

Short Circuits 3

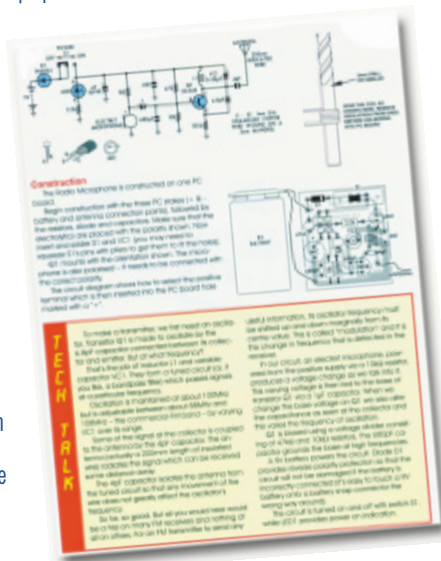
Like our Volume 1 book, Short Circuits Volume 3 is sold independently to each of the 30-odd projects. Some of the projects you will build include a Guitar Sustain Unit, a Universal Timer, Car Alarm, Two Lamp Flasher plus many more! There's even a project that demonstrates how you can use your computer to interface to the real world via your computer's parallel port. Building the projects described in Volume 3 will provide you with the confidence needed to tackle more complex projects, such as those described in the various electronics hobby magazines.

*Instructions to build all the projects are in the book - ie. you need the book to build the projects.

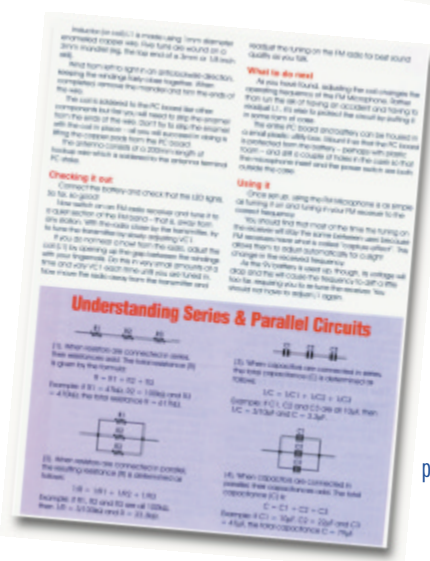


• Step by step instructions show you how to assemble each project

• Book: Cat BJ-8505



• "Techtalk" explains the operation of each circuit in detail, to help you gain a thorough knowledge of the "Building Blocks" used in circuit design.



• "What To Do Next" shows you how to modify or further improve your project.

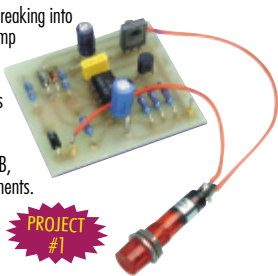
• Basic circuit theory is provided to increase your level of understanding.

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Dasher Flasher for Cars*

Deter thieves from breaking into your car with this lamp flasher. It mounts on your car dashboard and starts flashing when the ignition is off.

- Project includes PCB, lamp and all components.



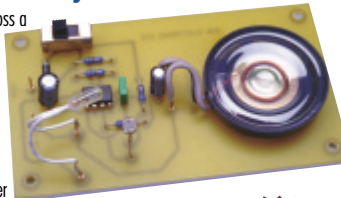
PROJECT #1

Cat. KJ-8050

Electronic Eye*

Mount across a path or doorway. When a person or object breaks the beam the loudspeaker will sound.

- Project includes PCB, LDR, speaker and all components.
- 12VDC power required.



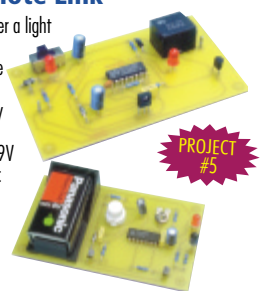
PROJECT #3

Cat. KJ-8054

Infrared Remote Link*

This can be used as either a light beam relay or a remote on/off switch. When the invisible infrared light beam is broken the relay will trigger.

