The Synchronizer is a simple and affordable way to control more than one Color Kinetics light fixture. It synchronizes all shows programmed into the C-Series, and their variations, on up to 32 lights without data repetition. With data repetition, one Synchronizer can control an unlimited number of fixtures. The Synchronizer also adds three new features for using C-Series fixtures:

- It provides real time updates when changing switch settings, without having to re-power the lights.
- It has a feedback LED to confirm switch settings, for times when the light fixtures are not in direct view.
- It contains the new Chasing Rainbow Show, a beautiful cascading, revolving rainbow of light.

GET STARTED

If you are using the Synchronizer, we assume you want to control more than one light. For the purposes of this guide, we define two or more lights as a chain of lights.

Connect the Synchronizer to Your Lights

You can attach the Synchronizer in two ways:

- Connect it directly to the first light in the chain.
- Tether it to the first light in the chain using a data cable.

Connecting the Synchronizer directly to the light is appropriate when the lights are accessible and you want to minimize the number of cables. Tethering is appropriate when the lights are inaccessible (high in the air, for instance), or when you want the controller located away from the lights. In the following explanations, “additional hardware” refers to hardware not included with the purchase of a C-Series light or Synchronizer.

CONNECT DIRECTLY TO THE CHAIN

In this configuration, the Synchronizer draws its power from and sends data to, the first light in the chain. To send data to the other lights in a chain, the other lights must be daisy-chained from this first light.

To attach the Synchronizer to the first light in the chain, you will need two power T-splitters, and one male-male power coupler. Follow these steps to connect the Synchronizer directly to your first light:

POWER CONNECTION

1. Connect one T-splitter to the BNC power connector on the first light in the chain by inserting the connector to its mate and twisting the locking ring.
2. Connect the second T-splitter to either arm of the first T-splitter.
3. Connect one side of the power coupler to any one of the three open T-splitter arms.
4. Connect the Synchronizer to the other end of the power coupler.
5. Connect your power supply to one of the two open T-splitter arms.
6. If you are daisy-chaining power, the remaining open T-splitter arm can be used to provide power to the next light in the chain.

DATA CONNECTION

7. Connect an RJ45 cable between the Synchronizer and the “Data In” port of the first light in chain.
8. If you are daisy-chaining data, connect an RJ45 cable between the “Data Out” port in the first light and the “Data In” port in the next light. Repeat Step 8 until all lights are wired for data.

TETHER TO THE CHAIN

There are three possible configurations for tethering the Synchronizer to the chain. The configurations are:

[A] A tethered Synchronizer powered by a dedicated power supply
[B] A tethered Synchronizer, with shared power attached near the Synchronizer
[C] A tethered Synchronizer, with shared power attached near the light

The different options accommodate different situations and require different hardware. (Note: Configurations B and C are similar. They differ only in the location of the power T-splitter.) Please read the section below to determine which is best for you, and what hardware will be required.

[A] A tethered Synchronizer powered by a dedicated power supply

Choose this configuration when the power supply for the lights cannot be used to power the Synchronizer.

Additional hardware required:
1 C-Series power supply

POWER CONNECTION

[A1] Connect the power supply to the Synchronizer by inserting the BNC connector to its mate and twisting the locking ring.

[B] A tethered Synchronizer, with shared power attached near the Synchronizer

Choose this configuration when the Synchronizer will be away from the light, the Synchronizer can be powered from the existing power supply, and when power will be run closer to Synchronizer than to the light.

Additional hardware required:
2 power T-splitters; power and data cables long enough to reach from the lights to the desired position for the Synchronizer. Contact Color Kinetics or your authorized dealer for available cable lengths.

