Controller Keypad

Wall-mounted keypad for triggering iPlayer 3 light shows

PHILIPS

COLOR KINETICS

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Controller Keypad is a convenient and elegant user interface to iPlayer 3, a compact DMX lighting controller that stores and plays back custom ColorPlay 3 light shows. iPlayer 3 and Controller Keypad integrate to provide push-button playback of up to eight shows per keypad.

- Full set of lighting controls — Each keypad instantly and conveniently triggers up to eight iPlayer 3 light shows. Onboard indicator lamps identify the current show. Dimmer controls adjust the brightness of light fixtures during playback, and a master OFF switch turns all show lights off.

- Simple installation — Mounts in a standard US single-gang wall box. Uses a single serial cable to connect with iPlayer 3.

- Standard support for two Controller Keypads within a single installation — Standard configuration allows you to easily install two keypads in a single iPlayer 3 installation, for control of up to 16 shows. With advanced instructions, you can install up to eight keypads in a single installation, for control of up to 64 total shows.

- Compact design with sleek Decora style faceplate — Compact design uses wall space efficiently. Industry standard Decora style faceplate hides mounting hardware for a clean look that blends with a variety of architectural styles.
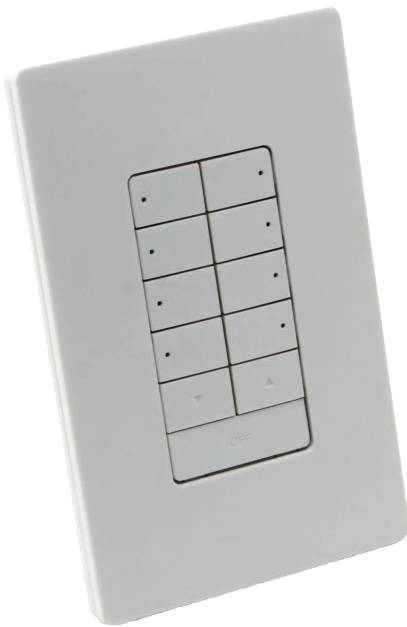
Shows, Triggers, and Controller Keypad Buttons

Familiarity with iPlayer 3 show concepts and terminology will help you understand how to configure Controller Keypad to play iPlayer 3 light shows.

Shows

iPlayer 3 stores both pre-configured shows and custom shows created with and downloaded from ColorPlay 3, the light show authoring software for iPlayer 3. Shows define visual effects the light fixtures or groups of fixtures display.
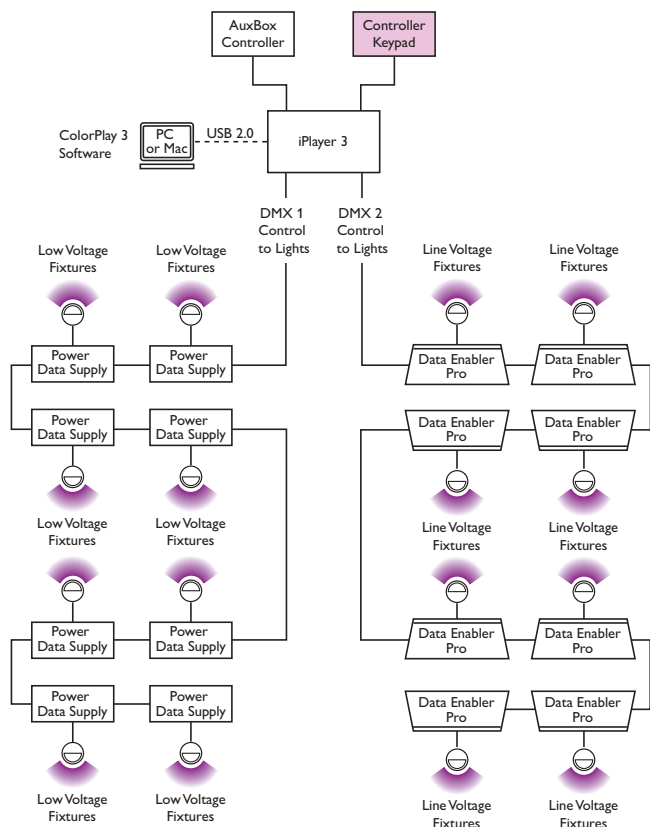
Triggers

You associate iPlayer 3 light shows with Controller Keypad by assigning shows to *triggers*, downloading the triggers to iPlayer 3, and assigning the triggers to Controller Keypad buttons. Triggers are numbered 1–256 and specify both which show file to play and how a show behaves after one playback cycle (e.g. repeat).

