Instruction and Operation M A N U A L



TFT-LCD Public View Monitor With An Integrated Camera



COLOR TFT-LCD MONITOR

Please read this manual thoroughly before use, and keep it handy for future reference.

LIMITATION OF LIABILITY

The information in this publication is believed to be accurate in all respects. However, WE cannot assume responsibility for any consequences resulting from the use thereof. The information contained herein is subject to change WITHOUT NOTICE. Revisions or new editions to this publication may be issued to incorporate such changes.

WARNINGS AND CAUTIONS:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. DO NOT INSERT ANY METALLIC OBJECTS THROUGH THE VENTILATION GRILLS OR OTHER OPENINGS ON THE EQUIPMENT.

CAUTION:



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.

PRECAUTIONS

Safety -----

Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by the qualified personnel before operating it any further.

Unplug the unit from the wall oulet if it is not going to be used for several days or more. To disconnect the cord, pull it out by the plug. Never pull the cord itself.

Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials(curtains, draperies) that may block the ventilation holes.

Height and vertical linearity controls located at the rear panel are for special adjustments by qualified personnel only.

------ Installation ------

Do not install the unit in an extremely hot or humid place or in a place subject to excessive dust, mechanical vibration.

The unit is not designed to be waterproof. Exposure to rain or water may damage the unit.

Cleaning -----

Clean the unit with a slightly damp soft cloth. Use a mild household detergent. Never use strong solvents such as thinner or benzine as they might damage the finish of the unit.

Retain the original carton and packing materials for safe transport of this unit in the future.

FCC COMPLIANCE STATEMENT

FCC INFORMATION : THIS EQUIPMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS A 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 MANUFACTURED COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

THIS CLASS A DIGITAL APPARATUS COMPLIES WITH CANADIAN ICES-003.

CET APPAREIL NUMÉRIQUE DE LA CLASSE A EST CONFORME À LA NORME NMB-003 DU CANADA.

CE COMPLIANCE STATEMENT

WARNING

THIS IS A CLASS A PRODUCT. IN A DOMESTIC ENVIRONMENT THIS PRODUCT MAY CAUSE RADIO INTERFERENCE IN WHICH CASE THE USER MAY BE REQUIRED TO TAKE ADEQUATE MEASURES.

IMPORTANT SAFEGUARDS

- 1. Read these instructions.
- 2. Keep these instructions.
- 3. Heed all warnings.
- 4. Follow all instructions.
- 5. Do not use this apparatus near water.
- 6. Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that product heat.
- 9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where thy exit from the apparatus.
- 11. Only use attachments/accessories specified by the manufacturer.
- 12. Unplug this apparatus during lightning storms or when unused for long periods of time.
- 13. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, Does not operate normally, or has been dropped.
- 14. CAUTION THESE SERVICING INSTRUCTIONS ARE FOR USE BY QUALIFIED SERVICE PERSONNEL ONLY. TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN THE OPERATING INSTRUCTIONS UNLESS YOU ARE QUALIFIED TO DO SO.
- 15. Use Certified/Listed Class 2 power supply transformer only(only 20.1" PVM).

<Notes>

When viewing a fixed screen for an extended period of time, residual image or blurriness may appear.

TABLE OF CONTENTS

Chapter 1. FEATURES	6
DESCRIPTION	6
FEATURES	6
ACCESSORIES	6
Chapter 2. THE FRONT AND REAR PANEL	7
THE FRONT PANEL	7
THE REAR PANEL	7
CHAPTER 3. REMOTE CONTROL & USER BUTTON	8
REMOTE CONTROL	8
USER BUTTON	8
CHAPTER 4. SETUP MODE	9
OVERVIEW	9
ADJUSTING THE MONITOR	9
NOISE REDUCTION 1	0
DYNAMIC CONTRAST 1	0
COLOR TEMPERATURE 1	0
OSD 1	1
РНОТО INPUT 1	1
RECALL 1	1
CHAPTER 5. TROUBLESHOOTING1	2
CHAPTER 6. SPECIFICATIONS1	3
SPECIFICATION OF CAMERAS 1	4
CAMERA INSTALLATION1	4

CHAPTER 1 - DESCRIPTION

DESCRIPTION

The Public View LCD Monitor has a built-in high resolution camera. The integrated 3D video processing provides more superior video quality. All programming and operation is accomplished via remote control.

