SkipJam iMedia Center ™

User's Guide

Revision 1.01

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

This equipment has been tested and found to comply with the limits pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

*** Reorient or relocate the receiving antenna**

*** Increase the separation between the equipment and the antenna**

*** Consult the dealer or an experienced radio/TV technician for help**

The user is cautioned that changes and modifications made to the equipment without the approval of the manufacturer could void the user's authority to operate this equipment.

Warning: This equipment has been approved for mobile applications where the equipment should be used at distances greater than 20cm from the human body (with the exception of hands, wrists, feet andankles). Operation at distances less than 20 cm is strictly prohibited.

Acknowledgements

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Patents Pending.

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Warranty Information

What this warranty covers:

Defects in material or workmanship

What is covered and for how long:

LABOR: For 90 days after purchase, SkipJam will replace (optionally with a refurbished unit) or repair any SkipJam product determined by SkipJam to be defective within 90 days after purchase. You will be responsible for shipping to SkipJam.

PARTS: For one year after purchase SkipJam will replace parts determined by SkipJam to be defective with equivalent new or refurbished parts. You will be responsible for labor charges to replace the defective part(s) and for all shipping costs.

How to get service

Contact SkipJam (e-mail to support@skipjam.com) or an Authorized SkipJam Repair Center (see www.skipjam.com for a list of world-wide service centers) for troubleshooting help. If a SkipJam representative determines that your unit is defective you will be provided with a Returned Merchandise Authorization (RMA) and instructions on the procedure for return.

No returns will be accepted without an RMA. If you ship us a unit without an RMA, we will charge storage fees until you provide payment for a return shipment.

Limitations of this warranty – what is not covered

This warranty does not cover any of the following: Instruction, installation, setup, adjustment of settings or controls, network access, cosmetic damage, damage from improper operation, improper maintenance or neglect, a unit who's cover has been removed or which has been modified in any way, damage due to acts of God, accident, negligence, connection to improper voltage or power supply, institutional or commercial use, use in security, critical care, childcare or any other non-entertainment uses, any unit purchased or serviced or operated outside the United States or Canada, or damage which occurs during return shipments to SkipJam whether or not the unit was returned in it's original packaging or in accordance with SkipJam instructions.

THE WARRANTY STATED ABOVE IS THE ONLY WARRANTY APPLICABLE TO THIS PRODUCT. ALL OTHER WARRANTIES,

EXPRESS OR IMPLIED, INCLUDING ALL IMLPIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND ANY SUCH ARE HEREBY SPECIFICALLY DISCLAIMED. NO VERBAL OR WRITTEN INFORMATION GIVEN BY SKIPJAM, ITS AGENTS OR EMPLOYEES SHALL CREATE A WARRANTY OR IN ANY WAY INCREASE THE SCOPE OF THIS WARRANTY.

REPAIR OR REPLACEMENT AS PROVIDED HEREIN IS THE EXCLUSIVE REMEDY FOR THE CONSUMER. SKIPJAM SHALL NOT BE LIABLE FOR ANY INCEDENTIAL OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OR LOSS OF USE OF THIS PRODUCT OR ARISING FROM ANY BREACH OF ANY EXPRESS OR IMPLIED WARRANTY FOR THIS PRODUCT. THIS DISCLAIMER OF WARRANTY AND LIMITED WARRANTY ARE GOVERNED BY THE LAWS OF THE STATE OF NEW YORK. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY IS LIMITED TO THE APPLICABLE PERIOD SET FORTH ABOVE.

Some states do not allow the exclusion or limitation of incidental or consequential damages or allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may have other rights that vary from state to state.

Warranties and specifications are subject to change without prior notice. Please contact SkipJam for the latest information.

Quick Start Guide:

1. Connect Cables (NOT POWER):

   a. Connect only S-Video (S) or Composite (V) at any one numbered input connection, not both. (See "Connecting the cables" on page 12 for a diagram.)

   b. Use network port number 1.

   c. For quickest startup use analog audio (you can connect digital audio later.)

   d. Connect RF antenna if you have the optional RF Controller/Phone.

   e. Connect IR emitters, but do not tape them in place until you are certain of the location; You may need an "IR Blaster" cable (not included) for Projection TV screens that do not have a visible IR receptor. (see "Infrared Emitters" on page 23)

2. Install the battery in RF Remote and/or remove the battery protector from IR Remote.

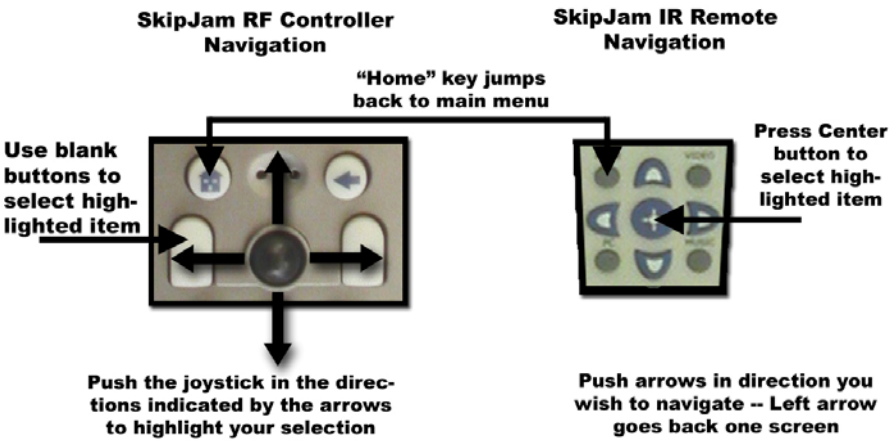
3. Connect Power to main unit and turn on your TV

IMPORTANT: The BRICK power supply which has a detachable power cord is for the iMedia Center; The small (2 inch cube) block supply that plugs directly to the wall is for recharging the iMedia Controller.

4. Configure the system following on-screen instructions.

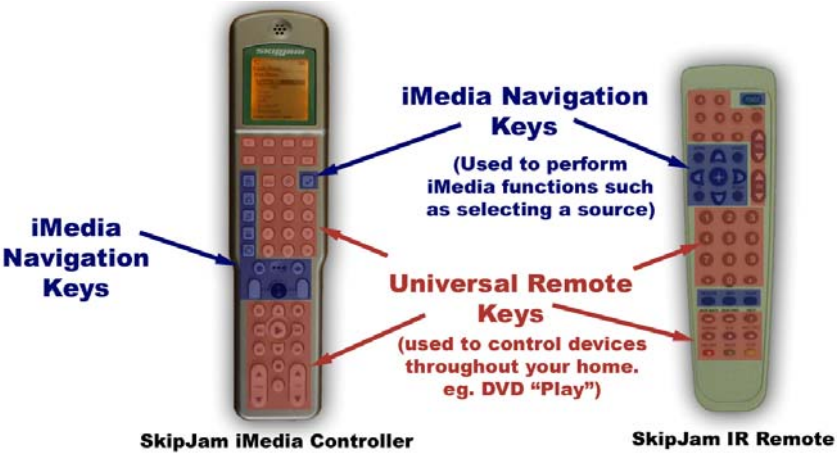
5. Enjoy your new found control and convenient media access.

Using the iMedia Remote Controls



On the SkipJam iMedia RF Controller, pressing the "back ←" button when the main menu is on-screen, moves the Menu back and forth between the display on the TV and the display on the remote. If you don't see the menu, press "Home" then "Back". For more on this see page 19

To use the iMedia Center universal remote capabilities you will need to set up the IR emitters and teach the iMedia Center the remote codes for your devices (see page 22 – Understanding the iMedia Universal Remote Capability)



Overview

Welcome to the Digital Home of the 21st Century!

This manual is set up in 2 sections. The first is a direct step by step walk-through explaining how to set up and use your iMedia Center. We suggest you at least skim this part through page 37 – iMedia Menus . Please pay particular attention to highlighted items

The second part (starting on page 37) is a detailed explanation of each menu and function independently.

Thank you for purchasing the SkipJam iMedia Center – the first Network Attached Media solution. The SkipJam iMedia Center is the heart of your whole-house distribution and control system. The SkipJam iMedia system networks all your home entertainment, making all your media both digital and analog, available everywhere. The iMedia Center also provides a unified control system that learns, stores and distributes remote control codes so a single remote manages all your entertainment equipment.

With the SkipJam iMedia RF Controller, the iMedia Center gains full telephone functionality with messaging, whole-house paging, and on-TV caller ID.

The SkipJam iMedia Center can play audio and video sources from locally connected A/V components or A/V components connected to other iMedia Centers in your home. The iMedia Center can also play digital media files located in any shared network folder on Windows, Mac OSX or Linux computers or Network Attached Storage systems.

With the SkipJam iMedia Windows Client, you can watch any iMedia connected device right on your PC's screen, and control any device in your

home from your web browser. The iMedia Windows Client also provides access to your PC screen from any iMedia connected TV.

The SkipJam iMedia Center's digital video recorder (DVR) allows you to record any audio and video source to a digital file anywhere on your home network. The built-in scheduler and program guide provide a convenient and effortless method for recording your favorite TV shows.

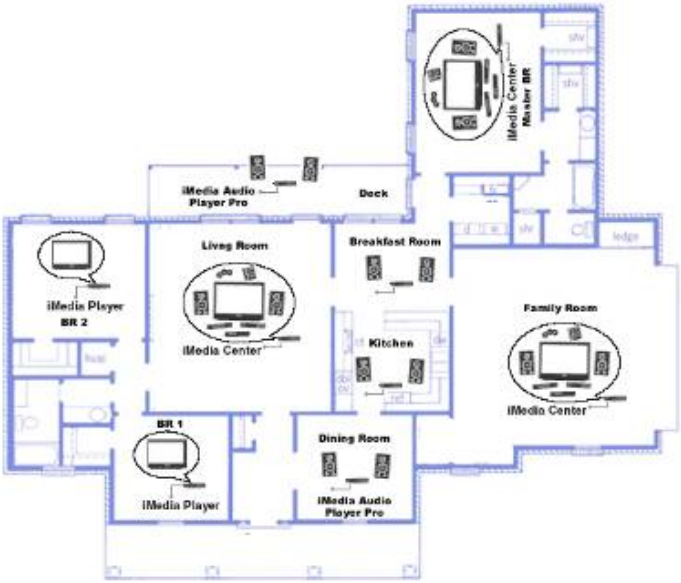
Central to the iMedia Center's operation is a menu system that provides access to its various functions. The menu is accessible via the SkipJam iMedia Controller, on TV screens through an on-screen display (OSD) menu, and through any browser on a PC or PDA on your home network.

Overview of the SkipJam iMedia System

The SkipJam iMedia system sees your home much as you do. The iMedia system operates in terms of "rooms" "devices" and "media."

Typically, you would include either an iMedia Center, an iMedia Player, or a PC with the iMedia Client Software in each "room." Each iMedia system (center or player) is connected to "output" devices such as TVs and stereos, and has connected to it "input" devices such as DVD players, satellite and cable tuners and so on.

When you've set it up, your home might look something like this:



To operate the iMedia system, you simply tell it in which "room" you want to watch, and what you want to watch there. The iMedia System then establishes the appropriate connection to set up this "session."

iMedia Centers can send the signals from any input devices to any other iMedia enabled device. iMedia Centers can also record signals from any input devices to any shared network hard drive.

iMedia Players can play recordings from any shared network hard drive, and can display "live" signals sent from any iMedia Center. This means you can watch a device (DVD or cable tuner) remotely as it's playing.

You can mix and match iMedia Centers, iMedia Players and PCs as you see fit for your system.

iMedia Audio players play any audio on the network, and the "pro" versions include amplifiers for in-wall installation so that all you need are speakers.

You can control the whole system from any room using an IR controller, an iMedia RF Controller, an iMedia Touch Panel, or from any PC or PDA using the iMedia Browser interface.

SkipJam iMedia Center Physical Layout

The SkipJam iMedia Center unit can support up to 10 audio and 5 video sources. It has a built in cable-ready TV tuner and an FM radio tuner. It has two 10/100 Mbps network interfaces for connection to your network. It also has the capability of storing and reading media files on a external Firewire (IEEE 1394) or USB hard drive connected to the iMedia Center USB or Firewire ports.

When attached to an active phone line, the SkipJam iMedia Controller can be used as a telephone and will display caller ID on all iMedia connected screens in your home.

The majority of the SkipJam iMedia Center connectors are located at the back of the unit. Each connector is clearly marked. The 12 Volt DC power input jack is also located in the lower right corner as seen from the rear of the unit.

iMedia Center Rear View

The front of the unit has a set of A/V composite connectors, an IEEE 1394 connector and a pair of USB connectors behind the sliding panel.

The switch marked "FIND REMOTE" is used to page the SkipJam iMedia Controller (press the switch once to have the remote emit a series of loud beeps) or to learn a new infrared remote for use in controlling the iMedia Center's menu system in the event the iMedia Controller is lost or broken. (press the switch 5 times in a row to access the learning remote function)

There is also a set of five LEDs and the infrared IR receiver window on the right side of the unit. Three LEDs are on when the unit has properly initialized. There is a pin-sized hole to the right of the IR window where the reset switch is located.

iMedia Center Front View

Audio / Video Input Connections

The iMedia Center supports analog RCA-type audio and digital PCM audio (coax and optical) connections. A total of 10 independent audio sources (four digital, six analog) can be attached. Four of the RCA audio inputs are located next to four video inputs, however you can use each audio and video port independently. So that if you connect a DVD to Video input 1 and the DVD's audio to a digital audio input, you can use Audio Input 1 for a separate Audio device (CD or TAPE)

For Video you have a choice of using either an RCA-type composite video connectors or S-video connectors for higher quality. There is also a built-in cable-ready TV tuner and FM tuner.

IMPORTANT: Each video input connection has an s-video and composite (RCA-type) connector. Connect only one or the other but NOT both.

Audio / Video Output Connections

The iMedia Center has one S-Video and one RCA-type composite video output which MAY be used at the same time to drive two different TVs (with the same picture on each). The iMedia Center also has one pair of analog RCA audio output connectors and two digital PCM audio (coax and optical) output connections. While the inputs must be either Composite or S-Video

you may connect both the Composite and S-Video **output** connectors at the same time (for example to drive two different TVs.)

All audio outputs will provide the same signal. So that the analog, optical digital, and coaxial digital connectors will all "play" the same audio, and you may use these output connectors interchangeably, regardless of the input source.