- Project includes PCBs, 9V battery and all electronic components.
- Receiver requires 12VDC power.



PROJECT #5

Cat. KJ-8058

Ding Dong Door Bell*

Ideal for the front door. This generates the sound of a classic Ding Dong door bell.

- Project includes PCB, speaker and all components.
- 12VDC power required.



PROJECT #2

Cat. KJ-8052

Simple FM Alarm*

Recover your stolen goods using an FM radio. This project transmits a tone over the FM band so that you can track it

down using an FM radio.

- Project includes PCB, 9V battery and all electronic components.



PROJECT #4

Cat. KJ-8056

Simple Intruder Alarm*

This simple design features a normally open and normally closed input, 40 second siren duration and triggered LED indication.

- Project includes PCB, buzzer and electronic components.
- 12VDC power required

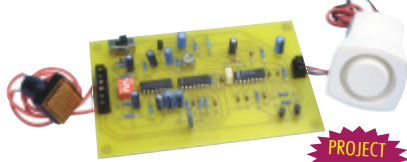


PROJECT #6

Cat. KJ-8060

SHORT CIRCUITS

Screamer Car Alarm*



PROJECT #7

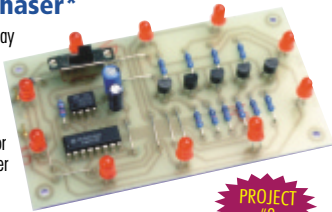
A more sophisticated alarm including entry/exit delay, flashing deterrent light, soft warning alarm and deafening internal siren. Thieves will make a hasty retreat!
 •Project includes PCB, siren and electronic components.

Cat. KJ-8062

Light Chaser*

Dazzling display using 10 LEDs that appear to chase each other. Build for a shop, theater or advertising display.

•Project includes PCB, LEDs and electronic components.
 •12VDC power required.



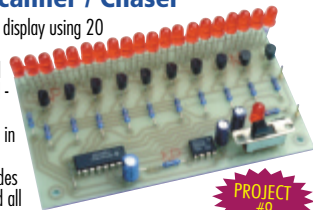
PROJECT #8

Cat. KJ-8064

Light Scanner / Chaser*

An impressive display using 20 LEDs that chase forward and backward - just like scanners seen in space movies.

•Project includes PCB, LEDs and all electronic components.
 •12VDC power required.



PROJECT #9

Cat. KJ-8066

Really Bright Flasher*

Attract attention with this bright halogen light flasher. The flash rate can be adjusted between 0.5 to 3.5 seconds. •Project includes PCB, 12V halogen lamp with base and all electronic components. •12VAC power required - use MP-3050.



PROJECT #10A

Cat. KJ-8068

Two Lamp Flasher*

Alternate flashing halogen lamps with an adjustable flash rate between 1 to 4 seconds.

•Project includes PCB, two halogen lamps with bases and all electronic components.
 •12VAC required - use MP-3050



PROJECT #10B

Cat. KJ-8070

The Champ Amplifier*

A cheap and handy amplifier that can improve low-level signal sources so they can be heard on headphones or a speaker.

•Project includes PCB, volume potentiometer & all electronic components.
 •12VDC power required.



PROJECT #11

Cat. KJ-8072

Universal Stereo Preamplifier*

If the input signal to your amplifier is not sufficient you will need a preamplifier such as this one to boost the signal.

•Project includes PCB & all electronic components.
 •12VDC power required



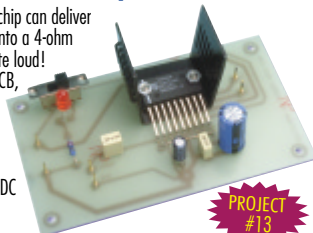
PROJECT #12

Cat. KJ-8074

High Power 12V Amplifier*

This amplifier-on-a-chip can deliver about 13.5-watts into a 4-ohm speaker. That's quite loud!

