COLOR KINETICS

PHILIPS

iPLAYER®3

USER MANUAL
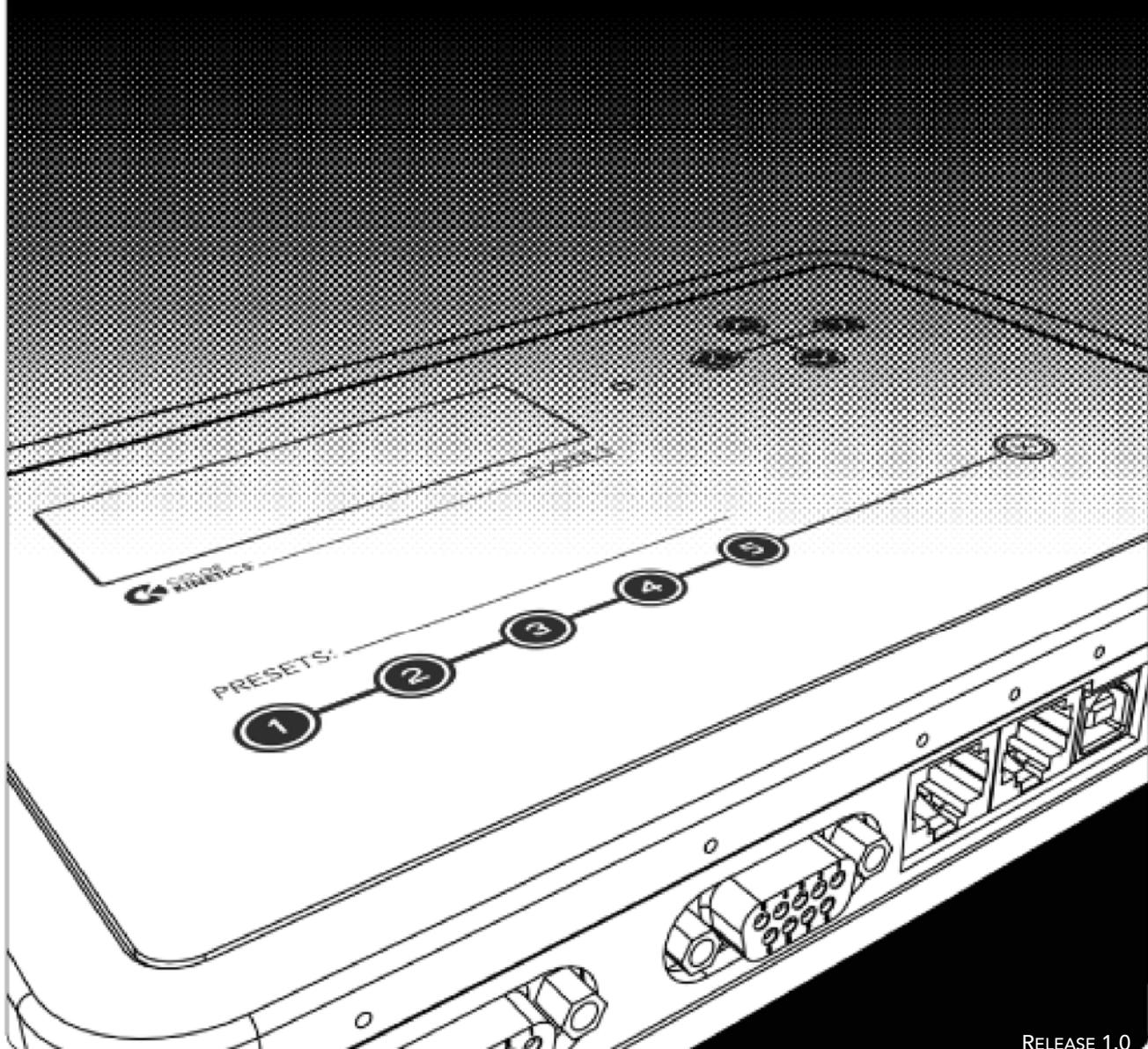
CONTENTS

CHAPTER 1

INTRODUCTION

This document provides an overview of the iPlayer® 3 controller and describes how to install and use the device. If you need further information, contact Color Kinetics technical support:

> Phone: 617.423.9999 or 888 FULL RGB (888.385.5742), option 3
>
> Email: technicalsupport@colorkinetics.com
>
> Web: http://www.colorkinetics.com/support/

iPlayer 3 Overview

The iPlayer 3 controller is a multi-show storage and playback device from Color Kinetics.
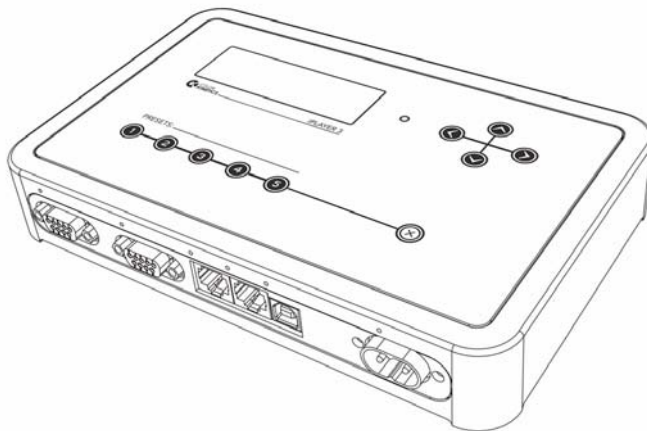
The iPlayer 3 has the following hardware features:

1 An LCD screen — Displays messages and menus.

See *Navigating Menus* on page 26.

2 Full-color LED indicator — Changes color when a show is playing. It shows the color of the light at address 1 on DMX output 1. (DMX is a data transmission method that enables lighting control equipment produced by different manufacturers to be interconnected.)

