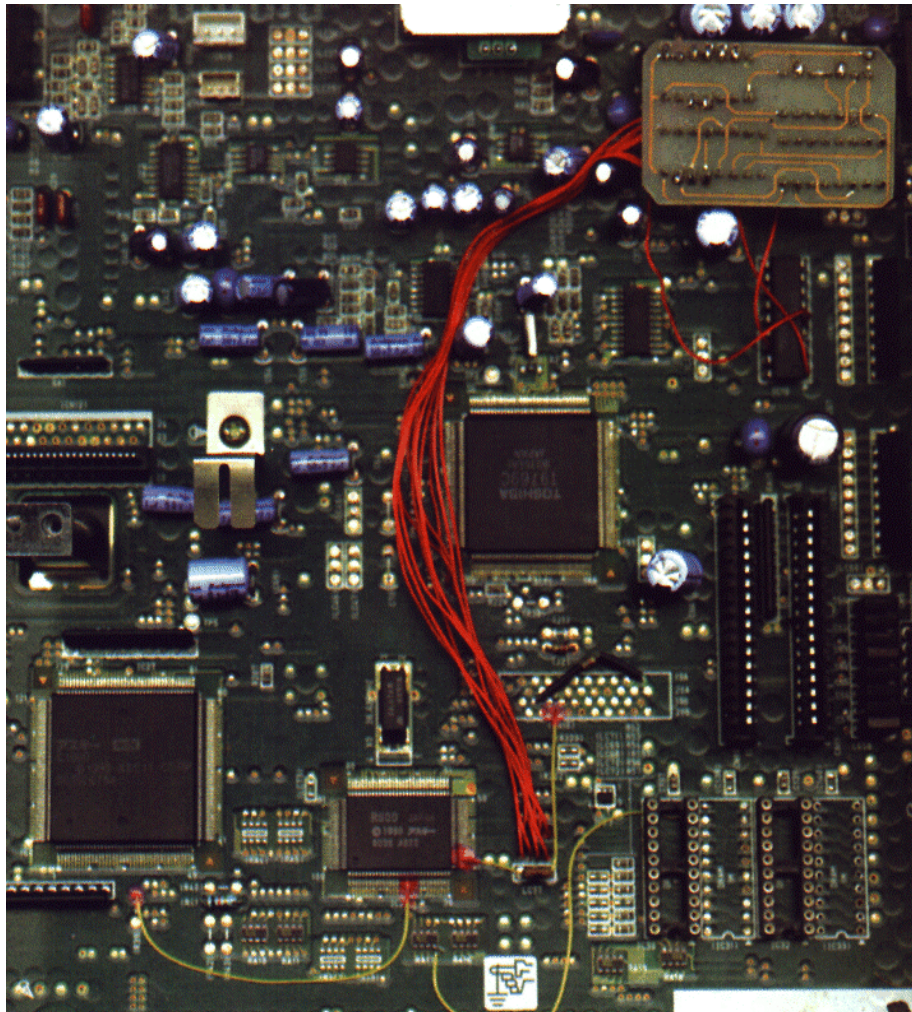


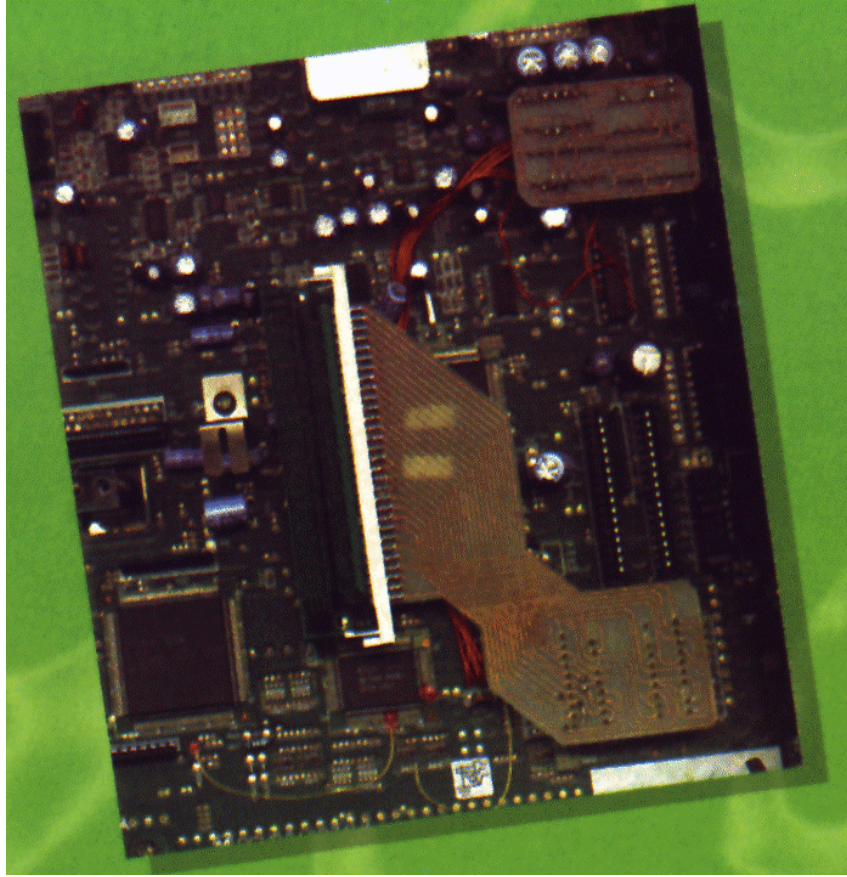
Installation of 1Mb RAM in the turboR ST

