CyberView™

ECLIPSE RACKMOUNT
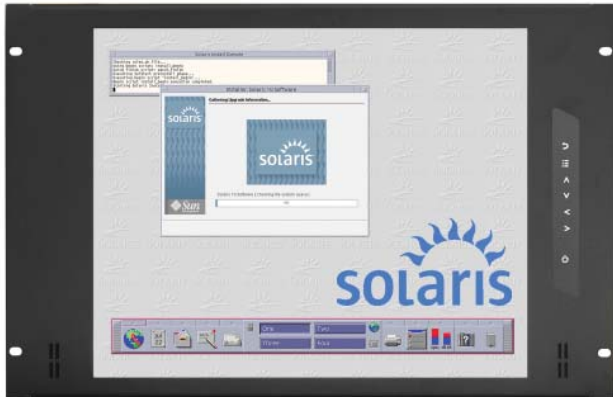INDUSTRIAL RACKMOUNT PROFESSIONALS

User Manual

SMP Series
7U-9U Sun-Specific LCD Panel

SOLARIS®

Options Available:
- DC Power

FC CE

Designed/Manufactured by Austin Hughes and Distributed by Eclipse Rackmount, Inc.

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, f re or electrical shock.
■ Only qualif ed 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 qualif ed service personnel.

What the warranty does not cover
■ Any product, on which the serial number has been defaced, modif ed or removed.
■ Damage, deterioration or malfunction resulting from:
  □ Accident, misuse, neglect, f re, water, lightning, or other acts of nature, unauthorized product modif cation, 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 f uctuation or failure.
  □ Use of supplies or parts not meeting our specif cations.
  □ 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 modif cations 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

Before Installation

■ It is very important to mount the equipment in a suitable cabinet or on a stable surface.

■ Make sure the place has a good ventilation, is out of direct sunlight, away from sources of excessive dust, dirt, heat, water, moisture and vibration.

Unpacking

The equipment comes with the standard parts shown in package content. Check and make sure they are included and in good condition. If anything is missing, or damaged, contact the supplier immediately.

How To Clean Your LCD Monitor

⚠ Caution :

■ To avoid the risk of electric shock, make sure your hands are dry before unplugging your monitor from or plugging your monitor into an electrical outlet.

■ When you clean your monitor, do not press down on the LCD screen. Pressing down on the screen can scratch or damage your display. Pressure damage is not covered under warranty.

■ Use only cleansers made specif cally for cleaning monitors and monitor screens. Cleansers not made to clean monitors and monitor screens can scratch the LCD display or strip off the f nish.

■ Do not spray any kind of liquid directly onto the screen or case of your monitor. Spraying liquids directly onto the screen or case can cause damage which is not covered under warranty.

■ Do not use paper towels or abrasive pads to clean your monitor. Using an abrasive pad or any wood based paper product such as paper towels can scratch your LCD screen.

Cleaning Your Monitor

To clean your LCD safely, please follow these steps :

① Disconnect the power cord.

② Gently wipe the surface using a clean, dry microf ber cloth. Use as little pressure as possible.

Cleaning Tough Marks and Smudges

To remove tough marks and smudges, please follow these steps :

① Disconnect the power cord.

