



Industrial LCD Monitor User Guide

(R-Series AD Board)

Version 11

The specification is subject to change without notice. Manufacturer assumes no responsibility for Error contained

Contents

Chapter 1: Read Me First	3
1-1 Safety Precautions	4
Chapter 2: Getting Started	7
2-1 Introduction	8
2-2 Installing the Monitor	9
Chapter 3: Useful Information	11
3-1 Using VGA LCD Monitor	12
3-2 Cleaning the LCD Monitor:	22
Chapter 4: Trouble Shooting	23
Appendix	25
A-1 : Separate RGB Video Signal (VGA) Input Timing	26
A-2 : Composite Video Input; Y/C Video input (S-Video) (optional)	26
A-3 : DVI Input Timing (optional)	27
A-4 : Supported HDMI Mode(optional)	27
B-1 : RS232 settings (optional)	28
B-2 : Using RS-232 Command Code to check system status(optional)	29
C : Caution on Handling Transflective (optional)	31
D : SAW Touch Caution Notice	32

Read Me First

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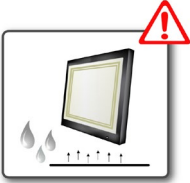
IMPORTANT SAFETY INSTRUCTIONS

1. Please read these instructions carefully before using the product and save for later reference.
2. Follow all warnings and instructions marked on the product.
3. Unplug this product from the wall outlet before cleaning. Clean the product with a damp soft cloth. Do not use liquid or aerosol cleaners as it may cause permanent damage to the screen.
4. Do not use this product near water.
5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
6. Slots and openings in the cabinet and the back or bottom are provided for ventilation; to ensure reliable operation of the product and to protect it from overheating, these openings must not be blocked or covered. The openings should never be placed near or over a radiator or heat register, or in a built-in installation unless proper ventilation is provided.
7. This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
8. This product is equipped with a 3-wire grounding type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the purpose of the grounding-type plug.
9. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.
10. If an extension cord is used with this product, make sure that the total of the ampere ratings on the products plugged into the extension cord does not exceed the extension cord ampere rating. Also make sure that the total of all products plugged into the wall outlet does not exceed 15 amps.
11. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.

12. Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks and will void the warranty. Refer all servicing to qualified service personnel.
13. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - a. When the power cord or plug is damaged or frayed.
 - b. If liquid has been spilled into the product.
 - c. If the product has been exposed to rain or water.
 - d. If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
 - e. If the product has been dropped or the cabinet has been damaged.
 - f. If the product exhibits a distinct change in performance, indicating a need for service.

CAUTION

Read manual prior to installing the product. The operation of products depends on you reading and following the information in this manual. Re-check your work prior to operating the product.

EVENT	EFFECT	PREVENTION
	Sunlight shines directly will cause the panel damage.	You should avoid placing the product under direct sunlight.
	If the product is close to the wet ground such as grassplot, the moisture between panel and glass will make the product malfunction.	You should avoid placing the product in wet environment.

Getting Started

The design allows you to use it in harsh outdoor environments. You can use it under blazing heat, subzero cold, driving rain or dusty surroundings.

This chapter tells you will find instructions for the following procedures:

- Introduction
- Installing the Monitor

2-1 Introduction

About the Product

This product is a microprocessor-controlled to work with 5.7"~23" TFT LCD panel. It is designed to meet the demanding performance requirements of today's business and industrial applications.

Notice

1. Do not touch the LCD panel surface with sharp or hard objects.
2. Do not use abrasive cleaners, waxes or solvents for cleaning, use only a dry or damp, soft cloth.
3. Use only with a high quality, safety-approved, AC/DC power adapter.

Check List

Before using this monitor, please make sure that all the items listed below are present in your package

- | | |
|-------------------------------------|----|
| 1. VGA cable | ×1 |
| 2. AC to DC adapter | ×1 |
| 3. Power cable | ×1 |
| 4. User manual | ×1 |
| 5. DVI cable (optional) | ×1 |
| 6. Composite Video Cable (optional) | ×1 |
| 7. S-Video Cable (optional) | ×1 |
| 8. Audio cable (optional) | ×1 |

If any items are missing or damaged, please contact your dealer immediately.

2-2 Installing the Monitor

The procedures for setting up your TFT LCD monitor is as follows:

Power & Signal Connections

Power cable connection:

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

VGA Signal cable connection:

Plug one end of the 15-pin signal cable to the video signal connector at the rear of the PC system and the other end to the monitor. Secure the connectors with the screws on the cable connector at both ends.

