

**AZ DISPLAYS, INC.**  
*COMPLETE LCD SOLUTIONS*

**SPECIFICATIONS FOR  
12.1" OPEN FRAME MONITOR**

PART NUMBER:  
DATE:

AOM121S SERIES  
SEPT 04, 2008

## **1. Introduction:**

### **1.1 About the Product**

AOM121S5U 12.1" Open Frame Monitor series are rugged, high performance Industrial LCD Monitors, designed for commercial and industrial applications, such as kiosks, arcade games, ATM Machines, aviation simulators, military, medical, marine, security, industrial equipment, and instrument equipment. This product can provide high brightness and contrast to achieve better viewing ef

### **1.2 Features**

12.1inch SVGA Active Matrix Color TFT LCD Monitor

High Contrast 450:1 Typical

Recommend resolution:800x600(SVGA)

OSD controls: Allow on-screen adjustments of Brightness, Contrast, RGB Auto Color Balance, H-Position, V-position

Multi system Video Input and auto detection video system.

Quick and easy integrations for Client solutions

Universal AC Power input

PMMA ( Poly Methyl Methacrylate ) protection (option)

Touch screen (option)

## 2. Contents

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### 3. Specifications

Parameter	Specifications	Unit	Remark
Model Name	AOM121S <b>xx</b>		
Screen Size	12.1" (diagonal)	inch	
Display Format	800 x (R.G.B) x 600	dot	
Display Color	262,144 colors		
TFT-LCD Active Area	246 (H) x 184.5 (V)	mm	
Pixel Pitch	0.3075 (H) x 0.3075 (V)	mm	
Contrast Ratio	450:1(Typ.)		
Brightness	370(Typ.)	Cd/m <sup>2</sup>	
Viewing Angle	-70~70(H); -60~50(V)(Typ.)	deg	
Outline Dimension	300.0(W) x 248.0(H) x 40.2(D)	mm	
Input/Output Interface	Video and S-video / D-Sub 15 pin female for VGA / USB or RS-232 (DB9 Fe)		
Power Source	100-240V <sub>AC</sub> 50-60Hz, Universal / +12V <sub>DC</sub> @ 3A		
Power Consumption	< 13.5W		
Touch Screen Controller	5 wire Resistive Driver USB/ RS232 (Option)		
Operating Temperature	-10~60		
Storage Temperature	-20~70	.	
Lamp Life Time	50000(Min.)	hr	
Weight	2.4	Kg	

#### 4. Ordering Information

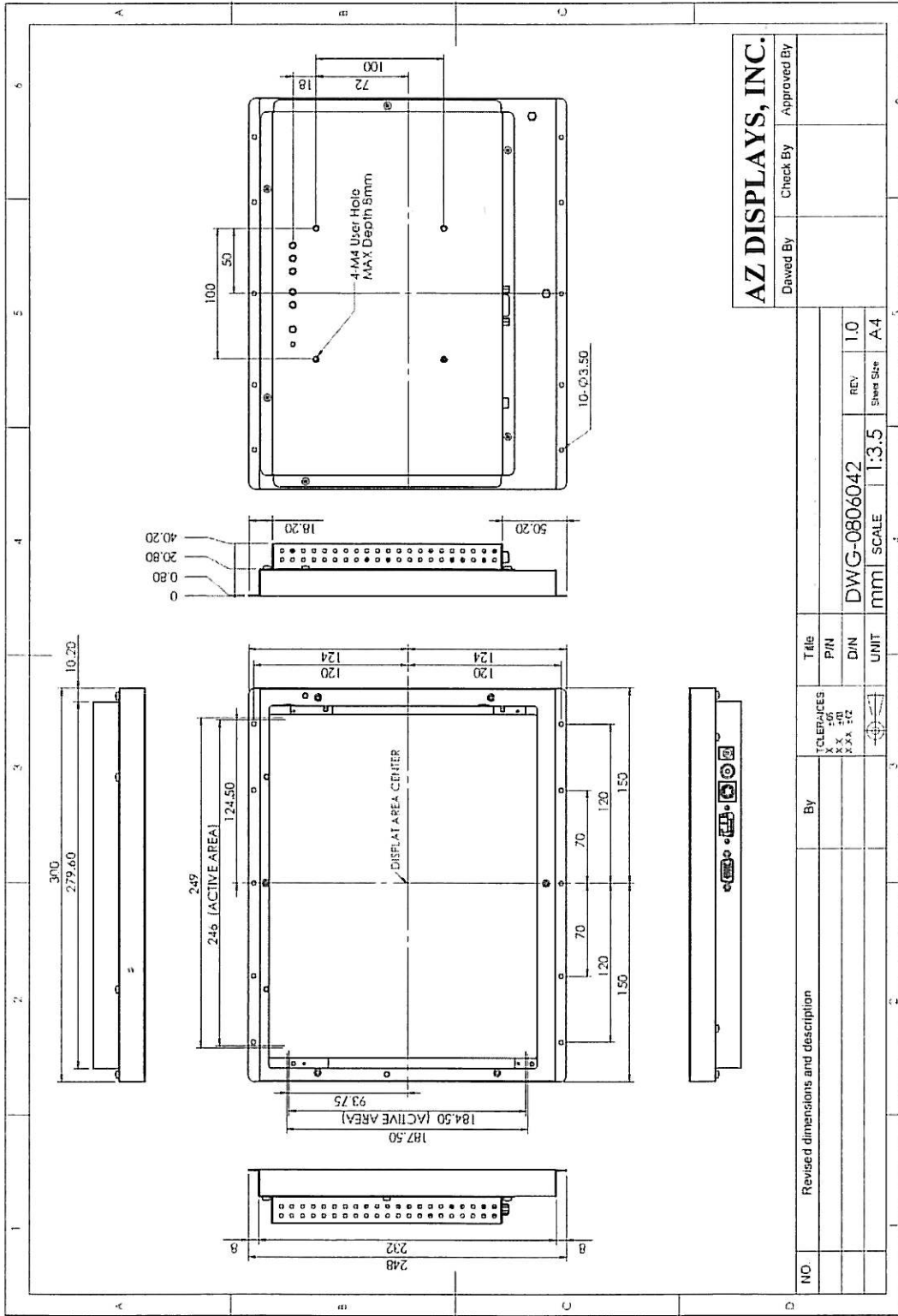
Parameter	AOM121S03-000R		AOM121S5U-000R	AOM121S5R-000R
CVBS	1	1		1
S-Video	1	1		1
VGA	SVGA (800x600)		SVGA (800x600)	SVGA (800x600)
Touch Panel Type	-	5W		5W Resistive
Touch Screen Interface	-	USB		RS232
PMMA	⊙		-	-

