

Backboard Light Strip Installation

Retrofit Wiring Instructions for 8298 or 8299

Basic Installation Overview

Section 1.

Existing 8298 or 8299 shotclock will need to be opened to access and replace the receiver board.

A 13/16" hole will need to be drilled in the extrusion or back of the shotclock. 4 additional mounting holes will also need to be drilled.

A new wiring harness will need to be connected to the new receiver board inside the scoreboard.

A power supply will need to mount externally to shotclock (within 15" of connector input).

Section 2.

Strips need to be hung, strung together via connectors and hooked into external wiring harness.

Strips must be tested (turns on when shotclock reaches 0 and at end of game).

Wiring Kit Includes (per backboard):

- (1) 8000 Receiver with 57Xv1.22+ Program
- (1) Shotclock Internal Wiring Harness
- (1) Lightstrip External Wiring Harness
- (4) Black Connector Mounting Screws
- (1) External Power Supply
- (4) 3/8" Self Tapping Screws
- (1) Y-Adapter for DC Input

Items Needed for Wiring Install:

- AAS MP5298, 5299, 7298 or 7299 Shotclock*
- Drill with 13/16 Bit, 9/64 Bit and 3/8 Hex Nut
- Lift System (ladder is not recommended)

See Section 2 for additional items supplied and items needed for hanging the Light Strips.

*Lightstrips may be controlled by either the shotclock controller or by the scoreboard controller. In either case, the receiver board will need to be replaced.

Step By Step Wiring Instructions:

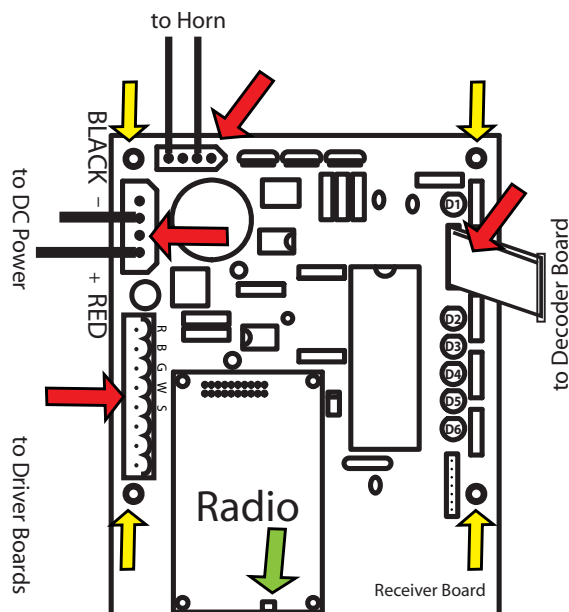
1. Disconnect power from the shotclock.

2. Access the controller plate area inside your shotclock. The controller plate assembly will be behind the digits. Remove side angle, slide face out and open hinged digit to access controller plate. Be carefull not to stress any of the digits or existing wires.

3. Examine the controller plate - take a photo or sketch of the existing wiring for reference. Disconnect the power connector, horn connection, hardwire connector (if applicable) and ribbon cable(s) from the receiver board (see red arrows).

4. If existing board has a radio, carefully pull antenna straight cable out from radio (see green arrow). Connection MUST be pulled straight out **WITHOUT BENDING** the connection point on radio. **RADIO CONNECTION CAN BREAK VERY EASILY!**

5. Remove receiver board by diconnecting it from the standoffs (see yellow arrows).



6. RADIO UNITS ONLY. If using the existing radio, turn over receiver board.

Remove existing radio by using a needle-nose pliers, squeeze and push each standoff from the backside of the receiver board. Radio should be removed with original standoffs in place. Extra standoffs are provided in case the radio standoffs are damaged or an older receiver board which used a daughter board for the radio was existing. **Install existing radio into new receiver board** by carefully lining up all pins and standoffs and pressing into place.

