

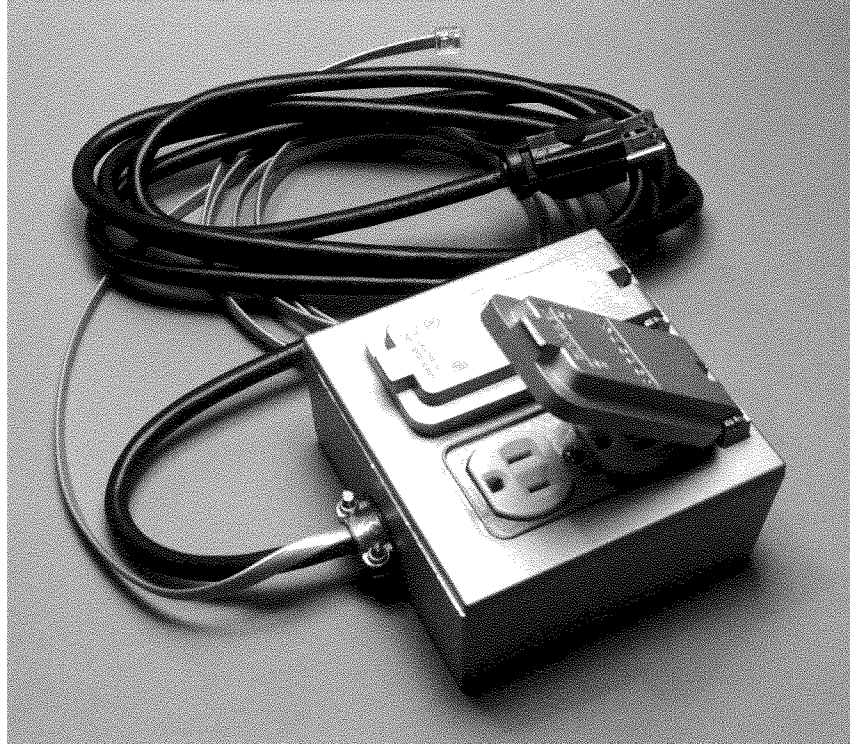
POWER/CON™

DIGITALLY CONTROLLED POWER OUTLETS

Now with POWER/CON you can digitally control four 110V AC devices per module. Control signals can come from simple low voltage switches, a Personal Computer, or a dedicated controller.

Using INNOVA's parallel port adaptor, up to three POWER/CON modules (12 independent channels) can be controlled by a simple Basic program on a Personal Computer.

With INNOVA's Basic Controller you can control up to four POWER/CON modules (16 independent channels). The Basic Controller can be programmed to receive input from users and turn on or off any device, combination of devices or sequence.



Features:

- *Controls up to 4 electrical devices per module*
- *Controllable by PCs, dedicated controllers or switches*
- *500 Watts per device (channel)*
- *Isolated low voltage control (no shock hazard)*
- *Interchangeable modules*
- *Reliable solid state electronics*

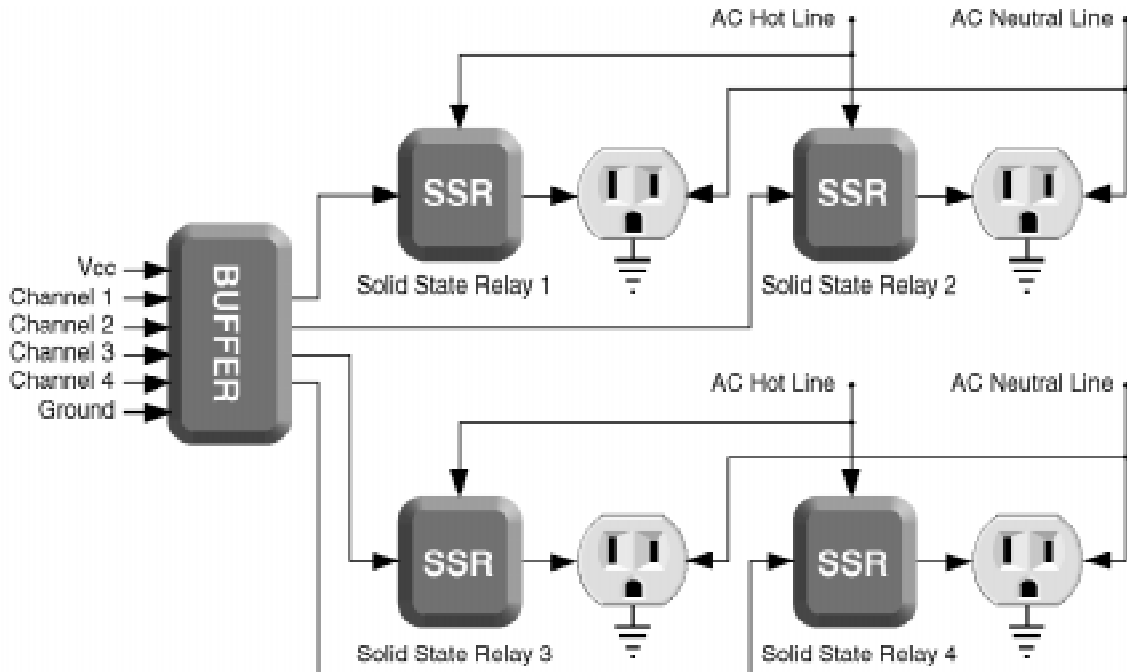
Applications:

