

## ***Warning!***

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THE CLARION VMA6593 MONITOR IS ONLY DESIGNED TO BE VIEWED BY REAR-SEAT OCCUPANTS.

DIGITAL VIDEO PRODUCTS ARE NOT INTENDED FOR VIEWING BY THE DRIVER WHILE THE VEHICLE IS IN MOTION. SUCH USE MAY DISTRACT THE DRIVER OR INTERFERE WITH THE DRIVER'S SAFE OPERATION OF THE VEHICLE, AND THUS RESULT IN SERIOUS INJURY OR DEATH. SUCH USE MAY ALSO VIOLATE STATE LAW.

CLARION DISCLAIMS ANY LIABILITY FOR ANY BODILY INJURY, INCLUDING FATALITIES, OR PROPERTY DAMAGE THAT MAY RESULT FROM ANY IMPROPER OR UNINTENDED USES OF THIS PRODUCT.

## ***About Installation***

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Installation of mobile audio and video components requires experience with a variety of mechanical and electrical procedures. Even though this manual provides general installation and operation instructions for your new Clarion VMA6593 Widescreen Video Monitor, it does not show the exact installation methods for your particular vehicle.

If you do not have the required knowledge and experience to successfully complete the installation, we strongly recommend consulting an authorized Clarion dealer about professional installation options.

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## 1. INTRODUCTION

The Clarion VMA6593 is a high-performance video monitor designed specifically for the mobile environment. It is intended for use with other Clarion multimedia products, and can also be integrated with many other products as part of a complete mobile video solution. With two video inputs, the VMA6593 can support simultaneous connection to both dedicated video source units and optional audio/video components such as camcorders or videogames. The infrared remote control receiver output allows integration with select Clarion DVD and VHS source units.

The VMA6593 automatically switches to operate with either NTSC or PAL video signals (NTSC is the standard North American video format).

The 16:9 aspect ratio screen allows DVD films to be viewed in their original aspect ratio for the best cinematic experience.

### **Note:**

- *The VMA6593 is designed to be a component in a full audio/video system. If you have any questions about compatible components, such as system controllers, source units, FM modulators, or other audio/video products, please contact your authorized Clarion dealer.*

## **What is included with the VMA6593**

- The VMA6593 monitor unit
- The wiring harness
- A flush-mount trim bezel
- Owner's Manual / Installation Guide

## **FCC Approval**

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 consult the dealer or an experienced radio/TV technician for help.

## 2. CARE AND MAINTENANCE

### ***Liquids and the VMA6593***

Keep all liquids, including beverages and cleaning liquids, away from the VMA 6593. Liquids inside the monitor can damage the electronics, and result in electrical shock or fire. If the unit should become wet, turn off all power and contact an authorized Clarion dealer to have the monitor inspected.

### ***Servicing the VMA6593***

In the event that trouble arises, never open the case or disassemble the unit. The internal parts are not serviceable by the user. Opening any components will void the warranty.

#### **CAUTION!**

*Changes or modifications to this product not approved by the manufacturer will void the warranty and will violate FCC approval.*

## 3. USING THE VMA 6593

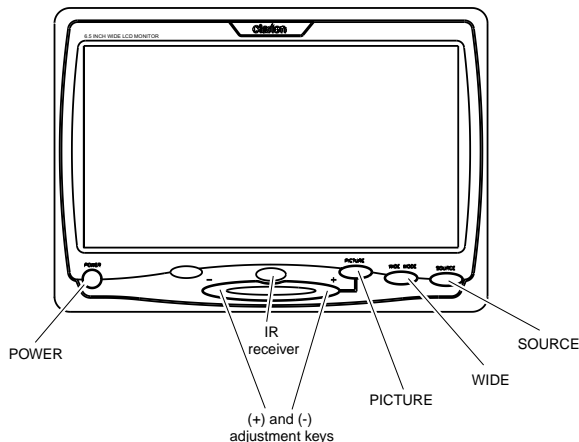
In order to operate the VMA6593, the vehicle ignition key switch must be in the ACC or RUN position.



