XMP-320 User's Manual

Notes about model variants

The XMP-320 and XMP-330 models are based on XMP-320 with the following differences:

XMP-320	XMP-330
Ethernet only	Ethernet + Wi-Fi

Wireless operations apply to XMP-330 only. All other aspects of operation are identical for each model

Contents

1. Introduction

This document describes the hardware and software operations of the XMP-320/330, system set up, and frequently asked questions.

1.1. Features

The XMP-320/330 is a Full-HD 1080p high definition digital signage player featuring industrial grade mechanical design and versatile open-standard SMIL programmability.

- Full-HD 1080p hardware decoding of MPEG, H.264, and VC-1 media formats
- 4GB on-board flash local storage with CF card slot
- Integrated audio and video output via HDMI
- Supports full POPAI Screen Media Formats Standards profiles S1 to S12, and E1 to E9
- Multiple 3rd party software solution compatibility
- Industry leading W3C SMIL support for developers

1.2. Package contents
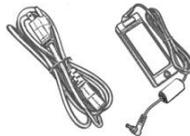
Media Player Unit	AC Adapter and	Ethernet cable	Standard 3.5mm to RCA AV adapter	Quick Start
Documentation CD (select SKUs)	Software set up guide (select SKUs)	Wi-Fi Antenna (XMP-330 only)	CF card cover/remover (pre-installed on unit)	
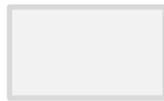
**NOT INCLUDED**: A USB keyboard is required for system setup

1.3. Mounting options

The player can be attached to mounting posts on the back of screens or inside cabinetry with the built in VESA MIS-D100 (100mmx100mm) compatible mounting flange

(For XMP-330 only) **ATTACH** the wireless antenna as shown. Screw antenna clockwise onto the post

100mm

75mm

100mm
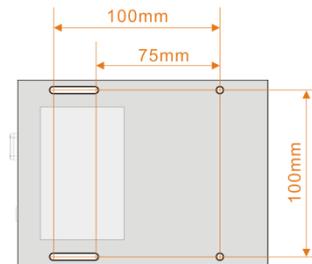
Bottom view

1.4. Physical view

VESA mount (MIS-D 100)

Wi-fi antenna

HDMI

12V DC in   VGA

Ethernet   CF card slot (covered)

AV out   USB x2
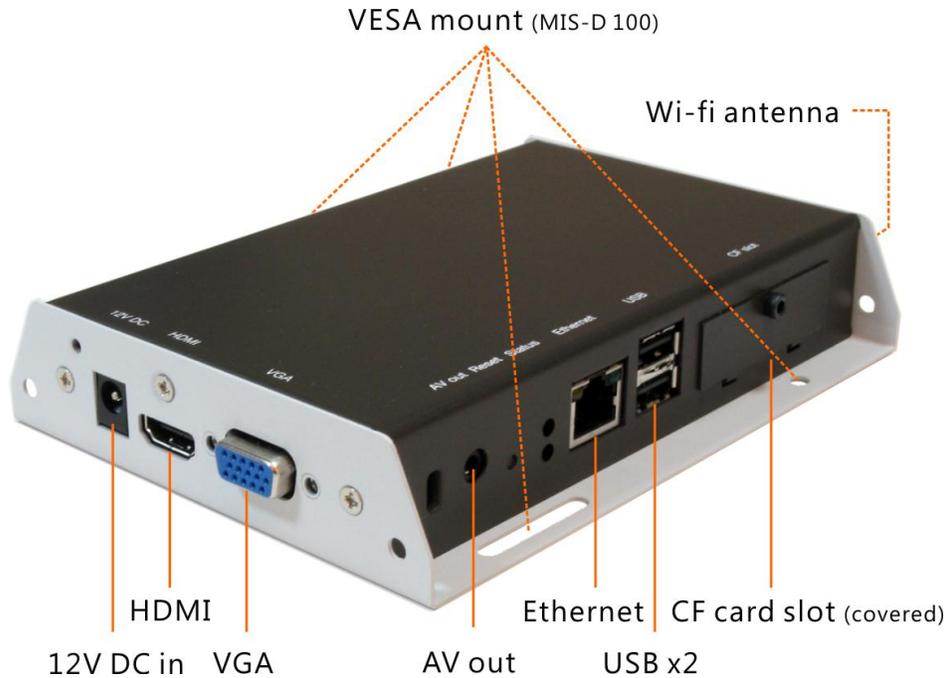
Physical features (left to right in above illustration)

