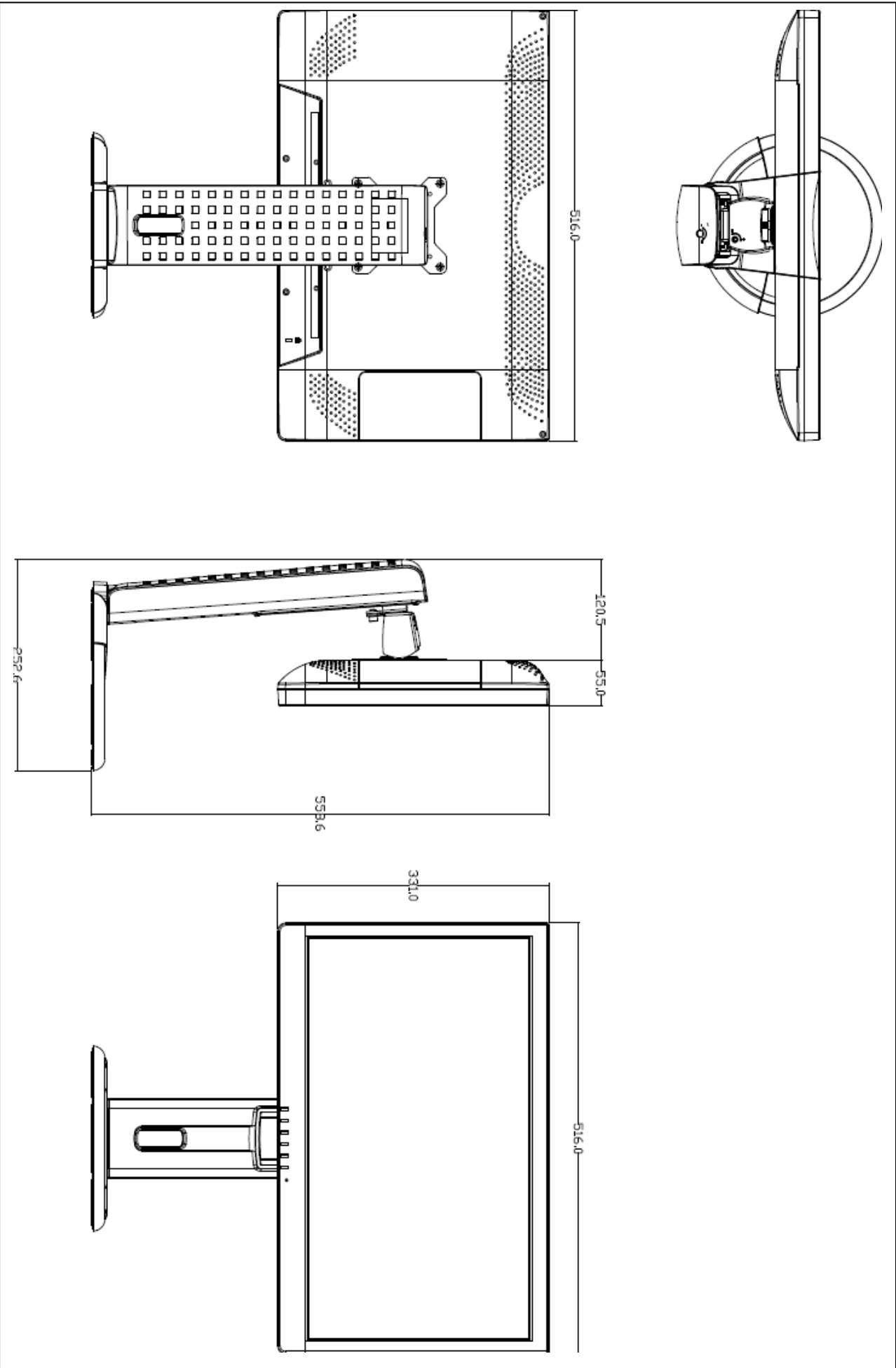
Weight (Net): 3.12 Kg (6.88 lbs)