#### **WARNING!**

***To prevent the battery from going dead, operate this unit with the engine running, if possible.***

## Front-Panel Controls



The **[POWER]** button turns the VMA6593 on and off.

### Notes:

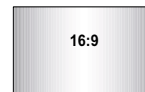
- Even after the VMA6593 is switched on, the screen remains dark until a video signal is detected.
- When the ignition switch is turned off, the VMA6593 automatically shuts off. The next time the ignition switch is turned on, the VMA6593 will remain off until the **[POWER]** button is pressed.

The **[SOURCE]** button selects between the two video inputs of the VMA6593.

### Note:

- If only one of the video inputs is used, the screen will remain dark when the unused input is selected.

The **[WIDE]** button changes the display mode from “wide” 16:9 mode to “normal” 4:3 mode.



### Note:

- When using a DVD player as the source unit, make sure that the DVD player's output mode is set to “Wide” or “16:9”, so that it will generate a video signal that can take advantage of the VMA6593's aspect ratio. When using this display with sources that generate a “normal”, 4:3 image signal, such as videogames and videocassette players, the **[WIDE]** button will “stretch” the image to fit the screen. In this case, some minor image distortion may be visible.

The **[PICTURE]** button accesses the display adjustment menus. Each time this button is pressed, the unit will step to the next setting mode, and the screen will display the value of the selected setting. These adjustment settings are:

*Brightness*

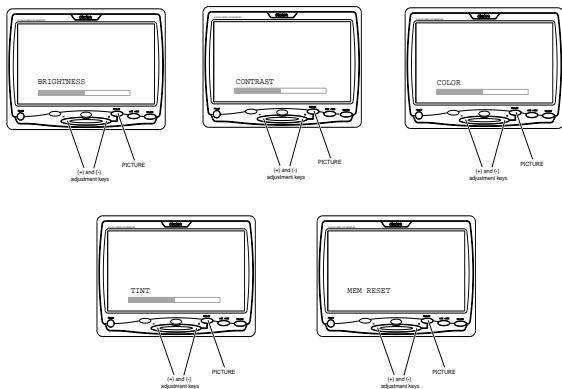
*Contrast*

*Color*

*Tint*

*Mem Reset (resets above to original values)*

Change the value of each setting by pressing the **[+]** and **[-]** buttons. Each setting has 42 steps of adjustment range.



**Note:**

- When the “MEM RESET” option is displayed on the screen, pressing **either** the **[+]** or **[-]** buttons will reset all settings to their original factory values. If you do not wish to reset the settings, either press the **[PICTURE]** button again, or wait for the monitor to exit the picture adjustment mode automatically.

**Note:**

- If the “MEM RESET” option is used and the VMA6593 is set to Source 2, the monitor will revert to the default setting of Source 1. If there is no active input on Source 1, the screen may go dark. If this happens, press the **[SOURCE]** button to switch the monitor back to Source 2.

The **IR Receiver** detects the signals from infrared remote controls that are included with optional Clarion video source units. Aim remote controls at this IR receiver during use.

**Note:**

- The IR Receiver only functions with select Clarion multimedia equipment.

## 6. INSTALLATION AND WIRING

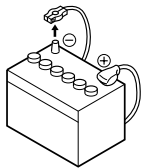
### 1. Before Starting

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Read these instructions and the following precautions carefully.

#### **WARNING!**

***Be sure to disconnect the battery (-) terminal before starting. This is to prevent short circuits during installation.***



#### **Precautions**

- This unit is exclusively for cars with a negative ground, 12V power supply.
- Do not open the case. There are no user-serviceable parts inside. If you require assistance, consult your Clarion dealer or an authorized Clarion service center.

- Use a soft, dry cloth to clean the screen. Never use a rough cloth, thinner, benzene, alcohol, or other solvent. The screen surface is easy to scratch - do not rub it when cleaning.

