

## Section 5

# Control Systems

There are several Kaleidescape options available for controlling a Premier system.

- Kaleidescape Remote
- Kaleidescape App for iPad
- Kaleidescape Child Remote
- Browser interface control panels

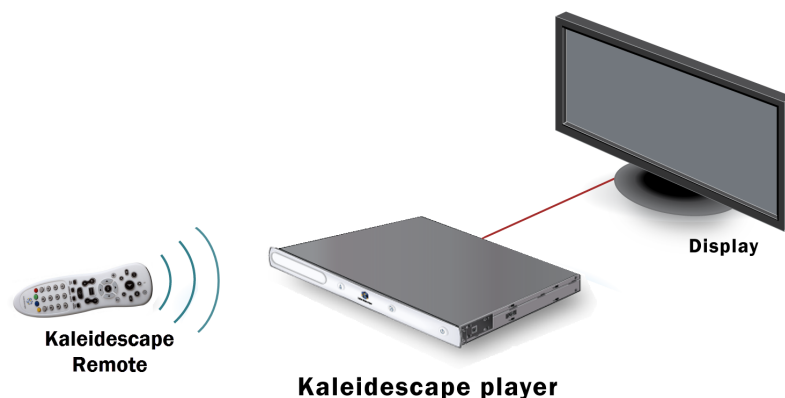
A Premiere system can also be controlled by several types of third party control devices.

- Infrared (IR) remotes
- Touch panels
- Keypads

Kaleidescape provides control modules along with touch panel templates and sample programs for most leading control systems. Kaleidescape also provides databases and IR codes for popular IR remotes.

For specific product support including modules and reference manuals, go to [www.kaleidescape.com/support/control-systems](http://www.kaleidescape.com/support/control-systems).

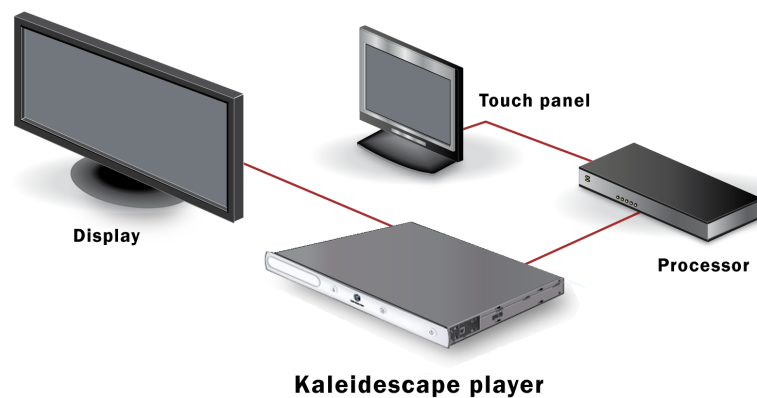
The following figures show examples of typical setups for Kaleidescape players and control devices.



**Figure 5-1 Kaleidescape Player and IR Remote Control**



**Figure 5-2 Kaleidescape Player and iPad Application**



**Figure 5-3 Kaleidescape Player and Touch Panel**

## Communication

A control device communicates with a Premiere System using a simple text-based protocol over Ethernet or RS-232, or IR. Although connected to a single component, a control device can route messages to any Premiere line component using device ID numbers or serial numbers. IR control cannot be routed like serial and Ethernet commands.

Control devices can use three types of control interfaces.

- ▶ Ethernet
- ▶ RS-232
- ▶ IR (one-way communication)

Kaleidescape recommends using **TCP/IP over Ethernet** for control connection in most cases. TCP/IP over Ethernet has several advantages over RS-232.

- Enables significantly faster communications
- Provides error detection and correction
- Uses standard Cat5/5e/6 cable and pinout
- Allows longer cable run
- Requires only a single network port
- Usually requires no additional equipment or wiring

Bandwidth can be a key issue, especially with multi-zone systems. Text-based feedback from several zones can cause noticeable response latency over an RS-232 connection. This is especially critical if controlling multiple Premiere line components through a single RS-232 port.

If the controller does not support an Ethernet connection, an RS-232 connection can provide the same level of control. If the controller does not support either an Ethernet or RS-232 connection, IR can be used for one-way control.

