MedeaWiz® Sprite®

High Definition Video Player

User Manual

FW version 20161229

Manual version 1.08

Parts of this manual do not apply to earlier versions of firmware.

Find your Sprite's FW version in the on-screen Setup Menu.

Please go to www.MedeaWiz.com for other versions.

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Introduction

The MedeaWiz® Sprite® is a High Definition digital video repeater capable of HD 1080p HDMI output with high quality stereo audio. It has a direct trigger input and a 2-way communications serial port. The Sprite® will play a video or audio file in a circular loop, repeating when power is applied. It will play different video or audio files by a trigger input or serial command, and then return to the looping file.

The Sprite® has no black space when looping or changing files. It will hold the last frame of video until the first frame quickly displays.

It is simple to set-up with an on-screen menu. No programming required. It has multiple operating mode options to fit many needs.

In the trigger input modes, you can use a push button, other dry contact, motion sensor or a voltage level change, with your choice of a High or a Low transition trigger. You can also choose to allow an interrupt from a new trigger event, or to not allow an interruption of the file playing. After a triggered file ends, the looping video will play again until a new trigger occurs.

In the Serial Control Mode you can have a looping video file and control up to 200 other video files to play on command. Once the commanded video ends, the looping video will play again until a new command is received. Serial Control can also be used with audio files.

The Hydra® accessory is available to use with the Sprite® in Serial Control Mode. It adds several modes of operation with multiple trigger inputs, DMX 512 control, and 8 sinking outputs to control lamps, relays and more.

The Sprite® also has basic "play all" file modes to play all files on the SD card or USB drive in order or randomly when power is applied. Files will continue to play until power is removed.

A remote control is included for initial set up of the Sprite. Your settings are retained in memory. Anytime power is applied the Sprite will automatically play according to the settings you made.

The Sprite® is one of the most energy efficient "green" video repeaters available today. Using only 5 Volt DC power at an average of 400 mA, it takes only about 2 Watts to run.

FCC, CE and RoHS certified.

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What's in the box

The Sprite® comes with

1) IR remote control
2) AC adaptor, universal 100 to 240 Volt AC input, regulated 5 Volt DC output
3) AV cable, 3.5mm 4 pole to RCA red, white and yellow
4) I/O plug, 3.5mm 4 pole to screw terminals

Sprite® Quick Start Guide

The MedeaWiz® Sprite® ships with the Video Output set to HDMI at 720p and the Control Mode set to "Trigger Low No Interrupt" to use a pushbutton trigger.

Most users can simply connect their HDMI monitor and install their SD memory card, with files named in the same way as the earlier model MedeaWiz players.

Example 1: You have one file that you need to run in a loop when power is turned on:

Name the file 000.xxx (where xxx is the proper file extension such as mpg, wmv, mp4, mt2s or etc.)

Example 2: You have a looping file and also want to use the Trigger with a push button:

Name the looping file 000.xxx as above. Then name the trigger file 001.xxx

Example 3: You have a looping file and also want to use the Serial Port control:

Name the looping file 000.xxx as above. Then name the other files 001.xxx, 002.xxx, 003.xxx and etc. in order.

Using the IR remote control, enter the on-screen menu by pressing the Setup key, and set the Control Mode to Serial Control, and set the Baud Rate to match your external controller.

Always have a looping file named 000 if using any trigger input or serial control:

 The 000 looping file can be a black video file if no video is wanted until a trigger or command. We suggest the looping file be at least 30 seconds long.

Make sure you are using ZEROS and not the letter O in the file name. Do not put the files in a folder. Only put media files on the SD card or USB drive.

 You can download HD test files at http://www.highdefforum.com/high-definition-movies-video-clips/6537-official-hd-video-clip-list.html

On-Screen Menu for Setup

Press the "Setup" button on the remote control to enter the on-screen menu. Use the orange "Arrow" keys to navigate, the green "Enter" key to make a selection, and the yellow "Return" key to go back one level. Pressing the "Return" key twice will exit the menu and begin file play.

Top Menu page showing current settings

Note the above menu picture is showing the factory default settings for firmware 20161229.

Other manuals for different versions of FW may be found at www.medeawiz.com
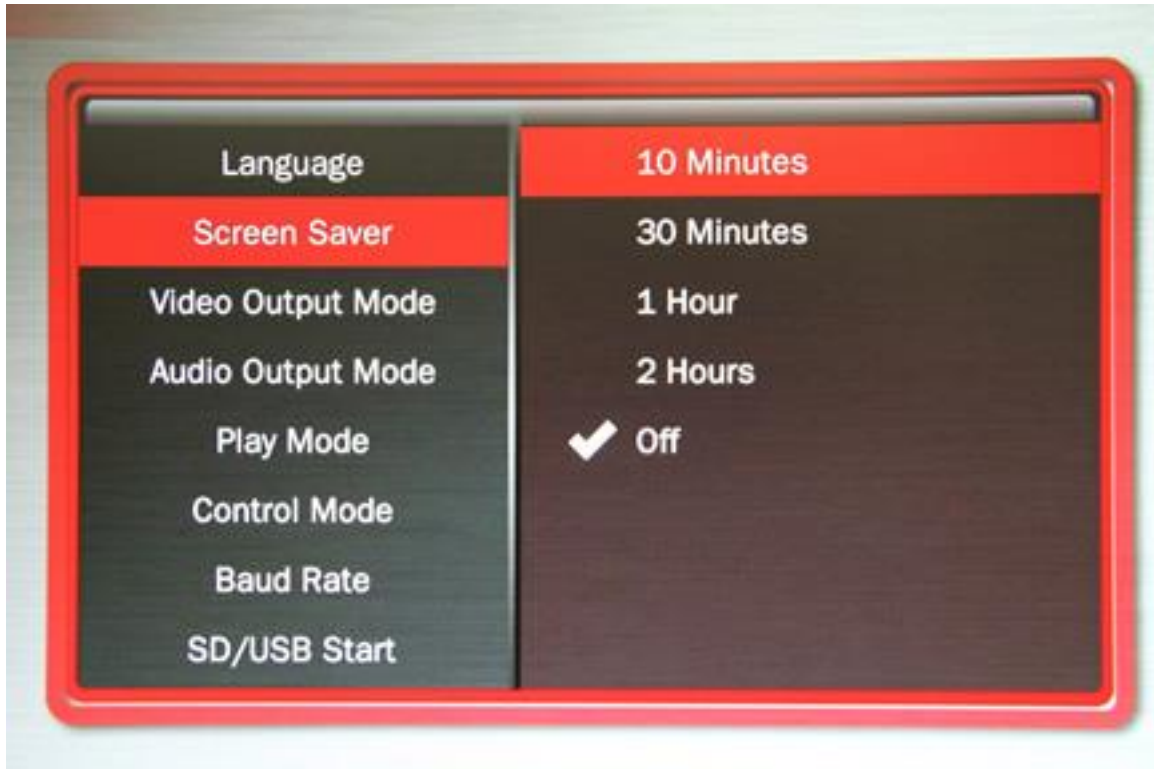
Menu Language

Select the language for the on-screen menu

Language	Simplified Chinese
Screen Saver	Traditional Chinese
Video Output Mode	✔ English
Audio Output Mode	JAPANESE
Play Mode	Korean
Control Mode	GERMAN
Baud Rate	SPANISH
SD/USB Start	FRENCH

| Language	FRENCH
Screen Saver	ITALIAN
Video Output Mode	PORTUGUESE
Audio Output Mode	DUTCH
Play Mode	Russian
Control Mode	POLISH
Baud Rate	TURKISH
SD/USB Start	CZECH

Screen Saver

Select the time delay for the screen saver.

The Screen Saver is only active in the "Off" manual play mode. It is not active in other control modes.