### 2. Package Contents

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- 1 VMA6593 monitor unit
- 2 Flush-mount trim bezel
- 3 Wiring harness
- 4 Owner's Manual / Installation Guide

### 3. Installation Requirements

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#### **WARNING!**

***Never install this monitor where it is visible from the driver's seat, or where it could injure any vehicle occupant in case of an accident. Ensure that your installation does not create risk of head-strike injury, and that the monitor will remain securely mounted in the case of an accident or sudden maneuver.***

## 4. Installing the VMA6593

The VMA6593 is designed for custom installation. While a basic flush-mount bezel is supplied, you may need parts that are not included (depending on your installation). Clarion also offers optional mounting kits - the ZMT003 is a flexible “gooseneck” mount, and the PQE023 positions the monitor on the back of a vehicle headrest.

### **Note:**

- The Clarion HRM100 and HRM150 headrest mounting kits are not compatible with this monitor.

### **WARNING!**

***Always use great care when attaching anything to a vehicle! Visually inspect all sides of any potential screw location, to insure no damage will occur. If you have questions about this process, see your authorized Clarion dealer.***

### **Flush mounting**

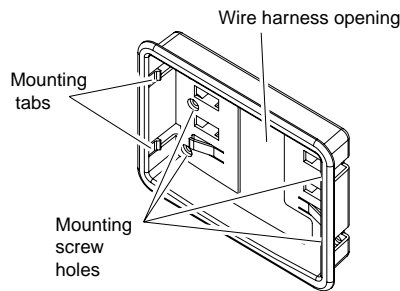
The included trim bezel can be used to flush-mount the monitor.

Before cutting the opening for the trim bezel, ensure that you will have sufficient clearance for the monitor and its rear-located wiring harness.

After you cut the opening, route the DIN-connector end of the wiring harness into the opening from the rear out the front.

Insert the trim bezel and route the wiring harness through the opening in the rear.

Firmly attach the bezel to the mounting surface and/or to the interior of the mounting surface.



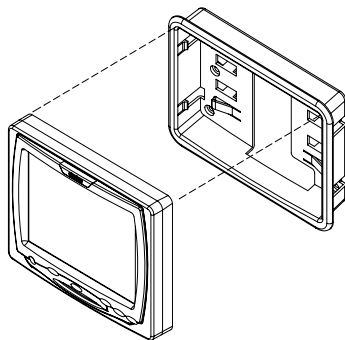
### **CAUTION!**

***NEVER press on the surface of the screen! Gently press on the edges of the monitor case. If you find that you cannot insert the monitor without excessive force, you may need to check your wire harness position for interference with the insertion process. You may also need make the opening slightly larger.***

Connect the wiring harness to the monitor, and tuck the excess wiring harness length carefully out of the way behind the bezel.

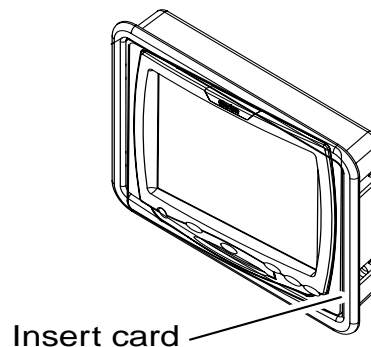
Gently insert the monitor into the bezel. Press only on the edges of the monitor, not on the screen. You will hear a few soft “clicks” as the monitor locks into place.

***Inserting the monitor into the bezel:***



***Removing the monitor from the bezel***

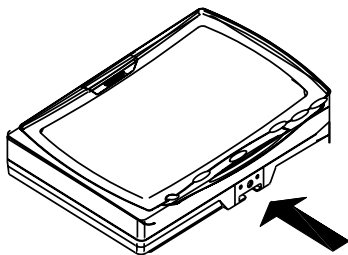
To remove the monitor from the bezel, insert a flat card (such as a credit card) between the monitor case and the side of the bezel to release the spring clips.





### ***Custom Mounting using the threaded insert***

The base of the VMA6593 has a threaded insert (1/4 - 20). This insert can be used with the optional Clarion ZMT009 gooseneck mounting kit or with a 1/4 -20 machine screw in custom applications.



## **5. Wiring the VMA6593**

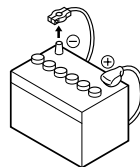
The following pages display wiring diagrams for various VMA6593 configurations.

Read the following precautions before wiring your system.