For more information on control connections, refer to the [Kaleidescape System Control Protocol Reference Manual](#) and the [Kaleidescape System IR Hex Codes Reference Guide](#).

## Kaleidescape Control Devices

### Kaleidescape Remote

The M300 Player, M500 Player and M700 Disc Vault come with a backlit IR remote to control movies and music. It features one-button access to key commands such as **Intermission**, **Shuffle** and **Now Playing**, while the **Movies** and **Music** buttons toggle views between *List*, *Covers* and *Collections*.

The **VOLUME** and **MUTE** buttons can be programmed to control the volume on the TV or other audio device.

1. Press and hold the **INFO** and **PAUSE** buttons at the same time. When the indicator light at the top of the remote begins blinking, release the buttons. The indicator light stays on. The Kaleidescape Remote is now in programming mode.

- Place a remote that already controls the volume flat on a table with the Kaleidescape Remote about 6 inches (15 cm) away.



- The following steps have to be repeated for the **MUTE** button and both **VOLUME** buttons.
  - Check that the indicator light is still on. If it is off, repeat Step 1.
  - Press and release the button on the Kaleidescape Remote for the function you want to program.
  - Press and hold the button for the same function on the remote that already controls the volume for two seconds.
  - The indicator light on the Kaleidescape Remote blinks twice to indicate success. If the indicator light blinks four times, try again.
- When finished, press the **OK** button on the Kaleidescape Remote. The indicator light blinks twice to confirm programming is complete.

Learn more in the [Using the Kaleidescape Remote Reference Guide](#).

## Kaleidescape Application for iPad

The Kaleidescape App for iPad provides an immersive experience for browsing and searching your collection of movies and music. The app extends the Kaleidescape experience to the iPad, displaying your movie collection with vivid high-resolution cover art, synopses, and other details.

The Kaleidescape App for iPad includes volume controls and Return button for integration with other control systems. The following is a typical use case:

- The user is running a controller app on an iPad and wants to use their Kaleidescape System.
- The user taps a button represented by the Kaleidescape app icon within the controller app.
- The controller app configures the A/V equipment for use with the Kaleidescape System, and launches the Kaleidescape App for iPad by opening a specific URL.
- The user can browse movies and music, play any selection, and control the Kaleidescape System from within the Kaleidescape app.
- When the user is finished with the Kaleidescape app, they can tap the Return button and a popover appears containing an option to return to the controller app.
- The user taps the popover option to return to the controller app.

For help, refer to [Integrating with the Kaleidescape App for iPad](#).

## Kaleidescape Child Remote

When the Child Remote is used, the onscreen user interface automatically switches to the simplified child user interface, eliminating all text-based menus in favor of pure graphical navigation of movie covers.

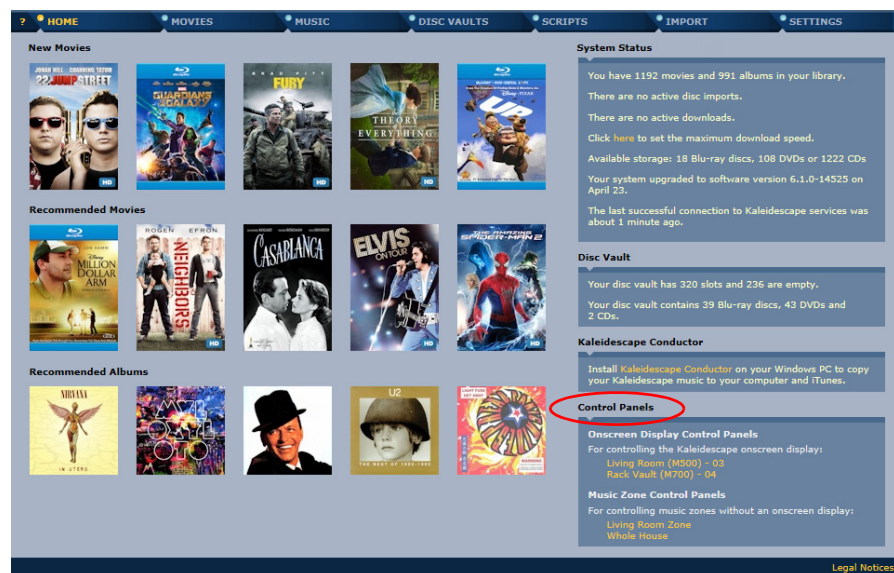
In addition to the preprogrammed Kaleidescape Child Remote, the child user interface commands can be sent to any programmable controller. Refer to [IR Control Hex Codes for Kaleidescape Systems](#) or the [Kaleidescape System Control Protocol Reference Manual](#).

