SHORT CIRCUIT™

by
David Schroeder

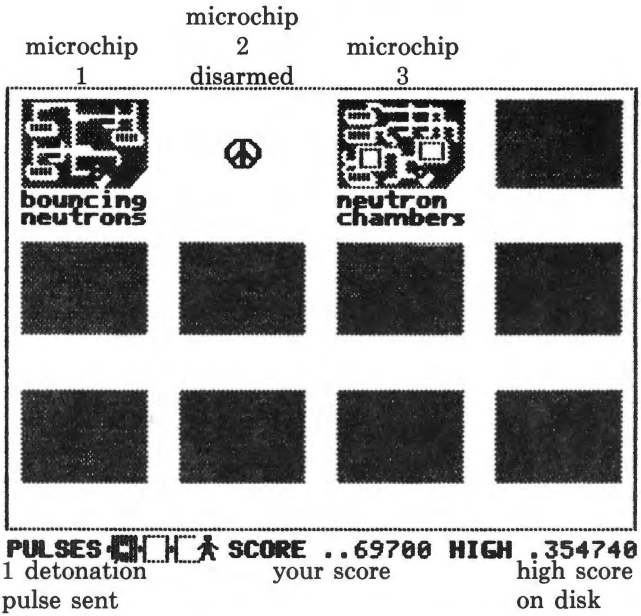
dedicated to my friend Brian

DEVICE ZX88B — mistakenly activated during a moment of feverish international tensions — is about to trigger twenty Doomsday Bombs from a series of enemy satellites encircling the Earth! The world holds its breath as you are assigned to disarm THE DEVICE before it DETONATES the bombs!

DEVICE ZX88B is a sophisticated failsafe system built to resist tampering. It cannot be turned off. It cannot be destroyed. The twelve microchips within it are designed to send DETONATION PULSES to the enemy satellite network within minutes of activation. The source of these pulses is the MICROFUSE built into each of the twelve microchips.

MASTERBOARD. The masterboard within Device ZX88B represents all twelve microchips and shows you which are available for you to enter. Enter a microchip by typing the number that flashes within it. As long as your game lasts, you will always have a choice of at least two microchips to enter. But the game evaluates the quality of your play, and awards a greater number of choices after a well played screen. You may enter the given microchips in any order. If one defeats you (sends a detonation pulse), you may re-enter it immediately or choose a different microchip, hoping to have a chance to re-enter the difficult microchip later in the game.

MASTERBOARD OF DEVICE ZX88B



This screen shows the masterboard of microchips that must be disarmed within Device ZX88B. The electron has the option of entering microchip 1, bouncing neutrons, or microchip 3, neutron chambers. Microchip 2 has been successfully disarmed. One pulse has been sent. If two more pulses are sent the game ends.

ELECTRON. Your only hope is to use experimental shrinking technology and invade each microchip as an electron, turning the system's power against itself. Every time a microfuse is allowed to connect, a detonation pulse is sent. Three PULSES will begin the Doomsday attack to blow up the Earth and end the game. In other words, you have THREE chances (pulses) to disarm the microchips and save the Earth.

MICROBATTERIES. You use the power voltage stored in the microbatteries to OVERLOAD, and disarm each microchip. As an electron, you go to a battery to TRANSFER POWER to EACH of the other two batteries. You continue to go to a battery and send power until one of the batteries becomes overloaded with power voltage. The overloaded battery will begin to flash. At this

time the microchip is vulnerable and so are you. You must reach the flashing battery without being hit. This causes the circuit to blow, and keeps it from sending pulses. You then begin a Lightning Run for bonus points. If more than one battery is overloaded at once, the voltage is combined for your Lightning Run and you only have to get to one of them. After completing a lightning run you choose and enter another microchip. You save the Earth when all twelve microchips have been disarmed.

Care is necessary when feeding the power into a battery that will push it over 999 and overload it. An overloaded (flashing) battery can accept NO FURTHER POWER from any source. If a flashing battery is drained to 000 (either from being hit or passage of time), it is a dead battery, that is, the digits will not "roll over" from 000 to 999 and you must continue to overload another battery in that microchip.

NEUTRONS, DOUBLE NEUTRONS and PHOTONS. Avoid being hit by these foreign particles that pulsate throughout the microchip. Contact with any of these will drain microvoltage from one of the batteries and alert THE DEVICE of your intrusion. FIVE HITS will cause the system to eliminate you and immediately make the microfuse connect.