Swivel (Hinge): 360°

Tilt (Hinge): +25°/-5°
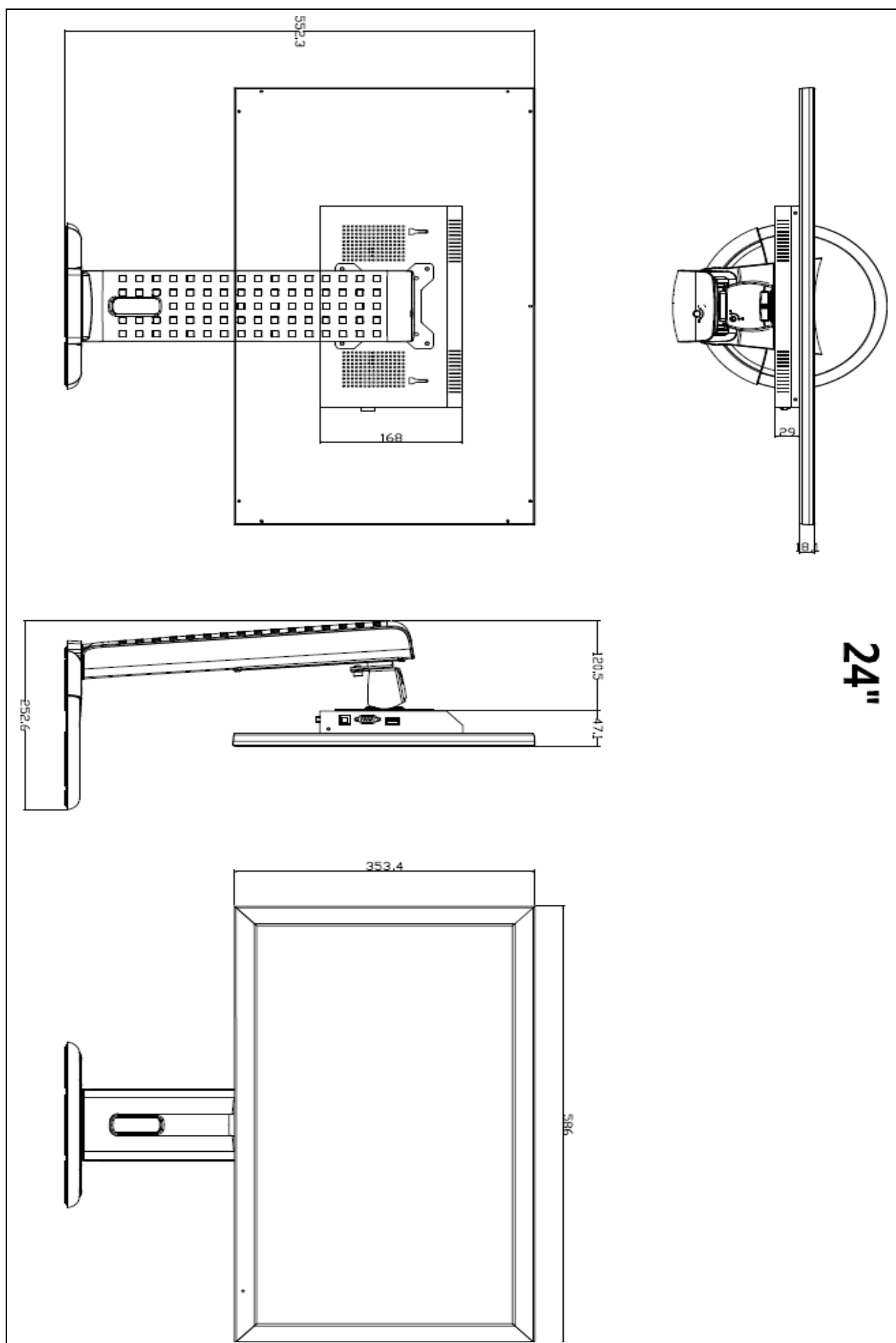
 Support Weight (Range): 6~12 Kg (13.2~26.5 lbs)

