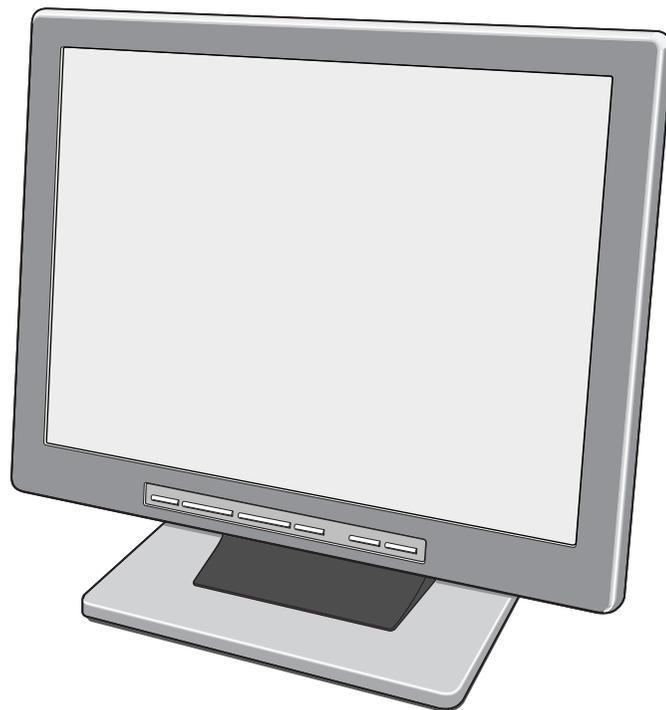


INSTRUCTION MANUAL

VMC-L1015
VMC-L1017
VMC-L1019

Color TFT LCD monitor



About this manual

- Before installing and using this unit, please read this manual carefully. Be sure to keep it handy for later reference.
- This manual gives basic connections and operating instructions for 3 models (VMC-L1015, L1017 and L1019).

Information to User

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 THE VENTILATION GRILLS.

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
<p>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.</p>		

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.

FCC COMPLIANCE STATEMENT

FCC INFORMATION: 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 WHEN THE EQUIPMENT IS OPERATED IN A COMMERCIAL ENVIRONMENT. THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY AND IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION MANUAL, MAY CAUSE HARMFUL INTERFERENCE TO RADIO COMMUNICATIONS. OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE HARMFUL INTERFERENCE IN WHICH CASE THE USER WILL BE REQUIRED TO CORRECT THE INTERFERENCE AT HIS OWN EXPENSE.

CAUTION: CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

THIS CLASS B DIGITAL APPARATUS MEETS ALL REQUIREMENTS OF THE CANADIAN INTERFERENCE-CAUSING EQUIPMENT REGULATIONS.

CET APPAREIL NUMÉRIQUE DE LA CLASSE A RESPECTE TOUTES LES EXIGENCES DU RÈGLEMENT CANADIEN SUR LE MATÉRIEL CAUSANT DES INTERFÉRENCES.

Precautions

- Use only the power source specified on the unit.
- When not using this unit for a long period of time, or when cleaning it, be sure to disconnect the power plug from the AC outlet.
- Do not allow anything to rest on the power cord. And do not place this unit where people will tread on the cord. Do not overload wall outlets or power cords as this can result in a fire or electric shock.
- Avoid using this unit under the following conditions:
 - in extremely hot, cold or humid places,
 - in dusty places,
 - near appliances generating strong magnetic fields,
 - in places subject to direct sunlight,
 - in badly ventilated places,
 - in automobiles with doors closed.
- Do not cover the ventilation slots while in operation as this could obstruct the required ventilation flow.
- When dust accumulates on the screen surface, clean it with a soft cloth.
- Unplug this unit from the AC outlet and refer servicing to qualified service personnel under the following conditions:
 - when the power cord is frayed or the plug is damaged,
 - if liquid has been spilled into the unit,
 - if the unit has been dropped or the cabinet has been damaged,
 - when the unit exhibits a distinct change in performance.
- Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Always refer servicing to qualified service personnel.

Contents

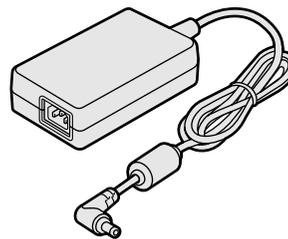
Names of controls/parts	3
Connection instructions	4
Instructions for use	5
Monitoring display adjustment.	6
Computer display adjustment	7
Troubleshooting.	8
External dimensions & adjustable angle	9
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Features

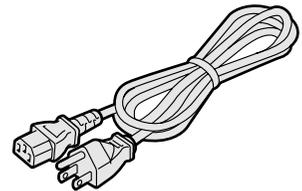
- **Multilingual menu support**
English/Chinese/French/German/Spanish/Italian/
Japanese
- **Picture in Picture (PIP) function**
- **NTSC/PAL automatic select**