Controller Keypad Buttons

Each Controller Keypad can trigger up to eight consecutively numbered shows. The Show Range switch on the back of the Controller Keypad determines which set of eight shows the keypad buttons, top to bottom and left to right, will trigger. The Show Range switch offers 16 positions, 0–9 and A–F, for 128 unique triggers. For instance, switch position 0 (zero) sets the keypad to trigger shows 1–8, switch position 1 sets the keypad to trigger shows 9–16, and so on up to switch position F, which triggers shows 121–128. To access shows 129–256 see note about Base Trigger Numbers on page 7.

Standard installation allows for two Controller Keypads, one connected to each serial port on iPlayer 3. With advanced instructions, however, you can connect up to four keypads to each iPlayer 3 serial port, for a total of up to eight keypads in a single installation. If you're using multiple keypads in your installation, you can set the Show Range switches so that each keypad will trigger a unique set of eight consecutive iPlayer 3 light shows.
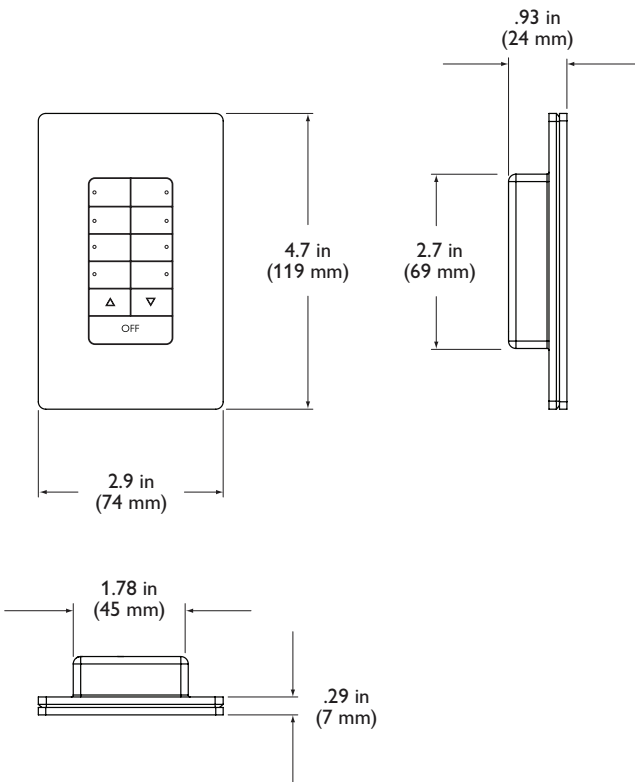
Typical iPlayer 3 Installation with Controller Keypad

iPlayer 3 can control two separate DMX universes. You can connect up to four Controller Keypads to each iPlayer 3 serial port.

Specifications

Due to continuous improvements and innovations, specifications may change without notice.

