

### JULY - SEPTEMBER 1990 ISSUE 30

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## **INFO**

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The Info section of Techtopics will include, as a standard feature, a list of active field fixes which are covered under warranty.

This feature will always be the first bulletin in the Info section, and will be updated via the Service Bulletin Board, CTOC, whenever a change in the warranty status of field fixes is issued.

A warranty policy number has been assigned to each active field fix covered under warranty. Effective immediately, all claims being submitted by authorized service centers must include the warranty policy number, as the part number, on the narda form.

#### Active Commodore field service warranty fixes, as of 2/5/90

- 1) 1084S-P Monitor Warranty policy number - W1084-1288 (Instructions are included with 1084S-P repair kit, CBM PN# 314891-01).
- 2) A2000 Rev6.0 PCB Warranty policy number - W2000-0989 (See Techtopic bulletins - 27/3-1.1, 27/3-2.1 & 27/3-3.1, in Amiga section 3, under A2000 past bulletins for details).
- 3) A2286 AT Bridgeboard Warranty policy number - W2286-1289 (See Techtopic bulletin - 28/3-3.1 in Amiga section 3, under current bulletins for details).

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#### 30/1-1.1 Service warranty policy numbers and conditions. (Cont.)

4) PC30-III Rev 1.4 PCB/Coprocessor Warranty policy number - WPC30-0590
 (See Techtopic bulletin 28/5-3.1 in PC section 5, undercurrent bulletins for details).

#### 30/1-2.1 Service training schedule, October thru December, 1990.

1990 Training schedule, September thru December. Please contact John Dimeo for more information.

Month	Date	Training Days	Location	Products	Status
Oct	17-18	Wed-Thur	Newark, NJ	Amiga	Open
Oct	30-31	Tue-Wed	Miami, FL	Amiga	Open
Nov	1-2	Thur-Fri	Miami, FL	PC	Open
Nov	13-16	Tue-Fri	Minneapolis	PC	Open
Nov	27-28	Tue-Wed	Detroit	Amiga / PC	Open
Dec	11-14	Tue-Fri	Seattle	Amiga / PC	Open

#### 30/1-2.2 Enclosure: October thru December service training course outline.

Included with issue 30 is a course outline for the service training program, from October thru December 1990.

#### 30/1-3.1 Amiga CPU one year warranty.

Effective April 2, 1990 Commodore will offer a one year Warranty on all Amiga computers. This new warranty will cover parts and labor on the CPU's. The warranty includes all units purchased after January 1, 1990.

#### 30/1-4.1 Amiga accessories one year warranty.

Effective June 1, 1990 Commodore will offer a one year warranty on all Amiga accessories. This new warranty will cover parts and labor on the accessories. The warranty includes all units purchased after April 1, 1990.

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### <sup>30/1-5.1</sup> A3000 - PC60-III, Field Replacement Units Policy.

Commodore is introducing a Field Replacement Units (FRU) policy, for Commodore's A3000 and PC60-III. This policy is to replace all defective major assemblies. For example; if a mother board is defective, it will be returned to Commodore. You must then reorder a new one.

In the near future, the Field Replacement Unit (FRU) policy, will be implemented for all Commodore product lines. There will be a bulletin sent with all the details.

Exceptions may be made to this policy for certain system upgrades.

### 2 PARTS

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	Sub 311833	3-01 to 314687-01.			
	See Techtop	pic number 30/3-4.1 for more details.			
30/2-2.1	A3000 Spare parts list.				
	Commodore	e Parts Department now has the following par	rts in stock.		
	Commodore Part Number	e Parts Department now has the following partners Description	rts in stock.  Dealer  Billing	Return Credit	
	Part Number		Dealer		
	Part Number 390500-02 313250-01	Description  Power Supply PCB assy - Daughter PCB	Dealer Billing 155.25 57.10	Credit	
	Part Number 390500-02 313250-01 313310-02	Power Supply PCB assy - Daughter PCB PCB assy - 16MHZ	Dealer Billing 155.25 57.10 1580.00	Credit 600.00	
	Part Number 390500-02 313250-01 313310-02 313310-04	Power Supply PCB assy - Daughter PCB PCB assy - 16MHZ PCB assy - 25MHZ	Dealer Billing 155.25 57.10 1580.00 1780.00	Credit 600.00	
	Part Number 390500-02 313250-01 313310-02 313310-04 313323-02	Power Supply PCB assy - Daughter PCB PCB assy - 16MHZ PCB assy - 25MHZ Keyboard	Dealer Billing 155.25 57.10 1580.00 1780.00 138.75	Credit 600.00	
	Part Number 390500-02 313250-01 313310-02 313310-04 313323-02 313315-01	Power Supply PCB assy - Daughter PCB PCB assy - 16MHZ PCB assy - 25MHZ Keyboard Drive assy, Floppy	Dealer Billing 155.25 57.10 1580.00 1780.00 138.75 130.00	600.00 700.00	
	Part Number 390500-02 313250-01 313310-02 313310-04 313323-02 313315-01 313440-01	Power Supply PCB assy - Daughter PCB PCB assy - 16MHZ PCB assy - 25MHZ Keyboard Drive assy, Floppy Drive assy, Hard 40MB	Dealer Billing 155.25 57.10 1580.00 1780.00 138.75 130.00 675.00	600.00 700.00	
	Part Number 390500-02 313250-01 313310-02 313310-04 313323-02 313315-01 313440-01 311836-03	Power Supply PCB assy - Daughter PCB PCB assy - 16MHZ PCB assy - 25MHZ Keyboard Drive assy, Floppy Drive assy, Hard 40MB	Dealer Billing 155.25 57.10 1580.00 1780.00 138.75 130.00	600.00 700.00	