3 Arrow (navigation) buttons — Used to enter Configuration Mode, navigate menus, change settings, and save your changes, and to adjust the overall playback brightness in Run Mode.
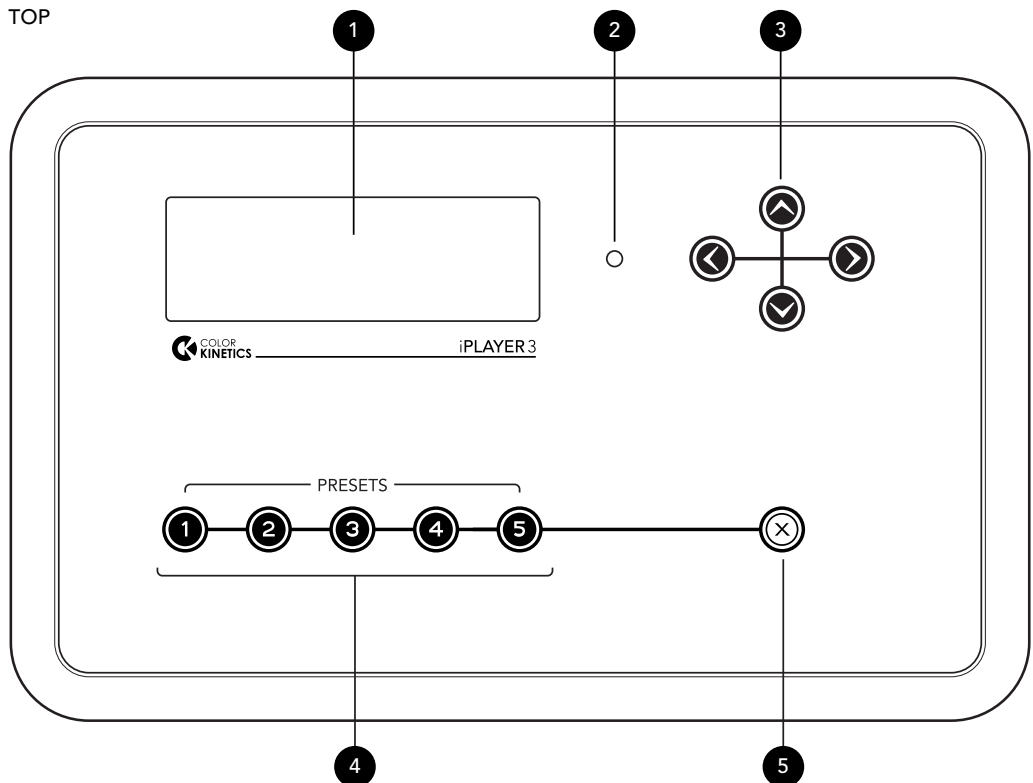
4   Preset buttons — Associated with triggers. See *Preset Shows* on page 23 for details.

5   The ◎ button — Used to cancel action in Configuration Mode and to pause or resume action in Run Mode.

FRONT
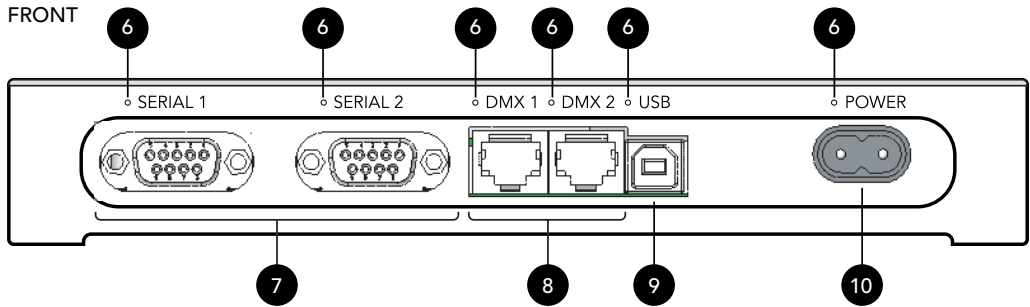
6   Status LEDs. The Power status LED is orange when power is supplied. The five other status LEDs are green when the corresponding port is active.

7   Two RS-232 serial port connectors labeled SERIAL 1 and SERIAL 2. See *Electrical* on page 40 and *Serial Port: DB9F Pinouts* on page 20.

8   Two DMX port connectors, labeled DMX 1 and DMX 2 — Used to output DMX512 data to control compatible lights.

The iPlayer 3 can control two full DMX512 universes for a total of 340 individually addressed Color Kinetics light fixtures.

9   USB 2.0 port — Connects the iPlayer 3 to your computer for downloading shows.

10 Power inlet.

11 SD flash memory card in card slot. The iPlayer 3 utilizes a standard SD flash memory card for storing shows and configuration settings.

SIDE
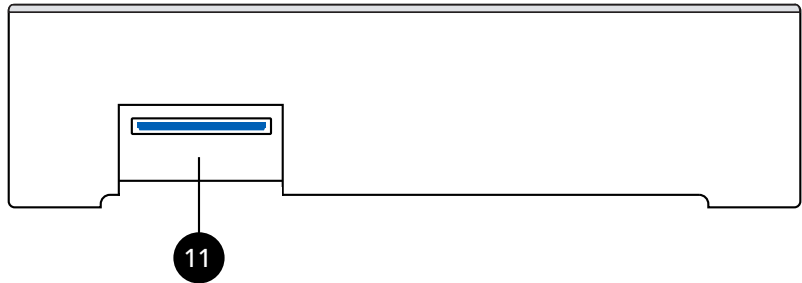
12 Access door. Remove the two access door screws on the bottom of the iPlayer 3 to access the memory card or configuration DIP switches. See *Auxiliary Device Configuration* on page 43, which describes how to format an SD memory card for use in the iPlayer 3, and *iPlayer 3 DIP Switch Functions* on page 22, which shows the switch numbering and on/off positions.

BOTTOM
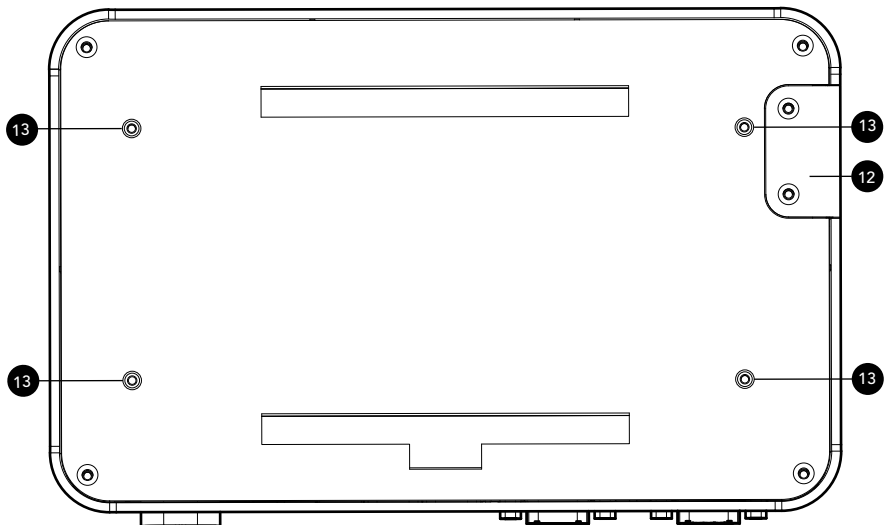
13 Mounting bracket screw holes.

The iPlayer 3 also supports an optional, wall-mounted keypad, which enables you to trigger shows stored on the iPlayer 3, to adjust the brightness of those shows, and to turn all lights off.

ColorPlay 3 Software

The iPlayer 3 controller comes packaged with ColorPlay® 3 light show authoring software. You can use ColorPlay 3 to control the iPlayer 3 from your PC or Mac.