- Disconnect the negative battery terminal before making any wiring connections.
- Be particularly careful where you route wires. Keep them away from the engine, exhaust system, etc. Heat may damage wires.
- If the fuse should blow, make sure all connections are correct and no wires are damaged before replacing the fuse. Always use fuses that are the same amperage value as the original. When replacing a fuse, never let the battery side touch any metal part or any other wire.

### **WARNING!**

***Be sure to disconnect the battery (-) terminal before starting. This is to prevent short circuits during installation.***

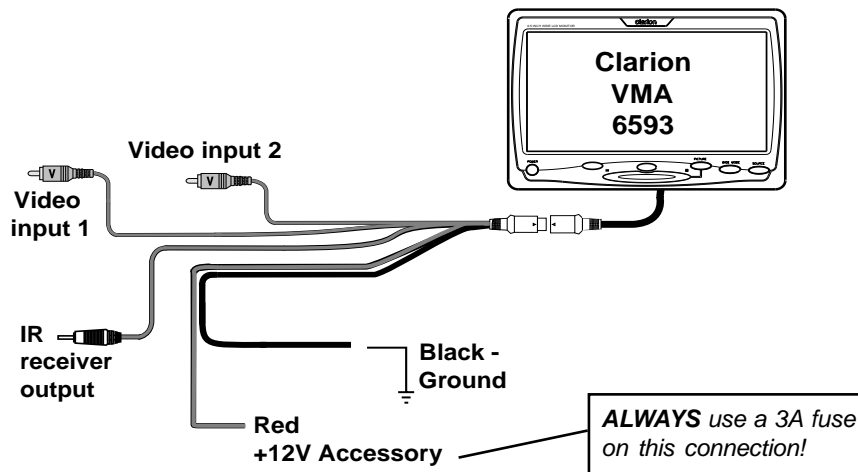
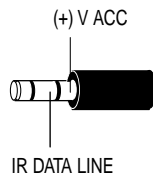


## VMA6593 Connections

### CAUTION!

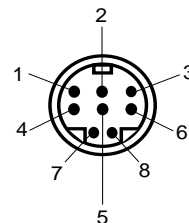
Some non-Clarion automotive DVD and VCP source units use a similar connector for an external IR receiver, but use different pin polarity than the VMA6593! Connecting non-Clarion source equipment to this connector could cause equipment damage not covered by the warranty!

