ITC 21070-12H Bluetooth RGB Controller Instruction Manual

Bluetooth RGB Controller
Install Instructions
(Part #'s: 21070-12H)

PARTS / TOOLS NEEDED:

			
RGB Bluetooth Controller	RGB Lighting (Varies)	Mounting Screws x 4	Butt Splices (not provided)

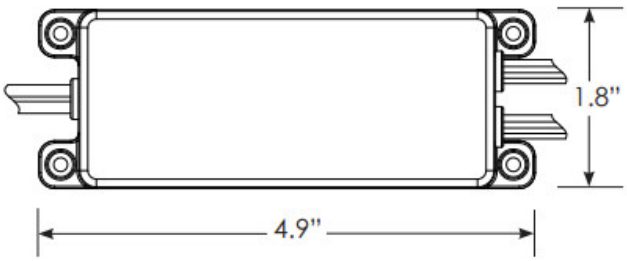
Contents

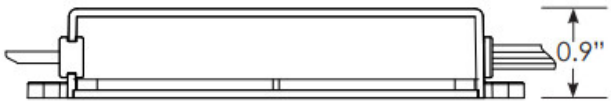
Safety Instructions

- Disconnect power before installing, adding or changing any component.
- To avoid a hazard to children, account for all parts and destroy all packing materials.
- Do not install any luminaire assembly closer than 6” from any combustible materials.
- Positive (+) outputs require a fuse if the attached wire leads are not rated to handle the max current.

INSTALL

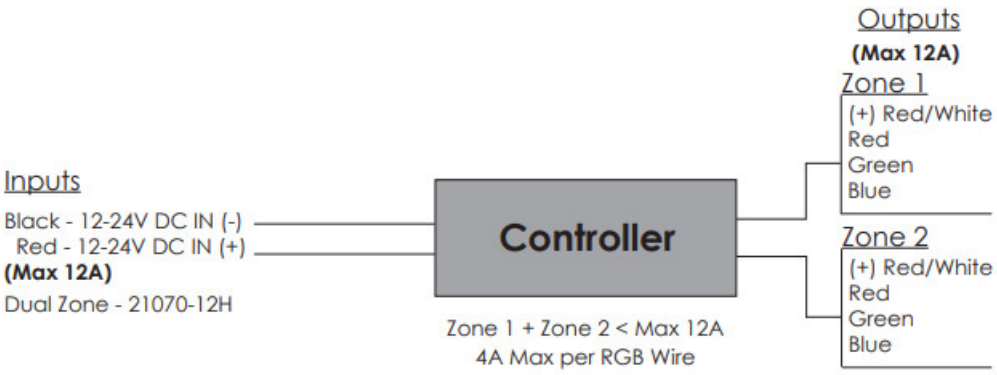
Determine the installation location for your controller. Make sure to consider the size of the controller when determining your location. Note, it will require room for access and for wiring. Once determined screw the controller in place using the four 3x15mm stainless steel Phillips pan head screws provided.





WIRING DIAGRAM

Follow the wiring diagram below to wire the module to your system.

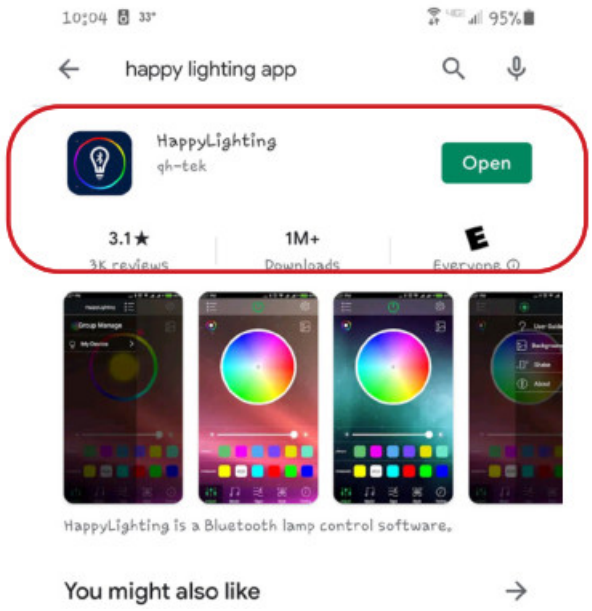


WIRING CONSIDERATIONS

– Don’t power the controller or lights until all connections are made.
– It is recommended that strain relief be added on all wires to prevent any damage to the lights.
– If fuses are not included on the RGB controller then ITC recommends including fuses on each zone output (+) wire.
– If installing a flexible lighting product, do not install the end caps in the mounting track or it may damage the light.
– To test the lights, select the single color fade for each of the colors, red, green, and blue on the Happy Lighting app. This test will show whether there are wiring issues.