7. Install new receiver board. Receiver board should be installed on existing standoffs in the same orientation as the one that was removed. New receiver board should have a wiring harness attached. Attach the DC power and horn to the harness. Re-attach any ribbon cables, hardwire cables (if applicable).

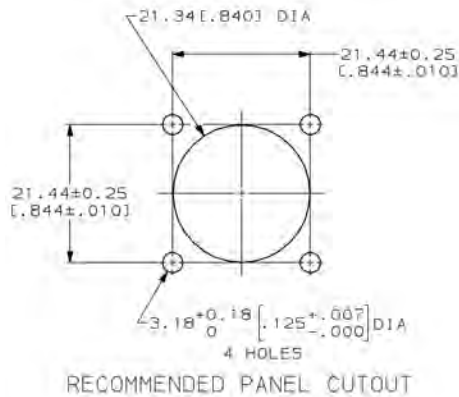
8. Snap antenna cable (see green arrow) into radio. Connection MUST be snapped into place WITHOUT BENDING the connection point on radio. RADIO CONNECTION CAN BREAK VERY EASILY!

Step By Step Wiring Instructions (continued):

9. Using a 13/16 Drill Bit, Drill a hole in either the extrusion (preferred) or the back of the shotclock. Be careful not to drill any components.

10. Temporarily place the amp connector in the 13/16 hole and using the connector as a template, drill (4) 9/64 holes.

(See example below)



11. Install the amp connector from the inside of the scoreboard. Use the (4) black screws provided to screw from the outside of the extrusion. Outer extrusion should look like picture below.



12. Using (4) of the self tapping screws provided, mount power supply with DC connector no more than 15" away from connector on shotclock.

13. Reassemble scoreboard.

14. Connect external wiring harness from the scoreboard to power supply and also to the lightstrips (see section 2 for hanging instructions). Use the supplied Y-Adapter to connect to both ends of lightstrips in any corner.

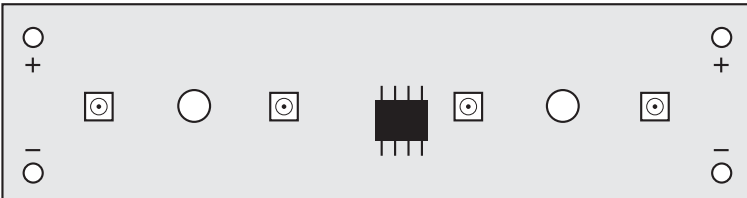
15. Once strips are hung and connected, test by powering up the scoreboard and console, selecting basketball (or entering code) and letting either the shotclocks or the time expire.

Backboard Light Strip Installation

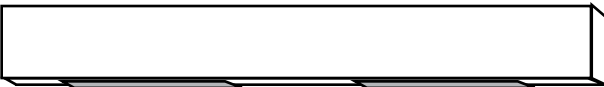
Lightstrip Hanging instructions



Light Strip with Adhesive and Connectors 1.625"x Various Lengths



Light Strip Segment 3/4"x3" 4 LEDs per segment.



Installation Guide 6"x3/8"x3/8"

Kit Includes (per backboard):

- (1) 63" Light Strip (top)
- (2) 36" Light Strips (sides)
- (2) 27" Light Strips (bottom)
- (12) Installation Guides
- (1) Y-Adapter for DC Input
- (5) Zip Ties

Items Needed for Install:

- Regulation Backboard
- Lift System (ladder is not recommended)
- Level
- Tape Measure
- Masking Tape

Step By Step Instructions:

