

Atari Lynx has an unreliable power circuit, this kit will prolong the life of your Lynx.

SKU: LNX-MOSZEN

Product link: <https://k-retro.com/atari-lynx-power-capacitor-and-nimh-kits/46-power-circuit-rebuild-kit-mosfet-and-zener-for-atari-lynx.html>

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## Kit Contents

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1x MOSFET

1x Zener diode

## Required Tools and Consumables

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Soldering Iron, Solder Braid, Side Cutters, Tweezers, Isopropyl Alcohol (IPA)

## Assembly Instructions

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**1.** This manual assumes you followed our disassembly guide and your Lynx is already taken apart.

**2.** Lynx model 1 and 2 can use the same parts, however the part names and locations are in different places on the motherboard. The detailed guide is for the model 2, but the same steps apply to model 1 once you have located the components to replace.

Lynx 2 uses the following component names:

D13: Zener diode

Q12: MOSFET

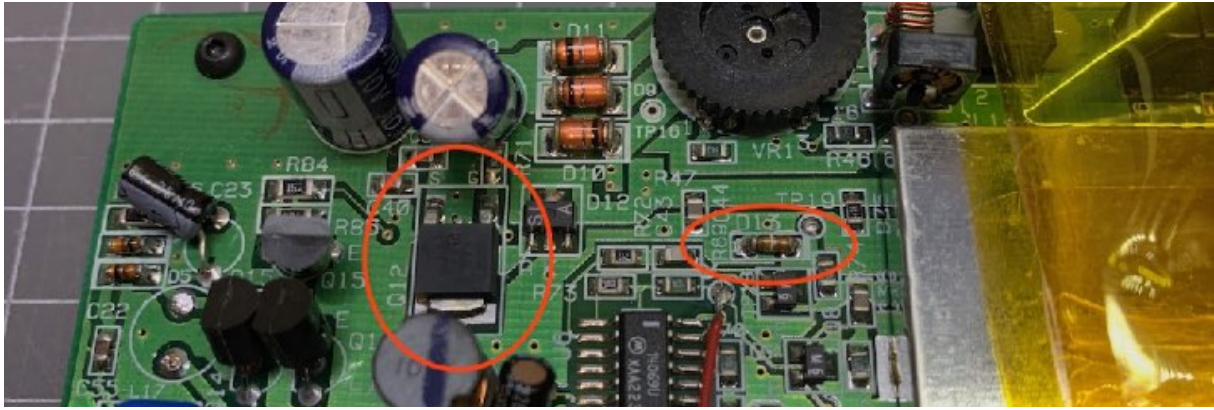
Lynx 1 uses the following component names:

ZD1: Zener diode

Q11: MOSFET

**3.** Locate the components on the motherboard.

Lynx 2 - The MOSFET is located below the C39 capacitor on the top left section of the motherboard. It should be easy to spot. The zener is to the right of the MOSFET and directly under the brightness adjustment wheel.



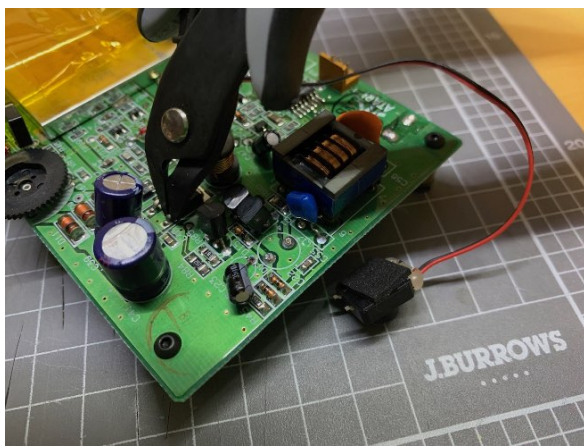
Lynx 1 - The MOSFET is located on the top left section, above the speaker. The zener is to the right of it between TP19 and Q4 - along the top edge of the motherboard.



Hint - the transistor and the LED orientation is important and their outline is drawn on the PCB, simply match the flat parts and it will be oriented correctly.

