NACO 17A TFT LCD MONITOR

Manual

AII IN ONE SEMICONDUCTOR, INC.
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This device complies with Part 15 of the FCC Rules.
Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and (2) this device
must accept any interference received, including interference that may
cause undesired operation.

CAUTION : Any changes or modifications in construction of this device
which are not expressly approved by the party responsible for compliance
could void the user's authority to operate the equipment.

Note : 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 in a residential installation. This equipment generates, uses
and can radiate radio frequency energy and, if not installed and used in
accordance with the instructions, may cause harmful interference to radio
communications. However, there is no guarantee that interference will not
occur in a particular installation. If this equipment does cause harmful
interference to radio or television reception, which can be determined by
turning the equipment off and on, the user is encouraged to try to correct
the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to
  which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

TABLE OF CONTENT

Important Safety instructions

1. Read these instructions carefully.
2. Save this manual for later use.
3. Unplug the monitor from the power source when you clean the monitor.
   Don't use liquid cleaners or aerosol cleaners. Use a cloth to clean it.
   If it doesn't do, please use LCD screen cleaners.
4. Don't use attachment not recommended as they may cause hazards.
5. Please grasp the plug to unplug the connector from the wall outlet. Do
   not pull the power cord to unplug it.
6. Don't place anything on the power cord or step on it.
7. Do not place the monitor near water source such as bathtub, washbowl,
   sink, laundry tub, swimming pool etc.
8. The slots are designed for ventilation, simultaneously to keep the
   machinery workable and protect it from overheating. For the same
   reason, please do not place the monitor on a bed, sofa, carpets or other
   similar surface. Do not place the monitor near or over heat source or
   place in a built-in installation.
9. Keep 3 inches (76mm) away from the wall or other goods.
10. This monitor can only use the power source indicated on the label.
    If you have questions, please consult your dealer.
11. As safety measure, this monitor is equipped with a three-wire ground
    style plug. If you cannot insert the plug into outlet, contact your
    electrician to replace your outlet. Do not defeat the safety purpose of the
    grounding-type plug.
12. Please make sure that the outlet and power cord can afford the total
    electricity of the products.
13. Place the monitor in safe place where the cord will not be abused by
    persons working on it.

14, Follow all the warnings and instructions illustrated on the manual,

15, Don't overload the wall outlets and extend cords as this can result in fire or electric shocks,

16, Do not remove or open the cover to service this monitor yourself. It may expose you to dangerous voltage or other hazards before all servicing to qualified service personnel,

17, Unplug this monitor from the outlet and refer servicing to qualified service personnel under the following conditions,

    *The power cord is frayed or damaged,

    *The monitor has been dropped or the cabinet has been damaged

    *When the monitor displays a distinct change in performance, this indicates a need for service,

18, The power cord is the main device to disconnect the power,

19, Unplug the power cord when you do not use it for a long time,

20, Place the monitor in good ventilation and protect it from strong light, overheating and damp environment,

21, This monitor must be stored in temperature $-20°C \sim 60°C$. Otherwise, it may cause permanent damage,

1. Introduction

1.1 General information

This monitor is a high-performance intelligent multi-scanning color monitor adopting 17 ˚ active matrix TFT LCD display that uses amorphous silicon TFTs as a switching devices, with very low radiation and anti-glary surface treatment , It is very suitable for home and office applications.

1.2 Features

- Max. resolution: 1280×1024 @75Hz
- Viewing angle : H: −80˚/+80˚   V: −70˚/+70˚
- Active area : 337.920×270.336 (mm²)
- Pixel pitch : 0.264mm(H)×0.264(V) (mm²)
- Max. Contrast ratio : 500:1
- Max. Brightness : 300cd/m²
- Response time Tr/Tf : 12/4ms
- Display color : 16.7M colors
- Input signal : analog
- Built-in speaker
- Auto color balance,when connected to different graphic adapter, the monitor can auto calibrates the white and black reference voltage.
- Four keys OSD control and intelligent menu, including 21 functions: auto adjust, brightness/contrast adjust, H/V-position adjust, clock adjust, phase adjust, sharpness adjust, color adjust (9300k,7800k,6500k,user's mode, W-B auto color balance), satuaration adjust, volume adjust, osd menu display time, osd menu H/V/ position and transparency, recall, language select.
- Press "AUTO" key to obtain the optimal picture.
- Power saving compliant with EPA energy star.
- Compatible with VESA DPMS
- Plug & play, compatible with Window 9X &NT&2000&XP and VESA DDC1/2B.

