HauntMaven.com - Wolfstone's Haunted Halloween Site



http://wolfstone.halloweenhost.com/ColorOrgans/clobuy CommercialColorOrgan.html

Commercial Color Organs

A <u>color organ</u> changes the intensity of a light in response to sound.





Where to get complete color organs

Color organs are usually available at party and novelty stores, such as Spencer Gifts, and electronic stores like Radio Shack. They come in various physical sizes, different load ratings. You can also make your own, from scratch or a kit - but this usually doesn't save you much money. If you can't find an assembled unit, you might ask a friend with electronic skills to build a kit for you

Note that lightning boxes are usually made from color organs. Please see our page on commercial fake lightning.

About color organ kits

Color organ kits are available from most electronic retailers that cater to hobbyists. We have more information on our page about electronic kits.

Line-powered color organ kits

Warning: Line-powered color organs work with hazardous voltages. Make sure that your kit comes with a case that fully encloses the line voltage - or add a case if the kit comes without one. In order to protect your stereo from line voltage, well-designed kits isolate their input from your stereo using optical isolation, transformer, or a microphone.

• 2-channel pre-assembled color organ board



- o Power supply: 110V AC.
- 2-channel color organ, 200
 Watts per channel, with a
 sensitivity control for each
 channel.
- o Input is via on-board electret microphone.
- Unit is an assembled board that needs minimal components attached.

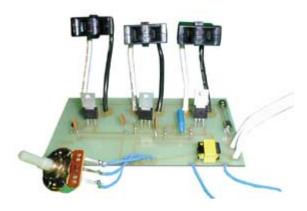
I use one of these from Electronic Goldmine for simulating lightning after upgraded the triacs. Details are available elsewhere.

The unit from Herbach & Rademan is apparantly identical to that from Electronic Goldmine, but is only advertised as handling 100 Watts per channel.

Sources:

vendor	part number	description	price
Electronic Goldmine	#G3319	120VAC 2-channel color organ	\$5.95 [2000]
Herbach & Rademan		Color Organ; Sound Activated Light Show Board	\$4.95 [9/2005]

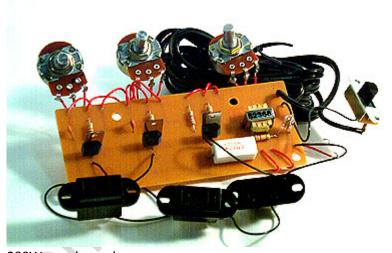
• Chaney Electronics #C4530



- 3-channel color organ, with a single sensitivity control.
- o Up to 200 watts per channel.
- Input is transformerisolated speaker-level.
- o Power supply: 110V AC.
- o Board size: 3" x 5".

vendor	part number	description	price
Electronic Goldmine	#C4530	120VAC 3 Channel Color Organ Kit	\$15.75 [2/2004]

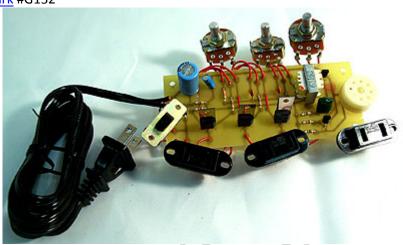
• Graymark #G107



- o 200W per channel.
- o Hi-mid-lo frequency response; separate control for each channel.
- o Power supply: 110V AC.

vendor	part number	description	price
Gibson Tech Ed.	#G-107P	Color Organ Control Kit, 3 Channels	\$12.95 [2/2004]

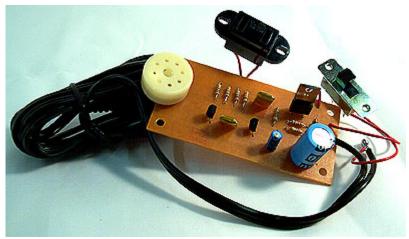
• Graymark #G152



- o 600W of pulsing lights (presumed to be the total).
- o Separate sensitivity control for each channel.
- o Sound input via crystal microphone no direct connection to sound source.
- o Power supply: 110V AC.

