

## Operating Instructions



**10.4", 12" and 15"  
LCD Monitors**

## CONTACT INFORMATION

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# INTRODUCTION

The Infinity Series from Nauticomp is a range of rugged color LCD monitors utilizing TFT type active matrix LCD's. The monitors are available in 10.4", 12" and 15" diagonal screen sizes.

All Infinity Series monitors are designed to be used in industrial and harsh environments. The chassis enclosure is constructed of high-grade welded aluminum with an industrial powder coat finish to withstand the stress of industrial applications. The monitor has a scratch-resistant, tempered glass faceplate to protect the LCD panel from accidental damage. The enclosure is sealed and is waterproof to a level compliant with NEMA 4X industry standards.

The Infinity Series operate with standard PCs or Notebooks that have a normal graphics card installed. The display is crisp, clear and has a high-speed response time suitable for showing video, animation and multimedia applications.

**Please read through this manual in its entirety before connection of any equipment.**

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# SYSTEM AND INSTALLATION

## System Includes

- LCD monitor
- Cable for VGA connection
- Power supply: 12, 24 VDC or 36 VDC to DC converter or 120V AC inverter supplied to regulate a 12.4V DC input to the display
- ABS Dust cover

**Please check the each of the above is included if equipped**

## Hardware Requirements

- IBM AT, Pentium compatible processor with standard graphics card with 15 pin analog VGA output.
- Video source if equipped – NTSC or PAL, VCR, DVD, Camera or similar

## Installation And Setup

### Nauticomp Infinity Series

- Prepare the computer for connection by setting the monitor resolution to match the resolution of the Signature Series or lower  
10.4", 12" = Display Inputs - VGA, SVGA  
Native Resolution - 800 x 600  
15" = Display Inputs - VGA & SVGA & XGA  
Native Resolution – 1024 x 768  
Power OFF the computer
- Connect the monitor to the computer using the VGA cable provided
- Connect the monitor to the power supply. **"Make sure polarity is correct."**
- Turn ON the computer THEN the monitor by depressing and holding the power button for one second.

## Display Installation

- Displays can be Flush Mounted, Pedestal (RAM) Mounted or Embedded.
- Select method of installation and obtain correct cutout specifications.
- Each display will have a template enclosed in the packaging.

## ON SCREEN DISPLAY SETTING

### **First Time Setup**

Turn on the monitor by depressing and holding the Power button on the front of the unit for one second. Using the brightness up and down buttons adjust for desired backlight brightness.

Depress the Menu button and using the Select Down button, select the Auto-Setup function. Depress the Increment button. The monitor will automatically adjust the horizontally and vertical position of the picture and synchronize to signal. *Note: the Auto-Setup function requires that the monitor be displaying a full-screen picture that has a white background for maximum effectiveness. Recommended procedure is to display the Windows Control Panel and expand this to full screen.*

Once the monitor has been setup on a specific video source, the settings are automatically retained and most likely will only need further adjustment if the monitor is installed into a different system.

Select the brightness and contrast functions within the menu and adjust for your own personal optimum viewing.

# SWITCHES AND FUNCTIONS

## Front Mount Buttons



BRIGHTNESS UP  
BRIGHTNESS DOWN  
MENU  
SELECT UP  
SELECT DOWN  
INCREMENT  
DECREMENT  
ON / OFF POWER

## Screen Front and Back















# MEMBRANE CONTROL BUTTONS

## Infinity Series Displays

- **Brightness Up** - Increases the backlight brightness
- **Brightness Down** - Decreases the backlight brightness
- **Menu** - Displays the On Screen Display menu (OSD)
- **Select Up** - No Function
- **Select Down** - Enters the item and saves setting
- **Increment** - Moves selection menu up
- **Decrement** - Moves selection menu down
- **On / Off power** - Switch On or Off of the monitor  
(Depress and hold for one second)

## On Screen Display Functions

	Brightness	Increase/decrease brightness level. Press – or + (-  +nn), Range: 0 – 63
	Contrast	Increase/decrease panel contrast level. Press – or + (-  +nnn), Range: 0 – 200
	Color ▶	Turn on color sub-menu
	Position ▶	Turn on position sub-menu
	Image ▶	Turn on image sub-menu
	Auto Setup	Auto setting the display, e.g. positions, image size, turning, etc. Yes / No
	Miscellaneous ▶	Turn on miscellaneous sub-menu
	DOS text/Graphics	Select the DOS text or graphic mode (Only display on connecting with XGA, SVGA panels)
	System Info	Show board, BIOS, panel and input source information
	Language	Select the OSD display language Press + or – to select English / French

Items marked ▶ have sub menus.