Parameter	AOM121S03-010R		AOM 121S5U-010R	AOM121S5R-010R
CVBS	-	-	-	
S-Video	-	-	-	
VGA	SVGA (800x600)		SVGA (800x600)	SVGA (800x600)
Touch Panel Type	-	5W		5W Resistive
Touch Screen Interface	-	USB		RS232
PMMA	⊙		-	-

## 5. VGA Input Format

	Mode	Family	Resolution	H-Freq. (KHz)		V-Freq. (KHz)	
<b>1</b>	<b>Mode 1</b>	<b>PC</b>	<b>720x350</b>	<b>31.47</b>	<b>(+)</b>	<b>70.1</b>	<b>(-)</b>
<b>2</b>	<b>Mode 2</b>	<b>PC</b>	<b>720x400</b>	<b>31.47</b>	<b>(-)</b>	<b>70.1</b>	<b>(+)</b>
<b>3</b>	<b>Mode 3</b>	<b>PC</b>	<b>640x480</b>	<b>31.47</b>	<b>(-)</b>	<b>59.9</b>	<b>(-)</b>
<b>4</b>	<b>Mode 4</b>	<b>VESA</b>	<b>640x480</b>	<b>37.86</b>	<b>(-)</b>	<b>72.8</b>	<b>(-)</b>
<b>5</b>	<b>Mode 5</b>	<b>VESA</b>	<b>640x480</b>	<b>37.50</b>	<b>(-)</b>	<b>75.0</b>	<b>(-)</b>
<b>6</b>	<b>Mode 6</b>	<b>VESA</b>	<b>640x480</b>	<b>43.27</b>	<b>(-)</b>	<b>85.0</b>	<b>(-)</b>
<b>7</b>	<b>Mode 7</b>	<b>VESA</b>	<b>800x600</b>	<b>35.16</b>	<b>(+)</b>	<b>56.3</b>	<b>(+)</b>
<b>8</b>	<b>Mode 8</b>	<b>VESA</b>	<b>800x600</b>	<b>37.88</b>	<b>(+)</b>	<b>60.3</b>	<b>(+)</b>
<b>9</b>	<b>Mode 9</b>	<b>VESA</b>	<b>800x600</b>	<b>48.08</b>	<b>(+)</b>	<b>72.2</b>	<b>(+)</b>
<b>10</b>	<b>Mode 10</b>	<b>VESA</b>	<b>800x600</b>	<b>46.88</b>	<b>(+)</b>	<b>75.0</b>	<b>(+)</b>
<b>11</b>	<b>Mode 11</b>	<b>VESA</b>	<b>800x600</b>	<b>53.67</b>	<b>(+)</b>	<b>85.1</b>	<b>(+)</b>
<b>12</b>	<b>Mode 12</b>	<b>VESA</b>	<b>1024x768</b>	<b>48.36</b>	<b>(-)</b>	<b>60.0</b>	<b>(-)</b>
<b>13</b>	<b>Mode 13</b>	<b>VESA</b>	<b>1024x768</b>	<b>56.48</b>	<b>(-)</b>	<b>70.1</b>	<b>(-)</b>
<b>14</b>	<b>Mode 14</b>	<b>VESA</b>	<b>1024x768</b>	<b>60.02</b>	<b>(+)</b>	<b>75.0</b>	<b>(+)</b>
<b>15</b>	<b>Mode 15</b>	<b>VESA</b>	<b>1024x768</b>	<b>68.68</b>	<b>(+)</b>	<b>85.0</b>	<b>(+)</b>
<b>16</b>	<b>Mode 16</b>	<b>VESA</b>	<b>1280x1024</b>	<b>63.98</b>	<b>(+)</b>	<b>60.0</b>	<b>(+)</b>