ColorPlay 3 enables you to create unique shows, assign triggers, set alarms, download light show files to your iPlayer 3, and manage the show files on your iPlayer 3.
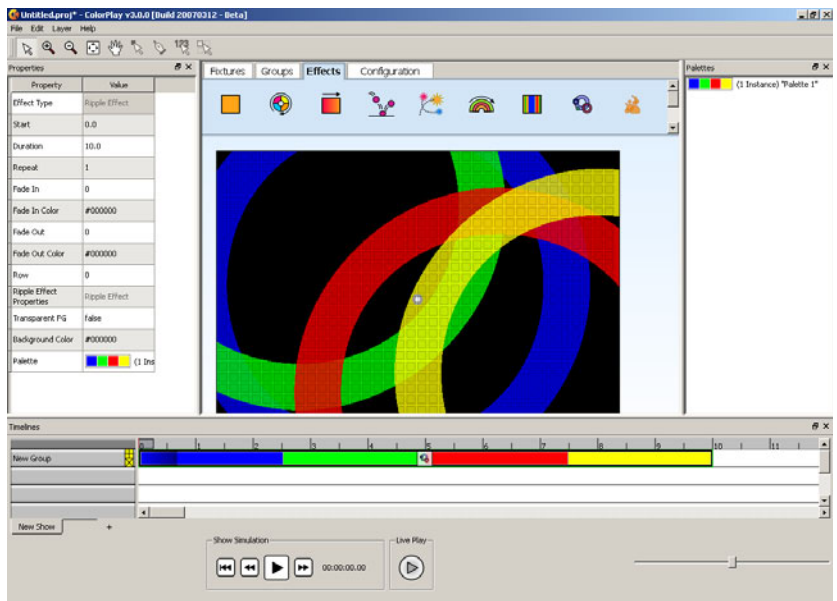
Refer to http://colorkinetics.com/ls/controllers/colorplay3/ for an overview of ColorPlay 3. Refer to the *ColorPlay 3 User Guide* included on the software CD for complete information about using ColorPlay 3.

Introduction to iPlayer 3 Modes

The iPlayer 3 controller has three modes of operation:

- USB Mode. You use USB Mode to transfer data between the iPlayer 3 and ColorPlay 3 software on your PC or Mac. See *Setting Up the iPlayer 3 in USB Mode* on page 14 and *Chapter* 3: *USB Mode* on page 20.

- Run Mode. You use Run Mode to play light shows. See *Setting Up the iPlayer 3 in Run Mode* on page 16 and *Chapter* 4: *Run Mode* on page 23.

- Configuration Mode. You use Configuration Mode to:
  - Set up and display general information, such as date and time, latitude and longitude (for sunrise/sunset calculation), and firmware version number.
  - Define or customize triggers and alarms.

  See *Setting Up the iPlayer 3 in Configuration Mode* on page 17 and *Chapter* 5: *Configuration Mode* on page 26.

CHAPTER 2

INSTALLATION

iPlayer 3 Components

Take a moment to confirm you have received these iPlayer 3 components:

- iPlayer 3
- Mounting bracket
- Mounting bracket screws
- North American power cord
- USB 2.0 cable
- RJ-45 DMX512 data cable
- ColorPlay 3 software CD

Depending on your configuration and location, you may need other cables:

- Customers outside of North America may need to provide a power cable suitable for their region's electrical system.
- You may require a longer RJ-45 data cable.
- You will need a second RJ-45 data cable if you will use both DMX ports. (Serial cables are supplied with the optional AuxBox and Controller Keypad.)

Electrical Specifications

Power requirements: 100 – 240 VAC, 50/60 Hz, 5W

Environmental Specifications

Operating temperature range: 14F to 122F (-10C to +50C)

Maximum 95% relative humidity

Mounting Bracket Installation

You can install the mounting bracket using either quick-release mounting or locked mounting.

With either method:

- You can use either the outermost or innermost screw holes for surface mounting. The four tabs containing the outermost screw holes are scored and can be removed with heavy-duty pliers.
- You install so that the release tab (located in the center of the bracket) points downward.
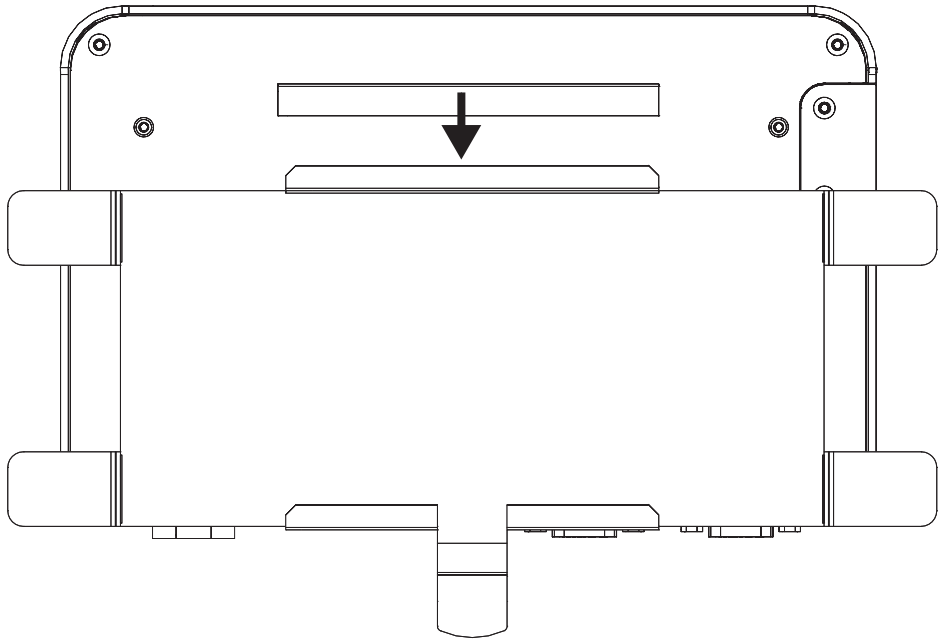
Scenario A: Quick-Release Mounting

1. Screw the mounting bracket onto a surface (with the release tab pointing downward).
2. Slide the iPlayer 3 onto the mounting bracket until the iPlayer 3 clicks securely into place.

Scenario B: Locked Mounting

1. Slide the iPlayer 3 onto the mounting bracket until the iPlayer 3 clicks securely into place.
2. Using the supplied machine screws, secure the mounting bracket to the iPlayer 3.
3. Using the outermost screw holes, install the mounting bracket/iPlayer 3 assembly onto a surface.

Removing the Mounting Bracket / iPlayer 3 Assembly

To remove the mounting bracket/iPlayer 3 assembly from the mounting surface installed with locked mounting, remove the screws installed in step 3 above.