Power:

Switch on the power on both your monitor and your computer. The Power Switch is located in the center of the monitor.

Optional Connections

Compatible cable connection (Optional):

The LCD monitor is designed to work with a variety of compatible video sources. Due to possible deviations between these video sources, you may have to make some adjustment to the monitor settings when switching between these sources. These adjustments are made from the OSD menu.

DVI cable connection (Optional):

Plug one end of the DVI signal cable to the video signal connector at the rear of the PC system and the other end to the monitor.

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

HDMI signal cable connection (Optional):

Plug one end of the HDMI signal cable to the video signal connector at the rear of the PC system and the other end to the monitor.

Useful Information

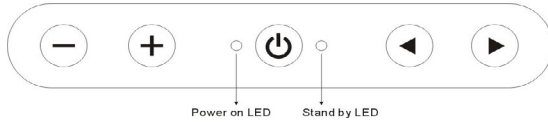
When using a device, be sure to read the instructions accompanying the device together with the relevant section in this chapter. This chapter gives guidelines on using these devices:

- Using VGA LCD Monitor
- Cleaning the LCD Monitor

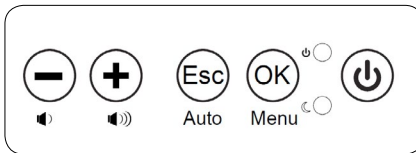
3-1 Using VGA LCD Monitor

Control Key Definition

OSD Board



OSD Membrane



Key Pad Hot Key Function

Item	Description
	Call main OSD menu
	Press this key to trigger the function for automatic adjustment (VGA channel only)
	Power switch
	Press this key to increase the value of volume adjustment
	Press this key to decrease the value of volume adjustment
	Press this compound key to trigger the function for source input switch

Navigating the OSD Menu

- a. Display the main menu
Press the MENU button (▶) to display the main menu on the screen.
- b. Select the menu you want to adjust
Press the + / - button to shift the item selections up or down until it is desired, and then press the button (▶) again to enter the menu item.
- c. Adjust the item setting
Press the + / - button to adjust the value of setting. Once you adjust the value of setting, the value will be stored automatically.

d. Exit the OSD menu

To return the regular screen viewing, select the "EXIT OSD" item or press the Exit Key (◀) directly. If there is no command respond for 30 seconds, OSD menu will be closed automatically.

OSD Menu on VGA Mode

BRICONTRAST

Press "+" to increase or "-" to decrease the brightness or contrast.

- BRIGHTNESS: Use to adjust the screen's brightness
- CONTRAST: Use to adjust the screen's contrast

POSITION

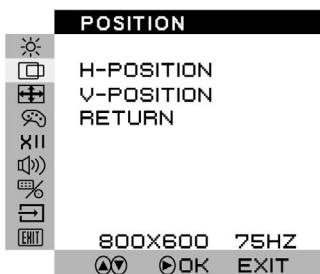
You can adjust the screen's position by horizontal and vertical manually.

- H-POSITION: Use to adjust the image to the left or right on the screen
- V-POSITION: Use to adjust the image up or down on the screen

IMAGE

You can adjust the value of screen quality automatically.

- AUTO: Use to choose the best settings for the current input signal
- CLOCK: Use to adjust the value of horizontal image
- PHASE: Use to adjust the phase control (Phase adjustment may be required to optimize the display quality)
- WHITE BALANCE: Use to set RGB signal voltage level



COLOR

You can select the screen's color level of the white color field from the default color temperature settings. Also, you can fine tune the color temperature by USER option if necessary.

- USER: Choose RED/GREEN/BLUE to set value of color temperature brightness to suit your own preference
- 9300K: Use to set value of monitor for the CIE coordinate 9300 color temperature
- 6500K: Use to set value of monitor for the CIE coordinate 6500 color temperature
- ADC Brightness: Set value of monitor for ADC Brightness

AUDIO(optional)

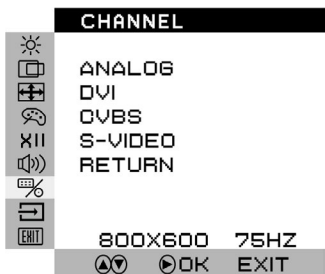
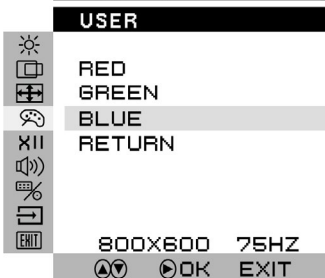
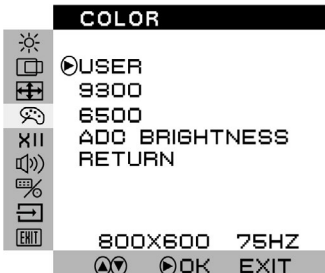
You can adjust the setting of speaker, including volume and mute.