- 12V DC for power adapter
- HDMI 1.3a connector for digital video and audio combined outputs, or digital video via option DVI adapter
- VGA port for analog video output
- 3.5mm composite AV output
- S/W Reset button to perform factory reset
- Ethernet port for network content update
- USB ports for USB content update and configuration
- CF card slot cover with integrated CF card removing tool

2. Configuring the XMP-320/330 Media Player

2.1. System connections

1 Attach a video cable (either VGA or HDMI) to your monitor.

When using the **VGA connection**, your monitor should support XGA (1024x768) resolution or greater. For audio output, you will also need to connect a stereo RCA cable from the XMP-320/330 to your monitor.

When using an **HDMI connection,** audio is sent along with video over the HDMI cable, so no additional cables are required.

Reminder: If you do not see anything on screen, check your monitor video input mode.

2 Attach the AC power adapter to power on the unit. Shortly afterwards, the following progress bar will be displayed on your monitor:
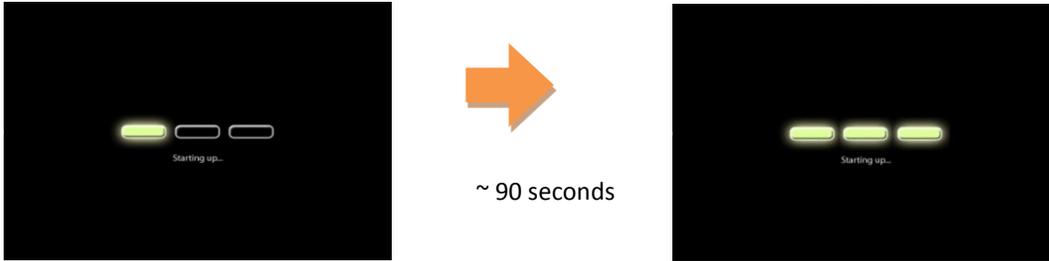
~ 90 seconds

3 Player boot process takes approximately **90 seconds** to complete. The player will indicate that it is ready for content sync via the USB port or, if content has been loaded, begin playback immediately.

Troubleshooting Tips

1 The operation indicators light up, but no video is displayed on screen.
- Ensure that your video cable (VGA or HDMI) is securely connected. When using an HDMI connection, choose high quality, certified HDMI cables or try using shorter length cables.
- Check if your monitor is turned-on and switched to the corresponding video input source.

2 No sound is heard.
- If using VGA connection, you also need to connect RCA audio cables.
- Check volume (mute) settings on monitor.

After performing the initial setup as outlined above, the player will boot into the "Open Standard Media Player" screen. Plug in a USB keyboard to enter configuration menus.

If you have already loaded media contents into the player, contents will play back immediately after boot up, and the "Open Standard Media Player" screen will not be shown. You can still plug in a USB keyboard at any time during playback to enter the menu system.