1.3 Check the list

Check the list before operating this monitor, please make sure that all of the following items are included.

- LCD monitor(include Base)
- AC adapter
- Power cord, Signal cable, audio cable
- User's manual, pass certification warranty certification

※If any of above listed items is missing, please contact your dealer for technical support or customer service.

Please consider the following advice before you install your monitor.

● Position : place your monitor to the place where there's less light reflects. Generally, it has a suitable angle with the window.
● Height : The peak of the monitor should be slight lower than your eyes when you sit down.
● Inclination : You will feel comfortable with the sloping screen.

2.1 Install the monitor

Make sure that the computer and monitor's power are both turned off, before you install your monitor. Please follow the steps to install your LCD monitor.

a. signal cable connection.

firstly lock the base and knighthead, then Plug one end of the signal cable into computer and lock the two bolts to ensure firmly grounding. Then plug the other into the monitor and lock the two bolts.the back view of monitor shown as fig.1.

b. power cord connection

connect the AC adapter and AC power source with power cord. then connect the AC adapter output to the power input of the monitor.

c. audio cable connection

Insert one end of the audio cable to the audio-output of the PC audio card and the another to the audio-input of LCD monitor.

d. power on

turn on both of the monitor and computer. After the monitor is power on, the LED lights up green, If the LED become red and flashing, please check the video signal cable connection If LED is off, please press power on switch.
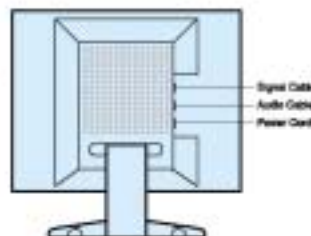
2.2 Self test pattern

If there is no horizontal or vertical sync. signals, your monitor will display as fig. 2 to indicate no signal input. After a few seconds, the monitor will enter into waiting and saving power mode, the LED will be red and flashing. Once the monitor receives the video signal, it will return to normal mode.
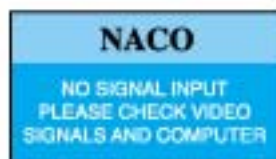
fig.1

NACO

NO SIGNAL INPUT
PLEASE CHECK VIDEO
SIGNALS AND COMPUTER

fig.2

2.3 Adjust picture

In order to obtain the best visual display, you must adjust it, please refer to chapter3 "operation of the monitor".

3. Operation

7003L series model OSD control panel (shown in figure3),
The 7002L and 7003L series model monitor have different
appearance.

3.1 Power on/off switch

This is a slight-touch digital-control key.
It is used to turn the monitor on or off.

fig.3

3.2 Power LED indicator

When the monitor is working, the power LED is green. If the monitor is in saving
power mode, the power LED will be red and flashing. If you turn off the computer,
the power led is off. When the LED is off, the monitor is off, but the power
adapter is on. For the purpose of security, you should turn off adapter power when
you don't use the monitor.

3.3 OSD control keys

3.3.1 Auto key

This key is used to complete auto-adjusting function.

3.3.2 +/- key

These two keys will complete the decrease or increase percentage adjustment and choose
the menu function. The contrast and the brightness can be set by +/- key directly.