To remove the iPlayer 3 from the mounting bracket installed with quick-release mounting, press on the release tab and push the iPlayer 3 upward.
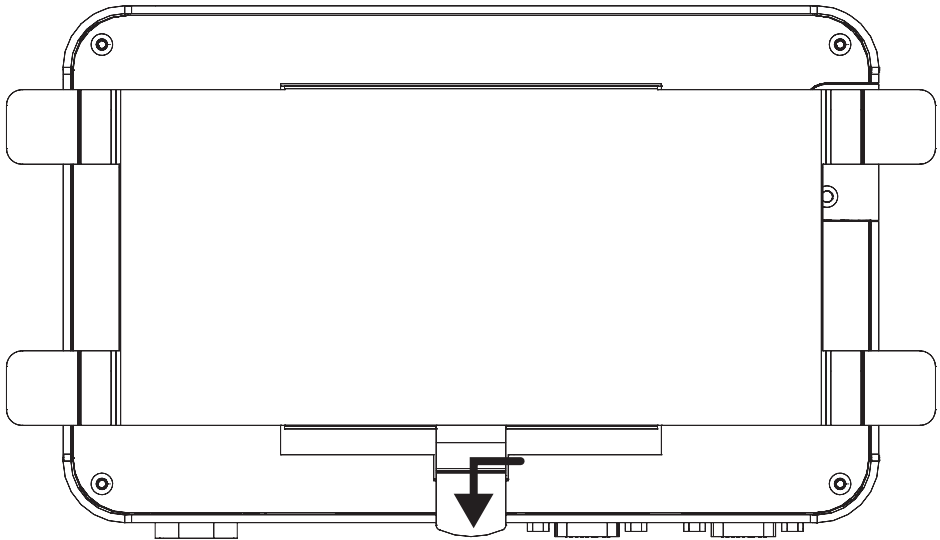
Connecting and Setting Up the iPlayer 3

The following sections describe how to set up the iPlayer 3 in each mode of operation. Subsequent chapters provide more details.

Setting Up the iPlayer 3 in USB Mode

USB Mode is used to transfer data to and from the iPlayer 3's associated ColorPlay 3 software tool on your PC/Mac.

You must be in USB mode to download light show files to the iPlayer 3 or to use the ColorPlay 3 live play simulation feature. You can initiate USB mode only from your PC/Mac, not from the iPlayer itself. USB Mode is active when you are connected to the iPlayer 3 via ColorPlay 3.

See Chapter 3: *USB Mode* on page 20 for details about USB Mode.

Note: *If using Windows®, you must install ColorPlay 3 software prior to connecting the iPlayer 3 controller to your computer for the first time. The ColorPlay 3 Windows installation installs the USB device drivers used by the iPlayer 3. (MacOS does not need a special device driver.)*

See the *Installing ColorPlay 3* chapter in the *ColorPlay 3 User Guide* for instructions on installing ColorPlay 3.

To set up the iPlayer 3 in USB Mode:

1. Verify that ColorPlay 3 is installed on your system.

2. Power on the iPlayer 3 by plugging one end of the power cord into the power inlet on the iPlayer 3 and the other end into an electrical outlet.

3. Using the supplied USB cable, connect the USB port on the iPlayer 3 to your computer's USB port. The USB light on the iPlayer 3 will light and the LCD screen will read USB on its bottom row, indicating that the USB connection is active.

Note: *The maximum USB cable length is 5m.*

4. Launch the ColorPlay 3 software on your computer.

5. There are two methods for initiating USB Mode from ColorPlay 3:

– Open the ColorPlay 3 configuration layer and click CONNECT. Once in USB mode, the LCD screen indicates USB MODE, and you can now download show files, triggers, and alarms. You can also manage iPlayer 3 files from the ColorPlay 3 configuration layer. (See the ColorPlay 3 User Guide for details.)

– Design or load a show file in ColorPlay 3. Click the LIVE PLAY button to initiate USB Mode and simulate your show on your light fixtures.

6. End USB Mode by clicking DISCONNECT in the ColorPlay 3 configuration layer.

Note: While in USB mode, you cannot access standard iPlayer 3 operational modes. End USB Mode to resume normal iPlayer 3 functionality.

Setting Up the iPlayer 3 in Run Mode

Run Mode is used to play light shows.

In Run Mode, the iPlayer 3 controller is not connected to your computer. The iPlayer 3 must be in Run Mode to play light shows.

See Chapter 4 for details about Run Mode.

To set up the iPlayer 3 in Run Mode:

1. Using the supplied RJ-45 data cable, connect the DMX 1 port or DMX 2 port to the light fixture(s) you want to use for playback.

2. Disconnect the USB cable from the iPlayer 3.

The LCD screen will indicate RUN MODE.

3. (Optional) Press the iPlayer 3 ⊗ button to pause playback.

The LCD screen will read LIGHTS OFF.

Press the ⊗ button again to resume Run Mode.

Note: When you power on the iPlayer 3 or exit from USB Mode, the iPlayer 3 automatically enters Run Mode and begins playing the show assigned to show Preset 1 (the show assigned to trigger 1). To switch to another show, press another Preset button (2 through 5) or use an external switch such as the Controller Keypad available from Color Kinetics.

Setting Up the iPlayer 3 in Configuration Mode

Configuration Mode is used for configuration and to display information. Configuration Mode enables you to access onboard menus for setup or to browse info screens. In Configuration Mode, the iPlayer 3 controller does not need to be connected to your computer. You enter Configuration Mode from the iPlayer3 user interface; you cannot enter it from the PC.

See Chapter 5: *Configuration Mode* on page 26 for details about Configuration Mode.

To set up the iPlayer 3 in Configuration Mode:

1. Press the iPlayer 3 right arrow button. The LCD screen will indicate CONFIG MODE and display the current menu or submenu item.

2. Use the arrow buttons to navigate menus, change settings, and save your changes.

3. At any point, you can press the iPlayer 3 ⊗ button to cancel the current operation and return to Run Mode.

Connecting an External Show Controller

The iPlayer 3 has two RS-232 serial ports that allow external controllers to select and control light shows. The ports are intended for use by Color Kinetics' Controller Keypad, Color Kinetics' AuxBox (used to connect contact closure switch inputs), and third-party devices such as architectural controllers.

See *External Show Controller Configuration* on page 40.

Connecting the Controller Keypad

The Controller Keypad is an optional iPlayer 3 accessory, available from Color Kinetics. It is a wall-mounted keypad with eight show buttons, dimmer controls, and a master OFF switch.

To connect Controller Keypad to the iPlayer 3:

1. Unplug the power cord from the iPlayer 3.

2. Select serial port 1 or 2.

3. Set the iPlayer 3 DIP switch to apply power to the selected serial port. See *iPlayer 3 DIP Switch Functions* on page 22.

4. Choose the Controller Keypad power option:
   – Power the Controller Keypad via the iPlayer 3 serial connection
   – Power the Controller Keypad via an external source

   The Controller Keypad power source selection is configured via wiring. Refer to the Controller Keypad instructions for details.

5. Connect one end of the serial cable to the Controller Keypad. A serial cable is supplied with the Controller Keypad.

Note: The maximum serial cable length is 50' (15.24m).