### IR connector polarity:

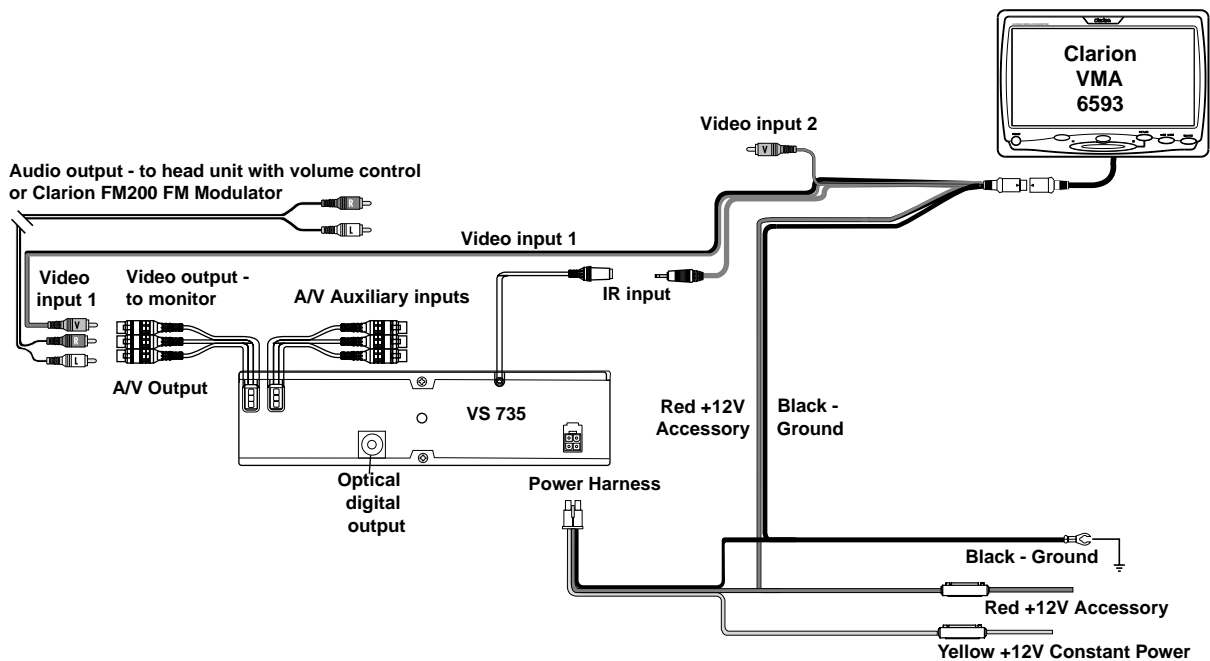


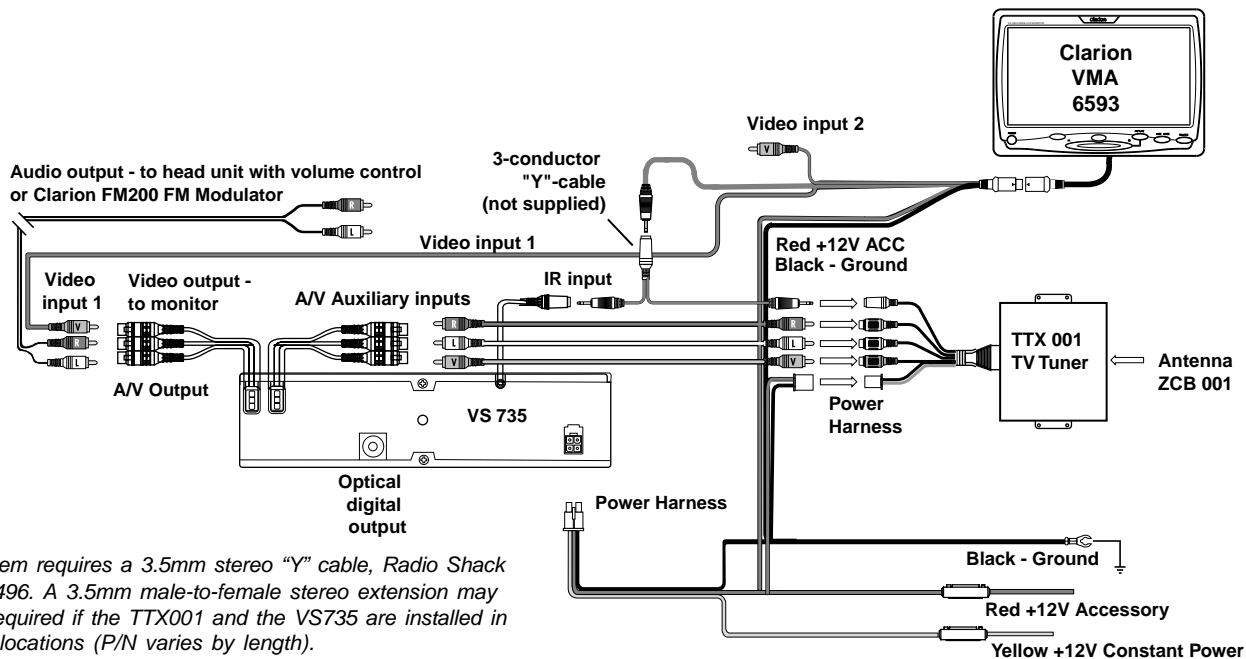
### DIN Connector Pin Assignments

Pin	Description
1	Red 12V (+) ACC
2	Infrared receiver signal
3	Black Ground (-)
4	Yellow Video input 1
5	Video signal ground
6	Not used
7	Yellow video input 2
8	Not used