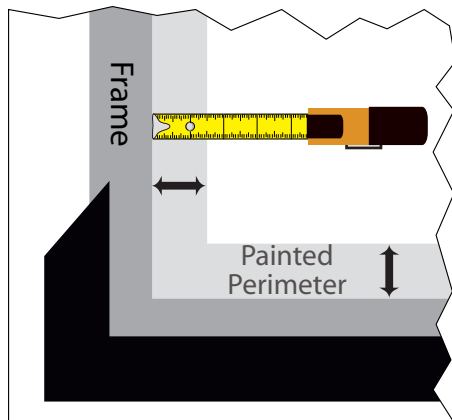
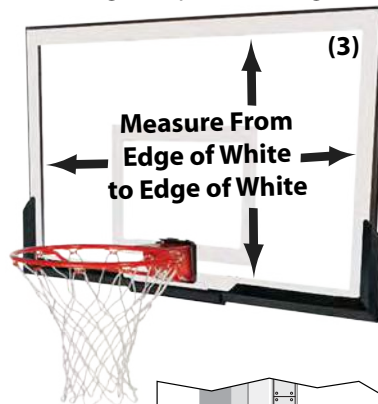
1. Carefully measure dimensions of backboard.

2. Layout the lightstrips to better plan out installation. Test all LEDs by plugging them directly into the power supply or by plugging them into a lightstrip-ready board and setting the game time or shot time to zero. Lightstrips will not light if shotclock blanks.

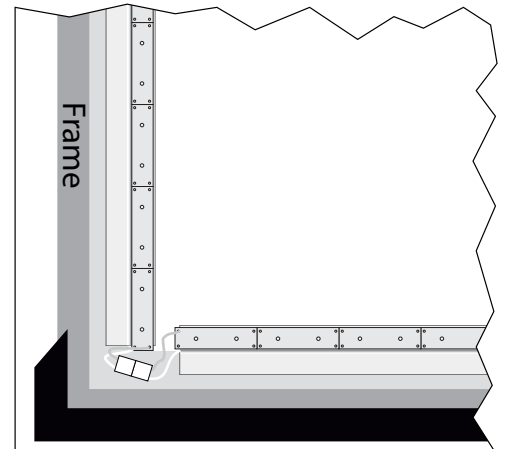
3. Compare layout to backboard measurements. Lightstrips will adhere to backboard behind the white perimeter, allowing the LEDs segments to fit inside the white perimeter. If measurements of strips are larger than the space available on the backboard (inside of white outer perimeter), then the wrong size was ordered or the lightstrips will need to be mounted differently (example: behind white perimeter).

4. Clean backside of backboard.

5. On the backside of the backboard, measure from edge of glass to edge of white perimeter.



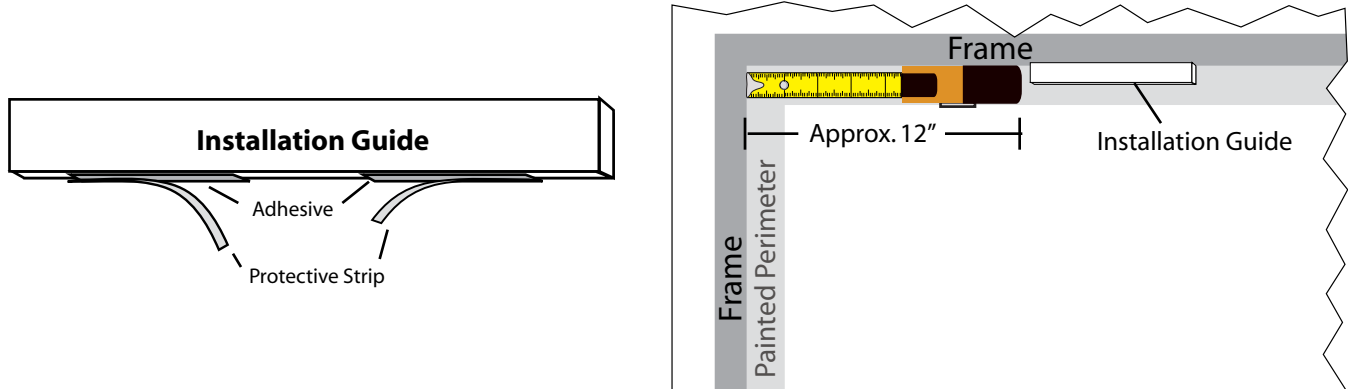
The light strips should be mounted so the edge of the LED circuit boards touches the edge of the painted perimeter. Use the supplied installation guides to help obtain a consistent edge that is parallel of the perimeter (see next pages for details).