FEATURES

High Brightness and Contrast Color TFT-LCD Monitor Fully Programmable via remote control Built-in Light Sensor Integrated Camera Video Output DC 12 Volts Output

ACCESSORIES

Please make sure the following items are included with your LCD Monitor. If any items are missing, contact your dealer.

DC Type



AC Type (AC 24V)



Wires for power connection are not supplied.

CHAPTER 2 - FRONT AND REAR PANEL

THE FRONT PANEL

(20.1")	А В (26" & 32")	 A. Internal camera B. IR Sensor / Light sensor (Detect ambient light) C. Internal speakers
THE REAR PANEL		
(20.1")	DC type	No Camera type
(26" & 32")	DC type	5 [_]

Power Connection

-DC Type

1. DC Jack	Connect the adapter jack to the DC power connector on the back of the monitor.
4. DC12V Output	Used to supply DC12V power to an external camera.(DC12V / 500mA)
-АС Туре	
2. AC24V Input	Supply AC24 volts power to the monitor using two wires.
(CAUTION - Do not use a l	non-isoloated AC 24V power supply.)
3. Power Switch	Switch on to supply AC24V to the monitor.
4. DC12V Output	Used to supply DC12V power to an external camera.(DC12V / 500mA)
Video and Audio Con	nection

video and Audio Connection

5. Integrated Camera	The video input of the integrated camera.
6. External Camera	Video input connectors of the external camera video sources.
	Either left or right BNC can be input or output.
	The connectors have auto-termination internal switches.
7. Video Output	The video output connector of the integrated camera.
8. Audio Input	Audio input connector

CHAPTER 3 - REMOTE CONTROL & USER BUTTON

REMOTE CONTROL



1. POWER

Turn the monitor on and off.

2. MUTE

Cut off the sound.

3. FREEZE

Not available.

4. ZOOM

Change the picture size on the screen. (26" & 32" Only)

- Wide : The input image is expanded to fill the 16:9 display area.
- Wide Zoom : The input image is more expanded to horizontally and vertically to maintain the aspect ratio of the input image.
- Normal : The aspect ratio of the input image is 4:3 on the 16:9 display area.

5. EXIT

Exit from the OSD or go to the previous OSD window.

6. AUTO

Not available.

7. MENU

Turn the OSD menu on.

Go to the sub menu of the selected item.

8. ◀ (▶)

Decrease (Increase) the value of the selected item. Decrease (Increase) the volume of internal speakers.

9. ▲ (▼)

Move up (down) in the menu list.

10. SOURCE

Select the video source.

11. DISPLAY

Display the setup information.

USER BUTTON (26" & 32" Only)



- 1. Turns the monitor on and off.
- 2.Selects the video source.
- 3.Adjusts brightness of the picture.
- 4. Changes the volume of internal speakers.

CHAPTER 4 - SETUP MODE

OVERVIEW

All functions can be controlled via the supplied remote control. Pressing the MENU button places the unit into the programming mode. In the programming mode, the ▲ and ▼ buttons are used to move the cursor up and down in the OSD Setup menu.

◄ and ▶ are used to adjust the chosen item.

26 & 32" : Some functions can be controlled by using user control buttons. For more information refer to USER BUTTON in the previous page.

ADJUSTING THE MONITOR

Press the MENU button to display the setup menu. The follow setup menu will appears.

Image Setti	ings
Volume	0
Contrast	50
Brightness	50
Sharpness	13
Color	50
Tint	50
Advanced	►
Under Scan	Off
Source	EXT

Tint is only available in NTSC system.

Select one of the options using \blacktriangle or \blacktriangledown . Adjust the chosen item using \blacktriangleleft or \blacktriangleright .

Volume

Control the output of internal speakers.

Contrast, Brightness, Sharpness, Color and Tint

Change the contrast, brightness, sharpness, color and tint according to personal preference.

Advanced

Refer to below paragraph.

Under Scan

Adjust the picture size. There are three options On, Off and Normal.

Source

Select INT. (EXT.) to display the integrated (an external) camera video on the screen.

NOISE REDUCTION

This option is used to reduce the picture noise.

Temporal noise reduction is the motion based noise reduction.

MPEG noise reduction is for removing unwanted ringing and block noise from images that have undergone MPEG or JPEG compression and decompression.