Photons drain 100 microvolts from each battery
Neutrons drain 300 microvolts
Double Neutrons drain 500 microvolts

MICROSPARK. As an electron, contact with the microspark will send a POWER SURGE through the microchip. Sparks are usually found at dead ends. The spark will send 100 microvolts to each battery. If any battery reads above 500, only 50 microvolts will be sent.

MICROFUSE. The microfuse is the heart of each microchip. Do not let the left and right sides connect. If the connection is made a DETONATION PULSE will be sent. Go to the fuse when it is close to connection (you will hear it begin to tick). You will REVERSE THE POLARITY and when it is close enough to connecting, you will slow down its progress.

The fuse will automatically connect if:
–all batteries have drained to 000, or
–you have been hit by neutrons or photons five times.

RUNNING UP YOUR SCORE

LIGHTNING RUN. During the lightning run you can run up your score and get revenge on the neutrons and photons. The microchip is disarmed at the moment you arrive at the flashing battery. The excess voltage remaining on the flashing battery (or batteries) becomes your LIGHTNING RUN TIME so you'll want to get there as soon as possible. The more you overload a battery the more time you will have for a lightning run. During this time you WANT to hit as many neutrons and photons as you can for points:

a photon hit earns 1000 points
a neutron hit earns 3000 points
a double neutron hit earns 5000 points

LIGHTNING. During the lightning run the spark becomes lightning. Each time you make contact with the lightning, your subsequent hits are multiplied by a larger number (to a maximum of 9), meaning that hitting a double neutron can score up to 45,000 points. Connect with the lightning to produce extra protons and neutrons during the lightning run.

VACUUM. Avoid the vacuum that roams the circuitry during the Lightning Run. Hitting it will end your Lightning Run regardless of time remaining on clock.

Other points: every microvolt added to the system (either from a power transfer or spark surge) adds 10 points to your score.

THE TWELVE MICROCHIPS:

1. **bouncing neutrons.** Neutrons move slowly.
2. **quicker neutrons.** (pictured below) Neutrons move faster. Crucial timing is required to jump through neutron when jumping from wire to wire.
3. **neutron chambers.** Electron moves along the wires and anywhere within the 2 neutron chambers.
4. **photon chamber.** Electron moves along the wires and anywhere within neutron and photon chambers. Beware of the flashing electron guns preparing to fire photons.
5. **chamber maze.** Travel through the walls of the maze rather than on the wires. Travel on wires only outside the maze.

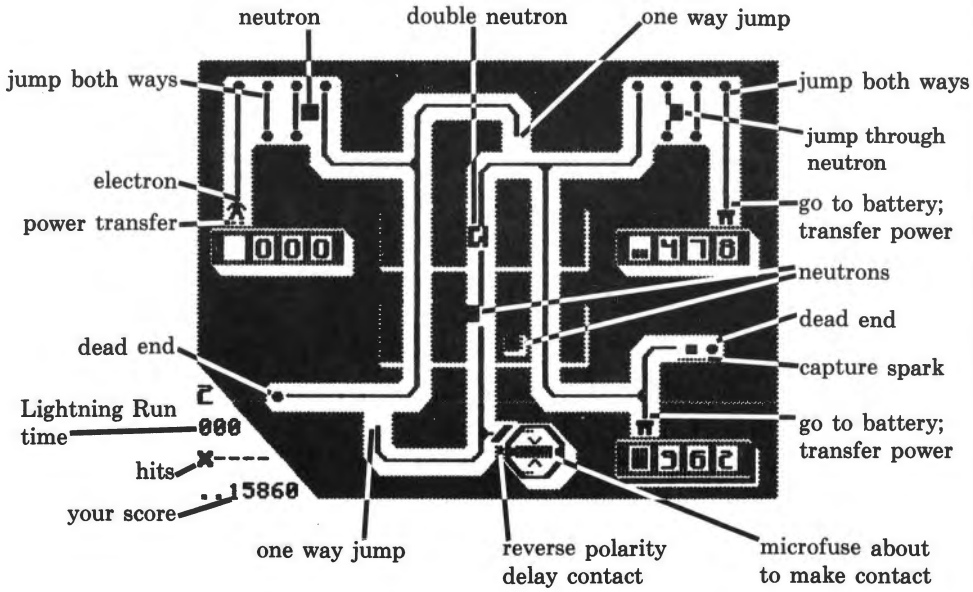
6. **double-cross chamber.** Depending on where electron enters double-cross chamber determines whether you travel on wires or between walls.
7. **magnetic chamber.** Be aware that the polarity of the magnetic force within the magnetic chamber changes drawing you to either side without warning.
8. **high-speed microchip.** Microfuse connects faster and microbatteries drain ten times faster.
9. **the short circuit.** Short circuit moves quickly. Crucial timing is required to jump through it.

