# USER
# MANUAL

## User Manual

### 17″ / 19″ / 20″ LCD 1152 x 900 Native Resolution

**SNP717 / SNP819 / SNP920**
**SUN Rackmount Display Panel**

**Options :**
**- DC power**

FC  CE  RoHS

# 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 specifically for cleaning monitors and monitor screens. Cleansers not made to clean monitors and monitor screens can scratch the LCD display or strip off the finish.

- 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 microfiber 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 microfiber cloth.

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

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

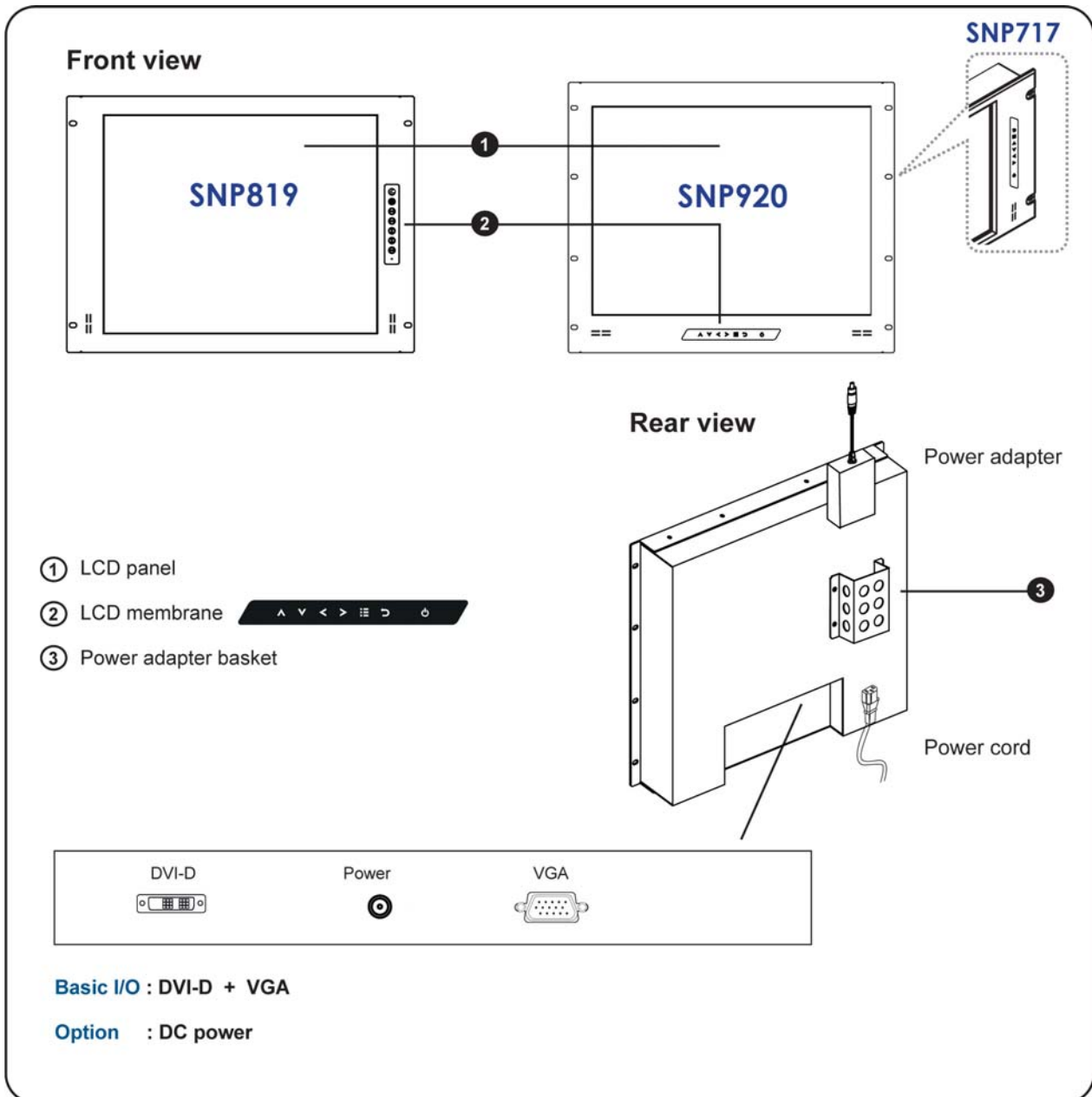4  Wait until your monitor is completely dry before plugging it in and powering it up.
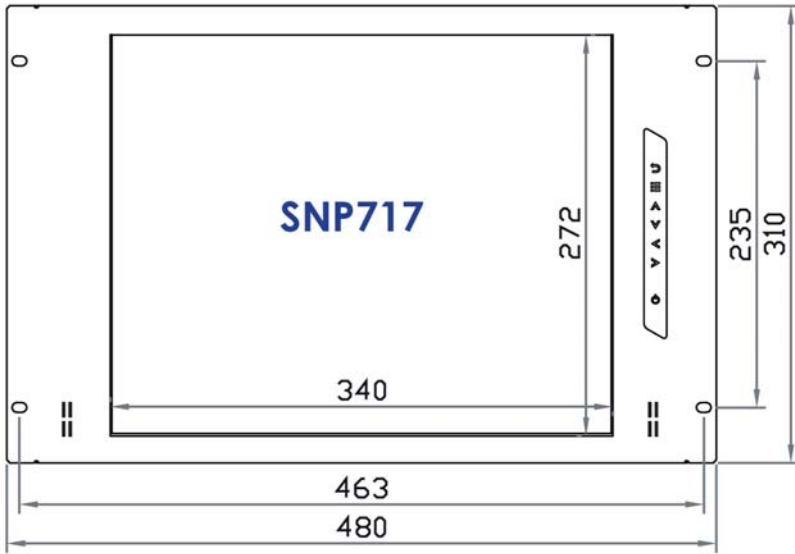
# <Part 1 >
## < 1.1 > Package Content

