

## Invisirail Spigot Lights

### TOOLS REQ:

- 3/4" drill bit/hole saw or larger (to feed LED leads & controller receiver through decking)
- 1-1/2" drill bit/hole saw or larger (to feed wall plug through decking)

### GENERAL INFORMATION:

- All components (excluding remote) are year-round weatherproof (including below freezing winter conditions).
- Screw plug connections can be tightened by hand; no soldering or electrical tools are required. Do not cut any wires, extra wire length can be coiled up.
- Each circuit can power up to 12 lights = 6 spigot glass panels (up to roughly 35' of railing, depending on the exact configuration).
- 120V GFCI outlet plug (suitable for wet locations) required for EACH transformer. Depending on the amount of railing you have, multiple plugs may be required at various locations around the deck to accommodate multiple transformers. Follow all national and local building and electrical codes. If you experience any issues with your power outlet(s) please contact a licensed electrician.
- Remote control changes brightness levels and colours (RED, BLUE or WHITE).
- Colour temperature 2500K - 3000K
- Keep components away from external heat sources i.e. BBQ's.

## COMPONENTS:

- 75W Transformer with 54" long plug + one 2 pin "male" lead
  - o 120V AC input from outlet -> 24V DC output to controller



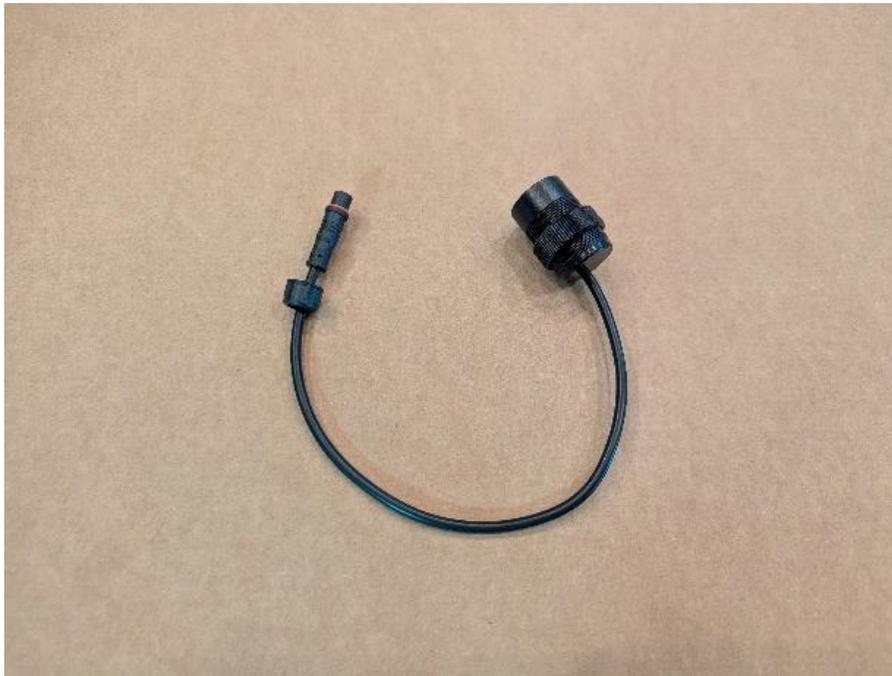
- Controller Unit (includes one 2 pin "female" lead (input) and one 4 pin "female" lead (output) + signal receiver for remote, cord for signal receiver is 54" long)



- LED lights (3W each, to be installed into spigots, one "male" lead and one "female" lead)



- End LED light (3W each, install into spigot to end a circuit, one "male" lead only)



- Extension Leads (to connect lights together, one "male" end & one "female" end)
  - o Available lengths: 16", 39", 59", 78"