Item	Specification	Details
Control	Serial	+5 VDC @ 50 mA, from iPlayer 3 Controller
Physical	Dimensions *(Height x Width x Depth)*	4.7 x 2.9 x .93 in (120 x 74 x 24 mm)
	Weight	3 oz (85 g)
	Housing	Medium matte white plastic Decora style faceplate Mounts in single-gang wall box
	Operating Temperature	14° – 104° F (-10° – 40° C) Operating 14° – 122° F (-10° – 50° C) Startup -40° – 176° F (-40° – 80° C) Storage
	Humidity	0 – 95%, non-condensing
	Connector / Cable	Serial cable, 20 ft (6.1 m) included Maximum cable length of 50 ft (15.2 m) supported
	Certification	CE
	Environment	Indoor, Dry Environment

CE

Dimensions

.93 in
(24 mm)

4.7 in
(119 mm)

2.7 in
(69 mm)

OFF

2.9 in
(74 mm)

1.78 in
(45 mm)

.29 in
(7 mm)

Keypad and Accessories

Controller Keypad is part of a complete system that includes:

- iPlayer 3 (including ColorPlay 3) for configuring the Controller Keypad and for assigning shows to each keypad trigger.

- The provided 20 ft (6.1 m) serial cable, or a custom serial cable of no longer than 50 ft (15.2 m).

Included in the box

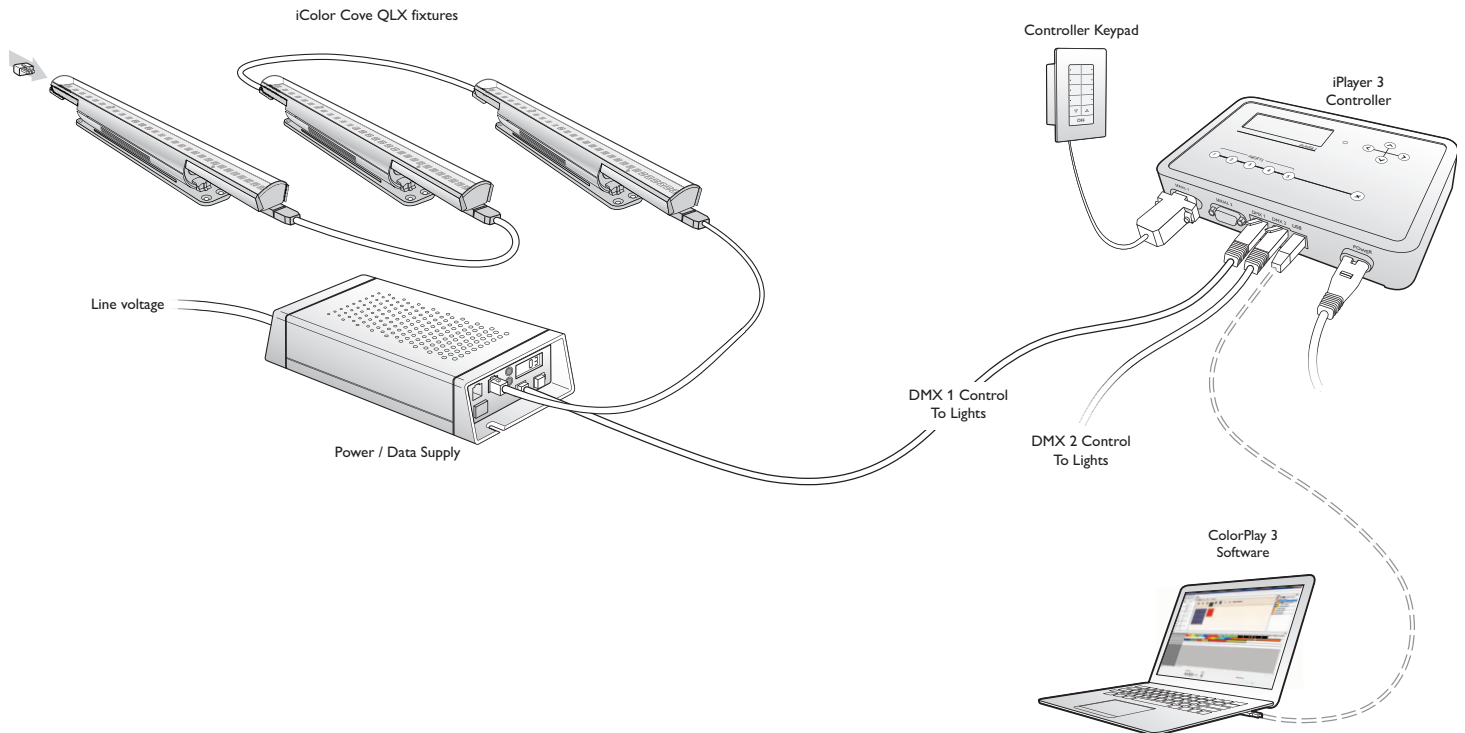| Controller Keypad |
| --- |
| 20 ft (6.1 m) serial cable |
| Standard single-gang wall box for use outside of North America |
| (2) self-threading flat-head countersunk M2.5 screws |
| Decora style faceplate |