Networking and Storage

Storage for digital media is limited only to the space available on your network. The iMedia Center is equipped with two 10/100 Mbps network interface ports. You only need to connect one of the two ports. The only requirement is to have access to a network shared folder.

Local external storage devices may also be used for digital media storage and can be connected optionally to one of the three available 1394 Firewire or USB connectors.

Note: The iMedia Center must be configured initially to recognize available network shares in order to identify digital media. A search of your network shares is performed during setup of the unit. You can also manually modify this setting from the Setup menu. See page 29, Accessing Your Digital Media, for more information on sharing your media files.

Wireless

You can connect the iMedia Center to your network using any readily available wireless bridge. However, we recommend connecting the iMedia Center using cat-5 cabling. If you choose to use a wireless connection, you well get best results from an 802.11a or 802.11g system, and we recommend that you hard-wire as much of your network as possible. (eg. Try to wire either your PC *or* your iMedia Center directly to your wireless router to minimize "air hops" or "air-to-air" connections. As an alternate solution try to connect the iMedia Center directly to the PC using an "ad-hoc" connection type.) For more information please see "Wireless Networking" on page 61.

Device and System Control

The SkipJam RF iMedia Controller lets you control your whole house from virtually anywhere in your home. The iMedia Controller has an LCD screen that shows the iMedia Menus that you would otherwise see on the TV or on the browser interface. The iMedia Controller control is powered using the included NiCd battery pack.

Use the 9V battery charger to charge the battery whenever the remote is not in use. If the battery is low on charge, you can use the remote while it is connected to the charger.

SkipJam iMedia Windows Client

The SkipJam iMedia Windows Client provides a tray icon for easy access to and control of your entire SkipJam iMedia Network via the iMedia browser menus. The SkipJam iMedia Windows Client also provides the SkipJam iMedia Player for Windows which allows your PC to play any streamed content from any device on your SkipJam iMedia Network.

Requirements for SkipJam Windows Software

- Intel Pentium/Celeron family or AMD K6/Athlon/Duron family or compatible PC connected to a network
- Windows XP or Windows 2000 with the latest service packs.
- SuperVGA (800x600) or higher-resolution video adapter and monitor
- 128 MB of memory
- 10 megabytes (MB) available hard disk space

Getting Started

Requirements

Although the SkipJam iMedia Center can function as a stand-alone player/recorder, switching station and universal remote, we recommend connecting the SkipJam iMedia Center to a home network. For several of the SkipJam iMedia functions to operate, it is necessary to have access to writable network shares (drives). You will also need the necessary A/V cables to connect your A/V equipment to the iMedia Center's input.

Packing List:

The SkipJam iMedia Center comes with the following components:

1 x SkipJam iMedia Center
1 x RF Remote control
1 x Rechargeable NiMH batteries for the RF remote control
1 x 9V 250 mA charger for the RF remote control
3 x Dual headed IR Emitters
1 x 12V AC/DC power supply for the iMedia Center
1 x CAT5 network cable
1 x Composite RCA-type A/V cable
1 x IEC power cable
1 x Infrared remote control
2 x AAA batteries
1 x Compact disc containing SkipJam iMedia for Windows
1 x User's Guide
1 x Quick Start Guide

Contact SkipJam to get a replacement of any missing component.

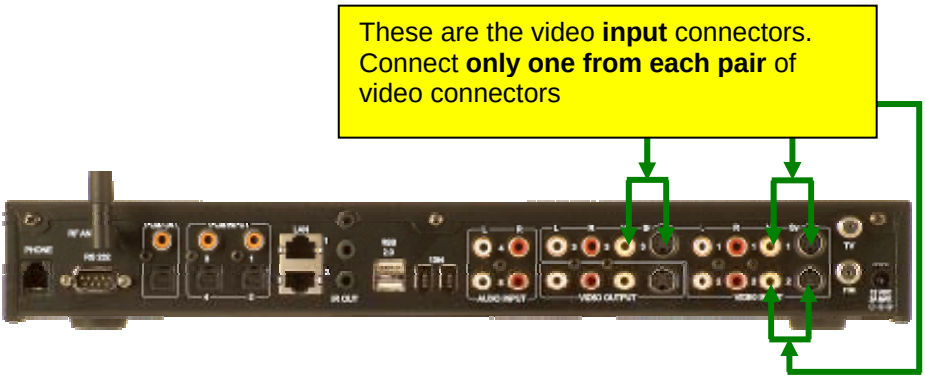
iMedia Center Setup

Connecting the cables

Connect the input and output devices you wish to use

Keep a record of which device is connected to each input on your iMedia Center. There are tables for this purpose on page 74.

IMPORTANT: Connect either the black s-video connector or the yellow "v" composite video connector for any input device, BUT NOT BOTH. Image quality will suffer if you connect both



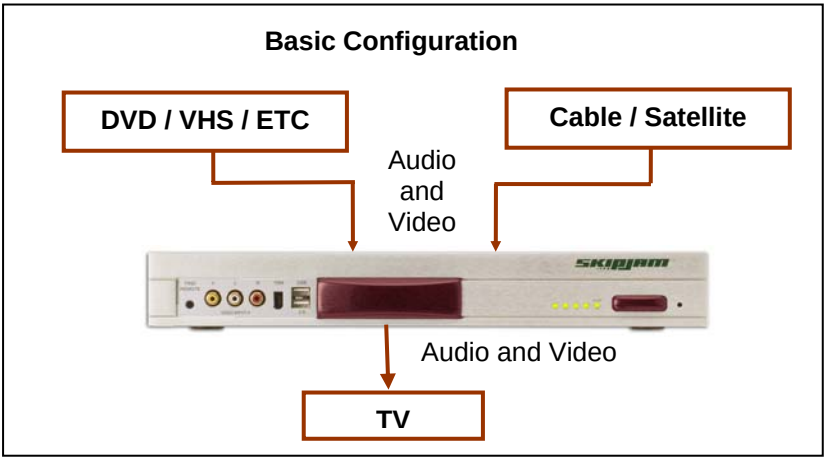
Connect audio and video cables from your components to the "input" connectors on your iMedia Center.

Connect Audio and video cables from the "video output" section to your TV. If you are using a separate Home Theater Amplifier or Receiver, connect the "L" and "R" connectors from the "Video Output" section to your home theater amplifier or receiver. If you wish, you may also connect the "PCM" digital audio output to your home theater receiver for surround sound and direct digital processing.

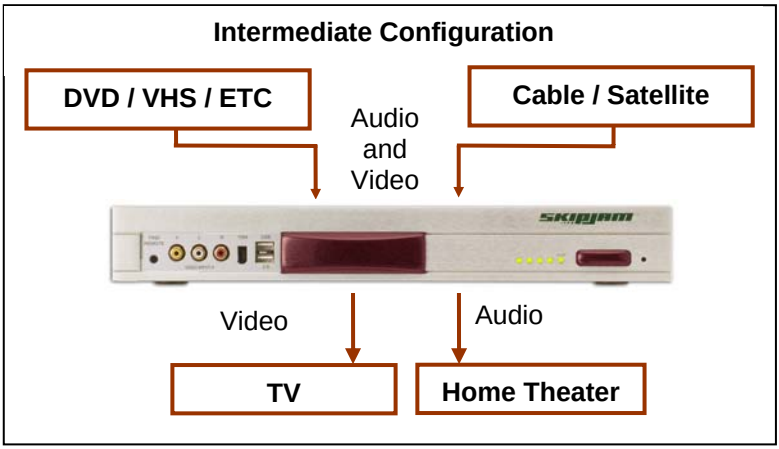
Configuration Diagrams

The following diagrams outline basic connections for different component configurations.

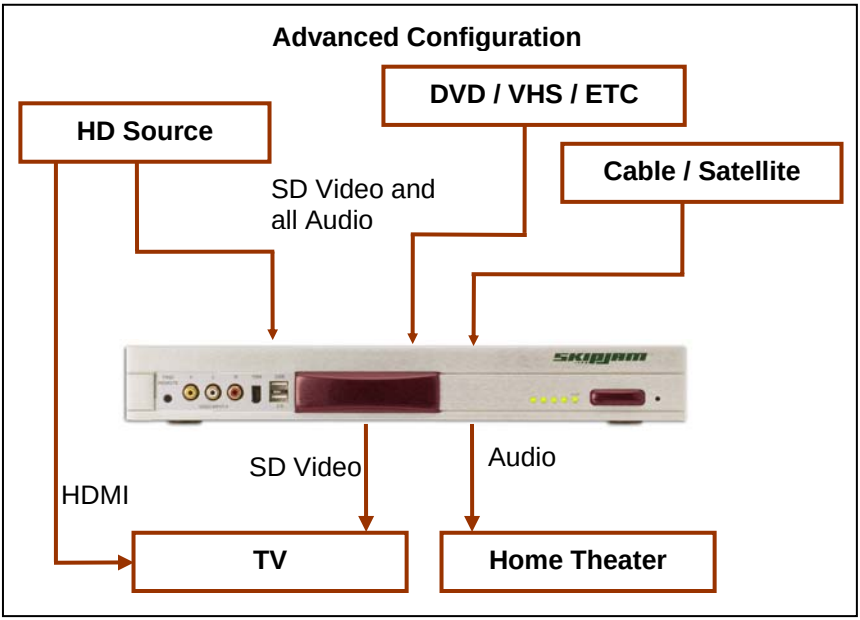
In the basic configuration, the TV is used to display images and to generate the sound (audio amplifier). This is the simplest setup and you may wish to start in this configuration until you get the hang of the system.



In an intermediate configuration, the TV is used for images, and a separate system is used for audio. This would be the configuration for "Home Theater" systems.



Other configurations are possible, but may require you to set up "power on / off macros" (see "Power on / off sequences" on page 54) and / or "Bypass Sequences" (see page 55) and are therefore only recommended for advanced users or professional installers:



Connect to your home network

Your iMedia Center should be connected to a network using an RJ45 Cat 5 or better cable. If you wish to connect wirelessly please see the section on wireless connections on page 61.

Note that the iMedia Center can function on a stand-alone basis without a network as a audio video switching center, universal remote control and phone, and even as a digital video recorder if you add a firewire hard drive.

By default the iMedia Center expects an external DHCP server to provide it with a network address. If you have a network with personal computers, and the computers are set to "obtain IP address automatically" you already have a DHCP server. This is the usual setting for a home network. If not please, see "DHCP and fixed IP addresses" on page 63.

IMPORTANT: If you do not have a DHCP server, or you do not connect a network cable, the iMedia Center will try to connect to your network. This will cause the iMedia Center to spend up to 10 minutes attempting to

connect, with no messages on the screen. If you are using the iMedia Center with no network connection, please wait patiently.

Power it up

After connecting all your components' cables, turn on the television connected to the iMedia Center and connect the 12 V "brick" power supply to the iMedia Center to power it up.

Connect the 12V brick power supply to its AC power cable, plug the cable into an AC socket, and then connect the 5mm power connector into the connector labeled POWER on the back of the iMedia Center.

Warning: DO NOT USE ANY POWER SUPPLY OTHER THAN THE ONE THAT IS SUPPLIED WITH THE UNIT. DOING SO MAY DAMAGE THE UNIT AND WILL VOID THE WARRANTY.

SkipJam iMedia RF Controller

While the iMedia Center is powering up, unpack the rechargeable battery pack and install it in the battery compartment of the iMedia Controller. You must plug-in the battery pack into the battery connector located in the battery compartment.

You may use the RF remote while it is charging.

Be sure to connect the battery before connecting the charger. Connect the 9V AC-DC adaptor plug into the power input jack located at the bottom of the remote. Plug the power supply into an AC outlet to charge the battery. Keep the charger connected for at least 12 hours before using the remote without the charger. It is best to keep the remote control charging when not in use.

IMPORTANT: The battery plug in the battery compartment is keyed to prevent incorrect insertion into the battery connector. The plug should install into the connector with little force. DO NOT FORCE THE PLUG INTO THE CONNECTOR. FORCING THE PLUG INTO PLACE MAY DAMAGE THE REMOTE.

To use the IR remote, you must open the battery compartment and remove the tab which keeps the batteries from discharging.

Configuring the iMedia Center

If you do not have a television connected to the iMedia Center, you can configure the iMedia Center through the network using a browser. See the section labeled Browser Interface & Menus on page 52

Navigating SkipJam iMedia Center

Once your iMedia Center is powered up, you will see a series of menus on the TV screen allowing you to configure the iMedia Center.

Navigating the SkipJam iMedia Center Menus is easy. If you do not see a menu on either the SkipJam iMedia Controller screen or on your TV, press the "*Home*" button. This will bring up the iMedia Home Menu. The *Home* Menu is the starting point for all SkipJam iMedia operations.

Pressing "*Home*" will turn on your TV, if your TV is off. You must select "auto on/off" in the device configuration for your TV and set up the control codes for the TV, (see Understanding the iMedia Universal Remote Capability on page 22).

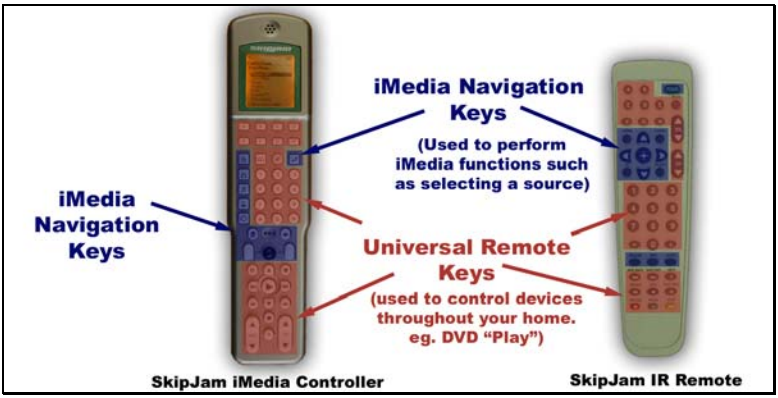
Pressing "*Home*" will also bring up the iMedia Home Menu over any video or photo session currently on the TV.

Controlling the SkipJam iMedia Center

The SkipJam iMedia Center can be controlled with the supplied IR remote control, with the SkipJam iMedia RF Controller, via any browser capable device such as a PC or PDA on your home network, or with any standard remote control you may happen to have available.

