

INSTALLATION AND WIRING INSTRUCTIONS

CAUTION: SHOCK HAZARD, DO NOT WIRE OR WORK ON UNIT WHILE POWER IS ON.

- 1 Install the Control into the Traffic Light. See mounting instructions below.
- 2 Connect White wire from the control to each of the lamp shell White wires
- 3 Connect the Green wire from the Controller to the center socket wire of the Green lamp.
- 4 Connect the Yellow wire from the Controller to the center socket wire of the Yellow lamp.
- 5 Connect the Red wire from the controller to the center socket wire of the Red lamp.
- 6 Connect the Power Cord to the three wire Terminal Block. Black to Terminal marked "L", White wire to Terminal marked "N" and Green wire to Terminal Marked "G".
- 7 Insert the Green ground wire, included in your hardware bag, into the Terminal Block along with the Green Power Cord wire and connect the other end to the traffic light frame for traffic light housing grounding.
- 8 **The orange lead is for wiring diagram "J" for a walk, don't walk signal, no flash feature.**
- 9 Connect the Power Line into a 120 or 240 volt AC outlet, depending on the voltage of your Controller, a small Green LED light will start blinking. A plug adaptor may be needed for 240 volt operation.
- 10 The Green, Yellow, and Red LED's will indicate the timing of the traffic light lamps. With a small screw driver, adjust each of the three trim pots labeled R, Y, G to the desired time setting of each of the three traffic lights. Do **NOT** force passed stops. Clockwise for longer time, counter clockwise for shorter time. On some programs only one or two pots affect operation. See Sequence Functions and time setting switch page.
- 11 Turn off power when changing sequence switch settings.

Remember, the voltage at the output, is the same as the voltage at the input. Use extreme care when wiring. 120 volts in, 120 volts out.

Mounting controller: Check inside the traffic light for locations with adequate clearances for mounting considerations. Clean the surface where you wish to mount your unit. Insert the plastic standoffs into the three mounting holes in the circuit board. Make all wiring connections first, before removing the protective paper over the "self-adhesive" feet, and pressing into place. Trim the outer edge of the adhesive if necessary. If the controller will not fit inside the traffic light, mount inside a suitable size plastic box for safety.

The lamp connections are 120 or 240 VAC depending on the voltage of your controller, use extreme care in making the connections. Use wire nuts, crimp and tape or terminal block for connections. Strip the insulation on the power cord so as the insulation almost touches the terminal block. Make sure all of the small wires are inside the terminal before tightening the clamp.

When the power is applied a small LED will start to blink. This means the Micro is operating and starting light sequencing. Rotate each of the three small time setting controls clockwise to increase time and counter clockwise to shorten time, do not force passed stops, and use a light touch.

Turning off the power, unplugging or power outage **will not** change the controller settings. Turning the time setting controls and/or changing switch settings is the only way to change operation.

Kit contents: Each traffic light is shipped complete with one traffic light controller, one 6 foot three wire power cord, four spade lugs, one ground wire, two zip ties, three mounting feet, and instructions.

CHECK FUSE if controller fails to start, it's located next to the power cord terminal block.

ADDITIONAL INFORMATION ABOUT OUR NEW CONTROLLER

After installing, setting up the sequence, and adjusting the timing pots, it is a good time to try out other sequences that are programmed into your controller. All sequences can be tried, but only the three relay programs on the three relay controller will show all the lights. Setting programs for the four and six relay controller will turn on only lights switched by the first three relays. Sequences for the four and six relay controllers will still operate, but only the lights programmed for the first three relays will light providing a time lag while the program completes the cycle for the higher number relays.

You can do no harm to the controller by playing with the sequence settings or entering a switch setting which contains no program. If an empty switch setting is set by accident nothing works, not even blinky. Controllers are shipped standard set to sequence #1.

WIRING

Just because a wire is red, it does not mean it can't be connected to a yellow or green light. If there is a sequence you would like, but the lights are reversed, change the wiring to suit. All of the colored wire are from the same power line so you may combine colored wires with no harm. Do NOT combine a colored wire with the white wire, this will blow a fuse. Combining colored wire will combine the time setting for each. Combine a green wire with a 20 second time with a yellow wire with a 15 second time will result with a time of 35 seconds total.