Accessories

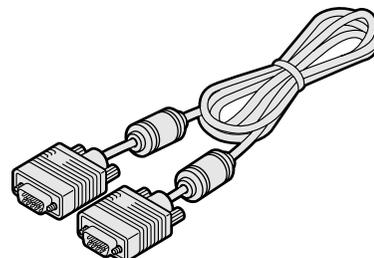
■ AC adapter



■ AC cord

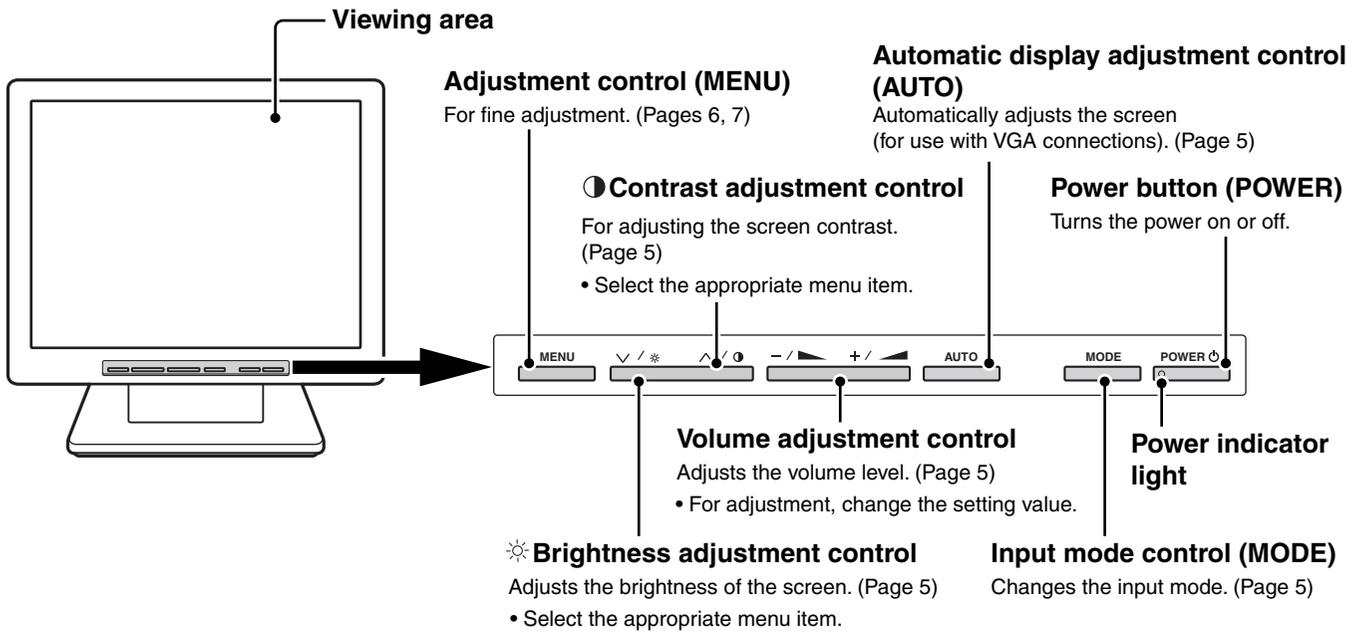


■ VGA connecting cable

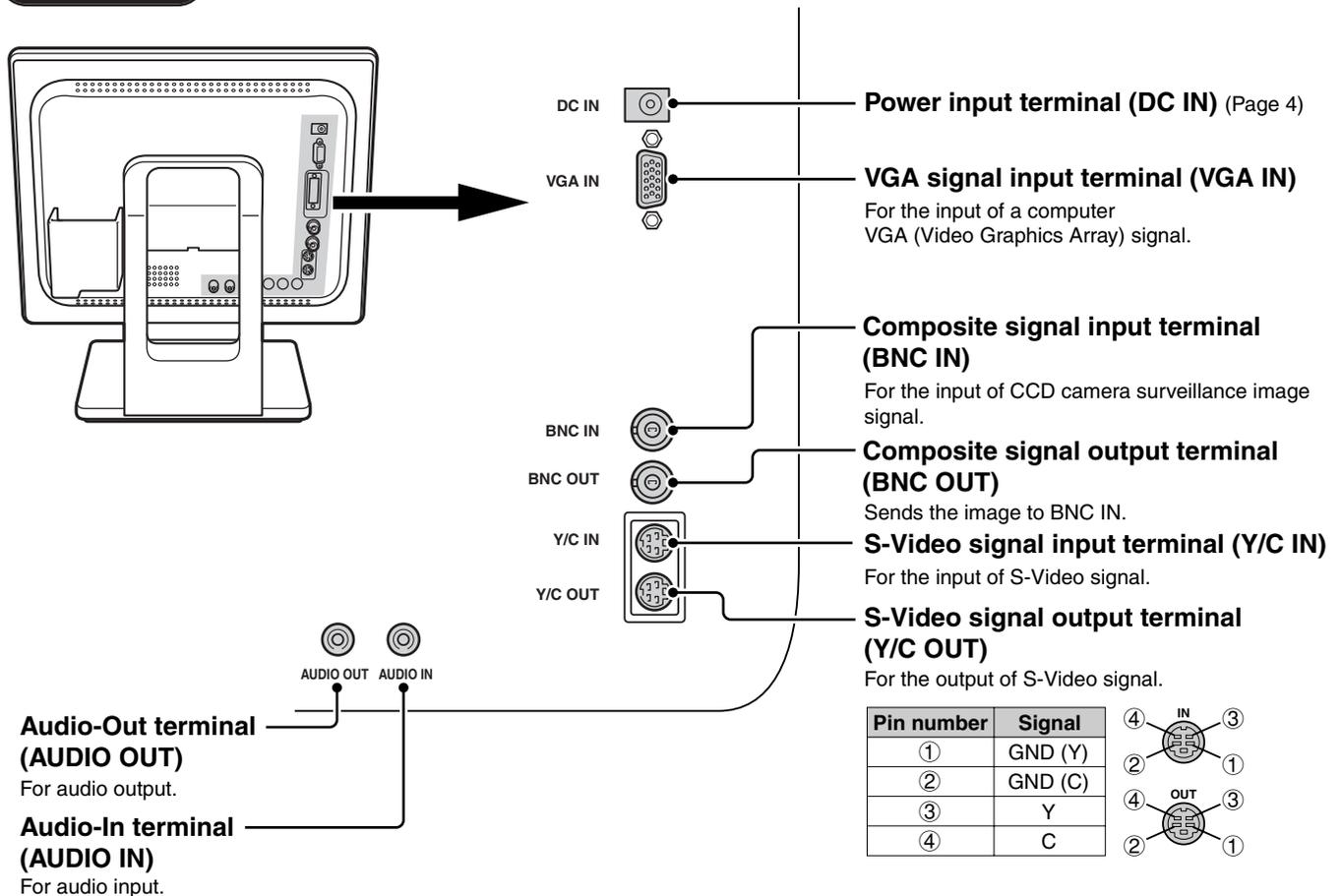


Names of controls/parts

Front view