## Browser Interface Control Panels

The Premiere system can be controlled from a web browser using the control panels on the browser interface.

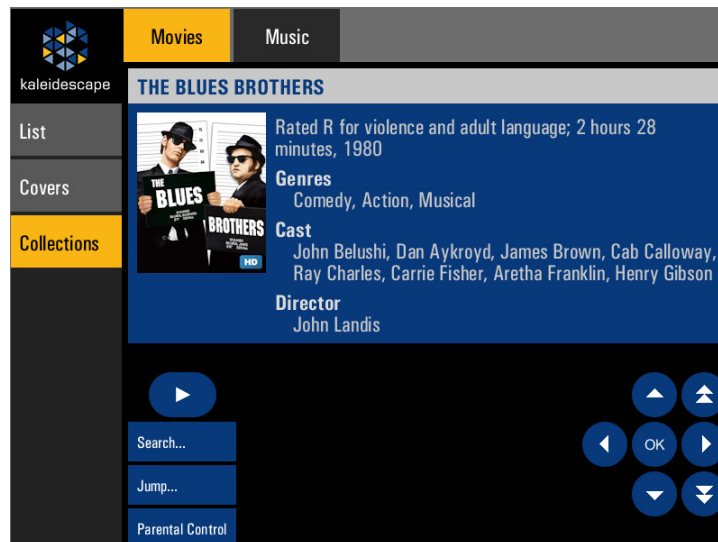
**Note:** The control panels require an up-to-date version of the Java software (current version can be found at [www.java.com](http://www.java.com)).

1. Open the browser interface as described in [Accessing the Browser Interface on page 65](#).
2. If a login page appears, enter the password and select **Login**.
3. The **HOME** page appears.



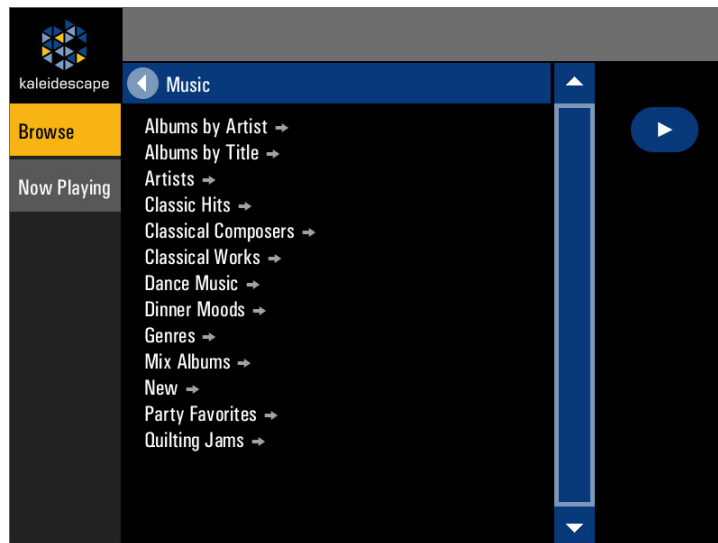
4. The **Control Panels** section is located on the bottom right of the **HOME** page.

- For control of movies and music in zones with a video display, locate the player name in the **Onscreen Display Control Panels** area and click the amber link.



**Note:** Control of the onscreen display should be done while viewing the TV or display device. No video is sent to the control panel.

- For text-based music control in zones without a video display, locate the player name in the **Music Zone Control Panels** area and click the amber link.



The control panels can also be accessed from the *Components* tab on the *SETTINGS* page of the browser interface.

Select **Control the onscreen display** for control of a zone connected to a video display, or select **Control Music on Zone #** for control of a zone without a video display.

## Third Party Control Devices

Kaleidescape provides a wide range of templates, modules, and sample programs for control systems from several manufacturers.

Some manufacturers also provide templates, modules and IR libraries to control Premiere systems.

