

CRL 102 Power Unit Five-Lite System

The Five-Lite System is powered by the CRL 102 Electronic Power Unit. This power unit operates up to twenty stations within the Five-Lite System, or up to 100 lamps.

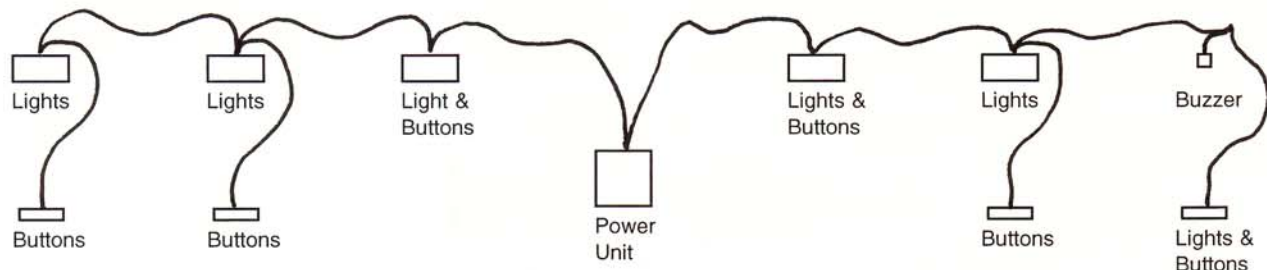
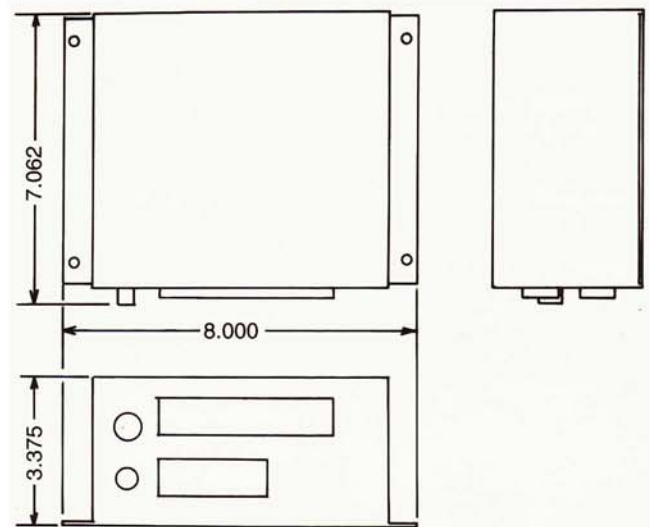


All stations of the Five-Lite System are connected to the CRL 102 Power Unit using #89 Cable. This cable has been engineered by Theta Corporation and is manufactured to our specifications. It provides a proper balance between size, cost and proper function within the average System. The #89 Cable is routed from the CRL 102 Power Unit to a station, from that station to the next station, from that station to the next station, and so on. At the last station in the string, the cable ends.

It is not necessary to return to the power unit from each station with the cable. With normal spacing of thirty feet between stations, **not more than five stations should be connected on one string of cable from the power unit.**

In most Systems, several strings of cable should start from the power unit to feed stations. Branch cables may be connected at any point on any cable in the System to add additional components where convenient. An example of a Five-Lite System wiring is shown on this page.

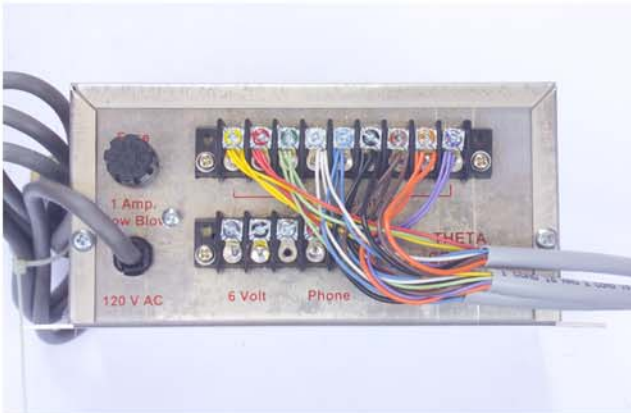
The CRL 102 Power Unit is placed as much in the center of the office as possible. Normal locations include utility room, basement, dark room, under laboratory counter and under reception counter. If placed in a cabinet under 18 X 18 X 18 inches, ventilation holes should be drilled in the top and the bottom of the cabinet. Six 1 1/4 inch holes should provide sufficient cooling. No materials should be stacked against or within several inches of the unit as they will prevent cooling. The CRL 102 Power Unit plugs into a standard 120 volt, 50 or 60 HZ electrical outlet using a grounding plug. If a grounded outlet is not available, an adapter should be used with the grounding wire connected to a cold water pipe or other proper electrical ground. As the CRL 102 Power Unit uses less power than many electric clocks when the lights are not on, it is not necessary to turn it on and off each day.



Typical Five-Lite System Wiring

TERMINAL SCREWS

All cables which are to be attached to components with terminal screws, should have the outside jacket removed about four inches. The conductors should have their insulation removed about 1/4 inch. All conductors of each color are clamped under the screw of that color. In all cases, the System is wired in parallel. Terminal screws have rising terminal clamps. These are square washers under the head of the screws which rise with the screw heads as the screws are loosened. After loosening the screw, all conductors of the color of the screw are placed under the square washer and the screw is firmly tightened to clamp the conductors in place. The conductors do not have to be wrapped around the screw. The screw should be tight enough so that any individual conductor may be pulled with about five pounds of tension without dislodging. Up to six conductors may be clamped under each screw.



THETA PHONE OUTPUT

The CRL 102 Electronic Power Unit has an auxiliary output of 10 volts DC to operate Theta intercom phones. This output is on the red & black screws labeled "Phone". See instruction sheets on Theta Phones for installation instructions on Theta Phones.

AUXILIARY 6 VOLT OUTPUT

The CRL 102 Electronic Power Unit has an auxiliary output of 6 volts AC. This output is on the gray & black screws labeled "6 Volt". The 6 volt output may be used to power a Theta CRL 107 Alarm Circuit, Theta RSS 605 Flasher, or other 6 volt AC accessory.

FIVE-LITE SYSTEM OUTPUT

The output for the Five-Lite System is on the nine colored screws labeled "Five-Lite". These screws provide the 6 volt AC and 14 volt AC circuits to operate the Five-Lite System. The CRL 102 Electronic Power Unit has electronic latching circuits to keep lights on after the momentary contact pushbuttons in the system are released. A reset circuit is provided to turn off the lights when a momentary contact reset pushbutton is pressed. The reset will also be operated if a load of more than 14 amps total is detected on the five colored light circuits.

POWER REQUIREMENT

The CRL 102 Electronic Power Unit plugs into a 120 volt AC grounded outlet. A 3AG 1 Ampere Slo-Blo fuse protects the unit from internal faults or from shorts between the orange and black wires within the system wiring. A short between the orange wire and a building ground such as a water pipe or part of the metal frame will also blow the fuse. **The power plug should be unplugged while changing the fuse.**