## VMA6593 Monitor with VS735 DVD Player





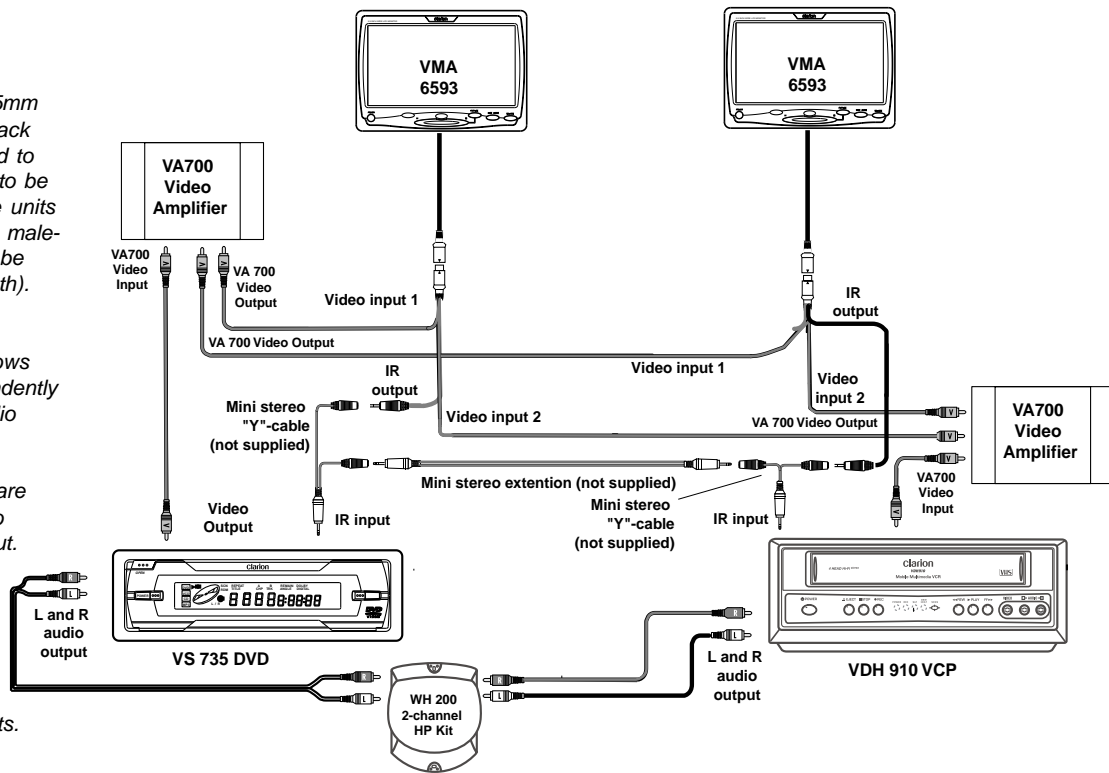
**Notes:**

- *This system requires a 3.5mm stereo “Y” cable, Radio Shack P/N 42-2496. A 3.5mm male-to-female stereo extension may also be required if the TTX001 and the VS735 are installed in separate locations (P/N varies by length).*
- *The TTX001 is connected to the VS735 to allow the VS735 to control both audio and video switching. Do not use the Video 2 input of the VMA6593 for the TTX001 in this instance.*

**Two VMA6593 monitors, with a VS735 DVD Player, a VDH910 VCP, and the WH200 Two-channel Wireless Headphone kit.**

**Notes:**

- This system requires two 3.5mm stereo "Y" cables, Radio Shack P/N 42-2463. These are used to allow the IR command lines to be shared between both source units and both monitors. A 3.5mm male-to-male extension may also be required (P/N varies by length).
- The WH200 Two-channel Wireless Headphone Kit allows headphone users to independently select from two different audio sources.
- Two VA700 Video Amplifiers are used to allow two monitors to operate from one video output.
- Clarion also makes several audio integration and video switching products for more complex installations - see your Clarion dealer for more information on these products.



## 6. TROUBLESHOOTING

### **No picture.**

Press the **[SOURCE]** button to make sure the proper input is selected.

If there is still no picture, press the **[PICTURE ]** button. If the menu appears, check the source unit and video connections. If no menu appears, check all fuses and power connections to the VMA6593 and the associated equipment.

