**LightStyle™ Series Model LS-12HBd**

High Brightness, Active 3D Home Theater Projection System

Quick Setup Guide

**Installation Overview (Continued)**

Display calibration: adjust the following for each Dimension Digital Controller input and display mode (resolution/frame rate), save settings when finished.

- Aspect ratio
- Brightness
- Contrast
- Color level
- Tint
- Color temperature and white balance

Prepare Runco Active 3D Glasses for use and test with 3D source material

**Connecting the Projector and 3D Emitter to the Dimension Digital Controller**

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**IMPORTANT HEALTH AND SAFETY INFORMATION FOR 3D VIEWING:** Please read and make sure you understand the following safety information before using the product for viewing 3D content. Provide this information to the end users of this product and ensure that they understand it.

It is widely recognized that stereographic display devices can cause discomfort, including, without limitation, dizziness, nausea, headaches, eye fatigue and eye-strain, in some individuals. The 3D effect and experience will vary by individual, depending on a variety of factors, including his or her health and vision. Runco recommends that users take regular breaks when watching 3D video or playing games using stereoscopic displays. Discontinue use if any discomfort occurs. Parents of young children should ensure their children avoid extensive exposure to electronic stereoscopic entertainment.

The quality and appropriateness of the 3D screen materials onto which the image is projected and the quality of the 3D content being displayed both have a significant and noticeable impact on the overall 3D experience. A properly-calibrated projection system, including glasses and an optimized third-party screen, displaying high-quality 3D content is the best formula for immersive and comfortable 3D experiences. Please refer to the LightStyle™ LS-12HBd Installation/Operation Manual for proper projector installation and usage instructions.

The glasses that accompany this product are not safe to use as sunglasses, protective eyewear or any use outdoors or other than only in conjunction with the proper operation of the Runco product with which they are sold. It is common to dim the lights in a home theater. Using 3D glasses and the immersive imagery of stereoscopic imagery can increase the risk of tripping or falling in the dark. Special care should be taken.

Do not tilt your head while using the 3D glasses.

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**Installation Overview**

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<tr>
<th>Step</th>
<th>Procedure</th>
<th>For Details, Refer to This Page in the LightStyle™ LS-12HBd Installation/Operation Manual</th>
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<td>1</td>
<td>Choose a location for the projector</td>
<td>21</td>
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<tr>
<td>2</td>
<td>Install anamorphic lens mounting assembly (optional)</td>
<td>28, 40</td>
</tr>
<tr>
<td>3</td>
<td>Mount the projector</td>
<td>33</td>
</tr>
<tr>
<td>4</td>
<td>Mount the Dimension Digital Controller</td>
<td>35</td>
</tr>
<tr>
<td>5</td>
<td>Connect the Dimension Digital Controller to the projector (see diagram at right)</td>
<td>36</td>
</tr>
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</table>
| 6    | Connect other external equipment to Dimension Digital Controller (optional):  
  - Audio processor or secondary display device  
  - Control system interface (RS-232)  
  - 12-volt trigger-activated equipment (retractable screens or screen masking)  
  - External IR repeater  
  - Network hub, router or gateway (Ethernet) | 38 |
| 7    | Connect signal sources to the Dimension Digital Controller | 43 |
| 8    | Connect the Active 3D Emitter to the Dimension Digital Controller (see diagram at right) | 49 |
| 9    | Connect system components to AC power | 49 |
| 10   | Apply power to the projector | 50 |
| 11   | Adjust primary lens: projected image size (zoom), position (shift) and focus | 24, 51 |
| 12   | For rear-screen and/or ceiling-mount installations, select the proper picture orientation | 51 |
| 13   | Use Image Alignment controls to fine-tune image geometry | 52 |
| 14   | Install and adjust secondary anamorphic lens (optional) | 54 |
Connecting Sources to the Dimension Digital Controller

Connecting Other Equipment to the Dimension Digital Controller (optional)

Remote Control

Dimension Digital Controller Front-Panel Keypad
### OSD Menu Tree

**Input Source**

- **Composite 1**
- **Composite 2**
- **Composite 3**
- **Component 1**
- **HD 1**
- **HD 2**
- **SCART**
- **DisplayPort**
- **HDMI 1**
- **HDMI 2**
- **HDMI 3**
- **HDMI 4**
- **HD 1 HDMI 5**
- **HD 2 HDMI 6**
- **SCART HDMI 7**
- **DisplayPort HDMI 8**