Rear view

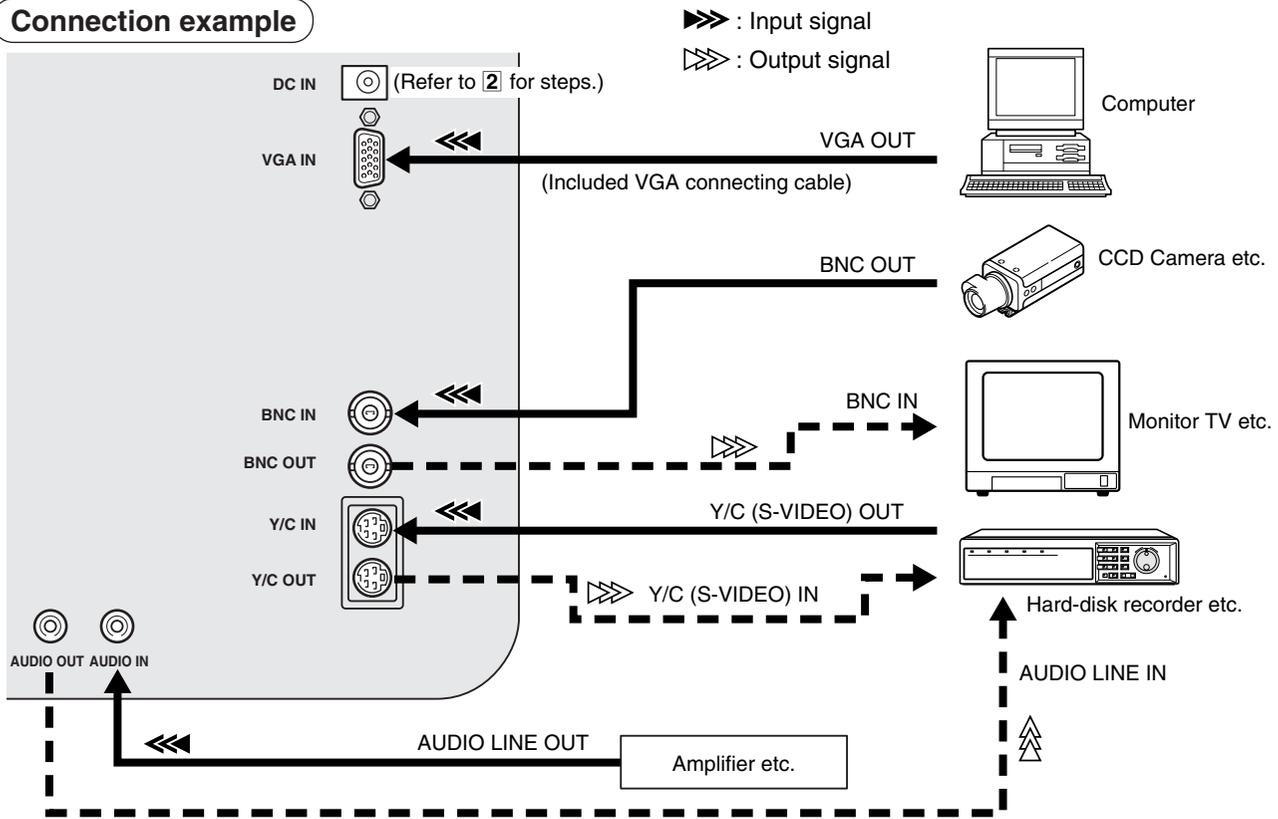


Connection instructions

- When connecting, ensure the power supply to each unit is switched off.
- The other devices and connection cables required are sold separately.