2.2. USB keyboard configuration menus

You must attach a USB keyboard to the XMP-320 to configure settings. With the player booted up and ready, it takes approximately 30 seconds after you plug in the keyboard for the following menu to be displayed:

```
Full HD Open API Player
```

```
                    Main Menu
             Device information
             Video setting
             Content source
             Network setting
             Time setting
             Change password
             Load factory default
             Undo changes
             Firmware update


             <Select>    < Done >
```
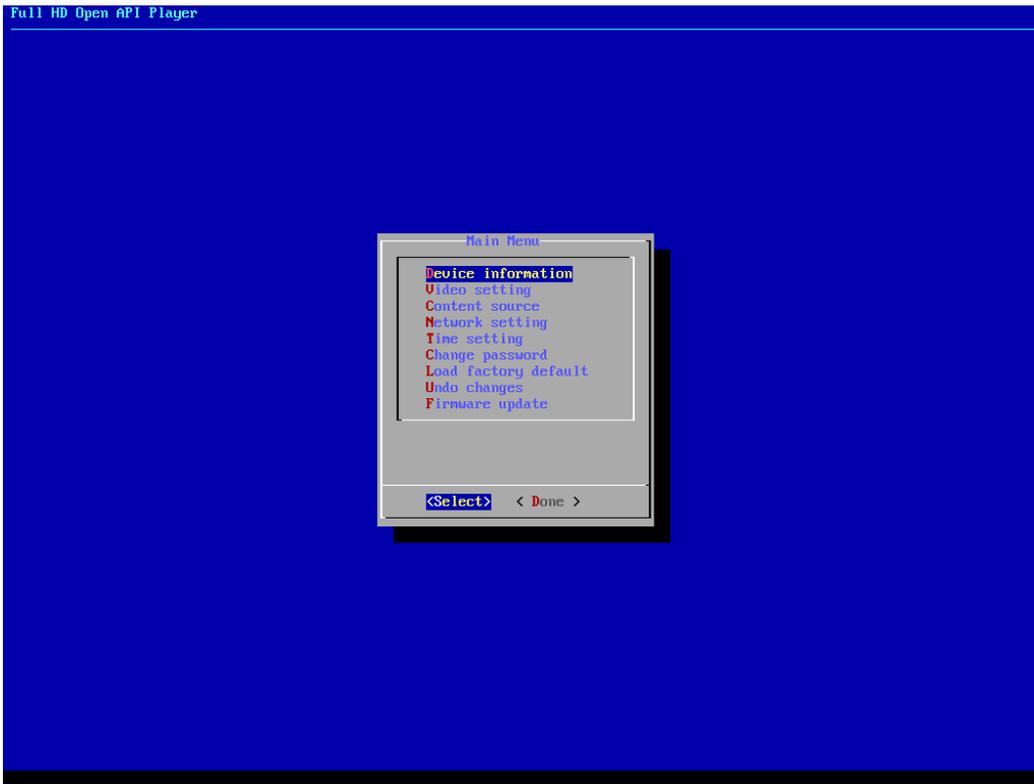
Navigating the menus

Navigate the menus using arrow keys, space bar, enter key, and numeral keys on your USB keyboard. Use the keyboard arrow keys to highlight menu items, press the space bar to move the star (cursor), and then press enter to confirm (<OK>) or reject (<Cancel>) any changes.

2.3. Connect the XMP-320/330 to your network

Enter Network setting in the menu to set up a network connection method.

### Wireless connection (XMP-330 only)

The player will scan for wireless signals nearby during boot up. If the network requires authentication, you will be asked to provide the password for access.

Wired connection

To use the wired Ethernet connection, connect an Ethernet cable and the Wi-Fi (XMP-330) will be disabled.

```
                Main Menu
         Device information
         Video setting
         Content source
         Network setting
         Time setting
         Change password
         Load factory default
         Undo changes
         Firmware update


         <Select>   < Done >
```

Player IP address

You will also need an IP address for the player on your network. This could be set automatically (DHCP) or manually (static IP):

```
              Network setting
   ( * ) DHCP      Obtain an IP address automatically
   (  ) Static IP  Assign an IP address manually



        < OK >         < Cancel >
```
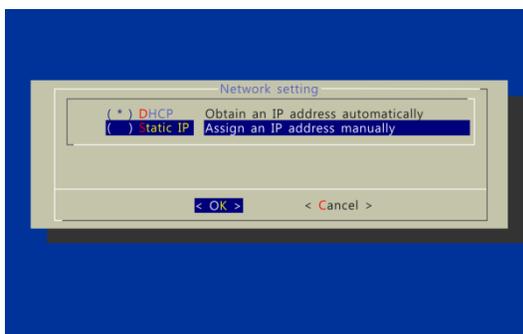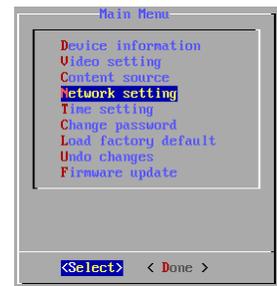
DHCP – automatically assign network IP address

DHCP is enabled by default. You do not need to change the settings unless setting a static IP.

