

QUICK START GUIDE

MediaStar 782-AV 4K UHD Digital Signage Player



The MediaStar 782-AV Digital Media Player is a fully featured video and audio media player, specifically designed for corporate, sports, digital signage and other commercial applications. It can output 4K pictures that come from live IP streams, web pages, locally stored video file content or content from a corporate video server.

Company-wide deployments of 782-AV units can be configured and monitored using the Media Manager software, with its easy 'automatic device discovery' and 'drag and drop' interface.

The 782-AV has been designed to be deployed throughout a corporate environment with high reliability and low maintenance as priorities.

What's in the box:

- 782-AV Digital Signage Player
- HDMI Cable
- CAT5 patch cable
- AC mains adapter (non PoE versions)

It is a fully 'static' hardware platform (no disks, no fans) built around a Linux OS, and has been designed specifically to be situated close to the display screen.

It provides HDMI, YPbPr and composite video outputs, together with internal flash storage, USB2/3 ports for local connectivity and a PoE power option.

Important Safety Instructions

1. Read and keep these instructions.
2. Follow the instructions and heed all warnings.
3. Do not use this apparatus near water.
4. Clean only with a dry cloth.
5. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
6. Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produce heat.
7. Do not defeat the safety purpose of the polarised or grounding-type plug. A polarised plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
8. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
9. Only use attachments/accessories specified by the manufacturer.
10. Use only with the cart, stand tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
11. Unplug this apparatus during lightning storms or when unused for long periods of time.
12. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

WARNING: THERE ARE NO USER SERVICEABLE PARTS WITHIN A MEDIASTAR 782-AV UNIT.

Installation

1. When locating the 782-AV unit, ensure that a clearance distance of 25mm (1") is maintained around the unit to provide sufficient ventilation airflow. Items that could accidentally block the ventilation grills or impede the cooling airflow must not be located near the unit.
2. The 782-AV must not be installed where there is a possibility of exposure to condensation, dripping or splashing liquids. Containers filled with fluid should not be located in the vicinity of this unit. Do not fix the 782-AV to any surface which is a heat source that may cause the unit to over-heat.
3. Connect the 782-AV unit to the display using the HDMI or other AV cable. Ensure the HDMI cable is inserted into the 782's HDMI OUTPUT port. All connectors are clearly labelled on the rear face of the unit. If the analogue audio output is being used, connect the 3.5mm audio output jack to the display with an appropriate (adapter) cable.
4. If the 782-AV is to be operated by a user using a MediaStar Infra-Red (IR) remote control (part number 791-3W, 711 or 712 ordered separately), either
 - a) Ensure the built-in IR receiver on the side of the 782-AV is visible, or
 - b) Fit a remote IR receiver module (part number 911-4154, ordered separately). The IR receiver should be mounted in a visible position, facing away from the screen and be plugged into the IR RX 3.5mm jack socket in the 782-AV. If necessary the 911-4154 cable can be extended up to 10m using a standard 3.5mm 4 pole male to female extender cable.
5. Power-on the 782-AV using the external mains-DC Power supply or via the CAT5 network cable if using Power-over-Ethernet (PoE).

When powering with the mains/DC power supply:

The external mains/DC power supply input rating must meet the specifications of the mains supply at the installation location. Only the LPS (Limited Power Source) power supply provided with this equipment should be used.

This device must be installed using a mains (AC supply) plug and socket that is located near the equipment, that remains operable and be easily accessible to disconnect the unit in the case of an emergency. Insert the DC jack plug of the mains/DC power supply unit into the jack socket on the 782-AV. Plug in the mains/DC power supply unit, switch on and check that the status indicator LED by the DC jack socket is lit. Connect the 780 to a local network port with the CAT5 SFTP patch cable supplied (or another equivalent cable of appropriate length).

When powering using PoE:

Connect the 782-AV to the network using the CAT5 SFTP cable supplied or another equivalent cable of appropriate length. The 782-AV will then negotiate a class 0/4 power supply connection with the PoE power supply equipment. Check the status LED by the DC jack socket is lit. If a mains/DC power supply and PoE are used simultaneously, most power will be taken from the PoE supply.