Control devices can be simple IR remotes or touch panels.

### IR Remote Control

The simplest control device is a generic IR remote control for a DVD player.

### IR Code Sets

The Kaleidescape movie player supports two major infrared remote control code sets.

- Code set used by Toshiba DVD players and other manufacturers including Philips, Magnavox, Zenith, Onkyo, and Marantz
- Code set used by Kenwood DVD players

IR code sets can be disabled on the *CONTROL* tab of the player settings page. When both code sets are disabled, the player will not respond to IR commands. For help configuring the IR code sets, visit [Control Settings on page 92](#).

### Types of Remotes

IR remotes (other than the Kaleidescape Remote) fall into the following basic categories:

- Pre-programmed
- Learning
- PC Programmable

### Pre-programmed Remotes

Pre-programmed remotes only require setting the remote to control a Toshiba or Kenwood DVD player. Custom buttons that jump directly to Kaleidescape menu selections are not available.

### Learning Remotes

Learning remotes can be used two ways: as a general remote with a Toshiba or Kenwood code set, or set to accept (learn) Kaleidescape-specific commands from a device that can generate these commands (for example, the Kaleidescape Remote).

## PC Programmable Remotes

PC Programmable remotes can support commands specific to the Kaleidescape interface and provide a more complete experience. The manufacturer provides software that allows the remote to be programmed via a computer. This type of programming often allows IR codes to be imported in hex format (usually copying and pasting the codes into a text box), or from a Philips CCF file.

For a list of all IR codes (in hex) or CCF format available from Kaleidescape, or for the CCF file, go to [www.kaleidescape.com/go/ir](http://www.kaleidescape.com/go/ir).

Templates are available for download for RTI, URC, and Elan remotes. Kaleidescape is also included in IR code database libraries for URC, Logitech Harmony and Opus.

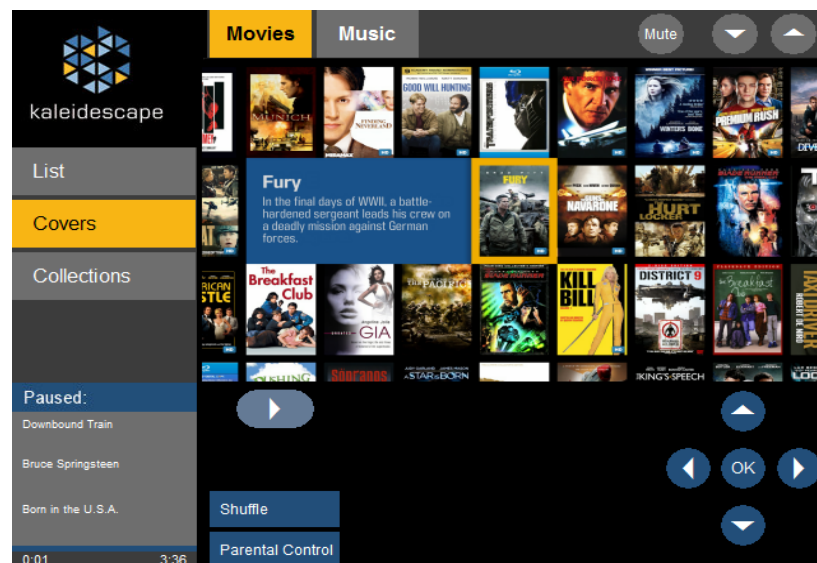
## Touch Panels

Kaleidescape supports several variations of touch panel control.

- Onscreen Display with Video
- Onscreen Display without Video
- Standalone music control interface for music zones

### Onscreen Display with Video

Onscreen Display with Video (OSD Video) displays the Kaleidescape onscreen display on the touch panel, along with other controls, by using a video window on the touch panel. Touching the video display makes selections or navigates menus. OSD Video provides the richest user experience and is the implementation suggested by Kaleidescape whenever possible.