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Video Output Mode

Select the video output needed to match your monitor.
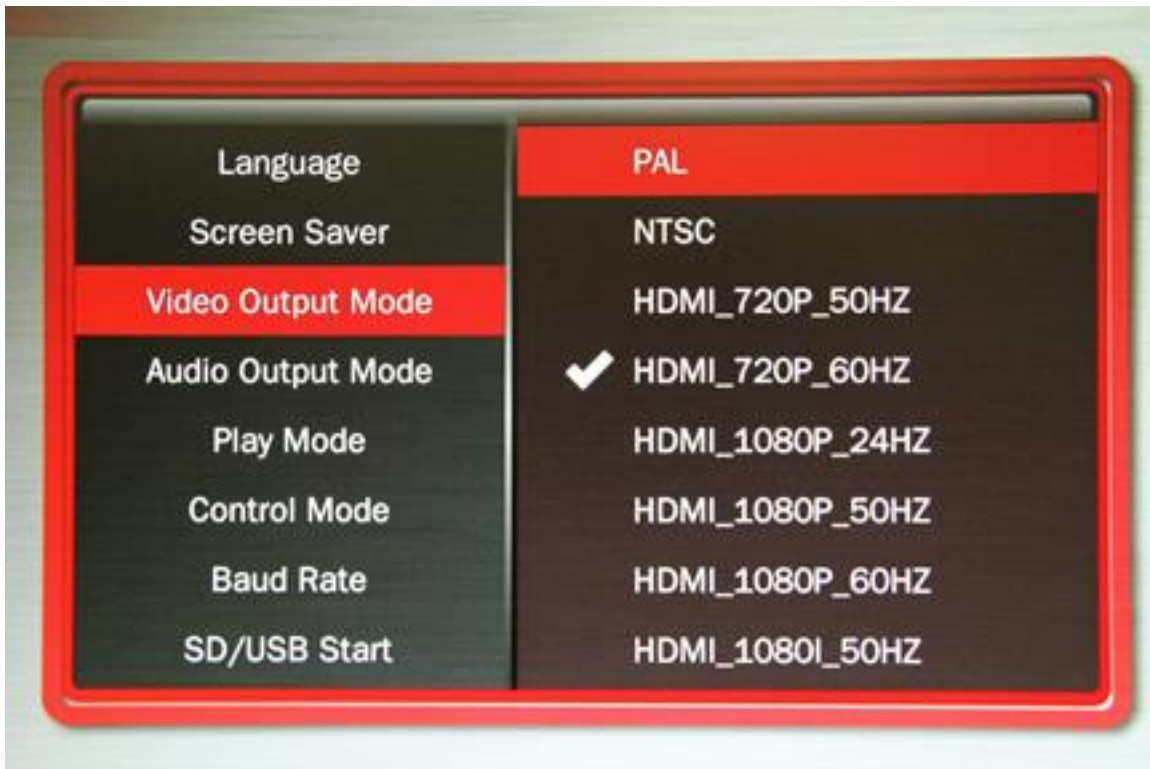

Select **NTSC** to use the Composite video output from the 3.5 mm yellow AV jack using the yellow RCA plug from the included A/V cable.

Select **PAL** for Composite video output from the 3.5 mm yellow AV jack for some areas other than the Americas that use PAL video files and monitors.

The **HDMI** selections will route the video to the HDMI connector only.

Audio Output Mode

Select the audio output needed.
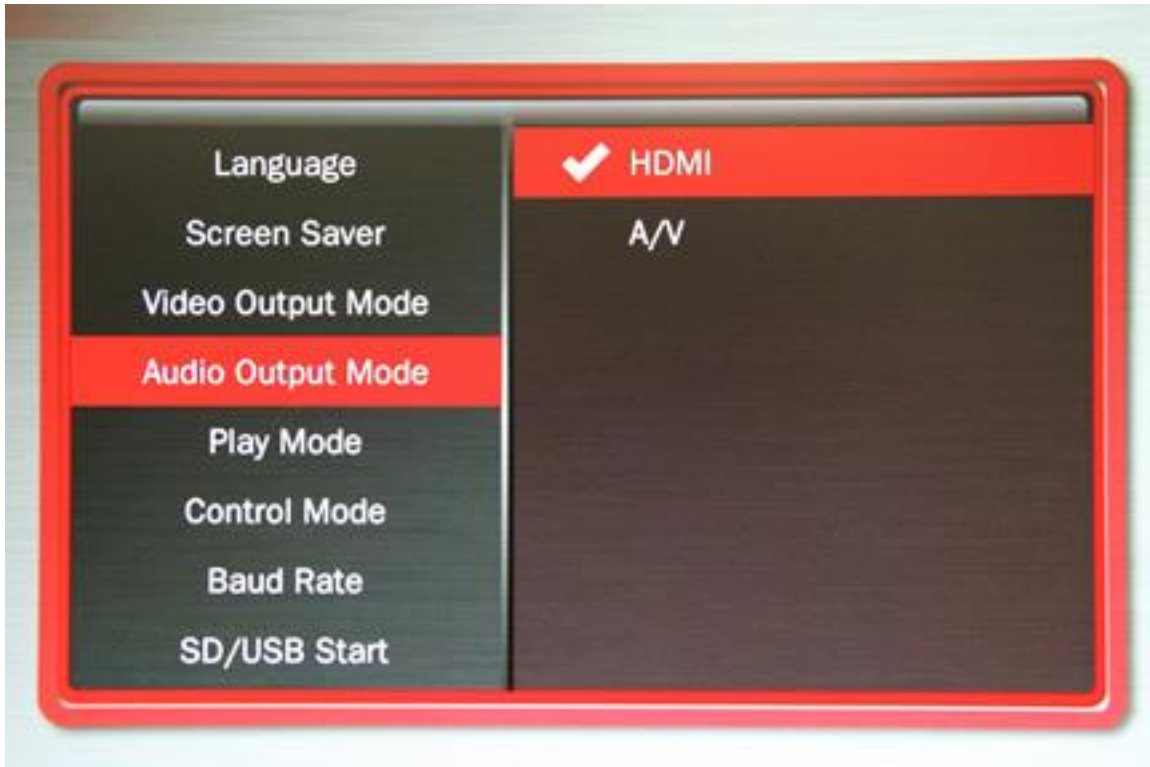
Select **HDMI** to route the audio through the HDMI cable to your monitor or amplifier with HDMI input.
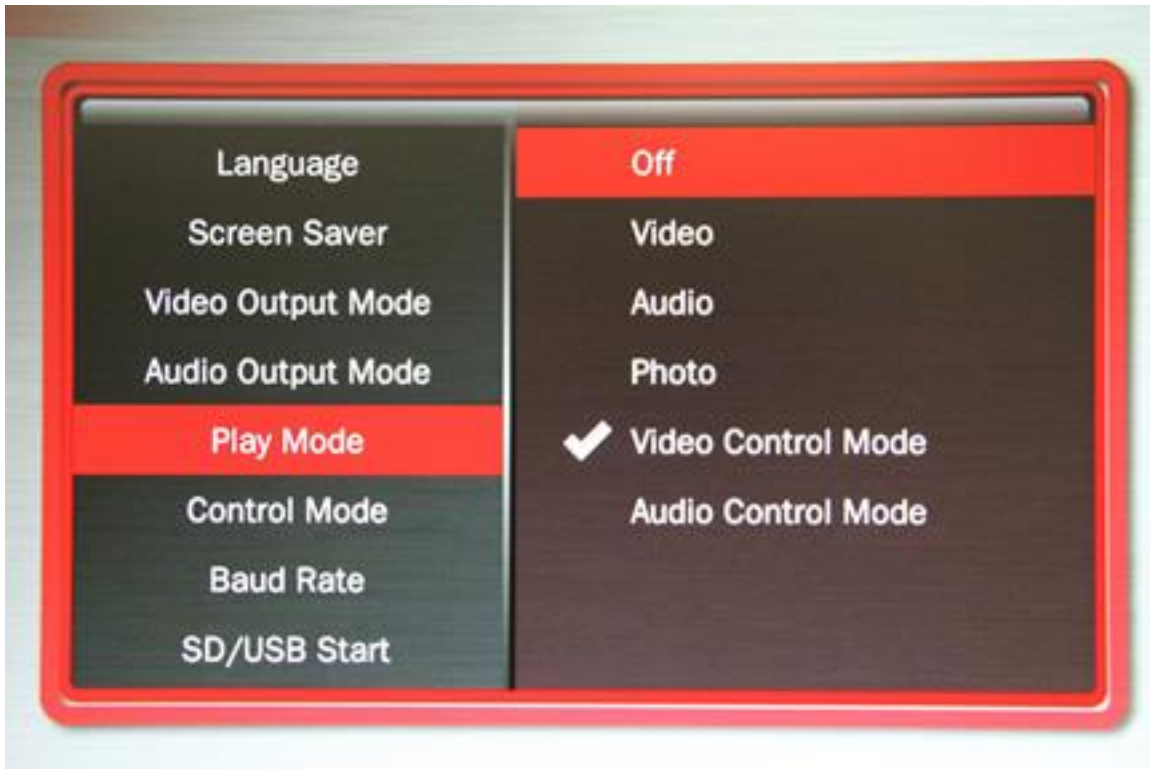
Select **A/V** to route the audio to the 3.5mm 4 pole AV jack and use the red and white RCA plugs from the included A/V cable.