**Aspect Ratio**

- **16:9**
- **1.33:1**
- **Landscape**
- **Widescreen**
- **Cinema**
- **Widescreen Cinema**
- **Native**
- **Auto Cinema**

**Screen**

- **Screen 1**
- **Screen 2**

**Picture**

- **Brightness**
- **Contrast**
- **Temp**
- **Sharpness**
- **Offset**
- **Color Bars 1**
- **Composite 1 HDMI 1**
- **Composite 2 HDMI 2**
- **Composite 3 HDMI 3**
- **Component HDMI 4**
- **HD 1 HDMI 5**
- **HD 2 HDMI 6**
- **SCART HDMI 7**
- **DisplayPort HDMI 8**

**Calibration**

- **Gamma**
- **Compensation**
- **Color Bars 2**
- **Focus Grey Bars**
- **Full White**
- **Primary / Secondary / Dual**

**Input Position**

- **Network**
- **settings**
- **RGB-PC or RGB-Video**

**Memory Presets**

- **Input Color**
- **Input Image**
- **Input Name**

**3D Processing**

- **3D Mode**
- **Offset**
- **Phase**
- **Phase Delay**
- **Tracking**

**Sleep Timer**

- **Off**
- **30 Minutes**
- **60 Minutes**
- **2 Hours**

**Information**

- **User Name**
- **Owner Name**
- **License**
- **Serial Number**
- **Lamp Hours**
- **PCE**
- **Auto Adjustment**
- **Lens**
- **Focus**
- **Remote Control**
- **Remote Code**

### OSD Menu Settings

<table>
<thead>
<tr>
<th>Input Source</th>
<th>Display Color - Common Settings</th>
<th>Display Color - Projector Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gain</strong></td>
<td>-100, . . . 0, . . . 99, 100 (Red, Green, Blue)</td>
<td><strong>Brightness</strong></td>
</tr>
<tr>
<td><strong>Offset</strong></td>
<td>SIMPLE / Advanced</td>
<td><strong>Gamma</strong></td>
</tr>
<tr>
<td><strong>Gamma</strong></td>
<td>Simple (1.8, 2.0, 2.2, 2.35, 2.5)</td>
<td><strong>Color Temp</strong></td>
</tr>
<tr>
<td><strong>Color Temp</strong></td>
<td>Simple (5500K, 6500K, 7000K, 3000K)</td>
<td><strong>Color Gain</strong></td>
</tr>
<tr>
<td><strong>Color Gain</strong></td>
<td>Auto, Rec. Std CRT, B&amp;W, Native or PCE</td>
<td><strong>PCE</strong></td>
</tr>
<tr>
<td><strong>PCE</strong></td>
<td>Red, y, Green, y, Blue, y, White, y</td>
<td><strong>Lens</strong></td>
</tr>
</tbody>
</table>

**Input Names**

- **Rename**
- **Restore**

**Input Source**

- **Remote Code**
- **00000 ... 08209 ... 65535 or 88999**

**Aspect Ratio**

- **Mode**
- **3D**

**Screen**

- **Input Names**
- **Rename**
- **Restore**

**Picture**

- **Test Video**
- **(Simple / Advanced)**
- **Input Names**
- **Rename**
- **Restore**

**Calibration**

- **Gamma**
- **Compensation**
- **Color Bars 2**
- **Focus Grey Bars**
- **Full White**
- **Primary / Secondary / Dual**

**Input Position**

- **Network**
- **settings**
- **RGB-PC or RGB-Video**

**Memory Presets**

- **Input Color**
- **Input Image**
- **Input Name**

**3D Processing**

- **3D Mode**
- **Offset**
- **Phase**
- **Tracking**

**Sleep Timer**

- **Off**
- **30 Minutes**
- **60 Minutes**
- **2 Hours**

**Information**

- **User Name**
- **Owner Name**
- **License**
- **Serial Number**
- **Lamp Hours**
- **PCE**
- **Auto Adjustment**
- **Lens**
- **Focus**
- **Remote Control**
- **Remote Code**
Command | Description
--- | ---
(PWR=0) or (KEY=2) | Turns projector off
(PWR=1) or (KEY=1) | Turns projector on