Item		Item Number	Philips 12NC
Controller Keypad		103-000020-00	910503700223
iPlayer 3 Controller	N. A. Power Cord	103-000019-00	910403327101
	Europe Power Cord	103-000019-01	910503700392
	China Power Cord	103-000019-02	910503700738

Use Item Number when ordering in North America.

Typical iPlayer 3 Controller with Controller Keypad Installation

In this scenario, Controller Keypad triggers iPlayer 3 shows designed for iColor Cove QLX fixtures.

iColor Cove QLX fixtures

Controller Keypad

iPlayer 3 Controller

Line voltage

Power / Data Supply

DMX 1 Control To Lights

DMX 2 Control To Lights

ColorPlay 3 Software

Installation

Controller Keypad is installed in lighting installations controlled by iPlayer 3. The keypad receives data and power from iPlayer 3 over a serial cable. Standard installation allows you to connect one Controller Keypad to each iPlayer 3 serial port, to trigger up to 16 separate light shows.

Owner / User Responsibilities

It is the responsibility of the contractor, installer, purchaser, owner, and user to install, maintain, and operate Controller Keypad in such a manner as to comply with all applicable codes, state and local laws, ordinances, and regulations. Consult with the appropriate electrical inspector to ensure compliance.

✷ *Refer to the Controller Keypad Installation Instructions for specific warning and caution statements.*

Prepare for the Installation

Determine a convenient location in which to install Controller Keypad, accessible to the provided serial cable of 20 ft (6.1 m), or to a custom cable of up to 50 ft (15.2 m). Make sure that additional components, such as a standard one-gang junction box and mounting screws, are also available.

Consider these guidelines when planning the installation:

*   Controller Keypad is designed for indoor use only.

*   Create a layout plan that starts with the locations of the power / data supply and the iPlayer 3 controller, and that includes all leader cables and fixtures.

*   Controller Keypad requires iPlayer 3 to control the installation's light fixtures and configure each keypad button. Ensure that iPlayer 3 is programmed with the set of shows the keypad will trigger, and that one of the two iPlayer's serial ports is available.

*   Ensure that all required power / data supplies and light fixtures are connected properly.

*   Multiple keypads can be ganged together with a multi-gang Decora faceplate. Refer to the faceplate's dimensional diagram for precise measurements and clearances.

✷ *Standard installation allows for two Controller Keypads, one connected to each serial port on iPlayer 3. With advanced instructions, however, you can connect up to four keypads to each iPlayer 3 serial port, for a total of up to eight keypads in a single installation. For more information, visit www. colorkinetics.com/support/appnotes, or consult Application Engineering services at support@colorkinetics.com.*

Assemble Additional Items

The following additional items are required to mount and connect Controller Keypad.

Wiring and Power Supplies

A serial cable is required to connect Controller Keypad to an available serial port on the iPlayer 3 controller. You can use the provided 20 ft (6.1 m) serial cable, or a custom cable up to the maximum length of 50 ft (15.2 m).