6. Connect the other end of the serial cable to the selected serial port on the iPlayer 3.

Connecting Contact Closure Switch Inputs

The iPlayer 3 accepts input from any standard contact closure switch via serial port 1 or serial port 2. Note that an optional Color Kinetics' AuxBox is required for closure switch connection.

Connecting the AuxBox to the iPlayer 3

1. Unplug the power cord from the iPlayer 3.

2. Select serial port 1 or 2.

3. Set the iPlayer 3 DIP switch to apply power to the selected serial port. See *iPlayer 3 DIP Switch Functions* on page 22.

4. Confirm that the AuxBox is properly set up, including power configuration and connection to both the iPlayer 3 and the external switches with which it communicates

5. Connect one end of the serial cable to the AuxBox. A serial cable is supplied with the AuxBox.

Note: *The maximum serial cable length is 50' (15.24m).*

6. Connect the other end of the serial cable to the selected serial port on the iPlayer 3.

CHAPTER 3

USB MODE

Overview

This chapter details how to download shows, triggers, and alarms directly from ColorPlay 3 to the iPlayer 3 using USB Mode.

About Shows

The iPlayer 3 handles two types of shows: onboard, pre-configured shows and downloaded shows.

Shows authored on ColorPlay 3 contain data about fixtures, settings such as groups, and effects. After you author shows on ColorPlay 3, you download your show files to the iPlayer 3 and then configure your show playback instructions by creating triggers and alarms.

About Triggers and Alarms

Using ColorPlay 3, you assign trigger numbers to show files. Using the iPlayer 3, you can use alarms to activate a trigger at a particular time (such as every Monday at 5:00:00 p.m.) or for an astronomical event (such as every day at sunset).

Alarms enable you to set triggers for automatic playback. See *Alarm Playback* on page 24, *Switching Shows Without Using the Preset Buttons or Controller Keypad* on page 24, and *Setting an Alarm* on page 32.

A trigger plays one or more shows and enables you to specify show playback behaviors such as repeat, jump to another show, or snap transition.

Triggers are required for show playback on the iPlayer 3. You can link a show either:

- To one of five buttons on the iPlayer 3. (You manually start the show by pressing the corresponding button.)
- To buttons on a Controller Keypad or to contact switches connected to an AuxBox that is connected to one of the serial ports.

See:

- *Preset Shows* on page 23
- *Trigger Number Message* on page 24
- *Assigning a Trigger to a Preconfigured, "Canned" Show* on page 30
- *Assigning a Trigger to a Show Downloaded from ColorPlay 3* on page 31

Downloading Show Files From ColorPlay 3

1. Initiate USB Mode (see *Connecting and Setting Up the iPlayer 3* on page 14).

2. In the ColorPlay 3 configuration layer, click the SHOW FILES TAB and then select one or more show files.

3. Click the COPY SELECTED SHOWS TO CONTROLLER arrow button to begin downloading.

   Once fully downloaded, show files appear in the right column of the file manager with a *.SHO file extension.

Alternatively, you can download a show using an SD card reader, which may be more time-efficient. See *Formatting an SD Memory Card for Use in the iPlayer 3* on page 43 for more information.

Downloading Triggers From ColorPlay 3

1. Initiate USB Mode (see *Connecting and Setting Up the iPlayer 3* on page 14 in the previous chapter).

2. In the ColorPlay 3 configuration layer, click the TRIGGERS TAB and then select one or more triggers in the left column.

3. Click the COPY SELECTED TRIGGERS TO CONTROLLER arrow button to begin downloading.

Once fully downloaded, triggers appear in the right column of the file manager.

Downloading Alarms From ColorPlay 3

1. Initiate USB Mode (see *Connecting and Setting Up the iPlayer 3* on page 14 in the previous chapter).

2. In the ColorPlay 3 configuration layer, click the ALARMS TAB and then select one or more alarms in the left column.

3. Click the COPY SELECTED ALARMS TO CONTROLLER arrow button to begin downloading.

Once fully downloaded, alarms appear in the right column of the file manager.

CHAPTER 4

RUN MODE

Overview

Run Mode is the default iPlayer 3 playback mode and automatically launches when you power on the iPlayer 3 controller. The iPlayer 3 must be in Run Mode for you to manually play show presets or shows associated with automatic playback alarms.

Note: Run Mode is suspended when you enter USB Mode or Configuration Mode.

Playing Shows

Preset Shows

There are five Preset buttons located on the faceplate of the iPlayer 3. Each button is associated with a trigger. Press a Preset button to set off a trigger and play its corresponding show file(s).

When you power on the iPlayer 3 or exit from USB Mode, the iPlayer 3 automatically enters Run Mode and begins playing the show assigned to show Preset 1 (the show assigned to trigger 1). To switch to another show, press another Preset button (2 through 5) or use an external switch such as the Controller Keypad available from Color Kinetics.

In addition to the Preset buttons, if you have an optional Controller Keypad connected to your iPlayer 3, you can assign triggers to the keys on the keypad.

Alarm Playback

You can configure up to 15 alarms on the iPlayer 3. When using alarms, you do not have to manually press a Preset button to set off a trigger. Alarms automatically set off triggers based on settings such as time of day or an astronomical event.

Switching Shows Without Using the Preset Buttons or Controller Keypad

To switch shows without using the Preset buttons or Controller Keypad, you can use alarms to automate show playback. See *Assigning Triggers* on page 30 in the next chapter for iPlayer 3 trigger configuration information, or refer to the *ColorPlay 3 User Guide* for additional configuration instructions.

Light Show Brightness

Using the up and down buttons, you can set the overall brightness level of lights in a show while it is being played. The B number displayed on the iPlayer 3 reflects the brightness level you set between 0% and 100%.

Run Mode Display

The iPlayer 3 uses its LCD screen and LED indicator to provide information during Run Mode.

Trigger Number Message

The LCD screen displays the current trigger (show) number during playback.

Note: If you have not associated a trigger with a Preset button, the LCD screen displays an EMPTY message when that Preset button is pressed.

LED Indicator Light

The LED indicator light, located to the right of the LCD screen, is active when a show is playing. It shows the color of the light at address 1 on DMX output 1.

Lights Off Mode

You can pause Run Mode and show playback by pressing the ⊗ button located to the right of the Preset buttons. The LCD screen displays a LIGHTS OFF message and the connected lights turn black until you either:

- Press the ⊗ button a second time to resume Run Mode
- Press a Preset button to start the selected show from the beginning

CHAPTER 5

CONFIGURATION MODE

Overview

Configuration Mode provides a menu system to configure triggers, set alarms, perform device setup, and view device information.

You access and navigate Configuration Mode via the arrow buttons on the iPlayer 3 faceplate. Press the right arrow button to exit from Run Mode and launch Configuration Mode.

Navigating Menus

The Main Menu appears on the LCD screen when you enter Configuration Mode. Use the up and down arrows to browse the available menu options.