## 3 AMIGA

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#### 30/3-1.1 A2091 Memory auto-configuration limitations.

The A2091 hard disk controller includes sockets for the installation of DRAM chips for memory expansion. Jumpers are present on the board, and are described in the users manual which support the presence of none, 512K, 1M, 2M-Byte of memory, however only the none and the 2M-Byte settings work correctly in all system configurations.

If either the 512K or 1M setting is used the board may not function correctly, depending on whether other boards containing memory are present and are in slots that are configured by the system before the slot containing the A2091. When this situation occurs the wrong "bank" of chips on the A2091 is selected and the system will not boot.

In most cases the initial installation of the A2091 will not cause any immediate problem, but concern exists that when the customer adds additional boards to the system, the confirguation will change and the A2091 board will no longer work. Obviously, this would lead to some confusion about which board is actually causing problems.

We strongly recommend using only the none and 2M-byte settings, however if the smaller settings are required then the best option is to put the A2091 board in the "first" slot. In all US production (rev4 and rev6) motherboards, this is the slot nearest the power supply(not including the co-processor slot). On older motherboard revisions, it is the slot farthest away from the power supply.

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#### 30/3-2.1 A2286 Problem with setup menu.

Problem description:

Occasionally, the setup menu will not accept keyboard input. When this occurs, keyboard input to the Amiga side is also "garbled". In this case, the Amiga and PC sides are confused about the state of the "Ctrl" and "Alt" keys. Two (2) work arounds have been identified:

- 1. Hitting the "Ctrl" and "Alt" keys one (1) time each clears up the problem. If done in PC window, both PC and Amiga sides are fixed. If done on the Amiga side, only keystrokes on the Amiga side return to normal.
- 2. Reboot the PC via "Ctrl+Alt+Del" and both PC and Amiga keyboard activity returns to normal.

#### 30/3-3.1 A2300 Genlock fix to work with A3000.

This fix is to create the correct clock frequency of 28.375156MHZ needed. The fix must be done for the NTSC and PAL versions of the A2300 Genlock.

- 1. For NTSC A2300 Genlock (PN# 312803-01), A 0.1uf axial capacitor must be connected from pin 6 of IC6, (signal N\_VSYNC), to ground.
- 2. For pal A2300 Genlock (PN# 312803-02), the above modification is also required in addition to the inclusion of a jumper wire shorting pin 13 of IC4 to pin 2 of IC1.

### 30/3-3.2 Correction of, A2300 Genlock fix to work with A3000.

In Techtopics issue 29/3-9.1 and 30/3-3.1, make the following correction:

In item #2 of the original Techtopic, the sentence "wire shorting pin 13 of IC4 to pin 2 of IC1" is incorrect. it should read, "wire shorting pin 13 of IC4 to pin 11 of IC1". The rest of the fix is correct.

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#### 30/3-4.1 Rodime 40MB Hard Drive sub to Quantum 40MB Hard Drive kit.

Rodime 40MB Hard Drive CBM PN# 311833-01 is being subed to Quantum Prodrive 40S Hard Drive kit, CBM PN# 314687-01. This kit contains:

Part Number	Description	
313440-01	40MB Quantum drive assy.	
313439-01	Cable, long SCSI	
312748-01	Insolator vibration	
905970-04	Nut keps #6-32	

To use this drive with the 2090/2090A controller, remove jumpers A1 and A2 on the Quantum drive before installing it. To install or prep the drive, use the install program found on the 2090/2090A hard disk software. During installation, make sure to make selections for a SCSI type drive and then select five (5), Quantum Prodrive 40S.

#### 30/3-5.1 A3000 Second drive configuation.

When adding a second 3 1/2" floppy drive to an A3000, the first floppy (df0:) must be moved to the open slot to the right. The second floppy (df1:) must be put where df0: was origanally.

Note: Make sure that the drive select on the second drive (df1:) is configured to D1, also jumper 351 must be moved to pins 1 and 2 to enable the drive.

If you need further information, please contact the 800 Technical Support line.

