

Remi's Classic Computers

Vintage computers and game consoles, history, specs, repair and restoration.

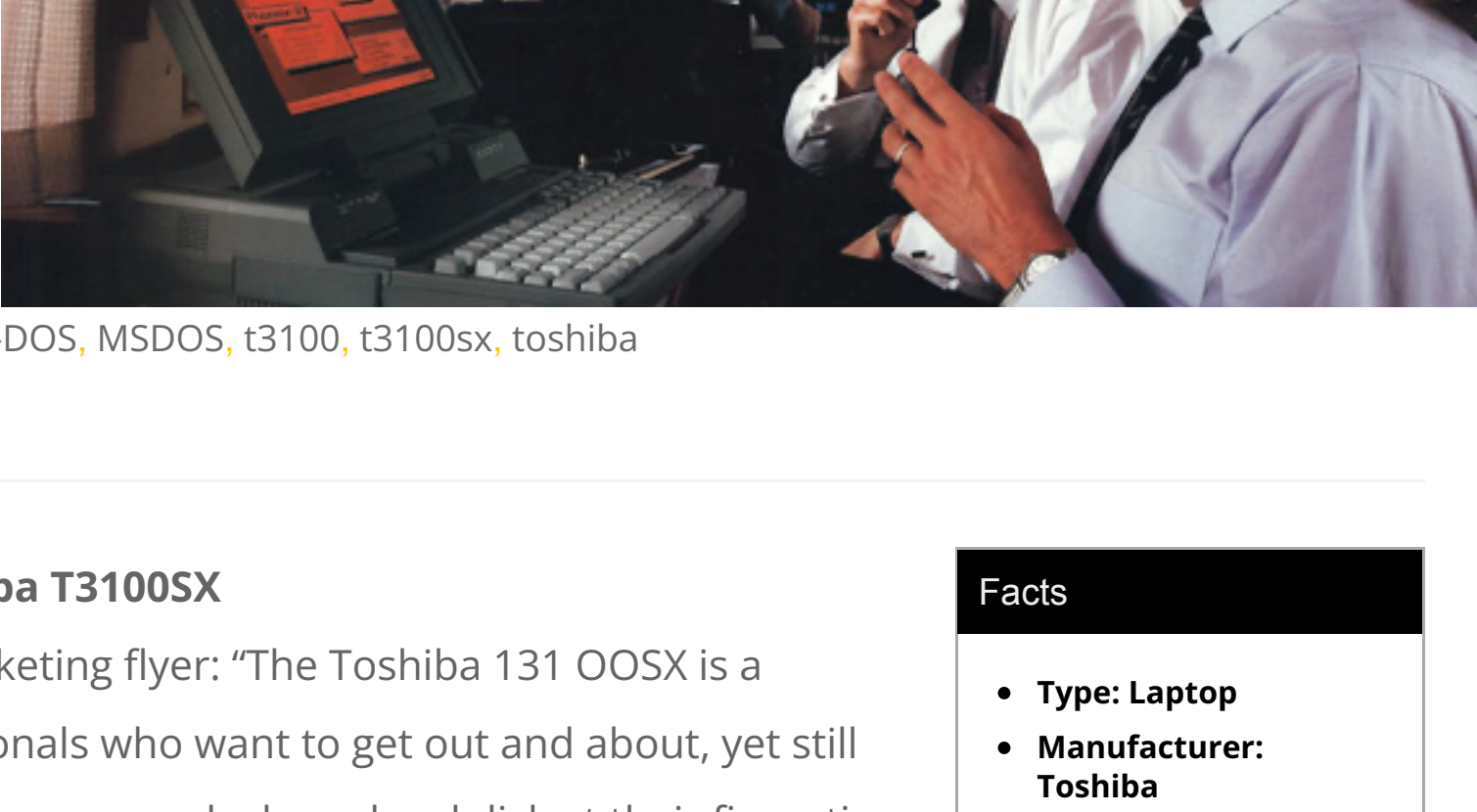
Computers Portables Arcade Game consoles My articles About me 🔍

Toshiba T3100SX

Computers

Portables

🔥 Remi Jakobsen



🔥 386sx, gas plasma, MS-DOS, MSDOS, t3100, t3100sx, toshiba

Released 1990: Toshiba T3100SX

Text taken from a marketing flyer: “The Toshiba 131 OOSX is a computer for professionals who want to get out and about, yet still have full i386SX-based power and a large hard disk at their fingertips. It's the first battery-powered computer to feature a fast response, low-power VGA plasma display. So now it's possible to take advantage of the new wave of graphics-based applications anywhere you choose.