Sources:

vendor	part number	description	price
Gibson Tech Ed.	#G-152P	Sound Activated 3-Channel Color Organ Kit	\$22.95 [2/2004]
HobbyTron	#G-152P	Sound Activated Color Organ-3 Channel (G152P)	\$29.95 [10/2004]



- o Sound input via microphone; no direct connection to sound source.
- o Maximum load 200W.
- o Power supply: 110V AC.

vendor	part number	description	price
Gibson Tech Ed.	#G-151P	Sound Activated 1 Channel Color Organ Kit	\$8.95 [2/2004]

Chaney



o Power supply: 110V AC.

Electronics #C6353 - 120VAC Sound Activated 3-Channel Color Organ Kit

- o 3-channel color organ.
- SCR output, 200W per channel.
- Internal trimpots for each channel, one external control for sensitivity.
- Sound input via speaker operating as a dynamic microphone. No direct wiring to stereo.
- o Board size: 6.2" x 3.4".

vendor	part number	description	price
Electronic Goldmine	#6353	120VAC 3-channel color organ	\$25.99 [2/2004]

• Chaney Electronics #C4738



- 1-channel color organ, with a single sensitivity control.
- o Input is speaker-level, 25W maximum.
- SCR-based output handles 200W.
- Board size: 2" x 1".
- o Power supply: 110V AC.

Sources:

vendor	part number	description	price
Electronic Goldmine	#C4738	120VAC Single Channel Color Organ Kit	\$8.50 [2/2004]

• CTI Kit #9935 - "Power Blaster" Musical Light Show Kit



sinks not provided). Power supply: 110V AC.

- 4-channel color organ.
- High-impedance line input or crystal mic.
- One sensitivity pot per channel, plus an additional master.
- It handles up to 100
 watts per channel
 (up to 250 watts of
 lights per channel
 with clip-on heat

I built one of these. It functioned as advertised.

The PC board is marked "EKI Inc.", "Delux 3-Input 4-Channel Color Organ", "735". The documentation is marked "Centerpointe Electronics Incorporated", "Copyright 1997 PracTrak, Inc."

Sources:

vendor	part number	description	price
Gibson Tech Ed.	#9935	Color Organ 'Power Blaster' Musical Light Show Kit	\$25.90 [2/2004]
HobbyTron	#9935	Power Blaster Color Organ Kit	\$29.95 [10/2004]

• <u>DIY Electronics</u> Kit 12



- Speaker-level input.
- Input trigger voltage: 2.3 -2.5V (min)
- One channel, one adjustment.
- o TRIAC output.
- Power handling: 220W @ 110V or 500W @ 250V
- o Board size: 2.16" x 1.63"
- Power supply: 110 VAC or 250 VAC.

Please see Optocoupler-Based Color Organs

vendor	part number	description	price
Electronics 123	#CPS12	Music to Light Modulator with Opto-Coupler Kit	\$9.95 [2/2004]
Circuit Specialists	#Kit-12	Audio-to-Light Modulator	\$9.95 [2000?]

• DATAKITS #80-120 - Audio to light Modulator kit



- Speaker-level input via 3.5mm jack.
- Input voltage:1.2 to 1.5volt.
- One channel, one adjustment.
- Uses
 optocoupler
 triac
 MOC3010
 and power
 triac.
- Power supply:

110 VAC.

Please see Optocoupler-Based Color Organs

Note: The picture of this unit shows a PC board clearly marked "DIY KIT 12". The board layout is slightly different from the picture I have of <u>DIY Electronics</u> Kit 12. I'm gussing that DATAKITS licensed the design from DIY.

• #9984

- o 1-channel color organ.
- Microphone input.
- One adjustment pot.
- o Power supply: 110V AC.

vendor	part number	description	price
Gibson Tech Ed.	#9984	Sound Activated Musical Light Show	\$9.90

• FK130

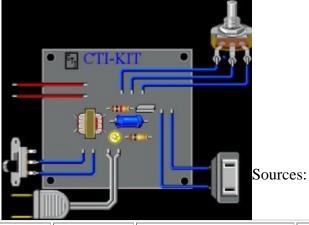


- Three channels, each lighting to the intensity of a different sound frequency.
- o 800W per channel.
- o Looks like it has a single sensitivity control.
- o Power supply: 110V AC.

