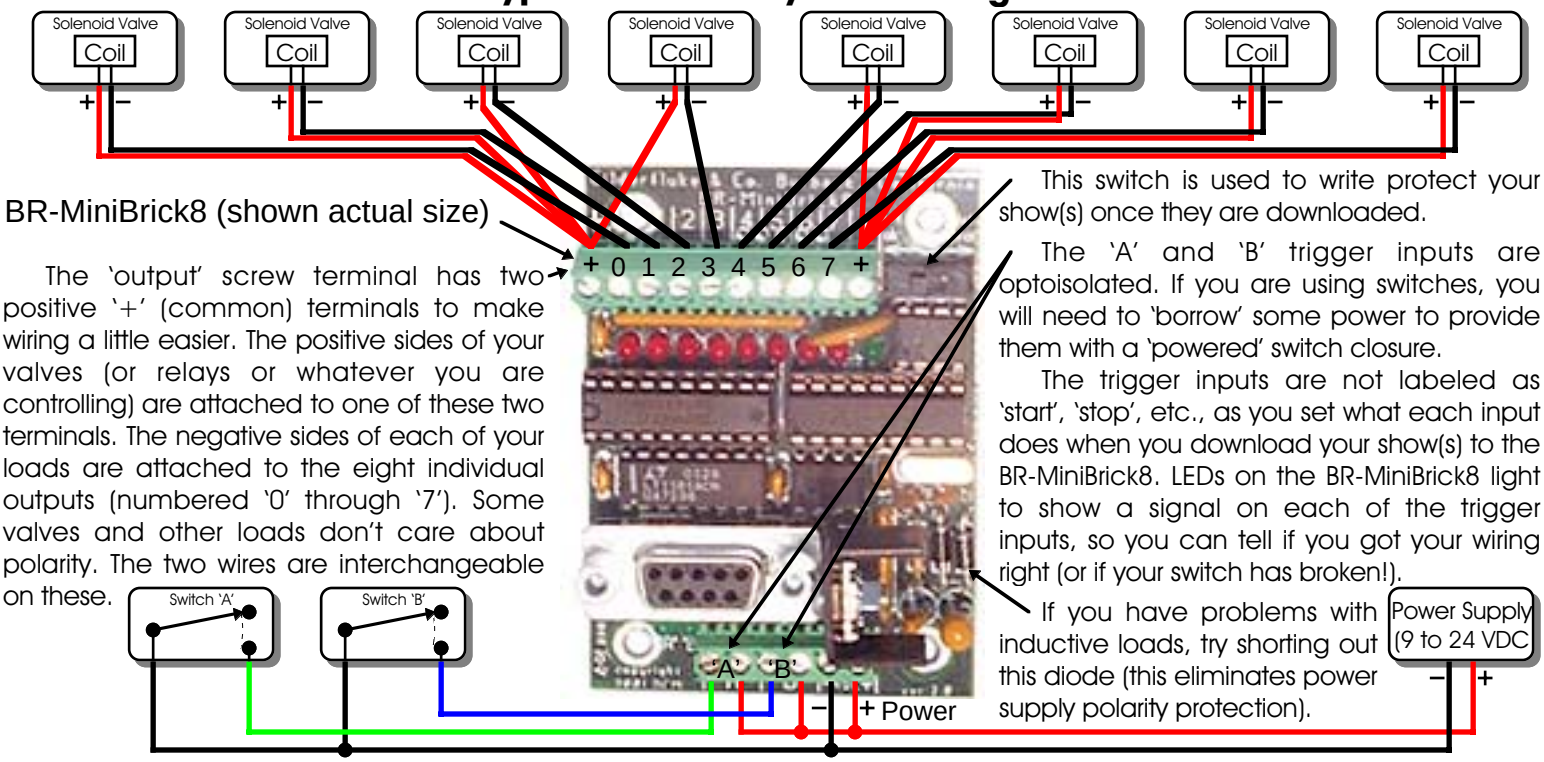
Gilderfluke & Co.
ROBOTICS & SOUND SYSTEMS
205 South Flower Street • Burbank California 91502
800/776-5972 • 818/840-9484 • FAX 818/840-9485 • http://www.gilderfluke.com

# Typical Control System Wiring:




BR-MiniBrick8 (shown actual size)

The 'output' screw terminal has two positive '+' (common) terminals to make wiring a little easier. The positive sides of your valves (or relays or whatever you are controlling) are attached to one of these two terminals. The negative sides of each of your loads are attached to the eight individual outputs (numbered '0' through '7'). Some valves and other loads don't care about polarity. The two wires are interchangeable on these.

This switch is used to write protect your show(s) once they are downloaded.

The 'A' and 'B' trigger inputs are optoisolated. If you are using switches, you will need to 'borrow' some power to provide them with a 'powered' switch closure.

The trigger inputs are not labeled as 'start', 'stop', etc., as you set what each input does when you download your show(s) to the BR-MiniBrick8. LEDs on the BR-MiniBrick8 light to show a signal on each of the trigger inputs, so you can tell if you got your wiring right (or if your switch has broken!).

If you have problems with inductive loads, try shorting out this diode (this eliminates power supply polarity protection).

This shows how to wire eight solenoid valves to a BR-MiniBrick8. The same wiring would be used with the thirty-two output BR-MultiBrick32, or any of the MP3-50-8, MP3-50-40 or Z-Bricks. They just have different numbers of outputs. If you need to control heavier loads or higher voltages, the solenoid valves shown in the drawing above would be replaced by one or more solid state relays. Outputs can also be used to trigger Digital Audio Repeaters, DVDs and other serially controlled devices (through a BR-SDC), or anything else which needs to be controlled. The power supply that runs the animation system also powers the loads connected to it. If you are using 24 volt valves, use a 24 VDC power supply. If using 12 volt valves, use a 12 VDC supply. The supply should have enough current capacity to power all of your loads.

The BR-MiniBrick8 has two trigger inputs. Other cards we make have four, eight or ten inputs available for your use. These can be used to trigger specific shows, trigger shows 'round robin', stop, pause, or continue shows. 'Round robin' triggering allows you to have up to 255 shows saved so a different one will be started each time the BR-MiniBrick8 is triggered. All of our systems support storing at least 255 shows at the same time.

Each of the inputs can do different actions on each 'edge' of the input. This means that a single input can do one thing when the switch which is attached to it is closed, and a completely different thing when the switch is opened. All the settings for what the inputs do are set when you download your show(s) from PC·MACs. The illustration above shows switches used to trigger the BR-MiniBrick8. These can actually be momentary pushbuttons, motion sensors (triggered when someone enters a room), mat switches (triggered when trod upon), optical beam sensors (triggered when a light beam is broken), or any other kind of switch. Don't 'cheap out' on switches. Most often when one of our systems is not starting, the switch that is supposed to start it has failed. 'Continuous run' installations may not need any switches at all.

If there is a chance that the trigger might happen a second time before your show has finished running (and you don't want this to happen), you can set any show so it can't be 'stepped upon' while it is running. If you want to set a delay before the show can be retriggered, just make your show a bit longer and any additional triggers will be ignored until it has finished playing. If you want your show to 'keep alive' between triggers, you can set any triggered show to jump to a looping 'keep alive' show(s) between triggers. Make sure the 'keep alive' show(s) can be stepped on!

You can also tell the animation system to do when power is initially applied. It can start a show so that it plays through just once, loops a specific show, or just sits there outputting the first frame of the show you have told it is the 'first' show. When a show ends, the data in the last frame of the show will remain on the outputs until something else is played.