User Manual   20" LCD 1600 x 1200

RMD-151-20
1U LCD Drawer

Options :
- AV / HDMI / Audio
- DC power

FC   CE

Legal Information

First English printing, October 2002

Information in this document has been carefully checked for accuracy; however, no guarantee is given to the correctness of the contents. The information in this document is subject to change without notice. We are not liable for any injury or loss that results from the use of this equipment.

Safety Instructions
Please read all of these instructions carefully before you use the device. Save this manual for future reference.

■ Unplug equipment before cleaning. Don't use liquid or spray detergent; use a moist cloth.
■ Keep equipment away from excessive humidity and heat. Preferably, keep it in an air-conditioned environment with temperatures not exceeding 40º Celsius (104º Fahrenheit).
■ When installing, place the equipment on a sturdy, level surface to prevent it from accidentally falling and causing damage to other equipment or injury to persons nearby.
■ When the equipment is in an open position, do not cover, block or in any way obstruct the gap between it and the power supply. Proper air convection is necessary to keep it from overheating.
■ Arrange the equipment's power cord in such a way that others won't trip or fall over it.
■ If you are using a power cord that didn't ship with the equipment, ensure that it is rated for the voltage and current labeled on the equipment's electrical ratings label. The voltage rating on the cord should be higher than the one listed on the equipment's ratings label.
■ Observe all precautions and warnings attached to the equipment.
■ If you don't intend on using the equipment for a long time, disconnect it from the power outlet to prevent being damaged by transient over-voltage.
■ Keep all liquids away from the equipment to minimize the risk of accidental spillage. Liquid spilled on to the power supply or on other hardware may cause damage, fire or electrical shock.
■ Only qualified service personnel should open the chassis. Opening it yourself could damage the equipment and invalidate its warranty.
■ If any part of the equipment becomes damaged or stops functioning, have it checked by qualified service personnel.

What the warranty does not cover

■ Any product, on which the serial number has been defaced, modified or removed.
■ Damage, deterioration or malfunction resulting from:
  □ Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
  □ Repair or attempted repair by anyone not authorized by us.
  □ Any damage of the product due to shipment.
  □ Removal or installation of the product.
  □ Causes external to the product, such as electric power fluctuation or failure.
  □ Use of supplies or parts not meeting our specifications.
  □ Normal wear and tear.
  □ Any other causes which does not relate to a product defect.
■ Removal, installation, and set-up service charges.

Regulatory Notices Federal Communications Commission (FCC)

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.

Any changes or modifications made to this equipment may void the user's authority to operate this equipment. 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:

■ Re-position 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.

# Contents

< Part 1 >
< 1.1 > Package Content

RMD-151-20 unit X 1

- 6ft VGA cable X 1
- Power cord X 1
- M6 screw, cage nut & cup washer X 8

⚠ **The above package content is only for the pure model (VGA and DVI-D only). It varies with options such as HDMI, AV, audio & DC power.**

