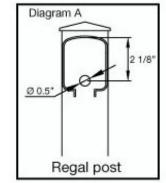
## Regal ideas LED lighting installation

Before beginning, carefully read, understand and adhere to all instructions, cautions and warnings contained in these instructions as well as all labels on the lighting system components. Failure to do so may result in physical injury or death. The LED lighting system supplied by Regal ideas is intending for use ONLY in railing systems supplied by Regal ideas and only in the manner described in these instructions. Any other use will void the warranty and may pose a danger to yourself or others. Consult your local building authority for suitability of this product for your application prior to installation.

- -Inspect all railing posts to check that they are the current version with  $\frac{1}{2}$ " predrilled holes in the post in the exact location shown in diagram A. Older versions of railing posts may not have pre-drilled holes or have smaller holes in a different location. Drill  $\frac{1}{2}$ " holes in correct location for all older version posts.
- -If housing the power adaptor inside of a railing post, the hole in the center of the base plate may need to be resized to 1-1/4" to allow the AC plug to run through the post. Replacement base plates with 1-1/4" holes are available (at additional cost) if this is preferable to resizing the existing base plate. Posts with a manufacture date of later than 1405 (May, 2014) as marked on the underside of the base plate will not need to be resized.

The power adaptor may also be mounted to the deck joist directly under the post that will house the RF receiver.



- The LED lighting system can be installed in Regal railing systems with glass or locking picket systems supplied after 2007. Pickets or glass will need to be removed in existing systems in order to install the LED lighting strips.
- -One power adaptor can power up to a maximum of 10 lighting strips.
- -The lighting system should be disconnected from the power source during installation.
- -Do not kink, twist or pull on the LED strip during installation. Although the strips are flexible, extreme bending may damage the circuitry and cause the lights to malfunction.
- Always leave a 1/2"-1" slack in the LED-L strips inside the posts to allow for expansion and contraction due to temperature change.
- Use the LED-T (splitter cord) if lighting needs to run in 2 directions from same power supply. The LED-T can plug into the RF receiver plug or can also plug to a light strip if required.
- -Use the LED-PC (patch cord) to continue the lighting install where there is not continuous railing, for example, an opening for a stairway. The LED-PC is 13' in length. Connect the cord to the LED lighting at the last post where the railing breaks, Drill hole under post and the next post where the lighting will continue. Feed the cord down the first post then under the deck and back up the other post. Connect the next light strip and continue with the install.
- -Using the LED-T or the LED-PC does not affect the maximum gty of 10 light strips per power adaptor.
- -The railing install must be framed up and secured before installing the LED light strips. This means that all posts are to be positioned, leveled and secured and all top and bottom rails are to be installed and fastened.
- -The remote controller has a plastic tab inserted where the battery is located that must be removed in order for the remote controller to function.

**Installation of the power adaptor & RF receiver**: Prior to installation, assemble the controller and one light strip, connect to power and test the various functions of the lighting system.

Choose the post that is best suited for the lighting system to begin. This would typically be the first post of the railing system or the post that is closest to a power outlet. This post will house the RF receiver and the first LED strip will connect to the RF receiver at this point.

- A- If housing the adaptor inside the post, Drill a 1-1/4" hole in decking directly under the center of the railing post and resize the hole in the center of the post base plate to 1-1/4" in order to allow the AC plug to go through the post and under the deck. Base plates with 1 ¼" holes are available (at additional cost) and can be used to replace the existing base plate if this is preferred rather than re-drilling. Remove the post cap from the post. With the RF receiver connected to the power adaptor, feed the AC power cord down through the post base plate and though the deck. The power adaptor will sit at the bottom of the post. Using the adhesive of your choice, (construction adhesive, double sided tape, or caulking will all work well) mount the RF receiver inside the post about 2" down from the top.
- B- If mounting the adaptor outside the post, Drill a ¾" hole through deck surface directly under the center of the railing post. Remove the cap from the post where the LED will start and feed the plug of the RF receiver wire down through the base of the post and through decking. Connect the RF receiver cord to the power adaptor and mount the adaptor to the deck floor joist. The adaptor should never be mounted in a location that is directly exposed to the elements or where water will pool. Using the adhesive of your choice, (construction adhesive, double sided tape, or caulking will all work well) mount the RF receiver inside the post about 2" down from the top.