The iMedia Center remotes operate both to navigate the iMedia Center menus and to control any audio or video playing. Once you activate a "Session" listening or viewing anything, the Universal Remote Keys (shown below) become active controlling the session.

For example, if you choose to watch a recorded video, once the video starts playing the "Pause" key will pause the video. If you choose to watch a DVD player, when you press "Pause" the remote control code for pause will be sent to the DVD player you are watching.



When the iMedia Menus are not on screen, the directional keys (joystick on the iMedia Controller) will function as universal remote keys. In other words, pressing up / down / left / right will, for example, navigate the DVD or Cable box menus when the iMedia Menus are not shown, and will navigate the iMedia Menus when they are on screen.

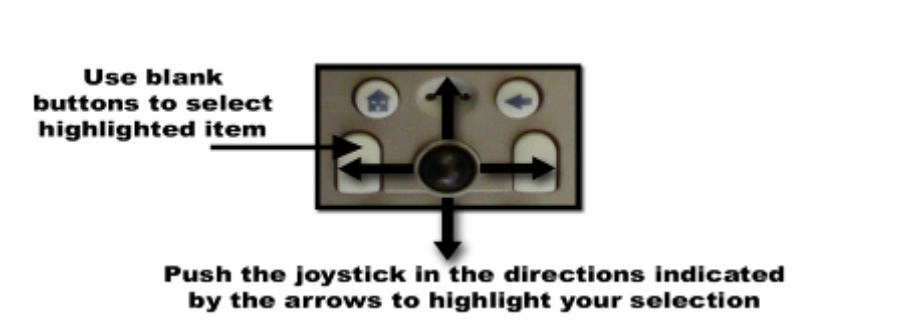
SkipJam iMedia Controller (RF Remote Control & Phone)

The SkipJam iMedia Controller can control the iMedia system from any location in your home (We have tested across a 150 feet through solid plaster walls) and does not require a line-of-sight to the iMedia Center because it operates using Radio Frequencies (RF) like a cordless phone. This lets you hide your Audio / Video components out of sight.

The SkipJam iMedia Controller has an LCD screen that shows the same information that you would normally see on the On Screen Display (OSD) on the TV. This lets you select music or videos without turning on your TV.

Navigating with the SkipJam iMedia Controller

The SkipJam iMedia Controller has a central navigation "pad." This navigation section contains a joystick selector which moves the menu selector bar selection up and down (and left and right) as well as 2 blank keys used for "select" (and for "mouse left-click" and "mouse right-click" when accessing your PC).



Above the joystick is a "Home" button which takes you directly to the iMedia Home Menu, and a "Back" button which backs up to the previous menu or selection.

The following table lists the keys used to navigate the iMedia Menus:

Action	RF Controller Key	IR Remote Key
Up / Down / Left / Right	Joystick – press lightly in the direction	Up / Down / Left / Right arrows
Select	Blank left or right buttons on either side of joystick	Center of arrows key marked "diamond"
Page Up / Down	**Channel Up / Down**	**Channel Up / Down**
Go to / display SkipJam iMedia home menu	"Home"	"Home"
Go back one screen	Back (←) key	Left arrow key

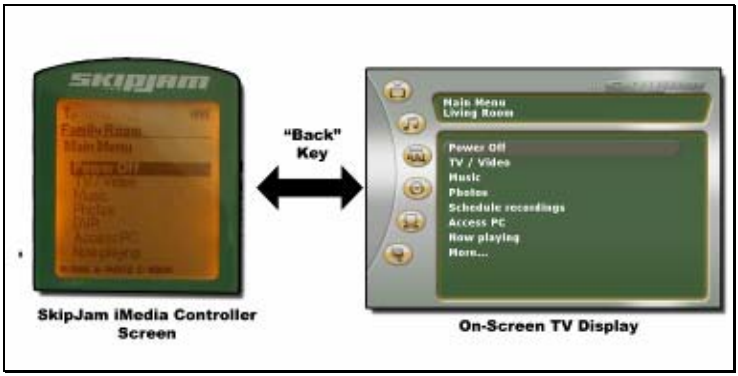
The short-cut keys (labeled video, TV, Music, PC, Phone) are convenient for jumping directly to the corresponding menus once you have become familiar with the system.

IMPORTANT: DO NOT PRESS ON THE JOYSTICK TO SELECT (this won't work and could damage the joystick), AND DO NOT PLACE THE REMOTE WITH THE KEYS FACING DOWN ON ANY SURFACE (this could scratch the display or damage the joystick).

Use the blank "left" and "right" keys to select. These keys also function as left and right mouse buttons when accessing your PC. When navigating the SkipJam iMedia menus the left and right select keys can be used interchangeably.

Switching between on-Remote and on-TV display

When you wish to control the system using only the display on the iMedia Controller, you press the "back" key until the display jumps from the TV screen to the iMedia Controller.



IMPORTANT! Pressing the "PHONE" key switches the display to the remote so that you can dial phone numbers without interfering with the TV. You can continue to use the on-Remote menus when you are done with the phone call, or you can press "Home" and then "Back" to get the display back to the TV Set.

IR Remote Control

You may control the functions of the iMedia Center using the SkipJam IR remote control and the On-Screen TV Display. You MUST have a TV screen connected to the iMedia Center in order to use the SkipJam IR remote control.

Note: If you are using the SkipJam IR Remote control, you may need to shield the devices from IR coming from the remote, so that the SkipJam IR remote will not interfere with commands issuing from the iMedia Center itself. For more on this see Understanding the iMedia Universal Remote Capability on page 22.

Select a Room Name

Select a "room name" for your iMedia Center. Each iMedia Center and the devices connected to it are identified by the "room name." For example, a device might be known on the iMedia Network as "Family Room Sony VCR" If you have multiple iMedia Centers in the same physical location we suggest naming them manually.

Set up Devices

You are now ready to configure the iMedia Center and configure the devices you have connected to it.

Select "More…" from the main menu, then select "Setup"

Select "Device Setup"

Each device connected to the iMedia Center must be configured in the Device Setup section, or you will not be able to access the device.

Special Information about the "TV" device:

The iMedia Center comes pre-defined with a "TV" device configured as connected to the video and audio outputs. If this device is deleted you will not be able to view videos or listen to music, because the iMedia Center will think it has no output devices available. (You will still be able to bring up the menus and re-configure the iMedia Center.) This is in case you want to

remove all output capabilities from iMedia Centers that are used for recording or streaming media only.

If you have a separate TV/Screen and Home Theater or Receiver device which receives the audio output and controls the volume, you will need to add that device manually, and re-configure the "TV" device to "not connected" in the audio section.

Adding devices:

Select "Add new device" from the menu. Select the device type.

IMPORTANT: Devices operate differently under iMedia depending on their "type." For example, "Receiver" "TV" "Home Theater" "pre-Amp" "Amplifier" are considered "***output***" devices which do not produce any music or pictures and thus cannot be connected to the audio and video ***inputs*** on the iMedia Center. (Keep in mind that you can configure a single device to connect in more than one spot by creating multiple "device" entries.

Cable and Satellite boxes:

The iMedia system treats cable and satellite boxes in a special manner. The iMedia System assumes that all cable and satellite boxes in your home are equivalent to each other. When you select to view "Cable TV" the iMedia System will assign the nearest (fastest network-wise) Cable Tuner to you automatically. This way, if the Tuner connected to the iMedia Center in the room you are viewing is currently recording a show, the iMedia Center will automatically connect you to the "nearest" available cable tuner.

The TV Tuners built into the iMedia Center are designed for over-the air reception and basic cable. These Tuners are also treated in the same way and shared among all the iMedia Centers in a home.

If you do not connect cable or an antenna to your TV Tuner input, you'll need to change the Internal TV Tuner device to "Not Connected."

After selecting the device type, select the brand name for the device. (Use the Channel Up/Down keys move the cursor a full screen).

Select the connection location for the device. Press the "select" key to show the choices, navigate to the connection you want and press "select" again. Select "Left" to move to the next option. Select "Next" when done.

Note: You may configure more devices than are directly connected to the iMedia Center. Devices configured as "Not Connected" can still be controlled (turned on/off, etc) by the iMedia Center and can be part of the system as a whole.

Power control options:

Each device in the iMedia configuration can be turned on and off automatically by the iMedia Center as needed using remote control commands (see Understanding the iMedia Universal Remote Capability on page 22). This allows you to power on only those devices actively being used, saving power and increasing the life span of your devices.

If you want the iMedia Center to turn your devices on and off automatically, select the auto on/off option. Note that for this to work, you'll need to teach the iMedia Center the remote control codes for the device.

Select Finish to complete the port configuration for this device. You can always go back and change settings.

Configuring device remote control:

The SkipJam iMedia Center can be configured as a universal remote control system which can control all the devices in your home with the iMedia Center's own remote. Once you've set up a device, you can teach the iMedia Center the remote control codes for that device.

If you wish, you can start using your iMedia Center now and return to this section later. Skip to Accessing Your Digital Media on page 29 to configure your network setup for Network Media such as MP3 or MPEG files, or skip to iMedia Playback on page 32 to start using your local devices.

Understanding the iMedia Universal Remote Capability

Each iMedia Center can learn and store the remote control codes for up to 256 devices, each with up to 512 codes. You may have up to 512 iMedia Centers on any home network. When you play any device or file on your iMedia network, the iMedia network automatically directs the command keys and sends the appropriate remote codes to the device you are viewing.

For example: If you are in the "Bedroom" watching a DVD player which is in the "Family Room" and you press "Play" in the Bedroom, the iMedia System sends the "play" command to the iMedia Center which is connected to the DVD player and that iMedia Center sends the remote control code for the DVD's play button to the DVD. If you press "Volume Up," the iMedia Center

sends the volume up command to the Home Theater Receiver in the Bedroom.

Using the "Devices" Menu (pressing the "Devices" key or from the "More…" menu off the main menu) the iMedia System can be instructed to emit any remote code for any device at any time.

If you have devices set to power on/off automatically, when you select to view a device, that device is turned on. When you are done using the device, the device will be turned off. There is a slight delay in the "off" processing, so that a device is not actually turned off for a short while after you have "turned off" the device in case you change your mind. For example, if you are listening to music, you may stop listening to one song while you search for another. You do not generally want your amplifier turned off during this time.

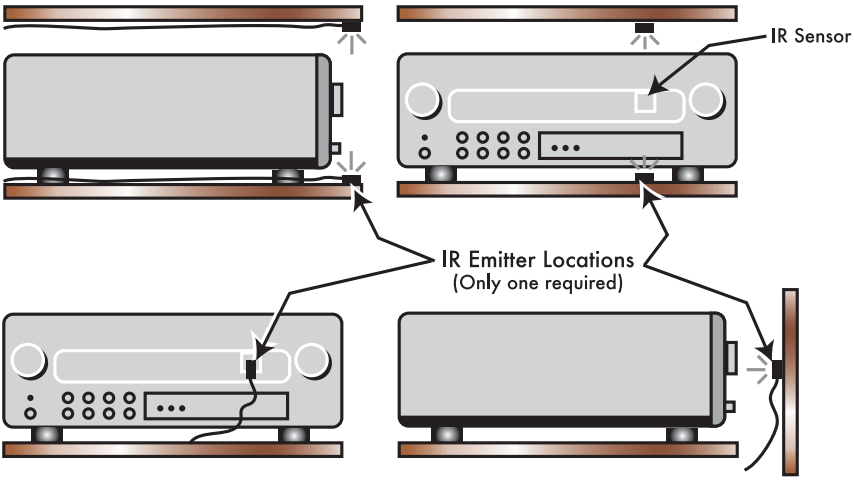
If your TV device is set to power on/off automatically (and you have taught the iMedia Center the codes for your TV), your TV will turn on automatically when you press the "Home" key to view the iMedia Center main menu on the TV. After a period of inactivity it will shut off. To force the TV to turn off, select "Power Off" and power off the current room (first selection) in the power off menu.

Infrared Emitters

In order to have the iMedia Center send remote control codes to the devices near it, you must connect the supplied "Infrared Emitters." These cables allow the iMedia center to send infrared (IR) signals to the A/V devices connected to the iMedia Center. There are 3 emitter jacks. Connect the IR emitter plug into any of the 1/8" (3.5 mm) mono jacks labeled "IR Out" located on the back of the iMedia Center.

The side of the emitter with tape on it is designed to emit lower levels of IR and to be positioned directly over the IR sensor of the device being controlled. The side without the tape emits higher levels of IR and can be placed near the front of the unit or adhered to the inside of a cabinet door.

The following diagram illustrates various placement options for the IR emitters:



IR Interference

Some light sources can interfere with smooth remote control operations. These sources include fluorescent lights, many plasma TVs, and direct sunlight.

In such cases you will obtain better results adhering the emitters directly to the sensor on the device. If you find that your devices are still not responding to codes from the SkipJam iMedia Center, try shielding the device not responding from other light sources: You can place these devices in a sealed cabinet, or obscure the front of the device from ambient light sources, or obtain an IR shield from the SkipJam web site.

Note: Some devices can be confused by multiple IR signals at one time. This could happen, for example, if you are using the SkipJam IR Remote control. When you are watching cable TV and you press Channel Up, the iMedia Center sends the cable box's channel up command to your cable box. The cable box may "see" both the SkipJam IR Channel Up code as well as it's own Channel Up code and get confused.

To avoid this situation, use the SkipJam RF Controller, or shield your devices from IR coming from the SkipJam remote. IR shields for this purpose are available on the SkipJam web site, or you can simply use anything that will obscure emissions from outside.

Teaching the iMedia Center to Control Your System

When you have finished configuring the input and output ports, you can have the iMedia Center "learn" the remote control codes for all your devices.

IMPORTANT: When you want the iMedia Center to learn codes for a remote, make sure your remote has **fresh batteries**, and hold the remote level and 6 to 12 inches from the IR learning window on the front of the iMedia Center.

For best results during the learning process, also turn off any ambient light sources which may interfere. See "IR Interference" above. Preventing interference is particularly important during the learning process.

Searching the iMedia Remote Database

The iMedia Center contains a database of remote control codes for thousands (over 7,000 at last count) of devices. You can have the iMedia Center locate the codes for your device by pressing only a few keys on the remote control of the device you want the iMedia Center to "learn."