## < 1.2 > Structure Diagram
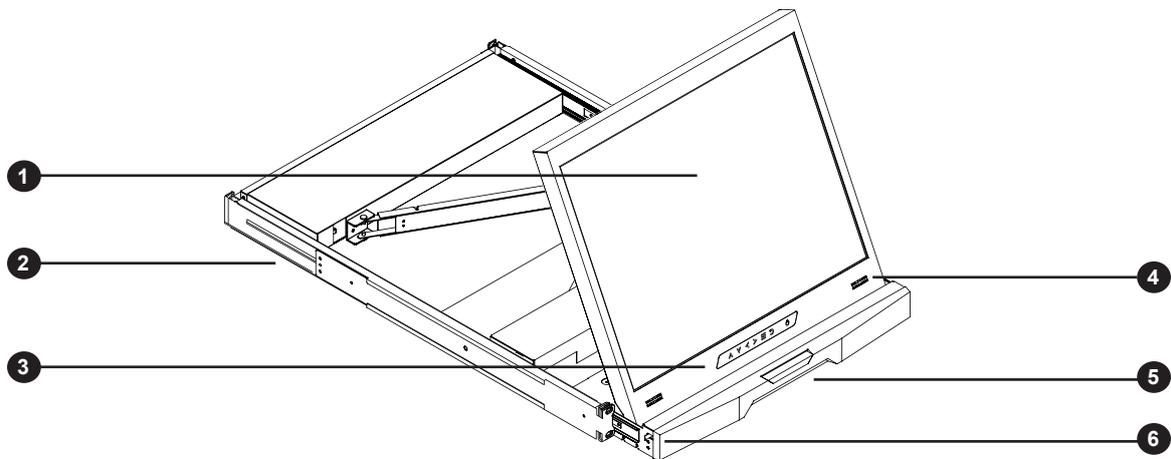
No.	Description	No.	Description
1	LCD panel	4	Audio speaker
2	Installation Slide	5	Carry handle to release the 2-pt lock
3	LCD OSD membrane ∧ ∨ ‹ › ☰ ↺ ⏻	6	2-point lock

Front View

439.6

19''Rackmount

1U
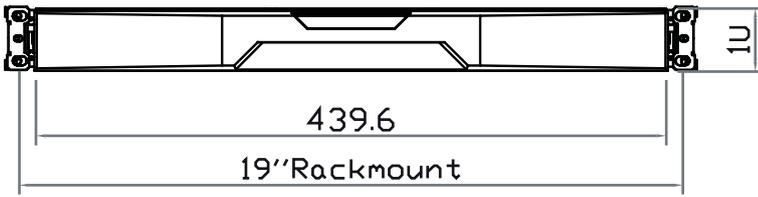
Side View
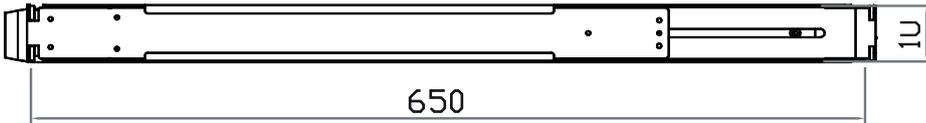
UNIT : mm
1mm = 0.03937 inch

650

1U

Top View

439.6

477.1

650
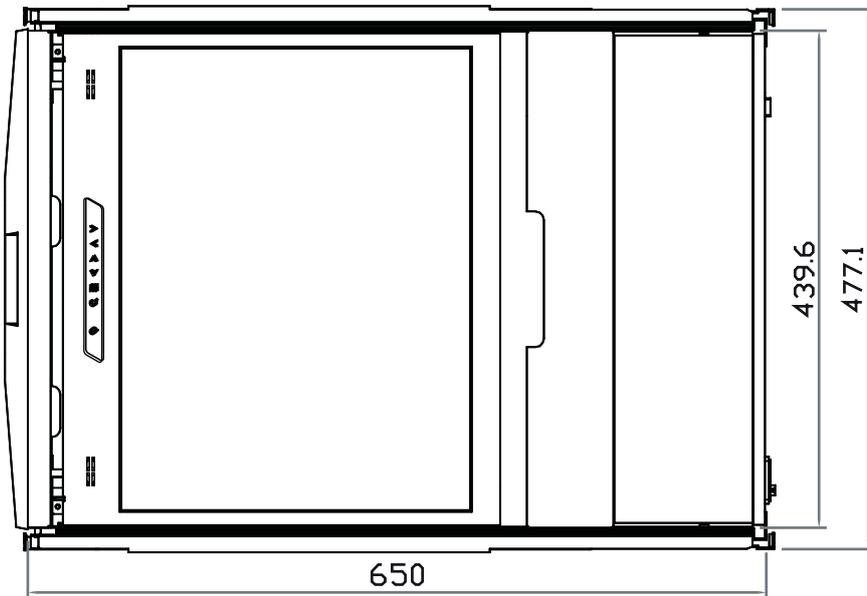
Model	Product Dimension (W x D x H)	Packing Dimension (W x D x H)	Net Weight	Gross Weight
RMD-151-20	439.6 x 650 x 44 mm 17.3 x 25.6 x 1.73"	595 x 860 x 140 mm 23.4 x 33.9 x 5.5”	13.5 kg 30 lb	17.5 kg 39 lb

