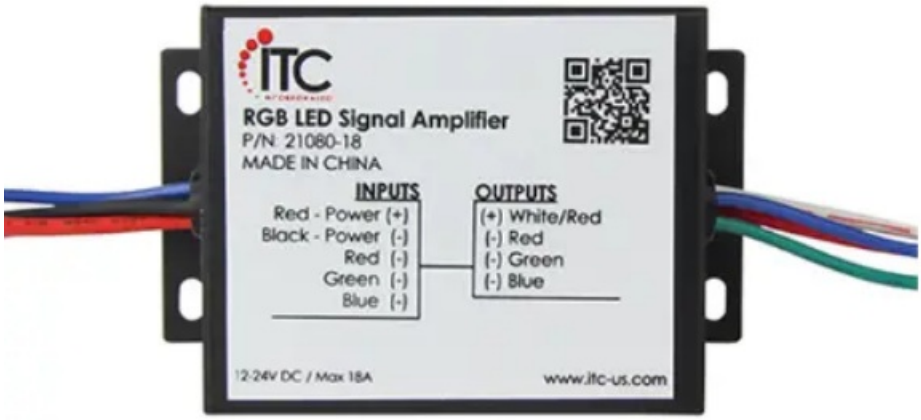
ITC 22805-X-00 Simplified RGBW Controller

ITC 22805-X-00 Simplified RGBW Controller Instruction Manual

Contents

ITC 22805-X-00 Simplified RGBW Controller



Product Information

Specifications

- Product Name: Simplified RGBW Controller
- Part Number: 22805-X-00

Installation Instructions

System Connections
To properly install the RGBW Controller, follow the system connections below:

- Connect the V+ wire to the positive power supply.
- Connect the SPST toggle switch to the TTP CONTROL pin of the RGBW Controller.
- Connect the GND wire to the ground.
- Connect the RGBW Light(s) to the RGBW Controller.
- If using a tri-state input, connect it to the RGBW Controller.
- If using a SPDT rocker switch, connect it to the GND pin of the RGBW Controller.
- Connect the THREE-WIRE SWITCH CONTROL input wire to a momentary rocker switch in the off idle state. Connect the other two pins of the rocker switch to GND and V+.

System Control

TTP Control:
To enable TTP control:

- Connect the input wire to the V+ pin of the RGBW Controller.

Brightness Control:
When the controller is turned on in TTP control mode, the connected lights will start at minimum brightness and increase in brightness over five seconds. Cycling (turning off and back on) the connected switch will keep the light at that brightness level.

Color Control:
After the brightness has been selected or after five seconds have elapsed, cycling the connected switch will cycle through the available preset colors.

Three-Wire Switch Control:

To enable three-wire switch control:

- Connect the input wire to a momentary rocker switch (MOM-OFF-MOM) in the off idle state.
- Connect the other two pins of the rocker switch to GND and V+.

The controller can be controlled by the rocker switch as follows:

- Hold for >1 second: RGBW Control

- Tap V+: Toggle controller ON/OFF
- Tap GND: Toggle between solid and fade modes
- Hold for >1 second: Cycle through colors or fade modes
- Tap V+: Turns the light ON/OFF
- Tap GND: Cycles through the brightness levels or fade speeds

EMI Noise Considerations

Diagnosing EMI Noise 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. 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 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 optio.

Preventing EMI Noise:
If you continue to experience EMI issues, please contact your ITC sales representative.

FAQ

Q: How can I control the brightness of the connected lights in TTP control mode?
A: Cycling the connected switch will adjust the brightness level.

Q: Can I cycle through colors or fade modes in three-wire switch control mode?
A: No, in three-wire switch control mode, you can only toggle between solid and fade modes.

Q: What type of switch should I use for three-wire switch control?
A: Use a momentary rocker switch (MOM-OFF-MOM) for three-wire switch control.

Q: How do I turn the light ON/OFF in three-wire switch control mode?
A: Tap the V+ pin of the RGBW Controller to turn the light ON/OFF.