Noise Reduction	
Temporal NR	Low
MPEG NR	2

Press the MENU button. Select Advanced using ▲ or ▼and then press the MENU button. Select Noise Reduction and press the MENU button Select Temporal NR or MPEG NR using ▲ or ▼. Adjust the option selected using ◄ or ►.

DYNAMIC CONTRAST

Use this option to enhance the contrast of the image. This feature makes dark colors darker and bright colors brighter.

Advanced	
Noise Reduction	•
Dynamic Contrast	0
Color Temp	•
OSD Menu	►
Photo Input	Off
Recall	No

Press the MENU button. Select Advanced using ▲ or ▼and then press the MENU button. Select Dynamic Contrast using ▲ or ▼. Change the value using ◀ or ►.

COLOR TEMPERATURE

Use Color Temp to change the screen color standard.

User					
Red	80				
Green	80				
Blue	80				

Press the MENU button. Select Advanced using \blacktriangle or \checkmark and then press the MENU button. Select Color Temp and press the MENU button Select one of the options using \blacktriangle or \checkmark and adjust it using \blacktriangleleft or \triangleright .

OSD

Use OSD Menu to adjust the OSD window. The OSD position and other options can be adjusted in this setup menu.



Press the MENU button. Select Advanced using ▲ or ▼and then press the Menu button. Select OSD Menu and press the MENU button Select one of the options and change its value using ◀ or ►.

PHOTO INPUT

This monitor can go into power saving mode if there is low ambient light by setting PHOTO INPUT to "ON".

Advanced	
Noise Reduction	►
Dynamic Contrast	0
Color Temp	►
OSD Menu	►
Photo Input	Off
Recall	No

Press the MENU button. Select Advanced using ▲ or ▼and then press the MENU button. Select Photo Input using ▲ or ▼. Change this option to On or Off using ◄ or ►.

RECALL

This option allows you to return to the monitor to factory-defined defaults.

Advanced	
Noise Reduction	•
Dynamic Contrast	0
Color Temp	►
OSD Menu	►
Photo Input	Off
Recall	No

Press the MENU button. Select Advanced using ▲ or ▼and then p press the MENU button. Select Recall using ▲ or ▼. Change this option to Yes using ◀ or ►. Press the MENU button.

CHAPTER 5 - TROUBLESHOOTING

1. Screen is black and power indicator is green.

- Ensure that the power cord is firmly connected and the LCD monitor is on.
- Check PHOTO INPUT adjustment.

2. No Picture.

- Check the signal connections.

3. The image is too light or too dark.

- Adjust the Brightness and Contrast.

4. Picture is improperly tinted.

- Check color adjustment.

5. Remote control malfunctions.

- Check the battery terminals.
- Replace the remote control batteries.

6. No sound.

- Ensure that the audio cables are firmly connected to both the audio-in ports on your monitor.
- Check the volume level.