#### 30/3-6.1 A2300 Demo disk replacement.

The Genlock demo disk supplied with your A2300 has been revised. Certain items mentioned in chapter two of the manual have been removed to provide the space required for this inprovement. These include the Animations demo drawer and the Notepad tool.

The new disk (part number 317718-02) fixes some incompatibilites with software 2.0.

To get your replacement disk, send your old disk (part number 317718-01) to the service department, attention Tony Greco. Please be sure to include your return address. As soon as the old disk is received, the new disk will be sent out.

### 3 AMIGA

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Section 3 - Amiga

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#### 30/3-7.1 Genlock problem with A2000.

We have received reports that some A2000's may have been shipped with the Tick signal (J300), jumpered incorrectly. This may cause major problems with third party Genlocks. If problems arise during genlock installation, please verify that pins 1 and 2 of J300 are jumpered.

#### 30/3-8.1 One Megabyte Agnus use in Commodore A500 Computers.

Commodore Business Machines does not support the One Megabyte addressing feature of the Fat Agnus 8372 IC in A500 Computers.

Regardless of the version of Fat Agnus, all A500's have been factory jumper set to be functionally identical.

8370 Fat Agnus chips are used on rev 5 boards with 256K x 1 DRAMS. 8372 Fat Agnus chips are used on rev 6a boards with 256K x 4 DRAMS. The boards are functionally interchangable. Each will support 512K of chip RAM and 512K of expansion RAM with an A501 installed.

Enabling the One Megabyte feature, at the customers' request, will void the warranty. Instructions detailing implementation of the One Megabyte addressing have been circulated without Official Approval and Commodore does not assume any liability for damages resulting from this mode of operation in the A500.

#### 30/3-9.1 A2060/A2065/A2232 System Schematics, CBM PN# 314042-01 Release.

Mailed with Techtopics issue 30, for Amiga authorized service centers only, are the A2060/A2065/A2232 System Schematics.

### **30/3-9.2** Enclosure: A2060/A2065/A2232 System Schematics.

Enclosed in Techtopics issue 30, CBM PN# 314042-01, A2060/A2065/A2232 System Schematics.

#### AN UPDATE FOR THE SERVICE TECHNICIAN

## 4 CBM

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30/4-1.1 1571 Drive Assemblies - Alps and Newtronics.

30/4-1.1 1571 Drive Assemblies - Alps and Newtronics.

1571 Drives use two types of drive assemblies.

- 1) CBM PN# 252092-01 Drive assy Alps
- 2) CBM PN# 252083-01 Drive assy Newtronics

Most units in the United States use the Newtronics type of drive. The Alps drive does not fit in the Newtronics bezel, and visa-versa. Please take note.

# 5 PC

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		Color Monitor System Schematics	

#### 30/5-1.1 PC40-III PCB Revision 8.x - DMA channel 7 acknowledge signal.

Expansion hardware which utilizes DMA channel 7 (DRQ7, NDACK7' on PC40) require a modification to the PC40-III revision 8.x PCB.

Connect jumper, on trace side of PCB, from U803 pin #7 (74f138, see page 5-26, PC40-III Service manual) to CN502 pin #32 (expansion bus, see page 5-22, PC40-III Service manual). This modification, with all previous modifications, makes the PCB revision 8.2c.

This is considered part of third party expansion card installation and is not covered under warranty.

#### 30/5-2.1 PC60-III Techtips.

- 1) When disabling the on board Hard Drive on the PC60-III, place a jumper from pin 1 to pin 2 of J42. (located above J41, Hard Drive connector. On schmatics, Located off pin 15 of U85). See page 29 (Sheet16 of 20) PC60-III System Schematics.
- 2) When installing a second Hard Drive to the PC60-III, set the jumpers on the Hard Drive as follows:

Jumper	Position	Meaning
DS	SS	
1	0	Single drive configuation
1	1	Master - in dual drive setup
0	0	Slave - in dual drive setup
0	1	Test selection (self-seek) DO NOT USE!

1 = Jumper installed

0 = No jumper installed

Note: This is for Quantum Prodrive series Hard Drives only!

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30/5-2.1 3) PC60-III Techtips.

(Cont.)

Jumper J33 and J34 indicate if a 387 coprocessor is installed. (See page 15 in PC60-III System Schematics)

When installing an 387, move jumpers from 1-2 to 2-3 positions on both J33 and J34.

Pin 1 is indicated by the cut edge on the white silk screen outline of the socket. Note that outer-edge pin holes in socket are not used with INTEL 80387. They are used with WYTEK 3167.

30/5-3.1 1930 VGA Color Monitor System Schematics, CBM PN# 314255-01 Release.

Mailed with Techtopics issue 30, for Amiga authorized service centers only, are the 1950 VGA Color Monitor System Schematics.

30/5-3.2 Enclosure: 1930 VGA Color Monitor System Schematics.

Enclosed in Techtopics issue 30, CBM PN# 314255-01, 1930 VGA Color Monitor System Schematics.