Sources:

vendor	part number	description	price
Quality Kits	#FK130	Dancing Light Kit 3-Channel	\$24.99 CDN [2/2004]

• CTI Kit



#9922

- o 1-channel color organ.
- Single sensitivity control, based on volume.
- o Line-level input of some kind.
- SCR output.
- o Power supply: 110V AC.

vendor	part number	description	price
Gibson Tech Ed.	#9922	Mini Musical Light Display	\$8.90 [2001]
HobbyTron	#9935	Color Organ Display Kit	\$9.95 [1/2004]

- CTI Kit #9936 3-Channel 4-Control Color Organ
 - o 3-channel color organ
 - o low-impedance input (for stereo of 5W or less).
 - o SCR output, 150W per channel.
 - Power supply: 110V AC.

The documentation is marked "Gibson Tech Ed, Inc.", "Copyright 1999 PracTrak, Inc."

Sources:

vendor	part number	description	price
Gibson Tech Ed.	#9936	3-Channel Musical Light Display	\$16.90 [2001]

- CTI Kit #8822 1-Channel 1-Control Color Organ
 - 1-channel color organ.
 - o Low-impedance input (for stereo of 5W or less)
 - o SCR output, 150W.
 - o Power supply: 110V AC.

The documentation is marked "Copyright 1996 PracTrak, Inc."

• <u>Velleman</u> K5202 - 3-Channel Sound to Light



- o Microphone or line-level input.
- Triac output 2A (220W).
- o 3 channels, each with a frequency adjustment, plus overall sensitivity adjustment.
- o Kit comes complete with case, cord, sockets, and knobs.
- o Power supply: 110V AC (can be wired for 220).

I built one of these and it performed well. Here is the <u>back</u>, <u>inside</u>, and <u>PC board</u>.

vendor	part number	description	price
Quality Kits	#K5202	3 CHANNEL SOUND TO LIGHT KIT	\$55.19 [2001]

Velleman K???? - 3-Channel Sound to Light



- Each channel displays a different range of sound.
- Frequency ranges are adjustable.
- o Line or microphone input.
- o Maximum load 2A per channel.
- Each output has individual sensitivity control.
- o Dimensions: 6.7"W x 5.6"D x 1.7"H.
- Power supply: 110V AC.

Sources:

vendor	part number	description	price
<u>Jameco</u>	#131684	3 CHANNEL SOUND TO LIGHT, LIGHT ORGAN	\$54.95
<u>Electronics</u>		KIT	[9/2004]

I think that Jameco's web site is mixed up. The picture of this kit *looks* like <u>Velleman</u> K5202, and the specifications correspond to K5202. But if you download the manual, it's for the K8017, which is quite different inside!

With



- Velleman K8017 3-Channel Sound to Light Microphone
 - Each channel displays a different range of sound.
 - Each output has individual sensitivity control.
 - o Microphone input only.
 - o An indicator LED per output channel.
 - o Maximum load 2A per channel.
 - Translucent plastic case.

- o Dimensions: 6.1"W x 6.3"D x 1.8"H.
- o Power supply: 110-125 or 220-240V AC (50/60Hz) hot-chassis design.

This is the real Velleman K8017, distinguished by the translucent plastic case.

Sources:

vendor	part number	description	price
http://www.partsexpress.com		VELLEMAN 3 CHANNEL COLOR ORGAN KIT	\$59.65 [10/2004]
Gibson Tech Ed.		VELLEMAN 3 CHANNEL COLOR ORGAN KIT	\$39.96 [10/2004]



• <u>Velleman</u> MK110

- o Direct speaker-level input.
- o One channel, one adjustment.
- o Triac output 1A (120W at 120VAC and 230W at 230VAC).
- o Input sensitivity is specified as 2W to 60W.
- o Board size: 60mm x 41mm (2.4" x 1.6")
- o Power supply: 110 VAC or 220 VAC.

I built one of these, and don't particularly recommend it. The unit has poor sensitivity, and requires loud sounds to drive it. It works a little better with R1 (1K) shorted out.

Please see Optocoupler-Based Color Organs

Sources:

vendor	part number	description	price
Quality Kits	#MK110	1 CHANNEL SOUND TO LIGHT KIT	\$12.99 CDN [2/2004]
<u>HobbyTron</u>	#V-MK110	One Channel Light Organ Minikit	\$9.95 [10/2004]
Gibson Tech Ed.	#V-MK110	One Channel Light Organ Minikit	\$10.36 [2/2004]

Smart EFFECT



<u>Kit Electronics</u> SmartKit #1006 - MUSIC TO LIGHT 800 W

- o Direct speaker-level input.
- One channel, one adjustment.
- o Power handling: up to 800 Watts.
- o Comes with plastic case.
- o Power supply: 220 VAC.
- Board size: 37x55mm.