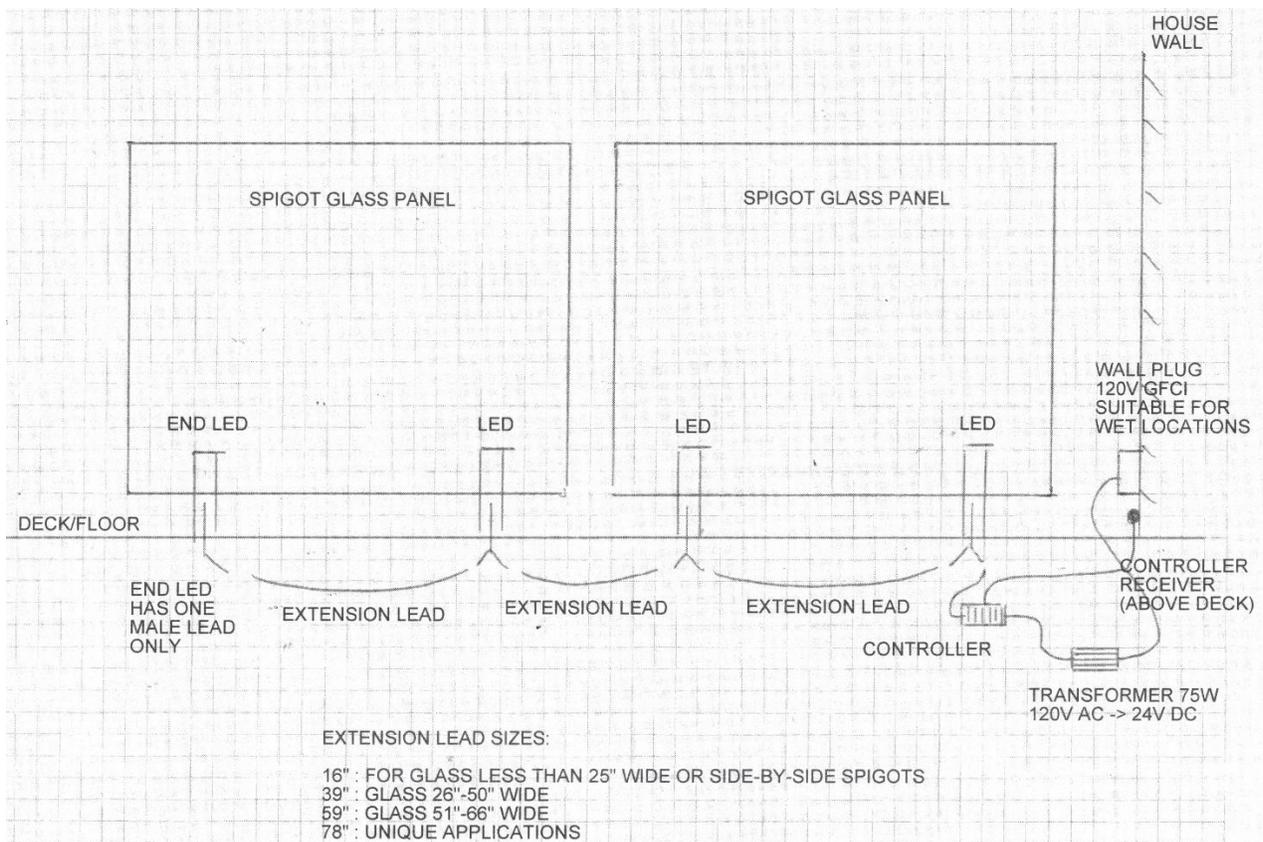
- Remote Control (to turn on/off, change brightness, and change colours, battery included)



## INSTALLATION INSTRUCTIONS:

Individual spigot lights need to be installed into the spigots before they are screwed down to the deck. Each circuit can do a maximum of 12 lights/6 panels total, and must include an end LED light to close the circuit. Before screwing spigots onto the deck, determine which spigots should have regular LED lights and which should have the END LED light.

## CIRCUIT DIAGRAM



## INSTALLING LIGHTS INTO SPIGOTS:

- Remove "u-shaped" gasket from spigot



Fig 1: Spigot with u-shaped gasket installed.



Fig 2: U-shaped gasket removed from spigot.