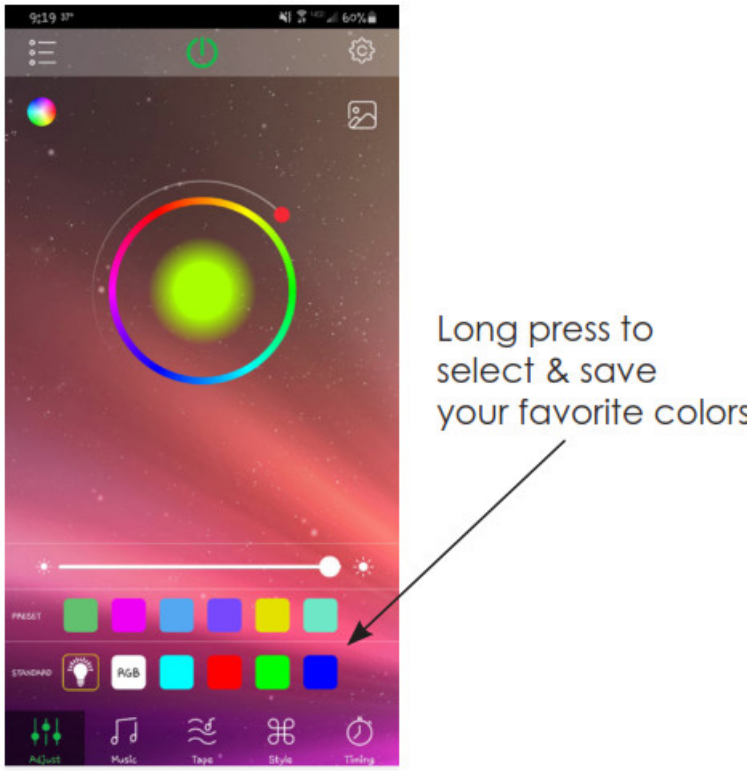
Download & Open App

Search “Happy Lighting” in the App or Google Play Store and click install. Depending on your operating system, your screen may differ slightly from the following screenshots.
Turn on the Bluetooth on your phone and open the app, it should automatically connect to the controller. If not, turn the power off to the controller and back on. You can also customize the name of the controller to make it easier to find if you have multiple controllers.
Clicking on the Settings symbol in the upper right will take you to a help screen.



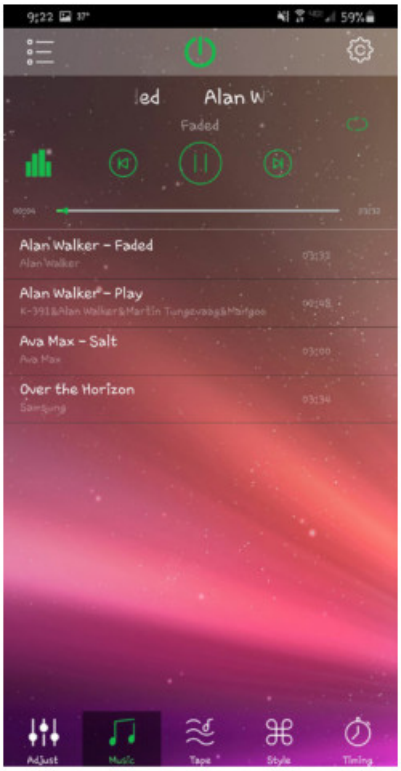
Adjust

Color can be adjusted by pushing anywhere on the color wheel and brightness can be adjusted by sliding the white bar left or right.



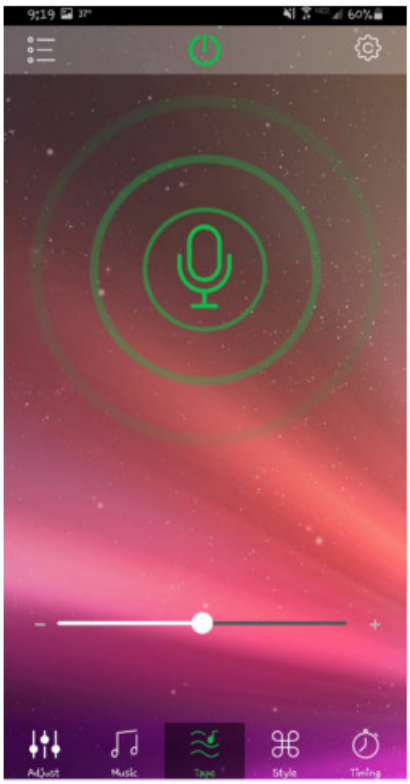
Music

The controller has the ability to change the lights to the beat of the music. Push the play button and select your desired music. Please note, music must be installed on your phone, the controller will not work with streaming programs.