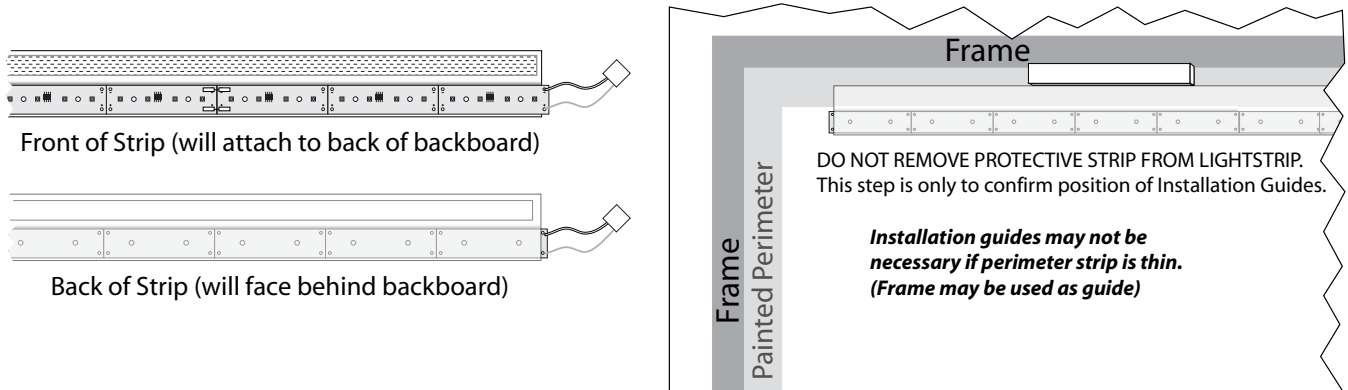
Step By Step Light Strip Hanging Instructions (continued):

6. Locate the Installation Guides from the lightstrip kit. Each lightstrip contains 10 guides. The guides are intended to be temporarily mounted on the glass along the edge of the metal frame. Actual placement of the strips will depend upon backboard manufacturer, backboard style and personal preference. **Guides may be unnecessary if perimeter is thin** or personal preference is to have the LEDs light up behind the perimeter strip. All American recommends using 4 of the guides along the top edge, and 2 guides for each of the remaining strips. See illustration below reference.

7. Remove adhesive on one Installation Guide and place along the top edge of the glass approximately 12" from the metal edge on either side of the backboard (see illustration below).



8. Locate the longest Light Strip. KEEPING THE PROTECTIVE STRIP ATTACHED TO THE LIGHT STRIP, temporarily hold Light Strip below Installation Guide with protective strip against the glass, and plastic edge of Light Strip touching the side of the Installation Guide. The white PC board should be completely visible under the edge of the painted perimeter (see below).



9. If Light Strip appears to be correctly positioned, install 3 additional Installation Guides along the top edge at roughly the same spacing (so that the first and fourth Installation Guides are about the same distance away from the sides).