6. When using HDMI, the 782-AV will automatically select the highest possible picture resolution that the display and 782-AV both support. When using the phono (analogue) outputs, the picture format defaults to YPbPr at 720p60. If your display is not capable of supporting this resolution, you can configure a different resolution via the on-board browser configuration menus.

The LEDs on the network connector will illuminate to indicate there is a valid network connection. The orange RJ45 LED indicates a network link has been established, and the (flashing) green LED shows network activity.

The 782-AV is supplied with DHCP enabled, so by default, it will negotiate a valid IP address setting with a DHCP server. If no DHCP server is present, the unit should be configured with a static IP address. If required, the 782's MAC address is printed on the part number label on the rear face of the unit.

To set a static IP address on the 782-AV, use an IR or Bluetooth remote control to show the on-screen setup menus. Press the menu (or home) button to show the Media list and then use the arrow up cursor key to show the setup menus. Navigate to the Advanced/Configuration-Configure Network-IP address setting menus to set the IP address details. Ensure that all static IP address details (netmask, gateway etc.), are in accordance with the settings provided by the network system administrator.

7. Once the 782-AV is connected on the network, its advanced configuration options may be setup using a networked computer running a standard web-browser. In the web browser (Internet Explorer, Chrome, Firefox, Safari) enter the IP address of the 782-AV into the navigation address bar. The browser will then show the configuration web pages from the 782-AV unit, starting with the specification page. The main configuration web pages can be accessed by clicking on the menu link on the left hand side of the screen. Context sensitive help is shown on the right hand side in case further help is required with setup.

It is recommended that the following (minimum) settings are configured at time of installation:

- a) Unit name (in Operating Mode menu) – This should reflect the physical location of the unit, preferably in line with a system wide naming convention. This name of the unit will be shown in the Media Manager software.
 - b) Date/Time – For most accurate timekeeping, configure the unit to use a corporate or internet NTP time server (a commonly used internet time server is pool.ntp.org). If this is not available, set the date and time manually. The date/time will be retained and updated throughout a power outage of up to 3 days.
8. The media accessible on the display is controlled from the Media Manager software. When the Media Manager server software is installed and running, it should automatically detect a new 782-AV unit and create a new 'icon' for it. Media can then be assigned to the 782-AV by 'dragging and dropping' live streams, stored files etc. onto the 782-AV icon. The 782-AV will then be instructed to download or access the specified media and start showing it on the display as requested by the user.

If the 782-AV is not automatically recognised by the Media manager software, then:

- a) Use a browser to go onto the 782's web page menus, and enter <MM server IP address>/MediaManagerUpdates/config (without < or >) into the Config File Location field and click on Apply. Creating this direct connection to the Media Manager server should cause the 782's icon to be created. The network connectivity from the 782-AV to the Media Manager server can be checked by checking the 'Check update locations' tick box and pressing the apply button.
- b) In Media Manager, manually create a 782-AV icon, by right-clicking on the workspace and selecting the Create/Endpoint/782-AV option. This allows the IP address of the 782-AV to be manually specified, so Media Manager can then try and connect directly to the 782-AV unit.

It is essential for the 782-AV to be able to communicate with a Media Manager server to be able to initially configure or then change the user selectable media.

Browser based Configuration Menus

The 782's web page configuration menus allow the full range of operational parameters to be set. When using the web pages, full contextual help is provided on the right side of the screen. When changes have been made, press the APPLY button at the bottom of the page to ensure these take effect.

Specification

The specification page includes details of the capabilities of the product. Please note that this unit may not have all the options mentioned. The Status page shows all the optional features currently enabled.

Status

Shows the current status of the 782-AV, including its Part number, Serial Number, Unit name, Playlist reference, Media Files (stored locally), IP Address, Mac Address, Software version, SIPI Command Set Version, Temperature, Preferred and Actual Resolution, Media Storage (capacity and used), PoE status and RS232 status.