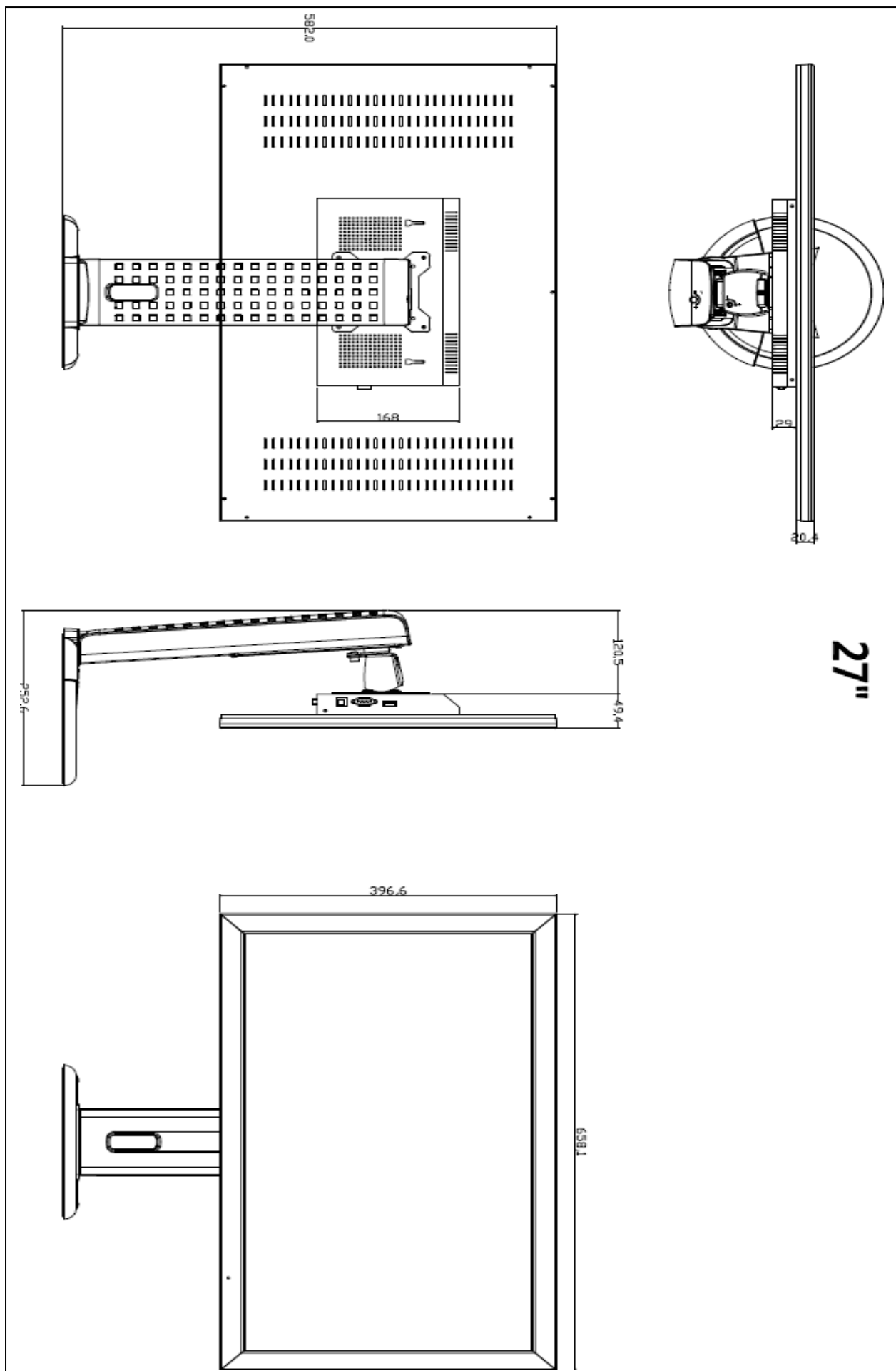Rotate (Pivot)(Hinge): 360°

Height Adjustment Range: 130 mm

21.5"

516.0

252.6

120.5

55.0

553.6

331.0

516.0

24"

24"

27"

27"

Specification

Model	L215MED
LCD Panel	21.5" TFT LCD
Active Area (mm)	476.64 x 268.11
Picture format	16:9
Max. resolution	1920 x 1080
Pixel dot pitch (mm)	0.24825 x 0.24825
Colours	16.7M
Brightness	250 cd/m² [LED]
Contrast	3000：1 typ
Response Time Tr/Tf (ms)	20 / 5
Viewing Angle (U/D/L/R)	89/89/89/89
DICOM Function	Compatible to DICOM part 14
Input Signal	1 x VGA input (D-SUB 15pin) 1 x DVI-D input 1 x Full HD HDMI input 1 x DP input (Display port) 1 x PC Audio input (3.5 ϕ phone jack) 1 x RS232 input (D-SUB 9pin)DICOM Calibration System
Output Signal	1 x Earphone output (3.5 ϕ phone jack)
Speaker	Speaker 2 x 2Watts
OSD setting	Yes
Power input	AC 100~240V 50/60HZ Medical grade Switching Power Adapter DC12V/5A
Power consumption	Approx. 20.5 watt
Dimension (WxHxD)mm	516 x 331 x 55 - with stand 516 x 558.6 x 252.6
Weight	3.3kg + stand 3.26kg = Total 6.56kg
Operating temperature	0° to 40° C

Subject to technical changes without prior notice. Error excepted.