CHAPTER 6 - SPECIFICATION

	Items		20.1 inch Monitor	20.1 inch Monitor	26 inch Monitor	32 inch Monitor
	Size		20.1 inches	20.1 inches	26 inches	32 inches
LCD	Pixel Format		1600 x 1200 x RGB	640 x 480 x RGB	1366 x 768 x RGB	1366 x 768 x RGB
	Brightness (Typical)	300 cd/m2	450 cd/m2	450 cd/m2	450 cd/m2
	Contrast Rat	io (Typical)	800 : 1	800 : 1	4000 : 1	4000 : 1
LCD	Viewing Angle H/V (Typical, Cr≥10)		178 / 178	178 / 178	178 / 178	178 / 178
	Color Depth		8bit / 16.7M Colors	8bit / 16.7M Colors	8bit / 16.7M Colors	8bit / 16.7M Colors
	Light Source	/ Lifetime	6CCFL / 45,000 Hrs(Minimum)	CCFL / 50,000 Hrs(Minimum)	4U-CCFL / 50,000 Hrs (Minimum)	4UCCFL / 50,000 Hrs (Minimum)
	Response Ti	me (Typical)	6ms (Gray to Gray)	12ms (Gray to Gray)	8ms (Gray to Gray)	8ms (Gray to Gray)
		System	NTSC / PAL	NTSC / PAL	NTSC / PAL	NTSC / PAL
		Level	1Vp-p @ 75 ohm	1Vp-p @ 75 ohm	1Vp-p @ 75 ohm	1Vp-p @ 75 ohm
		Input	Internal Camera x 1	Internal Camera x 1	Internal Camera x 1	Internal Camera x 1
Video	Composite		External Camera x 1	External Camera x 1	External Camera x 1	External Camera x 1
		Output	Internal Camera x 1	Internal Camera x 1	Internal Camera x 1	Internal Camera x 1
			External Camera x 1	External Camera x 1	External Camera x 1	External Camera x 1
		3D Combfilter	YES	YES	YES	YES
		Connector	BNC	BNC	BNC	BNC
Level		Line Level	Line Level	Line Level	Line Level	
Audio		Input	2-Terminal RCA x 1	2-Terminal RCA x 1	2-Terminal RCA x 1	2-Terminal RCA x 1
		Amplifier	5W x 2	5W x 2	5W x 2	5W x 2
Power P	Requirement	AC Type	AC24V @ 4.5A	AC24V @ 4.5A		
Fowerr	vequirement	DC Type	DC12V @ 6.2A	DC12V @ 6.2A	DC24V / 5.4A	DC24V / 6.8A
Light Se	ensor (Power s	save mode)	Yes	Yes	Yes	Yes
DC Out	put Connector		x 1 (DC 12V / 0.5A max)	x 1 (DC 12V / 0.5A max)	x 1 (DC 12V / 0.5A max)	x 1 (DC 12V / 0.5A max)
Power 0	Consumption		75W(DC12V) / 110W(AC24V)	75W(DC12V) / 110W(AC24V)	130 W	164 W
Operati	ng Temperatu	re	0 ~ 40°C	0 ~ 40°C	0 ~ 40°C	0 ~ 40°C
Storage	Temperature		0 ~ 50°C	0 ~ 50°C	0 ~ 50°C	0 ~ 50°C
Case Material		Plastic	Plastic	Metal	Metal	
Dimension		463.0mm x 453.0mm x 82.0mm (Net)	463.0mm x 453.0mm x 82.0mm (Net)	658.4 x 492.4 x 92.60mm(Net)	796.5 x 592.0 x 108.2mm(Net)	
		640.0mm x 540.0mm x 190.0mm (Packing)	640.0mm x 540.0mm x 190.0mm (Packing)	802.0 x 606.0 x 253.0mm(Packing)	915.0 x 715.0 x 270.0mm(Packing)	
Weight		7.7kg	7.7kg	14.5kg	19.0kg	
		11.0kg	11.0kg	19.0kg	24.0kg	
Access	ories	DC Type	Manual, Remote Control	Manual, Remote Control	Manual, Remote Control	Manual, Remote Control
			AC-DC Adaptor, Power Cord	AC-DC Adaptor, Power Cord	AC-DC Adaptor, Power Cord	AC-DC Adaptor, Power Cord
		AC Type	Manual, Remote Control	Manual, Remote Control		

* No Camera Only INT / CA2

EXT / CA1

Items	Option1	Option2	Option3	Option4	Option5
VF Lens	4~9mm(F2.0~2.8)	4~8mm(F2.0~360)	2.8~11mm(F1.4~360)	2.8~11mm(F2.8~360)	2.8~11mm(F2.8~360)
CCD	1/3"	1/3"	1/3"	1/3"	1/3"
Resolution	480 TVL	480 TVL	480 TVL	580 TVL	580 TVL
Sensitivity	1.0 Lux (F2.0, 50 IRE)	1.0 Lux (F2.0, 50 IRE)	1.0 Lux (F2.0, 50 IRE)	1.0 Lux (F2.0, 30 IRE)	1.0 Lux (F2.0, 30 IRE)
S/N Ratio	≥50dB	≥50dB	≥50dB	≥45dB	≥45dB
Auto Iris	Yes	Yes	Yes	Yes	Yes
AWB	Yes	Yes	Yes	Yes	Yes
WDR	No	Yes	Yes	No	Yes
Electronic	1/60 ~ 1/100,000	1/60 ~ 1/100,000	1/60 ~ 1/100,000	1/60 ~ 1/100,000	1/60 ~ 1/100,000
Shutter	1/50 ~ 1/100,000	1/50 ~ 1/100,000	1/50 ~ 1/100,000	1/50 ~ 1/100,000	1/50 ~ 1/100,000

SPECIFICATION OF CAMERAS

CAMERA INSTALLATION



Make sure that you should adjust the camera direction correctly before use.



Instruction and Operation **M A N U A L**

TFT-LCD Public View Monitor With An Integrated Camera

PRINTED IN KOREA

50302394C