**SNP717 or SNP819 or SNP920 X 1 6ft VGA cable X 1 Power adapter X 1 Power cord X 1**
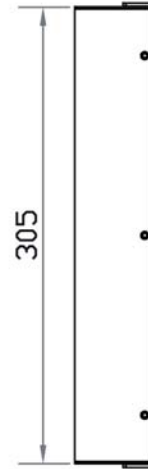
## < 1.2 > Structure Diagram



**Front view**

SNP819

SNP920

SNP717

① LCD panel

② LCD membrane

③ Power adapter basket

**Rear view**

Power adapter

Power cord

DVI-D    Power    VGA

**Basic I/O : DVI-D + VGA**

**Option : DC power**

## < 1.2 > Dimension - SNP717



**Front View**

SNP717
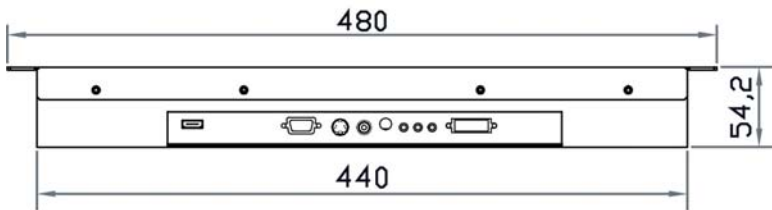
272

235
310

340

305

463

480

**Side View**

**Bottom View**

480

54,2

440
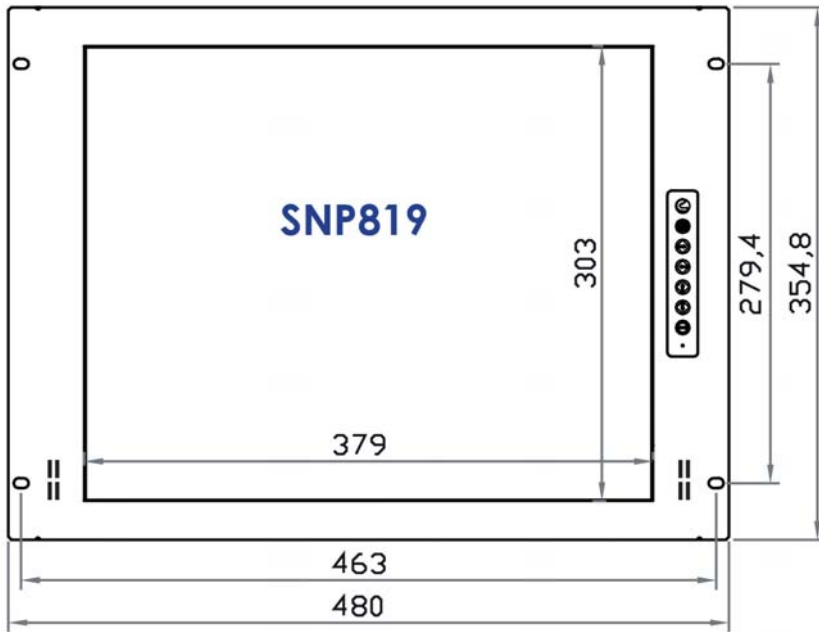
UNIT : mm
1mm = 0.03937 inch

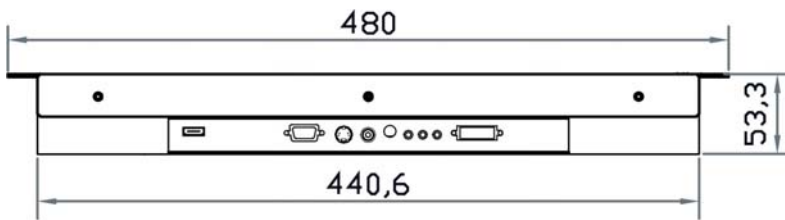| Model | Product Dimension (W x D x H) | Packing Dimension (W x D x H) | Net Weight | Gross Weight |