6. Mechanical Drawing  
6.1



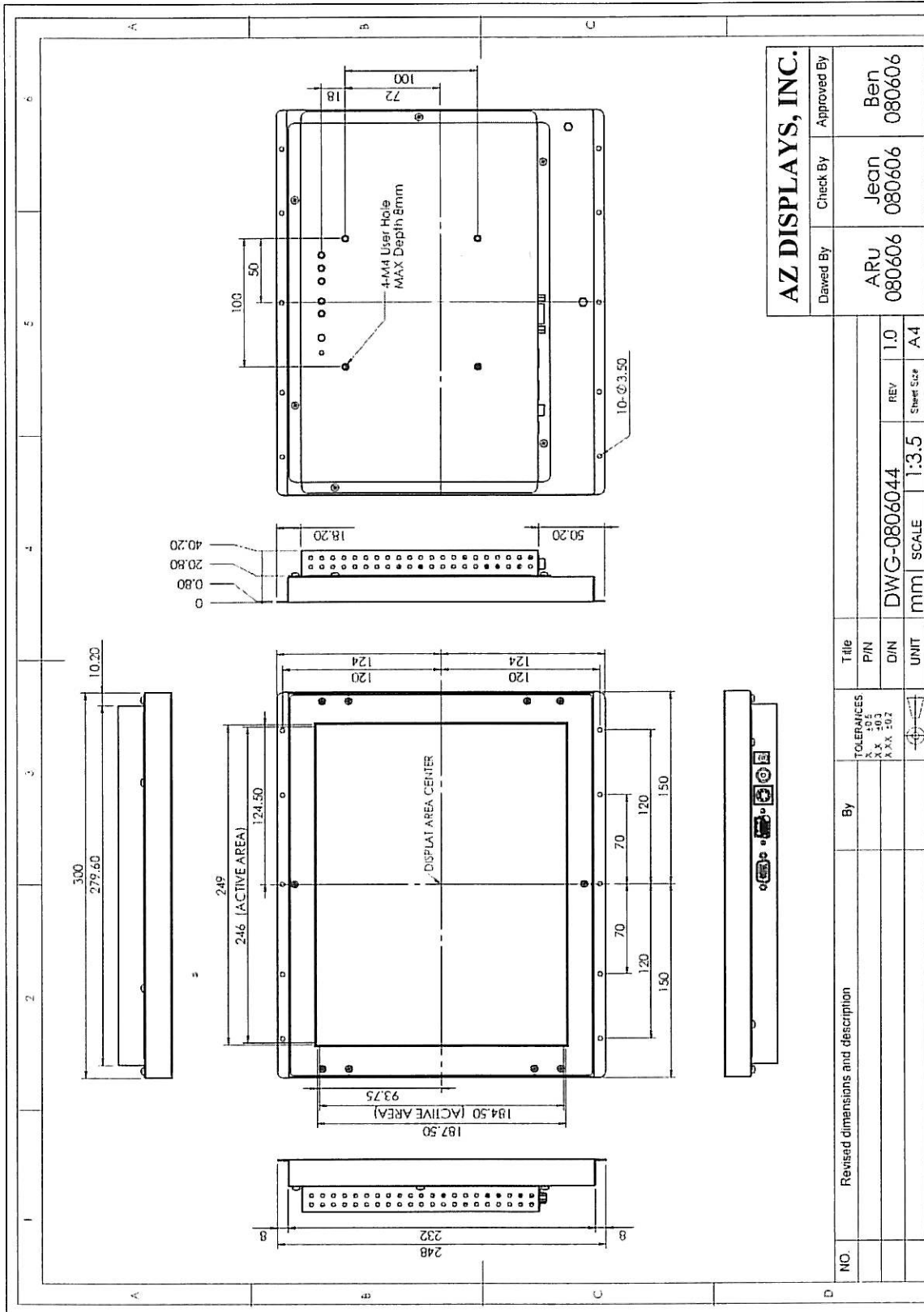
**AZ DISPLAYS, INC.**

Drawn By	Check By	Approved By

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