Select "Find remote control codes" from the "Modify" menu for that device. The iMedia Center will ask you to press several of the keys on the remote. Hold the remote near the IR learning window and press the keys as instructed on-screen.

If the remote is found in the database you are done. If not proceed to learning keys individually.

Learning Keys Individually

Although our database is very extensive, your device may not be included. Even if your remote is found in our database, some of the keys for the particular revision or sub-model that you have may differ from what is found in our database.

Also, the iMedia Center remote control database contains only codes for common keys such as "Play" and "Pause" – those keys which are found on the iMedia Controller. However, many devices contain special function keys such as "Zoom" or "Pan" or "Edit" and so on.

To deal with these issues, the iMedia Center can learn any key for any remote control. These individually learned codes override whatever was automatically found in the database (so that if you manually learn "Play" your new Play code will replace the "Play" code loaded from the database). The iMedia Center also has 8 "SoftKeys" which give direct access to additional learned remote codes from any device, and has up to 200 "custom" keys which can be defined for each device.

To learn a key individually, select "Modify remote control record" for the device whose remote you wish to learn. Select the key you wish to learn and follow the on-screen instructions.

If you are learning a "Soft Key" (one of the keys labeled A through H) you will be asked to name the key. (use the number keys in a Multitap fashion to enter text). This name will appear on the iMedia Controller screen as a menu entry, once you've accessed the particular device. You can activate the device by pressing the Soft Key A-H or by selecting the key from the menu.

Tip: Don't feel constrained by the labeling of the keys. You can learn any function into any key location, just be sure you can remember what you placed where…. For example your device has an "Enter" key you may wish to program that into the "#" on the iMedia Center remote, and a "Clear" key might go in the "*" position. But be consistent and use the same convention for all your devices.

Controlling a Device's Power On/Off

Any given device may have several different ways of being turned on or off (in addition to the power switch and unplugging it). Many devices have a "Power Toggle" switch which turns the device on if it is off and turns it off if it is on.

Some other devices have separate on and off keys known as "discrete" power keys. These discrete codes are an "On" code which only turns the device on and an "Off" code which only turns the device off.

To complicate matters further, some devices have a switch labeled "power" which alternately emits discrete on and off codes.

Discrete on / off codes are generally better and you should use those if they are available, since an "on" code will never accidentally turn your TV off. If the iMedia knows both the discrete and the "toggle" codes, it will use the discrete codes only.

Note: The **www.remotecentral.com** website contains discrete on/off codes for many devices. If your remote does not emit discrete on/off codes, you may find them there. You can cut and paste the codes found on Remote Central into the iMedia Browser interface. It is useful to have the discrete on/off codes for maximum reliability in operation and in order to program remote control macros.

When you're watching a device using the iMedia system, you also have control over at least 2 (source and TV) devices and sometimes several others.

Because of this diversity in devices, you will not find a simple "Power" button on the SkipJam iMedia Controller. Instead, when controlling a device you will see several power options in the iMedia Controller display, allowing you to turn on/off the source devices (DVDs, etc) and the TV.

Because it lacks a screen, the SkipJam IR Remote has a single power function which serves to turn off all the devices currently in use, and only if those devices are set to "auto on/off." Select "power" to turn on your TV and display the Home Menu. Then once you are watching / listening to something, pressing power will turn off all devices you are accessing.

Automatic On/Off

The iMedia Center can automatically turn on whatever devices are needed for you to view or listen to anything connected to the iMedia network, and then turn the devices off when you are finished.

To set up the iMedia Center to turn devices on and off, you need each device to be defined with "auto on/off" in its device configuration, and you need to make sure that the device's power control codes have been learned correctly.

Using the iMedia Controller to Control Other Devices

Once you have had the iMedia Center learn all the codes for your devices, you can control these devices in one of 2 ways:

1. By accessing (viewing/listening) those devices – accessing the devices creates a "session" in which you are watching a particular device;

2. By telling the iMedia Center to emit the remote control codes for a particular device directly using the "Devices" menu.

Controlling a "Session"

Once you've chosen what you want to watch / listen to, the "universal remote" keys on your remote become active and control the appropriate device automatically. For example, if you choose to watch a DVD player, the play, pause, fast forward, and other navigation keys on your iMedia Remote or Controller will be sent to the DVD.

At the same time, the Volume and Mute commands will be sent to your TV or Home Theater device.

If you have defined any Soft Keys or Custom Keys for your DVD player, those will be available through the iMedia RF Controller's menu, and for the Soft Keys, directly by pressing A through H.

This method of controlling several devices at once is considered "Session Control" – there must be something playing in the room you are currently controlling in order for session control to be active.

Once you've started something playing and you have an active session, you may press the "Home" key to get back to the iMedia Menus. The shuttle control (Play, etc), number keys, and Volume will continue to operate the current session, but the menu navigation keys will navigate the iMedia Menus. Press "Home" again to go back to your A/V session.

Controlling a Specific Device / Devices Menu

If you want to access the custom keys for a specific device, or if you want to control a device when nothing is currently playing, or if you want to control any specific device for any reason, you can do so by selecting the device from the "Devices" menu.

To access the Devices Menu, press the "Devices" key on the remote or select "More / Devices" from the iMedia Home Menu.

The first selection on the Devices menu lets you return to "Session Control" mode for the room you are currently controlling (see above). "Session Control" mode is the default behavior of the iMedia System, in which keys are sent selectively to the appropriate device.

In the Devices menu, all devices in your iMedia Network will be listed by room, and selecting a device will allow you to send remote control codes to that device.

Accessing Your Digital Media

Sharing Your Media Files

In order to play digital media files (music/photos/videos) from your home network, you will first need to make those files accessible to the iMedia Center. To do this, follow these instructions:

Be sure to read "Network Security" on page 64.

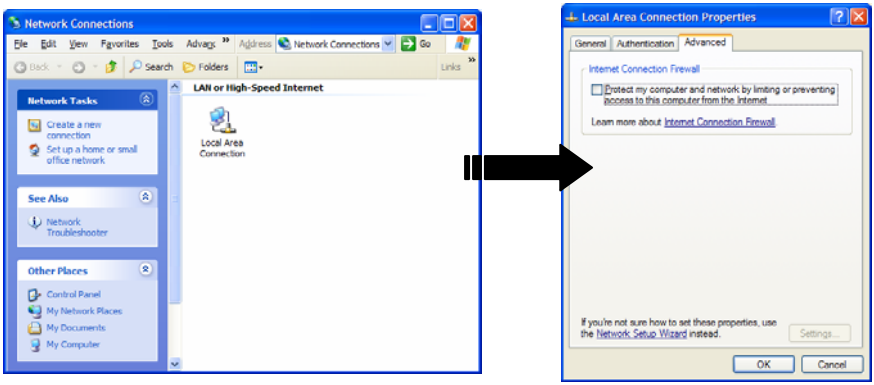
Windows PC:

Make sure the Windows Firewall is off (XP SP1 or earlier) or allows file sharing as an exception (XP SP2):

Windows XP SP1 or earlier

Turn off the firewall. From the start menu, select "Settings / Network Settings."

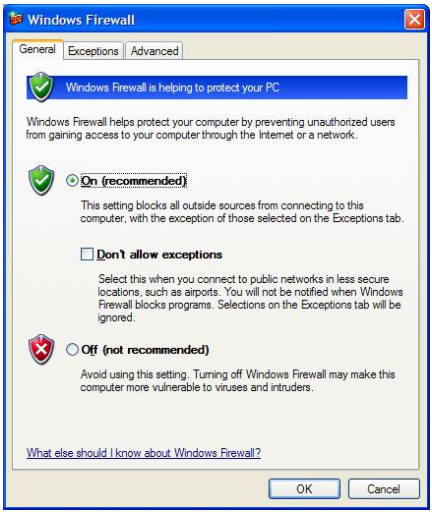
Select your network connection and click "change settings." Select the "Advanced" tab, and uncheck the "Protect my computer…" setting, and click OK. (For more information on the Windows firewall, see Microsoft knowledge base article number 283673 or number 298804 found at the **support.microsoft.com** web site.)

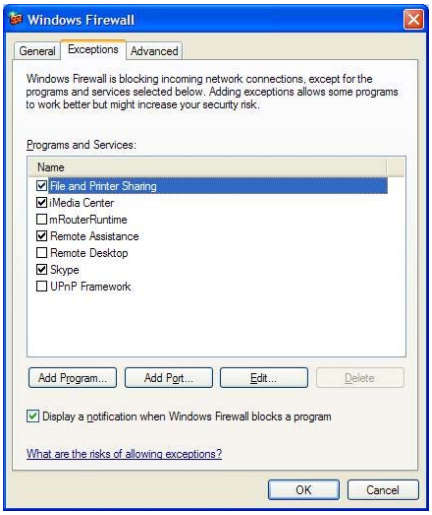


Once the system is up and running, for better security you can configure your windows firewall to allow file access while blocking other network ports. To have this security ability you will need Windows XP Service Pack 2. See below.

Windows XP SP2:

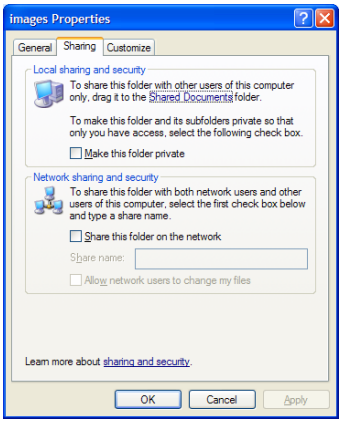
Check that your firewall allows file sharing. Access the windows firewall settings by clicking on "Windows Firewall" in the Windows Security Center or in Control Panel. On the Firewall "General" tab, make sure the box labeled "Don't allow exceptions" is **NOT** checked. Select the "Exceptions" tab and check the entry labeled "File and Printer Sharing"





Enable file sharing (both SP2 and earlier)

Select the folder(s) which contain your digital media files: Right click on the folder you wish, and select "Sharing." From the dialog select "share this folder on the network." If you wish to be able to record to this folder, also select "Allow network users to change my files."

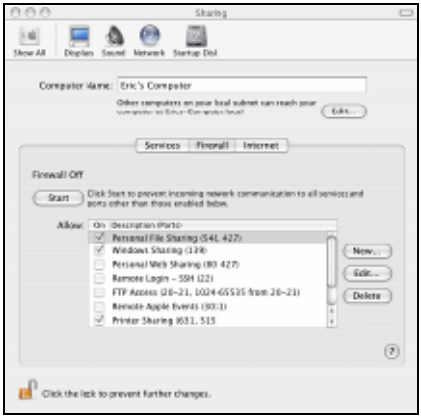


Macintosh OSX

Turn off the Macintosh Firewall: Select the "sharing" icon from "system preferences."

Click on the "Firewall" tab. Select "Stop" and verify that "Firewall off" is displayed.

Select the "sharing" icon from "system preferences" and check the selection "Windows Sharing." Make sure that "Windows Sharing On" is displayed.



Once the system is up and running, for better security you can configure your OSX firewall to allow file access while blocking other network ports. For file sharing you must allow access through TCP ports 139 and 445, and UDP ports 137 and 138.

Linux

You will need to load and install a Samba server. On Redhat 9 systems, click the Red Hat button and select "System Settings / Server Settings / Samba Server." Click "Add" from the dialog that pops up. On other systems, you may need to install the Samba server (smbd) manually and modify the samba configuration file (/etc/smb.conf on most systems – check "man smbd"). If you do not have Samba installed, please see **www.samba.org.**

Configuring the iMedia Center for Network Access

Once "shares" are available on your network, you can configure the iMedia Center to scan them automatically for media files, and you can set the iMedia Center recording options to record to these shares.

Locating Media Files

Select "More…" from the iMedia Home menu and select "Supervisor Functions" and then "Setup" and "Network Setup." Choose "Build host list" to have the iMedia Center scan your network for available servers. When this process is complete, select the server(s) on which your files are located. And then select the folders on the server that contain media.

Then select "Look for media files" in the "Supervisor Functions" menu to have the iMedia Center catalog all the media files on the shares you've selected.

You are now ready to play digital media files.

iMedia Playback

Your iMedia Center can play a variety of digital files, and can combine the playback of digital and analog sources at the same time.

To watch a device, select "Home" then "TV/Video" or press the "TV" button; then select the device you want to watch.

To watch a digital recorded video file from your network, select "Home" "TV/Video" "Recorded Video" or press the "Video" button and pick the video you want to watch.

To view photos select "Home" then "Photos" or press the button, then pick the photos or group of photos you want to view.

To listen to music select "Home" then "Music" or press the "Music" button.

Once watching or listening to music photos or videos, the remote buttons will behave much as you would expect. For advanced use of the buttons see the sections on the Music, Photo and Videos menus (for example you can zoom, pan or change the aspect ratio of photos).

Combining Different Sources

You can combine any audio and video source by selecting them in sequence. For example, if you are watching TV and are waiting for something to start, or are simply scanning the headlines on a news channel, you can play music. You can do the same with photos.

To do this, select the video or photos you want to watch. Then press the Music, select the music, and when asked whether you want to leave the video playing, answer "Yes." Press "Home" to take the iMedia Menus off the screen.

When you have multiple sources playing at one time, the remote keys operate the last source started. So if you view photos, then start music, selecting "skip forward" will skip to the next song.

***COOL**:*

If you are watching TV and start Music, pressing Channel Up/Down will still control your TV Tuner! (Your remote is controlling 3 devices: digital music player, TV Tuner, and Home Theater/TV volume) Pressing "Stop" will stop the Music and resume the TV Audio.

Digital Recording to a Network Disk

To record any media source to disk you must first set up the network recording destination using the Recording Setup menu located in ***Home/Supervisor Functions/Setup/Recording Settings***.

Understanding Digital Video Recording

When recording video digitally, the video signal is converted into a digital stream of bits. For regular TV or DVD this stream of bits occupies approximately 15 GigaBytes per hour of video. Since this is an unacceptably large amount of space, the SkipJam iMedia Center utilizes video compression technology to reduce the amount of disk space required.

Compressed video is generally known as "MPEG" video for the Motion Picture Experts Group that developed the compression standards. Using a variety of techniques, compressed video can store video that is nearly indistinguishable from the original in as little as 1/10th of the space.

However, the more the video is compressed, the lower the quality of the resultant compressed video. Video compression is counted by the size of the resulting video stream. Keeping in mind that the original video takes 15 GigaBytes per hour, a typical DVD requires only about 4 GigaBytes / hour to hold the same video.