1 Connect the devices to the connection terminals at the rear panel.

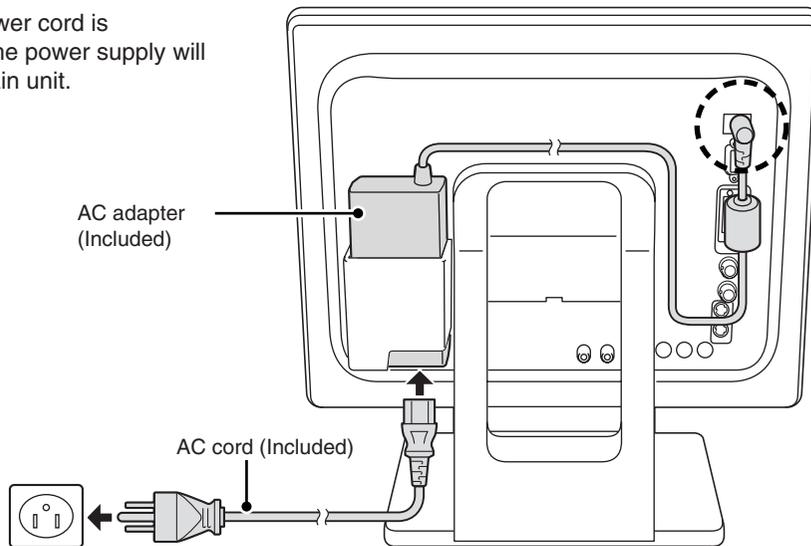
Connection example



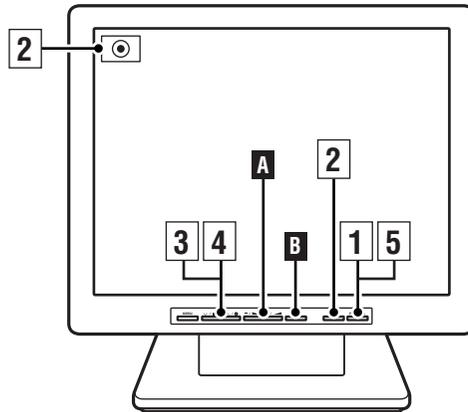
2 Connect the power cord (DC 12V).

Connect the included AC adapter plug to the power input terminal (DC IN), and then connect the AC cord between the AC adapter and AC outlet.

- Once the power cord is connected, the power supply will reach the main unit.



Instructions for use



1 Switch the power button (POWER) on.

⇒ The power indicator light will light up.

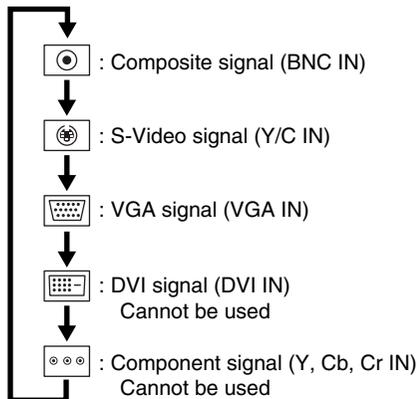


Power indicator light

2 Press the input mode control (MODE) and choose the input signal.

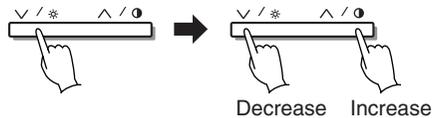


- Press once and the currently selected signal will be displayed. Press again and the available signal options will be displayed in the order shown below. (The symbol for selected option will be displayed in the upper left of the screen.)



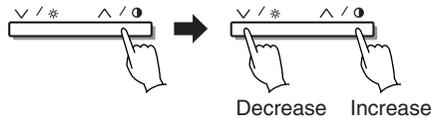
- When the signal is changed, initially a blue screen will be displayed, followed by the display of the chosen signal 2-3 seconds later.
- When there is no input detected on the chosen signal, "NO SIGNAL" will be displayed.
- If the power to the connected device is off, "VIDEO LOSS" will be displayed.

3 Adjust the brightness (☀) [0 – 51].



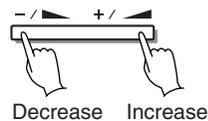
- As the brightness is being adjusted, the ☀ symbol will be displayed in the upper left of the screen.

4 Adjust the contrast (●) [0 – 51].



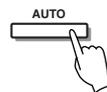
- As the contrast is being adjusted, the ● symbol will be displayed in the upper left of the screen.

A Adjust the volume [0 – 51].



- As the volume is being adjusted, the 🔊 symbol will be displayed in the upper left of the screen.

B Screen automatic adjustment (For VGA signal)



⇒ The clock, phase and screen position are automatically adjusted according to the specified input signal.