Static IP – manually assign network IP address

Highlight "IP configuration" and press "Enter" on keyboard to <Select>

Move the highlight to "Static IP" below, press "Space bar" on the keyboard to fill in the star (*) at the Static IP brackets, and press "Enter" on the keyboard to select <OK>.

4
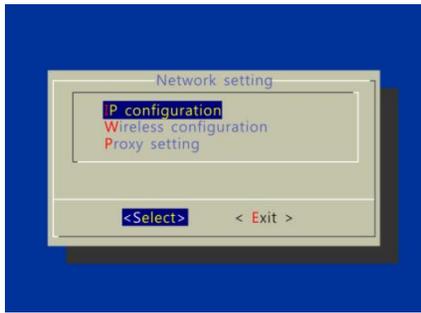
Proceed to configure an available static IP address. Select Wireless configuration or IP configuration as determined by your connection. Please consult your network administrator for assistance if necessary.

2.4. Video output settings

For best quality, set the output resolution to match your display's native resolution to avoid image scaling and blur.

If you are connecting to an LCD TV, the resolution setting is most likely 1366x768, 1280x720, or 1920x1080. If you are connecting a LCD computer monitor, projector, or plasma display, refer to the device specifications for the best matching setting.

Press the space bar to fill in the star (*) before pressing the enter key for <OK>.
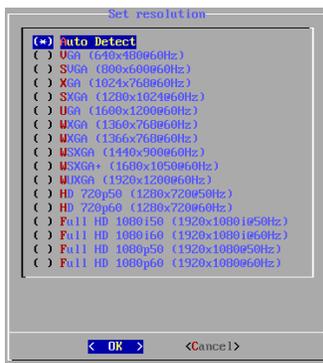
2.5. Clock and calendar settings
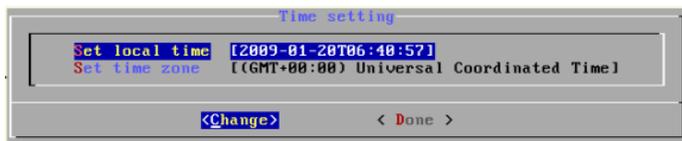
Set the correct time zone, time, and date. Daylight Saving (DST) rules can be configured in *Set time zone*.

2.6. Setting a password

To prevent unauthorized modification of player settings, set a player password to hide the menu.
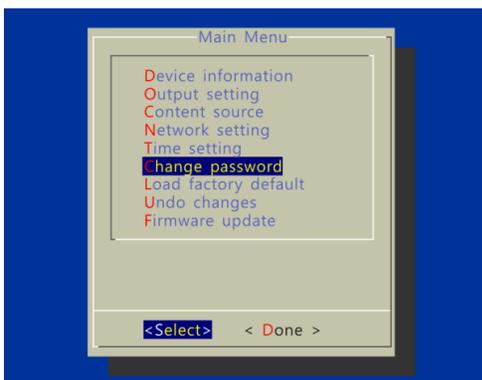
From the top level menu, select "Change password" to set a password.

IMPORTANT: Once a password is set, you can only access the menus by connecting a USB keyboard and pressing CTRL + ALT + DELETE (3-key combination) simultaneously. You may connect the keyboard at any stage of player operation or before/ during boot-up.

If you forget the password, you will need to reset the device. See *Factory reset*.

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2.7. Factory reset

If you forget a system password you have set, you must reset the system to regain access to the player.