- *Permanent or temporary exhibits and displays*
- *Control backlit panels, spot lights, motors, pumps and blowers*
- *Remote control of electrical devices*
- *Special lighting effects*
- *Computer-controlled environments (greenhouses, etc.)*
- *Skit and theatrical lighting*

INNOVA
APPLIED TECHNOLOGY

POWER/CON TECHNICAL DATA

BLOCK DIAGRAM



DC/AC CHARACTERISTICS

PARAMETER	MIN	NOM	MAX	UNITS
Supply Voltage (Vcc)	4.75	5	5.25	Volts
Low Level Voltage	2			Volts
High Level Voltage			0.8	Volts
Low Level Current	-1.6			mAmps
High Level Current			40	uAmps
Supply Current			100	mAmps
Solid State Relay Parameters				
AC Current per Channel			3.25	Amps
AC Current total			13	Amps
Solid State Relay Isolation Voltage		4		KVrms

POWER/CON APPLICATIONS

ANIMATED LIGHT CONTROLLER

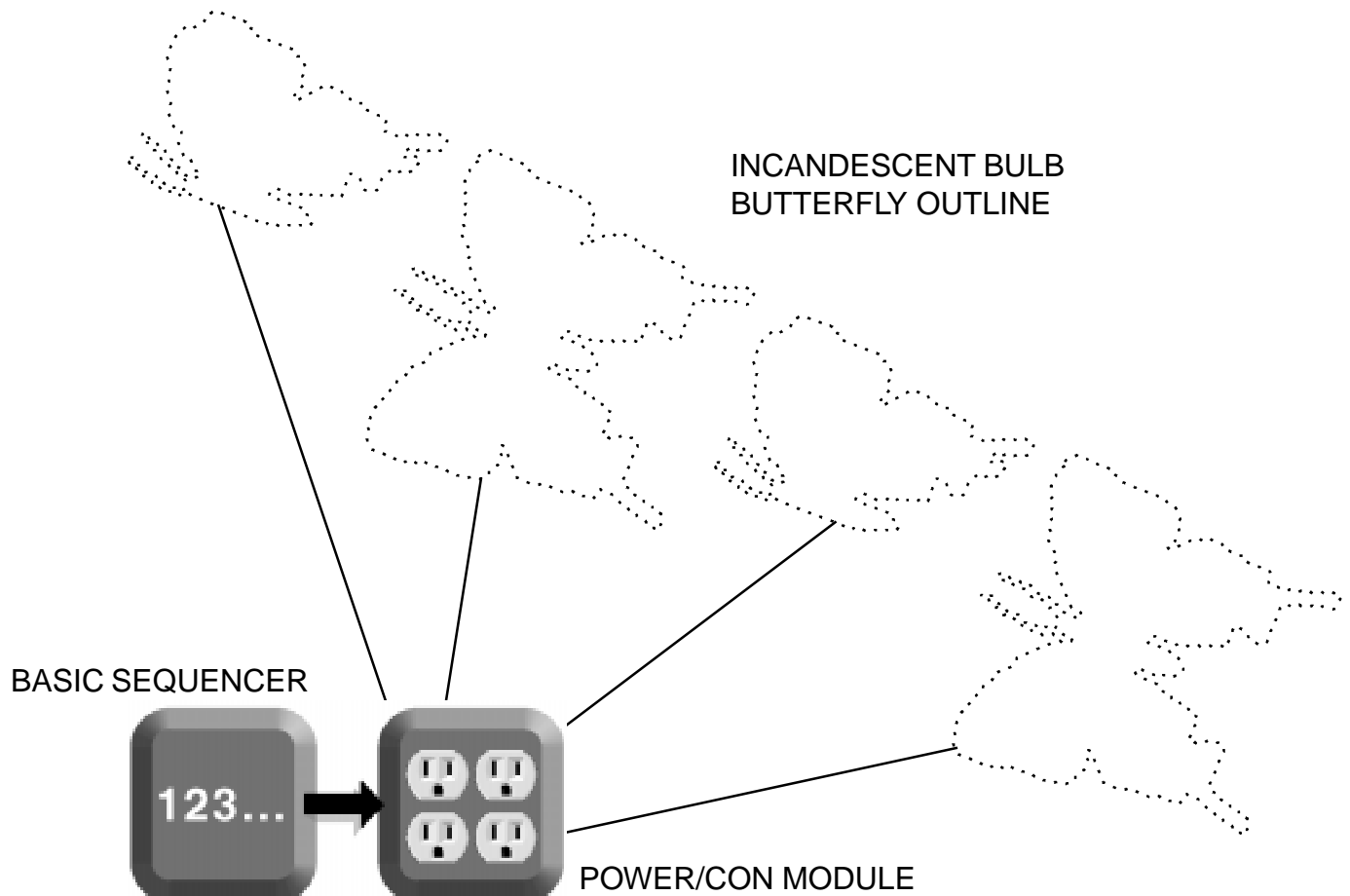
In this application example, a single Power/Con module is used in conjunction with a Basic Sequencer module to form an animated light show (see block diagram below).