Bruno Querzoli, Mirisoft

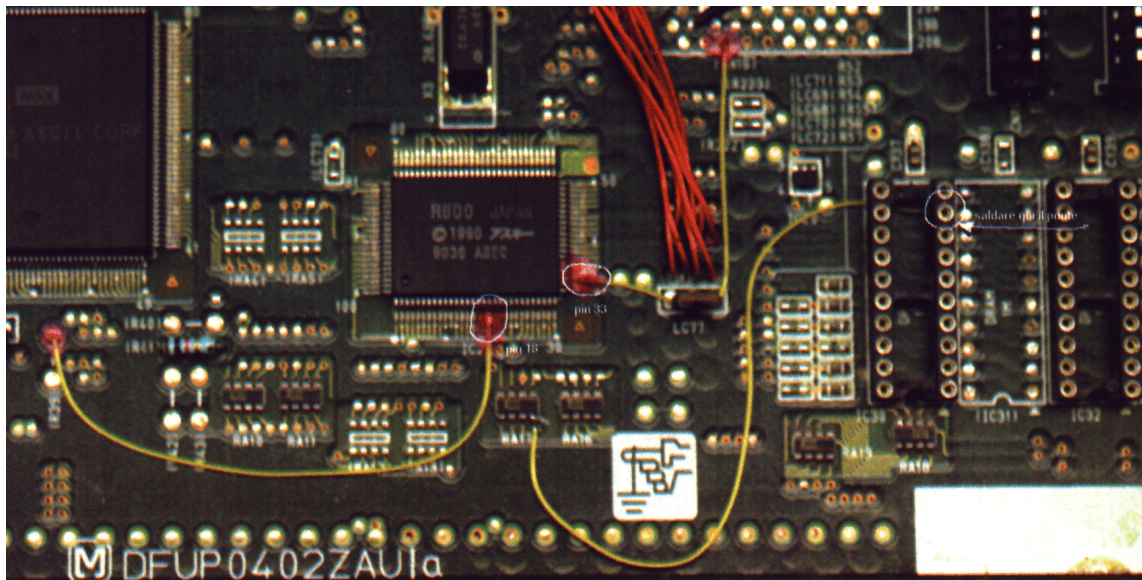
Scanned by and translated by Fransisco Alvarez, converted to PDF by HansO, 2002

Bruno Querzoli (Miri-Soft) explains to us how to upgrade the turboR A1 ST to 1 Mb internal RAM.. Everybody who want to do this modification can ask for the images in high-resolution GIF files provided by Bruno. These images are important to see the details of the soldering.





Above: Small circuit placed in the upper part of the mother board, shown in backview, with mounted 2 components from the serie SN74LS... and 2 from the serie T74LS...