⚠ **The weight is only for the pure models. It varies with accessories & options such as SDI, HDMI, AV, audio & DC power.**

< 1.3 > Installation - How to install | 1U 20" LCD Tray

Rear side

Right bracket

Left bracket

Front side
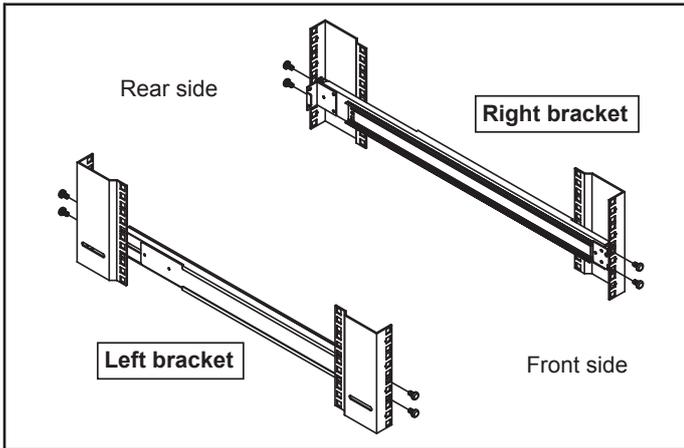
Step 1

- ■ Attach the | left and right mounting bracket | to rack 19" mounting rails.
- ■ Adjust the mounting bracket to fit your rack.
- ■ M6 screw x 8 pcs included.

⚠ **Leave all M6 screws slightly loose, until you complete the installation in step 3**

Mounting bracket
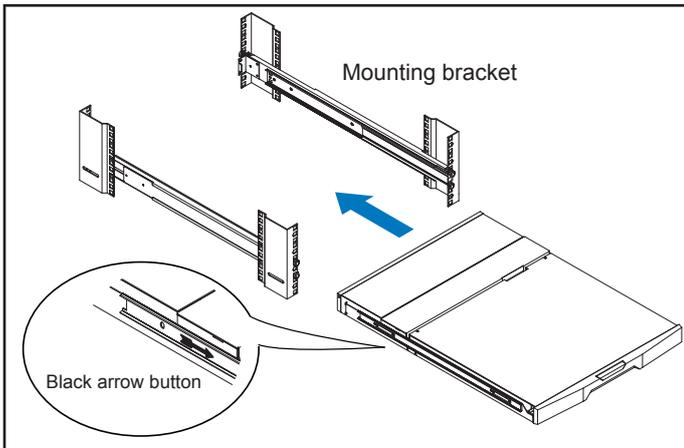
Black arrow button

Step 2

- ■ Pick up the LCD tray.
- ■ Insert the LCD tray into the mounting bracket.
- ■ Pull and hold the left & right black arrow buttons on the rails.
- ■ Return the LCD tray to park position.