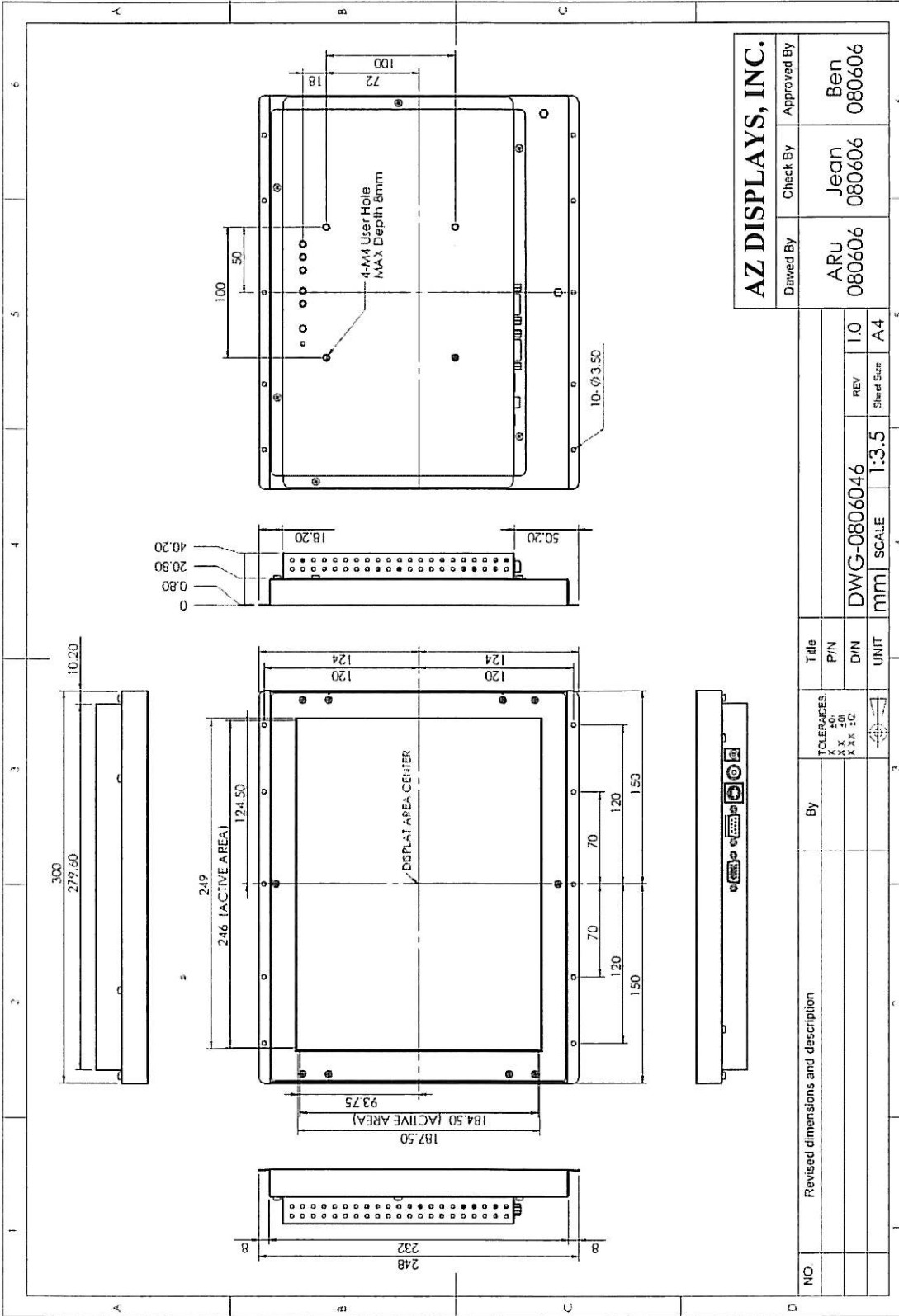
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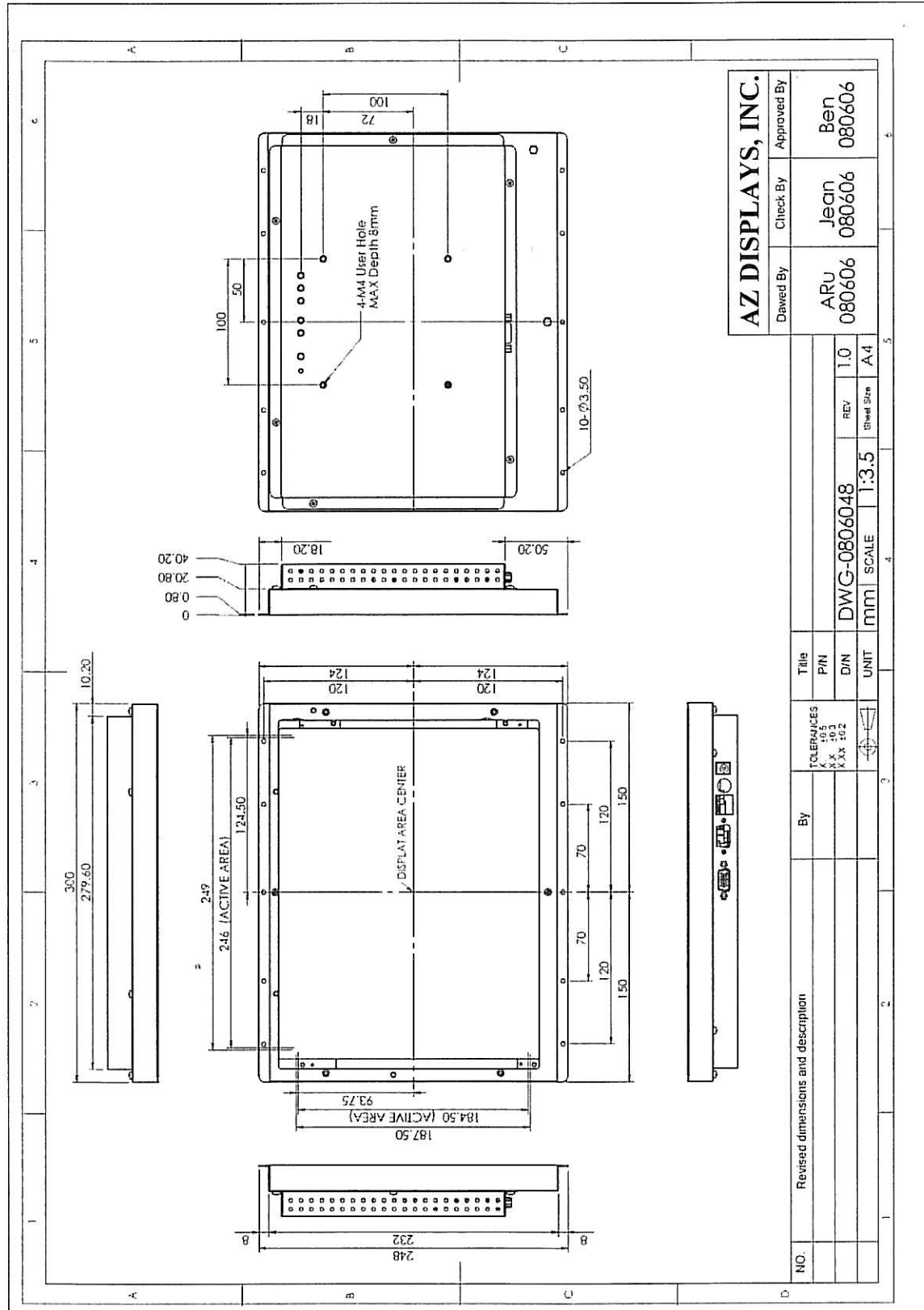