Using the reset button

1   **PRESS** and **HOLD** the reset button with a pin

2   **RE-CONNECT** the power cord

3   **WAIT** about 8 seconds or until the status LED flashes

4   **RELEASE** reset button and wait for system to initialize

R

Using a USB keyboard

System reset will re-initialize the system, clear passwords, and return settings to their default values. Perform the following:

1 **CONNECT** USB keyboard

2   **REBOOT** the player and look for the reset instructions on the top left corner of the screen. When it appears, **PRESS** the Delete key on your keyboard

> → If you missed the reset window, unplug power and try again

3   You should see a menu with a reset confirmation dialogue box. **SELECT** Yes to confirm

4   **WAIT** while system reboots to complete reset

2.8. Applying firmware upgrades

Firmware updates can be performed using a USB flash drive. Please read the release notes carefully regarding the changes that will be made to your player before applying the upgrade

1   **DOWNLOAD** the latest firmware and copy it to the root directory of a USB drive from www.digisignage.com

2   **PLUG** the power cord into the device

3   **PLUG** a USB keyboard to the device to enter menu system

4   Follow on screen instructions and **SELECT** firmware upgrade option in the menu

5   When instructed, **PLUG IN** the USB drive to begin firmware upgrade

3. Content Management

The XMP-320 is designed to work with 3rd party management solutions. Please refer to the printed guide for related set up instructions.

4. Working with SMIL

The XMP-320/330 uses open communications protocols for content presentation and playback control. SMIL-compliance means predictable results across multiple devices, and SMIL's non-proprietary nature means that your investments are never obsolete.

4.1. Introduction

Using SMIL (pronounced "smile"), the language created by W3C for multimedia communications, the media player understands the language "spoken" by professional tools from companies such as Adobe, Apple, Microsoft, and Real Networks. What this means is quicker, easier, and better integration of your players into your digital signage networks, opening up avenues of software controls and realizing the full potential of your player hardware down the road.

4.2. www.a-smil.org for developers

The media player operating system utilizes W3C SMIL as the underlying scripting language, which lends well to customization to your project management needs. For resources, downloads, and community support, please visit www.a-smil.org.

5. Technical Data

5.1. Specifications

	XMP-320	XMP-330
Video format support	POPAI Screen Media Standards S6 (MPEG-1 SIF, 3Mbps CBR) S7 (MPEG-1 480p, 10Mbps CBR) S8 (MPEG-1 720p, 15Mbps CBR) S9 (MPEG-2 480p, 6Mbps CBR) S10 (MPEG-2 720p, 12Mbps CBR) S11 (MPEG-4 AVC, 480p, 6Mbps CBR) S12 (MPEG-4 AVC, 720p, 10Mbps CBR) E4 (VC-1/WMV9, MP@ML, 720p) E5 (VC-1/WMV9, MP@HL, 1080p) E6 (MPEG-2, 1080p, 20Mbps CBR) E7 (MPEG-4 ASP, 480p, 10Mbps CBR) E8 (MPEG-4 AVC, 1080p, 25Mbps CBR)	
Image format support	POPAI Screen Media Standards S1 (JPEG 480p baseline) S2 (JPEG 720p baseline) S3 (JPEG 1080p baseline) E1 (PNG 24bpp+alpha, 480p) E2 (PNG 24bpp+alpha, 720p) E3 (PNG 24bpp+alpha, 1080p)	
Audio codec support	POPAI Screen Media Standards S4 (MPEG L2 audio) S5 (MP3 audio, 384Kbps)	
Playback control	W3C SMIL 3.0 instructions (sub-set)	
Content management	3rd party solution	
Physical I/O connectors	HDMI 1.3 VGA 3.5mm AV out RJ45 Ethernet USB 2.0	As XMP-320 plus: Wi-Fi antenna port
Local storage	4GB on-board flash memory (up to 1.8 hrs of 5 Mbps high def. video) CF card expansion slot	
Accessories	3.5mm-RCA AV cable Ethernet cable	As XMP-320 plus: Wi-Fi antenna
Power requirement	12V 1.5A DC	
Power consumption*	8 watts max (when playing 1080P full resolution video)	
Environmental	Operating temperature: 0 – 40° C / 32 – 104° F Humidity: 5 – 85% @ 40° C / 32 – 104° F non-condensing	
Dimensions	211x153x 43mm (8.3 X 6 X 1.7 inches)	
Weight	1.14kg 2.5lbs	1.4kg 3 lbs.
Safety	UL-approved AC adapters	
Certifications	CE/FCC/RoHS	
Warranty	One-year limited parts & labor	

6. Appendix: FAQ

What should I do if I forgot my password?
In this case, please perform a factory reset.