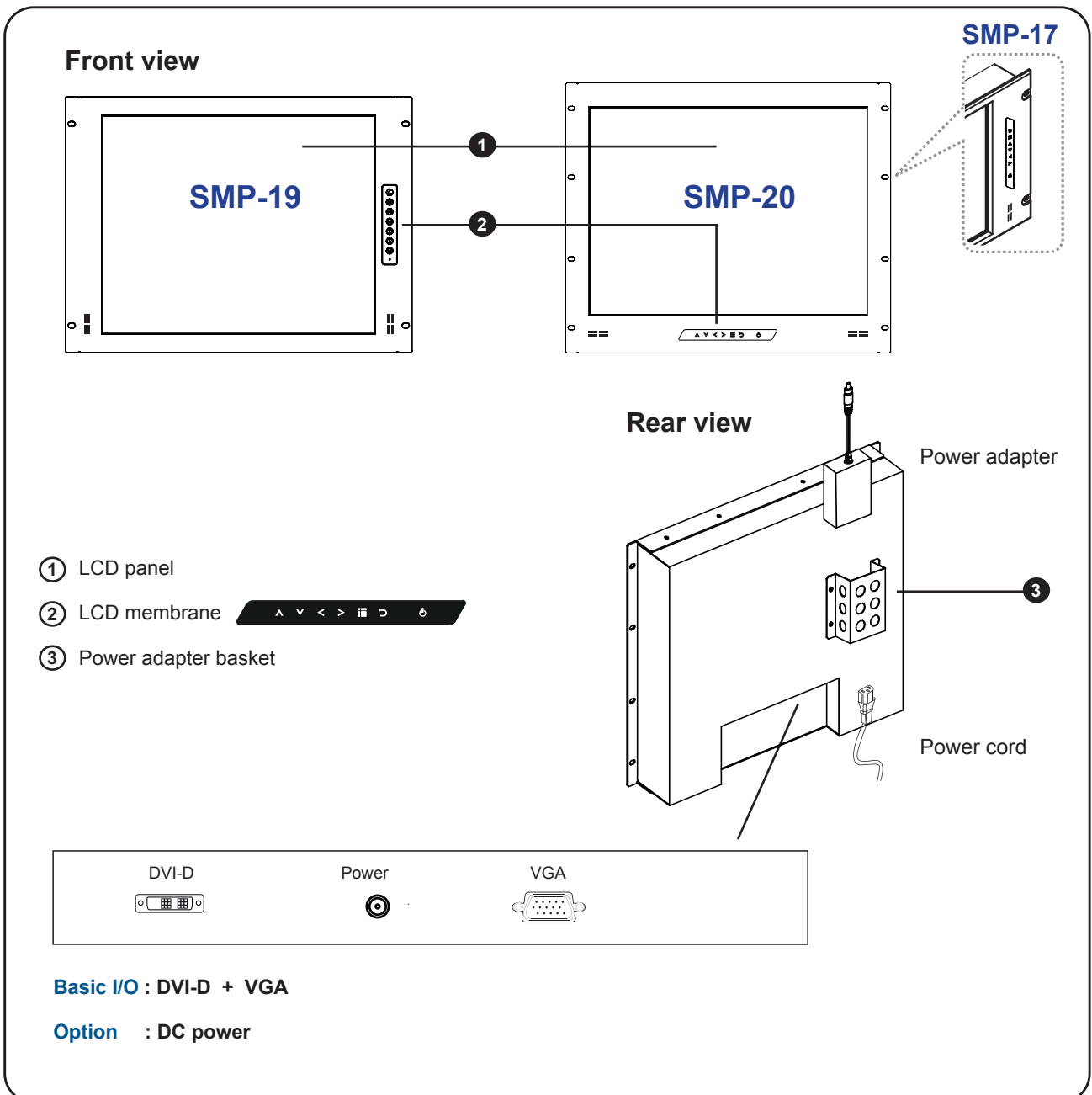② Spray a small amount of non-abrasive cleanser on a microf ber cloth.

⚠ **Caution : Do not spray or apply any liquids directly onto the monitor. Always apply the solution to your microf ber cloth f rst, not directly on the parts you are cleaning.**

③ Gently wipe the surface. Use as little pressure as possible.

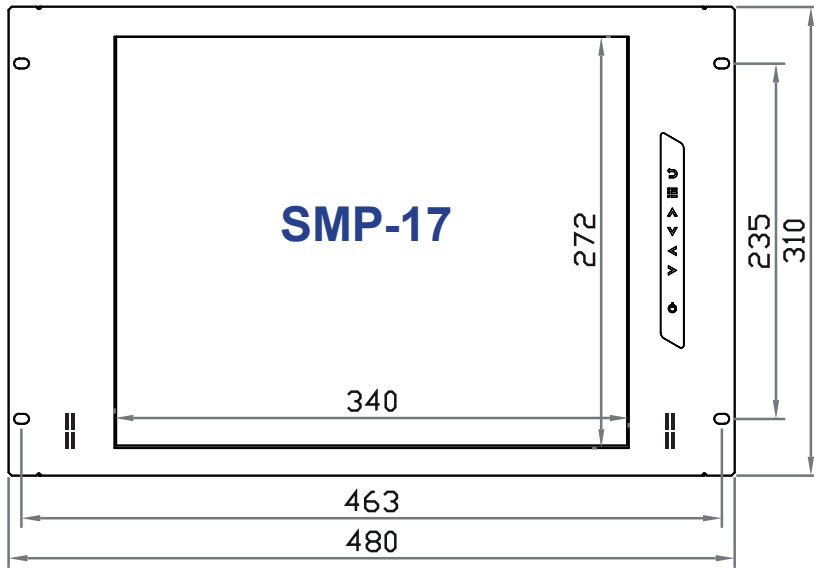④ Wait until your monitor is completely dry before plugging it in and powering it up.