### Input Selection Commands

- (INS=3) or (KEY=14): Selects the Component input
- (INS=0) or (KEY=13): Selects the Composite 1 video input
- (INS=1) or (KEY=24): Selects the Composite 2 video input
- (INS=2) or (KEY=25): Selects the Composite 3 video input
- (INS=7) or (KEY=19): Selects the HDMI 1 input
- (INS=8) or (KEY=20): Selects the HDMI 2 input
- (INS=9) or (KEY=21): Selects the HDMI 3 input
- (INS=10) or (KEY=22): Selects the HDMI 4 input
- (INS=11) or (KEY=61): Selects the HDMI 5 input
- (INS=12) or (KEY=82): Selects the HDMI 6 input
- (INS=13) or (KEY=83): Selects the HDMI 7 input
- (INS=14) or (KEY=84): Selects the HDMI 8 input
- (INS=15) or (KEY=85): Selects the DisplayPort input
- (INS=4) or (KEY=17): Selects the RGB HD 1 input
- (INS=5) or (KEY=18): Selects the RGB HD 2 input
- (INS=6) or (KEY=23): Selects the SCART input

### Aspect Ratio Commands

- (ASP=1) or (KEY=9): Selects the 16:9 aspect ratio
- (ASP=0) or (KEY=10): Selects the 4:3 aspect ratio
- (ASP=4) or (KEY=44): Selects the Cinema aspect ratio
- (ASP=2) or (KEY=12): Selects the Letterbox aspect ratio
- (ASP=6) or (KEY=45): Selects the Native aspect ratio
- (ASP=3) or (KEY=12): Selects the Virtual Wide aspect ratio
- (ASP=5) or (KEY=45): Selects the Virtual Cinema aspect ratio
- (ASP=3) or (KEY=88): Selects the Auto Cinema aspect ratio

### Power On/Off Commands

- (PWR=0) or (KEY=2): Turns projector off
- (PWR=1) or (KEY=1): Turns projector on

### Screen Commands

- (INS=0) or (KEY=38): Sets the screen to Screen 1
- (INS=1) or (KEY=39): Sets the screen to Screen 2

### Miscellaneous Commands

- (INS=32) or (KEY=51): Returns display device name
- (INS=33) or (KEY=52): Returns input resolution
- (INS=3) or (KEY=10): Returns product model name
- (INS=4) or (KEY=11): Returns output resolution
- (INS=5) or (KEY=55): Sets the remote code
- (INS=6) or (KEY=56): Returns the remote code
- (INS=7) or (KEY=57): Returns Dimension Digital Controller serial number
- (INS=8) or (KEY=58): Returns firmware version number
- (INS=9) or (KEY=59): 12-volt trigger configuration:
  - Trigger number:
  - [1...3] = Trigger number
  - [1...7] = Aspect ratio (1 = 16:9, 2 = 4:3, 3 = Letterbox, 4 = Virtual Wide, 5 = Cinema, 6 = Virtual Cinema, 7 = Native)
  - [0...1] = Off (0 = Cancel previous assignment, 1 = assign)
- (INS=10) or (KEY=60): Example: (T15=1) [CR] assigns Trigger 1 to Cinema aspect ratio.

The following serial commands are used to emulate buttons on the remote control or Dimension Digital Controller front panel. Each button has its own serial command, so effectively it is as if you were using the IR remote. These commands provide active OSD responses just like IR remote commands.

### 3D Mode Commands

- (TDM=1) or (KEY=9): Returns the 3D mode setting
- (TDM=2) or (KEY=3): Selects the 3D mode setting (0 = Auto, 1 = Off (2D), 2 = Side-by-Side, 3 = Top-and-Bottom, 4 = Frame Packing)

- (TDM=1) or (KEY=10): Selects the 4:3 aspect ratio
- (TDM=0) or (KEY=4): Selects the 16:9 aspect ratio
- (TDM=1) or (KEY=52): Down-Arrow ( ) key
- (TDM=4) or (KEY=44): Right-Arrow ( ) key
- (TDM=5) or (KEY=86): Left-Arrow ( ) key
- (TDM=3) or (KEY=85): Enter key
- (TDM=2) or (KEY=18): Exit key

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