Industry standards count video recordings in Mega bits per second (Mbps) instead of counting GigaBytes per hour, and they call compressing the video "encoding." So we use their terminology for compatibility.

So, when a video source enters the SkipJam iMedia Center, it is encoded (compressed) into a more manageable size. You get to set the amount of compression that happens by dictating the size of the resulting video in Mega-bits-per-second (Mbps). The more Mbps, the higher the quality of the resulting video, but the more disk space is used.

A higher encoding bit-rate (Mbps) results in a higher quality picture, however, a higher quality recording requires more disk space as well as more network resources, and may strain wireless networks…

As a rule of thumb, a typical 2 hour movie will use 1GByte of disk space per 1 Mbps of encoding. Or if you prefer, 1Mbps = ½ GB /hour.

One other thing to remember is that MPEG have revised and improved their compression schemes. DVDs are compressed using MPEG version 2 (MPEG-2). The iMedia Center can also compress videos using the newer MPEG version 4 (MPEG-4). Generally speaking MPEG-4 can achieve

roughly equivalent quality at half the bit-rate of MPEG-2. So that a 4Mbps MPEG-4 recording is equivalent in over-all quality to a DVD's 7Mbps MPEG-2.

So when you are recording video, you get to select the **type** of compression (MPEG-2 or 4) as well as the **degree** of compression as dictated by the Mbps rate. You therefore control the size of the media file and the quality.

IMPORTANT: Note that the MPEG-4 standard is more complex and is implemented in a variety of different ways. So for maximum compatibility with other systems you may want to record using MPEG-2 despite the increased disk space usage for a given quality.

If you plan to use a portable media player, test various recording formats from the iMedia Center on your portable player before committing.

Types of Recordings

The SkipJam iMedia Center provides 2 different recording capabilities.

The first is what you might expect in a recording: When you press "record" whatever you are currently watching is recorded to a hard disk file. The recording continues for an amount of time you specify, or until you press "Stop." The resulting .mpg file is a standard movie file which you can play on most PCs. This is known as "DVR" recording (Digital Video Recording).

For Example: To record a video source such as a VHS tape of your family wedding to hard disk, you would select to view the tape: (Place the tape in your VCR, and select Home/ TV-Video/ VCR). Then press "Play" until you've skipped past the tape's header, and then press "Pause" to pause the tape playback. Press "Record." When the "recording" message appears on screen, press "Play" to start the tape playing again. Press "Stop" when the recording is complete.

You can also set a fixed duration for your recording, and watch something else while the recording is on-going. After you've started recording, press "Home" and select what you want to watch.

The second type of recording is known as "Continuous Loop Recording." This type of recording which we call "loop file" for short is used for continuous recording of live-TV sources such as cable tuners. A loop file recording keeps a continuous loop of the last hour or two (you set how large it is) of TV and lets you pause and rewind through your TV viewing.

A loop file has a fixed size and as new video comes in to the loop file, the oldest is discarded.

Loop files are only created for live-TV sources, which are Cable (either with the built in tuner in the iMedia Center or through an external Cable Tuner) or Satellite. To start recording to a loop file, select any live-TV source and press "pause". This will create the loop file and pause playback of the source.

Press "play" to restart playback.

Recording Settings

The iMedia Recordings settings let you configure the recording destination, default duration and bit rate at which all recordings are made. The recording settings also allow you to control the default bit rate at which iMedia Centers stream video to other iMedia devices and the size of the loop file recordings.

iMedia Recording Settings

When watching any video source, pressing "record" on your remote will record what you are currently watching. If you select "use settings automatically" the recording will commence immediately, using the settings in the "Recording Settings" menu.

If "use settings automatically" is not selected, pressing "record" brings up a screen that lets you modify these settings (for example entering a more descriptive file name) and the recording begins when you select "OK"

iMedia Streaming Settings

This screen lets you set the default bit rate used by the iMedia Center for streaming videos to other iMedia devices. This same encoding bit rate is used by the iMedia Center when recording to a loop file. Set this value low if you have a wireless network.

The loop file duration setting tells the iMedia center how much of live TV to maintain in a loop file. If you select 2 hours, you will be able to rewind through the last 2 hours of TV. Remember that the loop file will be larger if the duration is longer. ½ GB of disk space per hour for each Mbps. So a 2 hour loop file at 2 Mbps will use 2GBytes of disk space.

iMedia Menus

Power Off

This displays the power off menu. The power off menu lets you selectively power off rooms or specific devices.

To power off all devices you are currently watching / listening to the current room you can highlight "Power Off" and press "Select" twice.

You can also power off other rooms or all rooms by selecting the rooms you want to power down.

The Power off menu also lists individual devices, and allows you to send them Power Toggle commands. This can be useful if a device did not turn off automatically, or has gotten out of "sync".

TV / Video

This displays a submenu of available video sources to watch. This includes digital media and video devices attached locally to the iMedia Center and other iMedia Centers.

At the top of the menu are selections for "TV Tuner," "Cable Tuner," and "Satellite Tuner." These selections will appear if you have any devices configured as "Cable" or "Satellite" devices. The "TV Tuner" selection will appear if you have any of the iMedia Center's internal TV Tuner connections connected to a Cable source – The iMedia Center assumes that the Tuner is connected, and if it is not you will need to go to Setup/Device Setup/Internal TV Tuner and modify the setting to "Not Connected".

Selecting "TV Tuner" will connect you to the internal TV tuner of the nearest (networkly speaking) iMedia Center that is not busy.

Selecting "Cable" will connect you to an available "Cable" device, and "Satellite" to an available "Satellite device". These choices will only appear if you set up any devices and selected "Cable" or "Satellite" as the device type.

Recorded Videos

The next entry is "Recorded Videos." This screen can also be accessed directly by pressing the "Videos" button on the remote. Accessing this function lets you browse through your collection of videos and video macros (see the section on macros on page 58).

You can browse any videos you've recorded using the iMedia Center PVR function, or any videos you've downloaded or created on your PC, so long as the videos are on a hard drive that is shared and defined in the network shares scanned by the iMedia Center. (see page 29 for information on setting up the network shares).

Video Devices

Below these (TV/Cable/Satellite) you will find all the other devices you've set up, listed by room. You can select any of these to establish a connection which lets you view and control that device directly.

For example, if you have set up a "Family Room" which has a "DVD" player, you can view the DVD player in any room by selecting that DVD player from the TV/Video menu.

Using the SkipJam Video Player

Once you've selected a video source, the SkipJam remote control buttons can be used to control that source. If you are viewing a recorded video file from a shared network drive, the following keys can be used to navigate through the file:

Key	When playing	While Paused	When Fast Forward or Rewind
Play	Hide/Show status	Start Playing	Resume Play
Pause	Pause video	-	Pause
Stop	Stop playback	Stop playback	Stop playback
Fast Forward	Fast forward	Slow motion	FFwd Faster
Rewind	Rewind	-	Rewind Faster
Skip Forward	Skip forward 30s	Single frame	Skip 15 min forward
Skip Back	Skip back 10s	-	Skip 15 min back

If you are viewing a video device, the keys on the remote cause the system to send the corresponding IR command to the device.

Music

The music menu lets you access all your audio sources. The music menu includes browse categories for digital music (MP3, etc) and music macros (see the section on macros on page 52). The music menu also provides direct access to Internet Radio and FM Radio, and to other devices through a sub-menu.

The "other devices" entry on the music menu lets you listen to the audio portion of any device in your home. This lets you listen to the audio from any device (including devices which generate video too), letting you combine video from any source with audio from any other.

When listening to an audio file from any network share (MP3, etc.) the following keys can be used to navigate the audio player:

Key	Action
Play	Resume play if paused
Pause	Pause playback
Stop	Stop playback
Fast Forward	Fast forward
Skip Forward	Skip to next track
Skip Back	Skip to previous track

If you are playing an audio device, the keys on the remote cause the system to send the corresponding IR command to the device.

You can mix any audio source with any video source by starting the video, and then starting the audio (with photos you may start the audio first if you prefer.)

When mixing audio and video, the navigation keys will be sent to the last device started. For example, if you select to watch a DVD and you start an audio file playing, pressing "Pause" will pause the audio. If you press "Stop" the audio will return to the DVD. Only the navigation keys will be affected. Other keys (Channel, etc.) will continue to be sent to the original device.

So, if you select "TV" and then select a music playlist, pressing "Pause" will pause the music, while pressing the number keys or "Channel Up" will change channels, allowing you to channel surf while listening to your favorite music.

Photos

The Photos menu lets you browse and view digital photos stored on your network. The photo viewer lets you browse your photos by Title, by Folder, or by Year.

Once you've selected a given set of photos you can browse them in name order, or randomly by selecting "[Random view all]".

The photo viewer has 2 modes: Full screen and Thumbnail. The full screen mode cycles through the photos at a fixed rate, displaying each photo in the same size and zoom level it was last viewed (note: for the iMedia Center to remember the zoom and view settings, the network share containing the photos must be write enabled.) The thumbnail view shows thumbnails of 12 of the photos at a time, allowing you to scroll between them.

The following keys can be used to control the playback of photos:

Key	Action
Play	Resume play if paused
Pause	Pause playback
Stop	Stop playback
Fast Forward	Speed up slide show
Rewind	Slow down slide show
Skip Forward	Skip to next photo
Skip Back	Skip to previous photo
Select	Toggle to/from thumbnail view
Ch Up	Zoom in
Ch Down	Zoom Out
Numeric 1	Set 4x3 aspect
Numeric 2	Set 16x9 aspect
Numeric 3	Set 16x9 letterbox aspect

The aspect ratio settings adjust the display of the photo to compensate for the stretching of pixels when the photo is displayed on different types of TV sets.

Schedule Recordings

This menu lets you use the downloadable program guide to schedule automatic recording of broadcast TV, and to manage the recording schedule.

Add a new entry

This menu entry lets you search for or browse the program guide to find programs you wish to record. You can search for specific text in each of the fields of the program information database, or you can browse by using the various categories and meta categories found in our unique program guide tree.

For example, you can easily select "Broadcast Network / Prime Time / Reality Show" as a category. You can then browse the individual shows that match those criteria, and then browse the individual episodes which will air within the next week.

Once you've found a show, you can choose to record episodes individually, or to set up "rules" which record episodes on an automatic basis.

IMPORTANT: The SkipJam iMedia Center **NEVER** deletes any data from any of your network shares. So you will need to manage your disk space, and to be careful to clean up once you no longer wish to keep any given recording.

Modify / Remove entry

This menu entry lets you change or delete recording rules and scheduled episode recordings.

View To Do List

This menu simply displays a list of up-coming scheduled recordings.

Access PC

This menu entry lets you directly access any PC running the SkipJam iMedia Client for windows on the local network. The PC's screen is shown on the TV and you can use the remote to navigate the PC using the keys below.

Key	Action	Key	Action
RF Joystick	Move mouse	RF Up	Scroll up
RF L/R Select	Left / Right click	RF Down	Scroll down
IR select	Left mouse click	IR Arrows	Nudge mouse
IR Info	Right Click		
Ch Down	Zoom Out	Skip Forward	Next / Alt →
Ch Up	Zoom In / region	Skip Back	Back / Alt ←
Stop	Close (Alt-F4)	*	Backspace
Play	Switch (Alt-Tab)	#	Enter
Fast Forward	Tab	**A**	Launch browser
Rewind	Back Tab	**B**	Launch e-mail
		C	Launch IM
Numeric	Multitap (e.g. 2,2=b)	**D**	Launch Word
Pause	Show keyboard	**E**	Launch Excel
		F	Show Favorites
Guide	Alt (activates menu)	**H**	Browser Home

Notes: 0 key on Multitap includes "http://" and other web shortcuts.

Pressing pause quickly will change the location of the pop-up keyboard so the screen is not obscured.

To access a menu, press Guide followed by the letter of the menu. For example for File / New press Guide, 3, 3, 3, 6, 6.

Now playing

Displays information on what is currently playing. Press left or right to scroll between rooms.

More…

This displays the next available set of menu entries that includes supervisor settings and setup.

Devices

This menu lets you send remote control codes to any device connected to the system.

The first entry "Playing in xxxxx" reverts the remote to its normal state in which the control codes are distributed intelligently. For example, if you are watching a DVD, the volume up keys are sent to your TV, while the Play key is sent to the DVD.

Selecting a device from the Devices menu, forces the remote to control ONLY that device. This is useful, for example, if you want to control special functions on the TV while you are watching a DVD. Under normal circumstances, the menu and shuttle control keys would be sent to the DVD, but if you wish, say, to change the color setting or aspect setting on the TV, you would select the TV from the Devices menu, control it, and then revert to the "Playing…" session control to control the DVD once you are done.

Change Current Room

This menu lets you select which room you wish to control. You can use the TV, or the menu on the remote to start and stop things playing in any iMedia room in your home.

Remember to set your remote back to it's normal state so that you don't accidentally activate another room…

Phone functions

On iMedia devices that have an RF remote, the phone functions menu lets you manage the RF remote functionality.

Follow Me

The follow me menu lets you move or replicate whatever you are watching to other rooms. This lets you have multi-room audio playback. Select the music list you wish to listen to, then select "follow me" and add the rooms in which you wish to hear the music (or select Everywhere).

To change the volume, you'll need to do so in each room.

For video, follow me lets you relocate to another room and continue watching. When watching a video, press "Pause" to pause playback. Select "Follow me" and the destination. When you get to the destination press "Play."

Send Message

This menu lets you broadcast text messages to all iMedia Systems, including iMedia PC Clients on the network.

Scripts

This menu accesses the scripts pages which have been set up through the browser menus. Please see "Browser Interface & Menus" on page 52

Supervisor functions

The supervisor functions menu contains all functions to which you might want to limit access, such as setup. If you have a Supervisor password defined, you will need to enter the password to access these functions.

Setup

The setup menu lets you set up the iMedia system. A detailed description of the setup process is provided in the section titled iMedia Center Setup on page 12. The following is a brief description of each menu:

Device Setup

Add a new device: allows adding device definitions to the iMedia Center. You will need to select the Device Type, Device Brand, and Device connections. You can change settings as described below.