From the Main Menu, press the right arrow to access a submenu. Press the up and down arrows to change a submenu item's value or setting and then press the right arrow again to access the next menu item.

There are four Main Menu options:

- Triggers. See *Assigning Triggers* on page 30.

Triggers Menu

Main Menu
- Triggers
- Alarms
- Setup
- Info

Trigger Number? — Integer 0-255

Show Type?
- Canned Effect
- Downloaded

File Name? — Show File Picker

Test Show — Show Tester

End Behavior?
- Fade to Black
- Loop
- Jump to Another Trigger

Show Number? — Integer 0-255

Effect Type?
- Fixed Color
- Cross Fade
- Rainbow
- Random Color
- Sparkle
- Color Sweep
- Color Streak

Fixed Color? — HSB Editor

Start Color? — HSB Editor

Cycle Time? — Duration Editor

End Color? — HSB Editor

Offset? — Integer 0-1001

Hold Time? — Duration Editor

Direction?
- RGB Up
- RGB Down
- RBG Up
- RBG Down

Fade Time? — Duration Editor

Offset? — Integer 0-1001

Hold Time? — Duration Editor

Fade Time? — Duration Editor

Color Count? — Integer 0-128

Offset? — Integer 0-1001

FG Color? — HSB Editor

BG Color? — HSB Editor

Density? — Integer 0-100

Fade Time? — Duration Editor

FG Color? — HSB Editor

BG Color? — HSB Editor

Time? — Duration Editor

FG Color? — HSB Editor

BG Color? — HSB Editor

Time? — Duration Editor

Width? — Integer 0-100

Test Effect — Effect Tester

Transition Type?
- Snap
- Fade Out & In
- Cross Fade

Transition Time? — Duration Editor

Save Changes?
- Yes
- No

HSB Editor

Base Hue?
- Red
- Yellow
- Green
- Cyan
- Blue
- Magenta

Hue Adjust? — Integer -255 to 255

Saturation? — Integer 0-100

Brightness? — Integer 0-100

Duration Editor

Minutes? — Integer 0-1000

Seconds? — Integer 00-59

• Alarms. See *Setting an Alarm* on page 32.

Alarms Menu

Main Menu
Triggers
Alarms
Setup
Info

Alarm Number?
Integer 0-15

Alarm Days?
Specific Date
Every Day
Weekends
Weekdays
Mondays
Tuesdays
Wednesdays
Thursdays
Fridays
Saturdays
Sundays

Specific Month?
Integer 1-12

Specific Day?
Integer 1-31

Alarm Type?
Time-of-day
Astronomical

Alarm Time?
Time Editor

Show Number?
Integer 0-255

Sunrise or Sunset?
Sunrise
Sunset

Offset Hr?
Integer -12 to 12

Offset Min?
Integer 0 to 59

Save Changes?
Yes
No

Time Editor

Hour?
Integer 00-23

Minute?
Integer 00-59

Second?
Integer 00-59

• Setup. See *Setup Menu* on page 34.

Setup Menu

Main Menu
Triggers
Alarms
Setup
Info

Setup Menu
Config Ports
Set Clock
Set Lat/Long
LCD Setup
Sound Setup
Set DMX Addr
Test DMX Addr

Port 1 Base Trigger #?
Integer 0-255

Port 2 Base Trigger #?
Integer 0-255

Set Date
Date Editor

Set Time
Time Editor

Set Latitude
Lat Editor

Set Longitude
Long Editor

Set Time Zone
TZ Editor

DST?
Yes/No

LCD Contrast?
Integer 0-10

LCD Backlight?
Integer 0-10

Volume?
Integer 0-3

Test DMX Addr
Integer 1-170

Set DMX Addr
By S/N
All Same Addr editor

DMX By S/N
S/N Addr Editor

All Same DMX
S/N Addr Editor

Duration Editor

Minutes?
Integer 0-1000

Seconds?
Integer 00-59

Lat Editor

Latitude Integer?
Integer -180 to 180

Latitude Fraction?
Integer 0 to 100

Long Editor

Longitude Integer?
Integer -180 to 180

Longitude Fraction?
Integer 0 to 100

Date Editor

Day?
Integer 1-31

Month?
Integer 1-12

Year?
Integer 00-99

All Same Addr Editor

DMX Addr?
Integer 1-170

Program?
Yes
No

Test DMX?
DMX Test

S/N Addr Editor

S/N Byte 1?
Hex 00-FF

S/N Byte 2?
Hex 00-FF

S/N Byte 3?
Hex 00-FF

S/N Byte 4?
Hex 00-FF

Test S/N?
S/N Test

DMX Addr?
Integer 1-170

Program?
Yes
No

Test DMX?
DMX Test

• Info. See *Info Menu* on page 36.

Info

Main Menu
Triggers
Alarms
Setup
Info

Version Info
Version String

Info Screen
Version
Memory
Astronomical

Memory Usage
Free & Used Space

Sunrise
Today's Sunrise

Sunset
Today's Sunset

Saving or Canceling Changes

To save changes, continue pressing the right arrow to advance to the end of a submenu. At the S̲ave Changes menu item, press the right arrow a final time to save your settings.

To cancel changes, either press the up arrow and then the right arrow or press the ⊗ button to return to Run mode without making the change.

Exiting from Configuration Mode

To exit from Configuration Mode, either:

- Press the ⊗ button
- Repeatedly press the left arrow until you return to Run Mode

Assigning Triggers

You can assign a trigger and associated settings to either:

- A pre-configured, "canned" show

- A show file downloaded from ColorPlay 3

Assigning a Trigger to a Preconfigured, "Canned" Show

To assign a show to Preset button 3 and trigger 3:

1. Access Configuration Mode by pressing the right arrow button on the iPlayer 3 faceplate.
2. Access the T̲riggers submenu from the Main Menu.
3. Press the up or down arrow to trigger number **3**.
4. Press the right arrow to access the S̲how T̲ype? menu item, and press the up and down arrow until C̲anned E̲ffect is displayed.

5. Press the right arrow to the EFFECT TYPE? menu item, and then press the up and down arrow to view effect types and make a selection. There are seven effect types from which to choose:
   – FIXED COLOR
   – CROSS FADE
   – RAINBOW
   – RANDOM COLOR
   – SPARKLE
   – COLOR SWEEP
   – COLOR STREAK

6. Press the right arrow to the next menu item, which is an effect-specific menu item, and then enter a value. For example, if you chose the RANDOM COLOR effect in the previous step, you will be prompted to enter a HOLD TIME minute value, which determines the display duration for each random color generated.

7. Continue navigating through the effect-specific menu items and entering values. For example, after choosing the RANDOM COLOR effect, you need to enter a FADE TIME, OFFSET value, and COLOR COUNT.