- VOLUME ADJUST: Use to adjust the volume of speaker
- SPEAK ON/OFF: Use to make the speaker work or mute

CHANNEL

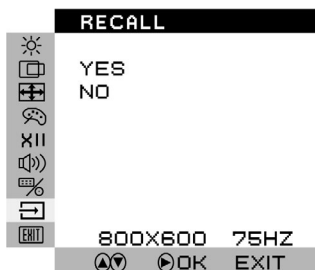
You can switch the setting of signal input channel.

- ANALOG: change the input signal to Analog mode
- DVI : change the input signal to DVI mode
- HDMI : change the input signal to HDMI mode
- CVBS: Change input signal to Composite mode.
- S-Video: Change input signal to S-Video mode.



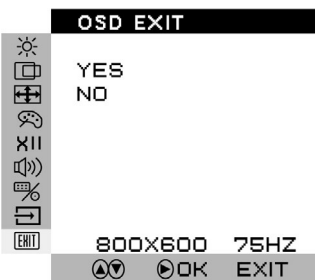
RECALL

You can recall the factory default setting by selecting "YES". Select "NO" to return the main menu.



OSD EXIT

You can exit the OSD menu by selecting "YES". Select "NO" to return the main menu.



Summary

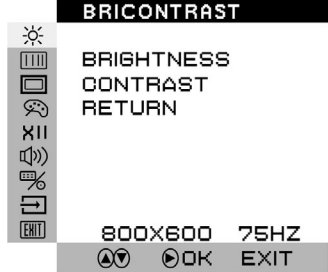
	BRICONTRAST	BRIGHTNESS CONTRAST		AUDIO	VOLUME ADJUST SPEAK ON/OFF
	POSITION	H-POSITION V-POSITION		CHANNEL	ANALOG DVI (Optional) CVBS (Optional) S-Video (Optional) HDMI (Optional)
	IMAGE	AUTO CLOCK PHASE WHITE BALANCE		RECALL	YES NO
	COLOR	USER └(RED/GREEN/BLUE) 9300K 6500K ADC BRIGHTNESS		OSD EXIT	YES NO

OSD Menu on AV(CVBS/S-Video) Mode (Optional)

BRICONTRAST

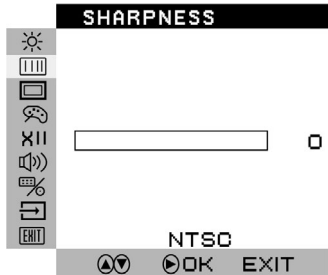
Press "+" to increase or "-" to decrease the brightness or contrast.

- BRIGHTNESS: Use to adjust the screen's brightness
- CONTRAST: Use to adjust the screen's contrast



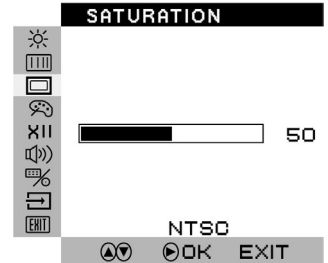
SHARPNESS

Press "+" to increase or "-" to increase or decrease the value of sharpness. This function allows the user to optimize the sharpness of the image.



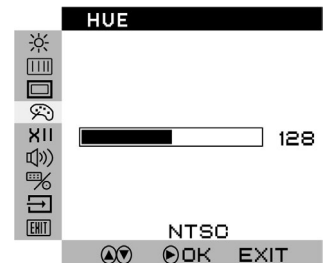
SATURATION

Press "+" to increase or "-" to increase or decrease the value of saturation.



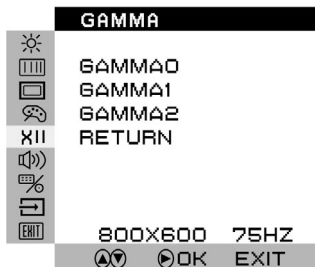
HUE

Press "+" to increase or "-" to obtain the desired color settings. The HUE is defined as a phase shift of the sub-carrier with respect to the burst.



XII GAMMA

You can adjust the value of GAMMA; there are four default value groups for your choice. Select "RETURN" to return the main menu.