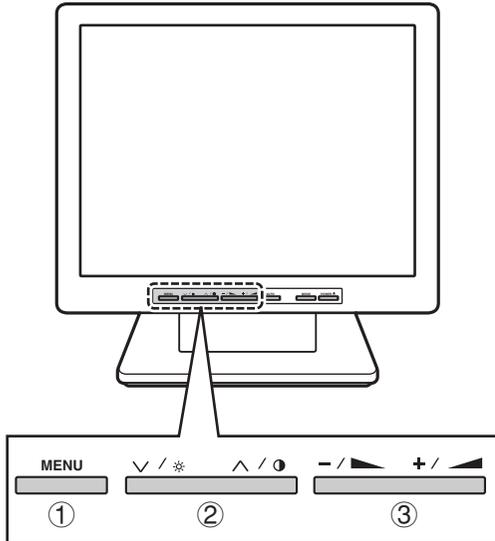
5 When viewing is finished, press the power button (POWER).

⇒ The power indicator light will go out.

Monitoring display adjustment

Adjustment method for  : Composite/  : S-Video signal selection

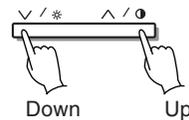
■ Operation



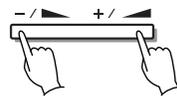
① Press the adjustment control (MENU).

⇒ At the top of the screen, an adjustment panel as shown in the diagram to the right will be displayed.

② Choose the adjustment item.



③ Change the setting value.



④ If necessary, repeat steps ② and ③.

Adjustment item	Setting value	
	Composite In	NTSC
Color		30
Tint		25
Brightness		25
Contrast		25
Sharpness		27
Volume		30
H-Position		25
Language		English
Color Temp.		9300K
Scan		Full
PIP		Off
Recall		



• Pressing the adjustment control (MENU) again, or waiting for a number of seconds will cause the adjustment panel to disappear.

■ Adjustment item

Item	Description	Parameters	Default setting
Color	Adjust the color.	0 – 51	30
Tint	Adjust the tint (only available for NTSC signal).	0 – 51	25
Brightness	Adjust the brightness.	0 – 51	25
Contrast	Adjust the contrast.	0 – 51	25
Sharpness	Adjust the sharpness.	0 – 51	27
Volume	Adjust the volume.	0 – 51	30
H-Position	Adjust the horizontal position of the display.	0 – 51	25
Language	Select the language of the display.	English, Chinese, French, German, Spanish, Italian, Japanese	English
Color Temp.	Select the color temperature.	9300°K, 6500°K, Standard	9300°K*
Scan	Select the image scan type.	Over, Under, Full, 1:1	Full
PIP	Select to use Picture in Picture, showing an additional smaller display in the upper left corner.	VGA, Off	Off
Recall	Pressing the +, – buttons together will return the settings to the default setting.	–	–

* May differ depending on location of purchase.

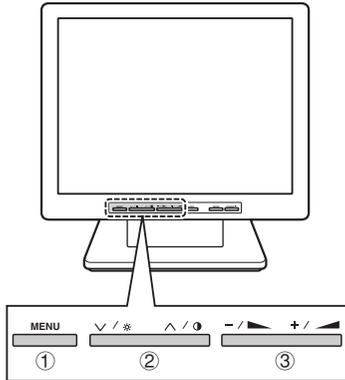


- The settings will be retained even if the unit is switched off, but if the power supply is disconnected, settings will return to default.
- The default language display is English. If the language setting is changed, the menu display will be in the language chosen.

Computer display adjustment

 : Adjustment method for VGA signal selection

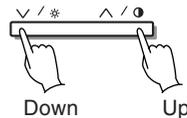
■ Operation



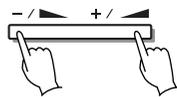
① Press the adjustment control (MENU).

⇒ At the top of the screen, an adjustment panel as shown in the diagram to the right will be displayed.

② Choose the adjustment item.



③ Change the setting value.



④ If necessary, repeat steps ② and ③.

Adjustment item	Setting value
VGA IN	1024x768@60Hz
Brightness	25
Contrast	25
H-Position	25
V-Position	31
Clock	25
Phase	13
Color Temp.	User color
User Color R	51
User Color G	51
User Color B	51
OSD H-Pos.	25
OSD V-Pos.	25
Volume	30
PIP	Off
Language	English
Recall	



• Pressing the adjustment control (MENU) again, or waiting for a number of seconds will cause the adjustment panel to disappear.