NEW SEQUENCES

New sequences cannot be entered in the field. If you need a sequence that is not in the lineup, let us know, new sequences can only be generated and added here at the factory. In most cases we can generate and enter your program into the lineup at no cost to you.

VOLTAGES

Voltage questions come up quite often. We manufacture 12 volt AC/DC, 24 volt AC/DC, 120 volt and 240 volt controllers. The voltage at the input will be the voltage at the output. The transformer on the circuit board is for the electronics only and has nothing to do with the output voltage. If your local voltage is 240 volts and your light requires 12 volts, a stepdown transformer from 240 volts to 12 volts is needed. Our 12 volt controllers will work with 12 volts AC or DC. Because of the large selection of outlet plugs around the world, we can't afford to stock power cords to cover all. For this reason we ship standard 120 volt power cords so you can provide an adaptor or cut off the plug and wire on the style for your area.

WHAT BULBS SHOULD I USE?

A number of questions come up about what bulbs to use. Incandescent and LED both work great with this controller, florescent should NOT be used. As to wattage, that depends on where your traffic light is to be used, indoors or out. For outdoors 35 to 55 watts works well. Indoors 15 to 35 watts will be quite bright. The use of LED bulbs is by far the best type of bulb to use. Most hardware stores have a wide selection of 120 volt, medium base, screw in bulbs to choose from. A good choice would be a 4 to 16 watt LED bulb in the warm color range. The use of LED will greatly reduce maintenance chores of changing bulbs especially when used outdoors and extend the life of your controller by several years.

SPECIAL USEAGE

Need a controller for use as a race starting light tree? We have sequences for three light systems to the five double row grand prix style staging tree and six light single row system. Our wiring diagrams show how to add caution and stop race options to the lights. If you order a controller to be used in this area, we need to know so the needed extra wiring can be added.

LIFETIME WARRANTY

This controller is lifetime warranted from date of purchase against manufacturing and workmanship faults. Warranty is **void** if used for other purposes than the intended design, causing damage to person or property, modifying, improper installation and/or wiring, misuse, and acts of god. Unit is not intended for commercial use. If used outdoors, the controller must be protected from direct weather contact.

RETURNS

Repair or replace is made at the discretion of Liberty Circuits. Repairs are made at little or no cost to the buyer. Return costs are refunded when received and shipping back paid by manufacture.

Return to Innovative Technologies
3960 16th Street
Wayland, MI 49348
Attn. Repair Department

**PLEASE ADD A NOTE WITH
YOUR EMAIL ADDRESS SO
WE MAY CONTACT YOU WITH
ANY QUESTIONS AND GETTING
ANY REFUNDS DEPOSITED TO
YOU'RE ACCOUNT.**

Email: TrafficSequencer@gmail.com Phone: 269 210-7245

Include your name, mailing address, and email address. If you are calling have the number of the controller with you. It is located on the bottom of the controller and on warranty sheet below. Use the liberty circuits email address above, do not email through Ebay.

NOTE: The traffic light control section of Innovative Technologies is always open for your ideas on how to make our controllers better or easier to use, including programs you would like to see added. Email or calls welcome.

When contacting us with a question or a problem, include the serial number in your email. This will help us pull up your information file and your email address which is needed in some cases to send information to you, Ebay does not allow the sending of email addresses. The serial number is on top of a relay and on the in the warranty section of your instruction sheets.

SAVE, DO NOT DISCARD THESE DOCUMENTS. Needed for sequence reference and correspondence information with Liberty Circuits Corporation.

Serial Number _____ **Purchased by:** _____

Date of purchase: _____ Purchased thru: Ebay:___; Direct:___; Company Agent:_____

STORE INSTRUCTIONS IN A SAFE PLACE FOR FUTURE REFERENCE AND ALWAYS SEND THE SERIAL NUMBER OF YOUR CONTROLLER WHEN CONTACTING US.

See our website at: www.lightcontroller.net. You may place orders direct from the site and send us emails direct to our email address. EBAY and PAYPAL will no longer give out email addresses which puts us at a loss on how to contact you direct with instructions, questions and in some cases REFUNDS for overpayment in shipping or quantity DISCOUNTS. Please email us your email address to our address above. This will be added to our data base which is not on line, for our use only. Thank you.