< 1.1 > Package Contents

SMP-17, SMP-19 or SMP-20 X 1
6ft VGA cable X 1
Power adapter X 1
Power cord X 1

< 1.2 > Structure Diagram

Front view

SMP-17

SMP-19

SMP-20

Rear view

Power adapter

Power cord

① LCD panel

② LCD membrane

③ Power adapter basket

DVI-D   Power   VGA

Basic I/O : DVI-D + VGA

Option   : DC power

< 1.2 > Dimensions - SMP-17

Front View

Side View

SMP-17

272

340

235

310

463

480

305

UNIT : mm
1mm = 0.03937 inch

Bottom View

480

54,2

440

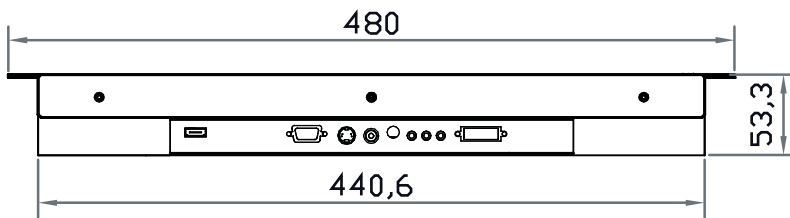| Model	Product Dimension (W x D x H)	Packing Dimension (W x D x H)	Net Weight	Gross Weight
SMP-17	480 x 54.2 x 310 mm 18.9 x 2.1 x 12.2 inch	529 x 124 x 495 mm 20.8 x 4.9 x 19.5 inch	6 kg 13 lbs	8.5 kg 19 lbs