The audio output will require an amplifier or amplified speakers. It can't directly drive speakers

The Sprite is capable of high quality Stereo audio. It does not support surround sound.

Play Mode

Select the play mode needed for your application

Selections with no external input control:

Select **Off** to manually play files using the IR remote control.

Select **Video** to play all video files in a circular loop.

Select **Audio** to play all audio files in a circular loop.

Select **Photo** to play all photo files in a circular loop.

You may play audio files along with photos. Just add audio files to the SD / USB.

## Selections with external input control:

Select **Video Control Mode** to loop video file 000.xxx and trigger / command other video files to play.

Select **Audio Control Mode** to loop audio file 000.xxx and trigger / command other audio files to play.

If you need to mix video and audio files, convert the audio files to video files and use the Video Control Mode.

Control Mode

Select the external Control Mode for your application
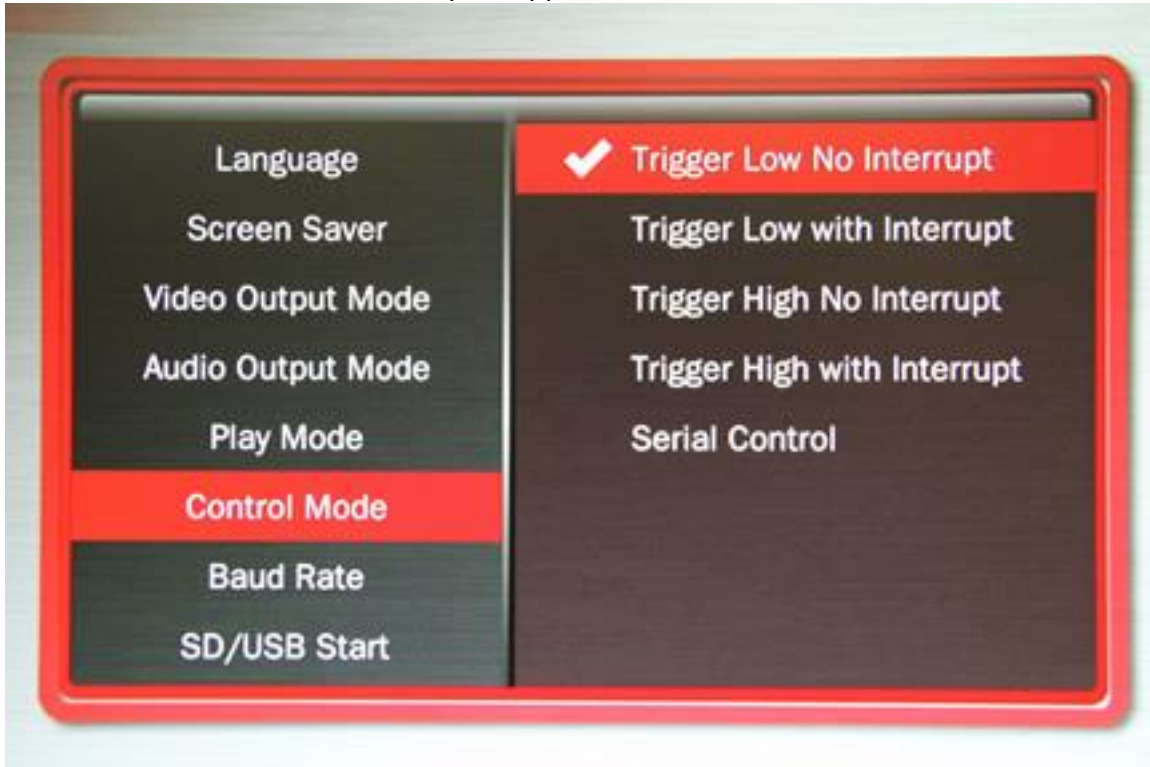
Select **Serial Control** to use an 8X78 input expander or external show control device or micro controller like a PIC, Atmel, Arduino, Raspberry Pi, or etc. using serial communications.

Select **Trigger Low No Interrupt** to use a pushbutton or other contact closure event. When triggered, the file named 001 will play to the end with no interruption.

Select **Trigger Low with Interrupt** to use a pushbutton or other contact closure. When triggered, the file named 001 will play and will re-start if re-triggered.

Select **Trigger High No Interrupt** to use a contact opening event. When triggered, the file named 001 will play to the end with no interruption.

Select **Trigger High with Interrupt** to use a contact opening event. When triggered, the file named 001 will play and will re-start if re-triggered.

If using Video Control Mode or Audio Control Mode
You must have at least 2 files. The loop file named 000 and a trigger file named 001
The loop file 000 will play continuously until a trigger is received, then the trigger file will play. After the trigger file finishes, the loop file will play again until a new trigger occurs.

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Baud Rate

Select the baud rate for the serial port.

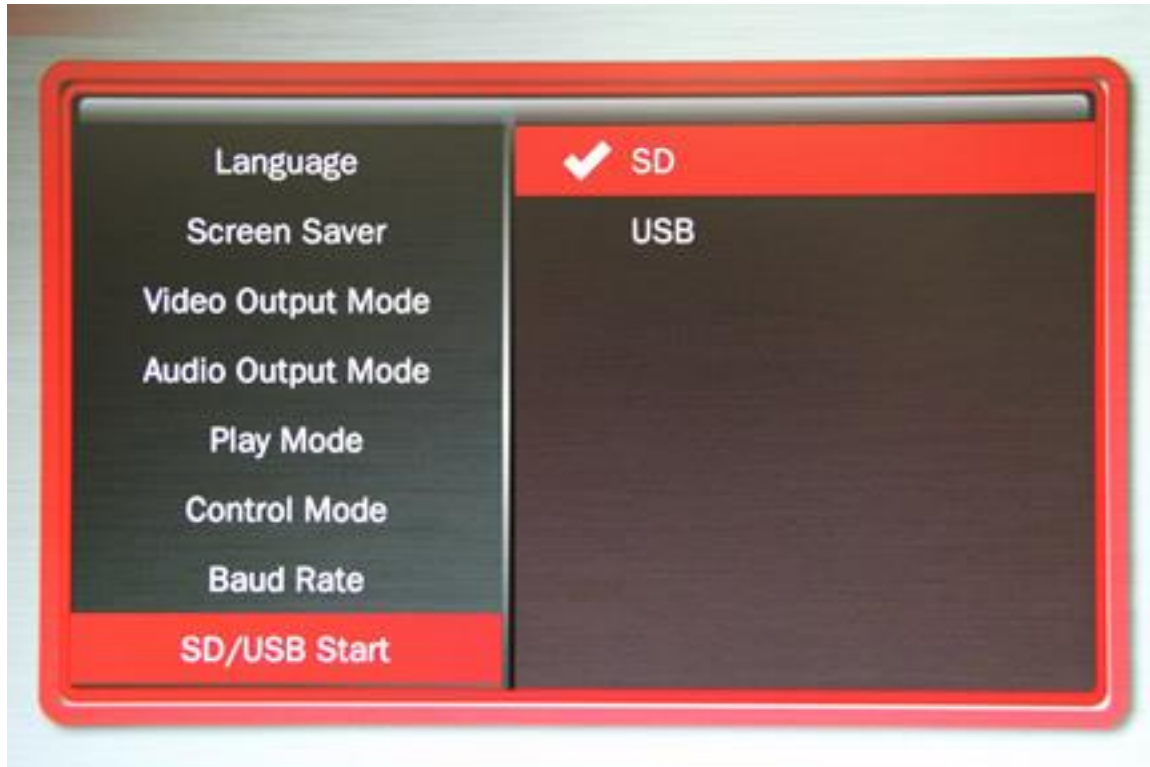**Only applies if the setting Control Mode = Serial Control.**
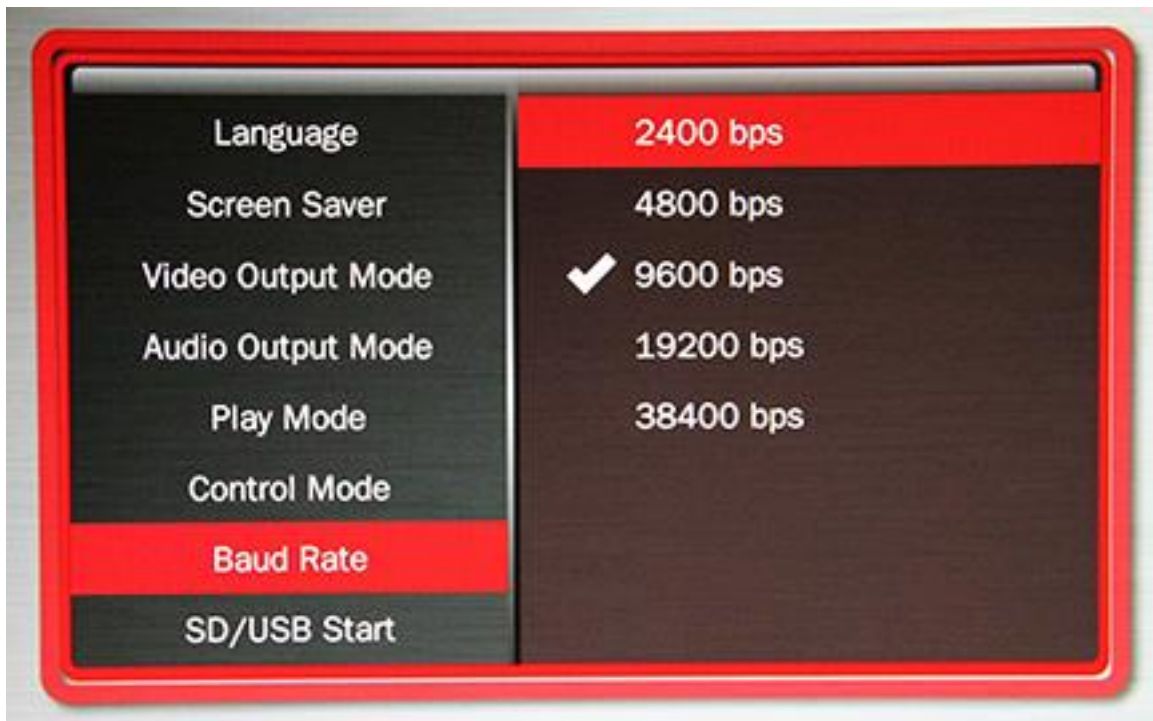
The baud rate is the speed of the serial communication and should match the settings on your external controller.