AUDIO(optional)

You can adjust the setting of speaker, including volume and mute.

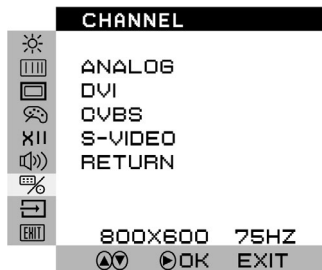
- VOLUME ADJUST: Use to adjust the volume of speaker
- SPEAK ON/OFF: Use to make the speaker work or mute



CHANNEL(optional)

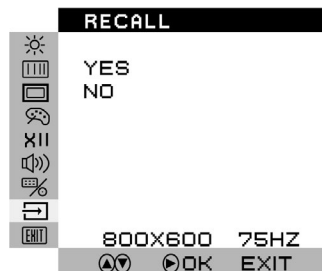
You can switch the setting of signal input channel.

- ANALOG: Use to change the input signal to Analog mode
- DVI: Use to change the input signal to DVI mode
- CVBS: Use to change the input signal to Composite mode
- S-VIDEO: Use to change the input signal to S-Video mode



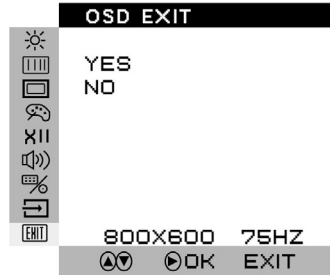
RECALL

You can recall the factory default setting by selecting "YES". Select "NO" to return the main menu.











OSD EXIT

You can exit the OSD menu by selecting "YES". Select "NO" to return the main menu.



Summary

	BRICONTRAST	BRIGHTNESS CONTRAST		AUDIO	VOLUME ADJUST SPEAK ON/OFF
	SHARPNESS			CHANNEL	ANALOG
	SATURATION				DVI
	HUE			RECALL	YES
XII	GAMMA	GAMMA 0			NO
		GAMMA 1			
		GAMMA 2		OSD EXIT	YES
		GAMMA 3			NO

OSD Menu on DVI / HDMI Mode (Optional)

BRICONTRAST

Press "+" to increase or "-" to decrease the brightness or contrast.

- BRIGHTNESS: Use to adjust the screen's brightness
- CONTRAST: Use to adjust the screen's contrast



COLOR

You can select the screen's color level of the white color field from the default color temperature settings. Also, you can fine tune the color temperature by USER option if necessary.

- USER: Choose RED/GREEN/BLUE to set value of color temperature brightness to suit your own preference
- 9300: Use to set value of monitor for the CIE coordinate 9300 color temperature
- 6500K: Use to set value of monitor for the CIE coordinate 6500 color temperature
- ADC Brightness: Set value of monitor for ADC Brightness

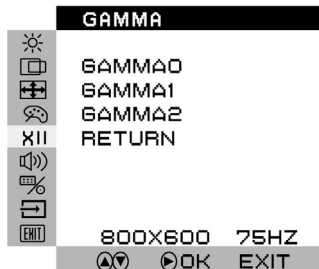
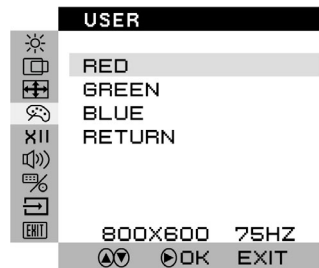
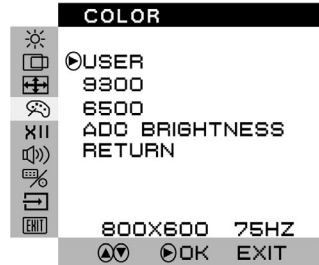
XII GAMMA (DVI Only)

You can adjust the value of GAMMA; there are four default value groups for your choice. Select "RETURN" to return the main menu.

AUDIO(optional)

You can adjust the setting of speaker, including volume and mute.

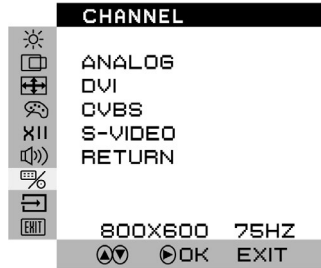
- VOLUME ADJUST: Use to adjust the volume of speaker
- SPEAK ON/OFF: Use to make the speaker work or mute



CHANNEL(optional)

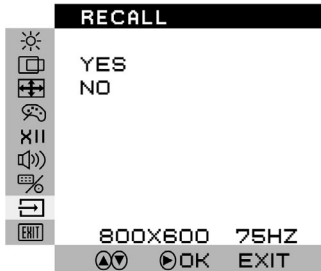
You can switch the setting of signal input channel.

