

# QUICK START GUIDE

## MediaStar 782-DS Digital Signage Player



The MediaStar 782-DS Digital Signage Player is a networked video and audio media player, specifically designed for digital signage applications. It outputs HD pictures made up from a wide variety of your own promotional or corporate images, web pages, crawls, videos and live IP TV streams.

The 782-DS comes with 'Creator' and 'Tools' software packages that allow you compose your own screen content and then load it onto 782-DS units over a LAN for wide scale corporate deployments. Your multi-page presentations are then played out 24/7 according to your schedule, with live IP TV feeds, dynamic web page refreshes and RSS updates so you can show the latest breaking corporate or international news headlines on your screens. On-screen data updates can also be integrated into your own corporate information systems if required.

### What's in the box:

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

The 782-DS has been designed to be deployed throughout a business environment with high reliability and low maintenance as priorities. 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 a standard 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-DS UNIT.**

# Installation

1. When locating the 782-DS 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-DS 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-DS to any surface which is a heat source that may cause the unit to over-heat.
3. Connect the 782-DS 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-DS 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-DS 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-DS. 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-DS 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 is 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-DS. 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 782-DS 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-DS to the network using the CAT5 SFTP cable supplied (or another equivalent cable of appropriate length). The 782-DS 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. The status LED (by the DC jack connector) will initially be orange, then orange flashing as the unit boots up. When the LED goes green, the 782-DS is ready for use and the video outputs will be showing a picture. Ensure that the correct video input source has been selected on the display to see the 782's picture.

When using HDMI, the 782-DS will automatically select the highest possible picture resolution that the display and 782-DS 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-DS is supplied with DHCP enabled, so by default, it will negotiate a valid IP address setting with a DHCP server. The unit's assigned IP address will automatically be shown on-screen at each power up. 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-DS, use a MediaStar IR or Bluetooth remote control to configure the unit with on-screen setup menus. Press the menu (or home) button to show the network setup menu. Press OK to change and confirm the switch to a static IP address.

Use the Up/Down buttons and OK to select each of the IP address settings in turn. Enter the IP address details provided by your network administrator. When all settings have been made, ensure you press OK on the 'Apply Changes' field to save and apply the new network settings. Pressing Quit takes you out of the menus without saving any changes.

7. Once the 782-DS is connected on the network, its local display controls may be setup using a networked computer running a standard web-browser, and the 'Tools' software package can download your digital signage presentations to the unit.

To configure the local display controls, enter the IP address of the 782-DS into your browser's navigation address bar. Internet Explorer, Chrome, Firefox, or Safari can be used. The browser will then show the configuration web pages from the 782-DS 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 if appropriate.
  - 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.
  - c) Set the automatic display switch-on and switch-off times (and days of the week) in the On/Off Controls menu. The display can be switched on/off with the remote control as well.
  - d) Screen Orientation (in Video Output menu) – This should be set to reflect the correct screen orientation. If a portrait mode screen shows content up-side down, then change the screen rotation to the opposite portrait mode. Note: where stored videos are being played out in Portrait mode, they must be created in 16:9 format, but on their side, to suit the orientation of the display.
8. The media shown on the display is created using the 'Creator' software and is downloaded to the 782-DS via the network using the 'Tools' software. Please see the separate instructions with those software applications for instructions on how to do this.

# 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-DS, including its Part number, Serial Number, Unit name, Project name, Project last modified time, 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 here.

## Video Output

Set the preferred video output resolution here (default auto via HDMI, or analogue YPbPr 720p60), the analogue video output format, and select the display orientation.

## On/Off Control

The time and days of the week when the display should automatically switch itself on or off is set here. Manual on/off switching can be done by pressing QUIT on the remote control.

## Aux Port

Configure the external contact closures for open/closed contact operation for 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, IP to RS232 pass-through mode, or DS Mode. In DS mode, RS232 text strings specified in Creator will be sent out to an attached display.

## 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 http server and folder that the 782-DS will look at for software updates and a central configuration file. The 782-DS will only upgrade to new software that has been digitally signed by Cabletime. Please refer to your reseller or Cabletime for further details of centralised configuration files.

## Enablement Code

Enter enablement codes here to reconfigure or expand the capabilities of your unit. Details can be obtained from your reseller or Cabletime. You can also reboot or reset your 782-DS to its default settings from here.

## Set Password

A password may be set to prevent the unauthorised modification of the 782's configuration. 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-DS has experienced. Significant error messages will also produce an SNMP trap when enabled.

# Technical Specifications

<b>DIMENSIONS</b>	18.0 x 12.4 x 2.8 cm / 7 1/4" x 4 7/8" x 1 1/8"
<b>WEIGHT</b>	0.42Kg / 0.9lb
<b>AMBIENT OPERATING TEMPERATURE</b>	0 - 40°C / 32 - 104°F
<b>POWER SUPPLY</b>	<b>AC mains adapter:</b> LPS 100-240VAC, 47-63Hz Output: +5VDC (+/- 5%), 3.0 Amps, with a DC jack plug (centre positive voltage, 5.5/2.1mm diameter)
	<b>Power over Ethernet:</b> 802.3af class 0 device (13 W max) 802.3at class 4 device (25 W max)
	<b>Unit Power dissipation:</b> 12W max
<b>NETWORK</b>	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
<b>VIDEO OUTPUT</b>	<b>HDMI</b> 1.4b 480i, 480p, 576i, 576p, 720p50/60, 1080i50/60, 1080p50/60
	<b>Phonos</b> YPbPr: 480p, 576p, 720p50/60, 1080i50/60, 1080p50/60 CVBS: PAL, NTSC
<b>AUDIO OUTPUT</b>	<b>HDMI</b> PCM stereo, Dolby Digital Plus
	<b>3.5mm Jack</b> 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
<b>USB</b>	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 secure software upgrades. Touch screen support
<b>IR RECEIVER</b>	Integrated 38KHz modulated IR receiver module. Optional external remote IR receiver (part number 911-5154).
<b>IR BLASTER/AUX PORT</b>	Digital outputs may be used as contact closure inputs with external audio mute functionality (software selectable)
<b>RS232 PORT</b>	Male 9 way-D Used for Display Control, SIPI 3rd party command interface, transparent IP to RS232 pass through or DS mode text string output
<b>INTERNAL STORAGE</b>	16GB media flash. Units with larger flash sizes (up to 128GB) can be ordered
<b>VIDEO DECODING</b>	MPEG2, H264, H265 files (.mp4, .mov, .mpg, .m2t) and UDP MPEG2-TS formatted streams
<b>AUDIO DECODER</b>	MPEG2-II, HE-AAC LC, Dolby Digital Plus
<b>ON-BOARD WEB BROWSER</b>	HTML5 compatible, Webkit based
<b>MEDIA CREATION AND DOWNLOAD</b>	Works with Creator and Tools software for Digital signage content creation and LAN based content download



# 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 Digital Signage 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, 782-DS, 782-DS-xxx, 782-DS-PoE, 782-DS-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/AC2012 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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