- Loosen set screw on side of spigot upright to remove plastic wedge block from spigot. The light will be installed in place of this wedge block.



Fig 3: Wedge block in spigot, held in place with set screw.

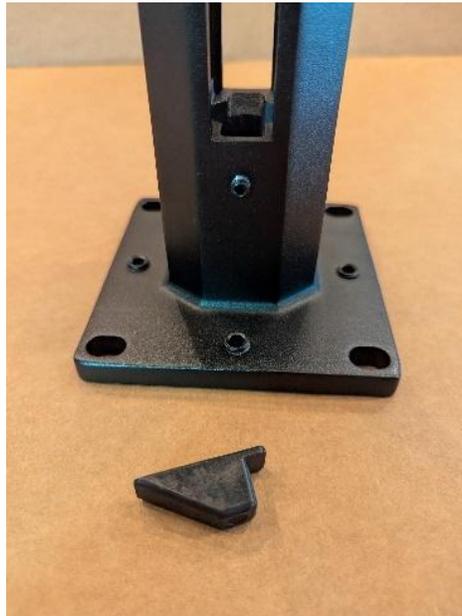


Fig 4: Wedge block removed from spigot.

- Adjust collar so that when inserted into the spigot, the light sits flush with the flat surface of the spigot. Tighten set screw to secure light in place. Re-insert u-shaped gasket into the spigot.



Fig 5: LED light with adjustable collar.



Fig 6: LED light installed into spigot.



Fig 7: U-shaped gasket reinserted into spigot (on top of LED).

- Drill hole underneath spigot in decking & blocking for leads to feed through (min 3/4" hole req).
- Pull lead(s) through so the ends sit below the decking & blocking.

## CONNECT LIGHTS TOGETHER USING EXTENSION LEADS:

Extension Lead lengths:

16": for glass less than 25" wide or for side-by-side spigots

39": for glass 26"-50" wide

59": for glass 51"-66" wide

78": for unique applications where required

Connecting extension leads:

- Pair "male" and "female" leads together.



Fig 8: Male lead with collar.



Fig 9: Threaded female lead.

- Line up arrows on both leads and push together (arrows indicate spline locations). Leads should easily slide together, do not use excessive force as it may damage parts.



Fig 10: Leads joined together.

- Spin the collar onto threads to secure the leads together. Turn until hand tight.



Fig 11: Collar tightened to secure leads together.

- Connect the male lead from the transformer into the matching 2 pin female lead of the controller.



Fig 12: Controller 2-pin female lead.

- Connect the other controller lead (4 pin) to the male lead of the 1<sup>st</sup> LED.



Fig 13: 4-pin female lead.

- Once all connections are made, plug the transformer into the wall outlet.
- The transformer and controller can be stored underneath the deck, fastened to the deck framing using screws.
- Be sure to position the controller receiver in a location above the decking/floor so the remote can easily find it. An adhesive sticker is provided to secure the receiver to a wall, deck, spigot, etc. The operating range of the remote is roughly 8 feet. Ensure no obstructions (i.e. furniture) is blocking the receiver.

#### OPERATING LIGHTS WITH REMOTE:

- Open remote battery compartment, remove the battery and thin plastic that separates the flat battery terminal from the remote (included to prevent battery drainage during storage and shipping). Reinstall battery and close compartment.