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Drewn By	ARU 080606
Check By	Jean 080606
Approved By	Ben 080606

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			XX ±0.3	DIN
			XX 502	UNIT
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				REV
				1.0
				Sheet Size
				A4



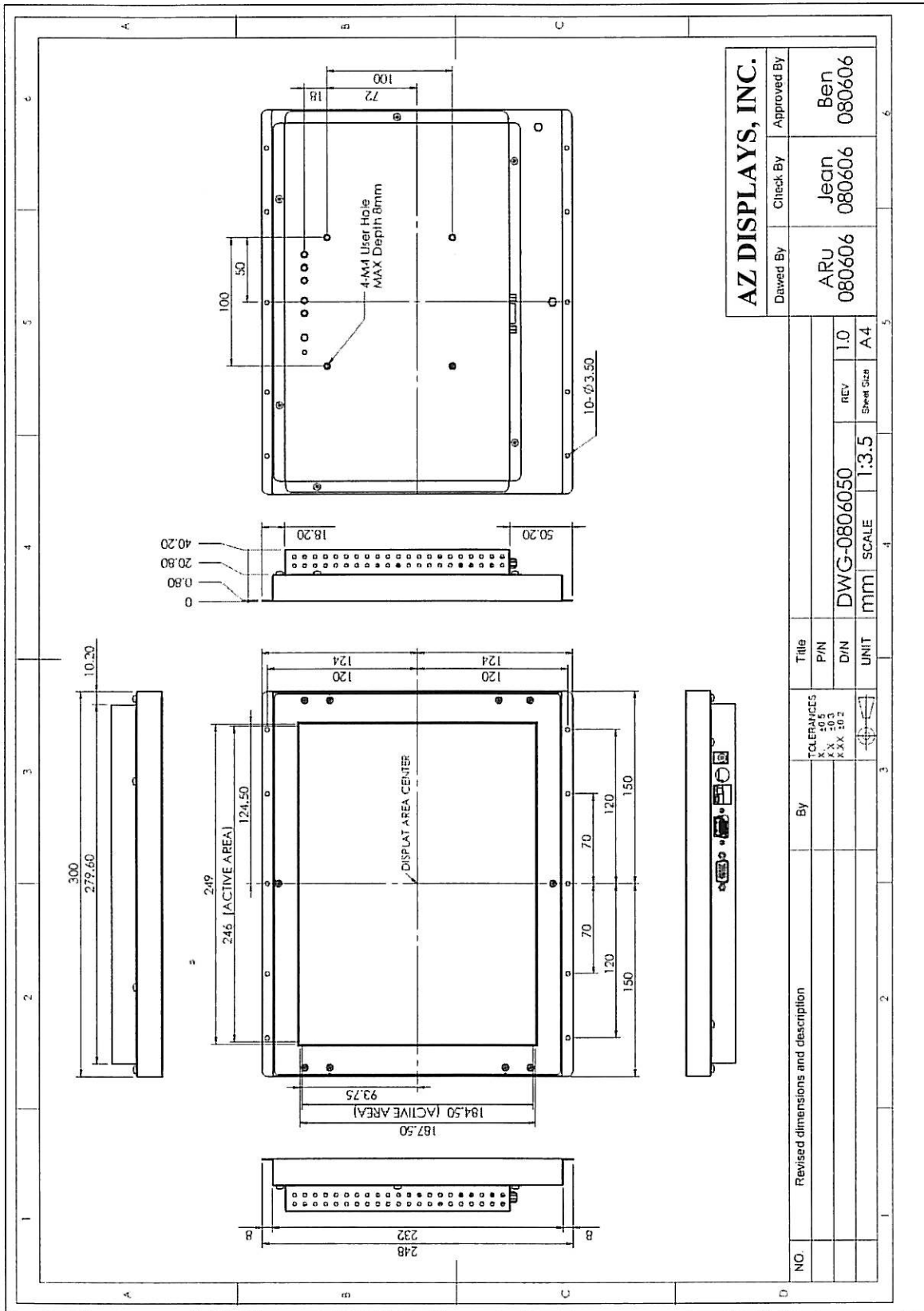




<b>AZ DISPLAYS, INC.</b>	
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Check By	Jean 080606
Approved By	Ben 080606

