

Sunlight Readable

**3070P4A07N031M
and
3070P4A07N031M**

User Guide

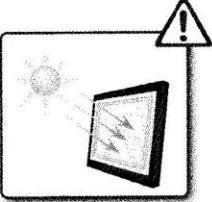
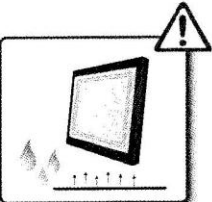


The specification is subject to change without notice. Manufacturer assumes no responsibility for Error Contained here in

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. 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.
6. 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.
7. 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.
8. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - When the power cord or plug is damaged or frayed.
 - If liquid has been spilled into the product.
 - If the product has been exposed to rain or water.
 - 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.
 - If the product has been dropped or the cabinet has been damaged.
 - If the product exhibits a distinct change in performance, indicating a need for service.

Contents

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.

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1. Introduction

1-1 About the Product

This product is an automotive grade TFT-LCD for in-car application, allowing the touch panel to serve many applications, depending on the selected user mode (activated via the buttons to either side of the LCD). It is designed to meet the demanding performance requirements of today's business and industrial applications.

1-2 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.
4. Touch Screen device driver must installed onto your computer in order for the Touch Screen to become functional.
5. The voltage supported by the monitor is 12V DC. Feeding the monitor with higher voltage will damage the monitor and void the warranty. Please use a fused power source if you decide to wire the monitor directly to your car's electrical system. It is also crucial that you check the polarity of the connection. Wrong polarity will damage the monitor.
6. If the monitor is not displaying the VGA signal properly, the VGA signal might be out of range. Please set your display refresh rate to 60Hz.

1-3 Check List

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

1. 20 pin D-SUB cable ×1
2. 12V, 15W Adapter ×1
2. User manual ×1
3. Touch Driver ×1

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

2. Installing the Monitor

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

2-1 Power & Signal Connections

2-1-1. Power:

Switch off the power on both your monitor and your computer.

The Power Switch is located in the upper right of the monitor.

2-1-2. Power cable connection:

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

2-1-3. 20-Pin D-SUB Signal cable connection:

This connector is compatible with 1x VGA input, 2x video inputs, 1x audio input, and be connected by a 20-Pin D-SUB Signal cable. Plug one end of the signal cable to the signal connector at the rear of the PC system and the other end of 20-Pin D-SUB Cable to the monitor.

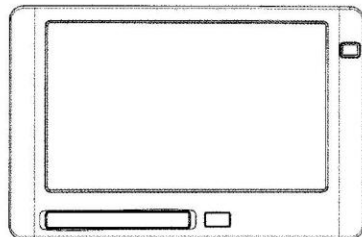
Secure the connectors with the screws on the cable connector at both ends.

3. Using LCD Monitor

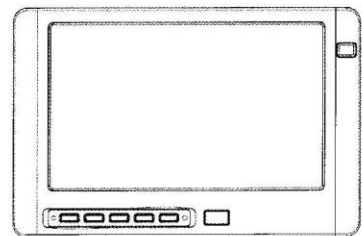
3-1 Outline Drawing

The LCD monitor controls are located on the lower front side of the panel. They are shown in the figure below and described in the following paragraphs.

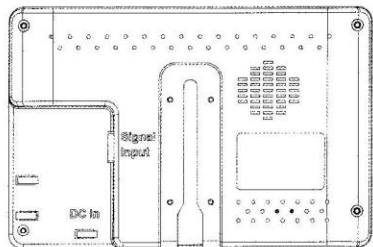
Front View-1



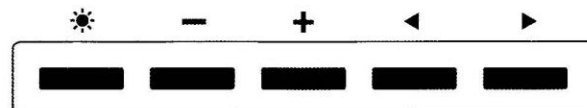
Front View-2



Back View



3-2 Control Key Definition



Key Pad Hot Key Function

Item	Description
▶	Call main OSD menu
◀	Press this key to trigger the function for automatic adjustment
+	Press the button to shift the item selections up.
-	Press the button to shift the item selections down.
☀	Press the button to adjust the brightness
⏻	Power switch

3-3 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

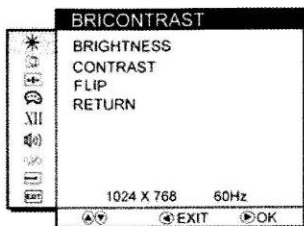
To return the regular screen viewing, select the "EXIT OSD" item or press the Exit Key (◀) directly. If there is no command respond for 30 seconds, OSD menu will be closed automatically.

