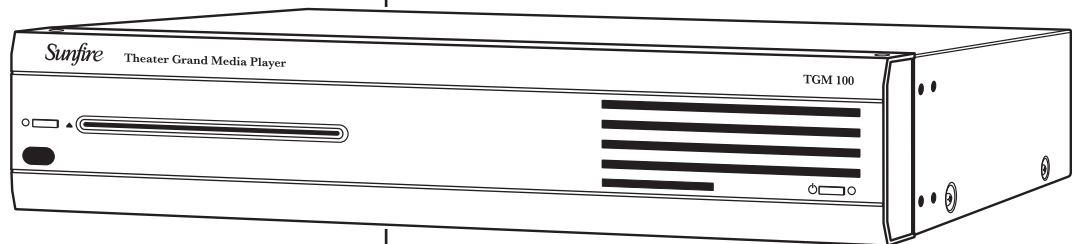


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# *Sunfire*<sup>®</sup>

*Theater Grand  
Media Player*

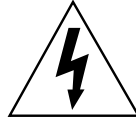
*TGM-100 Server  
TGM-100C Client*



*Installation Manual*

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The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure, that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

## Important Safety Instructions

1. Read Instructions
2. Keep these Instructions
3. Heed all Warnings.
4. Follow all Instructions
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
8. Unplug this apparatus during lightning storms or when unused for long periods of time.
9. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as a power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
10. **Ventilation** — The apparatus should be situated so that its location or position does not interfere with its proper ventilation. For example, the apparatus should not be situated on a bed, sofa, rug, or similar surface that may block any ventilation openings; or placed in a built-in installation such as a bookcase, cabinet, or closed equipment rack that may impede the flow of air through ventilation openings.
11. **Power Sources** — The apparatus should be connected to a power supply only of the type described in these operation instructions or as marked on the apparatus.
12. **Power Cord Protection** — Power-supply cords should be routed so that they are not likely to be walked upon or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit the apparatus.
13. **Non-use Periods**—The power cord of the apparatus should be unplugged from the outlet when unused for a long period of time.
14. **Object and Liquid Entry** — Care should be taken so that objects do not fall into and liquids are not spilled into the inside of the apparatus.
15. **Servicing** — The user should not attempt to service the apparatus beyond those means described in this operating manual. All other servicing should be referred to qualified service personnel.

### PORTABLE CART WARNING



Carts and stands - The Component should be used only with a cart or stand that is recommended by the manufacturer. A Component and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the Component and cart combination to overturn.



**16. To prevent electric shock**, do not use this polarized plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

Pour prévenir les chocs électriques ne pas utiliser cette fiche polarisée avec un prolongateur, une prise de courant ou une autre sortie de courant, sauf si les lames peuvent être insérées à fond sans laisser aucune partie à découvert.

**17. Grounding or Polarization** — Precautions should be taken so that the grounding or polarization means of the Component is not defeated.

This apparatus does not exceed the Class A/Class B (whichever is applicable) limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of the Canadian Department of Communications.

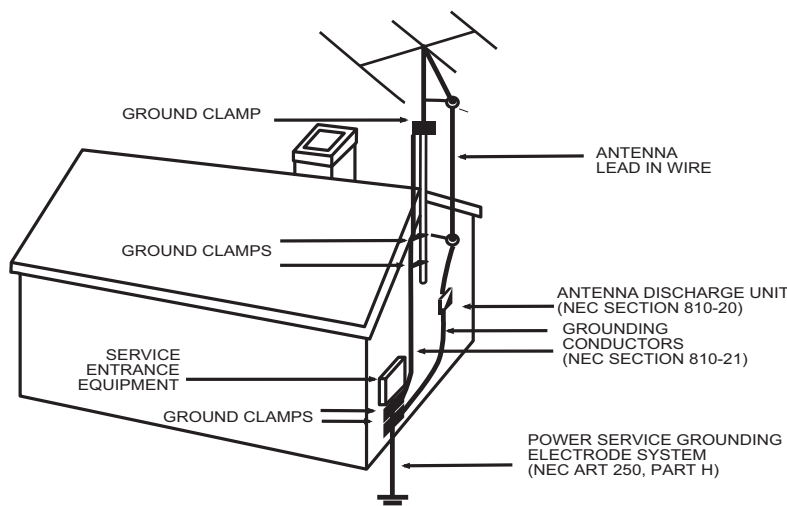
**ATTENTION** — Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de class A/de class B (selon le cas) prescrites dans le règlement sur le brouillage radioélectrique édicté par les ministères des communications du Canada.

**WARNING** – TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

**CAUTION:** TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

**ATTENTION:** POUR ÉVITER LES CHOCs ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

EXAMPLE OF ANTENNA GROUNDING ACCORDING TO NATIONAL ELECTRICAL CODE INSTRUCTIONS CONTAINED IN ARTICLE 810—"RADIO AND TELEVISION EQUIPMENT"



#### NEC NATIONAL ELECTRICAL CODE.

##### NOTE TO CATV INSTALLER

This reminder is to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and in particular, specifies that the cable ground shall be connected to the grounding system of the building as close to the point of cable entry as practical.

##### OUTSIDE ANTENNA GROUNDING

If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the lead-in wire to an antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure above.

# Contents

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Read the **Safety Instructions** carefully before connecting and using your TGM-100.

**Chapter 1** is a general introduction to the features and details of your TGM-100.

**Chapter 2** shows the proper way to connect and install your TGM-100.

**Chapter 3** describes how to configure the system for proper operation

**Chapter 4** describes how to install third-party software applications and software updates.

**Chapter 5** describes some basic Troubleshooting procedures.

The **Appendix** shows some additional information, including Specifications, the Warranty and service assistance details

To find out more about this and other Sunfire products, please visit our website: **[www.sunfire.com](http://www.sunfire.com)**

# 1. Introduction

## Unpacking

Your TGM-100 should reach you in perfect condition. If you do notice any shipping damage, please contact your Sunfire Dealer immediately.

Gently lift out the unit and remove all the packing material and accessories. It is important to save all the packing materials and the box in case your TGM-100 ever needs to be moved or returned for service.

Make sure that you keep your sales receipt. It is the only way to establish the duration of your Limited Warranty and it may come in useful for insurance purposes.

Please take a moment to fill out and mail the Sunfire Customer Response card. Also read the serial number located on the rear panel, and record it here:

Serial #:

Purchased from:

Date:

## Pre-Installation Information

For detailed safety instructions when installing and operating the TGM-100, either as Server or Client, please refer to the User's Guide.

It is essential that you can control the TGM-100 once it is connected and that you have access to the unit's TV User Interface at the same location as the control source. In some installations, the TGM-100 may be in a different room from the Digital Video display. Without proper planning of the TGM-100 configuration during installation, configuration may be problematic.

There are a number of options available in these circumstances. These include:

1. Temporarily connect an HDMI display directly to the TGM-100's Digital Video connector using short cables and configure the TGM-100 using the remote control.
2. Ensure that the control system is properly configured and the TGM-100 is controllable via IR from the room in which the digital television is located.

## DVD Region

DVDs are encoded differently in different parts of the world; for example, a North American DVD drive can't read a European DVD. The drive's DVD region code is set the first time a DVD is inserted into the disc player. Once the region has been set, it cannot be changed.

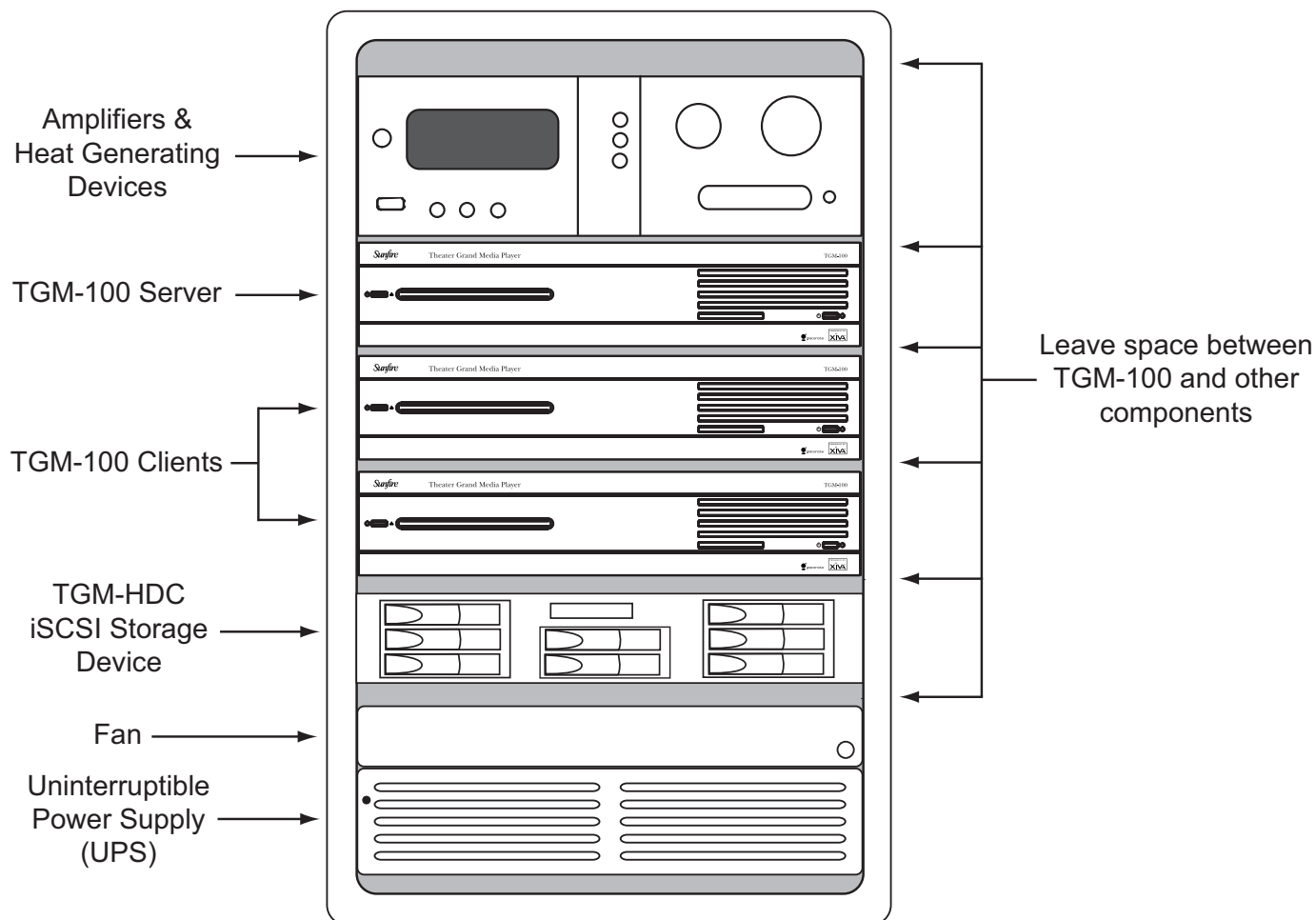
## Required Equipment

Make sure that the following equipment is available in order to complete the installation:

- A Sunfire TGM-100 and remote control.
- If installing a TGM-100C Client, you must have a TGM-100 Server and remote control as well.
- A TGM-HDC or TGM-HD1 external storage device.
- A TV for the TGM-100 Server.
- A TV for any TGM-100C Clients installed in the system.
- A USB keyboard and mouse.
- An Ethernet Local Area Network (LAN).
- CDROM or USB Memory Device with application installer.
- All required cables and connectors.

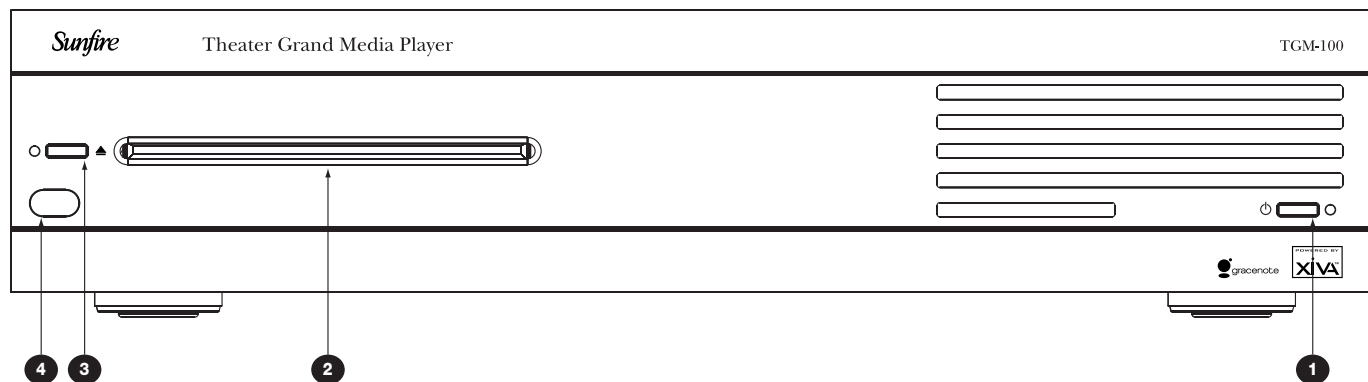
## Installing the TGM-100 in a Rack

If the TGM-100 is to be installed in a rack, please see the diagram below for a guide to correct positioning.



## TGM-100

### Front View



#### 1 STANDBY BUTTON

Press the **Standby** button to turn the TGM-100 On; press it again to turn the unit Off.

#### 2 DISC PLAYER

CDs and DVDs should be inserted with the label side facing up.

#### 3 EJECT BUTTON

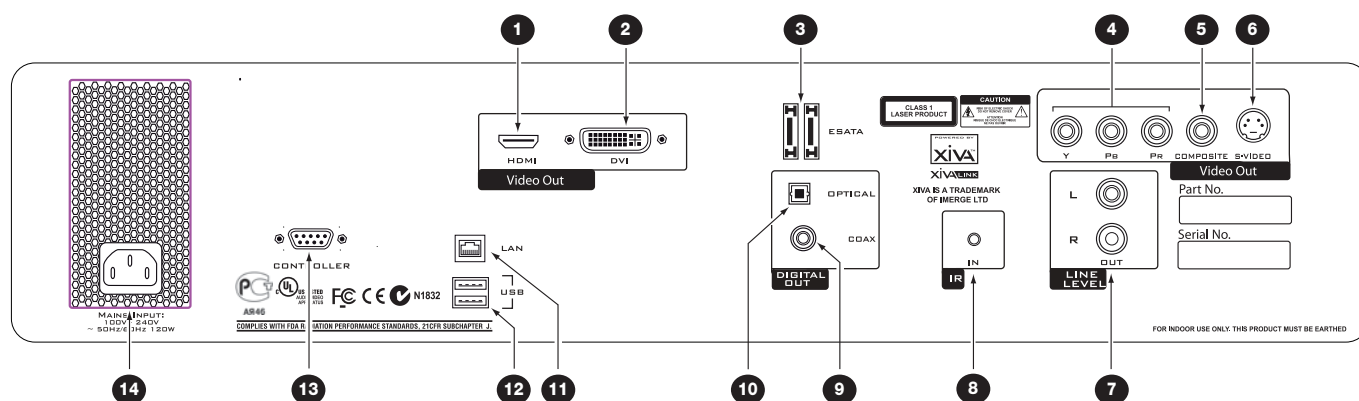
Pressing the **EJECT** button ejects the disc.

#### 4 IR WINDOW

The front panel **IR Window** allows remote control information to be transmitted to the TGM-100.



## TGM-100 Rear View



### 1 HDMI VIDEO

Use the HDMI connector to connect your TGM-100 to a digital flat-panel television or projector. HDMI Output is usually connected to the main television used for viewing movies in your home.

To take advantage of the Surround Sound Audio Format, it is necessary to connect the audio output to a device capable of decoding the surround sound signal.

- If your digital TV can decode the signal, simply connect it to the HDMI socket on the back of the TGM-100.
- If your digital TV does not decode the signal, noise will be emitted by the TV's speakers. In this case you should mute the TV's volume and connect an amplifier with this capability to the digital output (9 or 10) of the TGM-100.

### 2 DVI VIDEO

Connect to TGM-DVC DVI to Composite Video Converter to view video on a Touch panel Controller or TV/Monitor w/ a DVI input.

### 3 eSATA

Use this socket to connect a Sunfire eSATA drive.