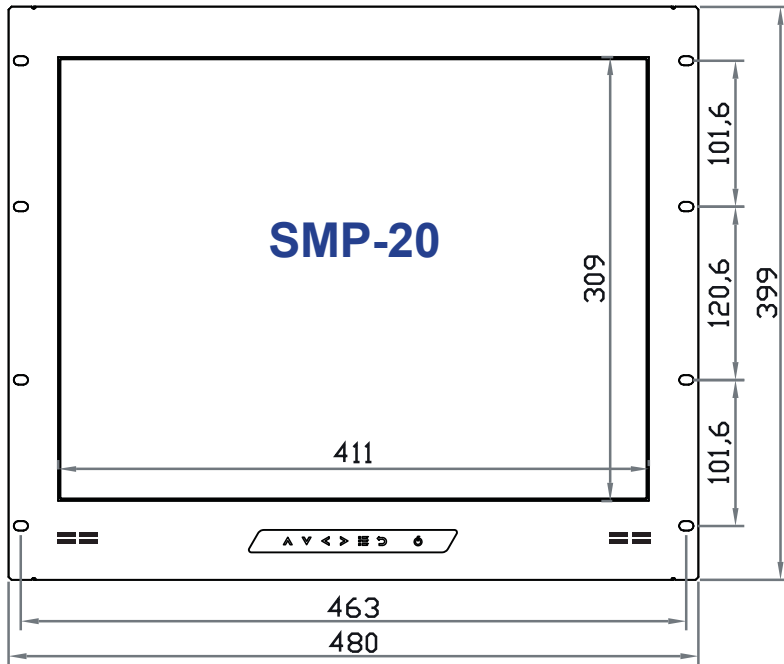## < 1.2 > Dimensions - SMP-19

Front View

Side View

SMP-19

303

379

279,4

354,8

349,8

463

480
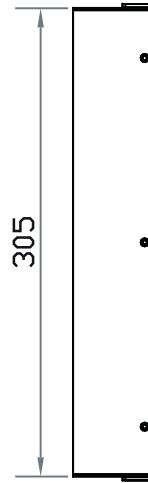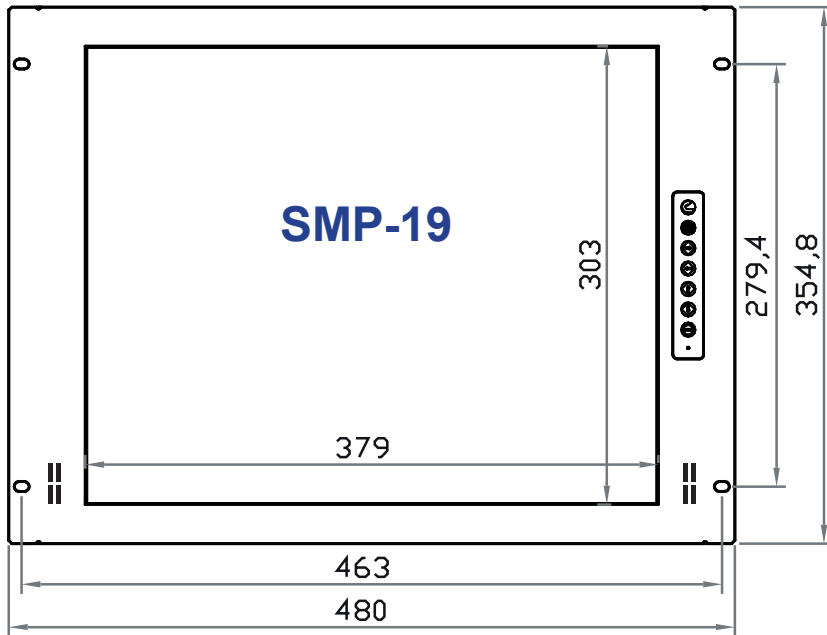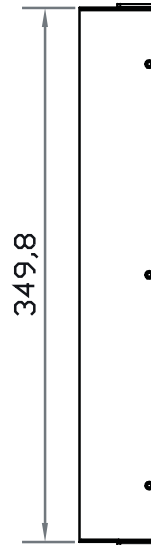
Bottom View

UNIT : mm
1mm = 0.03937 inch

480

53,3

440,6

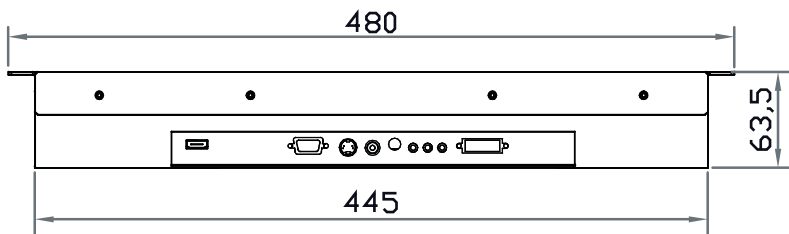| Model	Product Dimension (W x D x H)	Packing Dimension (W x D x H)	Net Weight	Gross Weight
SMP-19	480 x 53.3 x 354.8 mm 18.9 x 2.1 x 14 inch	529 x 124 x 495 mm 23 x 4.9 x 20.8 inch	6.5 kg 14 lbs	9 kg 20 lbs