Press SELECT to save the setting chosen



## Submenus

### Color - Submenu

Auto Balance	Auto RGB calibration
RGB ▶	Turn on the RGB submenu
Color Temperature	Adjust color temperature 5000K/6000K/7000K/8000K/9000K/10000K

### Position - Submenu

Image Horizontal Position	Move the image position horizontally Press – or + (- <input type="text"/> nn), Range: 6 to 301
Image Vertical Position	Move the image position vertically Press – or + (- <input type="text"/> nn), Range: 1 to 36
Auto Center	Set the screen to center Yes/No

### Image – Submenu

Phase	Adjust the phase on the screen Press – or + (- <input type="text"/> nn), Range: 0 to 61
Horizontal size	Adjust the image size Press – or + (- <input type="text"/> nnnn), Range: 1264 to 1392
Auto phase	Auto adjust the phase Yes/No

### Miscellaneous - Submenu

Load Default	Initialize the setting stored in non-volatile memory
OSD Timeout	Set menu time-out period Press – or + (15/30/45/60) sec
OSD Position	H-Position: Move OSD position horizontally Press – or + (- <input type="text"/> nn), Range 0 to 98 V-Position: Move OSD position vertically Press – or + (- <input type="text"/> nn), Range 1 to 89

### RGB - Submenu

Red	Adjust red color level Press – or + (- <input type="text"/> nnn), Range 0 to 127
Green	Adjust green color level Press – or + (- <input type="text"/> nnn), Range 0 to 127
Blue	Adjust blue color level Press – or + (- <input type="text"/> nnn), Range 0 to 127

The OSD settings chosen will be stored in memory. The OSD menu can be cleared from the screen by moving the selection bar to the EXIT icon pressing the + button otherwise it will automatically clear after a few seconds (time-out period) of non-use.

## Default Selections

When the monitor is shipped from the factory, all of the menu parameters are set to a nominal set of values that should meet most applications. In the event that the user has incorrectly set some parameters, the factory defaults may be restored. Turn off the monitor; hold down the select button while powering on the monitor. Continue to hold the select down button until the message “Loading Defaults” is displayed.

## Connectors:

- **VGA Input:** It is recommended that the cable fixing screws be tightened to hold the connector firmly in VGA input port at the monitor back. Do not use an alternative cable as incorrect pin assignments may cause damage and invalidate warranty.
- **Composite Input:** RCA style connector for composite video input
- **Power Input:** 12.4V DC input from DC/DC Converter as provided with the monitor.

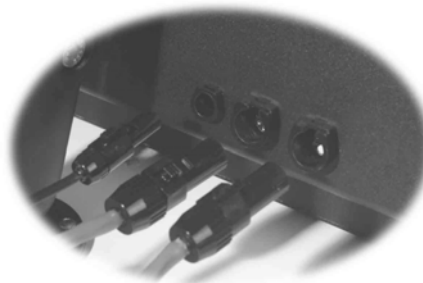
### Connector Style 1

Available with the 12”  
and 15” displays



### Connector Style 3

Available with the 15” displays



## PRECAUTIONS

- Never connect the monitor to the computer when the computer is on.
- Take care not to drop the unit or subject it to a shock, as the LCD is fragile.
- Never open the casing. There are no user serviceable parts inside.
- Do not use corrosive or abrasive cleaning agents on the casing or display, as they are likely to cause serious damage.
- Do not use cables or power supplies other than those supplied with the monitor, this may cause damage and will invalidate the warranty.
- Only use a power source that is suitable for the ratings of this equipment.
- Always connect display to DC power through supplied DC/DC converter

## SPECIFICATIONS

Input auto-synchronization	RGB Analog (0.7Vp-p); Separate Sync; Composite Sync or Sync-on-Green. Maximum vertical refresh rate 120Hz
Standard VGA input	15-pin mini D-sub (Female)
Composite Video input	Industry standard BNC type connector
Native Resolution	Day10.4: 800 x 600                      Day/Sun12: 800 x 600 Day/Sun15: 1024 x 768
Display Area (approx.)	Day10.4: 10.4" diagonal Day/Sun12: 12" diagonal Day/Sun15: 15" diagonal
Display panel type	Active Matrix (TFT)
Display backlight type	Cold cathode fluorescent tube
Operating temperature – typical	32 – 100 degrees F
Monitor Controls & Functions	Power On/Off - Membrane Button Backlight Brightness – Membrane Button Panel Brightness                      -OSD menu Contrast                                      -OSD menu Phase    -OSD menu Size    -OSD menu Image position (V & H)                  -OSD menu
Indicator	LED – (Membrane backlight) Green - Power on Red – No Video Input
Settings memory	Settings are stored in non volatile memory
Power saving / Standby mode	If no signal input then auto power down (VESA DPMS)
Dimensions (housing, not including the stand)	Day10.4: 11.62"W x 8.84"H x 2.20"D Day/Sun12: 12.9"W x 9.88"H x 2.40"D Day/Sun15: 15.4"W x 11.6"H x 2.60"D
Weight	10.4" = 5.25 lbs, 12" = 7 lbs, 18" = 10.2 lbs
Input voltage	Day10.4 – 12.4V DC @ 1.25A Day12 – 12.4V DC @ 1.75A Sun12 – 12.4V DC @ 3.50A Day15 – 12.4A DC @ 2.4A Sun15 – 12.4V DC @ 4.9A
Power supply	100 – 240V AC 50/60 Hz input, 12V DC 4.2A output, regulated.
Power protection	Fuse fitted - auto reset