### **Note:**

- *The VMA6593 has an operating temperature range of -1° C to 45° C (30° F - 113° F). If the temperature is outside this operating range, the unit will not turn on, or the screen may be slow to react to image changes. The monitor will function normally once it returns to its proper operating range.*

**With a DVD player and a widescreen DVD disc, there are black bars on the screen.**

Change the TV display mode to "Wide" in the DVD player's Setup menu.

After changing this setting, if there are still black bars, press the **[WIDE]** button on the front panel of the VMA6593.

## 7. SPECIFICATIONS

**Supply voltage:** 12V DC (9V-16V)

**Test voltage:** 12V, negative ground

**Current consumption:** Less than 750 milliAmps

**Operating Temperature:** -1° C to 45° C (30° F to 113° F)

**Signal system:** NTSC and PAL composite video 1.0Vp-p

**Screen:** 6.5" diagonal, 144.4mm x 80.3 mm.

**Resolution:** 1200 x 280 (280,000 pixels)

**Weight:** 0.5 kg

### **Note:**

- *The technical data and the design of the equipment may change for the sake of technical improvements without prior notice.*

## **LIMITED WARRANTY INFORMATION**

### **For USA and Canada only**

This product is warranted against all defects in material workmanship for a period of one year from the date of original purchase. Clarion ProAudio products, except for speakers, are covered by a two year limited warranty when installed by an authorized Clarion dealer. The conditions of this limited warranty and the extent of responsibility of Clarion Corporation of America ("Clarion") under this limited warranty are as follows:

1. PROOF OF DATE OF PURCHASE WILL BE REQUIRED FOR WARRANTY SERVICE OF THIS PRODUCT. IN THE CASE OF THE TWO (2) YEAR LIMITED WARRANTY FOR CLARION PROAUDIO PRODUCT, PROOF OF INSTALLATION BY AN AUTHORIZED DEALER IS REQUIRED. INFORMATION ABOUT CLARION AUTHORIZED WARRANTY SERVICE CENTERS MAY BE OBTAINED BY CONTACTING CLARION AT THE ADDRESS BELOW.
2. This limited warranty will become void if service performed by anyone other than an approved Clarion Warranty Service Center results in damage to the product.
3. This limited warranty does not apply to any product which has been subject to misuse, neglect or accident, or which has had the serial number altered, defaced or removed, or which has been connected, installed, adjusted or repaired, other than in accordance with the instructions furnished by Clarion.
4. This limited warranty does not cover car static or other electrical interferences, tape head or laser pick-up cleaning or adjustments, or labor costs for the removal or reinstallation of the unit for repair.
5. The sole responsibility of Clarion under this limited warranty shall be limited to the repair of the product or replacement of the product, at the sole discretion of Clarion.

6. Product must be shipped in its original carton or equivalent carton, fully insured, with shipping charges prepaid. Clarion will not assume any responsibility for any loss or damage incurred in shipping.

7. ALL IMPLIED WARRANTIES EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW SHALL HAVE NO GREATER DURATION THAN THE WARRANTY PERIOD SET FORTH ABOVE. UNDER NO CIRCUMSTANCES SHALL CLARION BE LIABLE FOR ANY LOSS OR DAMAGE, DIRECT OR CONSEQUENTIAL, ARISING OUT OF THE USE OR INABILITY TO USE THE PRODUCT. BECAUSE SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS OR EXCLUSIONS OR LIMITATIONS OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU.
8. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.
9. Should you have any difficulties with the performance of this product during the warranty period, please call or visit our web site ([www.clarion.com](http://www.clarion.com)) for a listing of Authorized Warranty Service Centers in your area. You may also contact Clarion at the address listed below.

#### **In USA:**

Clarion Corporation of America  
Attn: Customer Service Manager  
661 W. Redondo Beach Blvd  
Gardena, CA. 90247-4201  
1-800-GO-CLARION  
(310)327-9100  
[www.clarion.com](http://www.clarion.com)

#### **In Canada:**

Clarion Canada, Inc.  
Warranty Service Center  
2239 Winston Park Drive  
Oakville, Ontario L6H 5R1  
(905)829-4600  
[www.clarioncanada.com](http://www.clarioncanada.com)