Operating Mode

Set the name of the unit, whether to apply a password to the mobile page here, and the local audio input format.

Video Output

Set the preferred video output resolution here (default auto via HDMI, or analogue YPbPr 720p60), the analogue video output format, how long to show the media name on-screen, and select the preferred audio, subtitle and closed caption languages (individual channel selections can also be made via on-screen menus).

Picture Control

This provides a web page interface to control the media that is currently being shown on the display. Click on a media icon to show it on screen (the current media is shown highlighted). Volume and mute controls are also provided on the top-right pull-down.

Media Files

This shows the Media files that are currently stored in the on-board flash memory, and the state of any ongoing media download.

Aux Port

Configure the external contact closures for open/closed contact operation and external audio mute. This 3.5mm jack connector is physically labelled IR blaster, and the electrical pin-out is available on request.

Date/Time

Configure the local time to use a Network (NTP) server if available. If not, set the date/time manually. Set the local time zone and daylight saving.

RS232 Port

Configure the serial port settings for display control, SIPI control interface or for IP to RS232 transparent pass-through mode.

Network Setup

Allows specification of the Network Connection; DHCP or static addressing, device hostname, IP address, subnet mask, Gateway and DNS settings. Confirm these with the network administrator before configuring.

Update Locations

Specify the URL of the MediaStar http server and folder that the 782-AV will look at for software updates and a central configuration file. The 782-AV will only upgrade to new software that has been digitally signed by Cabletime. You can check the settings are valid as long as the Media Manager server is already running.

Enablement Code

Enter enablement codes here to reconfigure or expand the capabilities of your unit. Details can be obtained from your reseller or Cabletime.

Set Password

A password may be set to prevent the unauthorised modification of the 782's configuration. A password consists of six digits from 0-9. If the password gets lost, contact Cabletime for assistance, quoting the serial number of the unit affected.

SNMP

Configure to send SNMP 'event' warning messages to a corporate SNMP monitoring system (MIB files are available on request).

Email Logs

Event logs can be periodically emailed to a recipient. Specify the email server and recipient email address here.

Event Log

This shows a full list of the errors or 'events' that the 782-AV has experienced. Significant error messages will also produce an SNMP trap when enabled.

Playout Log

This shows list of the Media that the 782-AV has been playing out.