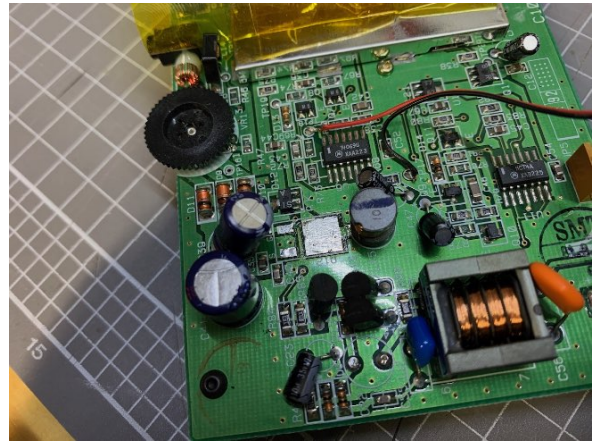
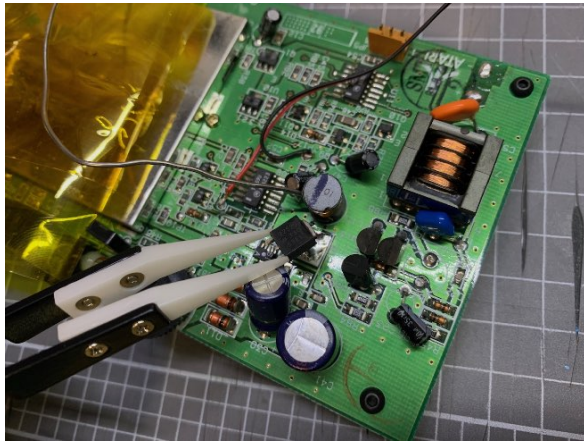
**4.** Remove the MOSFET. Using side cutters, snip off the thin legs on the MOSFET. This will let you desolder it much easier. You should have two clean cuts through these two legs. When clipping the legs off of the MOSFET try and clip them near the top of the legs where they go into the package. This way, you are putting less stress on the lower portion of the legs and pads this way.

NOTE: Use small, sharp side cutters for this. If you use larger side cutters, you can rip the solder pads off the PCB. If you don't have access to small side cutters, use solder wick to soak up as much solder around the legs as possible and then heat each leg, lifting it slightly in turn until there's no more contact with the motherboard.

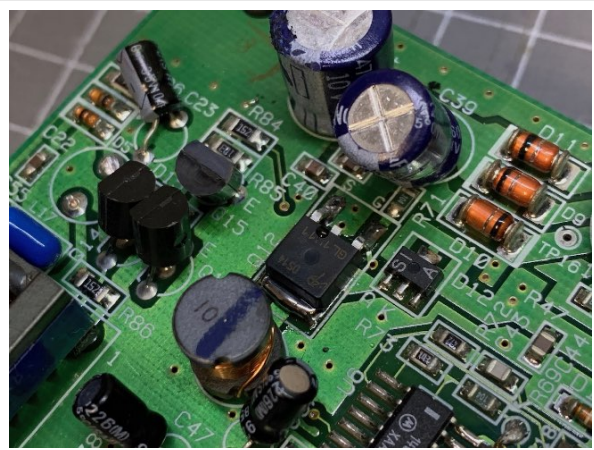
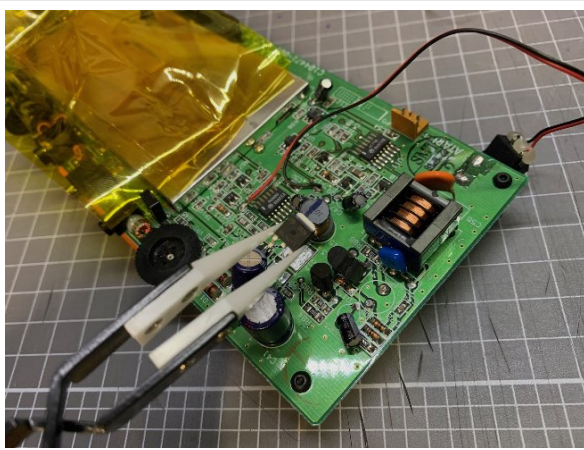




5. Now you can apply heat with a soldering iron on the drain (the big metal tab at the top). Once solder under the tab melts, the MOSFET should be easy to pull out with tweezers. Clean up any excess solder left on the pads using some solder wick.



6. Install the new MOSFET. Position the new MOSFET into its home and solder it in. It's usually easier to solder one of the two legs first, then the tab at the top. The tab requires a bit more heat due to its size so having the component secured by one leg will make your job easier.



7. Remove the Zener.

Lynx 2 - It can be a little tricky to remove this zener as it's an SMD part. Start with heating up one side with a soldering iron and using solder wick to remove as much solder as you can, repeat on the opposite side. If the zener is still attached, heat one side and gently lift that side a fraction of a millimetre. Don't lift it fully as that may strip the solder pad on the opposite end. Now heat the opposite end and lift that slightly too. After another 1 or two passes of doing this heat and lift cycle, one side should not have any more contact with the motherboard. You can now heat up the opposite end of the zener and it can be lifted off the motherboard. Another trick to removing the SMD zener is to simply get a nice glob of solder on your iron so that you can make contact with both sides at the same time and then slide the zener off sideways from the pads.





Lynx 1 - The zener is installed with the black stripe towards the MOSFET on the Lynx 1. Bend the legs of the zener so they line up with the solder holes, push it in and solder it in. Cut off any remaining length of leg on the opposite side of the motherboard.