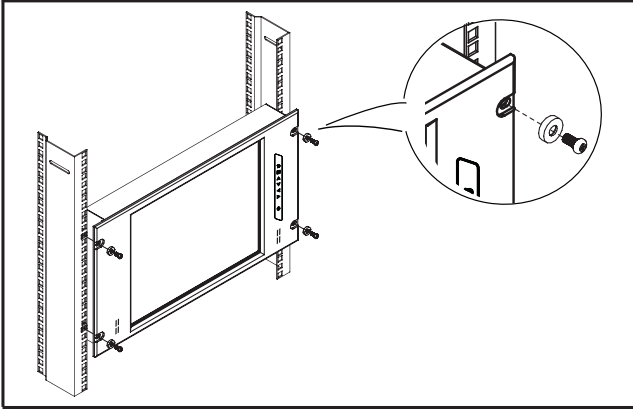## < 1.2 > Dimension - SMP-20

Front View

Side View

SMP-20

101,6

120,6

101,6

399

309

411

394

463

480

UNIT : mm
1mm = 0.03937 inch

Bottom View

480

63,5

445

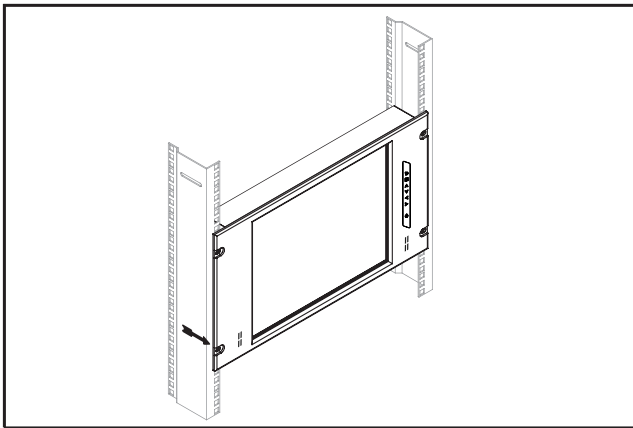| Model	Product Dimension (W x D x H)	Packing Dimension (W x D x H)	Net Weight	Gross Weight
SMP-20	480 x 63.5 x 399 mm 18.9 x 2.5 x 15.7 inch	583 x 124 x 529 mm 23 x 4.9 x 20.8 inch	8.5 kg 19 lbs	11 kg 24 lbs

SMP-17 / SMP-19

Step **1**

■ Mount the display panel with M6 screw set.
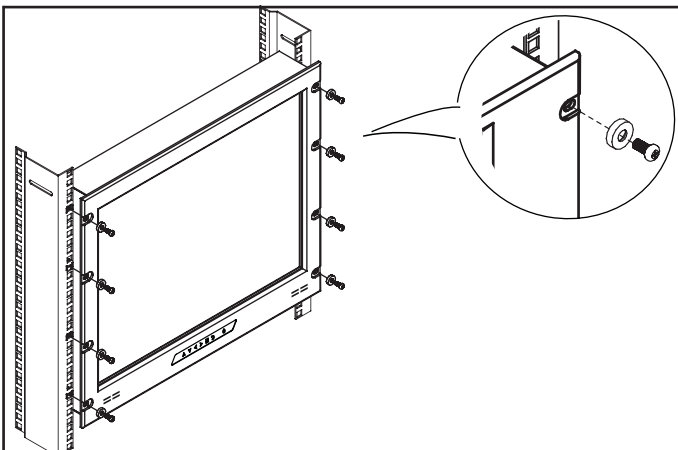
■ M6 screw x 4 pcs required (Left & right side).

M6 screw sets are not provided.

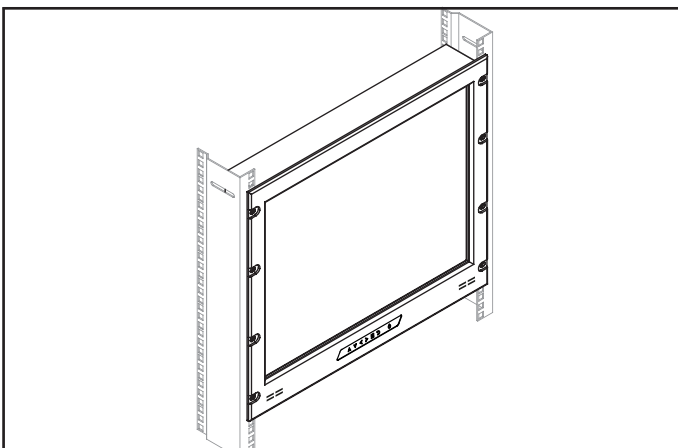**Step** **2**

■ Fix the LCD into the rack.

SMP-20

Step **1**

■ Mount the display panel with M6 screw set.

■ M6 screw x 8 pcs required (Left & right side).

M6 screw sets are not provided.

Step **2**

■ Fix the LCD into the rack.

< Part 2 >
< 2.1 > Product Specifications - SMP-17 / SMP-19

LCD Panel		SMP-17	SMP-19
	Manufacturer	SAMSUNG	
	Panel Size (diagonal)	17-inch TFT color LCD	19-inch TFT color LCD
	Display pixel (dots x lines)	1152 x 900 (Direct)	1152 x 900 (Direct)
		1280 x 1024 (Native)	1280 x 1024 (Native)
	Brightness (typ.)	250	250
	Contrast Ratio (typ.)	1000:1	1000:1
	Color	16.7 M	16.7 M
	Viewing Angle (L/R/U/D)	80/80/80/80	80/80/80/80
	Response Time (ms)	5	5
	Dot pitch (mm)	0.264	0.294
	Display Area (mm)	337.92H x 270.33V	376.32H x 301.05V
	Surface treatment	Haze 25%, Hard-coating	
	Surface hardness	3H	3H
	Backlight Type	CCFL	CCFL
	MTBF (hrs)	50,000	50,000