### 4 COMPONENT VIDEO OUT

Connect the Y, P<sub>B</sub> and P<sub>R</sub> Component Video Out of the Media-Server to the Y, P<sub>B</sub> and P<sub>R</sub> COMPONENT VIDEO IN of a suitable TV to display the TV User Interface. You may also need to switch the TV to the relevant AUX input to display the picture.

### 5 COMPOSITE VIDEO OUT

Connect the composite Video Out of the TGM-100 to the composite input of a suitable PAL or NTSC TV to display the TV User Interface. You may also need to switch the TV to the relevant AUX input to display the picture.

### 6 S-VIDEO OUT

Connect the S-VIDEO output of the TGM-100 to the S-VIDEO input of a suitable PAL or NTSC TV to display the TV User Interface. You may also need to switch the TV to the relevant AUX input to display the picture.

### 7 ANALOG AUDIO OUT

This analog audio output should be connected to the input jacks of a pre-amplifier, receiver or whole-house controller.

### 8 IR INPUT

The IR INPUT connection allows remote control information to be carried from other devices directly into the TGM-100.

### 9 COAXIAL DIGITAL AUDIO OUT

By connecting the coaxial jack to a digital audio component (D/A converter, A/V amplifier etc.), digital signals from the TGM-100 can be transmitted directly from the system without first being converted to analog. This output may not be used for making a digital copy of your media.

### 10 OPTICAL DIGITAL AUDIO OUT

The digital optical output can be used to transmit high quality audio to a device with a digital optical input (D/A converter, A/V amplifier etc.) using an optical fiber cable. The advantage of using the optical output is that it has low signal loss and is completely isolated from the ground loop. This output may not be used for making a digital copy of your media.

### 11 LAN (ETHERNET) PORT

The Ethernet port is used to connect the TGM-100 to a Gigabit Ethernet network or high speed Internet connection.

### 12 USB PORT

Allows the TGM-100 to communicate with supported USB devices.

### 13 RS-232 PORT

For use w/ third-party control systems.

### 14 POWER CONNECTOR

Connect the supplied power cord to this connector to provide power to the unit.

## 2. Connections

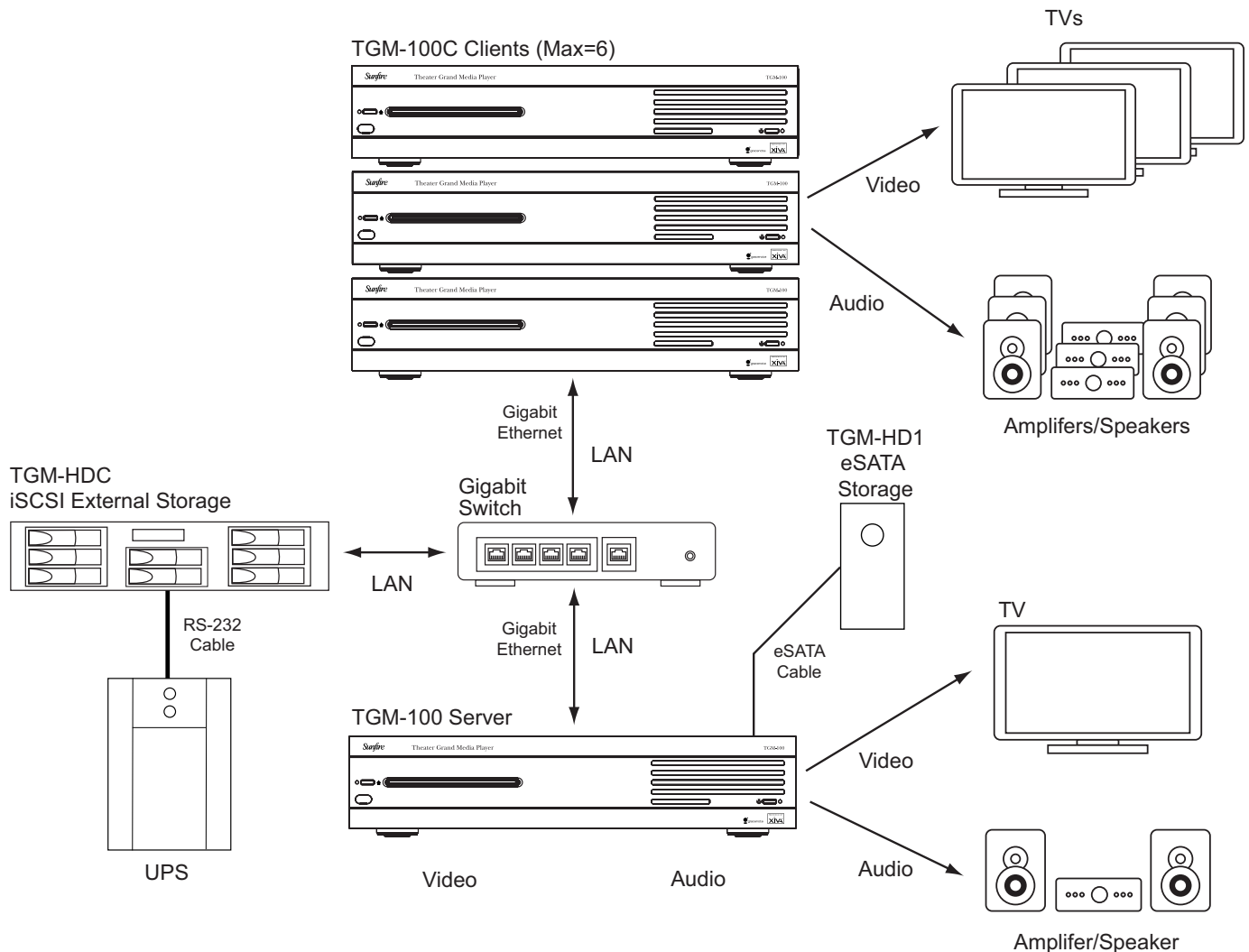
### Multi-Room Connections

The TGM-100 is a versatile device capable of communicating with a number of multi-room control systems. The installation and configuration of such complex control systems varies, depending on the manufacturer. We recommend that you do not attempt installation with such devices before acquiring training or documentation from the control system manufacturer.

The illustration below shows a typical multi-room configuration, incorporating a TGM-100 Server, TGM-100C Clients and different types of external storage devices. Output channels from the TGM-100 may be connected to a multi-room control system so that they can be distributed to different rooms around the home. In order for the TGM-100

to communicate with the multi-room control system, a connection must be made using either infrared, RS232 or IP, depending on the control system.

Each TGM-100C Client in the system acts as an additional independent digital and analog video and audio output. TGM-100C Clients only support external storage via a TGM-100 Server.



## Audio/Video Connections

Your TGM-100 can play a DVD or an audio CD from either a remote storage device or the disc player on the front of the unit. Video output can be HDMI, Component, S-video or Composite. Once installed, the required output should be connected before the unit is switched on and will be detected automatically. If all video outputs are connected, then the HDMI output takes priority and will be displayed. This setting can be overridden manually (see User Guide, **Settings** section.) If all outputs except HDMI are connected and the video mode is set to **Auto**, the Component Video output will be enabled.

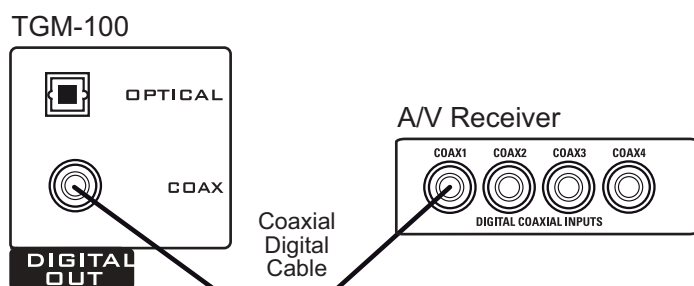
## Audio Connections

The digital output provides bit-perfect audio output without the use of a rate converter. When making connections to a digital output, use either optical cable or an RCA coaxial digital audio cable. When making connections to the analog output, RCA-RCA stereo audio cables should be used.

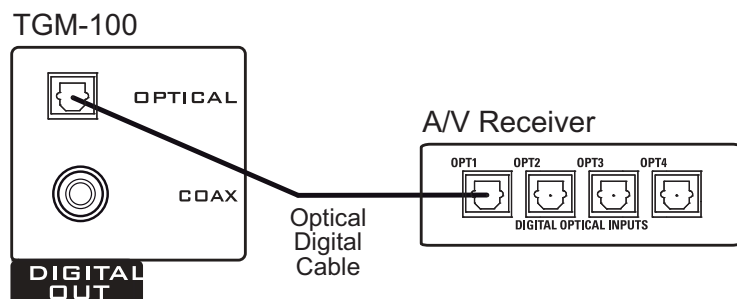
## Digital Audio Connections

The Digital Audio Output is connected directly to a Home Theater Receiver using either the coaxial, optical digital or HDMI connections, as shown below.

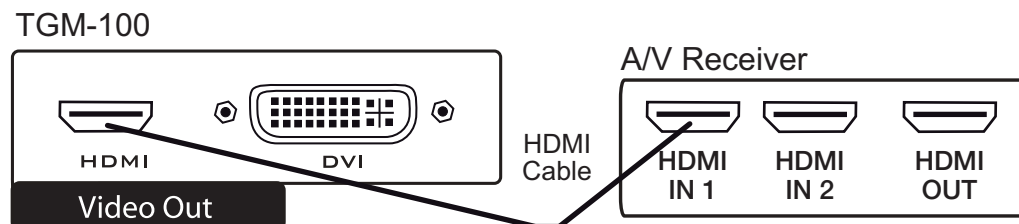
### Digital Coaxial Connections



### Digital Optical Connections



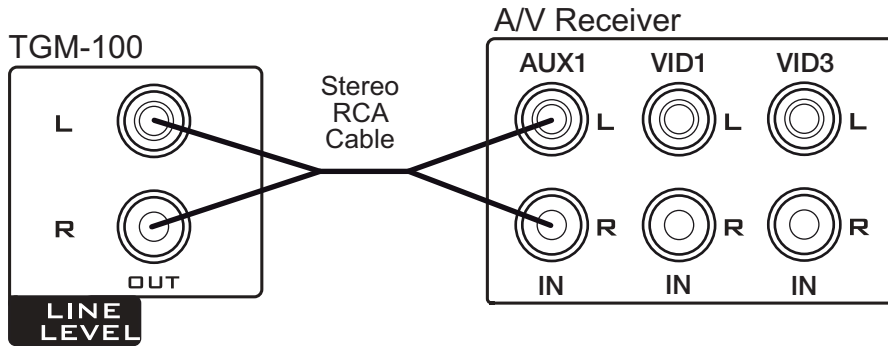
### HDMI Connections



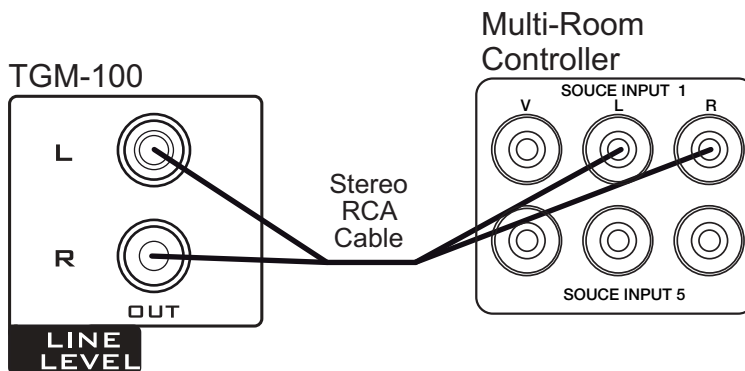
## Analog Audio Connections

The Analog Audio output is connected to an audio routing device such as an A/V Receiver or Multi-Room Controller using stereo RCA audio cables.

### Analog Audio Connections - A/V Receiver



### Analog Audio Connections - Multi-Room Controller



**Note:** 5.1 Digital Audio Outputs are converted to 2 Channel PCM when Analog Connections are enabled.

**Note:** When 2 channel PCM outputs are enabled, 5.1 Digital surround effects are disabled.

**Note:** Discrete IR codes are available when programming touchpanels, keypads, etc. in whole-house audio systems. These IR codes allow switching between stereo and surround formats depending on the application.

## Video Connections

The TGM-100 has two video channels (Analog and Digital), which may be connected in several combinations, depending on system design. Analog outputs include Component, S-video, Composite and Component video and are grouped together on the rear of the unit. Digital outputs include HDMI and DVI and are also grouped together.

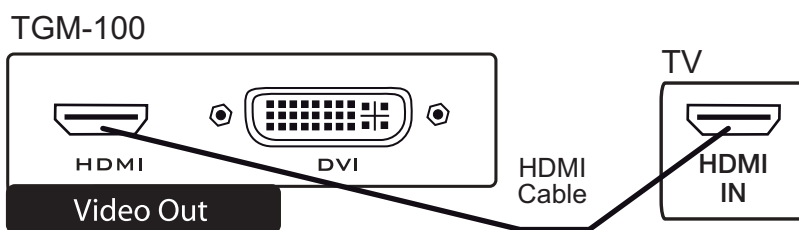
Typically, video is connected to an A/V Receiver, a TV or a video distribution controller to broadcast the video to a number of different rooms around the home. Any of the above connection types may be used for this purpose, depending on the video distribution device being utilized.

## HDMI Video Connections

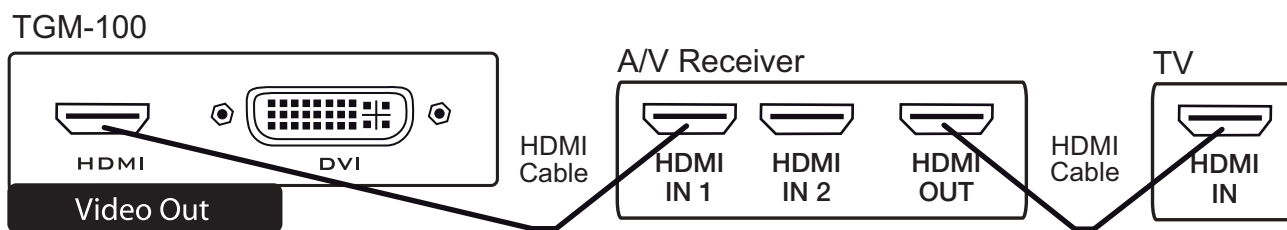
HDMI (digital) Video provides the best video display. HDMI can be connected directly to a TV, or can be connected to an A/V Receiver with HDMI switching capabilities, then to the TV. If connecting the HDMI output directly to a TV, make sure to connect the Digital or Analog Audio outputs to an A/V Receiver or Multi-Room Controller as described previously. If connecting the HDMI output to an A/V Receiver that supports audio over HDMI, additional Audio connections are unnecessary. HDMI video has a relatively short range and should not normally be used for whole-house distribution systems.

**Note:** HDMI carries digital audio information as well as video information. See **Digital Audio Connections** for additional information

### HDMI to TV Connections



### HDMI to A/V Receiver Connections



## Video Output Resolution

| Output    | 1080p | 1080i | 720p | 480p | 480i |
|-----------|-------|-------|------|------|------|
| HDMI      | ✓     | ✓     | ✓    | ✓    | ✓    |
| DVI       |       |       |      |      | ✓    |
| Component |       | ✓*    | ✓*   | ✓    | ✓    |
| S-Video   |       |       |      |      | ✓    |
| Composite |       |       |      |      | ✓    |

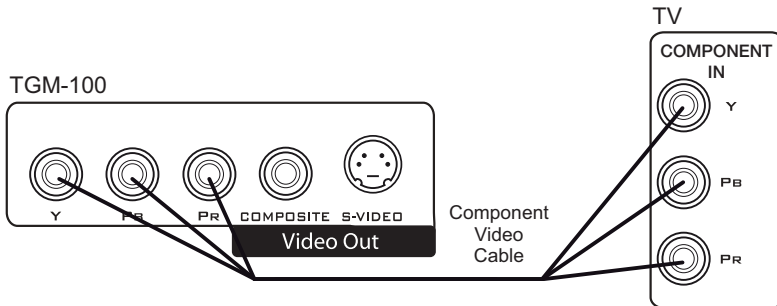
\* Encrypted DVDs will not display at these resolutions.