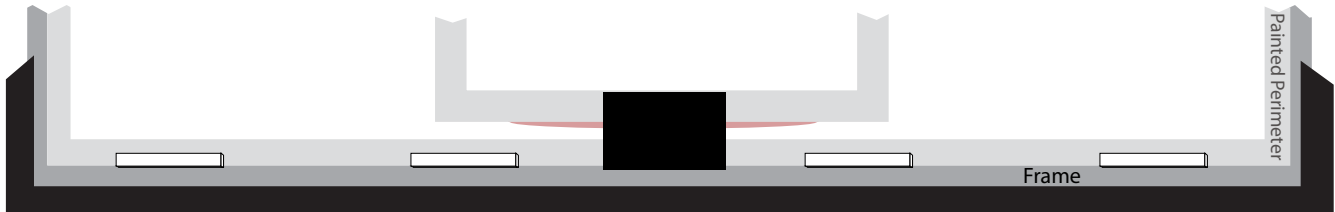
If Light Strip needs to be moved down, move Installation Guide down the distance needed and repeat steps 7 and 8. When satisfied with position, install 3 additional Installation Guides along the top edge at roughly the same spacing (so that the first and fourth Installation Guides are about the same distance away from the sides). Use a level to ensure that the guides are **straight**. **If Light Strip needs to be moved up,** do not use Installation Guides. Lightstrips will need to be installed using other guide (not supplied), the metal frame, or by lightly marking the backside of board to ensure the Lightstrips are installed straight.



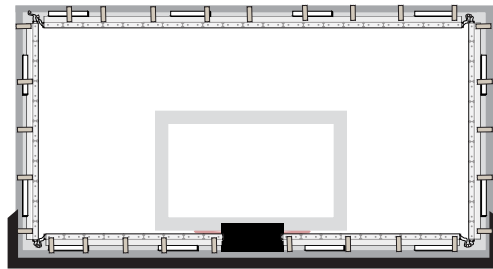
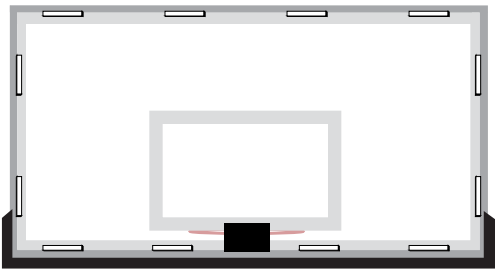
Step By Step Light Strip Hanging Instructions (continued):

10. Repeat steps 5 through 9 on both sides of the backboard, using 2 guides per strip. Do not rely on measurements found with the initial strip, as it is possible that all four perimeters are not equal.

11. Install Installation guides on lower portion of backboard. Install the guides evenly from the edge of the rim frame to the outer frame. The Light Strips are intended to dead-end behind the rim.

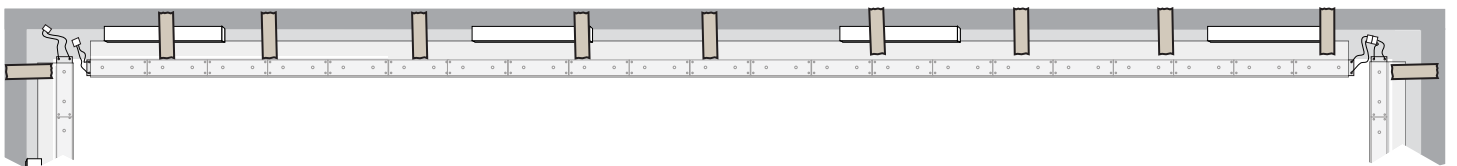


12. When finished installing the Guides, use masking tape to temporarily install the Light Strips around all four sides. The adhesive on the lightstrip is strong; this step allows the installer to doublecheck the placement of all Light Strips and make any adjustments that may be required. There may be a gap in the corners between the horizontal and vertical sides; this is normal. It is recommended that the gaps at the top should mirror the gaps on the bottom.



Front of Strip (will attach to back of backboard)

13. Plug in all connectors to test lights and check for position. The power connector can be plugged into any corner.



14. Remove top strip and masking tape. Peel off protective adhesive strip and install light strip to backboard. The adhesive will not slide on the board; use the guides to help line up the lightstrips. Continue to install all other sides.

Hook up power to any corner using the supplied Y-Adapter and connect cord from Shotclock.

Test by setting time to 0 or by running shotclock down to 0. Remove installation guides.

Continue with other scoreboard.