Use the S/W RESET button located at the back of the media player to restore factory settings. This will also clear the player's password.

Performing a factory reset

Warning: This procedure will restore all menu settings to factory default and <u>format the internal storage to factory conditions</u> (all contents will be removed).

To restore factory settings and format the drive:

1. Disconnect power cable from the player unit
2. Press and hold the S/W RESET button
3. Connect the power cable while holding the S/W RESET button until *status light flashes* (about 15 seconds)
4. Please wait while the system drive is being formatted

What can I do to improve Adfotain Manager Express performance on my PC?
The latest Microsoft .NET 3.5 SP1 offers improved performance and bug fixes to Adfotain Manager Express. You can install the update via this internet browser link http://go.microsoft.com/fwlink/?LinkId=124150 or by searching for ".NET 3.5 SP1" At www.microsoft.com.

What is the maximum file size for a single video file?
The maximum video file size for the XMP-320/305 is 2GB. We recommend reserving a safety margin to avoid exceeding the limit (i.e. limiting files to 1850MB).

How do I restore the device back to factory defaults?
The S/W RESET button located at the back of the media player can be used to restore factory settings.

To restore factory settings:

1. Disconnect power cable from the player unit
2. Press and hold the S/W RESET button
3. Connect the power cable while holding the S/W RESET button until status light flashes (approx. 15 seconds)

How do I manage the playback of contents?
Playback on a schedule is one of the main functions of the XMP-320/305. For most users, it can be managed via the easy to use Adfotain Manager Express software. Scala users may obtain a player license from Scala to manage the media player directly from Scala Content Manager. For advanced customization, there is SMIL compatibility. See the developer's manual for customizing the player with open-standard W3C SMIL commands.

About Adfotain Manager Express: Unlike the difficulty of programming VCRs from a remote control, the Adfotain Manager Express software is designed to be simple by using a graphical personal computer interface. Playback contents are laid out visually in a calendar view. Anyone with basic computer skills can quickly create or modify schedules, delivering the right message to the right audience at the right times. Please refer to the Adfotain Manager Express User's Manual for detailed operations and techniques.

Could the player display Flash or Microsoft PowerPoint presentations?
The player features limited PowerPoint support, but not Flash support.

While PCs can play many formats with varying degrees of success, RISC-based media players are designed to reliably play specific video formats (Please see spec for details). While Microsoft PowerPoint native files could not play directly on a RISC-based player, the file is converted through other software (i.e. Adfotain Manager Express) into an image format to be played as an image slideshow.

Why won't some media files play smoothly?
The video data bit-rate may be higher than the recommended bit rate.

The video data bit-rate is the amount of video or audio data used per second to store or play the contents, usually expressed in Mbps (mega-bits per second). Video encoded with excessive bit-rates will not playback smoothly in the media player, likely due to storage i/o bottlenecks. You can try recompressing unplayable video files at lower bit rates using the free and open source Handbrake tool at http://handbrake.fr/. Once you have found the right output settings for size and quality, save them in Handbrake **profiles** for future use. Then you can easily recompress any unplayable files you encounter in the future.

Why won't some media files play at all?
Despite our best efforts to adhere to video format standards, video compression introduces many variables, and sometimes the videos you acquire may not be playable on all players. In this case, you should check your compression settings (bitrate, audio codec, and other parameters) and use a compatible setting.

If the files can play on your PC but not on your player, you should **recompress** the file to ensure playback. For greatest compatibility, we recommend outputting to the WMV format (VC-1 codec, 3 to 5 Mbps bit-rate). You can recompress unplayable video files with recommended file formats and bit rates using the free and open source Handbrake tool at http://handbrake.fr/. Once you have found the right output settings for size and quality, save them in Handbrake **profiles** for future use. Then you can easily recompress any unplayable files you encounter in the future.