Junction Boxes and Mounting Screws

You can use a standard US junction box in North America. The provided junction box can also be used outside of North America. You will need the provided flat-head Phillips screws for securing the keypad housing to the junction box.
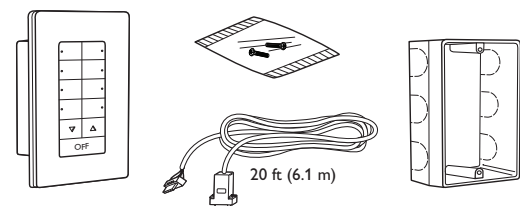
20 ft (6.1 m)

Included in the box

Controller Keypad
20 ft (6.1 m) serial cable
Standard single-gang wall box for use outside of North America
(2) self-threading flat-head countersunk M2.5 screws
Decora style faceplate
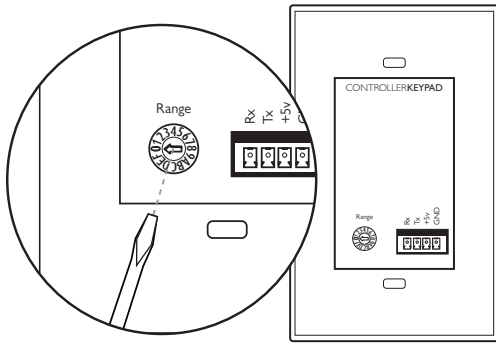
Set Show Range Switch Position (Optional)

If you're using multiple keypads in your installation, you can set the Show Range switch position on the back of the keypad to configure each keypad to trigger any set of eight consecutive iPlayer 3 light shows. Switch position 0 (zero) sets the keypad to trigger shows 1–8, switch position 1 sets the keypad to trigger shows 9–16, and so on up to switch position F, which triggers shows 121–128.

To set the eight shows that the Controller Keypad will trigger, rotate the Range switch to the desired position.

Switch Position

0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
1 - 8	9 - 16	17 - 24	25 - 32	33 - 40	41 - 48	49 - 56	57 - 64	65 - 72	73 - 80	81 - 88	89 - 96	97 - 104	105 - 112	113 - 120	121 - 128

Show Range

A Note About Base Trigger Numbers

Setting the base trigger number for an iPlayer 3 serial port (using the iPlayer 3 setup menu) changes the show range of any Controller Keypad connected to that serial port. For example, if you assign a base trigger of 8 to serial port 1, Show Range switch position 0 will trigger shows 9–16 instead of shows 1–8 (1 + 8 = 9, 2 + 8 = 10, … 8 + 8 = 16). You can use the base trigger number option to ensure that the show ranges of two Controller Keypads, each connected to a different iPlayer 3 serial port, do not overlap, without having to set the Show Range switch position on the back of either Controller Keypad.

Mount Controller Keypad and Make Cable Connections

Make sure the power is OFF to the iPlayer 3 before mounting and connecting the Controller Keypad.

1. A standard US junction box may be used in North America. If using the provided junction box outside of North America, snap out a knock-out on a side that will not be mounted to the structural component.