|---|---|---|---|---|
| SNP717 | 480 x 54.2 x 310 mm 18.9 x 2.1 x 12.2 inch | 529 x 124 x 495 mm 20.8 x 4.9 x 19.5 inch | 6 kg 13 lbs | 8.5 kg 19 lbs |

## < 1.2 > Dimension - SNP819

**Front View**

**Side View**

SNP819

303

379

279,4

354,8

349,8

463

480

**Bottom View**

480

53,3

440,6
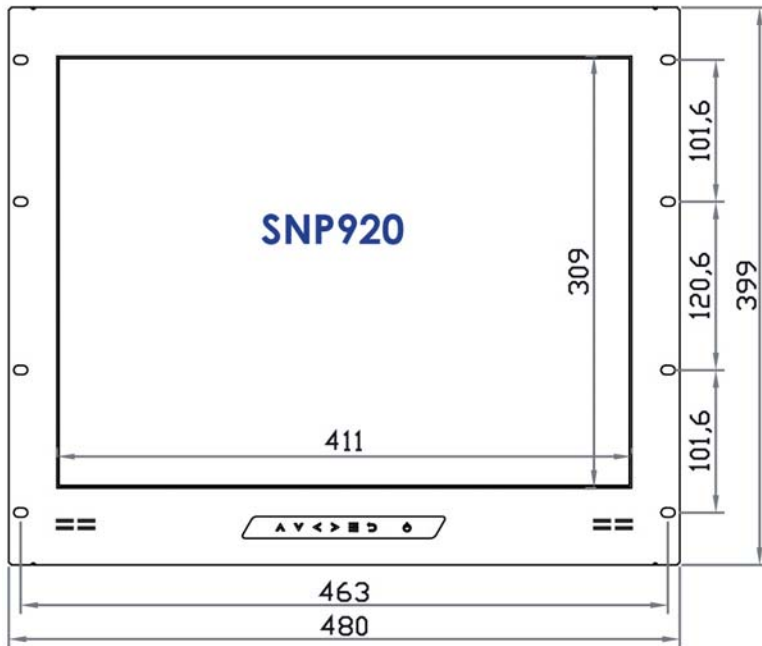
UNIT : mm
1mm = 0.03937 inch

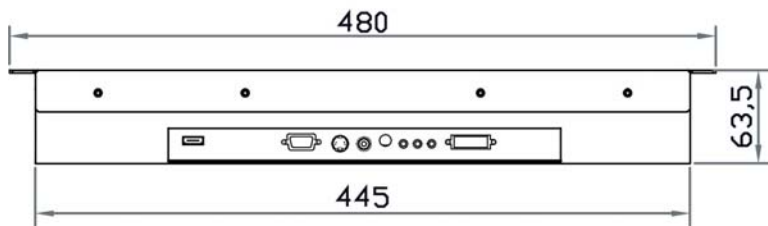| Model | Product Dimension (W x D x H) | Packing Dimension (W x D x H) | Net Weight | Gross Weight |
|---|---|---|---|---|
| SNP819 | 480 x 53.3 x 354.8 mm 18.9 x 2.1 x 14 inch | 529 x 124 x 495 mm 23 x 4.9 x 20.8 inch | 6.5 kg 14 lbs | 9 kg 20 lbs |