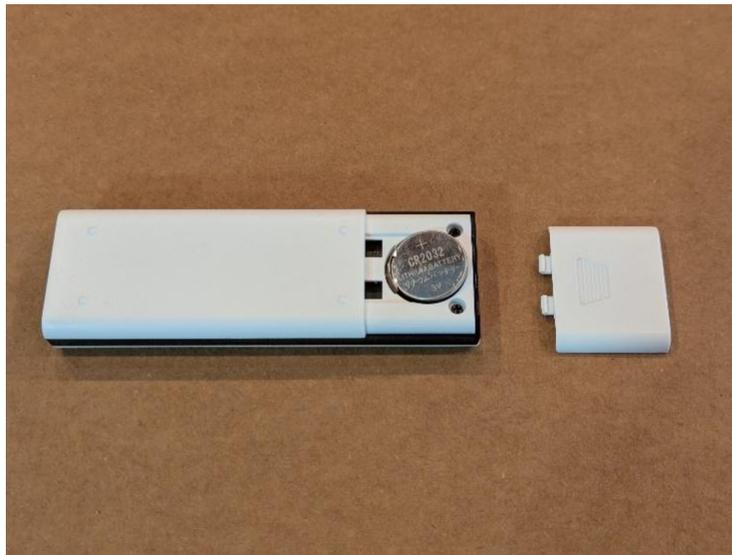
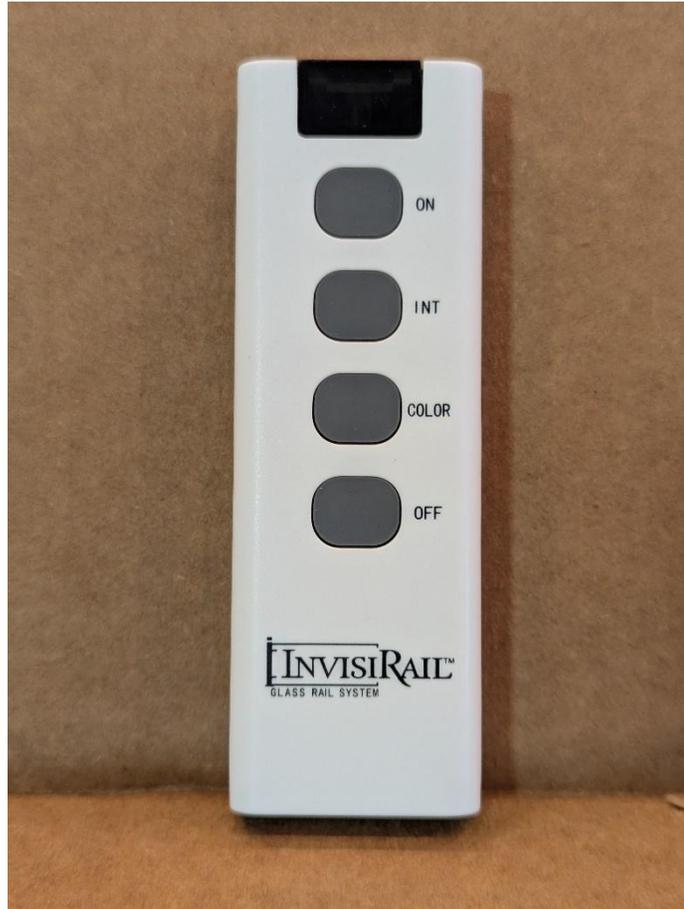


Fig 14: Remote with battery compartment open.

- Point the remote toward the receiver to operate.

- Remote Buttons



- ON
- INT (Intensity)
  - 3 adjustable levels of brightness - for fixed colours only
- COLOR (4 settings)
  - 1) ALTERNATING RED, BLUE & WHITE (~5 seconds for each)
  - 2) RED (FIXED)
  - 3) BLUE (FIXED)
  - 4) WHITE (FIXED)
- OFF

Do not look directly into lights.

Be sure not to pierce or crush wires if you use wire staples to hold the wires in place.

## TROUBLESHOOTING TIPS:

- Confirm your outlet has power (plug in another device to test). To resolve any issues with your power outlet(s) please contact a licensed electrician.
- Ensure the controller receiver is above the floor and can be easily found by the remote. Ensure no obstructions are in between remote and receiver. If issues persist, move the remote closer and be sure to point towards the “front” of the receiver.
- Open the remote to confirm it includes a battery and that the thin plastic was removed from underneath the battery.
- Starting at the wall plug, trace along the cables to ensure all leads are connected. Confirm the circuit ends with an END LED light. Ensure none of the cables or connections are kinked or damaged.

Any questions or concerns please contact Invisirail for assistance:

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1-888-681-9733 (toll-free)