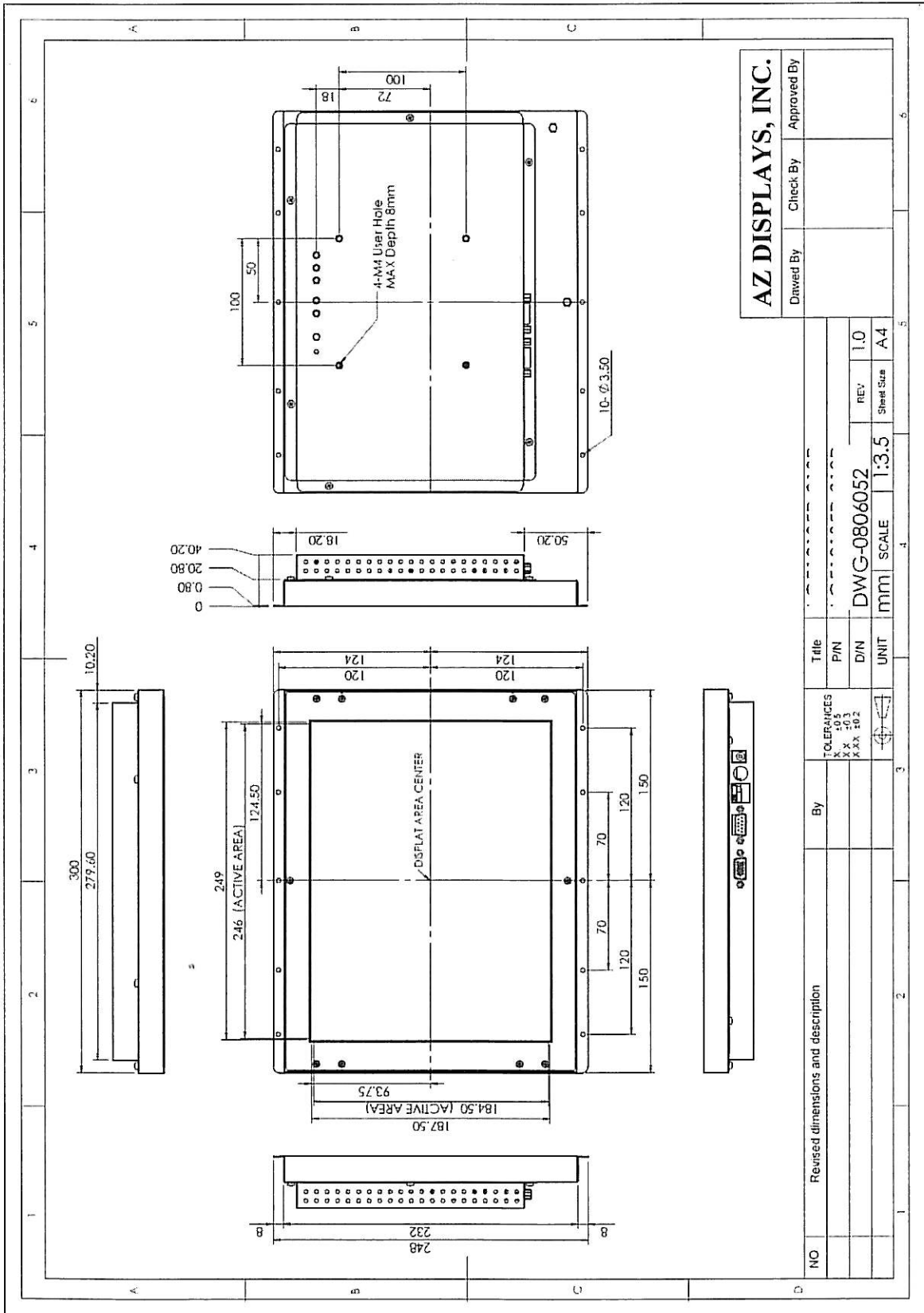
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P/N	mm
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UNIT	REV 1.0
Sheet Size	A4

NO.	Revised dimensions and description	By	By	Title
		By	By	P/N
				DIN
				UNIT



<b>AZ DISPLAYS, INC.</b>	
Drawn By	Check By
ARU	Jecin
080606	080606
Approved By	Ben
	080606

NO.	Revised dimensions and description	By	Title	
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			mm	SCALE 1:3.5
				Sheet Size A4



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Drawn By: \_\_\_\_\_ Check By: \_\_\_\_\_ Approved By: \_\_\_\_\_

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P/N	D/N	REV	Sheet Size
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mm	1:3.5		

NO	Revised dimensions and description	By	Title
			P/N
			D/N
			UNIT
			SCALE
			REV
			Sheet Size
			A4

## 7. Packing List

Before you begin installing the Open Frame Monitor, please make sure that the following materials have been shipped:



A



B



C



D



E



F



G



H

A. AC to DC Adapter (100-240V<sub>AC</sub> 50-60Hz or +12V<sub>DC</sub> @ 3A)

B. Power Cord

C. Video Cable(AOM121S~~xx~~-000R Only)

D. S-Video Cable(AOM121S~~xx~~-000R Only)

E. VGA Cable

F. USB Cable(AOM121S5U Only)

G. RS-232 Cable(AOM121S5R Only)

H. Touch Screen Driver CD Disk (AOM121S5U& AOM121S5R Only)/ User Manual

If any of these items are missing or damaged, contact your distributor or sales representative immediately.

## ***8. Installing the Monitor***

### **8.1 Power cable connection:**

Connect the power cord to the AC outlet, and connect the power to the monitor through the AC/DC adapter.

### **8.2 VGA signal cable connection:**

Plug one end of the 15-pin signal cable to the VGA connector at the rear of the PC system and the other end to the Open Frame Monitor.