## Component Video Connections

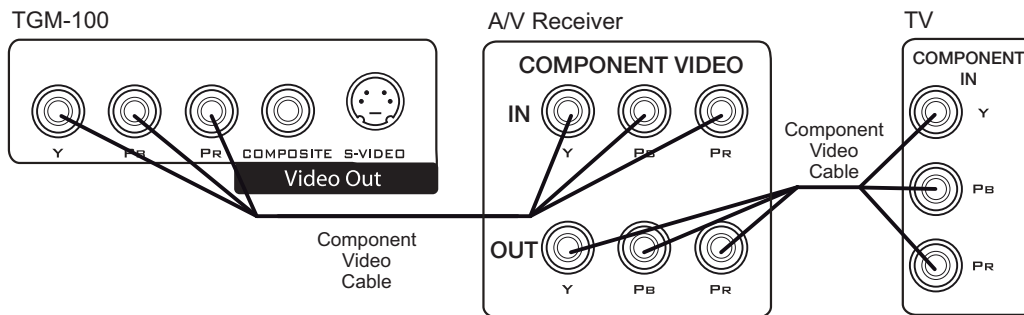
Component Video offers very high quality video and should be used for systems that do not have HDMI capabilities. Use high quality Component Video cables to connect directly to a TV, or use an A/V Receiver's Component Video

switching capabilities. For Multi-Room systems, connect the TGM-100's Component Video outputs to a Multi-Room Component Video Switcher or Multi-Room Controller that has on-board Component Video switching capabilities.

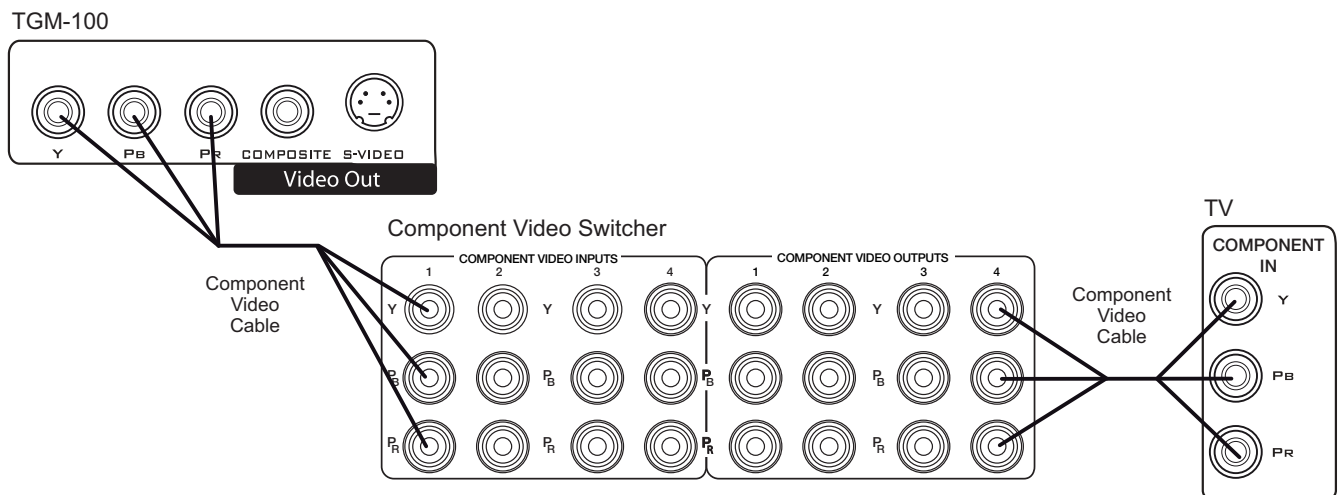
### Component Video to TV Connections



### Component Video to A/V Receiver Connections



### Component Video to Component Video Switcher/Multi-Room Controller Connections

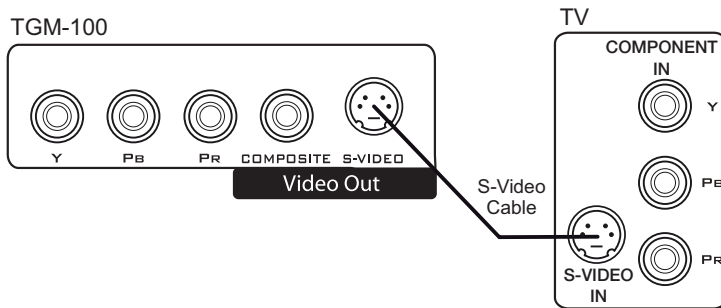


## S- Video Connections

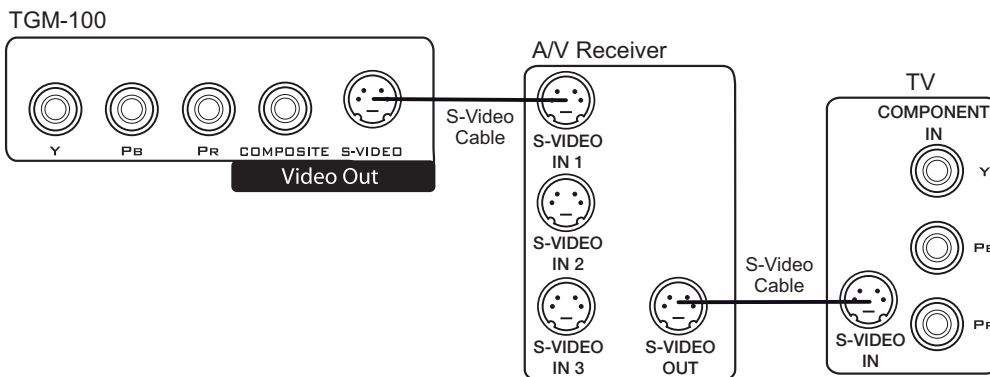
S- Video should be used for systems that do not have HDMI or Component capabilities. Use high quality S-Video cables to connect directly to a TV, or use an A/V Receiver's S-Video switching capabilities. Because S-Video has a

relatively short distance restriction, it is not recommended to use this format for Multi-Room systems; instead use Component or Composite Video.

### S-Video to TV Connections



### S-Video to A/V Receiver Connections

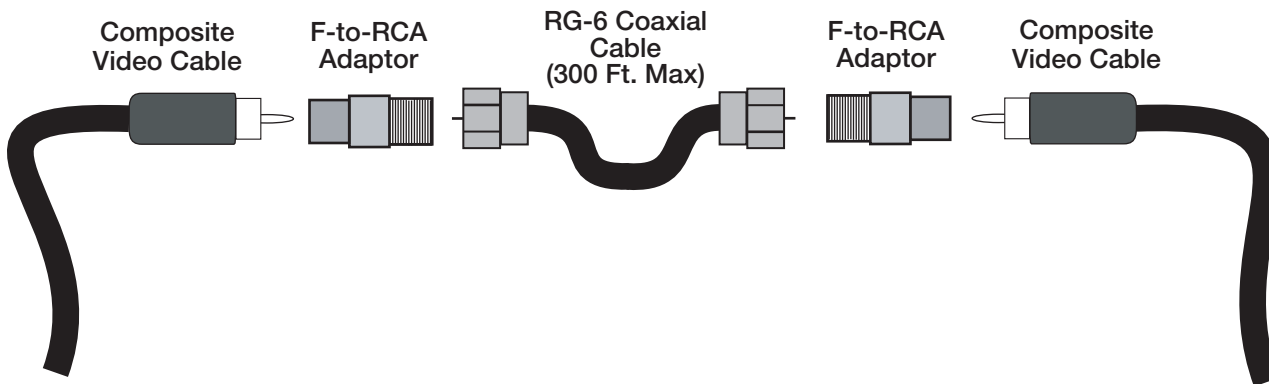


## Composite Video Connections

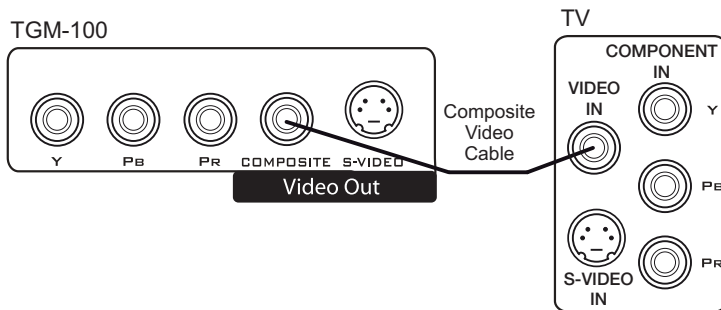
Composite Video offers the lowest quality video of the options available on the TGM-100, however, Composite Video also offers the longest range of any of the options available and so is a good choice for whole-house video distribution. Use high quality Composite Video cables to

connect directly to a TV, an A/V Receiver, a Composite Video Switcher or a Multi-Room Controller. Long runs from the head-end location should be wired using RG-6 or RG-59 coaxial cable with F-to-RCA adaptors as shown in the drawings below.

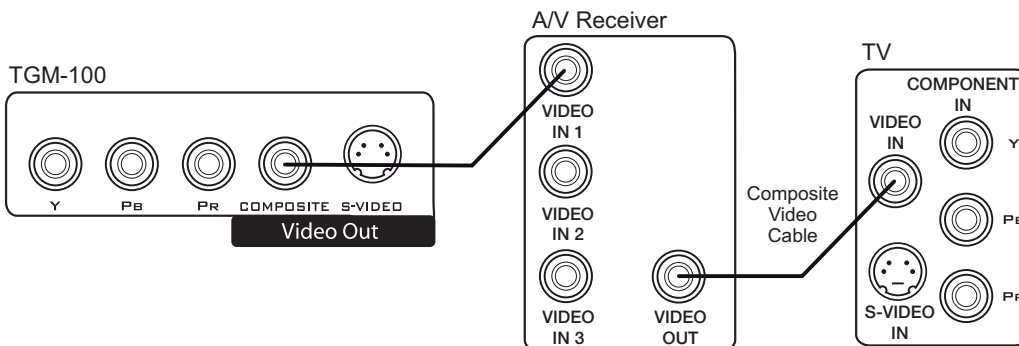
### Composite Video Using Coaxial Cable



### Composite Video to TV Connections

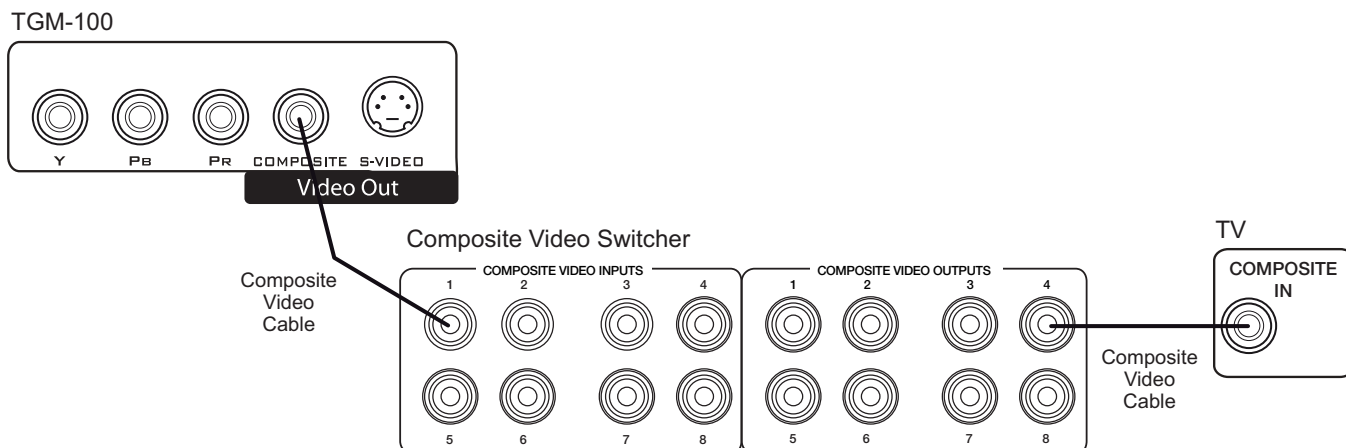


### Composite Video to A/V Receiver Connections





## Composite Video to Composite Video Switcher/Multi-Room Controller Connections



### Notes on Video Connections

It is very important to have the entire system designed and all products specified prior to installation. When developing applications and configuring connections, special attention must be paid to the types of video outputs that will be utilized.

The TGM-100 essentially has two video busses active at any one time. The HDMI and DVI outputs comprise one bus; the S-Video, Composite Video and Component Video comprise the other. In almost all cases, the TGM-100 Digital Media Server will display its GUI on a primary TV display (or multiple TVs).

The best video performance will be obtained by using the TGM-100's HDMI output connected to a High Definition TV. The HDMI output can be used simultaneously with the S-Video, Component Video and/or Composite Video outputs, depending on the application. **When the HDMI output is being utilized, the DVI output should not be connected.**

The following chart summarizes the video outputs and their compatibility:

| Output    | Option #1 | Option #2               | Option #3               |
|-----------|-----------|-------------------------|-------------------------|
| HDMI      | Primary   |                         |                         |
| DVI       |           | Secondary (Touch Panel) | Secondary (Touch Panel) |
| S-Video   |           |                         | Primary                 |
| Composite |           |                         | Primary                 |
| Component |           | Primary                 |                         |

In systems that utilize touch panels that display Composite Video, **Option #2** should be used for the best primary video display where Component Video inputs are available. In situations where Component Video inputs are not available, use **Option #3**.

**Note:** When the S-Video and/or Composite Video Outputs are connected, the Component Video output becomes unavailable.

The DVI output is for use only with the Sunfire TGM-DVC DVI to Composite Video Converter when touch panels are being utilized in the system. Further information is available in **Touch Panel Video Connections** on page 16 of this manual and in the TGM-DVC Installation Manual.

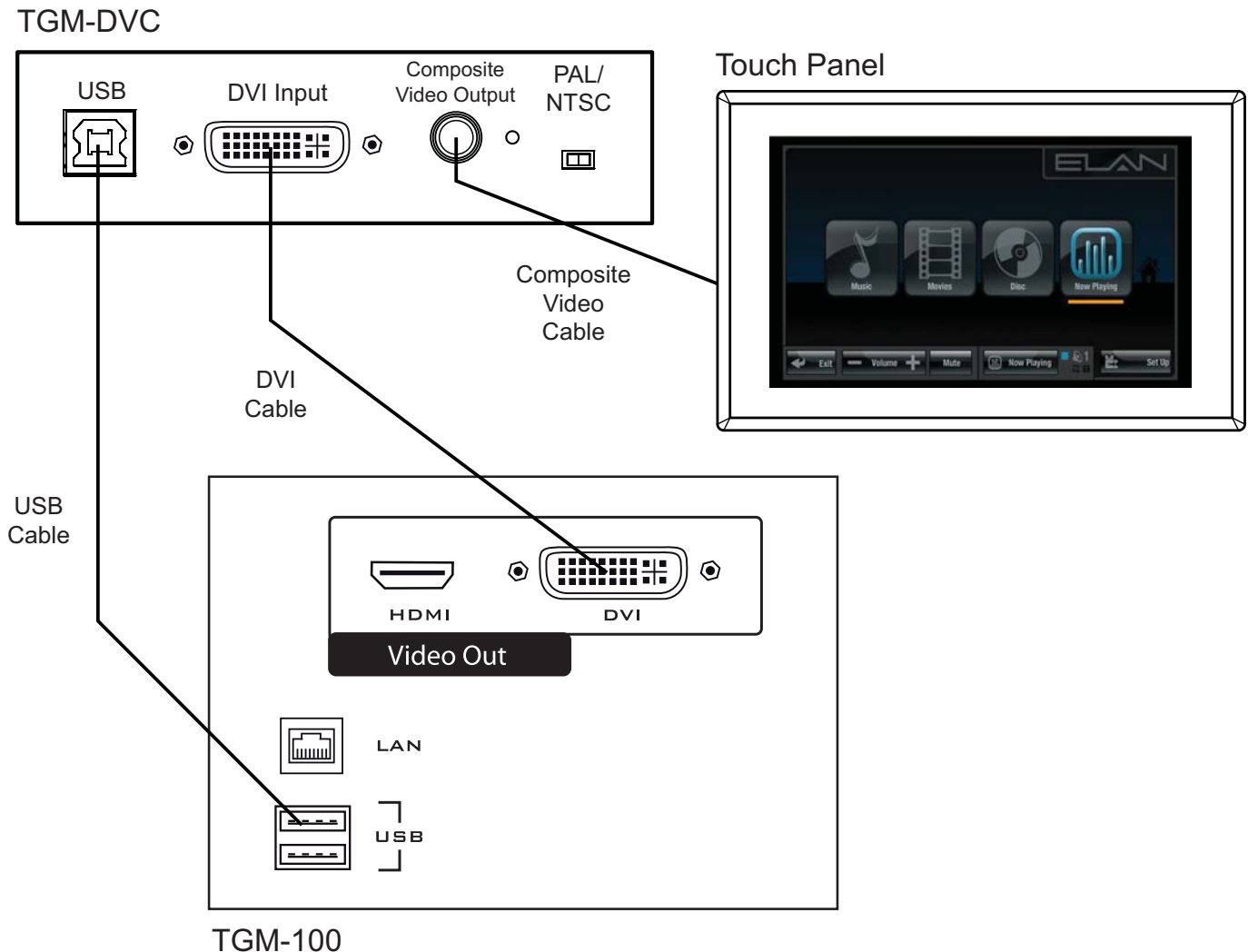
### Touch Panel Video Connections

#### TGM-DVC DVI to Composite Video Converter

The TGM-100 is the only Media Server to be designed from the ground up to work with all current ELAN touch panels. It is necessary to use a Sunfire TGM-DVC DVI to Composite Video Converter (available separately) in order to use the TGM-100's Touchpanel Output features with wired ELAN touch panels (wireless ELAN touch panels do not require the use of a TGM-DVC). This output allows the homeowner to view and control the TGM-100 with the convenience of full touchscreen functionality in any room of the house. Full installation details and specifications are available in the TGM-DVC Installation Manual.