A. **photon wire maze.** Beware of the one way wires.

B. **photon walls.** Combine all of your talents to jump wires and move through the chamber walls.

C. **photon diamonds.** Maneuver through the diamond maze and skillfully jump through the short circuit.

QUICKER NEUTRONS
MICROCHIP 2



ABOUT THE AUTHOR

David Schroeder was born and raised in Sidney, Ohio. As a teenager, David wrote board games, designed countless miniature golf courses on paper and wrote music. He conducted concerts of his own orchestral compositions in high school. At Yale University he studied and created electronic music and films. As a writer/producer, David has hosted his own radio comedy programs, and had humorous pieces broadcast on National Public Radio. His first computer game — CRISIS MOUNTAIN (1982) — takes you inside an active volcano where you must find and deactivate nuclear devices to survive. David's second game is DINO EGGS (1983), in which the hero Time Master Tim travels back into the Mesozoic Era to try to save the dinosaurs from extinction. David lives in Seattle, WA and is hard at work on a fourth game.

Limited Warranty

If your disk does not operate within 30 days of purchase, return your original disk in a heavy protective shield, along with the copy of your sales receipt for free replacement. Send it to Micro Fun at 2699 Skokie Valley Road, Highland Park, IL 60035. After 30 days, send it to us with $5.00 for replacement.

ISBN0-918643-30-9

SHORT CIRCUIT™

APPLE VERSION

Requirements

Short Circuit operates on Apple II series computers with 48K RAM and joystick (Apple or joyport/Atari type).

Start the game

Place the disk in the disk drive label up. Gently push the disk into the drive until it settles with a click, then close the drive door and turn on the monitor and computer. The disk remains in the drive during game play.

After the game loads, the title screen shows a brief introduction followed by the 12 microchips of the masterboard within Device ZX88B.

Controls

Press **space bar** to begin game from title screen.

Joyport users begin and restart EACH game by pressing **Control–P** to select Atari-type joystick input.

The masterboard shows you the two chips you are allowed to enter. Press the **number** that corresponds with one of these chips. You, the electron, will shrink and enter that microchip to try to disarm it.

Should you lose a game by sending detonation pulse three, press **space bar** to cut short the "Earth explosion" sequence and restart the game.

You can electronically ZAP to a nearby circuit wire, if the wire is close enough. First **move the joystick up, down, or diagonally** in the direction you want the electron to jump and **push the button.**

Control–S turns sound on/off. Toggles the sound between the Apple speaker and the cassette output jack where it is available for amplification.

Control–R restarts the game at any time.

Esc pauses game. Press **Esc** again to resume play.


micro fun®
Short Circuit™
Copyright 1984 by David H. Schroeder.
Micro Fun® and Short Circuit™ are
registered trademarks of Micro Lab®, Inc.
data data data data data data data data data data data data data data data data
data data data data data data data data data data data data data data data data
data data data data data data data data data data data data data data data data
data data data data data data data data data data data data data data data data
data data data data data data data data data data data data data data data data
data data data data data data data data data data data data data data data data
data data data data data data data data data data data data data data data data
data data data data data data data data data data data data data data data data
data data data data data data data data data data data data data data data data
data data data data data data data data data data data data data data data data
data data data data data data data data data data data data data data data data
data data data data data data data data data data data data data data data data
data data data data data data data data data data data data data data data data
data data data data data data data data data data data data data data data data
data data data data data data data data data data data data data data data data
data data data data data data data data data data data data data data data data
data data data data data data data data data data data data data data data data
data data data data data data data data data data data data data data data data
data data data data data data data data data data data data data data data data
data data data data data data data data data data data data data data data data
data data data data data data data continuous error free data with 3M diskettes