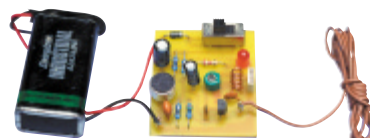
•Project includes PCB, amplifier IC, heatsink and all electronic components.
 •Speaker and 12VDC power required.



PROJECT #13

Cat. KJ-8076

Simple FM Microphone*



This FM transmitter has many possible uses including baby room monitor, wireless microphone or spy bug. It can be picked up on any FM radio.

•Project includes PCB, electret microphone, 9V battery and electronic components.

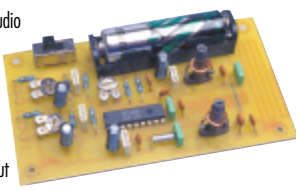
PROJECT #14

Cat. KJ-8078

Mini-mitter FM Transmitter*

Transmit stereo audio from your tape deck or CD player to any FM radio elsewhere in your house. You could even tune in on a portable walkabout radio.

•Project supplied with PCB, 1 x AA battery and electronic components.



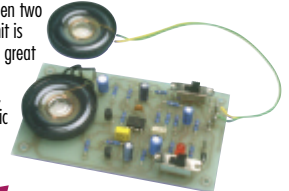
PROJECT #15

Cat. KJ-8114

Low-cost Intercom System*

A low-cost method of communicating between two rooms. The remote unit is hands free so it's also great as a baby monitor.

•Project includes PCB, speakers and electronic components.
 •12VDC required.



PROJECT #16

Cat. KJ-8080

Electronic Bongos*

Sounds just like two traditional bongo drums. Use with the high power 12V amplifier (project 13) for amazing results.

•Project supplied with PCB and electronic components.
 •12VDC power required.



PROJECT #17

Cat. KJ-8082

VOX - Sound Switch*

This sound-activated switch closes a relay when a loud-enough sound is heard. It switches off when the sound stops. Ideal for radio transmitters or surveillance applications.

•Project includes PCB, relay, electret mic and electronic components.
 •12VDC required.



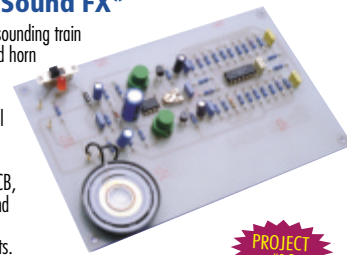
PROJECT #18

Cat. KJ-8084

Train Sound FX*

Authentic sounding train whistle and horn sound effects for your model railway.

•Project includes PCB, speaker and electronic components.
 •12VDC power required.



PROJECT #19

Cat. KJ-8086

Wind and Rain SFX*

Simulates the sound of falling rain or howling wind. Must be connected to an amplifier (use amplifier project 11 or 13).

•Project includes PCB and electronic components.
 •12VDC power required.



PROJECT #20

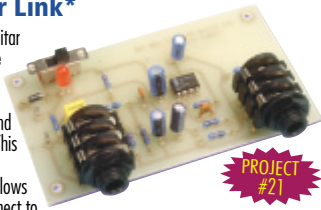
Cat. KJ-8088

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Guitar Link*

Play the guitar without the need of a guitar amplifier and speakers. This neat pre-amplifier allows you to connect to virtually any amplifier including your home hi-fi.

- Project includes PCB, 6.5mm sockets & electronic components.
- 12VDC power required.



PROJECT #21

Cat. KJ-8090

Universal Tone Control*

This tone controller can be set to enhance the low or high frequencies of your music. It can be used for guitar or any other audio source.

- Project supplied with PCB, 6.5mm sockets and electronic components.
- 12VDC power required.