Please see Optocoupler-Based Color Organs

• <u>Smart</u> LIGHT



o Board size: 54x112mm.

<u>Kit Electronics</u> SmartKit #1014 - 3-CH.WIRELESS MODULATOR

- Input via electret microphone no wires to your sound source.
- Three channels, with an adjustment per channel.
- Power handling: up to 1200 Watts (presumably total).
- o Power supply: 220 VAC.

• <u>Smart</u> TO



Board size: 55x64mm.

<u>Kit Electronics</u> SmartKit #1133 - STEREO SOUND LIGHT MODULATOR

- Direct speaker-level input.
- Two channels, with separate inputs. One adjustment per channel.
- Power handling: 800W per channel (4A per channel).
- o Input sensitivity: 2-60 Watts.
- Power supply: 220 VAC.

Please see Optocoupler-Based Color Organs

• Smart Kit Electronics SmartKit #1132 - SUPERLIGHT 3CH. LIGHT EFFECT



- Current dissipation: 4W.
- o Input resistance: 500Kohm.
- Power handling: 600W/channel.
- o Power supply: 220 VAC.
- Board size: 102x112mm.

- Direct audio input wired to your sound source. Internally buffered with an opamp, and opto-isolated from the load.
- Three channels, for low, mid and high frequencies.
- Has a single sensitivity adjustment, and a trim-pot per channel.
- o Input voltage: 2.5-28V AC.

- <u>Ramsey Electronics</u> #ML-1 Music Lights
 - o Speaker-level input.
 - o Three channel, with individual adjustment.
 - o SCR output, 300W per channel.
 - Power supply: 110V AC.

Sources:

vendor	part number	description	price
HobbyTron	#R-ML1	Music Lights Kit	\$23.96 [10/2004]

<u>Cana Kit</u> #R185



- Speaker-level input.
- Some versions come with a built-in microphone.
- o Runs 110 VAC or 220 VAC lamps.
- Three channel, with individual adjustment and fuse.
- o IC provides a sharp active filter per channel.
- Triac output, 200W per channel at 110 VAC, 400W per channel at 220 VAC.
- o Board size: 3.54" x 4.01".
- NOTE: Requires transformer 18VAC
 C.T. @300mA.

Sources:

vendor	part number	description	price
HobbyTron	#CK185X	3-Channel IC Color Organ kit, no mic	\$24.95 [1/30/2004]
HobbyTron	#CK185X	3-Channel IC Color Organ assembled board w/mic	\$26 [10/2004]
Gibson Tech Ed.	#CK185	3 CHANNEL IC COLOR ORGAN W/MIC LINE-IN KIT	\$24.97 [2/2004]

• Cana



Kit #R186

o Runs 110 VAC or 220 VAC lamps.

- o Up to 300W / 110V AC (600W / 220V AC) of lights per channel.
- o Unit has two modes of operation: "Musical" and "Automatic".
- o In "Musical" mode, the channels illuminate according to the frequency of the audio input signal.
- o In "Automatic" mode, the channels automatically illuminate with different timing interval for each channel.
- o Includes 4 LED indicators.
- o NOTE: Requires transformer 12VAC C.T. @200mA.

vendor	part number	description	price
HobbyTron	#UK186	4-Channel Digital Colour Organ assembled board	\$32.95 [10/2004]
Gibson Tech Ed.	#CK186	4 CHANNEL DIGITAL COLOR ORGAN KIT	\$21.84 [2/2004]

Battery-operated color organ kits



Velleman MK103

- Flashes a cluster of 4 red LEDS when built-in microphone detects sound.
- Sensitivity control.
- Operating voltage: 8-15VDC (9V battery); Power consumption: 0.5mA min., 12mA max.
- o Dimensions: 40W x 55L x 35mmH

Sources:

vendor	part number	description	price
<u>HobbyTron</u>	#V-MK103	LED Light Organ Kit	\$6.95 [1/2004]
<u>HobbyTron</u>	#V-MK103	LED Light Organ assembled	\$26.95 [1/2004]
Quality Kits	#MK103	LED Light Organ Kit	\$12.99 CDN [2/2004]
Gibson Tech Ed.	#V-MK103	LED Light Organ Kit	\$7.16 [2/2004]