Front side
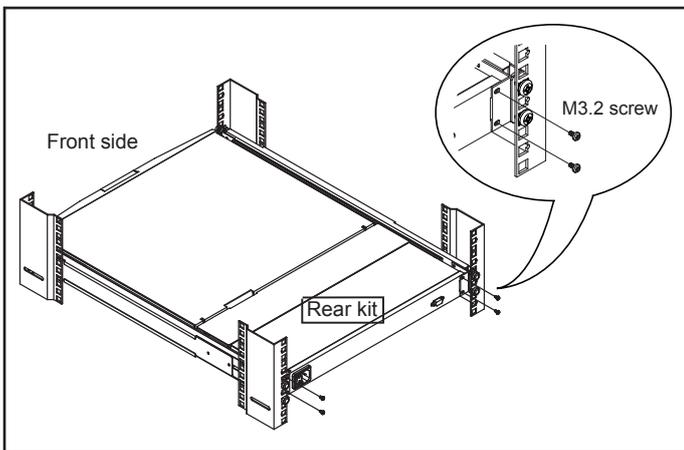
M3.2 screw

Rear kit

Step 3

- ■ Fix the | rear kit | to the mounting bracket with M3.2 screw x 4 pcs included.

⚠ **This step is necessary. Failure to complete this will cause damage.**
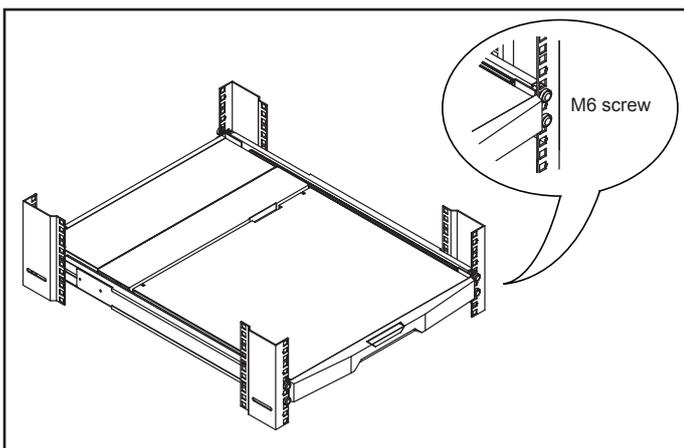
M6 screw

Step 4

Complete the installation

- ■ Tighten all 8 pcs of M6 screw to complete the installation.

| LCD Panel	Manufacturer	LG
	Panel Size (diagonal)	20-inch TFT color LCD
	Display pixel (dots x lines)	1600 x 1200
	Brightness (typ.)	300
	Contrast Ratio (typ.)	800:1
	Color	16.7 M
	Viewing Angle (L/R/U/D)	89/89/89/89
	Response Time (ms)	16
	Dot pitch (mm)	0.255
	Display Area (mm)	408.00H x 306.00V
	Surface treatment	Anti-glare, Hard-coating
	Surface hardness	3H
	Backlight Type	CCFL
	MTBF (hrs)	45,000

Video Connectivity	Digital	HDMI	HDMI 1.1, CEA-861-D
		DVI	DVI-D, TMDS single link
	Analog	VGA	Analog 0.7Vp-p
		Composite (BNC)	NTSC & PAL
		S-Video (4-pin)	NTSC & PAL
	Plug & Play	DVI / VGA	VESA EDID structure 1.3
	Synchronization	VGA	Separate, Composite & SOG

Audio Connectivity	Audio Input	Connector	3.5mm stereo jack
		Impedance / Power level	30kΩ / 750mV
	Audio Output	Connector	3.5mm stereo jack
		Resistance / Power level	30kΩ / 2.8V
	Speaker Output	Power	2 x 2W

*When the audio output is connected, speaker output is OFF

Power	Power Supply	Range	Auto-sensing 100 to 240VAC, 50 / 60Hz
	Power Consumption	Screen display ON	48W or less
		Power saving mode	4W or less
		Power button OFF	1W or less

Regulatory	Safety Approval	FCC & CE

Environmental Conditions	Operating	Temperature	0 to 50°C degree
		Humidity	20~90%, non-condensing
	Storage	Temperature	-5 to 0°C degree
		Humidity	5~90%, non-condensing
		Shock	10G acceleration (11ms duration)
		Vibration	5~500Hz 1G RMS random