To connect a touch panel to the TGM-100 using a TGM-DVC Composite Video Converter:

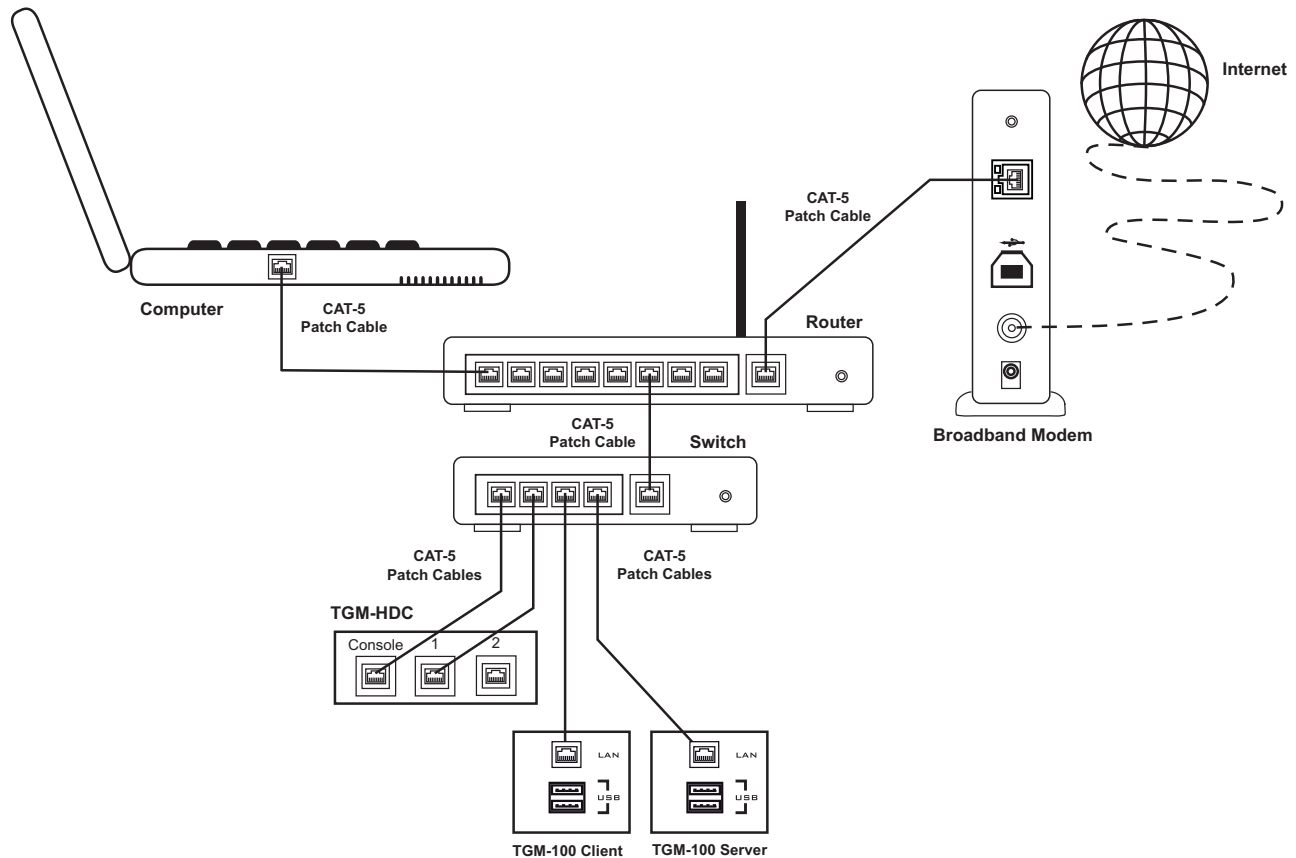
- Connect the USB cable included with the TGM-DVC between one of the USB ports on the TGM-100 and the USB port on the TGM-DVC.
- Connect the DVI cable included with the TGM-DVC between the DVI port on the TGM-100 and the DVI port on the TGM-DVC.
- Connect a Composite Video cable between the Composite Video port on the TGM-DVC and the touch panel to be used to control the TGM-DVC.
- This method can also be used to connect to a composite video switcher that links multiple touch panels.



## Network Connections

Connection of the TGM-100 to a home network (and the Internet) is required for full functionality. Ethernet connectivity requires the use of a switch and/or router for communications between the TGM-100 and any connected iSCSI storage devices as well as the Internet. At least one

computer should be present on the network to permit the import and export of music files to and from the TGM-100 as well as software updates, system settings and retrieval of information about CDs and DVDs from Internet databases. A typical system setup is shown in the diagram below.



### Required Ethernet Devices

Use Cat5e or Cat6 cables for all connections to the Gigabit switch. Required Ethernet devices include:

1. **Broadband Modem** - Connects to the Internet and to the Router or Switch.
2. **Router** - Connects to the Broadband Modem and to each component of the network. In many installations, the Router will connect to an Gigabit Ethernet Switch.
3. **Gigabit Ethernet Switch** - Connects to the Broadband Modem or Router and to the TGM-100 Server, TGM-100 Client, TGM-HDC and computer(s) located on the network.

**Note:** Switches must be Gigabit Ethernet.

### Ethernet Connections

#### TGM-100 Server Connections

Connect a Cat5e/6 Ethernet cable between the TGM-100's **LAN** port and an unused port on the Gigabit Switch.

#### TGM-100C Client Connections

Connect a Cat5e/6 Ethernet cable between the TGM-100's **LAN** port and an unused port on the Gigabit Switch.

#### TGM-HDC Connections

Connect a Cat5e/6 Ethernet cable between the TGM-HDC's **CONSOLE** port and unused port on the Gigabit Switch and an additional cable between the TGM-HDC's **1** port and an unused port on the Gigabit Switch.

**Note:** Multiple TGM-HDCs may be connected in a system. Each additional TGM-HDC must be blank when added to the system.

## eSATA Connections

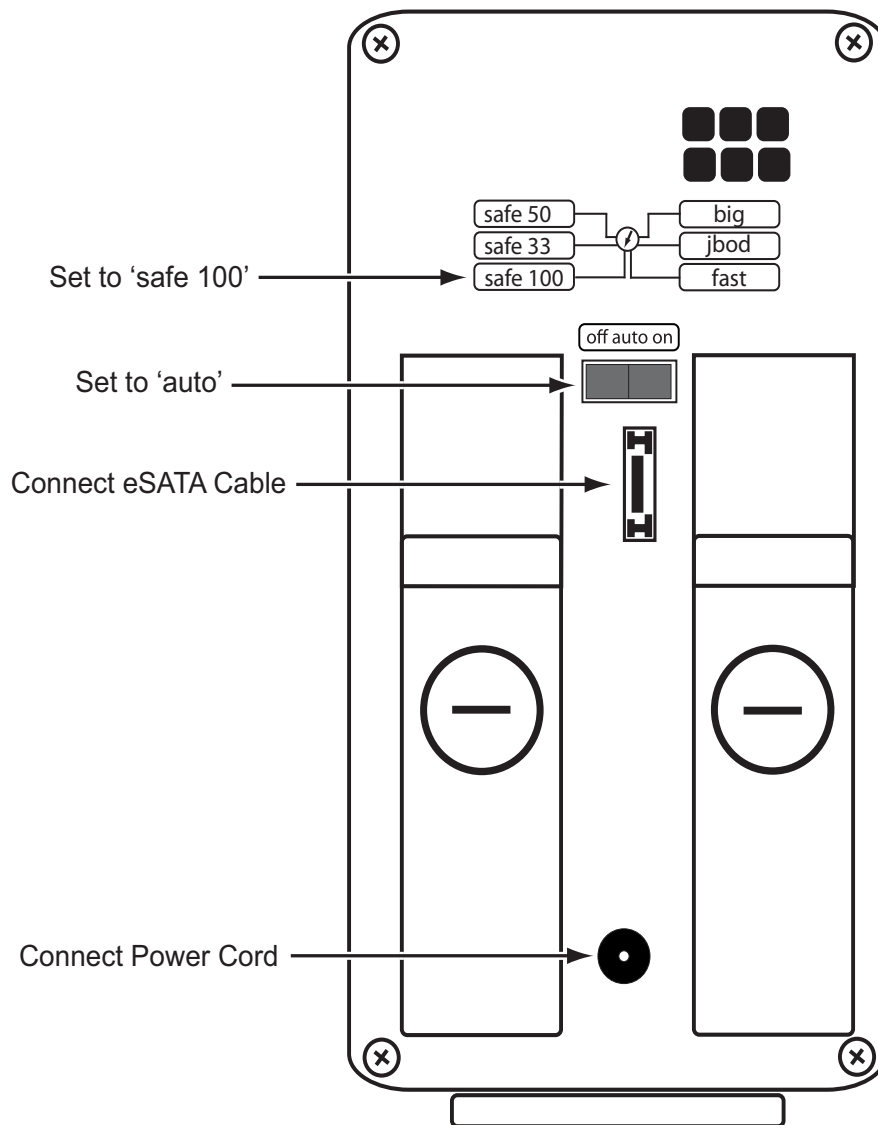
The TGM-HD1 is a 1 Terabyte External Storage Device that utilizes an eSATA cable to connect directly to the TGM-100. The TGM-HD1 does NOT connect to the home network previously described. To connect the TGM-HD1 to the TGM-100:

1. The Raid Selection Switch is preset to '**safe 100**'. If this switch is set to something else, contact Sunfire technical Support.
2. Plug the TGM-HD1 into the eSATA socket on the back of the TGM-100 Server only. TGM-100 Clients only support external storage via a TGM-100 Server.

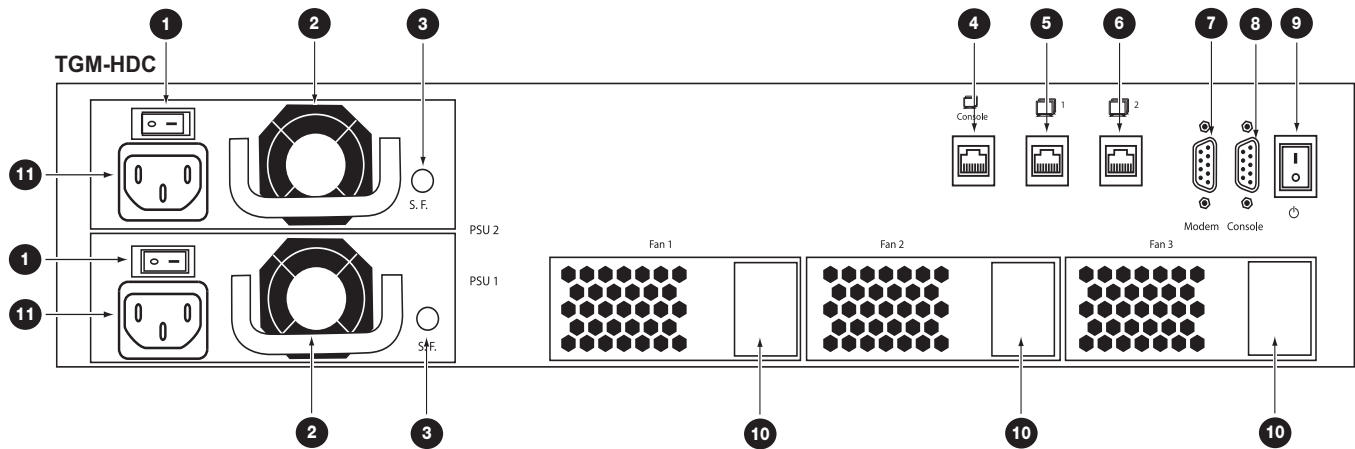
3. Set the Power Switch (**Off Auto On**) to the middle '**Auto**' position for Automatic power control. This allows the TGM-HD1 to power On and OFF when the TGM-100 powers On and Off.
4. Turn on the TGM-100. It will automatically recognize the TGM-HD1 as soon as both units are fully operational.

**Note:** Only one eSATA Storage Devive may be used in a system. Multiple iSCSI devices may be used.

**Note:** It is possible to use an eSATA Storage Device in conjunction with one or more iSCSI devices.



## TGM-HDC Rear View



### 1 POWER SUPPLY ON/OFF SWITCH (X2)

This switch turns the TGM-HDC's Power Supplies On and Off. There are two switches that must both be switched On or Off for the unit to function properly.

### 2 POWER SUPPLY FAN (X2)

These fans keep the Power Supply within the required temperature range.

### 3 POWER SUPPLY STATUS LEDS (X2)

These LEDS indicate the status of the Power Supply.

Solid Green=OK  
Blinking=Problem Detected  
Solid Red=Failure

### 4 ETHERNET PORT - CONSOLE

This port is used for managing settings on the TGM-HDC.

### 5 ETHERNET PORT - 1

This port is used for data streaming to TGM-100s and TGM-100Cs.

### 6 ETHERNET PORT - 2

This port is not currently used.

### 7 RS-232 PORT - MODEM

This port connects to the U.P.S. Use the cable that is supplied with the U.P.S.

### 8 RS-232 PORT - CONSOLE

This port has no current function.

### 9 POWER SWITCH-MAIN

The Main Power Switch turns the entire unit On and Off.

### 10 SYSTEM FAN (X3)

These fans provide cooling to the hard Disc Drives.

### 11 AC POWER CONNECTOR (X2)

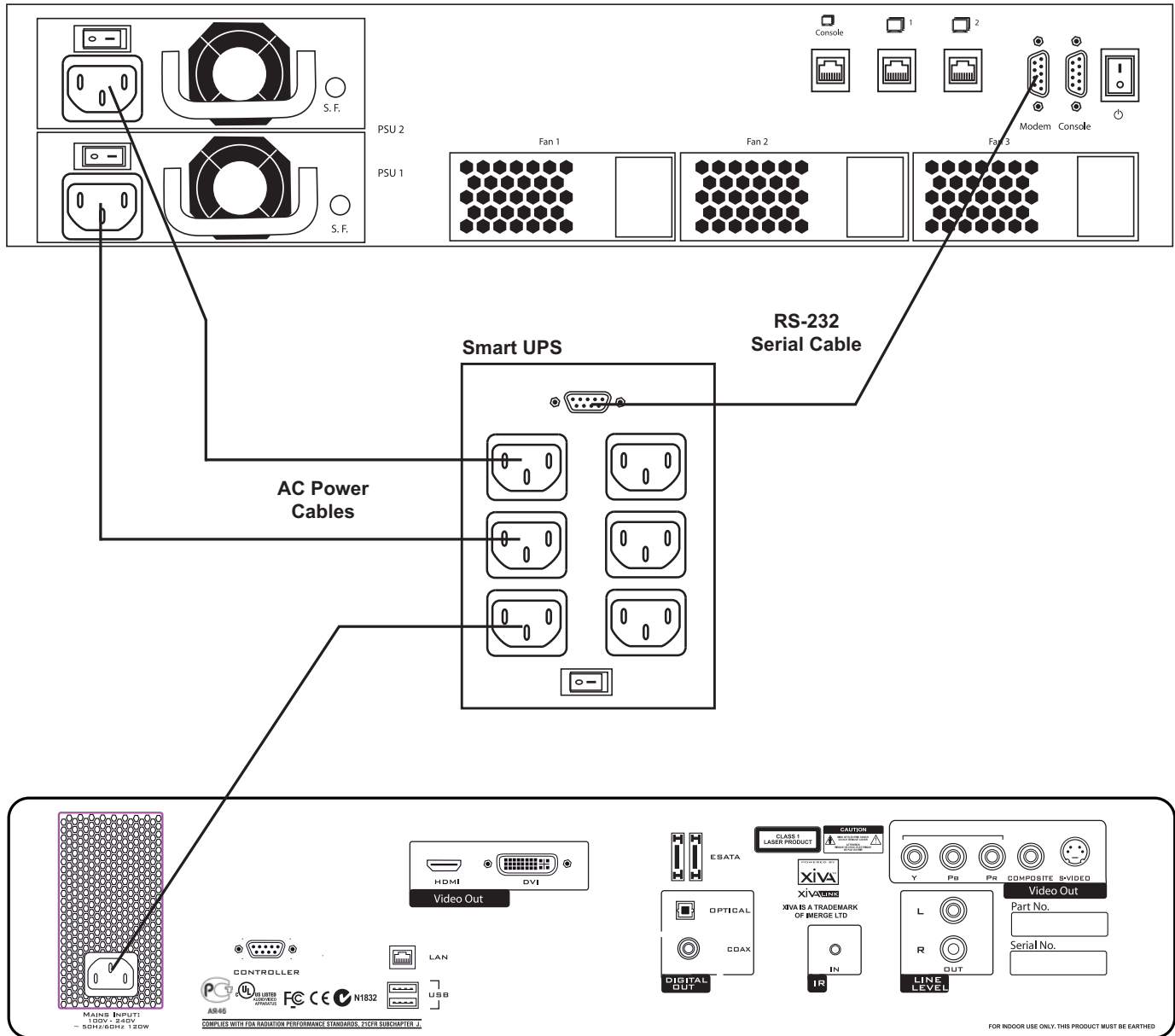
The TGM-HDC has two power cords that must be connected to the system's UPS.