3.3.3 ⏎ Enter key

Confirmation key, to display the OSD menu and complete the confirmation function

3.4 OSD menu (As figure.4)

The function list of the menu: 1.auto
adjustment; 2.brightness; 3.contrast; 4.H-
position; 5.V-position; 6. clock; 7.phase;
8.sharpness; 9.color adjustment;
10.saturation; 11.volume; 12.OSD menu
display time; 13.OSD horizontal/
vertical/position and transparency
adjustment; 14.recall; 15.languages; 16.exit;
17.selected function name; 18.resolution;
19.H-frequency; 20.V-frequency; 21.progressive bar of adjustment;
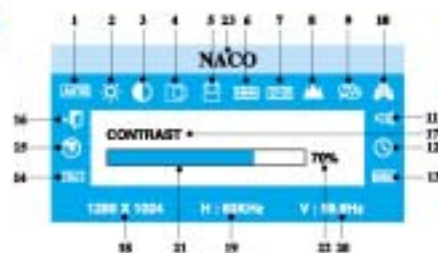22.percentage of adjustment; 23.customer LOGO.

fig.4

3.4.1. Function table

Display contents		Function
AUTO	Auto Adjustment	Automatically adjust to obtain the best setting
☼	Brightness	Adjust the brightness
◑	Contrast	Adjust the contrast
▢	H-Position	Move the screen toward left or right
▣	V-Position	Move the screen upward or downward
▣	Clock	Adjust the frequency of pixel
▣	Phase	Adjust the phase of pixel clock
▲	Sharpness	Adjust the sharpness of the picture
▣	Color	Adjust the color of the picture
9300	9300K Color Temperature	Set 9300K color temperature
7800	7800K Color Temperature	Set 7800K color temperature
6500	6500K Color Temperature	Set 6500K color temperature
USER	User Mode	Set User mode
W-B	Auto Color Balance	Auto color balance
▲	Saturation	Adjust the saturation of color
◁🔊	Volume	Adjust the volume
🕐	OSD Display Time	Adjust the OSD display time
OSD	OSD Adjustment	Adjust the parameter of OSD
◀OSD▶	OSD H-Position	Move the menu toward left or right
OSD	OSD V-Position	Move the menu upward or downward
▣	OSD Transparency	OSD Transpareney setting
R↵	Recall	Resetfactory setting
▼	Language	Language selection
→▢	Exit	Exit the menu

3. Operation

3.4.2 Special functions

1. Auto Adjustment (AUTO)

When you choose this function, the monitor will enter into automatic adjustment mode. figure.5 will display on the screen. After a few seconds, the monitor will be in the best visual display mode.

AUTO ADJUSTMENT...

fig.5

2. Color Selection (🎨)

when the function is selected, the monitor will into the sub-menu(as figure 6), there are functions that can be selected: a,9300K; b,7800K; c,6500K; d, USER; e, W-B. Selected USER, you will enter into the user mode and you can adjust the R/G/B percentage to

9300	7800	6500	USER	W-B	EXIT
R					60%
G					60%
B					60%

fig.6

obtain your satisfactory color; Selected W-B, it will enter into the auto color balance mode, and the monitor will automatically adjust the white-black color benchmark to obtain optimal color balance.

3. R, G, B Adjustment (R G B)

When in "User's mode", the monitor will automatically enter into R/G/B adjustment mode, push the "⏎" key, the relative options will flash, then adjust it by pressing "+/-" key. push "⏎"again to exit.

4. OSD Adjustment (OSD)

when this item is selected,the sub-menu as fig.7 will pop up. You can select the (⬌ ⊡ ⬆)three items to change the transparence or horizontal or vertical position of OSD.

OSDN-POSITION

30%
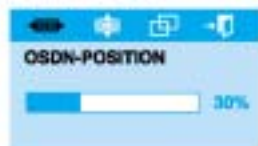
fig.7

5. Language (🌐)

There are six languages to be selected

6. Sharpness Adjustment (▲▲)

Adjust the sharpness of the picture on the screen.

#Note : that the input formats with resolutions or refresh rates higher than that supported by LCD panel are supported as recovery modes only. This is called Real Recovery. For example, it may be necessary to shrink the image. This may introduce image artifacts. However, the image is clear enough to allow the user to change the display properties.