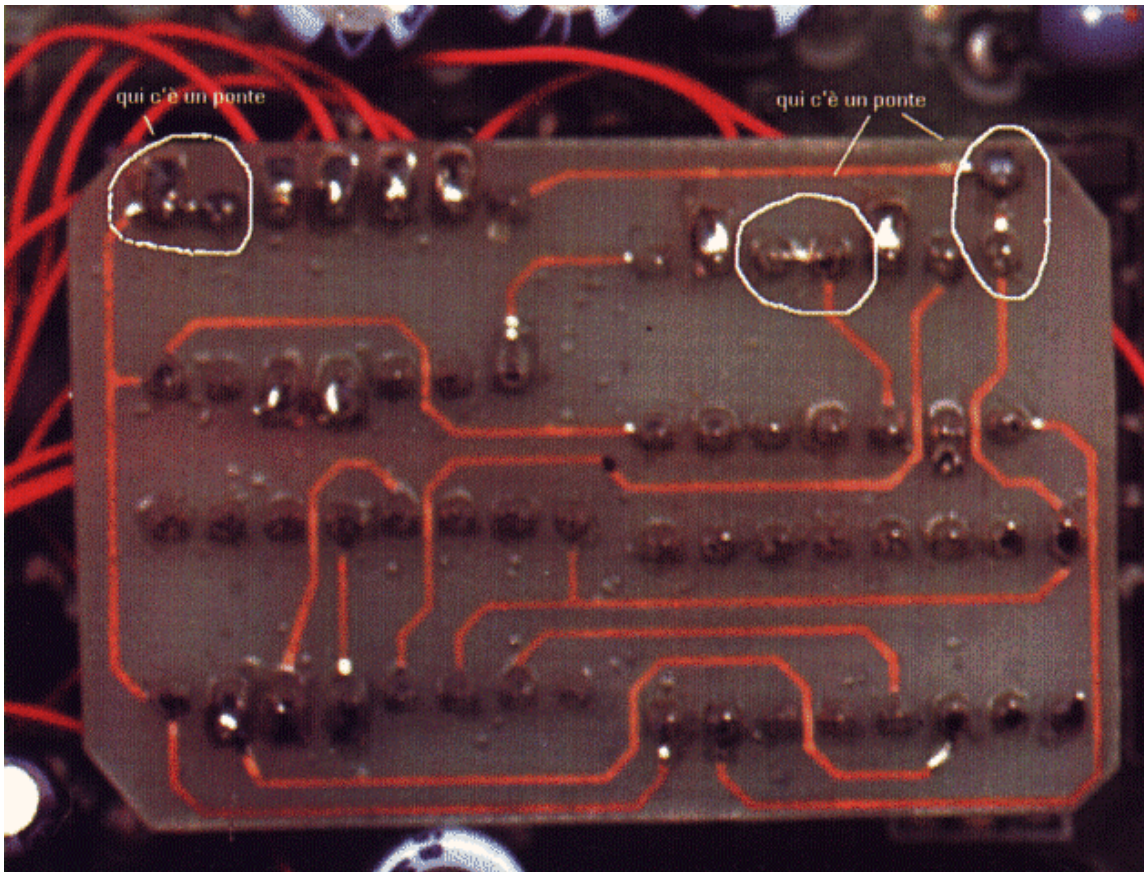


[This zone is zoomed in because it is the one where you find the small circuitboard with all its connections to the motherboard. Although the images from this article are improved

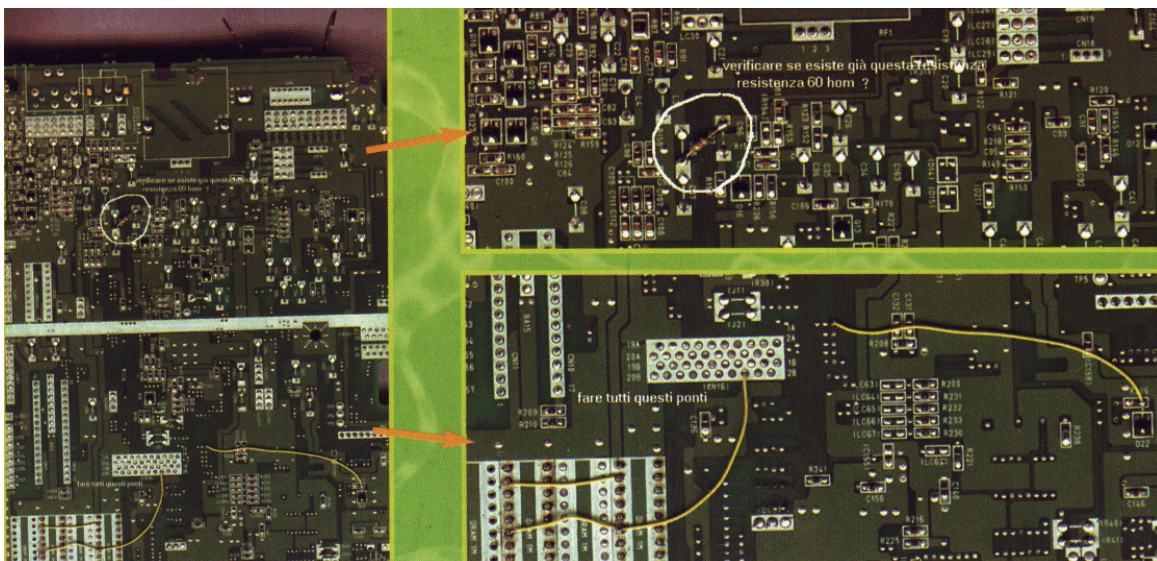
they are in GIF format and it means that the quality is not very good, but they are still understandable.



Above the board is mounted the 1Mb main circuit, which is inserted in the connector of the original RAM IC's. The RAM module is a 30 pins version with 1Mb with parity.