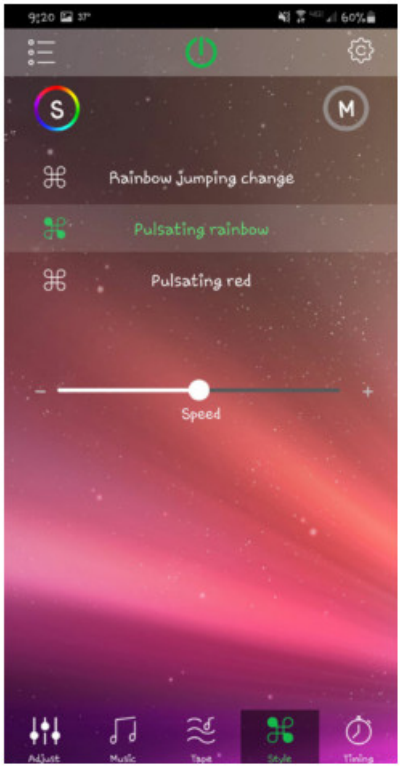
Tape

If you select the microphone option, the lights will change based on the sounds your phone picks up.



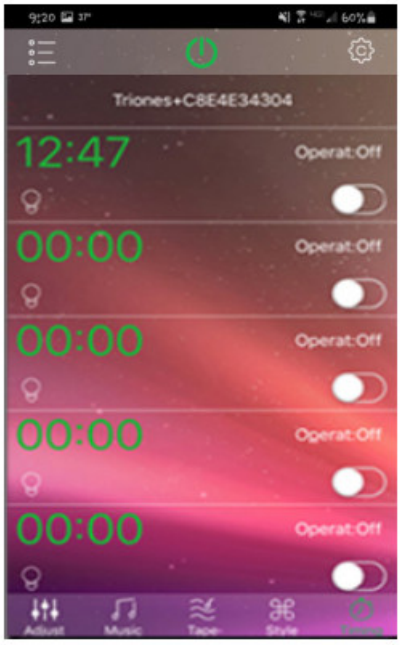
Style

There are many effects preloaded on the app from single color fades to multi-color fades. You can also select the speed of the fade by sliding the white bar left or right.



Timing

The timer feature allows you to set the lights to turn on or off at a certain time.



Installation Considerations for Preventing EMI Noise

WHAT IS EMI NOISE?
Electromagnetic interference (EMI) is any unwanted signal which is either radiated(thru air) or conducted(thru wires) to electronic equipment and interferes with the proper operation and performance of the equipment.
All electrical/electronic components that have varying or switching currents, such as RGB lighting, create Electromagnetic interference (EMI noise). It is a matter of how much EMI noise they produce.
These same components are also susceptible to EMI, especially radios and audio amplifiers. The unwanted audible noise that is sometimes heard on a stereo system is EMI.

DIAGNOSING EMI NOISE
If EMI is observed the following steps should help isolate the problem.

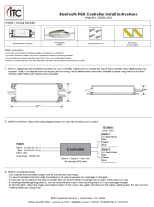
1. Turn off LED light(s)/controller(s)
2. Tune the VHF radio to a quiet channel (Ch 13)
3. Adjust the radio's squelch control until the radio outputs audio noise
4. Re-adjust the VHF radio's squelch control until the audio noise is quiet
5. Turn on the LED light(s)/controller(s) – If the radio now outputs audio noise then the LED lights may have caused the interference.
6. If the radio does not output radio noise then the problem is with another part of the electrical system.

PREVENTING EMI NOISE
Once the EMI noise is isolated the following steps can be used to help prevent and lessen the effect of the noise.
CONDUCTED & RADIATED SOLUTIONS
GROUNDING (BONDING): How each component is connected and routed to power ground is important.
Route the ground of sensitive components back to the battery separately. Eliminate ground loops.
SEPARATION: Physically separate and mount the noisy components away from sensitive components.
In the wire harness, separate the sensitive wires from the noisy wires.
FILTERING: Add filtering to either the device creating the noise or the sensitive device.
Filtering may consist of power line filters, common-mode filters, ferrite clamps, capacitors, and inductors.
RADIATED SOLUTIONS
SHIELDING: Shielded cables can be used. Shielding the component in a metal enclosure is also an option.

If you continue to experience EMI issues please contact your ITC sales representative.

3030 Corporate Grove Dr • Hudsonville • MI • 49426
Phone: 616-396-1355 • www.itc-us.com • sales@itc-us.com
• DOC#: 710-00182 Rev E • 01/12/21

Documents / Resources

	ITC 21070-12H Bluetooth RGB Controller [pdf] Instruction Manual 21070-12H Bluetooth RGB Controller, 21070-12H, Bluetooth RGB Controller

References

- Register a .US.COM domain today!
- Designs that inspire, products that perform.