The default is 9600 bps.

The Hydra input expander accessories are programmed to work with the Sprite at 9600 baud.

SD/ USB Start Mode

Select the memory device to start from

While files will play from the USB port from a USB drive, some HD video may not play well from some USB drives. For high bit rate files we recommend using the SD port with an SD card of sufficient speed to match your video file's bit rate. For some HD video files a Class 4 may be ok, while others may need a faster Class 6 or Class 10. Test your video.

Many SD cards are formatted FAT32 and will allow up to a 4GB file size. You may re-format to NTFS to use larger files on an 8GB or larger SD card. Maximum size supported is 128GB.

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Restore Default Settings

Reset the Sprite® back to the factory settings
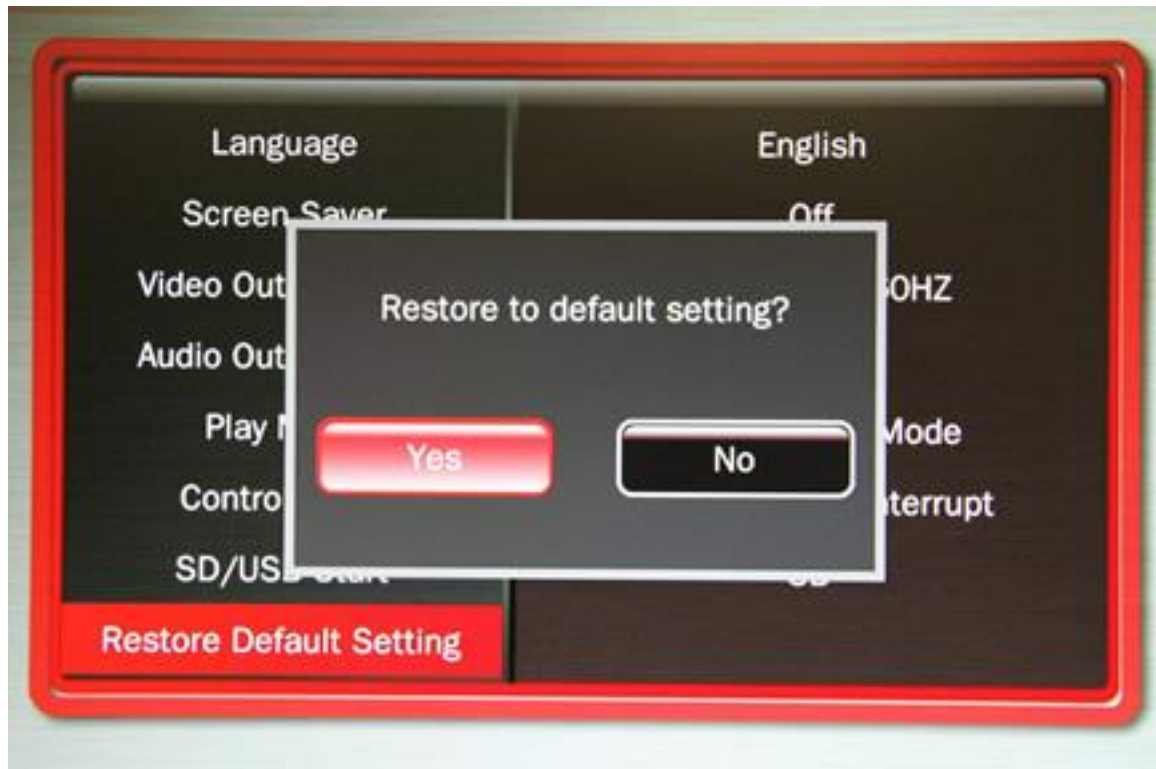
Select Restore Default Setting and press the green Enter key on the remote control. Then when the pop-up window appears, select "Yes" and press "Enter" to reset the Sprite® to the factory settings.

You can reset the Sprite® to factory defaults without viewing the monitor by these steps:

1) Remove the power plug for 10 seconds and then restore power
2) Wait 10 seconds or longer for start-up to complete
3) Press the Setup key on the remote control
4) Press the down arrow key 7 times
5) Press Enter 2 times

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Firmware Version

Displays the currently installed firmware version

We may provide other versions of the firmware in the future.

Check at http://www.MedeaWiz.com for updates.

Firmware versions have no effect on video or audio play quality.

The different versions have added control features including serial commands and new trigger types, and fixed minor bugs. Find details about revisions on the following page.

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Firmware Revisions History

Video quality is equal for all versions. Each new revision has only added control features.
There is no need to update firmware unless you require a certain control feature.

Version 20210416
Added the ability to trigger multiple files using any of the Trigger input types.
Each new valid trigger event will play the next file on disk, excluding the loop file 000.

The setting you choose for HDMI video output in the Setup Menu is now locked and will not change due to communications from some monitors.

Default video output is set to 1080p60.

Serial Control feedback is again fast speed as in v.20181102.

Version 20200115
Added delayed trigger modes and play all files randomly modes.
Slowed the reporting feedback in the Serial Control Mode.

Version 20181102
Fixed the bug in the Audio Control Mode from last version.

Version 20180704
Added the multi-drop addressing and some serial commands.

The Audio Control Mode has a bug in any trigger mode.

Version 20161229
Added setup and control serial commands.

If you desire to use an older version of firmware, you may load the older version.

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Firmware Upgrade

How to upgrade the Sprite® firmware

We may release upgraded firmware in the future. Please check http://www.medeawiz.com/ for updates. You may also follow on Facebook to receive news about the Sprite at https://www.facebook.com/MedeaWiz

1) Copy the new .img firmware file to a USB drive or SD card. Use an empty USB drive or SD card, or one with your video files on it. Do not use one that contains items not intended for the Sprite®.

2) Unplug the power to the Sprite®. Insert the USB drive or SD card into the Sprite®. Plug in the power. Wait 10 seconds or more for the start-up to complete.

3) Using the IR remote control, press the blue File key.