- ANALOG: Use to change the input signal to Analog mode
- DVI: Use to change the input signal to DVI mode
- CVBS: Use to change the input signal to Composite mode
- S-VIDEO: Use to change the input signal to S-Video mode



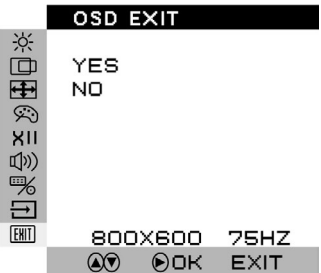
RECALL

You can recall the factory default setting by selecting "YES". Select "NO" to return the main menu.



OSD EXIT

You can exit the OSD menu by selecting "YES". Select "NO" to return the main menu.



Summary

	BRICONTRAST	BRIGHTNESS CONTRAST		CHANNEL	ANALOG DVI CVBS S-VIDEO
	COLOR	USER └(RED/GREEN/BLUE) 9300K 6500K ADC BRIGHTNESS		RECALL	YES NO
XII	GAMMA	GAMMA 0 GAMMA 1 GAMMA 2 GAMMA 3		OSD EXIT	YES NO
	AUDIO	VOLUME ADJUST SPEAK ON/OFF			

3-2 Cleaning the LCD Monitor

Cleaning LCD Monitor

1. Make sure the monitor is turned off.
2. Never spray or pour any liquid directly onto the screen or case.
3. Wipe the screen with a clean, soft, lint-free cloth. This removes dust and other particles.
4. The display area is highly prone to scratching. Do not use ketone type material (e.g. Acetone), Ethyl alcohol, toluene, ethyl acid or Methyl chloride to clear the panel. It may permanently damage the panel and void the warranty.
5. If it is still not clean enough, apply a small amount of non-ammonia, non-alcohol based glass cleaner onto a clean, soft, lint-free cloth, and wipe the screen. Don't use water or oil directly on the monitor. If droplets are allowed to dry on the monitor permanent staining or discoloration may occur.

Disclaimer

We do not recommend using any ammonia or alcohol-based cleaners on the monitor screen or case. Some chemical cleaners have been reported to damage the screen and/or case of the monitor. The manufacturer will not be liable for damage resulting from the use of any ammonia or alcohol-based cleaner.

Trouble Shooting

This chapter covers the following topics:

- Troubleshoot your LCD Monitor

If your monitor fails to operate correctly, consult the following chart for possible solution before calling for repairs.

Trouble Shooting

If your monitor fails to operate correctly, consult the following chart for possible solution before calling for repairs:

Condition	Check Point
The picture does not appear	<ul style="list-style-type: none">• Check if the signal cable is firmly seated in the socket.• Check if the Power is ON at the computer• Check if the brightness control is at the appropriate position, not at the minimum.
The screen is not synchronized	<ul style="list-style-type: none">• Check if the signal cable is firmly seated in the socket.• Check if the output level matches the input level of your computer.• Make sure the signal timings of the computer system are within the specification of the monitor.• If your computer was working with a CRT monitor, you should check the current signal timing and turn off your computer before you connect the VGA Cable to this monitor.
The position of the screen is not in the center	<ul style="list-style-type: none">• Adjust the H-position, and V-position, or Perform the Auto adjustment.
The screen is too bright (too dark).	<ul style="list-style-type: none">• Check if the brightness or contrast control is at the appropriate position, not at the Maximum (Minimum).
The screen is shaking or waving	<ul style="list-style-type: none">• Press \triangleleft (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.• Check if the signal timing of the computer system is within the specification of monitor.

If you are unable to correct the fault by using this chart, stop using your monitor and contact your distributor or dealer for further assistance.