2. Mount the junction box with screws or nails to the structural component.

3. If necessary, remove the terminal connector from the serial cable.

4. Thread the cable through the conduit or junction box knock-out.

5. If necessary, re-attach the cable leads to the terminal connector.

6. Connect the terminal connector to the back of the keypad.

7. Remove the faceplate from the Controller Keypad by grasping the top or bottom edge of the faceplate and prying it gently away from the housing.
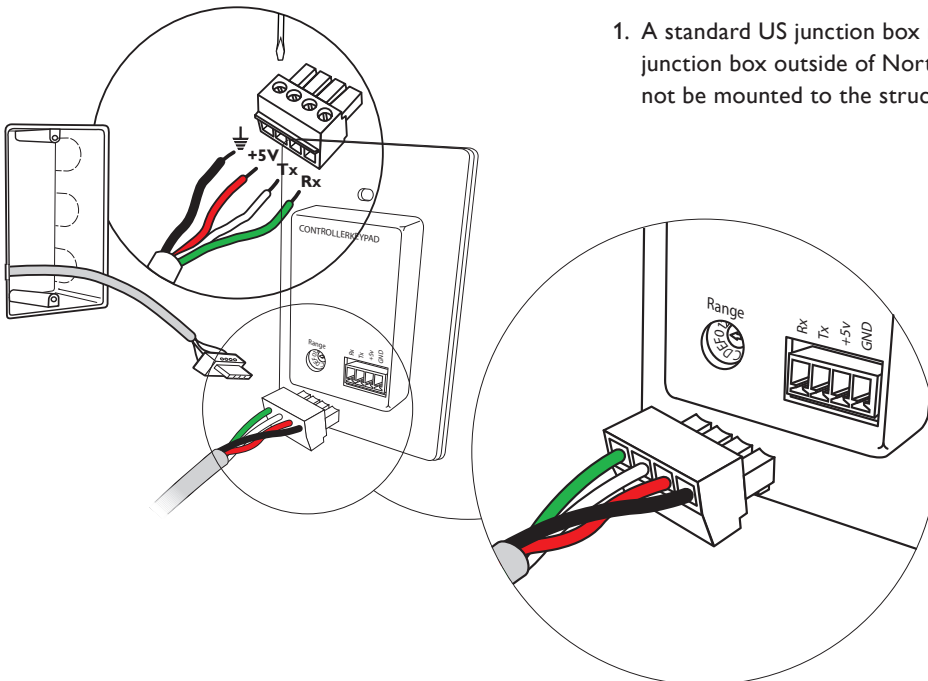
8. Align the screw holes in the keypad with the screw holes in the wall box.

9. Mount the keypad to the junction box using the provided screws.

10. Replace the faceplate by pressing it gently onto the housing until it snaps into place.

11. Route the cable end with the DB-9 connector to the iPlayer 3, and connect it to an available serial port on the iPlayer 3.
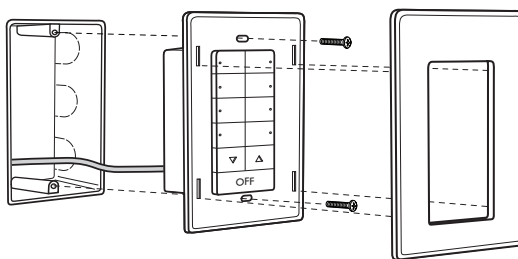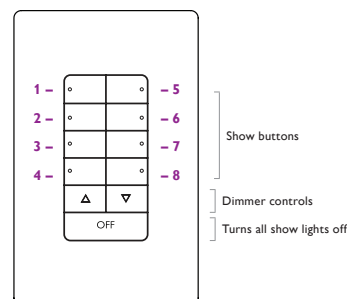

Set Show Triggers with iPlayer 3

1. Using the ColorPlay 3 software, download your saved light shows to the iPlayer 3 controller.

2. Assign triggers to your light shows, and copy the triggers to the iPlayer 3 controller. Remember that the Controller Keypad can trigger up to eight consecutive shows, and that the show range depends on the position of the Range switch on the back of the keypad.

When the iPlayer 3 starts up, it automatically plays show 1. If the keypad's Range switch is set to 0 (zero), the upper left show indicator lamp will illuminate.

Using the Controller Keypad

Make sure the iPlayer 3 power is ON, and that you've downloaded your saved show files and triggers to the iPlayer 3.

*   Press a show button to trigger the iPlayer 3 show assigned to that trigger. By default, shows play from the beginning at 100% brightness.

*   If you press a keypad button that does not have a valid light show assigned to it, the show lights blink.

*   Use the dimmer controls to adjust the brightness of the show lights from 10% – 100%. Press and hold the dimmer controls to fade up or down.

*   Press the OFF button to turn all show lights off.

Maintenance

Clean the keypad faceplate and buttons with a soft, damp cloth.

✳ *For complete information on downloading shows and triggers, see the iPlayer 3 User Guide.*

✳ *When you press a show button, the button's indicator lamp turns on, and the other indicator lamps turn off. The active show's indicator lamp dims slowly after 5 seconds.*

Serial cable pinouts (DB9M)

1	No connection
2	RxD (connects to iPlayer 3 TxD pin)
3	TxD (connects to iPlayer 3 RxD pin)
4	+5 VDC input
5	Ground
6 – 9	No connection

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