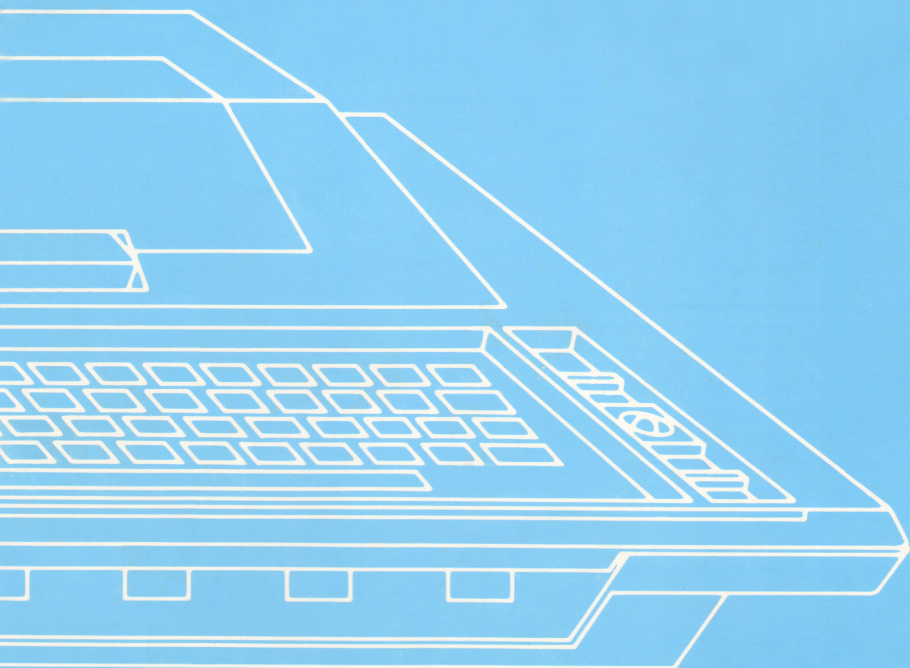


RAMPPOWER

32

USER MANUAL



PREFACE

Congratulations on your purchase of Rampower 32K, one of the Performance Plus Series! Axlon was the first company to offer memory expansion beyond 16K for the Atari home computers. The Rampower 32K memory module represents premiere quality.

FEATURES:

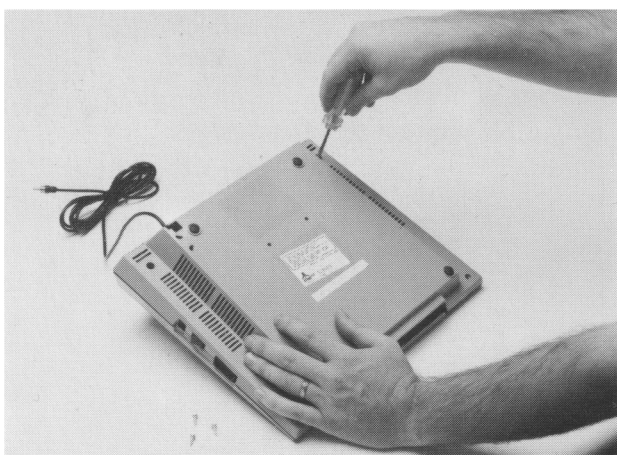
- Provides Atari 400 with 32K of RAM memory
- Expands the Atari 800 memory to 48K
- Easy installation—snaps right in
- Gold plated edge connector for reliability and long life
- Fully socketed high quality PC board
- Low cost per byte
- Compatible with all ROM cartridges