## UPS Connections

When installing a TGM-HDC External Storage Device, it is necessary to utilize a Smart UPS Uninterruptible Power Supply.


1. Make sure that the UPS is disconnected from power and the TGM-HDC is turned OFF.
2. Plug both of the TGM-HDC's power connectors into the UPS.
3. Plug the TGM-100's power cable into the UPS, as well.
4. Connect the Serial Cable (RS-232) **that came with the UPS** to the Serial port on the UPS and to the port labelled "Modem" on the TGM-HDC.
5. Connect the UPS to AC power.
6. Turn On the UPS.
7. Turn On the TGM-HDC and TGM-100.

### TGM-HDC



## 3. System Configuration

### Powering Up the TGM-100



1. Switch the television on.
2. Ensure the television is switched to the correct channel.
3. Press the TGM-100's front panel  button.

After several minutes the User Interface should display the main menu screen on the television:





If the television is not displaying the screen shown above there are a number of possible reasons:

#### 1. The HDMI cable is not properly connected between the TGM-100 and the television:

- Before switching the TGM-100 on, ensure that the television to be used for the main output is connected, the correct input is selected and it is switched on. The TGM-100 will detect the connection automatically, but if the TV is not switched on when the TGM-100 powers up, the user interface will not be displayed and the TGM-100 will need to be restarted to correct this. Press the  button on the front panel of the TGM-100 to turn it off. Check the connection and then press the  button again to switch the TGM-100 back on.

#### 2. The television was not switched on prior to the TGM-100 being switched on:

- Press the  button on the front panel of the TGM-100 to turn it off. Make sure that the television is switched on and then press the  button again to switch the TGM-100 back on.

#### 3. The television is not switched to the correct input

- Cycle through the source inputs on the television until the user interface is displayed.

#### 4. The TGM-100 requires configuration for use with the television

- Turn to the Troubleshooting chapter at the rear of this guide for information about using Display Help to configure the TGM-100's video settings.

## System Control


There are a number of different ways to control the system. The choice of controller depends on the type of installation and the control system being integrated.

### Remote Control

The TGM-100 is supplied with a remote control that can be used to control it via infrared.

**Note:** The TGM-100 responds to code bank 001 by default, but when configured as a client, it is automatically reset to the next available output on the TGM-100 Server, and will respond to the corresponding remote control code bank. For example, if the TGM-100C Client is assigned Output 6, then the unit will respond to IR code bank 6.

### Configuring the Remote with a Default Output

- Press the **Audio Server** and  **Select** buttons at the same time. Hold them down for 1 second.

The **Audio Server** button will remain lit for 20 seconds. The configuration process must be completed within this time.

- Enter the 3 digit code corresponding to the Output displayed at the top right of the TV interface. For example, for Output 6 enter 0, 0, 6.
- Press the **Audio Server** button again.

The **Audio Server** button will blink twice to indicate that the configuration has been accepted. If the **Audio Server** button does not blink twice, begin the process again, taking care to enter the number correctly.

Pressing any navigation button on the remote should now control the TV interface.

### Touch Panel

The TGM-100 is equipped with a touch panel user interface which is compatible with all ELAN Touch Panels.

### Other Control Methods

The TGM-100 can also be controlled via your Internet Browser (see **TGM-100 User's Manual**) or using a number of third party controllers.



## First Boot Information

When the TGM-100 is first turned on, The **Home Screen** TV User Interface (TV UI) will be displayed on the main TV, as described previously. The Home Screen is comprised of the following elements:

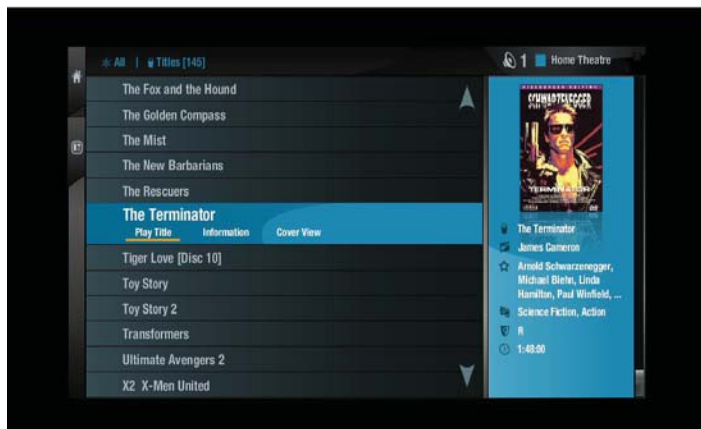
### Music

When you select the **Music** icon, you are taken to the Music screen where you may select from all the music that has been recorded on the system. Music may be displayed as a list, or by cover art and may be grouped by **Artists**, **Albums**, **Genres**, **Playlists**, **Tracks**, **Years** and **Eras**.



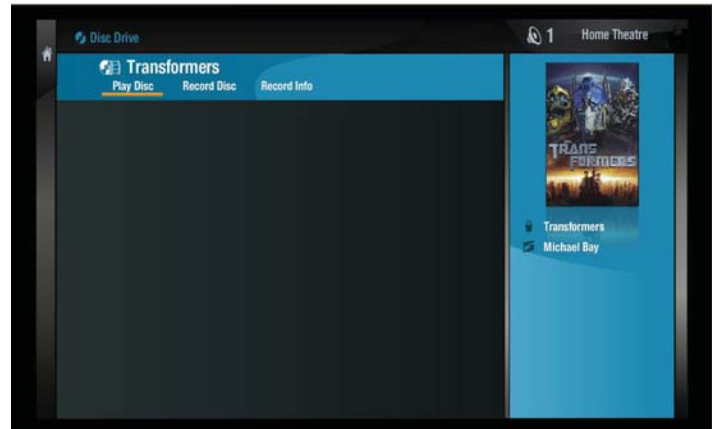
### Movies

When you select the **Movies** icon, you are taken to the **Movies** screen where you may select from all the movies that have been recorded onto the system. Movies may be displayed as a list, or by cover art and may be grouped by **Titles**, **Actors**, **Directors**, **Ratings**, **Genres** and **Years**.



### Disc

The **Disc** icon provides access to a CD or DVD that is currently in the Disc Tray. CD options include **Play Disc**, **Tracks**, **Record Disc** and **Record Info**. DVD options include **Play Disc**, **Record Disc** and **Record Info**.



**Play Disc** starts the disc playing and brings up the **Now Playing** screen. **Tracks** lists the tracks on a CD and allows you to choose a particular track to play. **Record Disc** begins the recording process. **Record Info** displays useful information about the disc being recorded.





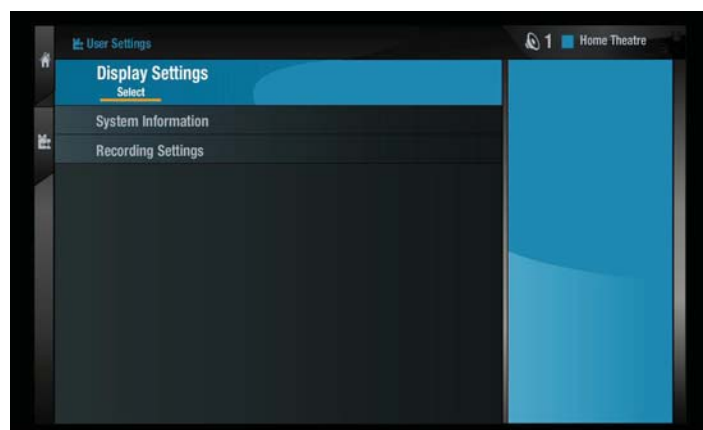
## Now Playing

The **Now Playing** screen provides information about the Music or Movie that is currently selected and playing through the system. This screen displays information such as the Title, Director, Actors/Artists, Genre, etc. as well as providing access to playback functions such as Fast Forward, Skip, Pause, etc. When the Now Playing screen is displayed on the Main TV UI while playing a movie, the movie is stopped.



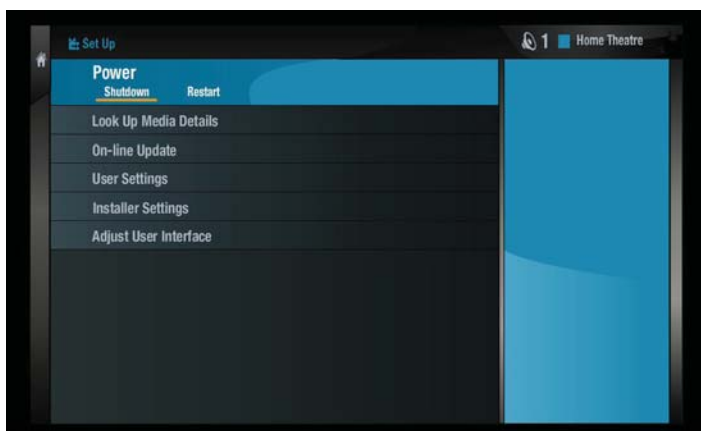
**On-line Update** allows you to check for periodic software updates to improve or update functionality of the TGM-100.

**User Settings** provides access to **Display Settings**, **System Information** and **Recording Settings**. Each of these functions are detailed later in this manual.



## Setup

The **Setup** screen, located in the bottom left corner of the **Home Screen**, provides access to essential functions to configure the TGM-100 for use.



**Power** allows you to **Shutdown** or **Restart** the system. **Look Up Media Details** causes the TGM-100 to search the Internet for details such as Title, Cover Art, etc. for any media that has been recorded.

**Installer Settings** provides access to advanced functions and setting needed by the installer of the unit. Selecting this option will switch the TGM-100 to the **Admin UI**. Once the Admin UI is visible, select **Set Up**, then **Settings**.

The **Settings** menu within the **Admin UI** provides access to **User Interface Settings**, **Display Settings**, **System Information**, **External Storage Settings**, **Device Identity**, **Connection Settings**, **Network Playback Configuration**, **Software Update Settings**, **Recording Settings**, **Output Configuration**, **XiVALink Settings**, **Remote Diagnostics**, **Logging Settings** and **Media Transfer Settings**.

All functions of the **Installer Settings** menu are discussed in-depth later in this manual and/or in the **User's Guide**.

**Adjust User Interface** allows the user to adjust the size of the TV UI to properly fit the main TV screen. Select **Shrink** to reduce the size of the UI. Select **Grow** to increase the size of the UI.



## User Interfaces

There are several ways to view the User Interface (UI) of your TGM-100. Each method is detailed within the **TGM-100 User's Guide**, but some basic concepts are listed here for ease-of-use when getting started.

### TV UI

The primary method for viewing the UI is on a television. This is referred to as the **TV UI**. You will normally use the included remote control when utilizing this method to control your TGM-100.



To access this UI, simply turn on a connected television, switch to the connected TV input, and control the system using your remote control. The TV UI is used to watch and record music and movies and to perform basic Setup functions such as **Media Lookup**, **On-line Update**, etc. Most commonly used functions of the TV UI are found on the **Home Screen**, shown above.

### Touch Panel UI

The **Touch Panel UI** provides a method to control the TGM-100 from touch panels located throughout the home. The TGM-100 is designed to work with all current ELAN wired or wireless touch panels and provides full control over the system.



### Admin UI

The **Admin UI** allows full access to all setup and playback functions. This UI allows for more complex actions than the TV UI and has more options, but many of the options are not required for day-to-day activities. The Admin UI may be accessed from the main TV using the included remote, or may be accessed from the Web UI using a mouse and keyboard.




### Web UI

The Web UI provides a method to control the TGM-100 from any computer located on the same network. Each of the three UIs may be displayed on a home computer. The Web UI is a great way to perform functions that require a keyboard and provides a convenient way to access the system from anywhere in the home.

## Video Configuration Settings

Now that the TGM-100's User Interface is controllable, you can configure the video settings for optimum performance.

Press the  **Library** button on the remote control to display the **Home Screen**.

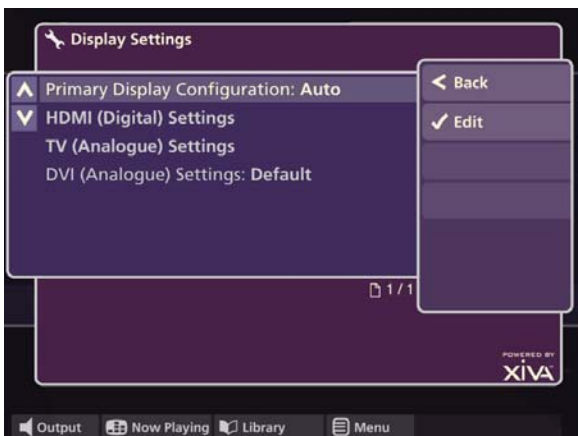
- Use the **▲** and **▼** buttons to highlight the **Set Up** option and press the **✓Select** button.
- Use the **▲** and **▼** buttons again to highlight the **Installer Settings** option and select **Edit**. You will be prompted to **Switch to Admin UI to edit Installer Settings?** Select **Yes**.
- The **Admin UI** will now be displayed. Use the **▲** and **▼** buttons to highlight **Set Up** and press the **✓Select** button.
- Select **Settings**.

The **Settings** screen is displayed:



- Use the **▲** and **▼** buttons to choose **Display Settings** and press **✓Select**.

The **Display Settings** screen is displayed:



## Primary Display Configuration

The **Primary Display Configuration** can be set to **Auto**, **HDMI**, **Component** or **S-Video/Composite**.

The **Auto** setting is recommended. This will select the best display quality of the connected outputs. Select a different mode only if non-standard configuration is desired. For example, when using a video switcher, or complex video routing.

## HDMI Settings

The **HDMI Settings** screen is used to configure the digital video output.

- Use the **▲** and **▼** buttons to choose **HDMI (Digital) Settings** and press **✓Select**.

The **HDMI Settings** screen is displayed:

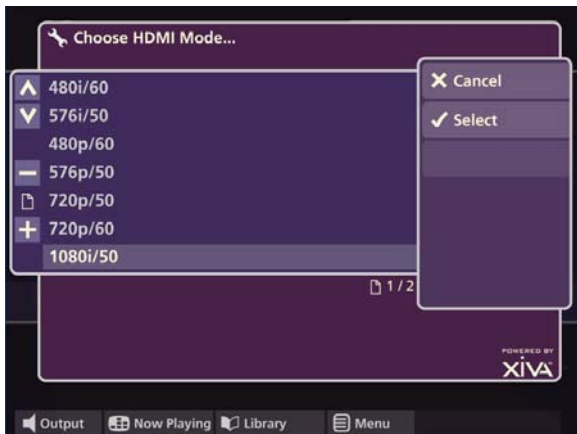


## Changing HDMI Mode

You will usually get the best results by setting the **HDMI Mode** to the highest setting supported by your television, as this will give the best picture quality when watching movies and navigating the user interface.