4) Select the drive holding the files by using the orange Arrow keys and green Enter key. Navigate to the .img firmware file.

5) Select the .img firmware file and press the green Enter key.

6) Select "Yes" and the press the green Enter key.

The power LED will go off. After a while the power LED will come on and the Sprite® will begin playing a video file, if one is present.

This process will take a few minutes. Be patient.

We recommend that you leave your video files on the USB drive or SD card. In this case the Sprite® will begin playing a file, confirming the update is completed.

Do not remove power or remove the USB drive or SD card until the update is competed. Interrupting the process may result in a non-functional player. It is highly recommended to use a UPS battery-backup power supply.

You may use either a SD memory card or a USB drive to update the firmware.

If you desire to use an older version of firmware, you may load the older version.

Wiring Connections Rear Panel
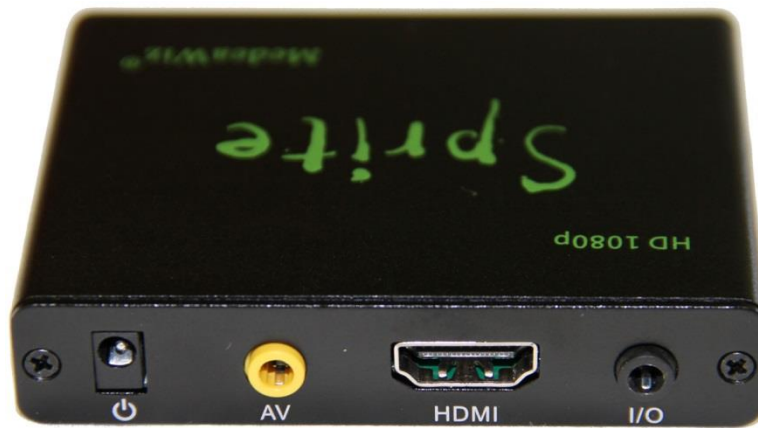
Left to right

1) Power input. Regulated 5 Volts DC only. Center positive.

2) AV output. Composite video, stereo audio left and right

3) HDMI high definition video with audio

4) Control Input / Output. Pushbutton / Trigger / Serial input and serial output

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Trigger Choices Explained

Trigger Low requires a transition from a positive voltage down to ground.
Since the Sprite has an internal resistor holding the input at positive 3.3 Volts, you only need to provide a ground to trigger. For example if you are using a push button wired from the input terminal 2 to ground terminal 4 as shown on the following page, pressing the button applies the ground to the input causing the transition and a valid trigger event.

Trigger High requires a transition from ground up to a positive voltage. Using the example above, if the push button was held down normally, then released, the trigger would occur on the release.

The Sprite requires a transition to occur on the input to cause a trigger. Holding the button down or up will not cause another trigger because there must be a transition. Trigger Low requires button up to down, and Trigger High requires button down to up.

Trigger with interrupt will allow a new valid trigger event to interrupt a triggered file currently playing. If there is only one trigger file 001 on the SD, it will re-start file 001 at the beginning. If there are more trigger files on the SD, it will start the next file playing*. There is an approximately 1 second delay built in to prevent rapid re-staring of files.

Trigger No Interrupt will NOT allow a new valid trigger event to interrupt a triggered file currently playing. The currently playing triggered file will play completely to the end before any new trigger is allowed.

Trigger Delayed will delay playing the triggered file until the looping file 000 has completed. When a valid trigger event occurs while file 000 is playing, the Sprite will wait until the end of the 000 file to proceed with the triggered file. Once the triggered file is playing, there is no interruption. It will play to the end. The Sprite will only allow a trigger event while the looping file 000 is playing.

*Firmware version 20210416 allows multiple trigger files to be used. Each new valid trigger by the rules above will cause the next file on the SD to play. After the last file has played, the next valid trigger will play file 001. The looping file 000 is not considered a trigger file. For ease of use trigger files should be named in order 001, 002, 003, and etc. up to 200. If you desire a random distribution of play, you may place multiple copies of the files on the SD and randomly assign them to the sequenced number names.

External Control – Wiring a Pushbutton to the I/O Port

Using a pushbutton or other dry contacts
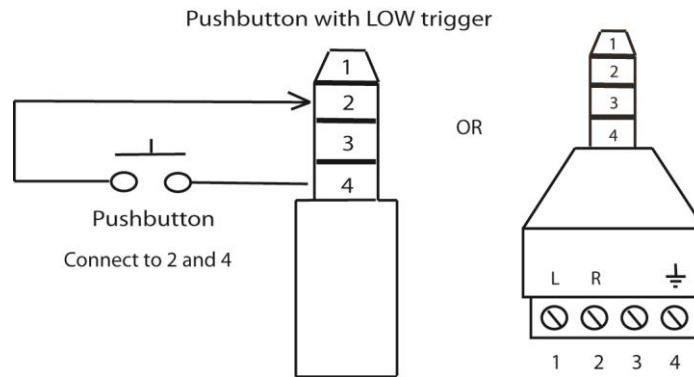
The Control Mode should be set to Trigger Low No Interrupt or Trigger Low with Interrupt.

The screw terminal adaptor shown above on the right is included with the Sprite®. Note that the numbers near the screws match to the numbers on the plug at the left, which is used in examples later in this manual.

You can trigger multiple Sprites from one pushbutton. Wire as above to all Sprites' RX (2) and Ground (4). Do not wire the power (1) or TX (3) pins together between multiple units.

External Control - Wiring for Serial Communications to the I/O Port

The Sprite® can be controlled by a Show Control or micro controller like a Basic Stamp, PIC, Atmel, Arduino, Raspberry Pi, Prop-1 or etc. using serial communications at 3.3V or 5V levels.

Note that RS232 levels from a PC or PLC serial port will require a level translator like the MAX3232 series. Do not allow negative voltage below ground to be applied to the Sprite®.

The Sprite® can supply 5V DC at up to 100 mA to power your micro controller.

Alternately, you can power the Sprite® from your controller. You must have a 5 volt DC regulated supply at 500mA. Use 26AWG wire or larger. The supplied A/V cable is not suitable. Do not use the Sprite's included power supply together with an external power supply.
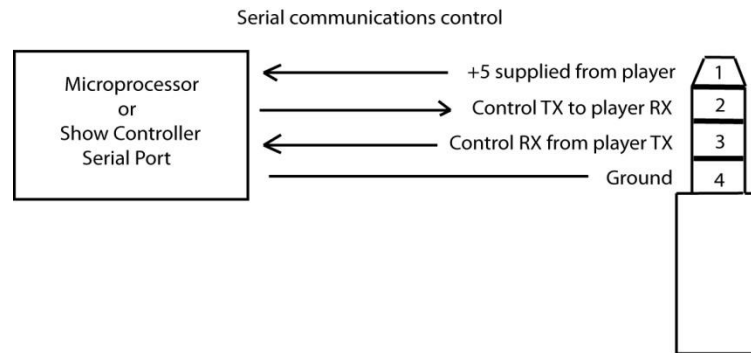
You can also use the included A/V cable in the I/O port. Use the Red RCA to send commands to the Sprite®, the yellow RCA for the Sprite to report back to your control, and the white RCA for 5V power from the Sprite. We suggest you cover the unused RCA plugs with electrical tape to avoid shorting the power supply and burning the internal fuse.
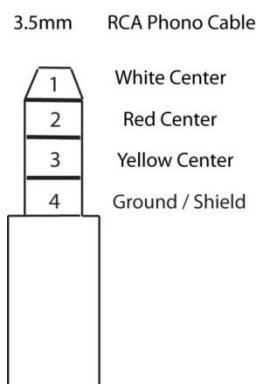
If you get a cable elsewhere, check to see that the wiring is the same. We have seen some cables where the red, yellow and white RCA are wired to different poles on the 3.5mm plug.