■ Adjustment item

Item	Description	Parameters	Default setting
Brightness	Adjust the brightness.	0 – 51	25
Contrast	Adjust the contrast.	0 – 51	25
H-Position*	Adjust the horizontal position of the display.	0 – 51	25
V-Position*	Adjust the vertical position of the display.	0 – 51	31
Clock*	Adjust the clock (when vertical lines can be seen etc.). • Make fine adjustments until the vertical lines disappear. Adjusting the clock will also change the width of the display.	0 – 51	25
Phase*	Adjust the phase (when the screen is flickering, etc.).	0 – 51	13
Color Temp.	Select the color temperature.	9300°K, 6500°K, User color	User color
User Color R	Adjust the Red (when Color temp. is set to User color).	0 – 51	51
User Color G	Adjust the Green (when Color temp. is set to User color).	0 – 51	51
User Color B	Adjust the Blue (when Color temp. is set to User color).	0 – 51	51
OSD H-Pos.	Adjust the horizontal position of the adjustment panel.	0 – 51	25
OSD V-Pos.	Adjust the vertical position of the adjustment panel.	0 – 51	25
Volume	Adjust the volume.	0 – 51	30
PIP	Select to use Picture in Picture, showing an additional smaller display in the upper left corner.	Composite, S-Video, Component, Off	Off
Language	Select the language of the adjustment panel.	English, Chinese, French, German, Spanish, Italian, Japanese	English
Recall	Pressing the +, – buttons together will return the settings to the default value.	–	–

* Use this when pressing the automatic display adjustment control (AUTO) (page 5) does not achieve the desired result. Also, by pressing the automatic display adjustment control (AUTO), these values will be changed.



• The settings will be retained even if the unit is switched off, but if the power supply is disconnected, settings will return to default.
• The default language display is English. If the language setting is changed, the menu display will be in the language chosen.

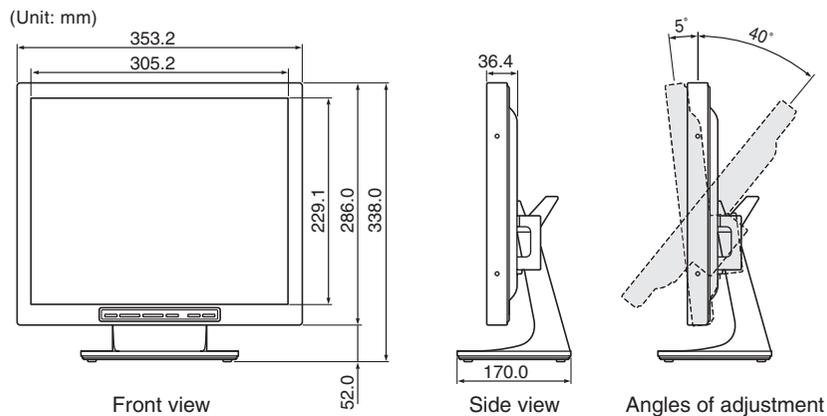
Troubleshooting

Before requesting service or repair, perform a check as described in the following section. If this does not work, return the unit to the place of purchase or authorized repair agent to undergo adjustment.

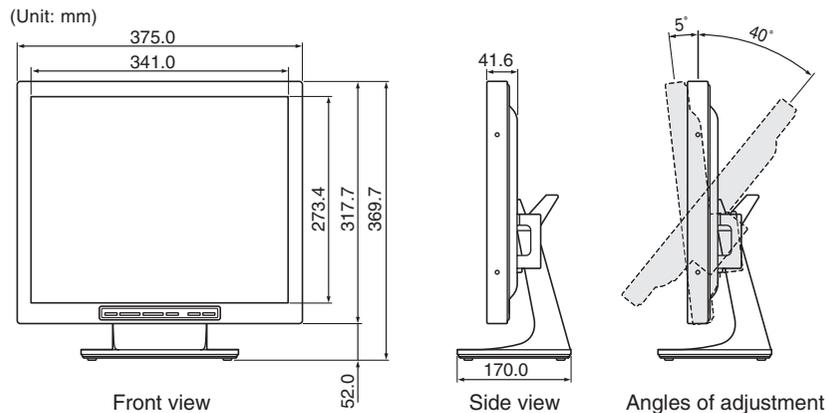
Problem	Points to check
No image is displayed.	<ul style="list-style-type: none">• Is the connected device outputting a video signal?• Is the connection correct? (Page 4)• Using the input mode control (MODE), is the correct input signal selected? (Page 5)
No sound is heard.	<ul style="list-style-type: none">• Is the connected device outputting an audio signal?• Is the connection correct? (Page 4)• Check the volume level is not set to 0. (Page 5 – 7)
The display is dark.	<ul style="list-style-type: none">• Are the brightness and contrast set to the correct level? (Page 5 – 7)
The display is flickering.	<ul style="list-style-type: none">• Is there a device nearby which is emitting a strong magnetic field? If so, remove it.
Colors displayed in different parts of the display are strange.	<ul style="list-style-type: none">• Is there a speaker or magnet nearby? After removing the object, turn the unit off for at least 30 minutes and switch it on again.
There is a hissing noise.	<ul style="list-style-type: none">• Effects of this type may be caused by temperature changes in the room but do not indicate a fault.
When 2 or more monitors are next to each other, the display shakes or there is some distortion.	<ul style="list-style-type: none">• The monitors are interfering with each other. Increase the distance between them.