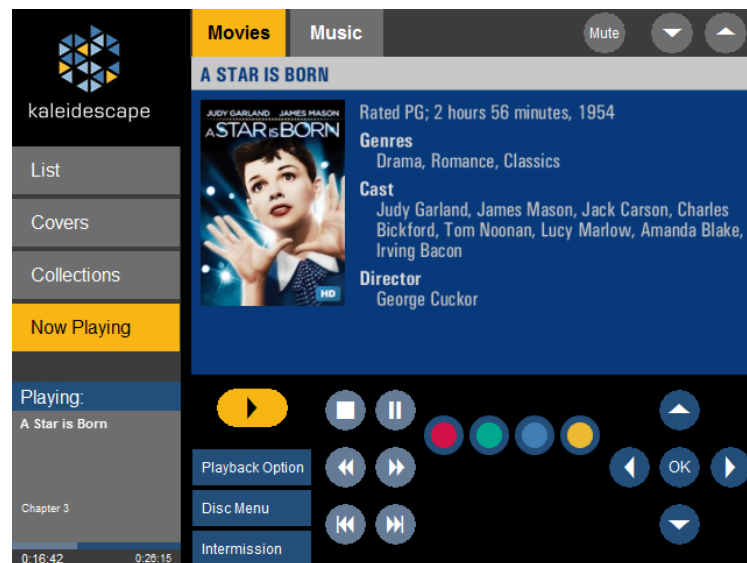




**Note:** Always use the connection that provides the highest signal quality. Fonts are small and hard to read if using composite video connections.

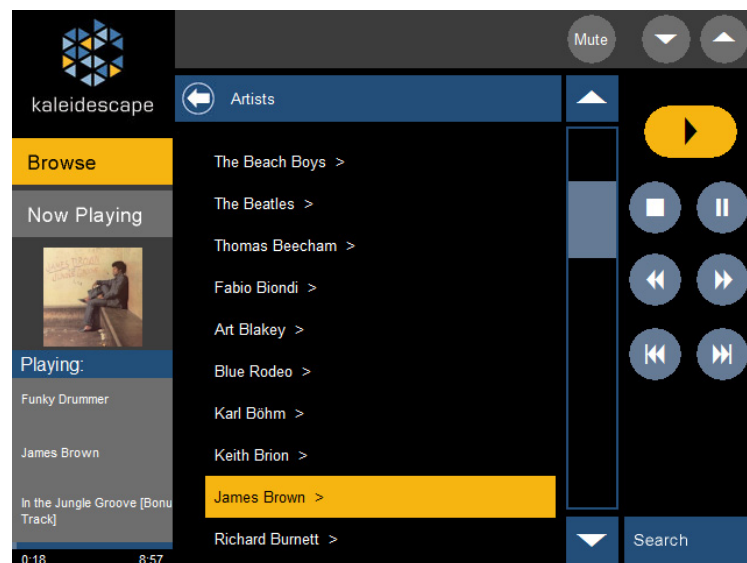
## Onscreen Display without Video

Onscreen Display without Video (OSD No Video) provides supplemental information with text-based details for content. The touch panel replicates the details pages for movies or albums while browsing the onscreen display.



## Standalone Control for Music Zones

The standalone music control interface for music zones provides text-based music controls on touch panels in rooms without video displays (e.g., hallways). A user can browse and control music playback.



When selecting the touch screen for an installation, consider whether a video display is present and the technical capabilities of the touch panel. Installations can require more than one type of touch panel interface to provide the best control for every zone.

For more information, go to [www.kaleidescape.com/support/control-systems](http://www.kaleidescape.com/support/control-systems).

## Keypad Control for Music

In-wall keypads are convenient for music zones that have no video display and no touch panel. There are two types of keypad control.

### ▶ Keypad presets

With keypad presets, a keypad can be programmed to play a music selection. Presets can be set to behave like car radio buttons. Press and hold to store, then press to recall.

### ▶ Music collections

With music collections, a keypad can be programmed so users can cycle through music selections within a music collection. This interface enables cycling through any collection by using the **NEXT** and **PREVIOUS** buttons.

An installer can program a keypad to control music on a Premiere system as long as the keypad can send a programmer-defined string over RS-232 or TCP/IP. Kaleidescape also provides keypad control modules for several manufacturers that can be downloaded from the Kaleidescape web site.

**Note:** The keypad must be able to send a programmer-defined string. Presets cannot be triggered via IR.

For more information on keypad control commands, refer to the *Kaleidescape System Control Protocol Reference Manual* at [www.kaleidescape.com/go/control-protocol](http://www.kaleidescape.com/go/control-protocol).