

V10N 8 September October 1983
END 41 SOFT CRASHES

55

The end of soft crashes as we know them. The magic box: "THE UNLOCK MODULE" — What it does: In 99 percent of all crash cases it brings the 41 back to life within 2 seconds by means of a simple touch control. When you fear a crash is likely you can stop it before it happens.

On the way to a "memory lost" you can take control back into your own capable hands.

How does it work? When the 41 crashes, this can have several reasons:

- long microcode calculations (for example log for 00 00 01 00 00 00 00)
- unending microcode routines (packing)

The 41C also uses one of its lines (PWO: POWER ON) to signal to the ROM, RAM and others that the CPU is running or active.

This line (open collector output) is high when running, low in sleep mode. Low means, from the ROM and RAM view point that the CPU is not working.

When this line is held low by the user (you) the ROM or RAM does not send any data to the microprocessor so that this one is at a halt. 99 percent do not give MEMORY LOST. Sometimes you disturbed it at a very Awkward moment and you win the first prize.

Hardware:

- 1) Very simple and dangerous, creation of high voltage spark.

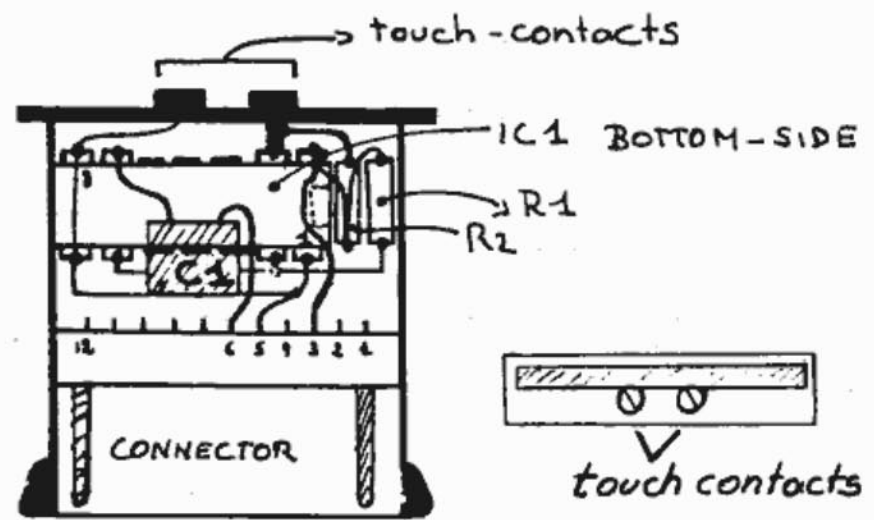
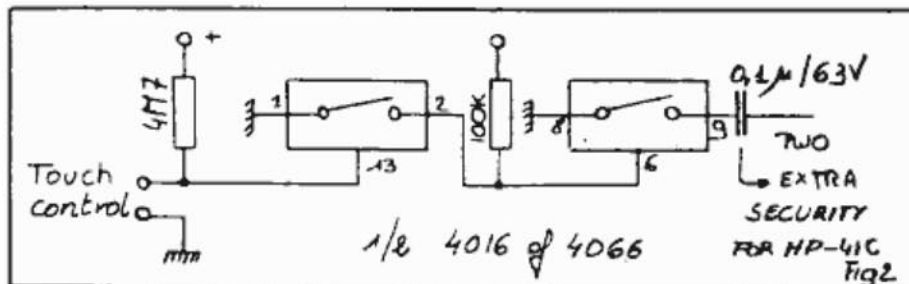
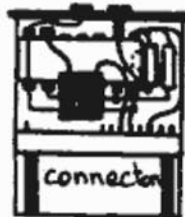
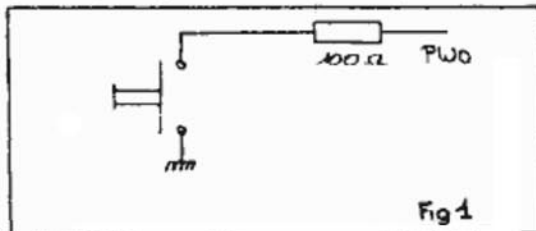
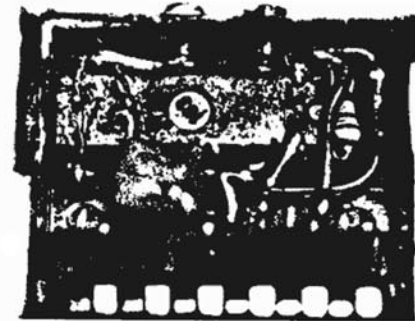


Fig 3



All of it can be built into one empty module.

Costs: 20 dollars when no module is supplied or module supplied by the client

40 dollars if module is supplied by us.

Three months of experience show no hick-up's from the 41C(v) point of view.

Jo Vandale Brugge Belgium

I thought I'd write to express my satisfaction with the "Crash Recovery Module" as described by Jo Vandale (V10N8P55), and perhaps clarify a few points for those who found his schematics unreadable.

The crash recovery module, as I have termed it, resembles a standard 41 plug-in accessory except for 2 touch contacts mounted on the back. When a human finger touches both contacts, the PWO line is grounded and the 41's CPU halts all activity. I use it extensively when my IL Converter circuitry decides not to acknowledge communication and locks up the loop. It is especially valuable when you're dealing with synthetically induced crashes, and would like to break out of a microcode loop and take control for a change.

I built one of these modules three months ago and it has worked flawlessly ever since. It uses only four parts which are commonly available:

- 1) A 4066 (CMOS) Quad Analog Switch/Multiplexer.
- 2) A 100K ohm resistor.
- 3) A 4.7Megohm resistor. (That's the part at the extreme left, Fig. 2 of related article.)
- 4) A .1µF capacitor.

For those of you who are not well versed in micro-electronic surgery, Mr. Vandale offers to build one for you for \$40. (\$20. if you supply an empty module), which is truly a bargain considering the amount of tedious work involved.

I strongly feel that this is an excellent tool to aid anyone who explores forbidden territory (or, as in my case, anyone who grows impatient with a 2 min. DAVI IL timeout), and should not be overlooked by the community that would appreciate it the most.

Gary Friedman (6522)