3.5 Supported operating modes

No.	Mode	Resolution	Ver.Frequecy (Hz)	Hor.Frequency (KHz)	Pixel clock (MHz)
1	VGA	640 x 480	60	31.5	25.175
2			72	37.9	31.5
3			75	37.5	31.5
4	SVGA	800 x 600	60	37.9	40
5			72	48.1	50
6			75	46.9	49.5
7	XGA	1024 x 768	60	48.4	65
8			70	56.5	75
9			75	60	78.75
10		1152 x 864	75	67.5	108
11		1280 x 960	60	60	108
12	SXGA	1280 x 1024	60	64.0	108
13			75	80.0	135

※Recommend mode : 1280×1024@60Hz

3.6 Plug & Play

This monitor meets the standards of VESA DDC, When using video graphic with VESA DDC1/2B, it will auto-scan video frequency, output power, function and other parameters to windows, It will go to proper connection and resolution mode,

3.7 Power management

This monitor complies with EPA energy star requirement, And meet VESA DPMS standards, The following is the description of the power indicator for the power saving mode (table,1),

Mode	Power indicator	Power consumption
On	Green	〈 40W
Stand by/suspend	Red flashing	〈 5W
Off	Off	〈 3W (including power adapter's consumption)

Table,1

3.8 Volume adjust

Adjust the volume by osd and software of the PC,

4. Specification

Monitor Type		TFT LCD
Surface Treatment		Anti-glary
Active Area		337.920(H) x 270.336(V) (mm²)
Viewing Angle	H	−80° / +80°
	V	−70° / +70°
Max. Brightness		300cd/m²
Max. Contrast Ratio		500 : 1
Response Time		Tr / Tf : 12 / 4ms
Max. Resolution		1280 x 1024@75Hz
Input Resistance		75±3 %Ω
H-Frequency		30KHz~81KHz
V-Frequency		55Hz~75Hz
Power Supply for Adapter		100V~240V AC, 60Hz/50Hz, 1.5A
Power Supply for Monitor		12VDC 3.3A
Power Consumption		<40W
Input Connector		15 pins D-Sub.
Power Saving Control		Yes
Comply with EPA Energy Star Standards		Yes
Comply with European CE		Yes
Plug & Play		Yes
Environment	Operating Temperature	5℃~40℃
	Atmospheric Pressure	86kPa~104kPa
	Humidity	10%~85%
Dimension	Storage Temperature/Humidity	−20℃~55℃ / 5%~95%
	Unpackaging	220 x 415 x 420 (mm²)
Weight	Packaging	165 x 490 x 481 (mm²)
	Net Weight	5.0kg
	Gross Weight	7.0kg

※Notice : this information in this documents is subjucted to change without notification.

Symptom	Solution
1. No picture/No LED light	Check if the power cord, the monitor, and the power plug are well connected Check if the monitor is off.
2. No picture/LED red flashing	Check if the PC video card and signal cable are well connected and check if signal cable well connected with monitor.
3. Picture blur or too big or too small	Push the "AUTO" key to make the monitor adjust automatically.
4. Picture too dark	Push the "+/−" key to adjust the brightness and the contrast.
5. Overheating	Keep 3 inches (76mm) away from objects for ventilation. Don't put anything on the monitor.

6. Installation & Adjustment

Please make sure that the outlet and power cord can afford the total electricity of the products.

Don't use liquid cleaners or aerosol cleaners. Use a cloth to clean it. If it doesn't do, please use LCD screen cleaners.

Place the monitor in safe place where the cord will not be abused by persons working on it. This monitor can only use the power source indicated on the label.

Protect the monitor from strong magnetic, metal, overheating environment.

Do not place the monitor near water source such as bathtub, washbowl, sink, laundry tub, swimming pool etc. This monitor must be stored in temperature −20℃~60℃, and in humidity 30−80RH

Do not place the monitor on inclined surface where it can fall for safety reason.

Treat the monitor gently and keep it away from sharp material like pin or nail to prevent LCD screen.

Do not remove or open the cover to service this monitor yourself. It may expose you to dangerous voltage or other hazards before all servicing to qualified service personnel.

Monitor screen is very weak and easily damaged. Please treat carefully.

Unplug the power cord when you do not use it for a long time.

Protect the monitor from direct sunlight and avoid window side.