8. At the TEST EFFECT menu item, press the right arrow to use the show tester, which runs a live preview of your show.

9. Select a transition type:
   – SNAP (no transition)
   – FADE OUT (to black) & IN
   – CROSS FADE (effect morphing)

10. Press the right arrow to save your changes.

Assigning a Trigger to a Show Downloaded from ColorPlay 3

To assign a downloaded show to Preset button 4 and trigger 4:

1. Access Configuration Mode by pressing the right arrow button on the iPlayer 3 faceplate.

2. Access the TRIGGERS submenu from the Main Menu.

3. Press the up arrow to trigger number 4.

4. Press the right arrow to access the SHOW TYPE? menu item and then use the up and down arrows until DOWNLOADED SHOW is displayed.

5. Press the right arrow to the EFFECT TYPE? menu item and then press the up or down arrow to make a selection.

6. At the TEST EFFECT menu item, press the right arrow to use the show tester, which runs a live preview of your show.

7. Select an END BEHAVIOR type:
  – LOOP
  – LIGHTS OFF
  – JUMP TO TRIGGER

8. Select a transition type:
  – SNAP (no transition)
  – FADE OUT (to black) & IN
  – CROSS FADE (effect morphing)

9. Press the right arrow to save your changes.

Setting an Alarm

Alarms enable you to automate show playback. When you set an alarm, you specify:

• The alarm number.

• Whether the alarm activates every day, on weekdays, on weekends, on a specific day of the week, or on a specific date.

• On what date the alarm turns off.

• Trigger / Show number with which to associate the alarm

• Whether the alarm turns on and off either:
  – At a particular time on a clock. For clock time, the iPlayer 3 uses a 24-hour notation with hours ranging from 00 to 23.
  – In relation to sunrise and sunset (astronomical time).

Note: If you specify astronomical time, you also need to specify both:
— The alarm hour and minute offset, which tells the iPlayer 3 when to fire a show with respect to a selected astronomical event. For example, if you select SUNRISE and offset = +2 hours +30 minutes, the alarm will fire two and one-half hours after sunrise, and if you select SUNSET and offset = -1 hour, it will fire one hour before sunset.
— Your latitude and longitude in order for the iPlayer 3 to correctly calculate astronomical events. You do this via the Setup Menu.

Note: The astronomical time alarm type does not automatically make adjustments for daylight savings time.

You can configure up to 15 alarms. For example, to configure alarm number 5 for every day at sunset:

1. Access Configuration Mode by pressing the right arrow button on the iPlayer 3 faceplate.

2. Press the up or down arrow until the ALARM submenu is selected, and then press the right arrow.

3. Press the up or down arrow to alarm number 5.

4. At the ALARM DAYS? menu item, press the up or down arrow until EVERY DAY is selected and then press the right arrow to continue.

5. At the ALARM TYPE? menu item, press the up or down arrow until ASTRONOMICAL is selected, and then press the right arrow to continue.

6. Select the SUNRISE and the SUNRISE OR SUNSET? menu item and then press the right arrow to continue.

7. If you want to add an offset value (so that the show is triggered a certain amount of time before or after sunrise or sunset:

   a. Enter an ALARM HOUR OFFSET value and then press the right arrow

b. Enter an ALARM MINUTE OFFSET value and then press the right arrow

8. Select a Trigger / Show number with which to associate the alarm and then press the right arrow to continue.

9. Save your changes.

The alarm will set off the trigger number you associated in step 8.

Setup Menu

The Setup Menu contains configurable settings for:

- Expansion or serial ports. Devices attached to the two iPlayer 3 serial ports can trigger any of up to 255 shows stored on the iPlayer 3. By default, an external device triggers shows starting with show 1. However, you can use the iPlayer 3's base show offset setting to specify a different starting show number. When you specify an offset for the shows triggered from a serial port, the sum of the offset and the number specified by the external device triggers the shows played by the iPlayer 3. For example, if you set an offset of 10 for one of the serial ports and if the external device specifies show 2, the iPlayer 3 will trigger show 12 (10 + 2). You specify the offset at the iPlayer 3's PORT 1 BASE TRIG? or PORT 2 BASE TRIG? prompt.

- iPlayer 3 date and time. See *Setting an Alarm* on page 32.

- LCD screen appearance. You specify an integer from 0 to 10 to set the contrast and brightness, with 10 producing the greatest brightness and contrast between the characters on the screen and the background.

- Volume. You specify an integer from 0 to 3 to set the audible volume of the iPlayer3's internal speaker, which produces a beep with each button press. 3 is the loudest setting.

- Setting a DMX address. See *Setting a DMX Address* on page 35.

- Testing a DMX address. See *Testing a DMX Address* on page 36.

Use the arrow keys to navigate the Setup Menu and enter values.

Note: In the Setup Menu, your changes are saved automatically each time you enter a new value.

Setting a DMX Address

When you use the iPlayer 3 to set a light fixture's DMX address, you have two options for specifying which fixture(s) to address. You can set all connected fixtures to a single DMX address, or you can specify a DMX address for each individual light fixture.

1. Access Configuration Mode by pressing the right arrow button on the iPlayer 3 faceplate.

2. From the Configuration Mode main menu, select SETUP, and then press the right arrow.

3. Select SET FIXTURE DMX ADD, and then press the right arrow.

4. If you want to specify a DMX address for all of the lights, select ALL SAME ADDRESS.

5. If you want to specify a DMX address for each individual light:

   a. Select BY SERIAL NUMBER, and then press the right arrow.

   b. At the S/N BYTE 1? S/N BYTE 2? S/N BYTE 3? and S/N BYTE 4? prompts, enter the serial number of the light, using integers 00 to FF hexadecimal (42 00 01 1F, e.g.). The light will blink when you enter each correct byte.

   c. Confirm the serial number by pressing the right arrow.

6. Specify the number of the light (1 through 170).

7. Select PROGRAM DMX ADDR?, and then press the right arrow to confirm you want to change the address of the light.

If the programming is successful, the light illuminates at full intensity after a few seconds. If the programming is not successful, the light does not illuminate.

8. At the TEST DMX ADDR? prompt, press the right arrow. The iPlayer 3 performs a non-interactive test of the light you specified in step 6 by setting the specified DMX address to FULL ON and all other DMX address to OFF.

Testing a DMX Address

To test the DMX address of light fixtures:

1. Access Configuration Mode by pressing the right arrow button on the iPlayer 3 faceplate.

2. From the Configuration Mode main menu, select SETUP, and then press the right arrow.

3. Select TEST DMX ADDR, and then press the right arrow.

4. Specify the number of a light (1 through 170) you want to test. The iPlayer3 sends test data to any lights which are set to that address.

   If the test is successful, the light(s) illuminate at full intensity. If the programming is not successful, the light(s) do not illuminate.

Info Menu

The Info Menu contains:

• iPlayer 3 firmware version information.

• Memory usage / available memory. For example, 104K/1024K indicates 104KB used out of 1024KB available.