Video Connectivity			
	Digital	DVI	DVI-D, TMDS single link
	Analog	VGA	Analog 0.7Vp-p
	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	25W 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 60°C degree
		Humidity	5~90%, non-condensing
		Shock	10G acceleration (11ms duration)
		Vibration	5~500Hz 1G RMS random

Physical Specification		SMP-17	SMP-19
	Product (W x D x H)	480 x 54.2 x 310 mm	480 x 53.3 x 354.8 mm
		18.9 x 2.1 x 12.2 inch	18.9 x 2.1 x 14 inch
	Packing (W x D x H)	529 x 124 x 495 mm	529 x 124 x 495 mm
		20.8 x 4.9 x 19.5 inch	20.8 x 4.9 x 19.5 inch
	Net Weight	6 kgs / 13 lbs	6.5 kgs / 14 lbs
	Gross Weight	8.5 kgs / 19 lbs	9 kgs / 20 lbs

Applicable Format	DVI-D / VGA Input	PC Signal	1152 x 900 x 66Hz
			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

< Part 2 >
< 2.1 > Product Specifications - SMP-20

LCD Panel		
Manufacturer		LG
Panel Size (diagonal)		20-inch TFT color LCD
Display pixel (dots x lines)		1152 x 900 (Direct)
		1600 x 1200 (Native)
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	DVI	DVI-D, TMDS single link
Analog	VGA	Analog 0.7Vp-p
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 60°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)	480 x 63.5 x 399 mm
		18.9 x 2.5 x 15.7 inch
	Packing (W x D x H)	583 x 124 x 529 mm
		23 x 4.9 x 20.8 inch
	Net Weight	8.5 kgs / 19 lbs
	Gross Weight	11 kgs / 24 lbs

Applicable Format	DVI-D / VGA Input	PC Signal	1152 x 900 x 66Hz
			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

< 2.2 > On-Screen Display Operation (OSD)

SMP-19
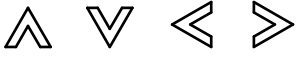
- ○ Power light
- ● Green = On
- ● Orange = Power saving
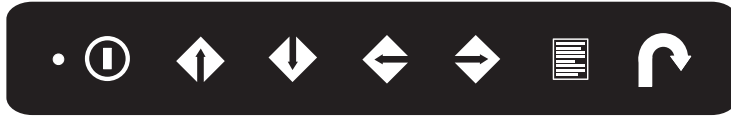
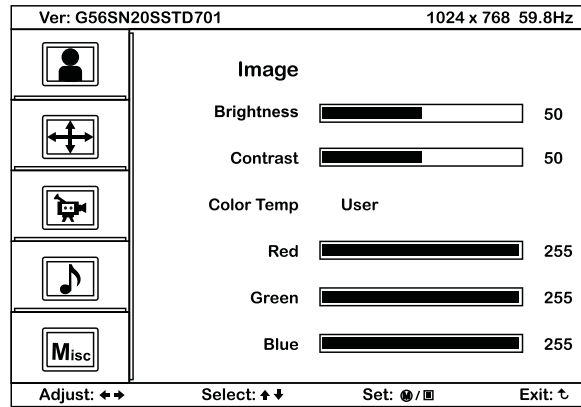| Membrane Switch	Function
⊖	Power on / off LCD
▤	Display the OSD menu
⇕ ⇕ ⇔ ⇔	Scrolls through menu options and adjusts the displayed control (To auto adjustment by pressing the button ⇕ for 5 seconds)
↱	Exit the OSD screen Toggle analog, digital & video connection (DVI-D and video options only)

SMP-17 / SMP-20

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 f ash 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** ⏻).

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 Conf guration Page

Image:
for the brightness, contrast, color temp, red, green, and blue
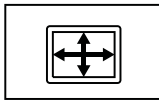
Geometry:
for the auto adjust, H position, V position, phase and clock

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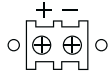for the colour, tint, sharpness, noise reduction, DCDi and TV Setup

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

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

< Part 3 >
< 3.1 > 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%