Working In Your Own Free Style

Toshiba is dedicated to making portable computing just as comfortable as desktop computing. That's why the T3100SX keyboard is designed to feel just like the desktop keyboard you're used to. There are 88 full-size alphanumeric keys, 8 dedicated cursor keys and the full range if 12 function keys. Even more impressive is the VGA screen. Unlike other battery portables, the T3100SX uses low-power gas plasma display technology for faster response, high contrast, lind crisp legibility. And since the battery-powered T3100SX is no larger than a normal briefcase, you can carry Its high performance and comfort wherever you need to work.

Both In The Office And Out

The T3100SX is so effective it will even replace bulkier desktops in the office by offering much more in terms of mobility and versatility. The i386SX microprocessor provides full compatibility with all industry-standard applications and operating systems. Standard RAM is 1 MB, and can be expanded to up to 13 MB as your needs grow. Depending on your data and program requirements, you can choose either a 40 or 80 MB hard disk. As for connectivity, the T3100SX is fined with a generous selection of standard interlaces and expansion slots. Including two serial interfaces, a modem slot, and a Toshiba slot for networking of other add-ons. If you need even more slots, there's the new Toshiba Desk Station III that provides additional industry-standard slots and ports. All this makes the T3100SX the only computer you'll need – both in the office and out.

Toshiba Details

For Toshiba, being the world leader in laptops means offering extras that others don't. To get you off to a brisk start, Toshiba Auto-Resume mode lets you return automatically to where you were working when you last turned off – it's like having an electronic bookmark. The T3100SX also uses a sophisticated power saving scheme, Max Time Power Management, which provides the longest possible life on each battery charge. And like all Toshiba laptops, the T3100SX has passed rigorous quality control tests for the highest standards of on-road reliability and robustness. Still, should you ever have reason to call our customer service, you can be certain a Toshiba expert is close at hand – quick, professional and world-wide. The T3100SX is another portable solution from Toshiba, the laptop leader. Helping you be successful in your own free style. If you want to know more, contact your nearest Authorized Toshiba Dealer.”

My Toshiba T3100SX

The same guy that gave me the Toshiba T1000 messaged me again and gave me this T3100SX. He told me he found this computer in an automotive workshop full of dirt inside and out. He had already cleaned the T31000SX up real good but it was dead when turned on.