External dimensions & adjustable angle

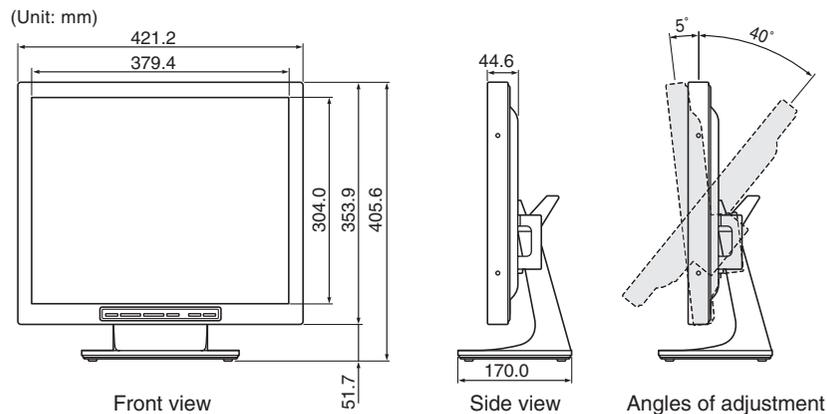
■ VMC-L1015



■ VMC-L1017



■ VMC-L1019



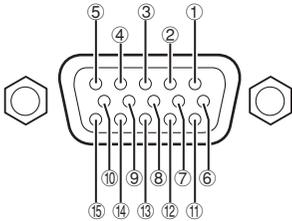
About the tilt adjustment

The screen may be adjusted 5° forward and 40° backward.

When adjusting the screen tilt, use a soft cloth to prevent damaging the screen.

After adjusting the tilt, check the cables to ensure the monitor is not pulled over.

Specifications

	VMC-L1015	VMC-L1017	VMC-L1019																																			
Type	Color video monitor																																					
Color system	NTSC, PAL																																					
LCD display	15" active matrix TFT LCD panel	17" active matrix TFT LCD panel	19" active matrix TFT LCD panel																																			
Screen size	381 mm diagonal	432 mm diagonal	480 mm diagonal																																			
Viewable size (H x V)	304 x 228 mm (4:3)	337 x 270 mm (5:4)	376 x 301 mm (5:4)																																			
Pixel pitch (H x V)	0.297 x 0.297 mm	0.264 x 0.264 mm	0.294 x 0.294 mm																																			
Horizontal resolution	500 TV lines or more (Y/C input mode)																																					
	1024 x 768	1280 x 1024																																				
Scanning frequency	Horizontal: 30 K – 80 KHz																																					
	Vertical: 56 Hz – 75 Hz																																					
Contrast ratio	350:1	500:1																																				
Brightness	250 cd/m ²																																					
Response time Tr/Tf	6/17 ms	15/10 ms																																				
Display color	16.7 M																																					
View Angle L/R	60°/60°	88°/88°	85°/85°																																			
View Angle Up/Down	40°/60°	88°/88°																																				
Display monitor timing	VESA compatible																																					
Display mode	VIDEO & S-VIDEO & VGA																																					
Input connector																																						
Video signal (BNC IN)	Composite sync signal, 1.0 Vp-p, 75 Ω BNC connector																																					
S-Video signal (Y/C IN)	Separate Y/C signal, mini-DIN connector Y signal: 1.0 Vp-p, 75 Ω negative sync C signal: 0.286 Vp-p, 75 Ω negative sync																																					
Audio signal (AUDIO IN)	-6 dBs (400 mVrms), RCA pin																																					
VGA signal (VGA IN)	VGA Monitor Connector (15-pin) Red signal, Green signal, Blue signal: 0.7 Vp-p, 75 Ω, positive sync																																					
		<table border="1"> <thead> <tr> <th>Pin No.</th> <th>Signal</th> <th>Pin No.</th> <th>Signal</th> <th>Pin No.</th> <th>Signal</th> </tr> </thead> <tbody> <tr> <td>①</td> <td>Red signal</td> <td>⑥</td> <td>GND (Red)</td> <td>⑪</td> <td>No use</td> </tr> <tr> <td>②</td> <td>Green signal</td> <td>⑦</td> <td>GND (Green)</td> <td>⑫</td> <td>SDA</td> </tr> <tr> <td>③</td> <td>Blue signal</td> <td>⑧</td> <td>GND (Blue)</td> <td>⑬</td> <td>H sync</td> </tr> <tr> <td>④</td> <td>No use</td> <td>⑨</td> <td>No use</td> <td>⑭</td> <td>V sync</td> </tr> <tr> <td>⑤</td> <td>No use</td> <td>⑩</td> <td>GND (sync)</td> <td>⑮</td> <td>SCL</td> </tr> </tbody> </table>	Pin No.	Signal	Pin No.	Signal	Pin No.	Signal	①	Red signal	⑥	GND (Red)	⑪	No use	②	Green signal	⑦	GND (Green)	⑫	SDA	③	Blue signal	⑧	GND (Blue)	⑬	H sync	④	No use	⑨	No use	⑭	V sync	⑤	No use	⑩	GND (sync)	⑮	SCL
Pin No.	Signal	Pin No.	Signal	Pin No.	Signal																																	
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②	Green signal	⑦	GND (Green)	⑫	SDA																																	
③	Blue signal	⑧	GND (Blue)	⑬	H sync																																	
④	No use	⑨	No use	⑭	V sync																																	
⑤	No use	⑩	GND (sync)	⑮	SCL																																	
Output connector																																						
Video signal (BNC OUT)	Composite sync signal, 1.0 Vp-p, 75 Ω BNC connector																																					
S-Video signal (Y/C OUT)	Separate Y/C signal, mini-DIN connector Y signal: 1.0 Vp-p, 75 Ω negative sync C signal: 0.286 Vp-p, 75 Ω negative sync																																					
Audio signal (AUDIO OUT)	-6 dBs (400 mVrms), RCA pin																																					
Menu language	English/Chinese/French/German/Italian/Japanese																																					
Audio power output	Approx. 1 W																																					
Power input	DC 12 V/3 A																																					
Operating condition	Temperature: 0°C – 40°C Humidity: 20% – 85% (non-condensation)																																					
Storage condition	Temperature: -20°C – 60°C Humidity: 20% – 85% (non-condensation)																																					
Power consumption	Approx. 40 W	Approx. 50 W																																				
Weight (Adaptor included)	4.0 kg	5.0 kg	6.1 kg																																			