Model	L240MED
LCD Panel	24" TFT LCD
Active Area (mm)	531.36 x 298.89
Picture format	16:9
Max. resolution	1920 x 1080
Pixel dot pitch (mm)	0.27675 x 0.27675
Colours	16.7M
Brightness	250 cd/m² [LED]
Contrast	3000：1 typ
Response Time Tr/Tf (ms)	7/ 5
Viewing Angle (U/D/L/R)	89/89/89/89
DICOM Function	Compatible to DICOM part 14
Input Signal	1 x VGA input (D-SUB 15pin) 1 x DVI-D input 1 x Full HD HDMI input 1 x DP input (Display port) 1 x PC Audio input (3.5 ψ phone jack) 1 x RS232 input (D-SUB 9pin)DICOM Calibration System
Output Signal	1 x Earphone output (3.5 ψ phone jack)
Speaker	Speaker 2 x 2Watts
OSD setting	Yes
Power input	AC 100~240V 50/60HZ Medical grade Switching Power Adapter DC12V/5A
Power consumption	Approx. 27 watt
Dimension (WxHxD)mm	586 x353.4 x 47.1 – with stand 586 x 552.3 x 252.6
Weight	5.6kg + stand 3.26kg = Total 8.86kg
Operating temperature	0° to 40° C

Subject to technical changes without prior notice. Error excepted.

Model	L270MED
LCD Panel	27" TFT LCD
Active Area (mm)	597.6 x 336.15
Picture format	16:9
Max. resolution	1920 x 1080
Pixel dot pitch (mm)	0.31125 x 0.31125
Colours	16.7M
Brightness	300 cd/m² [LED]
Contrast	3000：1 typ
Response Time Tr/Tf (ms)	7 / 5
Viewing Angle (U/D/L/R)	89/89/89/89
DICOM Function	Compatible to DICOM part 14
Input Signal	1 x VGA input (D-SUB 15pin) 1 x DVI-D input 1 x Full HD HDMI input 1 x DP input (Display port) 1 x PC Audio input (3.5 ψ phone jack) 1 x RS232 input (D-SUB 9pin)DICOM Calibration System
Output Signal	1 x Earphone output (3.5 ψ phone jack)
Speaker	Speaker 2 x 2Watts
OSD setting	Yes
Power input	AC 100~240V 50/60HZ Medical grade Switching Power Adapter DC12V/5A
Power consumption	Approx. 35 watt
Dimension (WxHxD)mm	658 x 396.6 x 49.4 – with stand 658 x 582 x 252.6
Weight	6.8kg + stand 3.26kg = Total 10.06kg
Operating temperature	0° to 40° C

Subject to technical changes without prior notice. Error excepted.

Appendixes

Troubleshooting

The tables provided below include some problems that the user may encounter while using the display and the corresponding solutions. Please refer to the contents of this section prior to contacting service personnel.

Problem	Possible Causes	Solutions
No picture	1. Is the power cable connected to the unit? 2. Is the unit turned on? 3. Is the signal cable connected to the unit? 4. Is the unit in power saving mode?	1. Make sure the power cable has been properly connected to the unit. 2. Turn on the unit. 3. Make sure the signal cable has been properly connected to the unit. 4. Press any key on computer keyboard.
Strange colour	1. Is the signal cable connected to the unit?	1. Make sure the signal cable has been properly connected to the unit.
Picture distortion	1. Is the signal cable connected to the unit? 2. Is the video input signal within the unit's specified frequency range?	1. Make sure the signal cable has been properly connected to the unit. 2. Make sure the input signal is within the unit's specified frequency range.
Picture is too dim	1. Have the unit's brightness and contrast settings been set to the lowest level?	1. Adjust brightness and contrast
Only sound but no picture	1. Is the connection of the input signal correct?	1. Check connection of input signal. 2. Make sure the signal cable has been properly connected.
Only picture but no sound	1. Is the signal cable connected to the unit? 2. Has the volume been set to the min level? 3. Is the audio cable connected to the unit?	1. Make sure the signal cable has been properly connected to the unit. 2. Adjust the volume to an appropriate setting. 3. Make sure the audio cable has been properly connected to the unit.

Please contact the customer service centre of your local dealer if you have any questions regarding the unit after reading the information provided above.

Package List

A. LCD Monitor	x 1
B. Power Cord	x 1
C. User Manual	x 1
D. 12V Power Adapter	x 1 Medical Grade
F.VGA Cable (DB-15)	x 1 Optional
G.RCA Cable	x 1 Optional