Appendix

Appendix A

- A-1 : Separate RGB Video Signal (VGA) Input Timing
- A-2 : Composite Video Input; Y/C Video input (S-Video) (optional)
- A-3 : DVI Input Timing (optional)
- A-4 : Supported HDMI Mode(optional)

Appendix B

- B-1 : RS232 settings (optional)
- B-2 : Using RS-232 Command Code to check system status(optional)

Appendix C

- Caution on Handling Transflective (optional)

Appendix D

- D : SAW Touch Caution Notice

Appendix A

A-1 Separate RGB Video Signal (VGA) Input Timing

Input Timing Range: H : 30-80KHz; V : 50-75Hz

Mode	Resolution	H-Freq.	V-Freq.(Hz)
Mode 1	640×350	31.5	70
Mode 2	640×400	31.5	70
Mode 3	640×480	31.5	60
Mode 4	640×480	37.9	72
Mode 5	640×480	37.5	75
Mode 6	720×400	31.47	70
Mode 7	800×480	31.5	60
Mode 8	800×600	35.1	56
Mode 9	800×600	37.9	60
Mode 10	800×600	48.1	72
Mode 11	800×600	46.9	75
Mode 12	1024×768	48.4	60
Mode 13	1024×768	56.5	70
Mode 14	1024×768	60.0	75
Mode 15	1280×768	48.4	60
Mode 16	1280×768	56.5	70
Mode 17	1280×768	60.0	75
Mode 18	1280×800	48.4	60
Mode 19	1280×1024	64.0	60
Mode 20	1280×1024	80.0	75
Mode 21	1600×1200	75	60
Mode 22	1680×1050	65.3	60
Mode 23	1920×1080	67.5	60

A-2 Composite Video Input; Y/C Video input (S-Video) (optional)

Video Format	Resolution	Frequency	County Support
NTSC-M	525X60	3.58MHZ	U.S., Japan, may others
PAL	625X50	4.43MHZ	China, Europe, may others

A-3 DVI Input Timing (optional)

Input Timing Range: H : 31.47-80 KHz; V : 60Hz

Mode	Resolution	H-Freq.(KHz)	V-Freq.(Hz)
Mode 1	640×480	31.47	60
Mode 2	800×600	37.87	60
Mode 3	1024×768	48.36	60
Mode 4	1280×1024	64.0	60
Mode 5	1600×1200	75	60
Mode 6	1680×1050	65.3	60
Mode 7	1920×1080	67.5	60

A-4 Supported HDMI Mode(optional)

Mode	Resolution
Mode 1	480i
Mode 2	576i
Mode 3	480p
Mode 4	576p
Mode 5	720p
Mode 6	1080i
Mode 7	1080p

Appendix B : RS232 command code(optional)

B-1 RS232 settings(optional)

Baud Rate = 9600, Data Bits=8, Parity = None, Stop Bits=1

NO	Function	Length	Command	index	Value	Checksum(*1)
1	Power	0x05	0x40	0x00	0=Power On 1=Power Off	0xBB=Power On 0xBA=Power Off
2	Auto	0x05	0x40	0x01	0=Auto	0xBA=Auto
3	Recall	0x05	0x40	0x02	0=Recall	0xB9=Recall
4	WhiteBalance	0x05	0x40	0x03	0=WhiteBalance	0xB8=WhiteBalance
5	Mail Input Source	0x05	0x40	0x04	0=VGA 1=DVI 2=CVBS 3=Svideo	0xB7=VGA 0xB6=DVI 0xB5=CVBS 0xB4=S-Video
6	Brightness	0x05	0x40	0x10	0x00~0x64	0xAB=00 ~ 0x47=100
7	Contrast	0x05	0x40	0x11	0x00~0x64	0xAA=00 ~ 0x46=100
8	Hue	0x05	0x40	0x12	0x00 ~ 0xFF	0xA9=0 ~ 0x56=100
9	Saturation	0x05	0x40	0x13	0x00 ~ 0x64	0xA8=0 ~ 0x44=100
10	Gamma	0x05	0x40	0x31	0=Gamma 0 1=Gamma 1 2=Gamma 2 3=Gamma 3	0x8A=Gamma 0 0x89=Gamma 1 0x88=Gamma 2 0x87=Gamma 3
11	Color Temp	0x05	0x40	0x32	0=user 1=9300K 2=6500K	0x89=User 0x88=9300K 0x87=6500K
12	Color-R	0x05	0x40	0x33	0x00-0x64	0x88=00 ~ 0x24=100
13	Color-G	0x05	0x40	0x34	0x00-0x64	0x87=00 ~ 0x23=100
14	Color-B	0x05	0x40	0x35	0x00-0x64	0x86=00 ~ 0x22=100
15	Volume	0x05	0x40	0x50	0x00-0x1F	0x6B=00 ~ 0x4C=31
16	Mute	0x05	0x40	0x54	0=Mute On 1=Mute OFF	0x67=Mute On 0x66=Mute Off

Reply Value:

ACK	3 C F1	Transmission PASS
NSP	3 B F2	Transmission FAILED

Format : Length, Command, index, Value, Checksum

Example : 0x05, 0x40, 0x00, 0x01, 0xba => Power Off system.