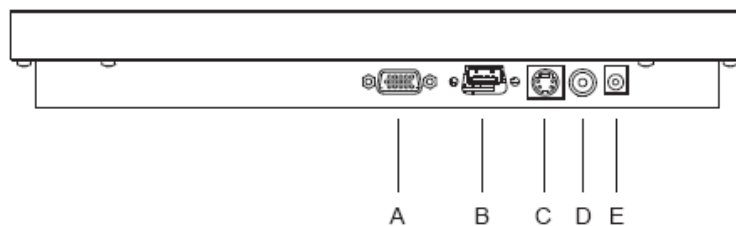
Secure the connectors with the screws on the cable connector at both ends.

### **8.3 Video / S-Video Cable connection:**

If required, connect Video / S-Video Cable from the Open Frame Monitor to the DVD or CCD Camera.

### **8.4 Switch on the power:**

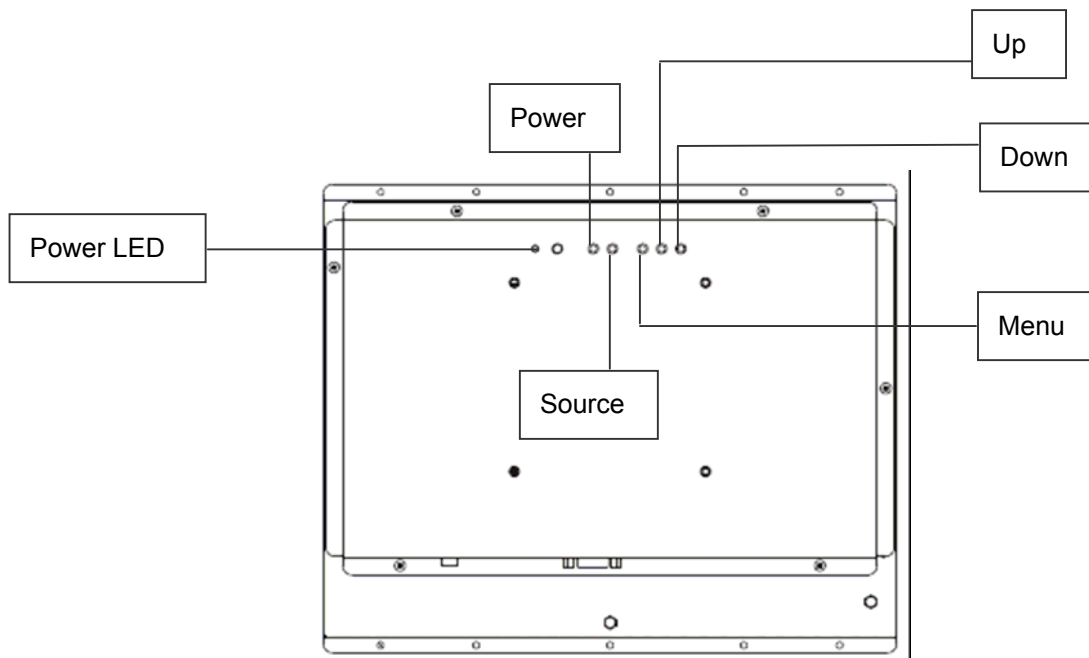
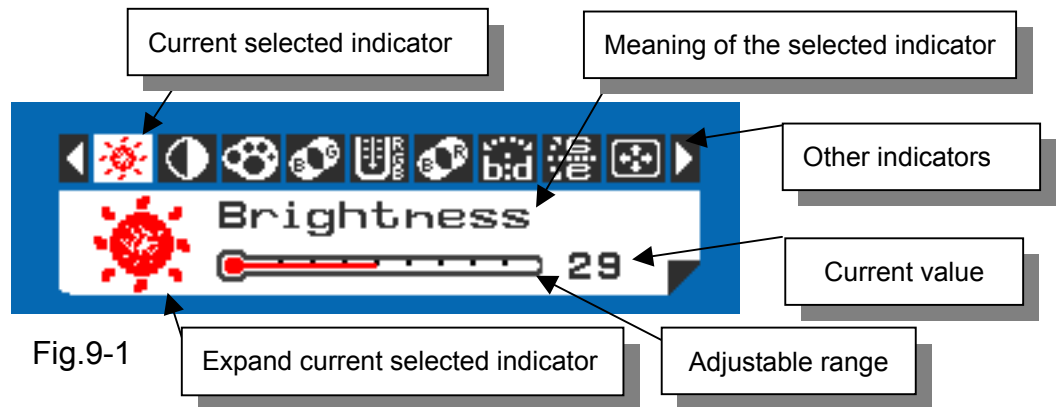
Switch on the power switch on the rear cover of the Open Frame Monitor.



- A. VGA D-sub 15 (Female)
- B. USB / RS-232 Port (For Controller)
- C. S-Video (Y/C Video) In
- D. Video (CVBS) In
- E. DC-In (+12V<sub>DC</sub> The DC jack core is positive)

## 9. OSD Control

### 9.1 Menu Operation



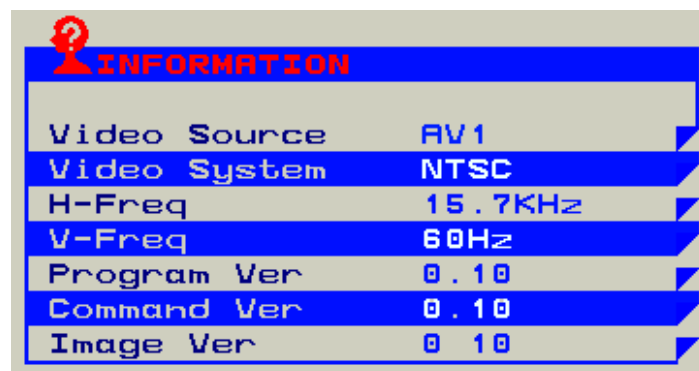
#### Operations of key board :

1. To navigate the menu, press [MENU]. (Fig.9-1)
2. The indicator lighting up in white color is the selected adjustment item.
3. To Next Item of the menu, press [MENU] again.
4. The operations below are only available when "Menu" is started.
5. Press [UP] / [DOWN] to adjust the value of the selected item.