3-4 OSD Menu on VGA Mode

* BRICONTRAST

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

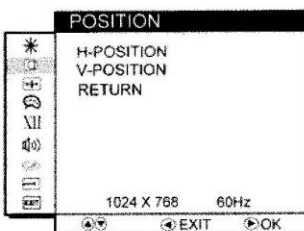
- BRIGHTNESS: Use to adjust the screen's brightness
- CONTRAST: Use to adjust the screen's contrast
- FLIP: Use to adjust the screen's flip



☐ POSITION

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

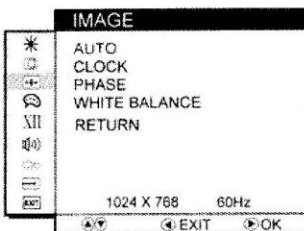
- H-POSITION: Use to adjust the image to the left or right on the screen
- V-POSITION: Use to adjust the image up or down on the screen



+/- IMAGE

You can adjust the value of screen quality automatically.

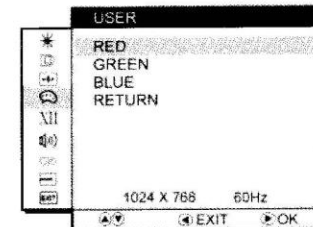
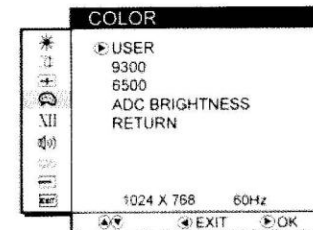
- AUTO: Use to choose the best settings for the current input signal
- CLOCK: Use to adjust the value of horizontal image
- PHASE: Use to adjust the phase control (Phase adjustment may be required to optimize the display quality)
- WHITE BALANCE: Use to set RGB signal voltage level



🗨️ COLOR

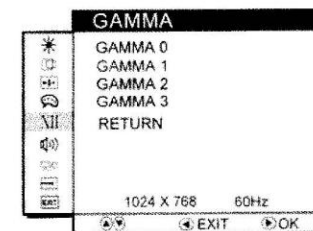
You can select the screen's color level of the white color field from the default color temperature settings. Also, you can fine tune the color temperature by USER option if necessary.

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



XII GAMMA

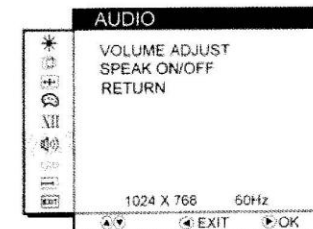
You can adjust the value of GAMMA; there are four default value groups for your choice. Select "RETURN" to return the main menu.



🔊 AUDIO

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

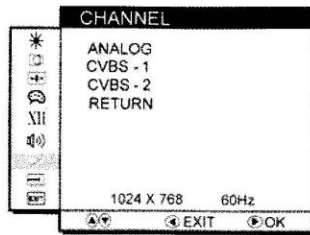
- VOLUME ADJUST: Use to adjust the volume of speaker
- SPEAK ON/OFF: Use to make the speaker work or mute



CHANNEL

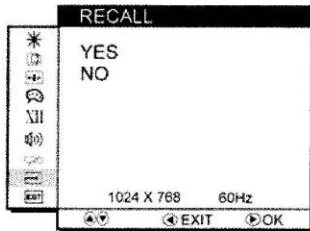
You can switch the setting of signal input channel.

- ANALOG: Use to change the input signal to Analog mode
- CVBS-1: Use to change the input signal to CVBS-1 mode
- CVBS-2: Use to change the input signal to CVBS-2 mode