## < 1.2 > Dimension - SNP920
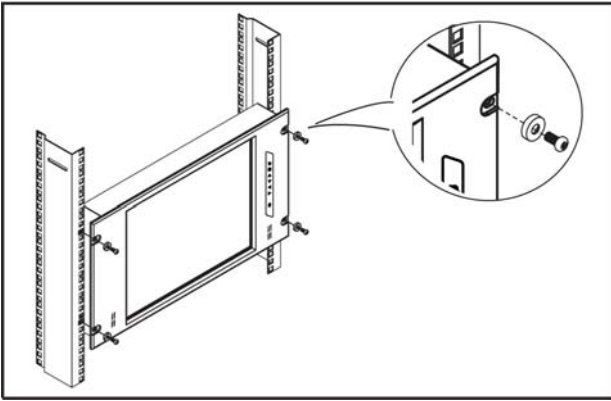
**Front View**

**Side View**

SNP920

101,6
120,6
101,6
309
399
411
463
480
394
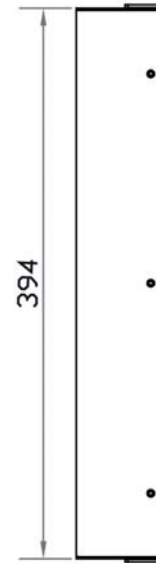
**Bottom View**

UNIT : mm
1mm = 0.03937 inch

480
63,5
445

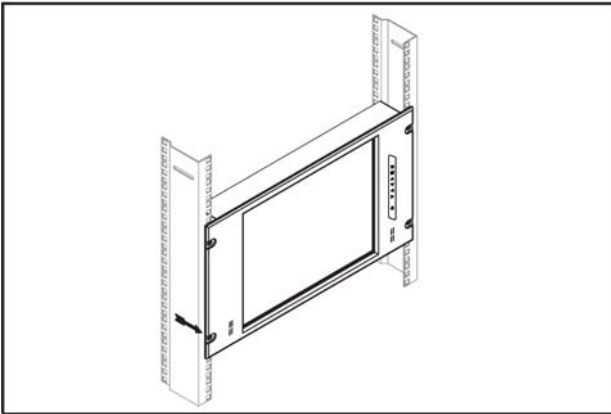| Model | Product Dimension (W x D x H) | Packing Dimension (W x D x H) | Net Weight | Gross Weight |
|---|---|---|---|---|
| SNP920 | 480 x 63.5 x 399 mm 18.9 x 2.5 x 15.7 inch | 583 x 124 x 529 mm 23 x 4.9 x 20.8 inch | 8.5 kg 19 lbs | 11 kg 24 lbs |