Overview of the menu :

Indicator	Meaning	Adjustable range	For	Remark
	Brightness	0 64	AV / S-Video / VGA	Adjust-Bar
	Contrast	0 64	AV / S-Video / VGA	Adjust-Bar
	Color	0 64	AV / S-Video	Adjust-Bar
	Tint	0 32	AV / S-Video	Adjust-Bar
	Sharpness	0 16	AV / S-Video	Adjust-Bar
	Color Tone	Normal / Warm / Cool	AV / S-Video / VGA	
	Mirror	OFF / ON	AV / S-Video / VGA	
	Flip	OFF / ON	AV / S-Video / VGA	
	H-Position	-10 +10	VGA	Balance-Bar
	V-Position	-10 +10	VGA	Balance-Bar
	Auto		VGA	
	Scale	Full / 4:3	AV / VGA	
	Information		AV / VGA	Fig.9-2
	Memory Recall		AV / VGA	

Fig.9-2





**9.2 Operations**

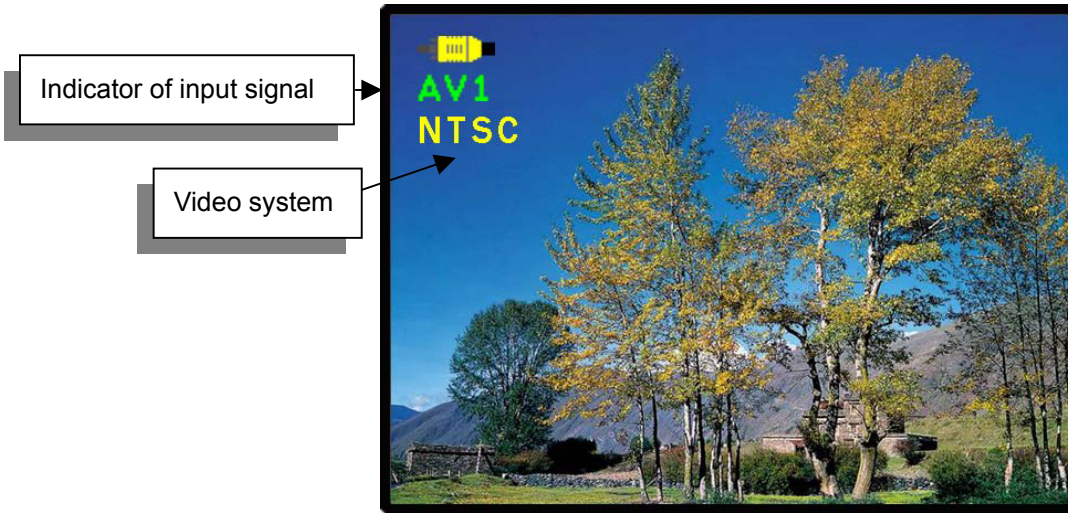





Fig.9-3

[Power] : Monitor power on / off

[Source] : Input signal switch

**Overview of input signals :**

Indicator	Input signal	Interface	Video system
	AV1	Composite	NTSC / PAL / SECAM
	S-Video1	Y/C	NTSC / PAL / SECAM
	VGA	Analog RGB	640x480_60 / 800x600_60 / 1024x768_60 / 1280x1024_60

## 10. Trouble Shooting

If experiencing trouble with the monitor, or it fails to operate correctly, please refer to the following instructions before calling for repairs.

Condition	Check	Point
1. The picture does not appear	<ul style="list-style-type: none"> <li>● Check to see that all the I/O and power cables is firmly seated in the socket.</li> <li>● Check the Power LED is Lighting When the monitor was turned ON.</li> <li>● Check if the brightness control is at the appropriate position, not at the minimum.</li> </ul>	
2. The screen is not synchronized	<ul style="list-style-type: none"> <li>● Check if the I/O signal cable is firmly seated in the socket.</li> <li>● Check if the output level matches the input level.</li> <li>● Make sure the signal timings of the computer system are within the specification of the monitor.</li> </ul>	
3. The position of the screen is not in the center	<ul style="list-style-type: none"> <li>● Adjust the H-position, and V-position, or perform the auto adjustment Or Memory Recall.</li> </ul>	
4. The screen is too bright (too dark).	<ul style="list-style-type: none"> <li>● Check if the brightness or contrast control is at the appropriate position, not at the Maximum (Minimum).</li> </ul>	
5. The Screen is shaking or waving	<ul style="list-style-type: none"> <li>● Press the Auto adjustment control to adjust. Moving all objects which emit a magnetic field such as motor or transformer away from the monitor. Check if the specific voltage is applied.</li> <li>● Check if the signal timing of the computer system is within the specification of monitor.</li> </ul>	

If you are unable to correct the fault by using this chart, stop using your monitor and contact us.