- Use the **▲** and **▼** buttons to choose **HDMI Mode** and press **✓Select**.

The **Choose HDMI Mode** screen is displayed:



- Use the ▲ and ▼ buttons to choose an appropriate **HDMI Mode** and press the ✓ **Select** button.
- Press the **Save** button.

Choose the highest setting that your TV will display; for example, **1080p/60**. Choosing a setting will cause the screen to flash several times before attempting to display the chosen mode.

## HDMI Auto Switching

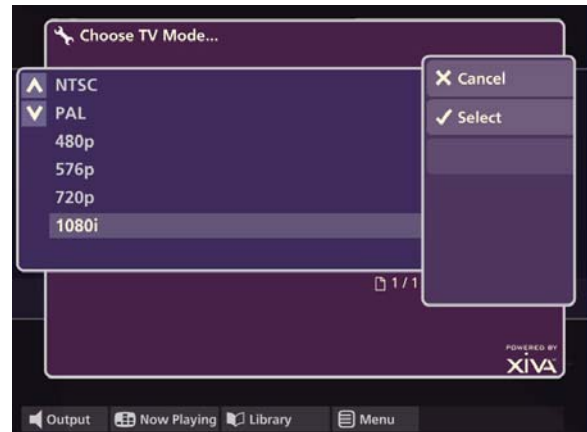
For most televisions, **Auto Switching** should be enabled to allow the playback of both NTSC and PAL DVDs. Only disable autoswitching if the television connected to HDMI does not support both formats.

- From the **HDMI Settings** screen use the ▲ and ▼ buttons to highlight **Auto Switching** and press ✓ **Select**.
- Use the ▲ and ▼ buttons to choose between **Disabled** and **Enabled** and press ✓ **Select**.
- Press the **Save** button.

## TV (Analog) Settings

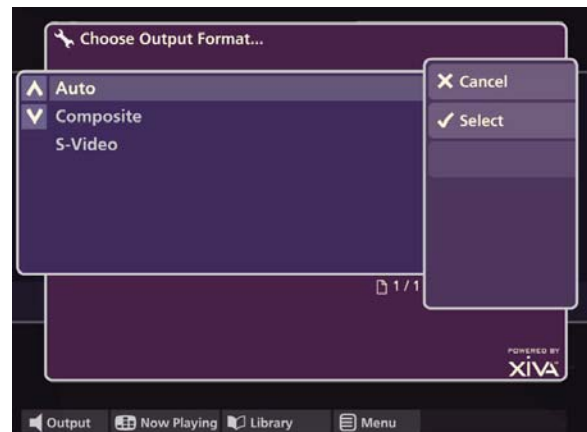
### TV Mode

The **TV Mode** screen allows you to choose the best available video display when utilizing the Analog video outputs. Typically, this will be set to the highest setting your TV will display.



## Output Format

Typically, you will configure this setting to Auto. Use the other settings when using non-standard installations like video switchers, etc.



## Auto Switching

For most televisions, **Auto Switching** should be enabled to allow the playback of both NTSC and PAL DVDs. Only disable autoswitching if the television connected to the Analog outputs does not support both formats.

## DVI (Analog) Settings

Do not change these settings. Consult the TGM-DVC Installation Manual for additional details about the DVI output.

## Exiting the Admin UI

When you are finished with the Display Settings (or other Admin UI functions), you will need to exit the Admin UI and return to the Home Screen.

- Use the ◀ **Back** button to navigate to the **Menu** screen of the Admin UI.
- Select **Exit Admin** to return to the **Home Screen**.



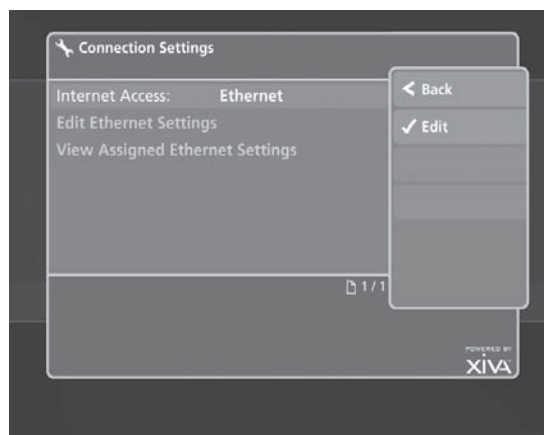
## Network Configuration Settings

To ensure that when the TGM-100 is first switched on it will automatically be assigned an IP address on most networks, it is configured to **DHCP** by default. For best performance, you should manually assign a **Static IP Address**.

To configure Network settings:

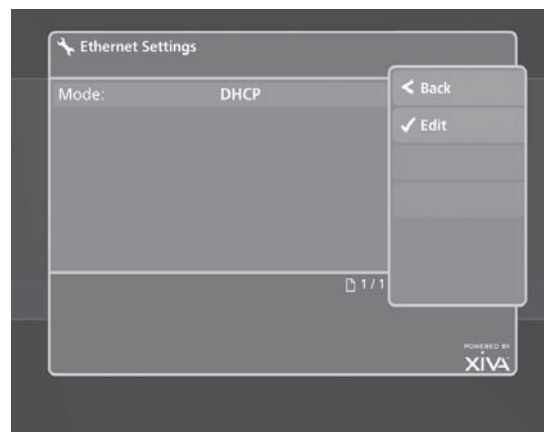
- Navigate to the **Admin UI** and display the **Settings** screen as described previously.
- Use the **▲** and **▼** buttons to highlight the **Connections Settings** option and press the **✓ Select** button.

The **Connection Settings** screen is displayed:



- Use the **▲** and **▼** buttons to highlight **Edit Ethernet Settings** and press the **✓ Select** button.

The **Edit Ethernet Settings** screen is displayed:



The TGM-100 has two Ethernet Modes: **DHCP** and **Static**. DHCP should be selected as the Ethernet Mode if the TGM-100 is to be assigned an IP address by a DHCP server on the network. The TGM-100 is configured to DHCP by default. If you are unsure if the network has a DHCP server, contact the network administrator.

## Assigning a Static IP Address

You will need to assign the TGM-100 a **Static IP Address** if you are using the TGM-HDC external storage device, or if you connect one or more TGM-100C Clients to it. This is because all communications between these devices occur over the network, and their IP addresses must remain constant for this to take place.

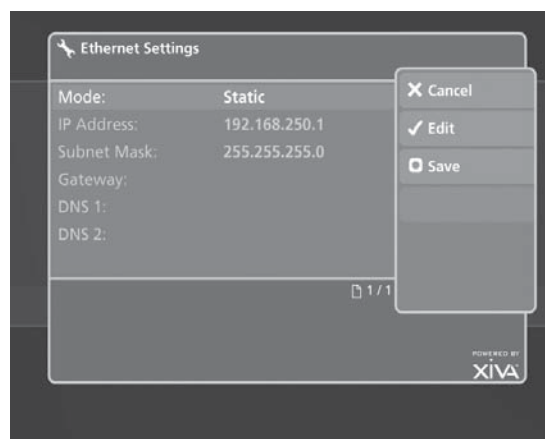
**Note:**

You should obtain the IP addresses you need from your Network Administrator. Do not just change it to Static and re-use the IP address issued by the DHCP server. DHCP IP addresses can expire after a variable amount of time, and the DHCP Server will expect to be able to reuse them. If you have used such an IP address as a Static address, this can cable to a conflict of IP addresses, with unpredictable consequences. Static IP addresses must be outside of the range of the DHCP server.

To assign a Static IP Address:

- Press the **✓ Select** button to edit the **Ethernet Mode**.
- Use the **▲** and **▼** buttons to highlight **Static** and press the **✓ Select** button.

A number of extra fields will appear on the **Ethernet Settings** screen:



The extra fields allow you to enter the following details:

- **IP Address** - the IP address is used to identify the TGM-100 on the network. Choose an IP address in the same IP range as the other devices on the network.
- **Subnet Mask** - a subnet mask is used to determine what subnet an IP address belongs to. It is likely that the subnet mask will be the same as the other devices on the network.
- **Gateway** - the gateway enables devices on the network to connect to the Internet. If the network employs a router, the gateway will probably be the same as the IP address of the router.

- **DNS 1** - DNS servers convert Internet addresses to IP numbers. Where a router is being used to connect to the Internet, the DNS 1 address will be the same as the IP address of the router.
- **DNS 2** - it is unlikely that a second DNS address will be required.

If you are unsure as to any of the above details, contact your Network Administrator.

- When you have finished entering **Static Ethernet Settings**, press the **Save** button on the remote control.

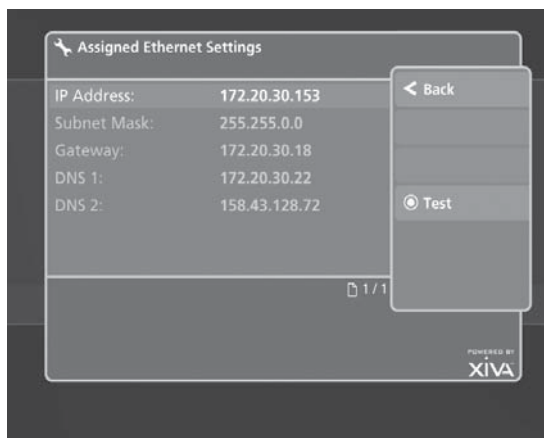
**Note:** You may be prompted to restart the TGM-100 for the changes to take effect.

### Viewing Assigned Ethernet Settings

Once Network configuration is complete, you can use **View Assigned Ethernet Settings** to check the connection details.

- Navigate to the **Admin UI** and display the **Settings** screen as described previously.
- From the **Connection Settings** screen use the **▲** and **▼** buttons to highlight **View Assigned Ethernet Settings**.
- Press the **✓ Select** button.

The **Assigned Ethernet Settings** screen is displayed:



**Note:**

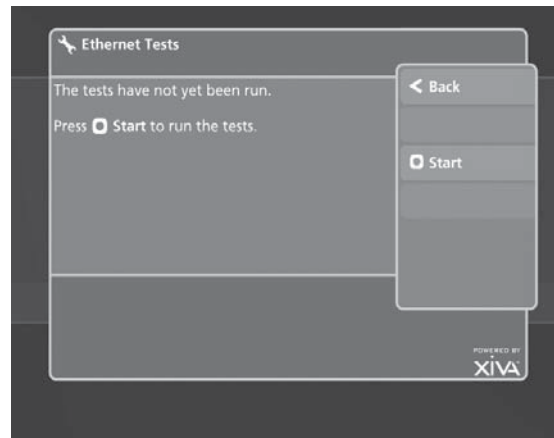
This screen is used for reference only and has no editable fields.

### Ethernet Tests

There is a series of automated tests that can be run to check the TGM-100's connection to the network and the Internet.

- Navigate to the **Admin UI** and display the **Settings** screen as described previously.
- From the **Assigned Ethernet Settings** screen press the **Test** button.

The **Ethernet Tests** screen is displayed:



- Press the **Start** button to run the tests.

The TGM-100 will now run a number of Ethernet tests. After a short while, any failures will be displayed on the screen. To view a complete list of the tests and their results, press the **Show Results** button.

### Configuration Using Web Interface

Once the TGM-100 is connected to the home network, all settings can be configured using the **Web User Interface (UI)**. This allows the use of the home computer to enter text fields and perform all functions without the use of the remote and without the need to view the Home Screen (TV UI).

To view and access the Web UI:

- Go to the **Home Screen** of the TV UI by pressing the **Library** button. Navigate to and select the **Settings** screen.
- On the **Settings** screen, select **Installer Settings**, the select **Yes** when asked if you want to Switch to the Admin UI.
- Select **Set Up** from the **Admin UI** screen. Select **Settings** from the **Set Up** screen.
- Select **Connection Settings** from the **Settings** screen.
- Select **View Assigned Ethernet Settings** from the **Connection Settings** screen.

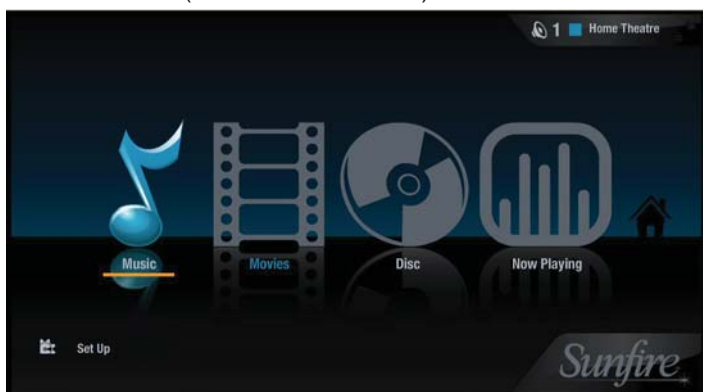
- Write down the **IP Address** from the **Assigned Ethernet Settings** screen.
- Open a web browser on the PC that is connected to the network where the TGM-100 resides.
- Type the IP address from the TGM-100 into the web browser. For example: **192.168.0.39**.



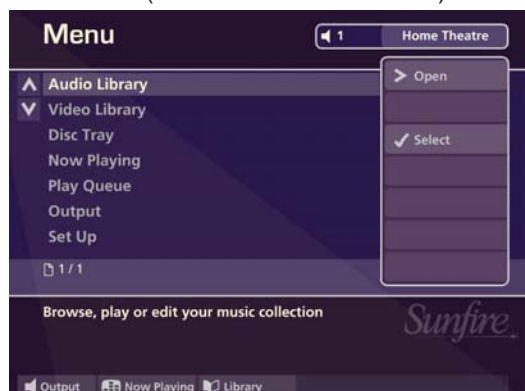
- You may now view and control all functions of the TGM-100 via the home computer.

There are three different Web UIs that may be accessed:

- The **Touch Panel UI** (ex. **192.168.0.39**) shown above.
- The **TV UI** (ex. **192.168.0.39/tv**).



- The **Admin UI** (ex. **192.168.0.39/admin**)



Most actions will be performed using the **TV UI** (on the Main TV display) or the **Admin UI** (on the Web UI or the Main TV display). The Web version of the Touch Panel UI is primarily accessed when using ELAN wireless touch panels.

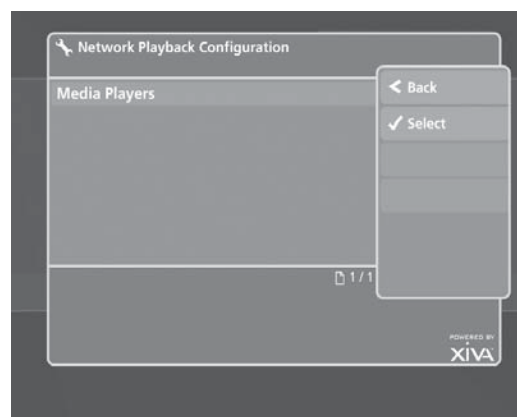
## Accessing Installer Settings Through the Web UI

Once the IP Address is known and you are able to access the TGM-100's Web UI, it is possible to access the **Installer Settings** menu via the home PC.

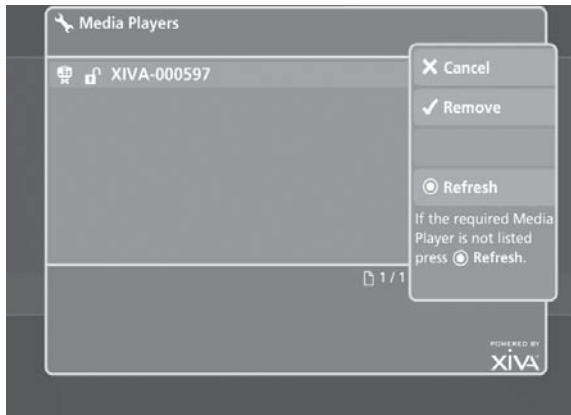
- Open a web browser as previously described.
- Enter the IP Address of the TGM-100 with the addition of **/admin**. For example: **192.168.0.39/admin**.
- The Admin UI is now available for use. All installer settings are available from this UI, as well as all User settings and all functionality of the unit.

## Connecting Clients

- Access the Admin UI as previously described.
- On the TGM-100 Server, navigate to **Setup -> Settings**.
- Select **Network Playback Configuration**.



- Select **TGM-100C Clients**. All available TGM-100C Clients should be listed.



- If the TGM-100 Server has not detected any TGM-100C Clients, press **Refresh** to re-scan the network.
- Select each TGM-100C Client and press **Control** to connect it to the TGM-100 Server.
- Press **Save**.
- To disconnect a TGM-100C Client, select the unit from the list and press **Release**.