*1: Checksum is 2's complement of sum of length and all messages.

B-2 Using RS-232 Command Code to check system status(optional)

Command(Tx)					Acknowledgement(Rx)			
Function	Length	Command	index	Checksum (*1)	Length	index	Value	Checksum (*1)
Power	0x04	0x30	0x00	0xCC	0x04	0x00	0=Power On 1=Power Off	0xFC=Power On 0xFB=Power Off
Main Input Source	0x04	0x30	0x04	0xC8	0x04	0x04	0=VGA 1=DVI 2=CVBS 3=Svideo	0xF8=VGA 0xF7=DVI 0xF6=CVBS 0xF5=Svideo
Brightness	0x04	0x30	0x10	0xBC	0x04	0x10	0x00-0x64	0xEC=0 ~ 0x88=100
Contrast	0x04	0x30	0x11	0xBB	0x04	0x11	0x00-0x64	0xEB=0 ~ 0x87=100
Hue	0x04	0x30	0x12	0xBA	0x04	0x12	0x00-0xFF	0xEA=0 ~ 0x27=255
Saturation	0x04	0x30	0x13	0xB9	0x04	0x13	0x00~0x64	0xE9=0 ~ 0x85=100
Gamma	0x04	0x30	0x31	0x9B	0x04	0x31	0=Gamma 0 1=Gamma 1 2=Gamma 2 3=Gamma 3	0xCB=Gamma 0 0xCA=Gamma 1 0xC9=Gamma 2 0xC8=Gamma 3
Color Temp	0x04	0x30	0x32	0x9A	0x04	0x32	0=user 1=9300K 2=6500K	0xCA=user 0xC9=9300k 0xC8=6500k
Color-R	0x04	0x30	0x33	0x99	0x04	0x33	0x00-0x64	0xC9=0 ~ 0x65=100
Command(Tx)					Acknowledgement(Rx)			
Function	Length	Command	index	Checksum (*1)	Length	index	Value	Checksum (*1)
Color-G	0x04	0x30	0x34	0x98	0x04	0x34	0x00-0x64	0xC8=0 ~ 0x64=100
Color-B	0x04	0x30	0x35	0x97	0x04	0x35	0x00-0x64	0xC7=0 ~ 0x63=100
Volume	0x04	0x30	0x50	0x7C	0x04	0x50	0x00-0x1F	0xAC=0 ~ 0x8D=31
Mute	0x04	0x30	0x54	0x78	0x04	0x54	0=Mute On 1=Mute OFF	0xA8=Mute On 0xA7=Mute OFF

Reply Value :

ACK	Acknowledgement code	Transmission PASS
NSP	3 B F2	Transmission FAILED

Format : Length, Command, index, Checksum / Length, Index, Value, Checksum

Example : 0x04, 0x30, 0x00, 0xCC => Check Power status.

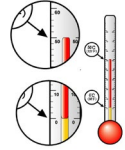
If Reply is 0x04, 0x00, 0x00, 0xFC=> System power on

***1 :** Checksum is 2's complement of sum of length and all messages.

Appendix C : Caution on Handling Transflective(optional)

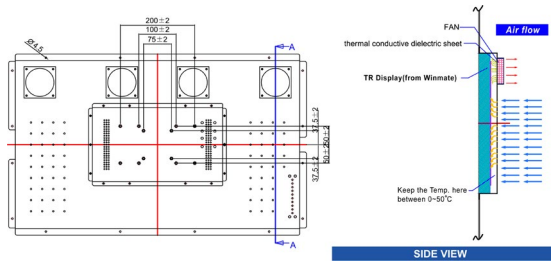
Operation & Storage Temperature Caution

Although transflective LCD is mainly used in outdoor environment and can increase the effective lights under sunlight, it is suggested that you should keep the LCD in appropriate temperature for operation and storage. To ensure the transflective LCD work stably, 0~50°C (32-121°F) operation and storage temperature is suitable, and **avoid direct sunlight on the display**.



Case 1: Capacious Space

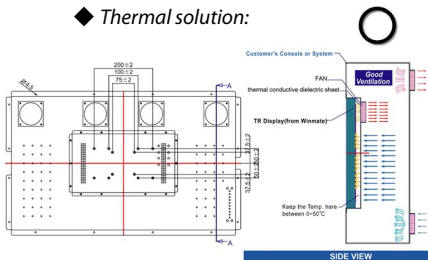
In order to improve the thermal issue, we add a thermal conductive dielectric sheet behind the LCD panel to gather thermal. There are fans to exhaust the thermal current, so it can be kept the temperature inside of the mechanical stably.



