

MagicBox Compatibility with Widescreen Displays

Choosing a display for your Digital Signage application is not always as simple as going down to your local electronics store and getting whatever size model fits your needs. As display manufacturers continue to make displays more affordable, it comes at the cost of reduced features sets and more limited resolution support. The latter can make it difficult to connect a MagicBox signage player to a display and have it displaying content immediately. This article will help your Digital Signage rollout go a little smoother by addressing concerns that exist with LCD and Plasma displays.

Video Inputs and Resolutions

Nearly all modern LCD and Plasma displays come with an HDMI or DVI input and a PC input (also known as a VGA input). These inputs can be used to connect your MagicBox player unit to your display. Depending on which player you have, you will have different options as to which input you can use. However, there are some other considerations. A display that advertises being '1080P' doesn't necessarily support that resolution on all inputs. In fact, only one of the video inputs on the display needs to be able to support a 1080P signal on the display in order for the manufacturer to advertise it as a 1080P display. In some cases, only the HDMI or DVI inputs will support up to 1080P and the PC input has a maximum resolution of 1360x768.

If you have a MagicBox player that has a DVI output, we recommend using it over the VGA output because you will have a higher success rate with regards to the compatibility with your display. In rare cases, the resolution supported by a MagicBox player can match the native resolution of the display and still not show up when using the VGA

output. In these cases, the DVI output is usually successful.

When selecting a display for your Digital Signage network, make sure to find out what resolutions are available for the video input you will be using. The resolutions supported by a display can usually be found in the user manual for that display.

Commercial Grade vs. Consumer Grade

Display manufacturers will often make displays for the consumer market or commercial market. As a result, displays come in two grades of quality and cost. A consumer grade display is relatively inexpensive, but it has somewhat limited resolution support and was not designed for continuous (24/7) operation. A consumer display has a significantly shorter lifespan when used in a Digital Signage application. A commercial display is designed to run for hours and hours at a time and typically has better video input and resolution support. Mechanically, they are more rugged and heavy duty. The only downside is that they can cost twice as much or more as a consumer grade display.

We encourage you to purchase commercial grade displays whenever possible.

Controlling Displays via RS232

MagicBox, Inc. currently provides a solution for controlling displays with an Avelin player unit. This solution involves a MagicWidget for the Avelin Composer and requires that the display have a serial (or RS232) input. With the MagicWidget, you can send commands to the display to turn it on or off, control the volume level, switch video inputs, or any other function currently supported by that display.

The MagicWidget also requires that the serial command set for the display consist of ASCII characters. This means that the command is composed of characters found on a standard keyboard or is mostly letters. An example of an ASCII command to turn on the monitor might be "POW1." There are some displays out there which require hexadecimal (i.e. 043F4693B2) or binary (i.e. 01001011) codes which cannot be controlled by the MagicWidget without further engineering. Please

verify that the display you want to control has an ASCII command set. This is usually found in the appendix of the user manual of the display.

In the near future, MagicBox, Inc. plans on releasing a MagicWidget that can handle binary or hexadecimal commands. If you want to control a NEC or Samsung display (which have a hexadecimal command set), there are special MagicWidgets made to directly control the them.

MagicBox Output Resolution Support

	VIP6/Memo	VIP5	AV100/200	AV720P/800	AV1080P
Standard (4:3)²					
640x480 (VGA)	X	X	X	X	X
800x600 (SVGA)	X		X	X	X
1024x768 (XGA)	X	X	X	X	X
1280x1024				X	X
Widescreen (16:9)²					
1280x720 (720P)		X		X	X
1280x768		X		X	X
1376x768 ¹				X	X
1920x1080 (1080P)					X

1. 1376x768 is compatible with displays that support 1360x768 or 1366x768.
2. All of these resolutions can also be in Portrait mode.