## External Storage

Whichever external storage device you choose, it must be connected to a TGM-100 Server (not a client). You can use both an eSATA or a TGM-HDC iSCSI external storage device. Multi-volume support, when implemented, will be available via the online upgrade facility. Plug the eSATA drive into the eSATA socket on the back of the TGM-100 Server only.

### Connecting eSATA Storage: TGM-HD1 (1Tb)

- With all units powered Off, plug the TGM-HD1 into the eSATA port on the back of the TGM-100 and power it up.
- Power up the TGM-100. The TGM-HD1 should be detected by the TGM-100 during startup and automatically be available for immediate use.
- It may be necessary to reboot the TGM-100 the first time a TGMHD1 is connected.
- Should the TGM-100 detect any inconsistency in the TGM-HD1 setup during startup, it will correct this automatically and then restart itself, using the new configuration.

### Connecting Ethernet Storage: TGM-HDC

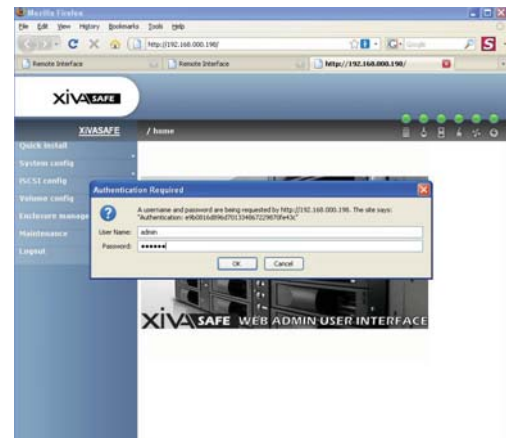
This section covers the basic information needed to get the Sunfire TGM-HDC connected and functioning with the TGM-100.

- Connect the TGM-HDC device as described previously.
- Connect a PC to the network and start your browser.
- Turn on the UPS and the 3 power switches on the back of the TGM-HDC. The unit will output an audible signal once startup has completed.

Your TGM-HDC external storage device must be powered using an Uninterruptible Power Supply (UPS).

#### IP Address

- Write down the IP Address of the TGM-HDC that appears in the window on the front of the unit. For example: **192.168.000.198**.
- Open a web browser from the PC and enter the TGM-HDC's IP Address. The Configuration Screen will appear.
- Click on **System config** for an overview of all the parameters available to set up the TGM-100. The User name/Password dialog box will appear.
- Enter the user name: **admin**.
- Enter the password: **en91n3**.



- Click on **IP address**. The default setting is **DHCP**. Change this to **Static**.
- Enter a new IP Address that is in the range of your network. The example below uses **192.168.000.250**.
- Click **Confirm** to change the IP Address.





- Confirm the new IP Address by looking on the front panel display of the TGM-HDC. It should now display the value that you just added.
- Type the new IP Address into the web browser. You may be prompted to restart the browser before typing in the new address.
- You have now configured a **Static IP Address** for the TGM-HDC.

## Mail

This section describes how to set up mail preferences in order to receive email notices of system errors and warnings. Error messages may be sent to the user, the installer, and to Sunfire Technical Support staff in order to increase reliability and deal with issues preemptively as they may arise.

- Click on **Mail**.
- Enter the **Mail-from** address:  
**xxxxxxxx\_customerlastname@dealername.tgm**

The "xxxxxxxx" represents the last eight digits of the TGM-100s serial number. There are up to 40 total characters available.

- Enter up to three email addresses into the sections labelled **Mail-to address 1:**, **Mail-to address 2:**, and **Mail-to address 3:**. It is recommended to enter the owner's email into field 1, the installer's email into field 2, and Sunfire's email into field 3. Sunfire's diagnostic email is: **tgmhdc@sunfire.com**.
- Select which events you want to be sent to each address. Typically **WARNING** and **ERROR** will be selected. For the "Sunfire" email, select **ERROR** only.
- Click **Confirm** to set these values.

## iSCSI Config

This section describes how to configure settings that the TGM-HDC uses to communicate with the TGM-100.

- Click on **iSCSI config**.
- Click on **NIC**.
- On the **LAN1** line, change **DHCP** to **No**.
- Enter a new **IP address** that is within the range of IP addresses reserved for this task. Do not enter an IP address that is within the DHCP server's range. The example below uses **192.168.0.201**.
- The other values in this area will typically not be changed.
- Click **Aggregation** to set the new values.



## Enclosure Management-UPS

This section describes how to configure settings for the Uninterruptible Power Supply required for use with the TGM-HDC and TGM-100. These settings are suggestions and each installation may vary.

- Click **Enclosure management**.
- Click **UPS**.
- Under **UPS type:**, select **Smart-UPS**.
- Under **Shutdown battery level (%)**, select **10**. This will cause the UPS to power down the TGM-HDC and TGM-100 when the UPS' battery reaches 5% capacity.
- Under **Shutdown delay (s):**, select **180**. This will provide three minutes to shut down the TGM-HDC/ TGM-100 once the low battery condition of the UPS is reached.

- Under **Shutdown UPS**:, select **OFF** to totally shut down the UPS once the low battery condition of the UPS is reached. Select **ON** in order for the audible warning sound to continue once the UPS is shut down.
- Select **Confirm** once the UPS settings are completed.

Once all of these settings are done, click **Logout** to finish the process.

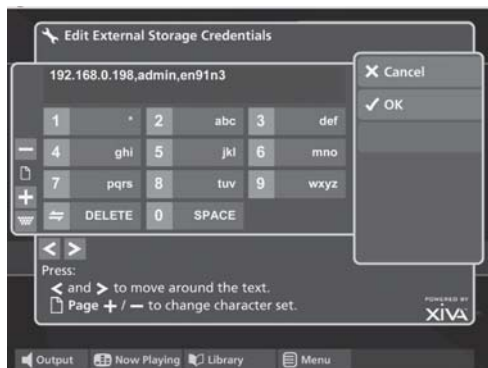
## Configuring the TGM-100 with the TGM-HDC

With the IP Address configured and the units all connected, the installer must now configure communications between the TGM-100 and the TGM-HDC.

- From the TGM-100's Web UI or the TV UI, select the **Installer Settings** screen as previously described.
- Select **Set Up**, then **Settings**.
- Select **External Storage Settings**.
- Select **Credentials**, then **Edit**.



- Enter the **IP Address** found on the Display Window found on the front of the TGM-HDC, followed by the **Admin User Name (admin)** and the **Admin Password (en91n3)**. Use no spaces and separate each with a comma. For example: **192.168.0.198,admin,en91n3**.



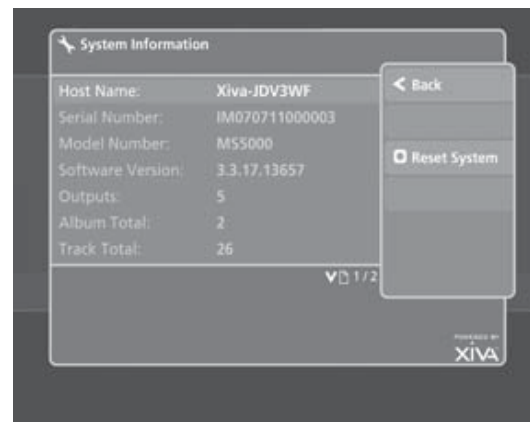
- For systems with multiple TGM-HDC iSCSI devices, use a semicolon without spaces between the credentials of each device. For example: **192.168.0.198,admin,en91n3; 192.168.0.199,admin,en91n3; 192.168.0.200,admin,en91n3; 192.168.0.201,admin,en91n3**
- Once the Credentials are entered correctly, select **✓OK**.

## Resetting the System

Should you decide you want to remove all the media from your TGM-100's external storage device, or to revert all settings to their factory defaults, you can do so via the **System Information** screen.

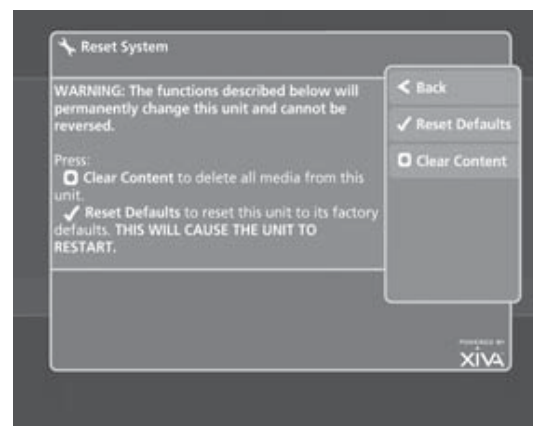
- Navigate to the **Admin UI** as described previously.
- Select **System Information**.

The **System Information** screen will be displayed:



- Press **Reset System**.

The **Reset System** screen will be displayed.



## Reset to Factory Default

If you reset the unit to the factory defaults, all personal customization - for instance, changes to the color of the user interface - will be removed. Once removed, these settings are not recoverable.

**CAUTION:** This will reset all your network settings, which may render your system unuseable.

- Press **✓ Reset Defaults**.

The unit will shut down and restart automatically.

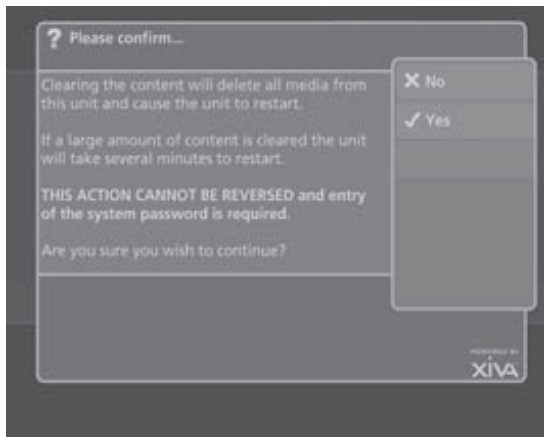
The unit will shut down and restart automatically, and all audio and video media will be erased. If you have a large amount of media on your TGM-100, the erase-then-restart process can take some time.

## Erasing All Media

**CAUTION:** This process will permanently delete all your albums and videos and cannot be reversed!

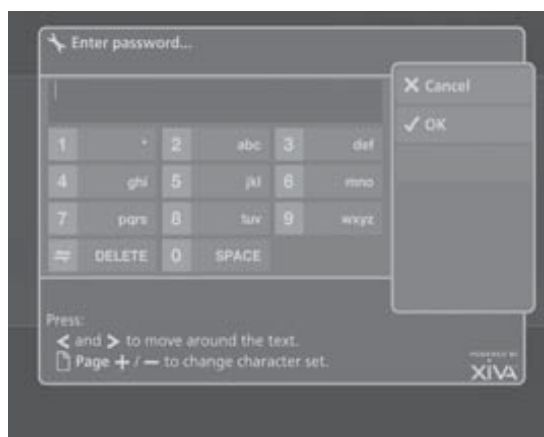
- From the **Reset System** screen, shown above, select **○ Clear Content**.

A **Confirm** screen will be displayed:



- Press **✓ Yes** to confirm that you wish to proceed.

The **Enter Password** screen will be displayed.








Enter the System Password, which is **ResetMyMedia**.

Note that the password is case-sensitive.

## 4. Application Installation and Updates


### Software Updates

Once the TGM-100's connection settings have been configured, you should perform a check for available software updates.

- Press the  **Library** button on the remote control to display the **Home Screen**.
- Select the **Set Up** option and press the  **Select** button to display the **Set Up** screen.
- Use the  and  buttons again to select the **On-line Update** option and press the  **Select** button.

The **On-line Update** screen is displayed:



- Highlight Start and press  **Select** to automatically check on-line for software updates.
- If a software update is available, the TGM-100 will automatically download and install it. The TGM-100 will then restart with the new software version installed.

### Engineering Mode

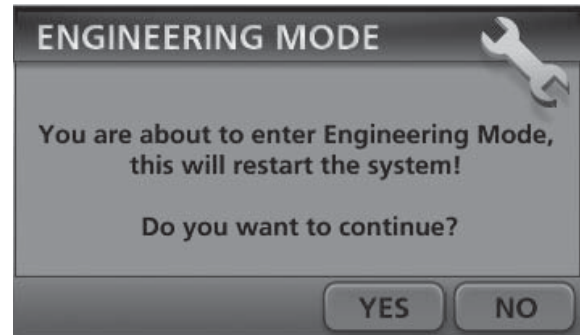
**Engineering Mode** allows a user to install third-party applications on the Sunfire TGM-100.

There are two USB ports located on the rear of the TGM-100. Plug a USB keyboard into one of these ports and a USB mouse into the other. If you want to plug a USB memory stick in as well, you can use a USB hub to increase the number of ports.

- While on the **Home Screen**, type the following case sensitive password on the USB keyboard:

**en91n3 <Left Ctrl>**

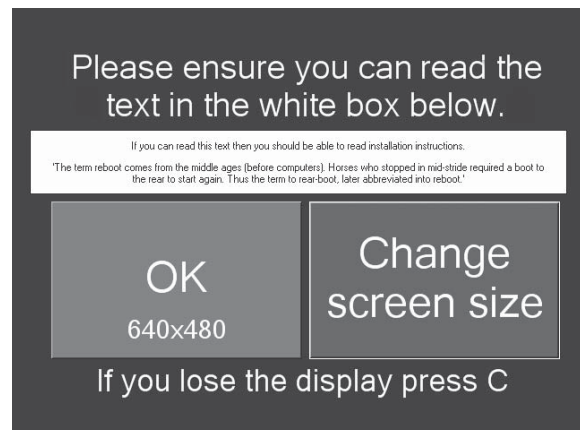
A pop-up window will appear on the television user interface:



If the above pop-up window does not appear, re-type the password carefully, ensuring CAPS LOCK is switched off.

- Click on the **Yes** button with the mouse to restart the unit in Engineering Mode.

The unit will reboot automatically into Engineering Mode and the following screen will be displayed:



Follow the instructions on the screen and click on the **OK** button when you are ready to proceed.

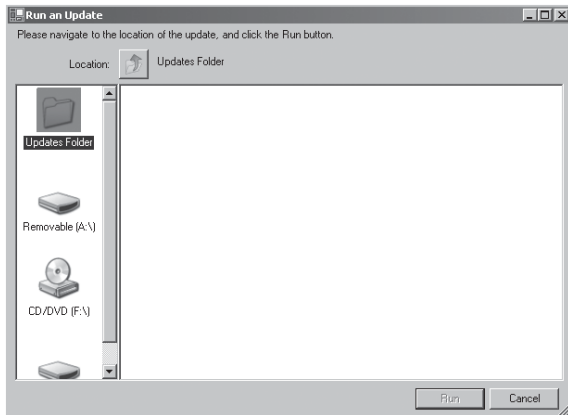
The TGM-100 is now in Engineering Mode.

### Installing Applications

You will notice a menu bar appear in front of the start up screen. The menu bar contains two drop down menus, labelled **Engineering Menu** and **Help**. At this stage, insert the CD-ROM containing the application installer into the disc player or connect a USB Drive.

- Click on **Engineering Menu** to show the drop-down menu.
- Select **Run an Engineering Update** from the drop-down menu.

The **Run an Update** window will be displayed:



- Click on the **CD/DVD (F:\)** icon on the left-hand side of the window to display the contents of the CD-ROM. Alternatively, if you are using a USB Drive, click on **Removable (G:\)**.
- Locate and double click on the application installer to begin installing the application.

The installer will run just as it would on a normal Windows PC. Follow the prompts to complete the installation. If you are prompted by the application installer to reboot, then do so. The unit will automatically reboot into Engineering Mode.

If you need to run another application to register the software you have installed, repeat the above procedure to access the CD-ROM or USB Drive contents, but this time choose to run the registration application.

At this point the application you have installed may be displayed on the screen. You might want to take this opportunity to disable any settings that might cause the application to display messages over the user interface (for example, it is common for applications to attempt to check online for newer versions and this can cause unwanted messages to be displayed over the user interface).

**Note:** See the section below entitled **Configuring an Application** for instructions about how to do this at a later time.

When the installation is complete you will need to leave Engineering Mode:

- Click on **Engineering Menu** to show the drop-down menu.
- Select **Leave Engineering Mode – Save Changes** from the drop-down menu.

