

2 MB/4 MB

RAM Card User's Manual

0. Introduction

- The 2MB serial can expand the FAST RAM from 512KB(Min) to 2MB(Max).
- The 4MB serial can expand the FAST RAM from 512KB(Min) to 4MB(Max).
- Rechargeable Battery-Backup Real-Time clock/calendar included.
- MemoryTest and Extra FAST RAM add-on Program software included.
- Installation is simple, requiring no soldering for basic installation.

1. Hardware Installation

Installing The DRAM Chips

Memory chip required: 256Kb by 4 DRAM chip (44256, access time 100 ns or faster).

Each bank consists of 4 DRAM chips, first you must insert four chips in BANK0 (U1-U4) the next four chips in BANK1 (U5-U6), then BANK2, BANK3...and so on thru BANK7.

You do not have to fill all the BANKs at once, but you must fill one BANK with four chips at a time in the stated order.

Installing The RAM Card

- 1) First you must disconnect the power cord, monitor, etc., everything connected to your A500 computer.
- 2) Turn your A500 upside down. Remove the three screws along the front edge of your A500 and the other three along the rear edge.
- 3) Turn the computer over and lift the cover off.
- 4) Disconnect the key board and lift the shielding off.
- 5) Plug the RAM Card into the A501 Expansion slot.

Installing The GARY Board

GARY is located on the center of A500.

- 1) Carefully remove GARY chip from its socket by gently prying it up from both ends alternately with a flat-bladed screwdriver.
- 2) Install GARY chip to the Gary Board and insert the GARY Board to the socket which you removed.
- 3) Insert the supplied jumper wire to "JP1" on GARY Board and the other end to "JP1" of the RAM card.

Note:

The supplied jumper wire's red wire must be connected to the jumper's pin

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2. The Extra Fast RAM Add-On Program

2MB serial

If you are installing the RAM card for 2.0MB FAST RAM, 256KB(BANK3) will not be recognized by the A500.

4MB serial

If you are installing the RAM card for over 2.0 MB FAST RAM, i.e. 2.5/3.0/3.5/4.0MB, the last four BANKx (4-7) will not be automatically recognized.

Therefore you must run the supplied Extra Program to add-on the missing RAMs.

There are three ways to run the Extra Program:

- 1) Run from Workbench by double-clicking on the icon of "EXTRA"
- 2) Under CLI or shell, execute "EXTRA"
- 3) The easiest way to use it is to add the add-on program "EXTRA" into the startup-sequence in your S: directory. then the program will be activated every time you boot.

More detail information please refer the "README" file on the supplied diskette

3. Diagnostics

All the RAM cards are 100% tested thoroughly before leaving the factory. The MemoryTest program on the supplied diskette will test all the DRAMs on the RAM Card and will report the results if any errors found. More details please refer the "README" file in the supplied diskette.

4. The Real Time Clock

The Real Time Clock on the RAM Card is completely compatible with the AmigaDOS

Setting the time & date:

After booting from the Workbench diskette, open a CLI or shell window and type:

date *Day-Month-Year Hr:Min:Sec*

For example:

date 7-Mar-91 12:00:00

This will set the A500 system's date and time.

Saving the time & date into the RTC:

Please type:

setclock opt save

This will set the real time clock on the RAM card

Loading the time & date from RTC to system:

To load the date and time every time the system boots, add the following instruction into the startup-sequence

setclock opt load

More detailed informations please refer the AmigaDOS manual.

5. Jumper setting

The RAM Card will auto-detect how many banks of DRAMs you've installed. The Jumper "JP2" located on the GARY Board should be set to FAST("F") position

6. Jumpers description

The RAM Card

JP1: Connector for connecting the RAM Card and the GARY Board

JP2: Connector for the ON/OFF switch

JP3: Connector for factor testing, do not change it.

The GARY Board

JP1: Connector for connecting the GARY Board and the RAM Card

JP2: FAST RAM selection

JP3: RESERVED

JP4: RESERVED

7. Memory Address Map

2MB / 2MB Plus

BANK0: C00000-C7FFFF

BANK1: C80000-CFFFFFF

BANK2: D00000-D7FFFF

BANK3: D80000-DBFFFF and
F40000-F7FFFF

4MB / 4MB Plus

BANK0: C00000-C7FFFF

BANK1: C80000-CFFFFFF

BANK2: D00000-D7FFFF

BANK3: D80000-DBFFFF and
F40000-F7FFFF

BANK4: 800000-87FFFF

BANK5: 880000-8FFFFFF

BANK6: 900000-97FFFF

BANK7: 980000-9FFFFFF