Remove device: Remove one of the device definitions

To change a device, select it from the list of devices shown. Once the basic device properties are configured, you can access the device's IR and control settings. The options are:

View device properties: lets you see how the device is configured

Change device properties: lets you change the type and connection settings

Modify remote control record: lets you individually program any of the IR codes for the device

Find remote control codes: lets you search the IR database for your remote codes

Clear all remote control codes: lets you re-initialize the IR codes for the device

Notes: you may set up devices which are not connected to any iMedia Center ports so that you can control these devices with your iMedia remote. Alternately, you can add keys for other devices to any the IR codes for any device if that is convenient. You can also set up custom power-on sequences comprised of several IR codes (see "Power on / off sequences" on page 54), and you can create automation scripts to automate complex functions (see "Macros and Automation" on page 58)

The "record" button on the iMedia remotes always causes the iMedia Center to begin digital recording of the device you are watching. If you want to be able to record using the device itself (for example on a VCR) you'll need to define one of the other keys on the remote to perform the record function for that device. For example "A" or "*" could be used.

If you do not connect cable to your TV Tuner input, you'll need to select the Internal TV Tuner device and change it to "Not Connected."

Device types and their associated definitions:

TV – Output only display device, may control volume if "audio" is connected to this device

Home Theater, Receiver, Pre-Amp – Ouput only audio output device. May only be connected to "audio out port." If you have an amp/pre-amp set-up, define the Amp as other, "not connected"

TV-DVD, TV-VCR – both input and output device.

Cable – Cable tuner. All "cable" type devices are shown as "Cable Tuner" in the TV/Video menu and will be aggregated. When you select "Cable Tuner" you will be connected to the nearest available Cable type device.

Satellite – Satellite tuner. All "Satellite" type devices are shown as "Satellite Tuner" in the TV/Video menu and will be aggregated. When you select "Satellite Tuner" you will be connected to the nearest available Satellite type device.

All other device types are interchangeable.

Local Settings

Change room name: lets you change the name by which this iMedia Center is identified

Set clock: lets you adjust clock settings

Display settings: lets you adjust settings, including the screen saver settings

Zip code: lets you set your local zip code

Network setup

Set up network shares: lets you define which shares on the network will be scanned for media

> **Add shares manually**: lets you specify the name and password for a share that was not detected by the automatic scan. Shares specified manually are automatically added to the host list.
>
> **Select shares from host list**: Lets you select the shares you want to use from the list.
>
> **Build host list**: Scans the network for available hosts and shares.

Configure Lan 1, 2: lets you set up the network settings for the Ethernet ports such as IP address

Connect Lan 1, 2: lets you re-set and re-connect the Ethernet ports.

Recording Settings

Device recording settings: Settings used to digitally record to a network drive.

iMedia streaming settings: Settings used to stream media from one iMedia device to another

Photo Settings

Lets you set the minimum size for images recognized by the iMedia Center. Photos smaller than this size will not be included in the photo viewer. This lets you avoid thumbnails, small icon bitmaps and album art.

Infrared remote control

Modify iMedia Center IR codes: lets you use a different remote control to control the iMedia Center.

Set volume sensitivity: lets you set how quickly volume ramps up and down when you press volume up

Update

Searches for and updates the iMedia Center software. Please do not update unless instructed to do so by SkipJam support.

System information

Provides information on your iMedia Center such as version numbers and IP address.

Device Status

Shows the current state of all devices in your home.

Free up Device

Lets you stop all activity for a given device. Generally you would do this if you wanted to access a device that someone left recording or playing indefinitely.

Look for media files

Causes the iMedia Center to re-scan the network for new additions or changes.

Common Tasks

This is a list of common task and how to access each one from the main menu

Add a new device

Main > More… > Supervisor Functions > Setup > Device Setup > Add new device

Watch video source device

Main > TV / Video

Watch a recorded video

Main > TV / Video > Recorded Video >

Listen to digital audio media

Main > Music > Choose a play criteria or browse

Listen to Radio

Main > Music > FM Radio

Listen to audio source device

Main > Music >Other devices

Add shared media folder

Main > More… > Supervisor functions > Setup > Network Setup > Setup network shares

iMedia Windows Software

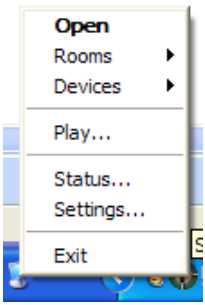
Each iMedia device comes with a single license for the iMedia Windows Suite. The iMedia Windows suite consists of several tools which let you access and control the iMedia network from the PC.

SkipJam iMedia Center for Windows

The SkipJam iMedia Center for Windows lets you access, control and view any devices connected to any iMedia Center. When you run the iMedia Center for Windows, you will see a task bar icon appear:

Double clicking on the task bar icon will launch your browser and connect it to the first available iMedia Center. From the browser interface you can control playback on your PC as well as anywhere else in the home. When the iMedia Center for Windows is running on your PC you can also access the PC from any TV in the home.

Click with the right mouse button to bring up the iMedia Center shortcut window. This window lets you access common functions quickly.



The **Rooms** menu lets you connect directly to the browser interface of a specific room, for instance to configure scripts or setup that room.

The **Devices** menu lets you access a device directly – streaming it to your PC. For instance selecting "Cable" will display an available cable tuner signal on your PC.

The **Play** menu lets you play recorded media using the SkipJam iMedia Windows Client media player function. The iMedia Player contains more

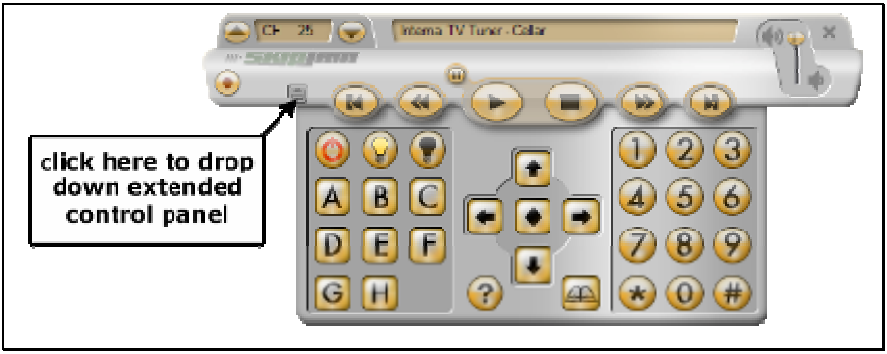
controls than Windows Media Player, and includes the ability to scroll through files.

The **Status** menu lets you see what's happening in each room on the network, and to selectively power off each room.

The **Settings** menu lets you turn off access to your PC as well as set the default streaming rate and loop file location for TV playback.

SkipJam iMedia Windows Player

When you've selected a device or file to view, the iMedia software opens a window which contains the device or file you selected. In the upper left of the window, a control panel appears allowing you to control the playback directly. If you move the mouse off the player controls, the control panel will disappear after a few seconds of inactivity so as not to obscure the playback. To show the control panel, move the mouse back over its last location.

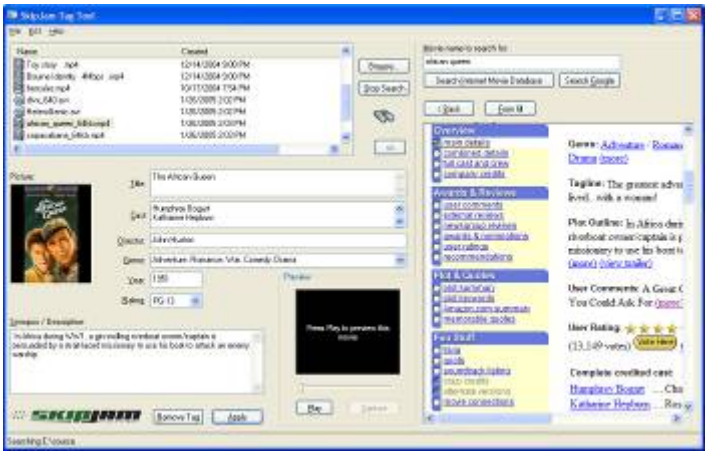


IMPORTANT: In order to connect to other iMedia Devices on the network the SkipJam iMedia Windows Player must be able to "see" through your firewall. To do this you can disable your firewall (see page 29 for information on disabling your firewall) or you must allow access to TCP and UDP ports 49000 to 50000.

SkipJam iMedia Tag Tool

The SkipJam iMedia Tag Tool lets you add or modify the identification information stored in video or audio files. Using the iMedia Tag Tool you can associate various information, such as Artist name, and rating with each music or video file in your collection.

By setting or changing the rating of a given file you can also control access to that file. To tag a specific file select File/Open. You can also load a sequence of files by clicking "Browse"."



Browser Interface & Menus

You can also control the iMedia Center menus via a web browser. The iMedia Center includes a web server which can be accessed using any browser that supports HTML 3.2, including browsers on PCs and on most PDAs. The same menus are accessible from the Browser Interface as appear on the TV and a few functions are ONLY available through the Browser Interface.

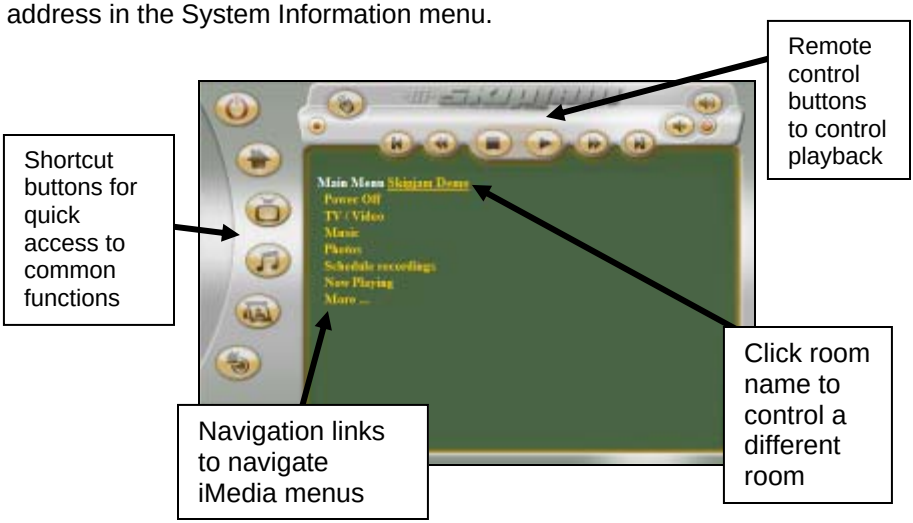
When used in conjunction with the iMedia Windows Client, the Browser Interface turns your PC into an iMedia device which can view any other iMedia connected source.

Note: Cookies must be enabled for the HTML menus to work properly.

The browser interface operates very similarly to the TV interface. However, there are several functions that are ONLY available through the browser interface. This section will cover those functions. To understand the operation of other iMedia menus, please see the general section regarding those functions.

Using the Browser Interface

To access the browser interface, right click the iMedia Center for Windows task bar icon and select the room name of the iMedia Center you want to access, or set your browser to the IP address of the iMedia Center you want to configure. (e.g.: **http://192.168.0.10**) The iMedia Center displays its IP address in the System Information menu.

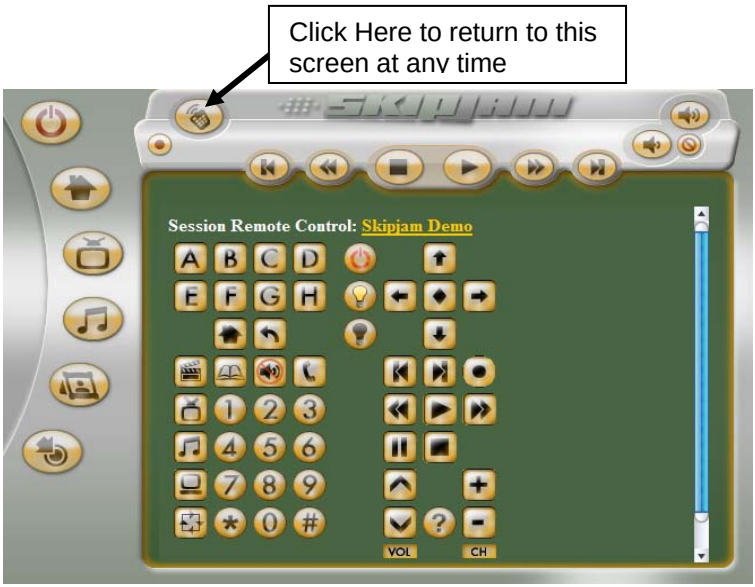


To start a playback session, click on a shortcut button or, click on the corresponding menu entry. For example clicking on "music" will bring up the music browser menu.

You can control any room from any browser. To change which room you are controlling, click the room name. You will be presented with a list of available rooms.

IMPORTANT: To use the browser interface to configure or change settings of a room, you must connect directly to that room. Use the iMedia Center for Windows "rooms" menu to access the specific iMedia Center you want to configure by room name, or access the iMedia Center directly using it's IP address (found in System Information menu)

Once you've started a playback session, the browser will jump to the remote control screen shown below. The buttons on this screen correspond to the buttons on the SkipJam remotes, and clicking them will send the corresponding command to the session. (e.g. Clicking on Channel Up will send a "Channel Up" command to the session.)



Advanced Setup Options

The following setup capabilities are only available from the browser menus:

- Power-on sequences
- Editing of IR Sequences
- Script setup

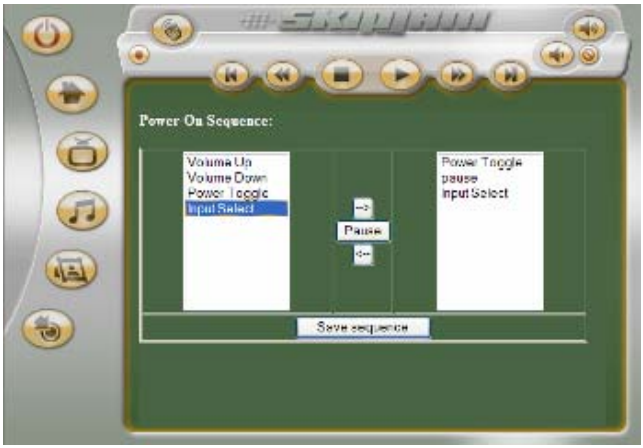
Power on / off sequences

Power on or off sequences let you define a sequence of IR commands that are sent to a device when it is powered up or turned off. For example, you may have a TV that needs to be switched to it's "Aux" input whenever it is powered up. Or you may have a stereo that includes an Amp and Pre-Amp that each need to be sent their own "power on" and "power off" commands.