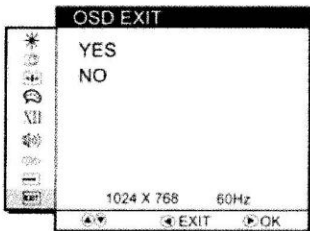
RECALL

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

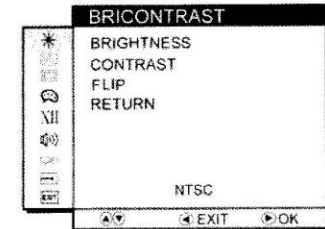
	BRICONTRAST	BRIGHTNESS CONTRAST FLIP	XII	GAMMA	GAMMA 0 GAMMA 1 GAMMA 2 GAMMA 3
	POSITION	H-POSITION V-POSITION		AUDIO	VOLUME ADJUST SPEAK ON/OFF
	IMAGE	AUTO CLOCK PHASE WHITE BALANCE		CHANNEL	ANALOG CVBS-1 CVBS-2
	COLOR	USER -(RED/GREEN/BLUE) 9300 6500 ADC BRIGHTNESS		RECALL	YES NO
				OSD EXIT	YES NO

3-5 OSD Menu on AV(CVBS-1/CVBS-2) Mode

* BRICONTRAST

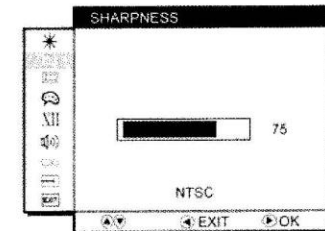
Press "+" to increase or "-" to decrease the brightness or contrast.

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



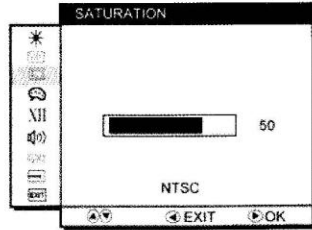
SHARPNESS

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



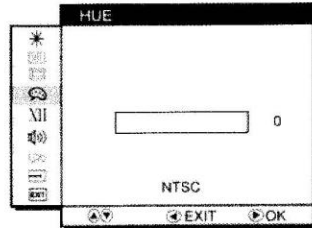
SATURATION

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.



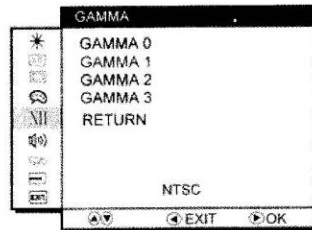
HUE

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

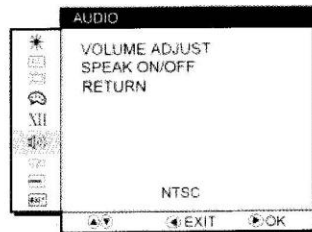
You can adjust the value of GAMMA; there are four default value groups for your choice. Select "RETURN" to return the main menu.



AUDIO(optional)

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

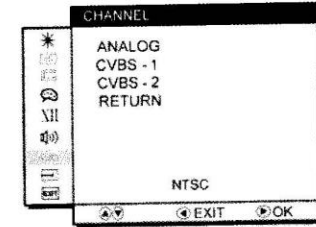
- VOLUME ADJUST: Use to adjust the volume of speaker
- SPEAK ON/OFF: Use to make the speaker work or mute



CHANNEL(optional)

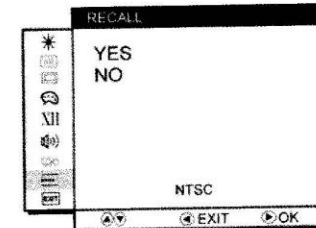
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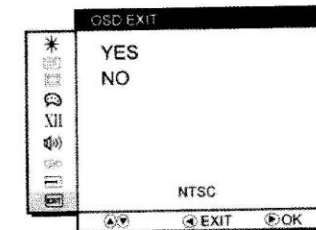
RECALL

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



EXIT OSD EXIT

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



Summary

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

4. Cleaning the 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.
6. 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.


5. 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.

6. Trouble Shooting

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

Condition	Check Point
1. 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.

Condition	Check Point
2. 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.
3. 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.
4. 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).
5. The screen is shaking or waving	<ul style="list-style-type: none"> ● 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. ● 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.

7. Appendix

7-1 Separate RGB Video Signal (VGA) Input Timing

7" WVGA LCD Resolution Modes

Mode	Resolution	V-Freq. (Hz)
Mode 1	640×350	70
Mode 2	640×400	70
Mode 3	640×480	60
Mode 4	640×480	70
Mode 5	640×480	72
Mode 6	640×480	75
Mode 7	800×480	60
Mode 8	800×600	60
Mode 9	1024×768	60
Mode 10	1600×1200	60

Input Timing Range:

H : 30-80KHz; V : 50-75Hz

Note: The maximum supporting resolution depends on panel specification; this table is for your reference.