Technical Specifications

DIMENSIONS	18.0 x 12.4 x 2.8 cm / 7 1/4" x 4 7/8" x 1 1/8"
WEIGHT	0.42Kg / 0.9lb
AMBIENT OPERATING TEMPERATURE	0 - 40°C / 32 - 104°F
POWER SUPPLY	AC mains adapter: LPS 100-240VAC, 47-63Hz Output: +5VDC (+/- 5%), 3.0 Amps, with a DC jack plug (centre positive voltage, 5.5/2.1 mm diameter)
	Power over Ethernet: 802.3af class 0 device (13 W max) 802.3at class 4 device (25 W max)
	Unit Power dissipation: 12W max
NETWORK	RJ45 802.3 10/100/1000 Base-T Auto MDIX
	Static or DHCP IP address
	UDP, TCP, ARP, DHCP, ICMP, IGMP V2/V3, HTTP, HTTPS, SNMP, SMTP, NTP
VIDEO OUTPUT	HDMI 1.4b. 480i, 480p, 576i, 576p, 720p50/60, 1080i50/60, 1080p50/60, UHD 2160p25/30
	Phonos YPbPr: 480p, 576p, 720p50/60, 1080i50/60, 1080p50/60 CVBS: PAL, NTSC
AUDIO OUTPUT	HDMI PCM stereo, Dolby Digital Plus
	3.5mm Jack Multi-channel audio down-mix to stereo output 3 or 4 pole jack compatible, 30 ohm headphone drive, microphone input with key-press switch detection
VIDEO INPUT	HDMI: 480p, 576p, 720p50/60, 1080i50/60, 1080p50/60
AUDIO INPUT	HDMI PCM stereo and Dolby Digital Plus Multi-channel audio down-mix to stereo output
	3.5mm Jack Stereo 2.2V pk-pk line level, Microphone input from PC style jack (software selectable)
USB	1 x USB2, 1 x USB3, USB2 500mA
	USB3 150mA or 900mA when connected to 802.3at PoE or 3A AC mains adapter
	Mouse, Keyboard, HID compatible, USB memory keys used for local media load and secure software upgrades
IR RECEIVER	Integrated 38KHz modulated IR receiver module. Optional external remote IR receiver (part number 911-5154)
IR BLASTER/AUX PORT	Compatible with optional MediaStar blaster (part number 911-4153)
	Digital outputs may alternately be used as contact closure inputs with external audio mute functionality (software selectable)
RS232 PORT	Male 9 way-D, Used for Display Control, SIPI 3rd party command interface or transparent IP to RS232 pass through 4 pins used for external contact closures, normally open or closed (software selectable)
INTERNAL STORAGE	8GB media flash. Units with larger flash sizes (up to 128GB) can be ordered
VIDEO DECODING	MPEG2, H264, H265 files and UDP MPEG2-TS streams
AUDIO DECODER	MPEG2-II, HE-AAC LC, Dolby Digital Plus
SUBTITLES	DVB subtitles, Teletext, Closed Captions
ON-BOARD WEB BROWSER	HTML5 compatible, Webkit based
MEDIA MANGER COMPATIBLE	Fully configurable with Media Manager software
PROOF OF PLAY	Media playout logs, downloadable via on-board webpage or emailed from 782-AV to destination via external SMTP server

Declaration of Conformity



Cabletime Limited declares that the products listed below, when installed and operated as described here, conform to the requirements of the directives shown:

Product names: 782-AV Digital Media Player
Product part numbers: 782-AV, 782-AV-xxx, 782-AV-PoE, 782-AV-xxx-PoE, 782-SL, 782-SL-xxx, 782-SL-PoE, 782-SL-xxx-PoE (where x is an optional number)

Directives:
2014/30/EU Electromagnetic Compatibility (EMC) Directive
2014/35/EU Low Voltage Directive
2011/65/EU RoHS2

The standards applied are:

EN55032:2012/AC 2012 Electromagnetic compatibility of multimedia equipment – Emissions requirements
EN55024:2010 (including corrigendum June 2011) Information Technology equipment – Immunity characteristics
EN61000-3-2:2014 Electromagnetic compatibility – Limits for harmonic current emissions
EN61000-3-3:2013 Electromagnetic compatibility – Limitation of voltage changes, voltage fluctuation and flicker
IEC 62368-1: 2014 Audio/video, information and communication technology equipment. Safety Requirements
EN 62368-1: 2014
UL 62368-1: 2014
CSA/CAN 22.2 No.62368-1-14

CB Certification

Austria, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, UK, US.

I hereby declare that the products listed here conform to the directives shown above when installed and used according to their respective manuals.

Keith Watts
Technical Director

September 2016

United States of America

Cabletime Limited declares this equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules Subpart B (15.107, 15.109). These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with part 15 of the FCC Rules.

Operation is subject to the following conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

Correct Disposal of this Product



This marking on the product, accessories or literature, indicates that the product and its electronic accessories should not be disposed with other household waste at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

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Head Office

Cabletime Ltd,
64 Greenham Road,
Newbury, Berkshire,
RG14 7HX
United Kingdom

T: +44 1635 35111
E: sales@cabletime.com
www.cabletime.com

USA Office

Cabletime USA,
100 Valley Road,
Mt. Arlington,
NJ 07856

T: 973 770 8070
E: usa@cabletime.com

Asia Office

Cabletime Asia
Room 2503, 25/F, Westin Centre
26 Hung To Road
Kwun Tong, Kowloon
Hong Kong

T: +852 3101 2650
E: asia@cabletime.com