The four butterfly outlines are made using one or more strings of miniature Christmas lights or light rope. The four "light outlines" are plugged into the receptacles on the Power/Con module in the proper sequence. The Power/Con module is then connected to the Basic Sequencer which provides the sequencing and timing control.

The Basic Sequencer can be configured to control up to four Power/Con modules. For this application only one is needed. Since the sequencer is fully programmable, each parameter can be specified and adjusted as needed. These parameters are as follows: "on" time (for each segment) and delay between each sequence. The delay between sequences is normally set to zero and the "on" time for all segments is equal. For effect, the last segment (or any segment) in the sequence can be set to "hold" by setting that segment's "on" time to a longer period.

Since this system is modular, additional Power/Con modules can be added for more segments in the sequence or for multiple sequences. Additionally, various input devices can be connected to trigger the system. For example, a light sensor can be incorporated to start the sequence when the sun goes down. Or a remote control unit can start the sequence on command.

BLOCK DIAGRAM



BACKLIT GRAPHIC PANEL SEQUENCER

Backlit graphic panels with photographs and text have long been used to present information in exhibits and displays. This application shows how Power/Con and the Basic Sequencer can be used together to form a flexible and intelligent system for presenting information.

In a very simple system, the backlit panels can be controlled by Power/Con by connecting low voltage push button switches. When a push button is pressed, the corresponding panel will light. This provides safe isolated control of 110 Vac devices from a distance with no electrical shock hazard.

With the addition of the Basic Sequencer the system can be made intelligent and highly flexible. In the system show in the block diagram below, the user simply presses the "start" button and the system sequences through each backlit panel. The "on" time for each panel is programmable. Panels with longer text can be lit for a longer period. If needed, the sequencer can light all or selected panels at the end or anytime during the sequence.

Once again a modular system provides flexibility. With the addition of a digital audio repeater, a narration can accompany each panel as it is lit. By adding more push buttons to this configuration a simple Question and Answer or Matching game can be made. Other modifications include: replacing the "start" push button with a motion detector to start the sequence upon sensing the presence of an audience or with a remote control for activation by staff.

A system similar to the one described here can be use in existing dioramas by replacing the backlit graphic panels with spotlights directed to various points of interest. Power/Con can also be used to control blowers, motors, and pumps to add further excitement to an exhibit.

BLOCK DIAGRAM