• Astronomical clock data (for example, the time of sunrise for the current day).
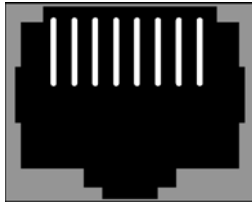
APPENDIX A

PINOUTS AND DIP SWITCH FUNCTIONS

Serial Port: DB9F Pinouts
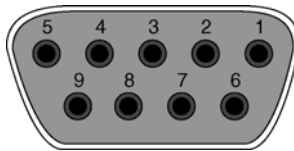
1	No connection
2	TxD
3	RxD
4	+5V DC controlled by the DIP switch setting
5	Ground
6	No connection
7	No connection
8	No connection
9	No connection

DMX: RJ-45—8 Pinouts

1 ⟶ 8

1	Data out -
2	Data out +
3	Ground
4	No connection
5	No connection
6	Ground
7	No connection
8	No connection

iPlayer 3 DIP Switch Functions

The iPlayer 3 DIP switches are located on the bottom of the device, below the SD memory card. Remove the two screws on the access door, on the bottom of the iPlayer 3, to view the switches.
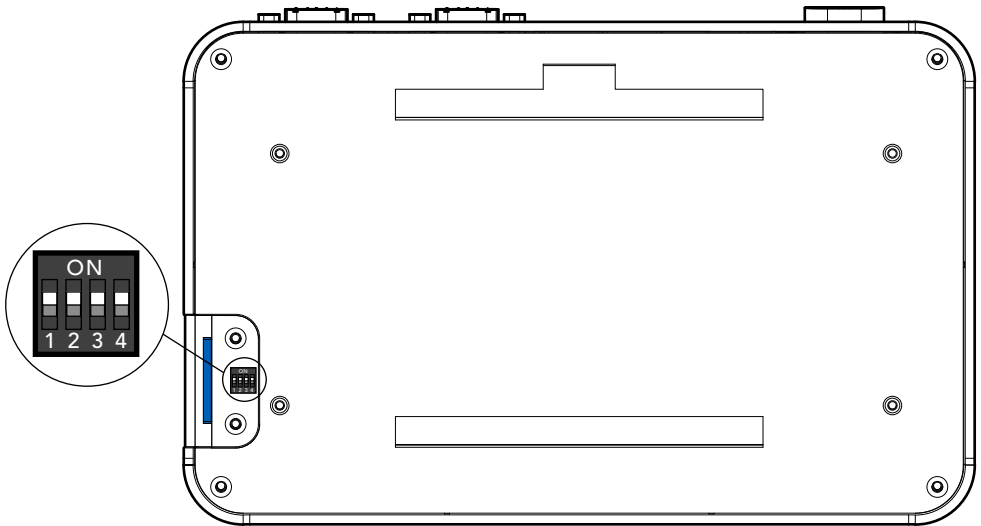
Switch 1	ON = provide +5 VDC power to serial port 1, pin 4
Switch 2	ON = provide +5 VDC power to serial port 2, pin 4
Switch 3	Reserved
Switch 4	ON = enable arrow buttons;
	OFF = lock arrow buttons

APPENDIX B

EXTERNAL SHOW CONTROLLER CONFIGURATION

See *Connecting an External Show Controller* on page 17.

Electrical

The RS-232 serial port connections on the iPlayer 3 are DB9F connectors, labeled SERIAL 1 and SERIAL 2. The following pinout information applies to each DB9F connector:

2	Transmit data
3	Receive data
4	+5 VDC
5	Ground

The other pins are unconnected.

See *Serial Port: DB9F Pinouts* on page 20.

Note: *+5 VDC is provided on pin 4 (normally the DTR pin). Other devices can use this voltage provided they draw no more than 50 mA. If the voltage on pin 4 is not desired, it can be disabled by moving configuration DIP switch 1 (for serial port 1) or DIP switch 2 (for serial port 2) to the OFF position.*

Protocol

The serial protocol is 9600 baud, 8 data bits, no parity, 1 stop bit. There is no flow control. Each command to the iPlayer 3 consists of five characters. The first character is always X. The next two characters are the ASCII representation of a hexadecimal command byte. The last two characters are a hexadecimal data byte. The hexadecimal alpha characters are uppercase (0 - 9, A - F).

Replies from the iPlayer 3 are also in this format but begin with Y instead of X.

Characters are not echoed by the iPlayer 3 when they are received.

Illegal characters or badly formatted packets are ignored with no error indication.

iPlayer 3 Commands

Note: dd is used below to represent a hexadecimal byte.

X00*dd*

Set Mode. Sets the current operating mode to *dd*.
Not currently used.

X0100

Lights Off. Turns all lights off.

X02*dd*

Set Absolute Intensity. Sets the global brightness level to *dd* (00 = Off, FF = full On).

X03*dd*

Set Relative Intensity. Raises or lowers the global brightness level by *dd* (*dd* is 2's complement, so 02 increases by 2, FE decreases by 2). Brightness is pegged between 0 and 255.

X04*dd*

Set Show. Starts the show with trigger number *dd*, playing from the beginning. The trigger number must be in the range 1 through 225 (E1).

Replies from the iPlayer 3

Y00*dd*

Returns current mode

Y0100

Entered off mode

Y02*dd*

Returns current intensity level

Y03*dd*

Not sent

Y04*dd*

Returns current show

Y0F*dd*

Error occurred, show number in data byte. This is most often returned when the selected show is not available (so the keypad knows to make the LED blink).

APPENDIX C

AUXILIARY DEVICE CONFIGURATION

Formatting an SD Memory Card for Use in the iPlayer 3

SD memory cards up to 2GB in size are compatible with the iPlayer 3. All SD memory cards used in the iPlayer 3 must be formatted to use the FAT file system.

You cannot format an SD memory card while it is installed in the iPlayer 3. However, you can use a Windows PC or Mac with a memory card reader to reformat an SD memory card with a FAT file system.

To reformat an SD memory card using Windows:

1. Remove the two access door screws on the bottom of the iPlayer 3.
2. Slide the door off the iPlayer, and remove the SD card.
3. Insert the SD card into a memory card reader on your Windows PC.
4. Reformat the SD card as you would any drive partition on your PC:

    a. Double-click MY COMPUTER or COMPUTER.

    b. Right-click the icon for the SD card.

    c. Select Format from the pop-up menu.

    d. Select FAT Format.

    > **Note:** *Use the FAT file system format; do not use FAT 32.*

    e. Select Full Format.

To reformat an SD memory card using a Mac:

1. Remove the two screws holding the SD memory card cover plate (located on the underside of the iPlayer 3) in place and then remove the cover plate.

2. Remove the SD card.

3. Insert the SD card into a memory card reader on your Mac.

4. Run the Disk Utility application (located in the Utilities folder).

5. Select the Erase tab.

6. Select the SD card from the list of available disks in the left column.

7. Under Volume Format, choose MS-DOS File System (FAT16).

8. Click the Erase button.

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