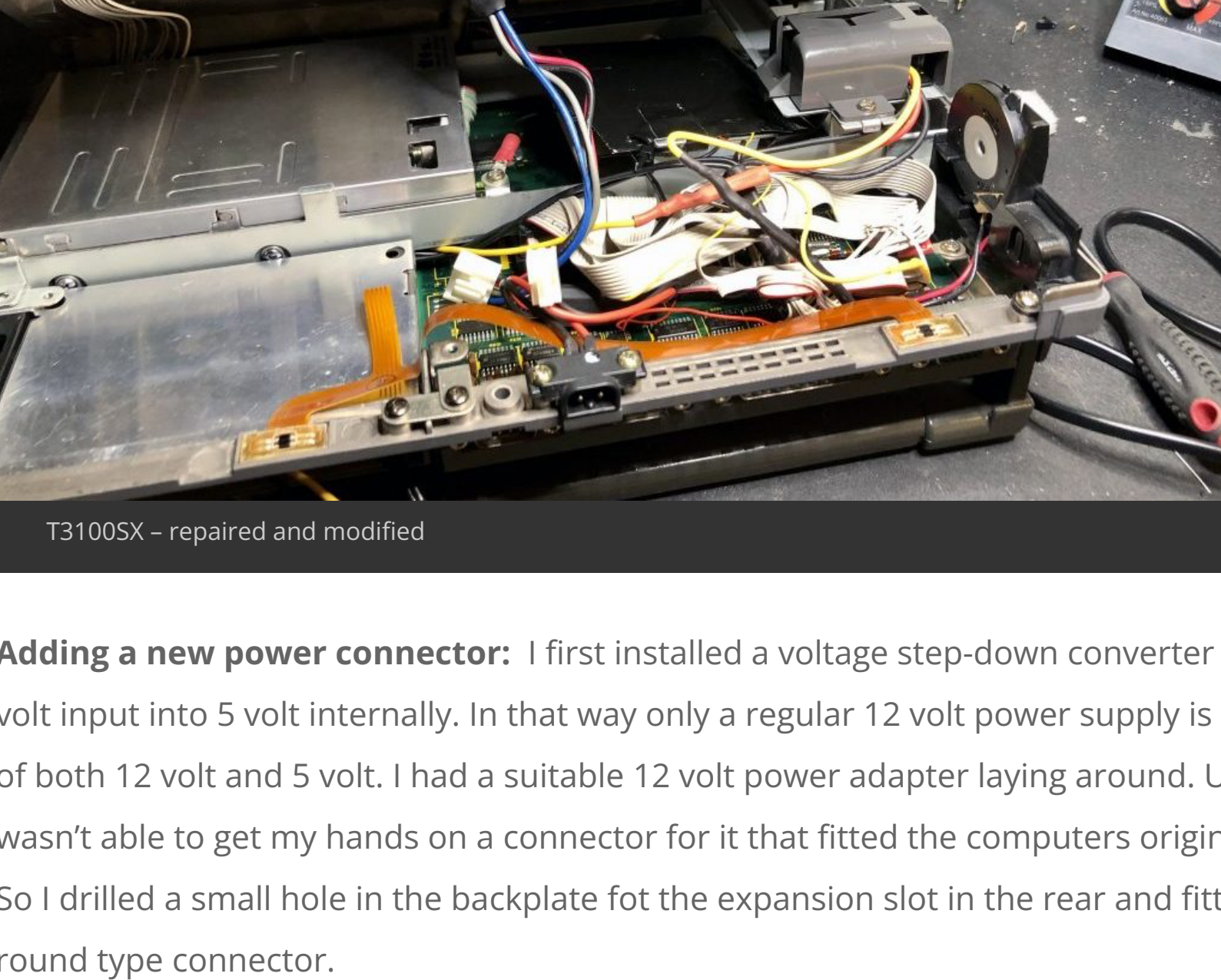
The original 15V brick supply was lost somewhere as well so I got only the main unit. Update: Later I was contacted because he had found the original brick supply, so I know got that as well.

Removal of power regulator board: This machine has a microprocessor controlled “voltage regulator/power management” PCB that seems to contain capacitors that has leaked and damaged traces. I removed the “voltage board” all together.

Connecting power to the main board: I managed to bypass the removed “regulator board” by preparing a ribbon cable for the connector on the main board where the regulator board was connected. I connected GND, 5 volt and 12 volt to the necessary pins on the connector and used a regular PC ATX power supply to do the testing. It worked out fine and the computer powered up.

Replace the harddisk: Not a big surprise, the harddisk was “dead”. The harddisk itself uses a normal IDE interface but it uses a proprietary ribbon connector with four extra pins to also provide power within the same cable instead of using the normal Molex connector for power. I manage to figure out the extra pins and adapt a normal IDE cable. I first tried to install a CF-card adapter to use as harddisk but the computer was not happy about CF-adapter so I successfully installed a SD-card adapter instead and used Ontrack BIOS overlay software to setup a bootable partition with MS-DOS.

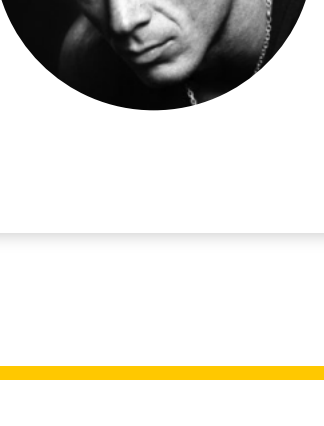
Fixing gray scales on monitor: I noticed the display on the gas plasma monitor missed its sixteen gray scales and was only displaying one “color”in addition to the background. I found the service manual online and the schemes for the internal connectors. After some fiddling, by cutting off the “display control line” that carries a low voltage signal, the monitor lid brighter and also displayed the missing “gray scales” as supposed to, great.



Adding a new power connector: I first installed a voltage step-down converter to convert 12 volt input into 5 volt internally. In that way only a regular 12 volt power supply is needed instead of both 12 volt and 5 volt. I had a suitable 12 volt power adapter laying around. Unfortunately, I wasn't able to get my hands on a connector for it that fitted the computers original power input. So I drilled a small hole in the backplate fot the expansion slot in the rear and fitted a normal round type connector.