POWER CONNECTION

[B1] Connect one T-splitter to the BNC power connector on the first light in the chain by inserting the connector to its mate and twisting the locking ring.
[B2] Connect the second T-splitter to either arm of the first T-splitter.
[B3] Connect the Synchronizer to the other end of the power coupler.
[B4] Connect the BNC power cable to one of the two other open T-splitter arms.
[B5] Connect the other end of the BNC power cable to the Synchronizer.
[B6] If you are daisy-chaining power, the remaining open T-splitter arm can be used to provide power to the next light in the chain.

DATA CONNECTION

[B7] Connect an RJ45 cable between the Synchronizer and the “Data In” port in the first light in chain.
[B8] If you are daisy-chaining data, connect an RJ45 cable between the “Data Out” port from the first light and the “Data In” port in the next light. Repeat Step B8 until all lights are wired for data.

[C] A tethered Synchronizer, with shared power attached near the light

Choose this configuration when the Synchronizer will be away from the light, the Synchronizer can

DATA CONNECTION

[A2] Connect an RJ45 cable between the Synchronizer and the “Data In” port in the first light in chain.
[A3] If you are daisy-chaining data, connect an RJ45 cable between the “Data Out” port in the first light and the “Data In” port in the next light. Repeat Step A3 until all lights are wired for data.
be powered from the existing power supply, and power will be run closer to light than the Synchronizer.

Additional hardware required:
- 2 power T-Splitters; power and data cables long enough to reach from the lights to the desired position for the Synchronizer. Contact Color Kinetics or your authorized dealer for available cable lengths.

**POWER CONNECTION**

[C1] Connect one T-splitter to the first light in the chain.

[C2] Connect the BNC power cable to one arm of the T-splitter.

[C3] If you are daisy-chaining power, the remaining open T-splitter arm can be used to provide power to the next light in the chain.

[C4] Connect the second T-splitter to the Synchronizer.

[C5] Connect the other end of the BNC power cable to the open arm of the T-splitter on the Synchronizer.

[C6] Connect the C-Series power supply to the open arm of the T-splitter on the Synchronizer.

**DATA CONNECTION**

[C7] Connect an RJ45 cable between the Synchronizer and the “Data In” port in the first light in chain.

[C8] If you are daisy-chaining data, connect an RJ45 cable between the “Data Out” port in the first light and the “Data In” port in the next light. Repeat Step C8 until all lights are wired for data.

**EFFECTS**

To run the Color Kinetics pre-programmed shows, set the dip switches as described in the “Effects” section of the C-Series User Guide. The Synchronizer switches are UP (or ON) when they are closer to the side of the case with the Feedback LED.

With the Synchronizer, you can see the effects of your dip switch changes in real time (i.e., as you make them). There is no need to re-power the lights after each setting change. The Feedback LED shows you which Effects and Variations are displayed on the lights.

**Chasing Rainbow — A New Show**

The Synchronizer also includes a new show called Chasing Rainbow, not found in the C-Series. Chasing Rainbow uses a series of fixtures to produce a cascading, revolving rainbow of light. The effect is similar to each color being chased by all the other colors in the rainbow.

To select Chasing Rainbow, follow these directions:

1. Connect your Synchronizer to your lights and daisy chain your lights for power and data, as described earlier.

2. Assign your C-Series lights unique DMX addresses by setting the dip switches on the lights as shown in the following table (See Table One: DMX Address). Start with all 12 switches OFF. Remember, the C-Series use a base zero system to set channel addresses (i.e. Light #1 = Binary #0, Light #2 = Binary #3, etc.)

3. Select the Chasing Rainbow Show by setting the switches on the Synchronizer as follows:

4. Select your Chasing Rainbow Variations. Four Chasing Rainbow Variations are available:

   - Speed
   - Step Size
   - Saturation
   - Direction

   Speed

   Speed refers to the time it takes for a rainbow cycle to repeat. For instance, if you set speed to 10 seconds, then 10 seconds will elapse between one appearance of a color and its next appearance on any one light. Alternatively, if 12 lights are projecting a rainbow vertically against a wall, it will take 10 seconds for a color to be chased across the 12 light rainbow. Speed options range from 2 seconds to 2 hours. Select speed by setting switches 1 through 4 as shown in the following table (See Table Two: Speed).