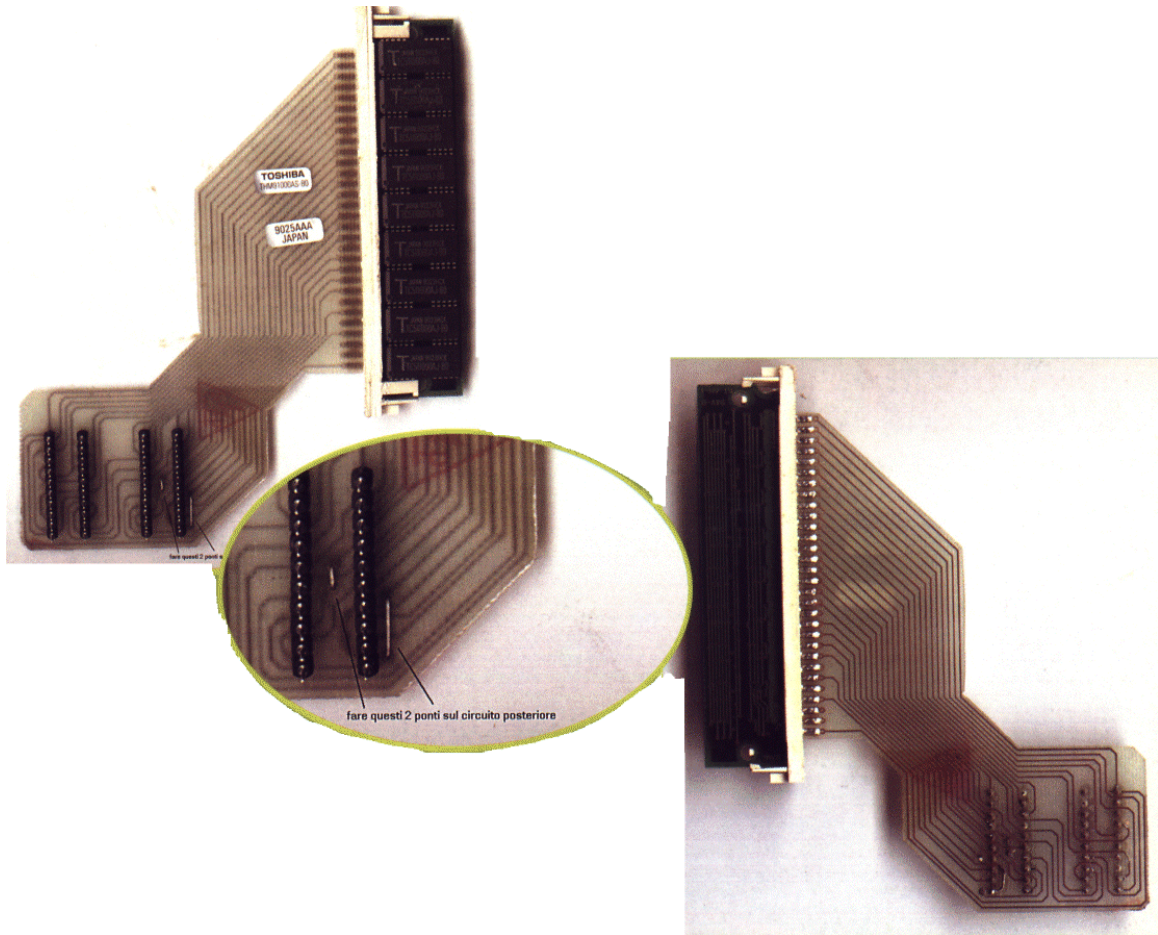


We see here a zoomed version of the small circuitboard on which are soldered the chips: SN74LS670N, SN74LS30N, T74LS367AB1 and T74LS 32B1.



In this image you should pay attention to the dots which are soldered to the pins 18 and 33 of the R800 chip and to the bridge which goes to the pin 10 of the connector where the

RAM circuit with 1 Mb is inserted. Do all the connections as you see in the image.



It is important that in the marked zone with white circles some bridges between the pins of the chips are made

This is the bottom part of the motherboard, where the selected dots have to be soldered with a thin cable and a 60 ohm resistor has to be placed (placing this resistor is not clear, just add it if it was not mounted there before. Its value is hypothetical and is around 60 ohms).

In these images we see the PC 1 Mb RAM (30 pins with parity) inserted in the corresponding slot.

- 1) The connectors have to be inserted in the RAM sockets which are in the MSX board
- 2) Two bridges cutting the tracks of the circuit
- 3) The 1Mb RAM 30c pin SIMM inserted in its own slot. It will be necessary to solder the connector to the circuit.

If you have any doubts, or you want to receive by email the high resolution pictures you can contact Miri Soft.