PLC Output Interfacing

The Sprite® can be controlled from a Programmable Logic Controller using "dry contacts" like a push button, or voltage output.
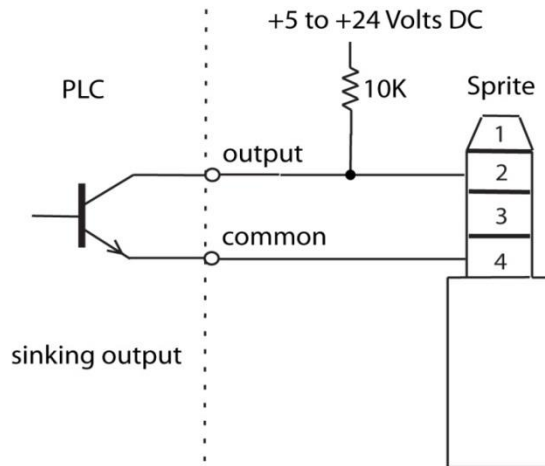
The sinking output is the preferred method if dry contacts are not available.
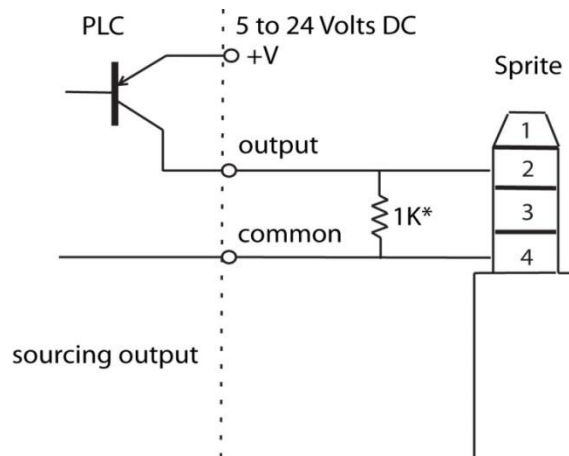
The Sprite® has an internal 10K pullup so the Sourcing output requires a low resistance from Output to Common to pull the Sprite's internal voltage down to a "LOW". The 1K* shown is an example and can vary depending on the +V voltage. Consider the Watt rating of the resistor.

Do not allow a negative voltage to be applied to the Sprite®. Do not share PLC outputs with relays, motors or solenoids /valves. These devices can produce negative voltage spikes. Keep them on separate isolated outputs away from the Sprite®.

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Motion Sensor Wiring

There are many possibilities to add a motion sensor to the Sprite®.

Small PIR motion sensors are available that use 5 Volt power and have a TTL voltage output. These can be powered directly from the Sprite's I/O port. Set the Sprite's Control Mode to Trigger High No Interrupt or Trigger High Delayed.
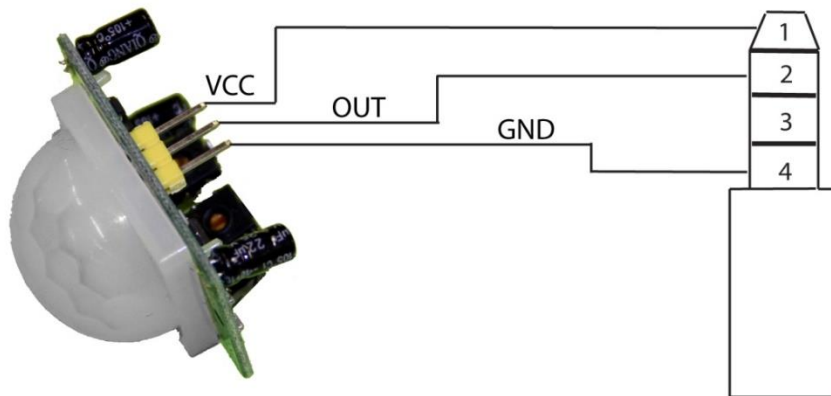
Wiring a 5 Volt motion sensor

We offer the MSA-B Stealth motion sensor for a plug-and-play solution.

Set the Sprite's Control Mode to Trigger High No Interrupt.

Schematic of I/O on the Sprite circuit board
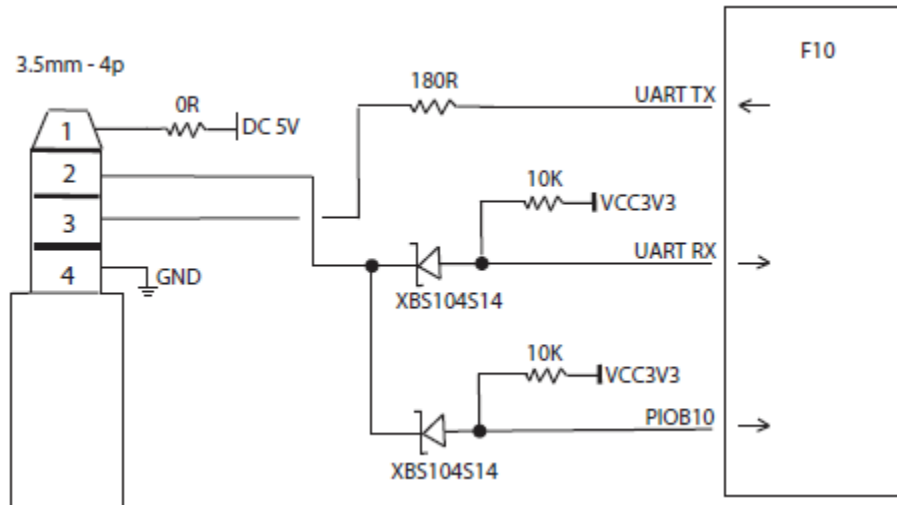
The Sprite is designed to work with 3 to 5 Volt TTL level serial data.

Do not allow negative voltage to be applied to the inputs.

A negative voltage applied at the input / output will damage the Sprite and void the warranty.

Many serial devices including computers, PLC controls, building lighting controls like AMX and Crestron and etc. have standard RS232 that will drive the output up to negative 12 volts.

You must use a level convertor with these standard RS232 devices. The MAX3232 or similar will convert them to the 5 Volt TTL levels for the Sprite.

Micro controllers such as a Basic Stamp, PIC, Atmel or etc. are using serial communications at 3.3V or 5V levels. These can be directly connected to the Sprite.

Pre-made controller boards like the Arduino and Raspberry Pi may have both TTL level at output pins and also standard RS232 levels on a port designed to connect to a computer. Don't connect the RS232 port without a level translator. Direct connection to the processor pins is fine.

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Using the Hydra® interface with the Sprite®

The Hydra® input / output expander adds more trigger inputs *and* outputs to the Sprite®

The Hydra® was designed specifically for the Sprite® and is Plug-and-Play.

Set the Sprite:
        Control Mode to Serial Control
        Baud Rate to 9600

Wire your pushbuttons to the Hydra screw terminals.
Plug the Hydra® into the Sprite® with the included cable.

3.5mm 4 pole cable
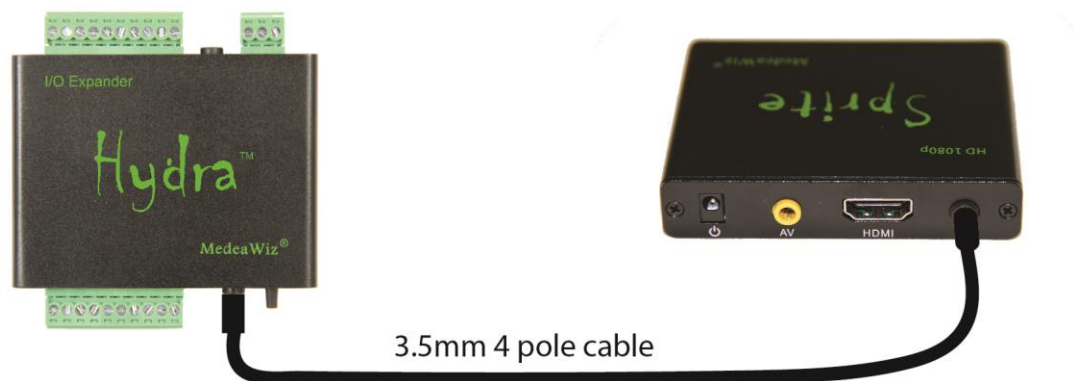
Hydra® Features:
        9 trigger inputs and 8 sinking outputs
        5 x 5 matrix input to play up to 25 files
        3 x 4 keypad input to play up to 99 files
        DMX 512 control to play up to 200 files and control 8 outputs
        Motion sensor input
        Control 2 Sprites in some modes
        Random file triggers
        Incremented file triggers
        Queued file triggers
        Set alternate looping files paired with alternate trigger files
        Multiple User-selectable modes of operation
        Re-programmable for custom needs
        Inputs can be buttons, 3 to 24 Volts DC, open collector / open drain transistor
        FCC, CE and RoHS certified

For the complete Hydra® manual, go to http://www.medeawiz.com/

Serial Port Control from your Show Controller or Micro-processor

For simple file playing, the serial codes are the same as the codes for the earlier MedeaWiz® models.