The media playback looks different on a PC compared to the media player's screen. (Wrong aspect ratio)
There are 2 major aspect ratios (width-to-height ratios) for video content, but many kinds of displays. If you play 4:3 video on a 16:9 display (or vice versa), a circle becomes oval, and the picture takes on a squeezed or stretched look. To avoid this distorted look, adding black bars are a common technique.

The Network Media Player can be configured to automatically add black bars for certain types of displays. You can set the output resolution in XMP-320's configuration menu to match the **native resolution** of your display.

Some JPEG images cannot be played in the media player.
Progressive JPEG are not supported. Please convert to baseline JPEG for maximum compatibility.

JPEG images can be either of 2 types: baseline or progressive compression. Baseline JPEG offers greatest compatibility, while progressive JPEGs are suitable for web site images. Progressive images are downloaded and displayed "progressively," being rendered more clearly as more data is received over the internet. Devices with local storage such as the CF/Network Media Player are usually incompatible with the latter type. Make sure to save images as baseline JPEG in your photo editor, or resave them as baseline JPEGs using free tools such as Paint.net (http://www.paint.net/).

Does the media player support video streaming?
No, all media files are designed to play from local storage (HDD or CF card).

During content and schedule sync, contents are transferred to player's local storage before being presented on screen. This ensures the best possible presentation and fluid delivery of your video message. Video streaming raises many playback quality issues such as image freezing, blocking, or blue-screens, costing you valuable "air time" and losing your audience's attention.

The media player is not playing. What should I do?
Check the player's messages on the display (OSD, or on screen display) for status information.

Since RISC-based media player usually lack input devices such as keyboard or mouse like PCs, troubleshooting is usually based on user's knowledge and experience with the specific media player. First check the on screen message and stats reports. Bad play list and timing issues are two major causes of playback problems. To determine if the problem is caused by a bad play list, just delete the play list and restart player. The player should loop through all media files, indicating a fault with the play list.

If the playback is scheduled to play at specific time, check to see if the device is set to the right time zone on the world clock. When nothing seems wrong, the time zone setting is often the reason the program is not played.

7. IAdea Limited Warranty

For Media Player Devices

Applicable to IAdea product models: XMP-300/305, XMP-320/330, XMP-120/130, HMP-505S/500S, NMP-200U

1. IAdea provides, unless extended through optional service programs, one (1) year of limited warranty on its applicable product models listed above. The applicable product must be purchased through an authorized IAdea reseller. Subject to the conditions of this warranty, IAdea will perform necessary service on the product without charge for parts or labor if, in the opinion of IAdea, the product is found to be faulty within the warranty period. IAdea's sole warranty and obligation will be to repair or replace (at it sole discretion) such products that require warranty during the applicable warranty period in accordance with these conditions. If the product is found to be in correct working order, then IAdea reserves the right to charge you for its time and materials costs.
2. This warranty only applies if the product has been under normal use and reasonable care (in the opinion of IAdea). The warranty covers normal usage for which the unit was originally supplied and does not cover damage, malfunction or failure resulting from use of incorrect voltages, unauthorized installation, accident, misuse, neglect, build-up of dirt or dust, abuse, power surge problems, thunderstorm activity, tampering or repair by unauthorized persons (including unauthorized alterations), unauthorized maintenance, exposure to abnormally corrosive conditions or any foreign object or matter having entered the product.
3. If warranty service is required you should contact IAdea at support@IAdea.com. You will be required to fill out an RMA form and provide proof for your original date of purchase.
4. You will be responsible for shipping the product to designated IAdea service locations. You are required to pre-pay for the shipping and custom charges, if any, required for the shipment of the product to IAdea. The warranties hereby conferred do not extend to any costs associated with the delivery, handling, freighting or transportation of the product and do not extend to any damage or loss occurring during, or associated with, transit.

IAdea currently provides warranty service locations in Taipei, Taiwan and Newark, California, USA.

For questions or further information, please contact support@IAdea.com.