# **TROUBLE SHOOTING**

## **TECHNICAL SUPPORT – 1-800-267-9491**

In the event of an apparent problem consideration should be given to following:

- Computer system - check this is operating correctly.
- Power supply - ensure there is power and that the monitor is turned on
- Monitor - see notes below for checking the LCD monitor.
- The VGA card - ensure this is functioning correctly.

Any one of these may affect the results. In particular we always recommend using a good quality VGA card that provides a stable signal.

If serious vertical banding appears on the display or flickering or distorted image:

- Perform the auto-setup function as defined in the “first time setup”
- If necessary adjust the horizontal image size function in the menu to reduce the banding effect. If not adjustable then the problem is likely a poor quality video source and another system should be tried.

If the image is unstable or pixels are unstable/flicker or some ghosting is visible:

- Try adjusting the tuning control, try clicking up to 6 times.
- Adjust the contrast.
- The VGA card may be providing an unstable signal, which may not show up on CRT monitors, try another VGA card or another computer.
- For SVGA or XGA models - check the setting of the screen width using OSD function (see Switches and Functions).

No image appears on the screen:

- Check all connections, power and VGA cable.
- Ensure the power supply is operating.
- Check On/Off switch and Contrast and Brightness controls.
- Try connecting another monitor to the computer to see if the signal is ok.

The backlight will not come on:

- Check if the power supply is working and correctly connected.
- The sun 12” has a safety circuit built into it so that the backlight will not come on if there is no VGA signal.

The image scrolls vertically:

- Try changing the VGA card’s setting to a different vertical refresh rate.
- Try using another computer and/or VGA card.

If the image does not fit the display horizontally, either oversize or undersize:

- Adjust the OSD settings by using the OSD buttons at the back of the monitor.

## REGULATORY COMPLIANCE

The Infinity Series monitors are fully compliant with worldwide regulatory certification and are recorded under report number CE00-52 at CKC Laboratories.

EN50082-1 (1997)	EN55103-1 (1996)
EN50082-2 (1995)	VCCI Class B (May 1999)
EN55024 (1998)	FCC Part 15 Subpart B Class B
EN55103-2 (1996)	CISPR 22/85 Class B (ANSI C63.4 1992)
EN55022 Class B (1995)	ICES-003 Class B
EN55011 Class B Group 1 (1991)	AS/NZS 3548 Class B (1995)
NEMA 4 Compliant	

### Regulatory Notice

The use of shielded video cables is required when connecting this equipment to any and all optional peripheral or host devices. Failure to do so may cause interference and violate FCC and international regulations for electromagnetic interference.

## WARRANTY

The Infinity Series products are warranted against defects in workmanship and material for a period of one (2) year from the date of purchase provided no modifications are made to it and it is operated under normal conditions and in compliance with the instruction manual.

The warranty does not apply to:

- Product that has been altered or repaired except by the manufacturer (or with the manufacturer's consent).
- Product that has subjected to misuse, accidents, abuse, negligence or unusual stress whether physical or electrical.
- Ordinary wear and tear.
- The warranty is "VOID" on all products returned with broken seals or seals removed

Except for the above express warranties, the manufacturer disclaims all warranties on products furnished hereunder, including all implied warranties of merchantability and fitness for a particular application or purpose. The stated express warranties are in lieu of all obligations or liabilities on the part of the manufacturer for damages, including but not limited to special, indirect consequential damages arising out of or in connection with the use of or performance of the products.

## **LIMITATION OF LIABILITY**

The manufacturer's liability for damages to customer or others resulting from the use of any product supplied hereunder shall in no event exceed the purchase price of said product.

## **TRADEMARKS**

- **Nauticomp** is a trademark of **Nauticomp Inc.**
- **Infinity Series** is a trademark of **Nauticomp Inc.**

Trademarks are the property of their respective owners.

## **DISCLAIMER**

There is no implied or expressed warranty regarding this material.