In either case you would need to use the browser menus to access the device's properties. Select "Setup > Device Setup" Then either create a device, or modify an existing device. You will see a screen with a link titled "Configure Power Options." Select this link, and then "Power-On Sequence"

You will be presented with a screen listing all the IR codes defined for the device. Click the arrows to add or remove key sequences as needed.

The following screen shows an example of a power-on sequence for a TV that uses a custom key "Input Select" to switch the input on power on.



Tip: If you need keys from a different device, define them as custom keys for the device you are turning on. To copy keys use the "Modify Raw IR" screens to copy and paste from one device to another.

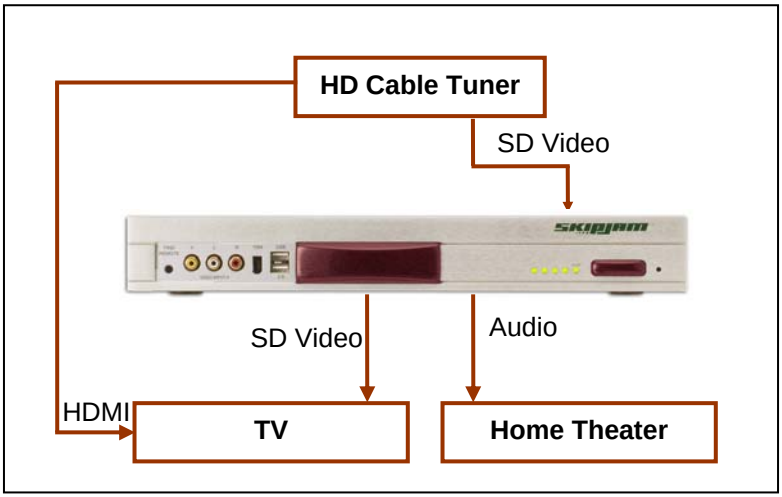
Bypass Sequences

You may have a device which has advanced capabilities that can be used locally but are not supported by the iMedia Center for streaming. Examples are High Definition HDMI or progressive scan component video devices.

You may also wish to stream stereo audio to other rooms (which may not have home theater systems) while playing surround sound locally.

All these configurations and devices can be set up using "Bypass" commands which allow you to set up a separate configuration for viewing a device locally than for sending it's picture to another room.

For example: If you have a cable receiver with a high definition output which you wish to watch on a high definition basis on your local HDTV, but you wish to watch it on non HDTVs in the rest of the house, you would connect the HD output of the cable receiver directly to the HDTV, and connect the S-Video or Composite output of the cable box to the iMedia Center, as shown here:



You would then create "video bypass" on and off sequences for the HD Cable Tuner. This sequence would switch the TV to it's HDMI input for the "on" sequence, and back to it's SD for the "off" sequence.

When you select to watch Cable from within this room, the iMedia Center would send the "Video Bypass On" command to the TV, switching it to the HD input. When you press "Home" to bring up the iMedia Menus, or when you turn off the Cable Tuner, the iMedia Center would switch back to the SD input. Allowing you to see other devices connected to the iMedia Center.

If you select to watch this cable tuner from another room, the iMedia Center would not send the bypass sequences, and stream the SD output of the cable to the other room.

Editing IR

The browser menus allow you to manually enter or edit IR codes for any key. This lets you fine tune the IR and to use IR sequences from other remote controls. The following options are found for each device in "More > Supervisor functions > Setup > Device Setup > device > Modify device > Modify keys individually"

Enter Hex Codes

This menu lets you paste in remote control codes in the Pronto format found on **http://www.remotecentral.com.** This web site has many discrete codes for various devices.

Modify Raw Infrared Codes

This screen lets you modify the learned codes for any key in order to tweak the IR for maximum efficiency and / or copy codes from one location to another.

Creating Script Screens

Script screens are screens that contain selectable icons. Selecting an icon causes the iMedia Center to execute the script. A script is a sequence of instructions created by the SkipJam iMedia Command Wizard.

For example. You might want to have a simple way to access your favorite TV channels. You could set up a script screen called "TV Channels" which contains all your favorites. When you move the selector box to one of the icons on the screen and press Select, the iMedia Center will start playing TV and switch to the channel you specified in the script. This might look as follows on your TV Screen:

The browser menu script screen setup lets you configure the script screens and associate each icon with a script.

First you'll need to create and test the scripts you wish to use. Please see the section "" on page 59 for information on creating scripts.

Script screens each consist of a matrix of x by y buttons. Each button can have associated with it a text title or name, a graphical icon, and a script. Each button also specifies what screen is displayed once that button is selected. This lets you create buttons that jump to other screens, or back to the main iMedia Menus (simply have no script associated with the button).

Macros and Automation

The SkipJam iMedia system includes sophisticated automation capabilities that allow you to manage your entire home media network at the touch of a key. These automation capabilities also let you customize the iMedia Center to your household and your viewing habits.

SkipJam iMedia automation is based on the SkipJam iMedia Network Control Protocol. This "language" is used by the various iMedia devices to talk to each other. At the most complex level the iMedia System can be automated using programming languages such as C and Visual Basic. However this is beyond the scope of this document.

For your convenience the SkipJam iMedia center includes several tools which let you automate the system fairly quickly and easily.

The SkipJam iMedia Command Wizard lets you create automation scripts, and the Scripts menu lets you use these scripts and even completely customize the look of your iMedia system.

See the Creating Script Screens section on page 57 for information on creating script screens, and see the next section, SkipJam iMedia Command Wizard, for information on creating scripts.

SkipJam iMedia Command Wizard

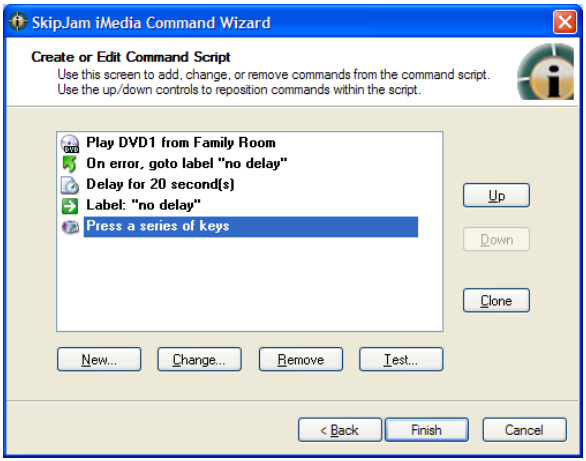
This Windows program creates scripts that can be executed by the SkipJam Command Automation tool sjcmd.exe (found in the SkipJam program files directory) or by the SkipJam iMedia Center. Scripts can perform any function that can be performed by the iMedia system, including several not available from any other source.

Script Media Files

Script files can also be used as "pseudo" media files: When searching for media on your shared drives, the iMedia Center looks for script files with the extension ".sjv" and ".sja" These files are then treated as video and audio content respectively and show up in the list of videos or music. If you tag these files with the iMedia Tag Tool (see page 51) they will appear just as any other music or video file, but when you select these pseudo media files, the iMedia Center executes the script.

For example, if you have a DVD changer, and you would like to have automated access to one of the disks on the DVD changer, you could create a ".sjv" script that makes the iMedia System play the DVD changer in a given room, and then have the script send the IR codes to change to the specific disk you want to watch.

The script for this sequence would look like this in the iMedia Command Wizard:



The SkipJam iMedia Command wizard lets you create these scripts easily. You can then "tag" the scripts with media information so that they show up in the Video or Audio browser menus and when you select the script it executes.

Script Screens

You can also set up script pages which show up as graphical icons on your TV. When you select an icon, the script executes.

For example, you might want to have direct access to a particular TV channel. Say PBS-Kids. You could set up a script which turns on the TV and switches to PBS-Kids. Once you've created several such scripts, you could then create a screen called "Kids Channels" with graphical icons for your kid's favorite channels, and have that screen pop up whenever the "Home" key is pressed on the remote.

To create these screen pages you need to access the Scripts setup section. This Scripts setup capability is only available through the browser menus, so you will need a Browser and the IP address of your iMedia Center, or select the room you want to configure from the "Rooms" menu of the SkipJam iMedia Windows Client. See "Creating Script Screens" on page 57 for more information on setting up script screens.

Advanced Networking Topics

Wireless Networking

SkipJam iMedia networks can be wireless in part or in whole, and the iMedia system automatically scales video streaming to match the available bandwidth of wireless networks. However wireless networks can be subject to prolonged outages due to interference and other environment factors such as distance and construction materials.

Here are some tips for setting up a more robust wireless network for your media:

1. Keep in mind that a wireless G network will typically have a real-life maximum sustained throughput of at most 20Mbps (forget the claims of 54 or 108 Mbps), so the number of simultaneous video streams is fairly limited.
2. Attempt to hard-wire as many of the devices as possible. For example, wire your DMC and NAS to the wireless router, and connect your PC wirelessly.
3. Use 802.11a or 802.11n if possible. 802.11a is flat out faster than 802.11g. Though both "g" and "a" are rated at 54Mbps, 802.11g has more overhead built into the communications, reducing the effective throughput.

   802.11a and n are also less common than g and is therefore less likely to bump into others of the same. And, they both operate at 5GHz and are therefore less susceptible to interference from microwave ovens and cell phones.
4. If you are using 802.11g, make sure that there are no 802.11b devices connected. Having any 802.11b devices connected reduces the overall throughput of your network even if the 802.11b devices are not active.
5. Change the default streaming setting to 2Mbps or less on any iMedia device that is connected wirelessly.
6. Try to avoid recording across a wireless connection. Glitches in the wireless transmission will permanently mar recordings. Instead, attach a hard drive directly to any iMedia Center that you will use to make recordings or hard wire those centers, as well as the PCs or hard drives you are recording to.

7. If you are primarily using a wireless connection to watch TV, disable the "Pause Live TV" PVR capability by clearing the iMedia Recording settings dialog. When you watch in PVR mode you are creating 2 video streams – one to record TV and the other to play, and this can strain a wireless network.
8. Try setting up ad-hoc connections to connect directly from the iMedia devices to the PC you use as a server. This will minimize the wireless traffic by avoiding the access point.
9. We do not recommend the use of wireless in a crowded wireless environment, such as apartment buildings or offices.

Mixed Network Environments

In many circumstances it is not possible to use a single type of networking throughout a home. In this case some planning and foresight can go a long way towards smooth functioning of the system. Here are some general guidelines:

1. Use cat-5 or better cabling wherever possible. No additional bridges or connection devices are required, and this provides maximum throughput
2. Use wired networking technology if possible. Coaxsys, TMT and MoCA devices can be used for networking over RG6 Cable. You can use 10base networking for thin coax. You can use Homeplug 1.5 or 2.0 for power line networking, and Homeplug 1.1 for audio only applications.
3. Keep in mind the following rough figures for various networking topologies (figures based on SkipJam testing):

Network type	**Rated speed (in Mbps)**	**Real-world Throughput (in Mbps)**	**Concurrent DVD Video Streams**
Gigabit Cat 5	1000	600+	100+*
Cat 5	100	60 – 80	12+*
Coaxsys COAX	70	20 – 35	7
802.11n (pre-n)	100	10 – 25	5
802.11a/g	54/108	8 - 17	4
802.11b	11	1 - 6	2
Homeplug 1.1	14	1 - 4	0

* Note that on Cat-5, point to point video streams may not affect over-all network performance (depending on configuration), and so the actual number of concurrent streams can higher than shown.

4. Use switches or routers instead of hubs. Switches allow for direct connection between two nodes without using up bandwidth from the rest of the network.
5. Don't skimp on network hardware. An unreliable router or switch that crashes can result in many hours of frustration.
6. Try to connect storage to the network at the fastest point, and to directly connect iMedia Centers doing the recording to the same sub-net.

DHCP and fixed IP addresses

By default the iMedia Center uses an IP addressed assigned by a DHCP server. In some circumstances it may be useful to maintain an iMedia Center at a fixed IP address. To configure a fixed IP address use Main > More… >Supervisor functions > Setup > Network Setup and then configure the LAN connection you are using.

An alternative is using your router to force a fixed IP address based on an iMedia Center's Mac address. See the documentation for your router.

Network Security

The iMedia System makes network security all the more important. You presumably do not want others to be able to access your in-home cameras or view your photos or control your TV. It is therefore important that you gain a good understanding of network security so that you can protect your privacy.

Here are some basic steps you should take to secure your network:

1. When sharing media use the following precautions:

    a. Share *only* the folders containing media files. **DO NOT share your main hard drive or any folder containing programs or personal data!**

    b. Share media folders on a read-only basis (do not allow others to write to the folders.) unless recording to the folders.

    c. Keep the shares used for recording separate and copy recordings you wish to keep off to other folders.

    d. For maximum security consider a network attached storage device dedicated to entertainment and media.

2. Wireless networks are inherently less secure. If you must use a wireless network you should:

    a. Use a password to encrypt the network traffic. This is generally known as "WEP Encryption" (use 128 bit keys) or "WPA Encryption" (much better) or "WPA2 Encryption" (even better) and must be specifically enabled. See the documentation for your network and your PCs.

    If your network does not have "WPA Encryption" consider upgrading to a model that does, since WEP Encryption is flawed and can be easily "cracked". The network cards and drivers for your PC operating system must also support the encryption method you choose**.**

    b. Change your SSID. Do not use "default" or "vendor-name" for your network. Do not use obvious names like street address or family name.

    c. Password protect the wireless access point's configuration screens. **Do not use the default password; Don't make it obvious.**

d. If possible, use Mac Address access control so that only specific systems have access to your network. To display the Mac Address of your iMedia Center check System Information (see page 47).

e. Disable SSID broadcast. This will hide your network from random scans.

3. Use a firewall with "Network Address Translation" or NAT, which hides your in-home systems from the internet. Better still, use a firewall with "stateful packet inspection," which actually examines traffic for evidence of attacks.

4. Set the firewall to prevent all access from outside the network, and, if possible, to not respond to "pings."

5. Use antivirus software and anti-spyware software on all your PCs, and limit family members' ability to download and install software.

6. Do not use obvious passwords anywhere: Don't use names, pet names, birthdays, license plate numbers or any other readily obtainable common information. Do use a combination of letters, numbers and special characters.