Fixing the power LED: I also soldered in a small jump wire on the small PCB that holds the LED's for the power LED to lid when the computer got power and is working. Normally the removed voltage regulator card provides signal for this LED.

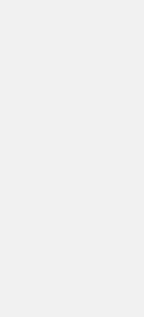


Remi Jakobsen

I'm collecting classic computers and video games, stretching from the 70's into the 90's. Restoration, history, usage ...

🔥 Texas Instruments TI-99/4A Osborne 1 🔥

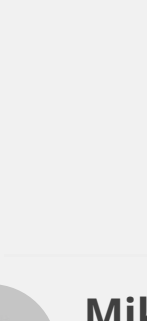
7 thoughts on “Toshiba T3100SX”



Billy Pate
February 26, 2024 at 16:32

patebilly87@gmail.com
Hello I have a Toshiba T3100SX
I was wondering if you would be interested in it. The screen doesn't come on but you can see it has power, not sure if that's a quick fix but with it being a old computer i figured it would be worth it to someone who collects. Thanks

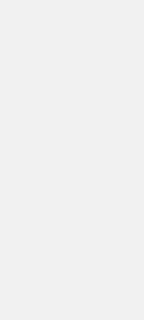
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Author: Remi Jakobsen
February 27, 2024 at 09:03

Where are you located? Are you thinking about donating it? The value is not that much so its might not worth the freight expenses for me personally.
This computer got a complex 'power controller board' that allways got damages from spilled electrolytic liquid that is hard to repair.

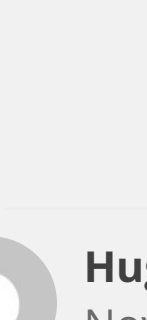
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Mike M
February 8, 2025 at 22:56

Wow, this is a great write up and thanks for sharing. I have 2 of these that I just fully recapped. One is working perfectly but needs a hard drive. The other has damaged traces on the PS board so I will be doing what you did here!
I was wondering what SD to IDE adapter you used that work? Also, there is 3inONeder kit to use the expansion slot as a hard drive, sound card and ethernet port.

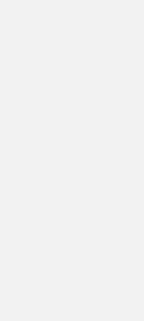
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Author: Remi Jakobsen
February 9, 2025 at 14:44

Thanks! I think any cheap 'china' off ebay, sd to ide adapter would work.
I've got another Toshiba with same kind of PS board I'm currently working on. I want to get all working and kept original.

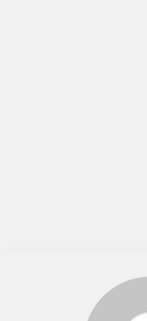
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Hugo G
November 26, 2025 at 21:34

Hi !
I recently bought this computer for €90, untested. I didn't come with the charger, so it wasn't tested, but I'm sure it wouldn't have worked anyway. The capacitors leaked badly, and the power supply board is too far gone (lot of traces are eaten away).
I have a few question about your modern power supply replacement :
-Did you use a floppy drive cable ?
-Which DC-DC converter did you use ? There's about 3A on the 5V rail, therefore an MT3608 won't work.
-Did you jumper de 12V rail with the DSPV rail ? I heard the display won't wake up without 12V on DSPV pin.
I already cleaned the mainboard in my ultrasonic cleaner and recapped it, looks pretty clean now.
I'm 17, so €90 is a big investment for me, and I really need to get this behemoth working again 😊
Thanks for the answers !

Reply 🗨



Author: Remi Jakobsen
November 27, 2025 at 00:19

I think you payed to much, 20 euro would made more sense.
– I probably used a floppy, ide pata or scsi cable, all uses the same kind of connector and cable, just different with and number of pins.
– I dont remember, it was a cheap China step down converter module thing. It will not draw 3A, CF card draws much less than a harddisk.
– Maybe, I dont remember, but Ive looked up the pin scheme in a service manual I found using Google.
Great work cleaning the pcb. Good luck.

Reply 🗨



Hugo G
November 27, 2025 at 13:45

Thanks !

Reply 🗨

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