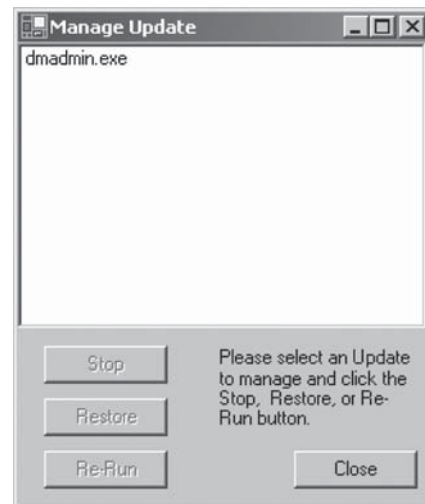
## Configuring Applications

You may want to configure an application to prevent it from displaying future messages over the user interface (for example, some applications may try to prompt you to update to a newer version).

Access Engineering Mode as described above.

- Click on **Engineering Menu** to show the drop-down menu.
- Select **Manage a Running Update** from the drop-down menu.

The **Manage Update** window will be displayed:



- Click on the application you would like to configure.
- Click on the **Re-Run** button. If this fails to display the application, try clicking on **Restore**.

Navigate to the application's settings screen and uncheck or disable any settings related to checking online for a new version of the application.

When the configuration is complete you will need to leave Engineering Mode:

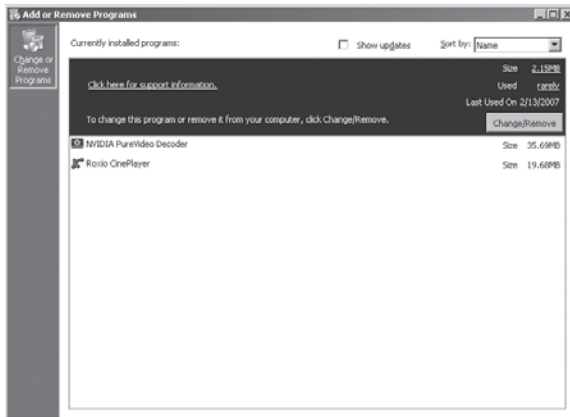
- Click on **Engineering Menu** to show the drop-down menu.
- Select **Leave Engineering Mode – Save Changes** from the drop-down menu.

## Uninstalling Applications

Access Engineering Mode as described previously.

- Click on **Engineering Menu** to show the drop-down menu.
- Select **Remove Custom Installed Update** from the drop-down menu.

The **Add or Remove Programs** window will be displayed:



- Highlight the application you wish to uninstall by clicking on it.
- Click on **Change/Remove**.

Follow the prompts to complete the removal process. If you are prompted by the installer to reboot, then do so. The unit will automatically reboot into Engineering Mode.

When the removal process is complete, you will need to leave Engineering Mode.

### Leaving Engineering Mode

- Click on **Engineering Menu** to show the drop-down menu.
- Select **Leave Engineering Mode – Save Changes** from the drop-down menu.



## 5. Troubleshooting Network Issues

### Using the Correct Ethernet Cables

There are two types of network cables that may be used when connecting the TGM-100 to a home network. It is important that the correct type of cable is used or the TGM-100 may fail to communicate properly with the network.

#### Ethernet Crossover Cable

An Ethernet crossover cable is usually used to connect two devices together directly, without employing a switch, hub or router in the network. If you are connecting a computer directly to the TGM-100 (for example, you may need to connect a laptop to the TGM-100 temporarily to configure settings during installation) then you will need to use a crossover cable.

#### Ethernet Patch Cable

Sometimes known as a *straight through* cable, a patch cable is usually used to connect devices to a switch, hub or router. If you are connecting the TGM-100 to an existing network via a network device, such as an Ethernet switch, you should use a patch cable. If you are configuring a new network and connecting computers and the TGM-100 to it, use patch cables between the various components and the network device.

**Note:** If you are unsure if you have a patch cable or crossover cable, examine the wires visible through the plugs at either end. On a patch cable, the configuration of the wires should be identical at both ends. On a crossover cable the wire configuration will be slightly different (usually the green and orange wires will be in opposite positions). If you are unsure, contact the network administrator or consult an IT professional.

#### Cat5e/Cat6

It is important to use Cat5e or Cat6 Ethernet cables throughout the TGM-100's network when installing a TGM-HDC. Utilizing other types of cabling can cause improper operation.

### Determining Static Ethernet Settings

If you are connecting the TGM-100 to an existing network and you want to configure Static Ethernet settings you will need to discover the settings of a computer on the network to determine the IP range of the network.

#### Discovering Ethernet Settings on a Windows PC

- Click on the **Start** button.
- Click on **Run...** to bring up the **Run** dialogue box.

- Type **cmd** and click on **OK**.

A window will open containing the command prompt.

- Type **ipconfig** and press **Enter**.

The following information will be displayed in the command window:

```

C:\WINDOWS\system32\cmd.exe
C:\WINDOWS\system32>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : 192.168.250.1
    IP Address. . . . . : 255.255.255.0
    Subnet Mask . . . . . : fe80::219:dbff:fe44:9160%4
    Default Gateway . . . . . : 192.168.250.1

Tunnel adapter Teredo Tunneling Pseudo-Interface:

    Connection-specific DNS Suffix  . : fe80::ffff:ffff:ffff:5
    IP Address. . . . . : fe80::ffff:ffff:ffff:5
    Default Gateway . . . . . :

C:\WINDOWS\system32>

```

The information above shows the **IP Address** to be **192.168.250.1**. The **Subnet Mask** is **255.255.255.0** and **Default Gateway** of the network is **192.168.250.1**.

The **IP Address** of the TGM-100 will need to be a unique address in the same **IP Range** as the other devices. The **IP Address** of the computer in the above example is **192.168.250.1**. The **IP Range** is therefore **192.168.250.1-254**. The TGM-100 can be configured to any unused address within this range (for example, **192.168.250.3**). If possible, check the other devices on the network to see which addresses within the **IP Range** are already being used.

**Note:** Do not assign an IP Address that is within the range of the network's DHCP server.

The **Subnet Mask** will usually be the same for all devices on the network. The **Default Gateway** is also likely to be the same for all devices and in most cases will also be the address of the DNS server when configuring the TGM-100.



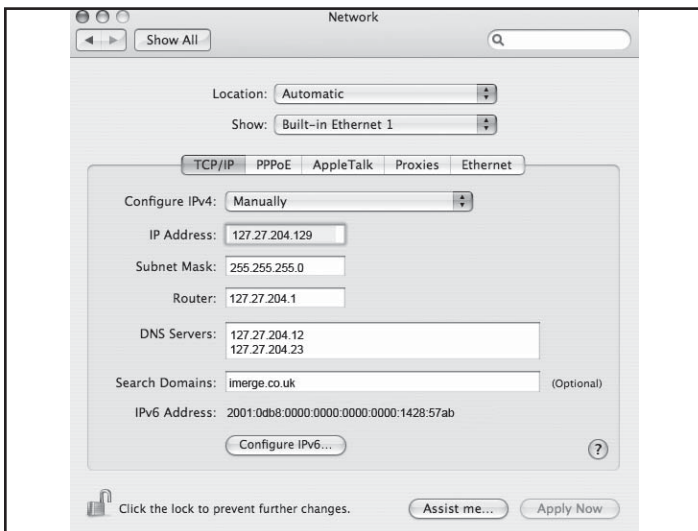
## Discovering Ethernet Settings on a Mac

- Click on the Apple symbol to display the **Apple Menu**.
- Click on **System Preferences**.

The **System Preferences** menu will be displayed.



- Double click on the **Network** icon.



The Ethernet settings are available from this screen. Based on these settings, choose settings for the TGM-100 as described previously.

## IR Issues

If the TGM-100 is failing to respond to button presses on the remote control, there are a number of possible causes:

### The IR signal is not reaching the TGM-100

- If you are using a multi-room control system or infrared distribution system, check the connections to ensure that the signal is reaching the TGM-100

### The remote control is incorrectly programmed

- The TGM-100 remote control must be programmed to match the user interface you are controlling. By default the remote is configured for use with **Output 1**. The configuration may need to be reset. See the section entitled **Configuring the Remote with a Default Output**.

### The batteries are dead

- Change the batteries in the remote control.

## Resetting the UI

Should the TGM-100's UI become unresponsive (the system does not respond to IR commands), the following procedure may be used to reset the UI without having to reboot the system.

- Using the remote control, simultaneously press the **Audio Server** and the **✓Select** buttons. Hold both buttons until the Audio Server button remains solidly lit, then release both buttons.
- Using the number pad, enter the code that controls the specific unit you are working with (**Server=101, Client #1=102, Client #2=103**, etc.).
- Press the **Audio Server** button one you have entered the code. It will flash, indicating it has saved the code.
- Press the **1** button to reset the **TV UI**. Press the **2** button to reset the **Touch Panel UI**.
- To place the remote control back to its original configuration, repeat the steps listed, but use the codes: **Server=001, Client #1=002, Client #2=003**, etc.

After these steps are completed, you should be able to fully control the system. Should you encounter a screen that says "Loading", additional issues are present and you will need to restart the TGM-100.

Programming software for ELAN touch panels contains commands to reset the UI on the TGM-100, as well.

# Appendix Specifications

## General

|                                    |   |
|------------------------------------|---|
| System.....                        | Diskless Media Server   |
| Power Requirements.....            | AC 110-240V ~50Hz/60Hz  |
| Power Consumption.....             | 60W Max   |
| Current.....                       | 0.3 - 0.6A  |
| Weight.....                        | 23.4 lbs/10.6 Kg  |
| Shipping Weight.....               | 26 lbs/11.8 Kg  |
| Dimensions.....                    | 95mm(H) x 430mm(W) x 325mm(D)<br>3.7 (H)in x 17 in(W) x 12.8 in (D) |
| Ambient Operating Temperature..... | 5-35°C  |
| Operating Humidity.....            | 10-90% RH (non-condensing)  |

## Video Outputs

### S-Video Output

|                        |              |
|------------------------|--------------|
| Connector.....         | S-VIDEO Jack |
| Output Resolution..... | NTSC or PAL  |

### Composite Video Output

|                        |             |
|------------------------|-------------|
| Connector.....         | RCA Jack    |
| Output Resolution..... | NTSC or PAL |

### HDMI Output

|                        |            |
|------------------------|------------|
| Connector.....         | HDMI       |
| Output Resolution..... | 480i-1080p |

### Component Video Output (Y, Pr, Pb)

|                        |              |
|------------------------|--------------|
| Connector.....         | 3 x RCA Jack |
| Output Resolution..... | 480i-1080i   |

### DVI Output

|                        |          |
|------------------------|----------|
| Connector.....         | DVI Jack |
| Output Resolution..... | 480i     |

## Audio Outputs

### Analog Outputs

|                       |          |
|-----------------------|----------|
| Output Level.....     | 2V RMS   |
| Output Impedance..... | 600 W    |
| Connector.....        | RCA Jack |

### Digital Outputs

|                               |               |
|-------------------------------|---------------|
| Optical Output Connector..... | Toslink       |
| Coaxial Output Level.....     | 500mVp-p/75 W |
| Coaxial Output Connector..... | RCA Jack      |

### Analog Audio Characteristics (typical)

|  |                           |
|--|---------------------------|
| Frequency Response.....                | 20Hz to 20kHz $\pm$ 0.5dB |
| S/N ratio (@1KHz).....                 | 100dB (A weighted)        |
| Dynamic Range.....                     | > 96dB                    |
| Total Harmonic Distortion (@1kHz)..... | 0.003%                    |
| Channel Separation (@1KHz).....        | 110dB                     |

## Communications

### Ethernet

|                |                                      |
|----------------|--------------------------------------|
| Connector..... | RJ45 (10 Base T/100 Base T) / 1000BT |
|----------------|--------------------------------------|

### IR Input

|                          |            |
|--------------------------|------------|
| Maximum Input Level..... | 5V         |
| Connector.....           | 3.5mm Jack |

### USB1.1/2.0 (2 connectors)

|                |                   |
|----------------|-------------------|
| Connector..... | Type A USB Socket |
|----------------|-------------------|

## Accessories

|                                    |   |
|------------------------------------|---|
| Power Cord.....                    | 4 |
| Remote Control Unit.....           | 1 |
| AAA (R03P) Dry Cell Batteries..... | 2 |
| Operating Instructions.....        | 1 |

**Note:** The specifications and design of this product are subject to change without notice.

## Limited Warranty

### Sunfire Limited Warranty

Sunfire, a division of Elan Home Systems, LLC, is proud of its products which have been built with care using advanced technology and premium component parts. Your unit has been crafted to perform properly for many years. Sunfire offers the following Warranty to you, the original owner of a new Sunfire product:

Sunfire warrants the TGM-100 to be free from defects in materials and workmanship for the period of TWO (2) years from the date of purchase. If within the applicable warranty period above purchaser discovers such item was not as warranted above and promptly notifies Sunfire in writing, Sunfire shall repair or replace the items at the company's option.

This warranty shall not apply:

- (a) to equipment not manufactured by Sunfire.
- (b) to equipment which shall have been installed by other than an authorized Sunfire installer.
- (c) to installed equipment which is not installed to Sunfire's specifications.
- (d) to equipment which shall have been repaired or altered by others than Sunfire.
- (e) to equipment which shall have been subjected to negligence, accident, or damage by circumstances beyond Sunfire's control, including, but not limited to, lightning, flood, electrical surge, tornado, earthquake, or any other catastrophic events beyond Sunfire's control, or to improper operation, maintenance or storage, or to other than normal use of service.

With respect to equipment sold by, but not manufactured by Sunfire, the warranty obligations of Sunfire shall in all respects conform and be limited to the warranty actually extended to Sunfire by its supplier. The foregoing warranties do not cover reimbursement for labor, transportation, removal, installation, or other expenses which may be incurred in connection with repair or replacement.

Except as may be expressly provided and authorized in writing by Sunfire, Sunfire shall not be subject to any other obligations or liabilities whatsoever with respect to equipment manufactured by Sunfire or services rendered by Sunfire.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESSED AND IMPLIED WARRANTIES EXCEPT WARRANTIES OF TITLE, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

#### ATTENTION: TO OUR VALUED CONSUMERS

**To insure that consumers obtain quality pre-sale and after-sale support and service, Sunfire products are sold exclusively through authorized dealers. Sunfire products are not sold online. The warranties on Sunfire products are NOT VALID if the products have been purchased from an unauthorized dealer or an online E-tailer. To determine if your Sunfire re-seller is authorized, please call Sunfire at (859) 514-8290.**

We suggest that you read the Limited Warranty completely to fully understand your Warranty/Service coverage.

## Service Assistance

If your Sunfire product ever requires service, write to us or call:

Sunfire  
1300 E New Circle Road, Suite 150  
Lexington, KY 40505  
Phone 859-514-8290  
Fax: 859-269-7972

You will be directed to an authorized Sunfire Service Station or receive instructions to ship the unit to the factory. Please save the original shipping carton and packing materials in case shipping is required. Please do not ship Parcel Post.

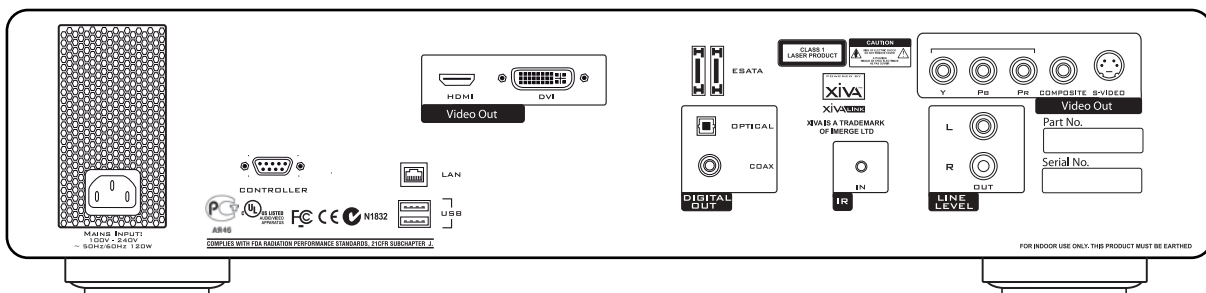
**NOTE: Before sending in your unit for repair, you must call Sunfire for return authorization.**

Include a complete description of the problem, indicating how you have it connected, the associated equipment in your system and a copy of your purchase receipt. Initial shipping costs are not paid by Sunfire; return ground shipping costs will be prepaid if repairs were covered by the scope of this Warranty.



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# Sunfire®



## *Theater Grand Media Server* *TGM-100* *TGM-100C*

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*Sunfire*

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P/N 9900979 REV:A