INSTALLATION

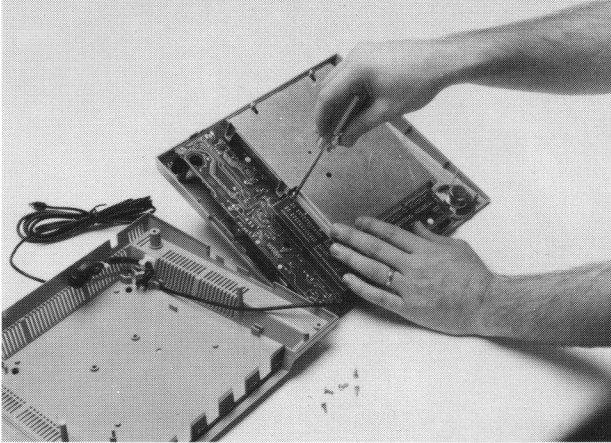
This section will take you through the steps necessary to install your Rampower 32K in your Atari 400. For the Atari 800, simply plug the board into the third memory slot. If you can handle a screwdriver you should be qualified to install your new Axlon Rampower 32K module. But first, please read over this entire section before attempting to install your new card.

STEPS:

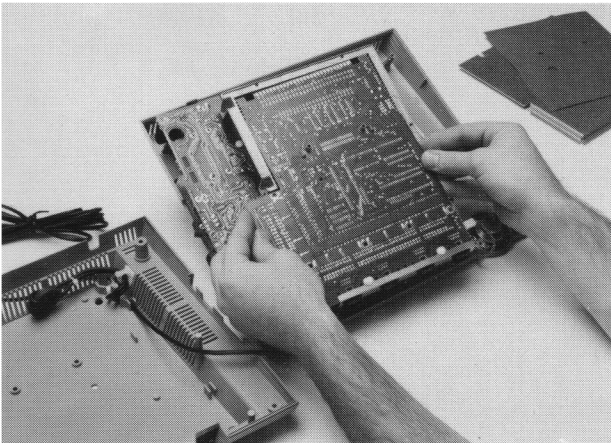
1. Remove plastic cover from the Rampower 32K memory module before proceeding.
The Rampower 32K cover is not used in the Atari 400.
2. Remove all power to your computer.
3. Remove any cartridge that may be installed and close the door.
4. Turn the 400 upside down so that the controller ports are facing you.
5. Remove four corner screws.



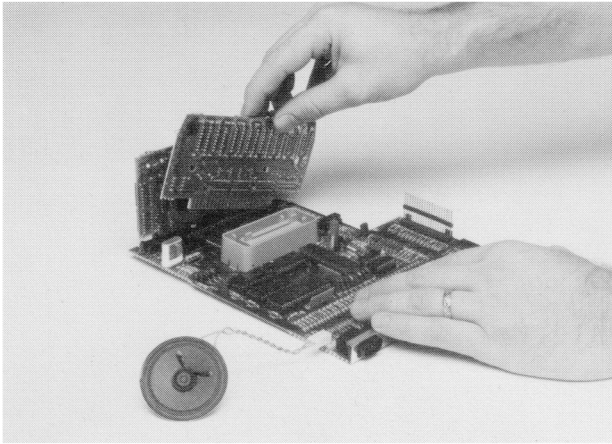
6. Remove the 400's plastic bottom case.
7. Fold to the left as shown. Take note of the placement of the video cable and toroid for reassembly. Remove speaker at this time.



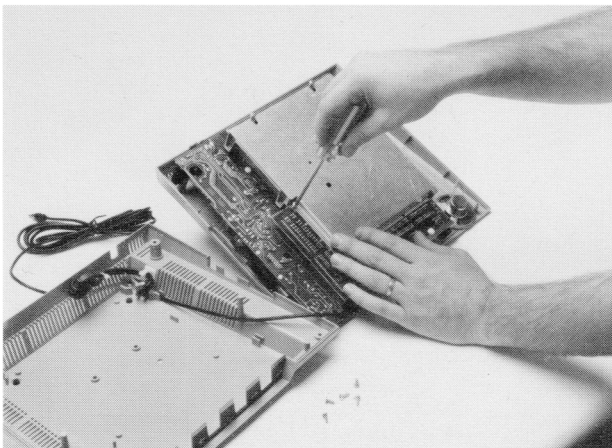
8. Remove the eight screws that hold the bottom shield plate on. Keep these screws together.
9. Remove plate and fish paper.
10. Grasp the 400's motherboard as shown and gently pry up the mother board to dislodge it from the powersupply board. Gently unplug the keyboard cable from the motherboard at this time.