## < 1.3 > Installation

## SNP717 / SNP819



**Step 1**

- Mount the display panel with M6 screw set.
- M6 screw x 4 pcs required ( Left & right side ).
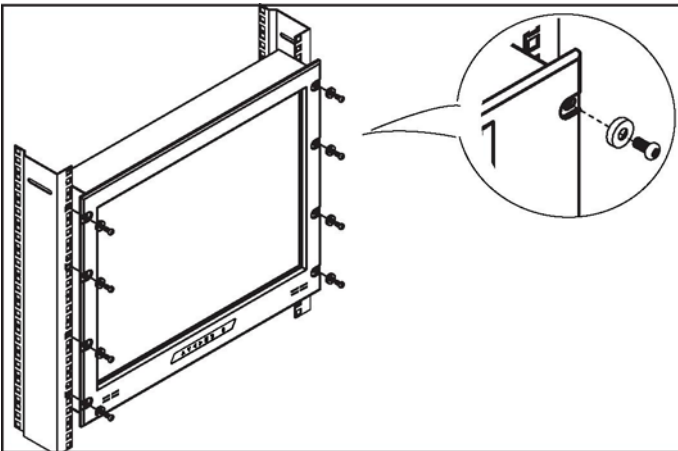
**M6 screw sets are not provided.**
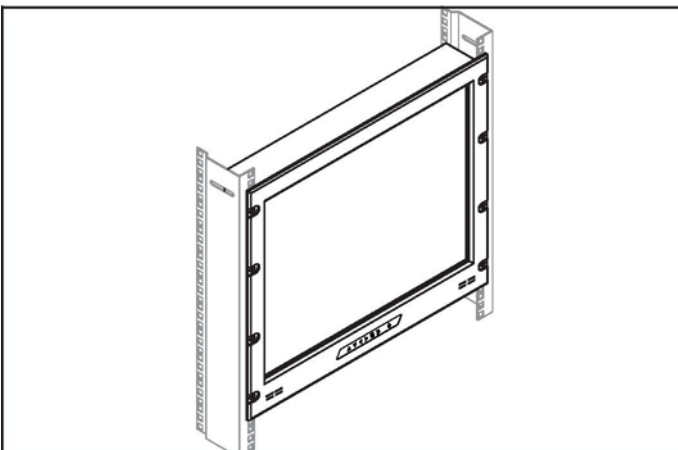


**Step 2**

- Fix the LCD into the rack.

## SNP920



**Step 3**

- Mount the display panel with M6 screw set.
- M6 screw x 8 pcs required ( Left & right side ).

**M6 screw sets are not provided.**



**Step 4**

- Fix the LCD into the rack.

## \<Part 2 \>
## \< 2.1 \> Product Specifications - SNP717 / SNP819

| LCD Panel | | SNP717 | SNP819 |
|---|---|---|---|
| | Manufacturer | AUO | AUO |
| | 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 | 85/85/80/80 |
| | Response Time ( ms ) | 5 | 5 |
| | Dot pitch ( mm ) | 0.264 | 0.294 |
| | Display Area ( mm ) | 337.92H x 270.33V | 376.32H x 301.06V |
| | Surface treatment | Haze 25%, Hard-coating | |
| | Surface hardness | 3H | 3H |
| | Backlight Type | CCFL | LED |
| | MTBF ( hrs ) | 50,000 | 30,000 |

| 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 | 30kQ / 750mV |
| | Audio Output | Connector | 3.5mm stereo jack |
| | | Resistance / Power level | 30kQ / 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 | cUL, FCC & CE, RoHS |

| 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 Specifi cation | | SNP717 | SNP819 |
|---|---|---|---|
| | Product ( W x D x H ) | 480 x 54.2 x 310 mm<br>18.9 x 2.1 x 12.2 inch | 480 x 53.3 x 354.8 mm<br>18.9 x 2.1 x 14 inch |
| | Packing ( W x D x H ) | 529 x 124 x 495 mm<br>20.8 x 4.9 x 19.5 inch | 529 x 124 x 495 mm<br>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 - SNP920

| 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 | 30kQ / 750mV |
| | Audio Output | Connector | 3.5mm stereo jack |
| | | Resistance / Power level | 30kQ / 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 | cUL, FCC & CE, RoHS |
|---|---|---|

**SNP717 / 819 / 920**

| 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<br>18.9 x 2.5 x 15.7 inch |
|---|---|---|
| | Packing ( W x D x H ) | 583 x 124 x 529 mm<br>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 )

### SNP819
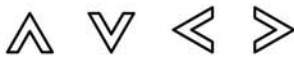
○ Power light
● Green = On
● Orange = Power saving

| 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<br>Toggle analog, digital & video connection (DVI-D and video options only) |

### SNP717 / SNP920

∧  ∨  <  >  ☰  ↩  ⏻

| Membrane Switch | Function |
|---|---|
| ⏻ | Turn the monitor on or off |
| ▤ | Display the OSD menu<br>Act as an Enter key to select screen setting options |
| ∧ ∨ < > | Scroll through menu options and adjust the displayed control |
| ↩ | Exit the OSD screen<br>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 )          SNP717 / 819 / 920

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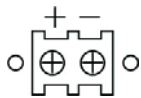for volume, bass, treble, balance, AVL and mute

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

## <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% |