Physical Specification	Product (W x D x H)	439.6 x 650 x 44 mm
		17.3 x 25.6 x 1.73 inch
	Packing (W x D x H)	595 x 860 x 140 mm
		23.4 x 33.9 x 5.5 inch
	Net Weight	13.5 kgs / 30 lbs
	Gross Weight	17.5 kgs / 39 lbs

Applicable Format	DVI-D / VGA Input	PC Signal	1600 x 1200 x 60Hz
			1400 x 1050 x 60Hz
			1440 x 900 x 60Hz
			1360 x 768 x 60Hz
			1280 x 1024 x 60 / 75Hz
			1280 x 960 x 60Hz
			1280 x 760 x 60 / 75Hz
			1152 x 864 x 75Hz
			1024 x 768 x 60 / 70 / 75Hz
			848 x 480 x 60Hz
			800 x 600 x 60 / 72 / 75Hz
			720 x 400 x 70Hz
			640 x 480 x 60 / 72 / 75Hz
			640 x 400 x 70Hz
			640 x 350 x 70Hz

Membrane Switch	Function
⏻	Turn the monitor on or off
☷	Display the OSD menu Act as an Enter key to select screen setting options
∧ ∨ ＜ ＞	Scroll through menu options and adjust the displayed control
↩	Exit the OSD screen Go back to the previous on-screen sub-menu or main menu

Remark : All LED touch buttons in **WHITE** light.
The LED of **Power** ⏻ touch button will flash continuously when there is no signal input.

① All the LED touch buttons will automatically turn off after 10 minutes of idle status (except the **Power** ⏻).

② Light up all membrane buttons, please press any button for 1 - 2 seconds (except the **Power** ⏻).

< 2.2 > On-screen Display Operation (OSD)

Ver: G56SN20SSTD701		1024 x 768 59.8Hz
	Image	
	Brightness	50
	Contrast	50
	Color Temp	User
	Red	255
	Green	255
	Blue	255
Adjust: ← →	Select: ↑ ↓	Set: ◉/▣	Exit: ↺

OSD Configuration Page

Image:
for the brightness, contrast, color temp, red, green, and blue

Geometry:
for the auto adjust, H position, V position, phase and clock

Video:
for the colour, tint, sharpness, noise reduction, DCDi and TV Setup

Audio:
for volume, bass, treble, balance, AVL and mute

Misc:
for the language, OSD position, graphic mode, ratio, reset and timer

< 3.1 > Options :

- HDMI   (HDMI 1.1, CEA-861-D)

- AV   (S-Video + Composite, BNC)

- Audio (3.5mm audio jacks for audio in & out, and 2W + 2W speakers)

⚠️

For AV2.2 upgrade, either HDMI or DVI-D is provided.
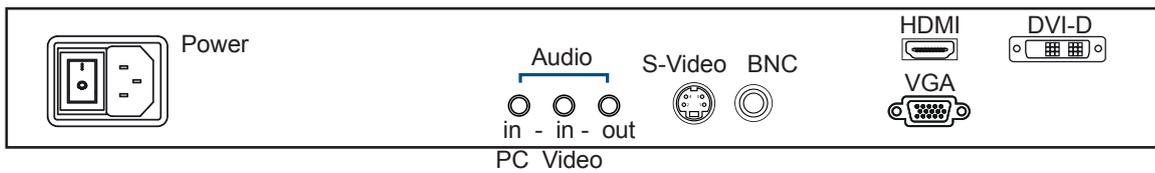
< 3.3 > Options : DC Power

Model	12V	24V	48V
Input rating			
Input voltage:	12-Volt	24-Volt	48-Volt
Input range:	9 ~ 18V	18 ~ 36V	36 ~ 75V
Input current			
- No load	50 mA	50 mA	50 mA
- Full load	4950 mA	2450 mA	1220 mA
Output rating			
Output voltage:	12-Volt	12-Volt	12-Volt
Output current:	4.16A	4.16A	4.16A
Efficiency	84%	85%	85%

DC power

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Option excludes 1 x power cord and 1 x AC power adapter