Input sensitivity: 2W to 60W
 Power supply: 12v to 24V DC or AC
 Maximum load: 50W/12V - 100W/24V

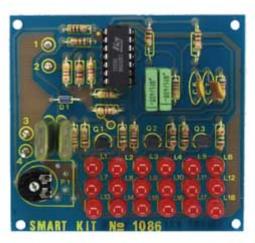
Velleman MK114

- Optically isolated speaker-level input.
- Adjustable sensitivity.
- Can be used in the car, if the lamps are isolated from the chassis

Sources:

vendor	part number	description	price
Quality Kits	#MK114	LIGHT ORGAN KIT	\$15.99 CDN [2/2004]
Gibson Tech Ed.	#V-MK114	Low Voltage Light Organ Kit	\$10.36 [2/2004]

• Smart Kit Electronics SmartKit #1086



- Three different channels respond to different frequencies.
- o Each channel has 6 LEDs.
- o Power supply: 12 VDC, 0.2 A max.

vendor	part number	description	price
Electronics 123	#CPS1086	Music to Light Modulator for the Car	\$16.95 [2/2004]

• Chaney Electronics #C6818



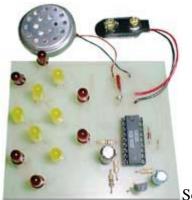
Board size: 5 1/16" x 3".

- 25 bright LEDs in red, green, and yellow light in an exploding star shape, controlled by the beat of the music.
- Audio input via electret microphone; no wiring to stereo.
- Power supply: 9V battery.

Sources:

vendor	part number	description	price
Electronic Goldmine	#C6818	Exploding Star Color Organ Kit	\$15.95 [2/2004]

• Chaney Electronics #C6446



- 6 jumbo red LEDs and 6 jumbo yellow LEDs, shimmering and flashing to the music.
- Audio input via crystal microphone; no wiring to stereo.
- Power supply: 9V battery.Board size: 2 3/4" x 3 1/8".

vendor	part number	description	price
Electronic Goldmine	#C6446	Shimmering Color Organ Kit	\$10.50 [2/2004]

• Chaney Electronics #C6815

- o 5 bright LEDs flash to the beat of the music.
- o Audio input via electret microphone; no wiring to stereo.
- o Power supply: 9V battery.
- o Board size: 1 13/16" square.

Sources:

vendor	part number	description	price
Electronic Goldmine	#C6815	Bright Star Color Organ Kit	\$6.49 [2/2004]

Special Color Organs

 CTI Kit Party



#7785 Strobe Kit

- Sound-sensitive Xenon strobe.
- Microphone input.
- Sensitivity control.
- Power supply: 110V AC.

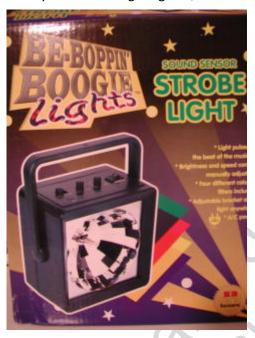
This one is interesting because it is a cross between a strobe light and a color organ. As such, I hoped it might be especially handy for <u>simulating lightning</u>.

I built one of these. The unit is fairly bright. It seems to work by flashing the xenon tube at a fixed rate as long as the sound level is over the selected sensitivity level. As such, I didn't like the effect for lightning - during the loud thunder passages, it flashed too regularly. It did a nice job flashing to the beat of music, though.

The PC board is marked "PARTY STROBE", "CTI-7785". The documentation is marked "Centerpointe Electronics Incorporated", "Copyright 1996 PracTrak, Inc."

vendor	part number	description	price
Gibson Tech Ed.	#9985	Audio Activated Musical Strobe	\$24.90 [2/2004]

• KB Toys #9985 - Boogie Light - \$7



- o Sound-sensitive Xenon strobe.
- Microphone input.
- Sensitivity control.
- Power supply: 110V AC.

This one is interesting because it is a cross between a strobe light and a color organ. As such, I hoped it might be especially handy for simulating lightning.

The first I heard of these was in the summer of 2001, when KB Toys was clearing them out. Scattered stocks still exist as of May 2002, going for about \$7.

The unit can operate either as a variable-rate strobe, or flashing according to music. I found the controls a bit finicky to adjust for lightning, but it worked fine for music. Others on the Halloween mailing list liked it fine for lightning.