The serial communications is on the 3.5mm 4 pole jack at 2400, 4800, 9600, 19200 or 38400, 8N1 at 3.3 to 5 Volt TTL levels. The factory default is 9600.

Send one byte, Decimal 1 (Binary 0000 0001, Hex 01) to play file 001.xxx. Send Decimal 2 (Binary 0000 0010, Hex 02) to play file 002.xxx and etc. Do not send any other bytes such as a line-feed or a carriage return. Send only one byte. Make sure your program is sending the NUMERICAL value, not the character (CHAR) value. Many programs default to sending the character unless you specify otherwise. The number 1 sent as a CHAR is actually Decimal 49 and will play file 049.xxx if available.

The Sprite® will report back to the Show Control or micro-processor. Around 12 times per second, a single Hex byte is sent representing the file number currently playing. When the end of a file is reached, a single Hex byte 0xEE is sent.

The Sprite® can supply 5 Volts DC on the I/O port for your micro-controller at up to 100 mA. A short on this supply may result in the internal fuse burning and will void the warranty

Note that real RS232 levels from computers, some PLC's and some other devices use negative voltages and will require a level translator like the MAX3232 series. Do not allow negative voltage below ground to be applied to the Sprite®. This will void the warranty.

Level translator example to convert real RS232 to TTL level
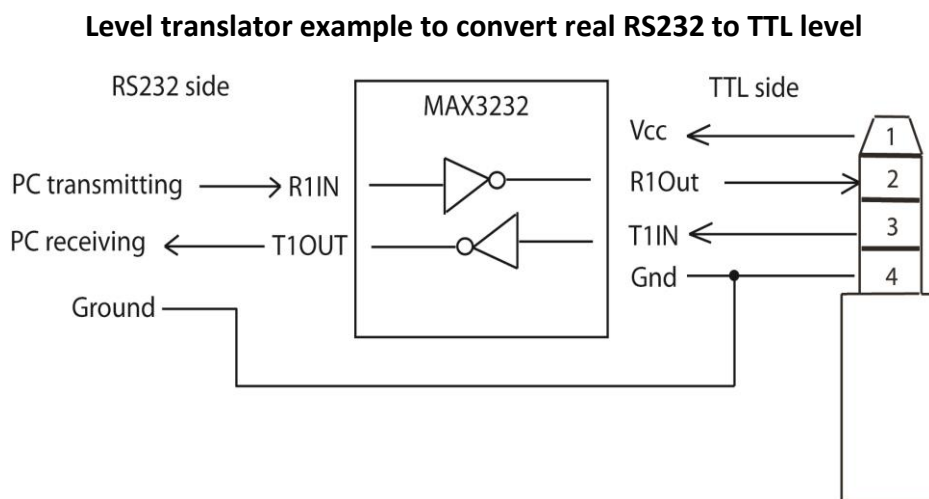
The MAX3232 can be powered from the Sprite®. Connect all Grounds together.

Serial Port Control Commands

For Sprite FW version 20161229

Code	Definition	Remarks
0x00	Play file 000.xxx	Play files 000.xxx up to
0x01	Play file 001.xxx	file 200.xxx by sending a
\\	\\	single hex byte.
0xC8	Play file 200.xxx	Use numerical values, not CHAR values.
0xC9		
0xCA		
0xCB		
0xCC		
0xCD		
0xCE		
0xCF		*all* is new FW coming spring 2018
0xD0	PAL	* set video output to PAL
0xD1	NTSC	* set video output to NTSC
0xD2		
0xD3		
0xD4		
0xD5		
0xD6	HDMI 720p_50	* set video output
0xD7	HDMI 720p_60	
0xD8	HDMI 1080p_24	
0xD9	HDMI 1080p_50	
0xDA	HDMI 1080p_60	
0xDB	HDMI 1080i_50	
0xDC	HDMI 1080i_60	
0xDD		
0xDE		
0xDF		
0xE0		
0xE1	Address E1	*For multi-drop RX line in Address Mode
0xE2	Address E2	*send 2 bytes: address, command

| 0xE3	Address E3	
0xE4	Address E4	
0xE5	Address E5	
0xE6		
0xE7	Full Volume	* set volume to maximum
0xE8	Mute KEY	Mute the audio* do not toggle - Mute only
0xE9	VOLUME Up Key	Volume Increase *first will un-Mute
0xEA	VOLUME Down Key	Volume Decrease *first will un-Mute
0xEB	Audio out on 3.5mm	* output audio to 3.5mm AV port
0xEC	Audio output to HDMI	* output audio to HDMI
0xED		
0xEE		
0xEF	Play	*if paused, will play
0xF0	PAUSE Key	Pause / Play *will become Pause only, no toggle
0xF1	FB Key	Fast Rewind
0xF2	FF Key	Fast Forward
0xF3	PREVIOUS Key	Back to Previous file
0xF4	NEXT Key	Go to Next file
0xF5		
0xF6		
0xF7		
0xF8		
0xF9		
0xFA		
0xFB		
0xFC	Select Loop file	*send 2 bytes: FC, file number: to set new looping file
0xFD		
0xFE		
0xFF		

We may add other functions in the future. Let us know if there something you think would be useful.

IR Remote Control

We use a generic remote control that is used for various models of video repeaters and DVD players. Not all buttons / functions will respond, and some are only valid in certain modes. Most of our Customers will only use the remote for initial setup of the Sprite®. This is an IR control, and needs to be pointed directly at the front of the Sprite®. The Sprite® may respond to some other device's IR remote in unwanted ways.

You can use the blue FILE button along with orange Arrows and green ENTER keys to manually view or play files for testing.

Using the remote to manually play a file will take the Sprite out of automatic play modes. Remove power or go into the Setup Menu and then exit using the yellow Return button to resume automatic modes.
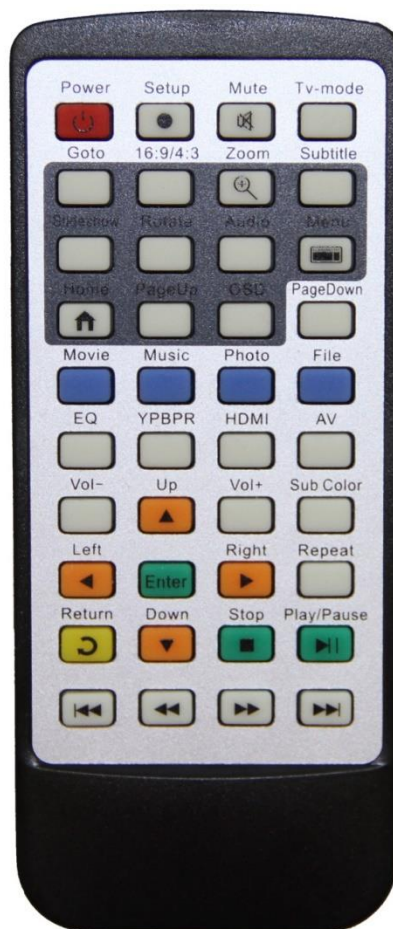
Power Supply

The Sprite® is one of the most energy efficient "green" video repeaters available today. Using only 5 Volt DC power at an average of 400 mA, it takes only about 2 Watts to run.

The Sprite® requires a <u>regulated</u> 5 Volt DC power supply, which is included. The power connection takes a barrel plug with 1.35mm ID and 3.5mm OD, center Positive.

Use of a wrong power supply will void the warranty.

The Sprite® can supply 5 Volts DC on the I/O port for your micro-controller at up to 100 mA. A short on this supply may result in the internal fuse burning and will void the warranty.

Alternately, you can power the Sprite® from your controller. You must have a 5 Volt DC <u>regulated</u> supply with 500 mA available. Use 26 AWG wire or larger. The supplied A/V cable is not suitable. Do not use the Sprite's included power supply together with an external power supply.

Multiple Sprites can be powered from a single <u>regulated</u> 5 Volt supply that has ample current capacity.