11. Set down the motherboard in front of you and remove the 16K board from the computer's bus connector.



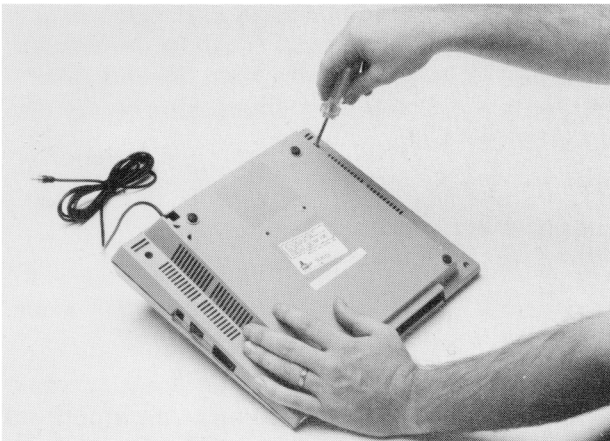
12. Install the Rampower 32K board so that the solder side is towards the controller ports.
13. Re-connect the keyboard cable gently.
14. Re-install the 400 motherboard into the power supply board. Check that the connector pins are aligned properly before pressing down to reconnect.
15. Replace fish paper and bottom shield and re-install the eight screws.



16. Replace the bottom of the computer. Make sure the video cable and toroid are positioned properly.
17. Turn over computer to its upright position. Lift the left corner of the case and relocate the speaker between the plastic pins as shown, then re-connect them to the speaker output pins.



18. Replace the four bottom screws.



Your Axlon Rampower 32K board is now installed!

CHECK OUT

Install the BASIC cartridge and re-connect power. Turn-on the computer and verify that the "READY" prompt is present. If this is not the case, then refer to the troubleshooting section.

If everything is ok, then type in the following:

```
PRINT FRE(0)
```

FOR AN ATARI 800:

The computer should respond:

```
37902
```

This translates into about 38K free user memory space in BASIC. If you are asking yourself, "Where is the other 10K?" ... Don't worry! With the Rampower 32K there is only 40K available to the user when a ROM cartridge is plugged in. The reason for this is because of the following: In a 48K Atari 800 computer, when a ROM cartridge is installed the Atari disables the top 8K for each ROM cartridge that is installed. This insures that only data from the ROM cartridge, when it is installed, is read and not RAM and ROM data at the same time. That would result in data chaos! The other 2K is used by the Atari OS and BASIC. The entire 48K is available when using binary disk based programs.

FOR AN ATARI 400:

The computer should respond:

```
29710
```

To see the RAMTOP on an Atari 400 or 800 type:

```
PRINT PEEK(106)*256
```

This is the location of the top of RAM memory pointer. PRINT FRE(0) only returns the amount of free user memory.

The checkout is complete!

TROUBLESHOOTING

Your Rampower 32K is pre-tested and burned in at the factory. This ensures that if the installation instructions were carefully followed, your new board should work. However, if this is not the case, it may be something as simple as the board may have been installed backwards.

PROBLEMS:

Black or Blank Screen —

- 1) Verify that power is on; the red power indicator should be lit.
- 2) Check to see if board is installed with the solder side facing the controller ports.
- 3) Check that all ICs are well seated in their sockets.

Keyboard Not Working —

Check keyboard connector to insure proper connection.

Speaker Not Working —

Check speaker connection.

NOTES



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70 Daggett Drive
San Jose, CA 95134

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