7. Do not let friends and neighbors (or strangers) plug into your network – you never know where their computers have been.

8. Consider password protecting *all* your shared drives.

9. The iMedia Center contains a Telnet client which can be enabled from the Setup Menu for remote support. Do not enable this unless instructed to do so your dealer or SkipJam support. Remember to disable the setting when the troubleshooting is completed.

10. For additional information see:
http://www.cert.org/tech_tips/home_networks.html

HomeView™ Access Away from Home

SkipJam iMedia Centers allow you to access your home media network while away from home using the exclusive HomeView feature. You can access your connected devices on a "Live" streaming basis, and control your entire home as if you were there.

Using a VPN

The most secure way to establish a connection to your home Network is to set up a VPN (Virtual Private Network) which will allow you to access your home network and use the iMedia System as if you are connected locally. This requires multiple configuration settings and will prevent you from accessing your home iMedia network from PCs that do not have your VPN software installed. For information on setting up a VPN see Microsoft knowledge base article 314076 at **support.microsoft.com**.

Using an iMedia HomeView Server

You can also access the iMedia network by accessing any iMedia Center on the network using our HomeView feature. Setting up HomeView access requires some advanced networking knowledge that is beyond the scope of this manual, however the following are the steps needed for those familiar with advanced networking topics.

One iMedia Center on your home network must be assigned the task of providing HomeView access. This iMedia Center must be "exposed" to the internet and accessible at your IP address.

We suggest setting up a home firewall/router (such as the Netgear FR114P) which manages the internet connection to the home. In order to expose an iMedia Center you should fix the internal IP address of the iMedia Center (see DHCP and fixed IP addresses on page 63). Then use the Firewall / Router to direct iMedia network traffic to this iMedia Center. You can do this by setting the iMedia Center as the "DMZ" server (not very secure), or you can have the firewall direct TCP/UDP traffic on ports 80, 8080 and 49000-50000 to the iMedia Center (best solution). You will need to refer to the instructions for your firewall/router.

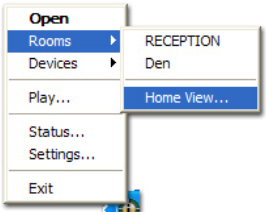
Dynamic IP Addresses

Most home internet services have dynamic IP addresses, which means the Internet location of your home network may vary from day to day. In order to make it simple to find your home you can use a Dynamic DNS service such as that from **www.dyndns.org**. These services are generally free.

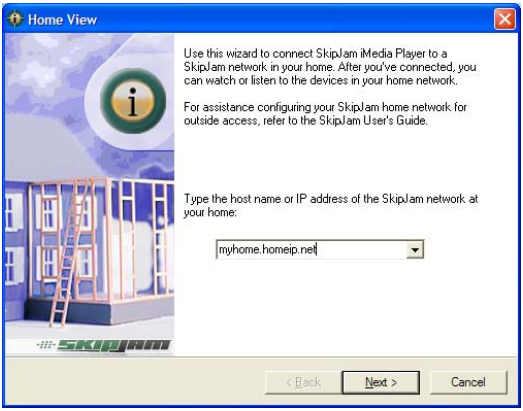
In order to be able to always locate your home IP address you need to set your router/firewall to update your personal dynamic DNS address. See the instructions for your router/firewall.

Accessing Your Home iMedia Network

When you've set up the above, you can access your home network by running the SkipJam iMedia Center and selecting HomeView from the "Rooms" menu.



The iMedia Windows Client will ask you to enter the IP address of your home. If you've set up a dynamic DNS you can simply enter the DNS address. For instance "myhomeimedia.homeip.net". Otherwise you'll need to enter the DNS address of your home.



Once the HomeView wizard connects, you will be able to access your iMedia Devices from the Devices menu of the iMedia Windows Client. The quality of the signal will vary depending on your location and the upload speed of your home internet connection.

To control your home using your browser, simply enter your home IP address or dynamic DNS name into your web browser.

Frequently Asked Questions

Question: *Where is the power button?*

Answer: There is no power button. The iMedia Center was designed to be an integral part in the use of your entertainment system and must be on all the time in order to record programs you've selected an in order to respond to your commands. Don't worry, an iMedia Center uses less power than a night light, and can save you power by automatically turning off your other devices when you are not using them. You can reset the system using the reset switch located on the front panel. You will need a narrow object such as a paper clip to depress the switch.

Question: What *type of digital media files can I play?*

Answer: Please see the SkipJam web site for the latest list of supported formats. As of this printing the iMedia Center supports at least:

Audio Playback	**MP3, WAV, PCM, WMA, FLAC, OGG, M4A, M4P**
	(Support for M4A and M4P iTunes formats require that iTunes for Windows be installed on the PC that contains the iTunes files, and iMedia Windows Client be running on the same PC)
Audio Playlists:	**WPL, ASX, WAX, WVX, PLS, M3U, RMP**
	(These are for Windows Media Player, WinAmp, RealPlayer, MusicMatch, iTunes,)
Video Playback:	**MPEG-1, MPEG-2, MPEG-4, DivX**
Photo Playback:	**JPG, BMP, TIFF**

Question: *What affects the operation of my infrared (IR) remote control?*

Answer: Interference to infrared can come from many sources. The most common source is ambient and direct sunlight. Other source of interference can come from fluorescent lighting and plasma screens.

Question: *Is it possible to reset the iMedia Center to its default settings?*

Yes. The iMedia Center can be set to its factory settings. Perform the following steps: Restart the iMedia Center. When the second LED from the

right goes steady (The second LED will blink before going steady), immediately press and hold down the FIND REMOTE button located on the front of the iMedia center.

This will first try to update your system. If no updates are available, all setup and configuration settings are restored to factory default.

Question: *What is the battery consumption of the RF remote?*

Answer: The RF remote control typically uses on average of 80 mA during active use. Its peak power usage is 160 mA. However, when not in active use, the RF is goes into sleep mode and will use only 20 mA of power. When in sleep mode, you must "wake up" the remote by pressing the "HOME" key once before you can use it to send commands. Typically, the battery can last up to 3-4 days on sleep mode.

Question: *What video quality settings are available?*

Generally speaking, the quality of the video depends on the degree to which the video was compressed. More highly compressed video uses less disk space, but has a lower quality. Also, generally speaking MPEG 4 compression provides much better quality for a given amount of space:

Compression	Quality	Bit Rate	disk space required per hour of video
MPEG 2	VHS Tape	1 Mbps	500MB
	Digital TV	2 Mbps	1GB
	Near DVD	4 Mbps	2GB
	DVD	7 Mbps	4GB
MPEG 4	Digital TV	1 Mbps	500MB
	Near DVD	2 Mbps	1GB
	DVD	4 Mbps	2GB

These numbers have been rounded up for convenience and depend on the type and quality of audio that is being recorded.

Question: *I just added new files to my media share folder. I don't see it in the menu selection to play. How can I see these files in the play selection list?*

Answer: The media shares are scanned once when the SkipJam iMedia Center first boots up and then once daily. If you wish to see your files before the daily scan you must perform a manual scan of media files to add them to the play list. This command is accessed from the menu under More > Supervisor functions > Look for media files.

Troubleshooting

Question: *I powered up the unit and I don't see anything on my video output device. How can I tell if the system is working?*

Answer: It takes approximately three minutes for the unit to start up. The unit should be ready to use when you see the three LEDs from the right light up. If any of these LEDs are out after waiting for the allotted amount of time, check your power connection, network connection, and video output connection.

If you are trying to use the iMedia Center on a stand-alone basis without a network connection, it will take as much as 15 minutes for the iMedia Center to start because it attempts to establish a network connection by default and this process retires several times.

Question: *The infrared remote control does not appear to work.*

Answer: Make sure you removed the battery protector tab from the battery compartment. Also make sure that you are operating in an environment away from IR interference sources such as florescent light, and plasma and direct sunlight.

Question: *I get a black and white picture.*

Answer: You've selected "S-Video" connection, when the device is actually connected to the Composite video RCA connector.

Question: *The picture looks washed out, too red or too yellow*

Answer: You've connected both S-Video and Composite cables to your device. Connect only one or the other.

Question: *The picture and sound is jittery.*

Answer: You may be experiencing low network throughput or interference on your wireless network. Generally, the iMedia Center will adjust the compression to compensate. Try also turning off the session and re-connecting to the device you are trying to view. If the problem adjusting the compression type and bit rate to a lower bit rate at the destination.

Question: *Recording stops at around 4 GB during recording even though there is plenty of hard drive space.*

Answer: The most likely issue is that you are trying to use a Windows share that is using a FAT32 volume. A file in a FAT 32 volume has a maximum size of 4 GB minus 1 byte.

It is best to use a Windows network share that uses NTFS. A file in an NTFS volume can be as big as 16 terabytes (approximately).

Some Linux implementations on 32-bit systems such as x86, PowerPC and MIPS are limited to 2GB due to a restriction in older Linux kernels. There may be a patch for the kernel that you are using to add Large File Support or LFS.

Macintosh HFS+ file system has a file limit of 2 terabytes.

Also check your server settings for a quota or limit and make sure your disk has space available.

Question: *Sometimes a file won't play*.

Answer: A Windows XP Home system allows has a maximum of 5 simultaneous users and an XP Pro system 10. If 5 iMedia Centers are playing a file at once, the 6th will be rejected by Windows. At the same time, any person accessing a file on an XP system will count as a user and reduce the number of iMedia sessions possible.

If you are recording, or are viewing cable or satellite and have "loop file" recording enabled, you will be using 2 connections (one to record and one to play the recording) to the server and count as 2 users.

To get around this issue: Upgrade your system to Windows XP Pro, or Windows NT Server / Windows Server 2003 (which can be configured to many more users) or use a Macintosh or Linux server or a Network Attached Storage Device.

Question: *I can't see video or is unintelligible when I try to use a video device that I just added and configured.*

Answer: Check that the device is powered on. Check your cable connections for a loose connection. Check that the iMedia Configuration matches your physical connections – that the device is actually connected to the port you configured in the iMedia Device Setup.

Question: *How can I automatically turn off the TV or output devices after watching or listening to media?*

If you are using the universal remote capabilities of the iMedia Center, each device is turned on and off when you select to view it, provided you have configured the devices for automatic On/Off. If not, you can turn the device on manually by sending the appropriate code from the Devices menu.

If this does not work, check that the power on/off or power toggle codes are learned for the device you are trying to control. Check also that the IR emitter

If you have not taught the iMedia Center the control codes for your various devices or want to use an external control system to use the iMedia Center, you'll need to get an external universal remote and teach it the iMedia Center's control codes.

Question: *I don't see any "Rooms" or "Devices" from my iMedia Windows Client?*

Check that your firewall is off (XP SP1) or allows iMedia Center in the exceptions list (XP SP2) (see page 29) If you don't see "iMedia Center" in the exception list in the Windows XP SP2 Firewall, select "Add Program" and select iMedia Center from the programs list.

Connection Checklist

Audio / Video Output Devices

Connection	Device Type	Device Brand	Device Model	Composite	S-Video
Video Output					
Analog Composite Audio Out					
Digital PCM Out Coax					
Digital PCM Out Optical					

Audio / Video Input Devices

Connection	Device Type	Device Brand	Device Model	C-Vid	S-Vid
Video Input 1					
Audio Input 1					
Video Input 2					
Audio Input 2					
Video Input 3					
Audio Input 3					
Video Input 4 (Front)					
Audio Input 4 (Front)					
Analog Audio Input 4					
Analog Audio Input 5					
Digital PCM Audio Input 1 (Coaxial)					
Digital PCM Audio Input 2 (Optical)					
Digital PCM Audio Input 3 (Coaxial)					
Digital PCM Audio Input 4(Optical)					
TV Tuner					
FM Tuner					

Technical Specifications

CPU: • 200 MHz MIPS 64/128 bit media processor • 64 MB + 16 MB VRAM • Integrated FPU	**Standards Compliance:** • RF Remote, FCC part 15.247/249 • Integrated TV/FM tuner, FCC sub-part 15 (b)
Hardware Video Encoder: • MPEG 1, 2, 4	**Video Output:** • 1 Analog Composite Connector • 1 S-Video Connector
Hardware Video Decoder: • MPEG 1, 2, 4	**Audio Output:** • 1 Analog Stereo Composite Connector • 1 Coaxial, 1 Optical Digital Connectors
Audio ADC: • 24 bit 192KHz 114db	**Network:** • 2 10/100 Ethernet
Audio DAC: • 24 bit 192KHz 114db	**Power Requirements:** • SkipJam iMedia Center 12 V 2A • RF Remote Control 3.6V 1000mAh rechargeable pack with 9V charger
Supported Digital Video File Formats: • MPEG 1, 2, 4, DivX,	**Power Consumption:** • 18 Watts
Supported Digital Audio File Formats: • MP3, WMA, WAV, AC3, AAC, FLAC, Ogg, PCM, M4P, M4A (iTunes)	**Optional PC Requirement:** • Networked PC running Windows XP or Windows 2000 • 128K MB Memory • 5 MB free disk space
Supported Digital Photo File Formats: • JPG, BMP, PNG, GIF	**Dimensions (W x H x D):** • 14 7/8" x 2 1/8" x 9 3/8" • 377 mm x 54 mm x 238 mm
Video Inputs: • 4 Analog Composite • 3 S-Video • 1 RG6 75 ohms Integrated Cable-ready TV tuner, 55.25 MHz to 801.25 MHz	**RF Remote:** • 2.4 Ghz (2400 to 2483 MHz) • Fast Frequency hopping, 95 Channels, Spread Spectrum • Expected range 350m outdoor, 75m indoor • Transmit power ~ 200mW • 60 mA peak, 160 mA max, 80 mA typical, 20 mA standby, 10 mA sleep
Audio Inputs: • 6 Analog Stereo Composite Connectors • 2 Coaxial, 2 Optical Digital • 1 RG6 75 ohms FM tuner, 76 MHz to 108 MHz	**Weight:** • SkipJam iMedia Unit 6lbs • Shipping weight 8.5 lbs
Safety Certifications: • iMedia Center 12V AC Adapter, UL E193430, IEC Cable UL E137357	**IR Remote:** • 3VDC 2xAAA dry cell • 38 KHz transmission carrier • 200 mm x 55 mm x 25 (LxWxH) • 10 m operating distance