Installing pickets with LED lighting feed the male end of the first LED strip into the ½" pre-drilled hole in top post bracket. Connect the LED strip to the plug on the RF control unit ensuring that the lighted side of the strip is aligned to the side of the RF receiver plug marked "TOP". Remove cover from adhesive backing on the LED strip and press the strip along inside the upper top rail track. Connect male end of next strip to female end of previous strip. Leave 1/2 "slack in LED strips inside of all posts to allow for expansion/ contraction due to temperature change. Failure to do this may result in lights disconnecting at connections or even failure of lights due to damaged circuitry. Repeat these steps for remainder of the lighting installation. At the end of the installation there may be excess LED strip. Any excess LED strip can sit inside the last post.

Test the lighting system at this point by plugging the LED power cord in and turning it on with the RF remote control and testing each of the various functions. The remote will control the on/off, three brightness levels and color settings of white, blue and gold. Once the lighting has been tested, install pickets and spacers following standard railing instructions using 4" clear spacers supplied with the LED-P package for the top rail.

## Installing glass with LED lighting

IMPORTANT NOTE: Clear vinyl gaskets for top rail must be installed <u>before</u> the installation of the light strips. Standard glass gasket (GVIL) is no longer used in bottom rail when installing LED. The black bottom gasket is now included with the clear top gasket in the LED-G package.

Begin by cutting vinyl gasket sets to the correct length for each section. Install the black gaskets in the bottom rails and the Clear gaskets in the top rails. If using the cut ends of the clear top rail gasket for the next section, it is not recommending to use pieces shorter than 24" as shorter pieces may not remain properly seated in the top rail.

Connect the first LED strip to the plug on the RF control unit ensuring that the lighted side of the strip is aligned to the side of the RF receiver plug marked "TOP". Feed the light strip into the clear gasket until there is about 6" left sticking out of the gasket. Peel off the cover of the adhesive backing taking care not to pull the strip out of the gasket. Beginning at the male end of the strip, push the strip up to adhere to the inside of the gasket along the length of the strip except for the last 6". Always leave ½" slack in the LED strips inside each post to allow for expansion and contraction due to temperature change. Failure to do this may result in lights disconnecting at connections or even failure of lights due to damaged circuitry. Connect the next LED strip and continue these steps until all LED strips are installed.

Test the lighting system at this point by plugging LED power cord in and turning it on with the RF remote control and testing each of the various functions. The remote will control the on/off, three brightness levels and color settings of white, blue and gold.

Once the lighting has been tested, place the rubber blocks in bottom rail gaskets and install glass following the standard railing instructions.

Installing LED using UAB's for custom angles on decks. Attach round backing plates of angle bracket to post following the "Universal angle bracket (UAB) for custom angles" section of railing instructions. Drill a ½" hole in the post just below the upper round backing plate for LED strip to pass through post. Complete installation of UAB and install top and bottom rails. Continue installation of LED lighting.

Installing LED lighting with stair railing. Attach round backing of angle brackets following the angle bracket (UAB) on stairs section of standard railing instructions. Drill a ½" hole in post just below the upper round backing plate for LED strip to pass through post. Complete installation of UAB and install top and bottom rails. Continue with LED installation as described below depending on your style of stair railing.

If installing pickets in stair railing, install LED strip lighting inside entire length of stair top rail. Complete installation using the 5" clear spacers supplied in the LED-SP package for the top rail and install pickets following standard instructions.

If installing stair glass, before beginning glass installation, install stair rail support legs so that bottom rail does not span more than 48" without support. Precut the required quantity of clear top rail gaskets and black bottom rail gaskets of the LED-G to 7-1/4" at 35 degrees using a hacksaw as described in the instructions included with the stair glass (CAG-6).

Start by feeding the remaining length of LED strip through the hole below the UAB. For ease of installation, temporarily stick the end of the strip into the top rail with some slack leaving it hanging down to give room to work. At the starting point of the stair railing, remove about 12" of the adhesive backing, sticking the strip inside the rail track for the portion of the rail that takes the first spacer insert. Insert the first spacer in the top rail. Slide the first pre-cut clear LED-G top gasket onto the LED strip (so that the LED-L is inside the gasket) and then install the gasket into the top rail against the first spacer. Next, push the LED strip up into the gasket to adhere to the gasket. Insert pre-cut black LED-G bottom gasket in position so that it is plumb with the top gasket. Trim the first black bottom spacer to length and install in bottom rail. Now install the first glass panel. Remove the next 12" of adhesive backing and install the next spacers, gaskets and glass using the same method described above. During installation, secure every third top and bottom spacer insert using 3/4" self drilling screws to the glass and spacers from sliding out of position. Trim the final top and bottom spacers to length and install in rails.