Supported Video Formats

	MedeaWiz® DV-S1 Sprite®
Specification	
CPU	F10
Card Reader	SD / MMC up to 128GB
USB Host	1x USB2.0 ; supports external hard disk up to 2TB
Audio	Mp3(all max bitrate:320kbps) wma(standard/pro max bitrate:384kbps) Ogg(Q1-Q10 500kbs) flac(lever0-8 max bitrate:1.60mbps) APE(max bitrate: 950kbps) AAC(max bitrate 448kbps) AC3 (AC3 only 640kbps) DTS(Dts only 3.84Mbps) Audio is 2 channel stereo. Does not support surround-sound.
Video	WMV(VC-1,WMV7, WMV8 max bitrate: 40Mbs)) VOB(MPG2 max bitrate: 45Mbps) PMP(Xvid, H.264 max bitrate:50Mbps) RM/RMVB(RV8/9 max bitrate:30Mbps) MPG(Mpeg1,Mpeg2 max bitrate:45Mbps) M2TS(Mpeg2 H.264 max bitrate:40Mbps) FLV(H.263,H.264 max bitrate:50Mpbs) AVI(Xvid, H.264 max bitrate:50Mbps) TS/TP(Mpeg2,H.264,VC-1 max bitrate:40Mbps) MP4/M4V(Xvid,H.264 max bitrate: 50Mbps) MOV(Xvid, H.264 max bitrate: 50Mbps) MKV(Mpeg2,RMVB,WMV9,Xvid,H.264 max bitrate: 50Mbps)
Picture	JPG/JPEG.BMP,PNG,GIF
Subtitle	SSA/ASS/ACSII/SUB/UTF8

Most SD cards are formatted FAT32 and will allow up to a 4GB file size. You may re-format to NTFS to use larger files. Maximum size SD supported is 128GB. USB is 2TB.

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Trouble FAQ

My video has a glitch or green area when looping or triggered

This often happens if your video bit rate is too low. We suggest a bit rate of 20,000Kbps (20Mbps) or higher. Do not compress the files. Let the bit rate be high at the normal setting. Refer to the chart on page 31 for maximum bit rates for the CODEC used.

The file's pixel size should be 1920 x 1080 for the 1080p or 1080i settings, and 1280 x 720 for the 720 settings. It is helpful to have all of the files made in the same format and encoding.

 You can also try another Video Output Mode setting, 720p 50, 720p 60, 1080p 24 and etc., in the Setup Menu. Often this will solve the issue without altering your files.

You may need to alter your files with video editing software.
These settings work well and are recommended for high quality video with no glitch:
 CODEC = H.264
 Pixel size = 1920 x 1080
 Frame rate = 60 fps
 Data Bit rate = 20,000Kbps (20Mbps)
 Audio bit rate = 128 or 192 or 384 kbps
 Audio Channels = 2 (stereo)
 Audio Sample Rate = 48KHz

 Set the Sprite® Video Output Mode to 1080p_60HZ

There are numerous video editing software programs available. We use Power Director from www.cyberlink.com It does a good job and is not expensive.

My File will not play or not trigger

Do not use folders. Put files directly on the root of the SD or USB.

Try to play the file using the remote control. Press the blue File button, and then navigate to the file using the green Enter key and the orange Arrow keys. Select the file and press the Enter key.

If the file plays, it may not be named properly or the Sprite® is not in the correct Control Mode. If using video files, the Sprite® must have the Play Mode set to Video or Video Control Mode. If using audio files, set to the Audio or Audio Control Mode. Control Modes require at least 2 files. The looping file must be named 000 and the first trigger file named 001.

If the file will not play by using the remote control, then it may be corrupt or made with parameters not supported by the Sprite®. Make sure the pixel size is a "television" size, 1920 x 1080, 1280 x 720, 720 x 480 or 640 x 480 etc. Videos made for websites at odd pixel sizes will

play on your PC but not on the Sprite®. Refer to the chart on page 31 for maximum bit rates and CODEC's supported. Some other pixel sizes will play with various results. Some people are using 1024 x 768 for projectors.

The Sprite® will not play 4K video files. Files with pixel sizes of 3840 x 2160 or 4096 x 2160 are 4K. Please convert the files down to 1920 x 1080 sizes using video editing software.

No video output on my monitor

If you do not see any video or Setup Menu displayed: Verify the blue power LED is on. Try pressing the HDMI or AV keys on the remote to switch the outputs. Verify the monitor is set to the input used. Verify the monitor and HDMI cable are good by swapping or trying another device on the input.

My Sprite® feels warm to the touch

The Sprite's aluminum housing is designed to be part of the heat management system. The internal microprocessor has a solid copper heatsink that transfers heat to the outside air through the housing.

While it is normal for the Sprite® to feel warm, if the ambient temperature is well over 100F (40C), extra heat management may be desired. Simply placing the Sprite® flat on a metal surface can reduce the temperature. A clean, unpainted aluminum plate, at least 12 x 12 inches (30 x 30 CM) works well.

Should I use an SD card or USB drive to hold the video files?

While files will play from the USB port from a USB drive, some HD video may not play well from some USB drives. For high bit rate files we recommend using the SD port with an SD card of sufficient speed to match your video file's bit rate. For some HD video files a Class 4 may be ok, while others may need a faster Class 6 or Class 10. Test your video.

I accidentally changed the language and now I can't read the Setup Menu

You can reset the Sprite® to factory defaults without viewing the monitor by these steps:
      1) Remove the power plug for 10 seconds and then restore power
      2) Wait 10 seconds or longer for start-up to finish
      3) Press the Setup key on the remote control
      4) Press the down arrow key 7 times
      5) Press the Enter key 2 times

Do I have to name the files with those numbers or can I use names?

A) For Play Mode = Video Control Mode or Audio Control Mode (any Trigger or Serial Control use):

The Sprite® searches for the 000 to use as the looping file, and searches for 001 to use as the trigger. However, you can name them this way:

      000.myfilename.xxx   or   001.someverylongnamefile.xxx

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Do not use spaces, underscores or other special characters. Use 32 or less characters including the 2 periods. We explain the operation using only numbers to keep it simple.

We suggest you use numbers only to test your files as a starting point, then add the longer names if you want them.

Can I synchronize 2 or more Sprites to play together?

The Sprite® has no way to Genlock or synchronize with any external device or another Sprite at frame accuracy. You can start trigger files on 2 or more Sprites with a single pushbutton or serial control. However there are very slight differences in the internal oscillator components that allow sprites to run at slightly different frame rates.

Depending on your application and video files, the frame rate difference may be acceptable and un-noticed, or may not be acceptable. The longer the video in time, the more out of step the players will become until the next trigger. You should use the same encoding parameters, CODEC, pixel size, frame rate, bit rate and etc. for all files for best results.

If you want, you can get better results by comparing a few Sprites to get a better match, or altering the video on the "fast" Sprite. Adding a few duplicate frames in the video file at regular intervals will "slow-down" the progression of the scene to better match the slower Sprite.

How short or how long can my files be?

For all video and audio files:
 Any file under approximately 3 to 5 seconds may be a problem. If they are too short, there may be unwanted results in some control modes.

The 000 loop / ambient file should in most cases be longer. A longer loop file will allow your SD card to last longer. A short file looping continuously reads a small area on the SD card. A long file stored across more bytes of the SD results in less reads per byte over time. All SD and USB have a MTBF rated average number of reads. This number is very large, but in an application that runs all day, every day, this will add up. If you make the 000 loop file 10 times longer, your SD card should last 10 times longer as well. Keep in mind that if you are using one of the Trigger Delay settings, your trigger file will not play until the end of your 000 loop file.

Most users will never have an issue with a file that is too long. The time limit for the length of any file depends on the file encoding and bits used per second. Lower bitrates, lower frame rates and reduced pixel size can increase the time allowed. The file size is normally limited to 4 GB. Larger files may be stored on the SD card or USB drive if it is formatted to NTFS.

The maximum SD card size for the Sprite is 128GB.
The USB port will support up to a 2TB USB hard drive at USB2 speed.

Support

We do our very best to answer your calls and emails in a timely manner. We generally return calls and emails within 2 hours or less during business hours. We do monitor emails in the evenings and weekends and will try to respond outside of business hours.

Please read the entire manual. If we have a good manual then we will get fewer calls. Let us know where we can improve it to help others in the future.

If you are still having trouble, or need technical support for some other application, please email or call us. We are here to help when you need it.

Word-wide

support@MedeaWiz.com

In USA

Team Kingsley LLC

support@TeamKingsley.com

618-797-9951 x300

Custom Orders

For large quantity orders we can offer:
Custom firmware
Sprite® player without accessories
Sprite® circuit board only to enclose in your OEM design

Please email sales@MedeaWiz.com for a quote.