

## A3000 WarpEngine Manual Addendum

### 3. WarpEngine Installation in a Commodore A3000

**WARNING:** This installation procedure requires that you completely disassemble your computer. We highly recommend that you have your Amiga dealer service dept. install your new WarpEngine.

**NOTE:** Your A3000 must have real kickstart roms to operate. You cannot use the old softkick roms that were supplied in early A3000s.

#### 3.1 Disassembling Your Amiga 3000

Make sure that you are properly grounded by wearing a grounding strap or by touching the metal side on your Amiga chassis.

**1. Attention:** First turn off the power button to your Amiga and all peripherals and remove all connecting cables, especially the power!

2. Using a Phillips-head screwdriver, remove the two screws on each side of the case and the screw in the middle on the rear of the case. Put these screws aside.

3. Grasp the cover on both sides and slide it forward and off. Set it aside.

4. You need to remove all expansion cards from the computer and also remove the daughter board from the motherboard.

5. Unscrew the front mounting bracket screws (3) of the front drive and power supply bay. Now remove the screws at the rear of the drive/power supply bay. Set screws aside. Disconnect the power and ribbon cables, noting the orientation of the connectors before you remove them so that you can replace them properly when putting your A3000 back together. Remove drive/power supply bay by lifting it up and out of the main case. Set aside in a safe place.

#### 3.2 Motherboard Jumper Settings

##### 3.2.1 Settings for A3000/16 and 25

1. There are three jumpers on the motherboard that have to be set correctly for proper operation of the WarpEngine in your computer.

**J100** This jumper needs to have the two pins on the right (toward the motherboard Ram section) connected together. (alt: links zu - neu: rechts zu)

**J102** This jumper needs to have the two pins on the left connected together (The two toward the Expansion connector at the center of the computer) Alt: rechts zu

**J104** This jumper needs to have the two pins on the left connected together (The two toward the Expansion connector at the center of the computer) Alt: links zu

#### 3.3 Memory

On the following pages you will find instructions on how to install the memory.

The WarpEngine takes 4, 8, 16 or 32 Megabyte SIMM modules. The WarpEngine uses 32 bit modules that come in 4 different sizes:

The 4MB SIMM is a 1MBx32 SIMM module. This module is single sided with eight 4Mb DRAM chips.

The 8MB SIMM is a 2MBx32 SIMM module. This module is double sided with sixteen 4Mb DRAM chips.

The 16MB SIMM is a 4MBx32 SIMM module. The module is single sided with eight 16Mb DRAM chips.

NOTE: The 16MB SIMM may be double sided and contains thirty-two 4Mb DRAM chips. This module is not recommended, as it is usually very large and consumes a lot of power. Although it will work, we recommend that you use the single sided 16MB SIMM module. We will not guarantee that the WarpEngine will function properly with multiple double-sided 16MB SIMM modules because of the additional loading on the memory bus and the additional power loading.

The 32MB SIMM is a 8MBx32 SIMM module. This module is double sided with sixteen 16Mb DRAM chips.

You can install any of the listed SIMM sizes, mix and match, even if they are of different sizes.

### 3.4 Installing Memory on the WarpEngine

Put the WarpEngine on the table, with the 68040 on your left. Orient the SIMM so that the notch is on the left.

Note: You will want to place the largest in memory size SIMM that you have in SIMM5 and work your way down to SIMM1.

1. Insert the gold or silver fingers of the SIMM into the SIMM socket start with SIMM4 on the WarpEngine about a 45 degree angle. The SIMM will "sit loosely" in the socket, if you have the notch on the correct side, and notch on the bottom in the correct position.

2. Using your fingers, rotate the SIMM towards you until it is locked into place by the tabs at either end of the socket.

3. Repeat for all of the SIMMs you wish to use on the WarpEngine.

JP2:

B: SIMM Bank Size - Off: Dual sided On: Single sided

C: SIMM Module Size - Off: 16M/32M On: 4M/8M

D: Wait State - Off: no wait state On: wait state

### Memory Configuration Chart

<u>B</u>	<u>C</u>	<u>Description</u>	<u>Largest SIMM</u>
0	0	Double sided, 16Megabit density	32MB
0	1	Double sided, 4Megabit density	8MB
1	0	Single sided, 16Megabit density	16MB
1	1	Single sided, 4Megabit density	4MB

0 = Shunt is not on the jumper  
1 = Shunt is placed on the jumper

Examples:

4, 4 Megabyte SIMMs: B=ON C=ON

1, 16 Megabyte SIMMs: B=ON C=OFF

NOTE: if you install a 16 Megabyte module first, and you install an 8MB

module afterwards, you will need to set your jumpers to: B=OFF C=OFF

### **3.5 Installing the WarpEngine in your Amiga 3000**

1. Insert the plastic standoffs into the holes provided on the A3000 motherboard one on each side of the 200 pin CPU connector, before installing the WarpEngine.

NOTE: You will find that the WarpEngine installs easier if you insert the standoffs onto the motherboard first, rather than inserting them onto the WarpEngine.

2. At this point you will begin the actual installation of the WarpEngine into your A3000. Please take the appropriate anti-static measures to avoid static discharge from causing damage to your WarpEngine by grounding yourself. If you are not wearing a wrist strap then touch the metal chassis of the A3000 for a moment to dissipate static.

3. If you have not already done so, remove the WarpEngine from the anti-static bag. Attach the heat sink onto the 68040.

4. Align the WarpEngine so that the 200 pin connector is directly over the CPU slot connector on the A3000 motherboard.

5. When it is properly aligned, press down gently on the WarpEngine at either end of the 200 pin connector. If it does not seat in the slot connector easily, it is not properly aligned. Try aligning it again.

6. Now you need to attach the Red clip to pin 21 of CIA U350 on the motherboard. This clip has to be attached so that the SCSI controller receives the interrupt signal required for proper operation.\*

**\* Das Kabel ist auf der WarpEngine an JP4 angelötet und führt zu Pin 21 von U350**

### **3.6 Reassembling your Amiga 3000**

1. Replace the drive/power supply bay. Attach the ribbon and power cables, noting the correct orientation. Replace the four mounting brackets screws. Tighten snugly.

2. Replace front drives by sliding bracket with drives into front bay and attaching ribbon and power cables, noting the correct orientation. Replace the two mounting bracket screws. Tighten snugly.

3. Replace the expansion daughter board and your peripheral cards into your Amiga chassis.

4. Replace any expansion cards that had to be removed.

5. Replace the cover on the Amiga 3000, reconnect the power and monitor cables and any other peripherals. Turn on your "warped" computer and your monitor **and have fun.**

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