Features and specifications are subject to change without prior notice or obligations.

**SANYO INDUSTRIAL VIDEO
VIDEO MONITOR LIMITED WARRANTY**

OBLIGATIONS

In order to obtain warranty service, the product must be delivered to and picked up from an Authorized Sanyo Service Center at the user's expense, unless specifically stated otherwise in this warranty. The names and addresses of Authorized Sanyo Service Centers may be obtained by calling the toll-free number listed below.

For product operation, authorized service center referral, service assistance or problem resolution, call
CUSTOMER INFORMATION 1-800-421-5013
Weekdays 8:30 AM – 5:00 PM Pacific Time

For accessories and/or parts, call
PARTS ORDER INFORMATION 1-800-726-9662
Weekdays 8:30 AM – 5:00 PM Pacific Time

THIS WARRANTY IS VALID ONLY ON SANYO PRODUCTS PURCHASED OR RENTED IN THE UNITED STATES OF AMERICA, EXCLUDING ALL U.S. TERRITORIES AND PROTECTORATES. THIS WARRANTY APPLIES ONLY TO THE ORIGINAL RETAIL PURCHASER OR END-USER. THE ORIGINAL DATED BILL OF SALE, SALES SLIP OR RENTAL AGREEMENT MUST BE SUBMITTED TO THE AUTHORIZED SANYO SERVICE CENTER AT THE TIME WARRANTY SERVICE IS REQUESTED.

Subject to the OBLIGATIONS above and EXCLUSIONS below, SANYO Fisher Company warrants this SANYO product against defects in materials and workmanship for the periods specified below. SFC will repair or replace (at its option) the product and any of its parts which fail to conform to this warranty. The warranty period commences on the date the product was first purchased or rented at retail.

LABOR	PARTS
1 YEAR	1 YEAR

EXCLUSIONS

This warranty does not cover (A) the adjustment of customer-operated controls as explained in the appropriate model's instruction manual, or (B) the repair of any product whose serial number has been altered, defaced or removed.

This warranty shall not apply to the cabinet or cosmetic parts, batteries or routine maintenance.

This warranty does not apply to uncrating, setup, installation, removal of the product for repair or reinstallation of the product after repair.

This warranty does not apply to repairs or replacements necessitated by any cause beyond the control of SFC including, but not limited to, any malfunction, defect or failure caused by or resulting from unauthorized service or parts, improper maintenance, operation contrary to furnished instructions, shipping or transit accidents, modification or repair by the user, abuse, misuse, neglect, accident, incorrect power line voltage, fire, flood or other Acts of God, or normal wear and tear.

The foregoing is in lieu of all other expressed warranties and SFC does not assume or authorize any party to assume for it any other obligation or liability.

SFC DISCLAIMS ALL OTHER WARRANTIES EXPRESS OR IMPLIED, WITH REGARD TO THIS PRODUCT (INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS). IN NO EVENT SHALL SFC BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM THE OWNERSHIP OR USE OF THIS PRODUCT OR FOR ANY DELAY IN THE PERFORMANCE OF ITS OBLIGATIONS UNDER THIS WARRANTY DUE TO CAUSES BEYOND ITS CONTROL. SFC'S LIABILITY FOR ANY AND ALL LOSSES AND DAMAGES RESULTING FROM ANY CAUSE WHATSOEVER, ARISING OUT OF OR IN CONNECTION WITH THE SALE, USE OR OWNERSHIP OF THIS PRODUCT INCLUDING WARRANTOR'S NEGLIGENCE, ALLEGED DAMAGED OR DEFECTIVE GOODS, WHETHER SUCH DEFECTS ARE DISCOVERABLE OR LATENT, SHALL IN NO EVENT EXCEED THE PURCHASE PRICE OF THE PRODUCT.

ATTENTION

For your protection in the event of theft or loss of this product, please fill in the information below for you own personal records.

Model No. _____ **Serial No.** _____
 (Located on back or bottom side of unit.)

Date of Purchase _____ **Purchase Price** _____

Where Purchased _____



**21605 Plummer Street,
Chatsworth, California 91311**