RSERIES LOGIC ENGINE 2018 KIT

For full instructions see rseries.net/logic

PARTS

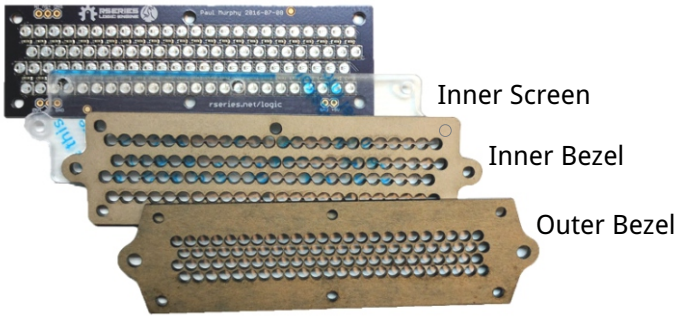
Electronics
(1) Reactor Zero Board
(1) Rear Logic LED Board
(2) Front Logic LED Boards
(2) 3pin 30cm cables (22awg)
(1) 3pin 15cm cable (22awg)
(1) 3pin 10cm cable (22awg)

Plastics
(1) Rear Inner Bezel (black 1/8" acrylic)
(1) Rear Outer Bezel (black 1/8" acrylic)
(1) Rear Inner Screen (clear 1/16" non-glare acrylic)
(1) Rear Outer Screen (clear 1/16" non-glare acrylic)
(2) Front Inner Bezel (black 1/8" acrylic)
(2) Front Outer Bezel (black 1/8" acrylic)
(2) Front Inner Screen (clear 1/16" non-glare acrylic)
(2) Front Outer Screen (clear 1/16" non-glare acrylic)

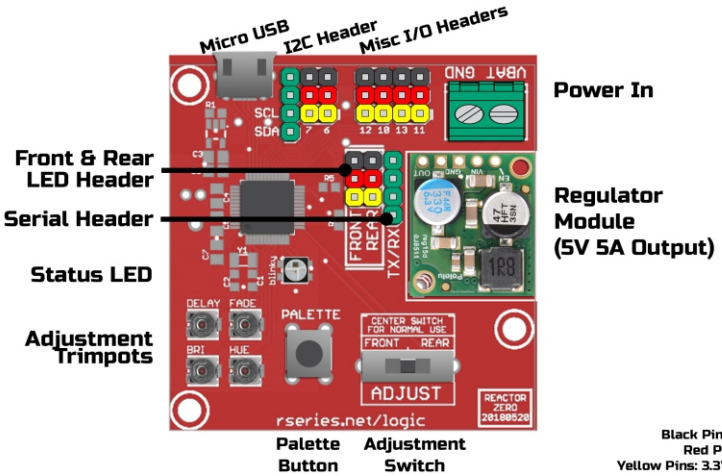
Hardware
(6) M3 22mm Screws
(14) M3 30mm Screws
(6) Brass Threaded Inserts
(6) 1/2" spacers
(14) M3 Hex nuts
(28) Nylon Washers
(3) Rubber Washers

ASSEMBLY

Before Assembly...
Test your PCBs by connecting the LED boards to the Reactor's Front & Rear LED headers using the 3pin cables. Carefully connect your battery to the Power In screw terminal. Now witness the marvel of fully operational blinkies!
There are three main assemblies, each assembled similarly. Note the orientation of the rear bezels with reference to the LED board. The LED rows are **asymmetrical** and hole orientation (of inner and outer bezels) during assembly should match LED orientation.

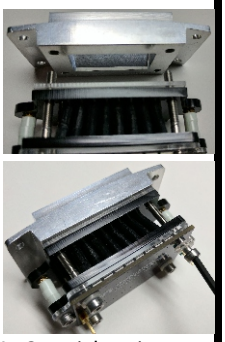


Episode I: The Plasticking
- Remove any protective film or paper from plastics (use some adhesive tape to lift any small pieces of paper that prove troublesome).
- Press-fit two threaded inserts into the outer bezel's outer surface.
- Place a washer on two 22mm screws and pass them through the inner screen (non-glare side facing screw head) and inner bezel.
- Place spacers on the 22mm screws and attach this "inner assembly" to the outer bezel by screwing the 22mm screws into the threaded inserts.
- Repeat this process for the other two logic displays.
- For the Rear logic, use some of the longer screws and nuts in the center mounting holes to ensure plastics remain parallel during assembly (they are prone to flexing during fibering).



Episode II: The Fiber-Opticking
Ensure bezel orientation is correct before touching the fiber.
- Clip the end of the fiber-optic cable with a flush-cutter. Ensure the end is relatively round and not pinched.
- Insert the fiber-optic cable through a hole in the outer bezel and push it into the corresponding hole in the inner bezel. Check that it is pushed close to the surface of the inner screen and points directly to where an LED will be.
- With a sharp flush-cutter flush with the surface of the outer bezel, clip the fiber-optic cable.
- Once clipped, the fiber end should appear fairly round. If it seems too oblong, pull it out slightly and pinch it back to roundyness.
- Repeat this process until all holes have been "fibered".

Episode III: The Not Overtightening
- Place an LED board behind its corresponding fiber assembly.
- Place nylon washers on 30mm screws (**don't skip the washer!**) and insert them through the LED boards mounting holes. They should go straight though and poke out beyond the outer bezel.
- For the Rear LED board, use only 3 screws (2 top corners, 1 bottom center) and place the rubber washers between the PCB and the plastic (clip one side of the washers flat so they don't block any LEDs).
- Place your outer screens on the screw ends (non-glare side out).
- Position the assembly behind the logic surrounds in your dome, lining up the 30mm screws with mounting holes. Carefully screw the 30mm screws into the mounting holes. Don't overtighten.
- If not mounting to surrounds straight away, secure the front screen temporarily using M3 washers (don't overtighten).



- Did I mention **DON'T OVERTIGHTEN**? Well, don't. Overtightening will stress the LED PCB and may lead to failures. Be gentle and use some thread locker (Loctite) if you're concerned about looseness.

Episode IV: The Tweakening
If you don't want to go with the standard colors or speeds of the default logic patterns, they can be easily adjusted as follows.
- Switch the "Adj Mode" switch to select Front or Rear adjustment.
- Use a small screwdriver to carefully turn these trimpots to adjust settings:

DELAY : Adjusts the pause time of each LED as it reaches a key color.
FADE : Adjusts the speed at which a color takes to fade to the next.
BRI : Adjusts overall brightness of the logic (clockwise = brighter).
COLOR : Shifts hue of the color palette through the color spectrum.
- Pressing the Palette button will cycle the selected logic display through the pre-defined color palettes.
- Once you're happy with the settings, move the switch back to the center position to save the current settings.
- Power off and back on to check that your settings persist.

Questions? Email Paul Murphy at joymonkey@gmail.com