   - Off
   - 1 min
   - 2 min
   - 5 min
   - 10 min
   - 15 min
   - 30 min
   - 1 hr
   - 1.5 hr
   - 2 hr
   - 3 hr
   - 4 hr
   - 6 hr
   - 10 hr
   - 12 hr
   - 24 hr

   Table One: DMX Address

<table>
<thead>
<tr>
<th>DMX CHANNEL NO.</th>
<th>SWITCH#</th>
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<tbody>
<tr>
<td>1</td>
<td>ON</td>
</tr>
<tr>
<td>2</td>
<td>ON</td>
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<tr>
<td>3</td>
<td>OFF</td>
</tr>
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<tr>
<td>11</td>
<td>OFF</td>
</tr>
<tr>
<td>12</td>
<td>OFF</td>
</tr>
</tbody>
</table>

Note: If you have fewer than 12 lights, use only the settings you need, starting at Light #1.

1. Select the Chasing Rainbow Show by setting the switches on the Synchronizer as follows:

   - Speed
   - Step Size
   - Saturation
   - Direction

   Saturation

   Chasing Rainbow can be set to light or full saturation. Light saturation produces pastel colors. Full saturation produces fully saturated colors.

   For a Chasing Rainbow wash of full saturation, set switch 8 ON.

   For a Chasing Rainbow wash of light saturation, set switch 8 OFF.

   Table Two: Speed

<table>
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<tr>
<th>SWITCH#</th>
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<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
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<td>5 sec</td>
<td></td>
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<tr>
<td>1</td>
<td>10 sec</td>
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<td>5 min</td>
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</table>

**LIMITATIONS**

The data stream from the Synchronizer must be boosted every 32 lights or 400 feet, whichever is less. To boost the signal from other models, please contact Color Kinetics for information about custom cables required.

**One Year Limited Hardware Warranty**

Color Kinetics Incorporated warrants its products, if properly used and installed, free of defects in materials and workmanship. Contact Color Kinetics or your authorized dealer for available cable lengths. If the product fails during the warranty period, purchaser’s remedy under this limited warranty shall be at Color Kinetics sole election:

• Repair the product by means of hardware and/or software or
• Replace the product with another product or
• If Color Kinetics is unable to repair or replace the particular product, refund the then current value of the product.

This limited warranty does not cover damages due to external causes, including, but not limited to, accident, problems with electrical power, usage not in accordance with product instructions, misuse, neglect, modification, repair, improper installation, or improper testing. Color Kinetics is not responsible for indirect, incidental, or consequential damages resulting from any breach of warranty or under any other legal theory including, but not limited to, lost profits, downtime, goodwill, damage to or replacement of equipment and property.

To obtain warranty service, you may contact your distributor in accordance with its instructions, or you may contact Color Kinetics. To request warranty service you should call Color Kinetics during the warranty period. Proof of purchase or registration is required. When calling within warranty, please provide:

1) Your name, shipping address, and telephone number
2) A description of the model and serial number
3) An explanation of the problem

A Return Authorization (RA) number & ship-to address will be provided to send the product back.

The warranty and remedies set forth above are exclusive and in lieu of all others, whether oral or written, express or implied. Color Kinetics specifically disclaims any and all implied warranties, including, without limitation, warranties of merchantability and fitness for a particular purpose. No Color Kinetics distributor, dealer, agent or employee is authorized to make any modification, extension, or addition to this warranty. This warranty gives you specific legal rights, and you may also have other rights that vary from jurisdiction to jurisdiction.

**MANUFACTURING STANDARDS**

Color Kinetics products are manufactured in the USA, Ireland, and China.

**U.S. AND FOREIGN PATENTS AND PATENTS PENDING**

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**C-Series lights**


For further information, please contact Color Kinetics at 1-888-334-2800.