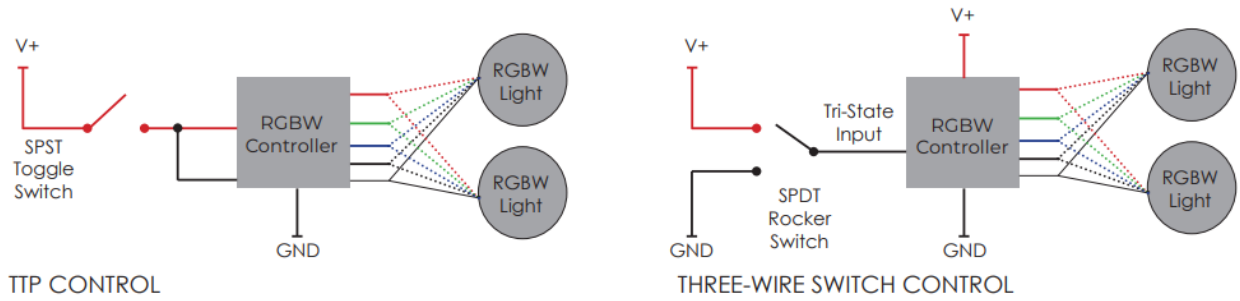
Q: How do I cycle through brightness levels or fade speeds in three-wire switch control mode?
A: Tap the GND pin of the RGBW Controller to cycle through the brightness levels or fade speeds.

INSTALLATION CONSIDERATIONS

- The simplified RGBW controller is part of the ITC VersiColor line of RGB/RGBW controllers and lighting products (purchased separately). Refer to individual product install instructions for additional considerations.
- Disconnect power before installing, adding or changing any component.
- To avoid a hazard to children, account for all parts and destroy all packing materials.

- This device complies with part 15 Class B of the FCC rules. Operation is subject to the following two conditions:
  - This device may not cause harmful interference
  - This device must accept any interferences received, including interference that may cause undesired operation
- This controller is capable of sourcing 3A of current per color, limited to 10A total. Example configurations include, but are not limited to:
  - Up to 24 feet of RNLL diffused tape light
  - 16.5 feet of RNLL diffused tape light, six lit cup holders and ten courtesy lights

System Connections



System Control

TTP CONTROL
To enable TTP control, connect the input wire to V+ Brightness Control:
When the controller is turned on in TTP control mode, the connected lights will start at minimum brightness and increase in brightness over five seconds. Cycling (turning off and back on) the connected switch will keep the light at that brightness level.

Color Control:
After the brightness has been selected or after five seconds has elapsed,cycling the connected switch will cycle through the available preset colors.

THREE-WIRE SWITCH CONTROL
To enable three-wire switch control, connect the input wire to a momentary rocker switch (MOM-OFF-MOM) so that it is in the off idle state. The other two pins of the rocker switch should be connected to GND and V+.

The controller can be controlled by the rocker switch as follows:

RGBW Control		
V+	Hold for >1 second	Toggle controller ON/OFF
	Tap	*Solid Mode:* Cycle through colors *Fade Mode:* Cycle through fades
V- GND	Hold for >1 second	Toggle between solid and fade modes
	Tap	*Solid Mode:* Cycle through brightness levels *Fade Mode:* Cycle through fade speeds

Single Color Control		
V+	Tap	Turns the light ON/OFF
V- GND	Tap	Cycles through the brightness

EMI Noise Considerations

Installation Considerations for Preventing 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.

WHAT IS EMI NOISE?

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 havecaused the interference.
6. If the radio does not output radio noise then the problem is with another part of the electrical system. If EMI is observed the following steps should help isolate the problem.

DIAGNOSING EMI NOISE
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.
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

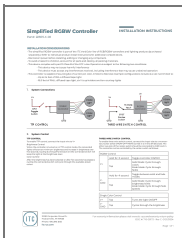
- **SEPARATION:** Physically separate and mount the noisy components away from sensitive components. In the wire harness, separate the sensitive wires from the noisy wires.
- **FILTERING**: Add filtering to either the device creating the noise or the sensitive device. Filtering may consist of power line 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.
PREVENTING EMI NOISE
If you continue to experience EMI issues please contact your ITC sales representative.

3030 Corporate Grove Dr.
Hudsonville, MI 49426
Phone: 616.396.1355
itc-us.com

For warranty information please visit **www.itc-us.com/warranty-return-policy**

Documents / Resources

	ITC 22805-X-00 Simplified RGBW Controller [pdf] Instruction Manual 22805-X-00 Simplified RGBW Controller, 22805-X-00, Simplified RGBW Controller, RGBW Controller, Controller

References

- ITC Warranty & Return Policy
- User Manual

Manuals+, Privacy Policy

This website is an independent publication and is neither affiliated with nor endorsed by any of the trademark owners. The "Bluetooth®" word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. The "Wi-Fi®" word mark and logos are registered trademarks owned by the Wi-Fi Alliance. Any use of these marks on this website does not imply any affiliation with or endorsement.