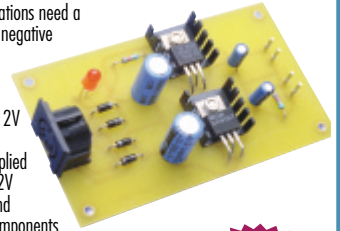
PROJECT #25

Cat. KJ-8098

Regulated +/- 12V Power Supply*

Some applications need a positive and negative supply. This circuit will supply a +12V and -12V rail.

- Project supplied with PCB, 12V regulators and electronic components.
- Requires plugpack MP-3055



PROJECT #28B

Cat. KJ-8106

Guitar Practice Amplifier*

This low cost amplifier allows you to practice your guitar without annoying the neighbours. It has a guitar type input socket, small speaker and volume.

- Project supplied with PCB, speaker, socket and electronic components.
- 12VDC power required.



PROJECT #22

Cat. KJ-8092

Guitar Sustain Unit*

Add this sustain unit to your guitar to make it sound more fulfilling. Features adjustable Decay and Attack.

- Project supplied with PCB, 6.5mm sockets and electronic components.
- 12VDC power required.



PROJECT #26

Cat. KJ-8100

Universal Timer*

This timer is adjustable between 1-second to 3.5-minutes. An LED illuminates during the timing period and a buzzer sounds at the end.

- Project supplied with PCB, buzzer & electronic components.
- 12VDC power required.



PROJECT #29

Cat. KJ-8108

Guitar Twang-O-Matic*

Add an unusual effect to your guitar that's different from the run-of-the-mill effects. It sounds somewhat reminiscent of an Hawaiian guitar.

- Project includes PCB, 6.5mm sockets & all electronic components.
- Amplifier and 12VDC power required.



PROJECT #23

Cat. KJ-8094

Guitar Distortion Unit*

Distortion is popular with many guitarists. It can make the music sound quite different.

Project includes PCB, 6.5mm sockets and electrical components.

- 12VDC power required.



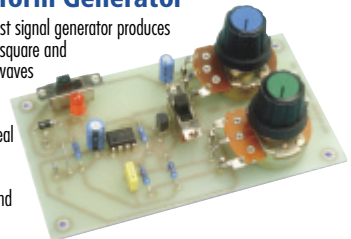
PROJECT #27

Cat. KJ-8102

Waveform Generator*

This low-cost signal generator produces adjustable square and triangular waves between 100Hz-20kHz. Ideal for testing, troubleshooting and developing circuits.

- Project supplied with PCB & electronic components.
- 12VDC power required.



PROJECT #30

Cat. KJ-8110

Guitar Waa-Waa*

Add the popular Waa-Waa effect to your guitar to sound really distinctive.

- Project supplied with PCB, 6.5mm sockets and electronic components.
- Amplifier and 12VDC power required.



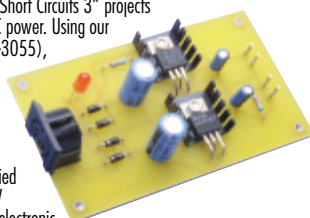
PROJECT #24

Cat. KJ-8096

Regulated +12V Power Supply*

Many of the "Short Circuits 3" projects require 12VDC power. Using our plugpack (MP-3055), this low cost power supply is ideal to power these projects.

- Project supplied with PCB, 12V regulator and electronic components.



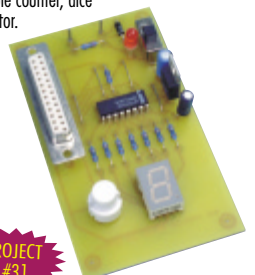
PROJECT #28A

Cat. KJ-8104

Computer Driven Display*

This project demonstrates how you can use your computer to interface to the real world via the parallel port. Three basic programs are included: simple counter, dice and random number generator.

- Project supplied with PCB, D25 socket, computer cable & electronic components.
- 12VDC power required.



PROJECT #31

Cat. KJ-8112

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