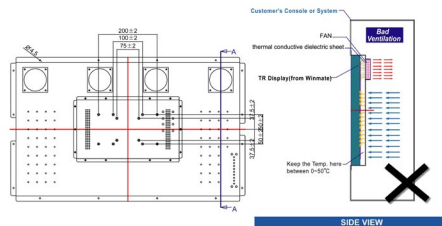
Case 2: Airtight space

If the LCD panel set up in the customer's console or system, like cabinet, in order to improve the thermal issue, it is necessary to use more fans or other thermal design on the system to exhaust the thermal current and have good ventilation, so it can be kept the temperature inside of the mechanical stably.

◆ Thermal solution:



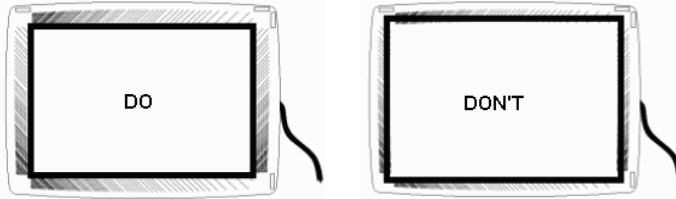
No thermal solution: (no commendation)



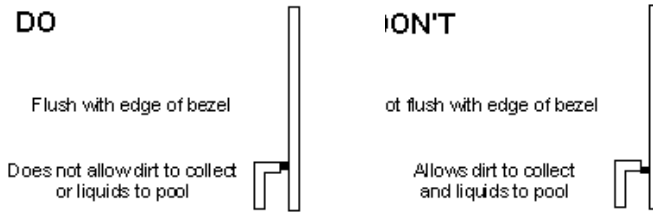
⚠ MAKE SURE HAVE THERMAL SOLUTION ON YOUR CONSOLE OR SYSTEM, OR IT WILL CAUSE THE DISPLAY SHUT DOWN.

Appendix D : SAW Touch Caution Notice

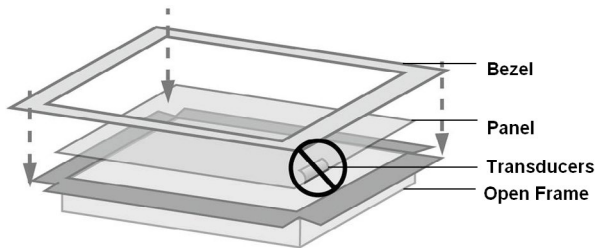
- Rolls are 1/4 in. wide x 1/8 in. thick x 75 ft. long (6 mm x 3 mm x 23 mm), black. Position the seal just inside the reflector stripes in the active area on the front of the touch screen.



- The seal must be fully compressed all the way around. This provides a splash-proof seal which will not allow liquids to wick behind the seal. It also creates a stable signal, even if a user presses hard on the bezel.
- Place the seal flush with the bezel. Do not create a cavity where water and dirt cannot

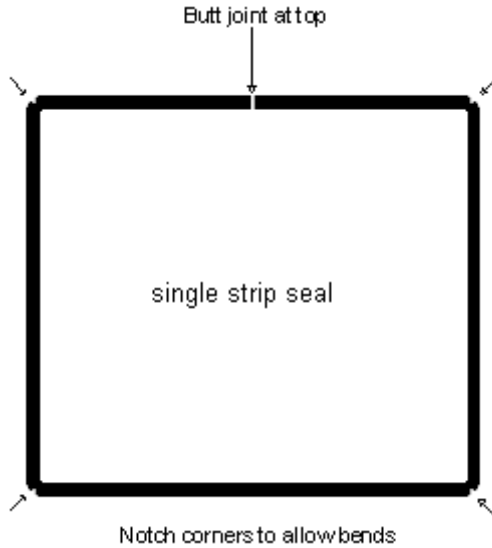


- Also be sure that the transducers are not touched by the bezel. be easily wiped away.



Notice: Don't press transducers by Bezel.

5. Use a single strip seal, bending around the corners. Make the seam at the top and score each corner to relieve tension. The adhesive should be on the bezel side.



Note: The strip can touch the reflector stripes if absolutely necessary, but by no more than 1 mm. If more than 1 mm contact is necessary, a hard bezel material such as ABS plastic can be used instead of strip, but this will not make a splash-proof seal. Firm contact with the touch screen glass is required as a minimum dust seal.

