



SEASONS GREETINGS



FROM COMMODORE SERVICE DEPT

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31/1-1.1 Service Warranty Policy Numbers and Conditions.

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).

31/1-1.1 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, under current bulletins for details).
- 5) PC60-III Rev 1.35 BIOS ROM Upgrade
Warranty policy number - WPC60-1290
(See Techtopic bulletin 31/5-4.1 in PC section 5, under current bulletins for details).

31/1-2.1 Service Training Schedule, January thru March, 1991.

1991 Training schedule, January thru March 1991. Please contact John Dimeo for more information.

Month	Date	Training Days	Location	Products	Status
January	15-16	Tue-Wed	Boston, MA	Amiga	Open
January	22-23	Tue-Wed	Nashville, TN	Amiga	Open
January	29-30	Tue-Wed	Houston, TX	Amiga	Open
February	12-13	Tue-Wed	Dayton, OH	Amiga	Open
February	19-20	Tue-Wed	Denver, CO	Amiga	Open
February	26-27	Tue-Wed	Orange County, CA	Amiga	Open
March	12-13	Tue-Wed	Reston, VA	Amiga	Open
March	19-20	Tue-Wed	Atlanta, GA	Amiga	Open
March	26-27	Tue-Wed	Chicago, IL	Amiga	Open

31/1-2.2 Enclosure: January thru March, Service Training Course Outline.

Included with issue 31 is a course outline for the service training program, from January thru March, 1991.

**31/1-5.1 A3000 - PC60-III, Field Replacement Units Policy.
(Reminder)**

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 the main PCB is defective, a replacement must be ordered and the defective PCB must be returned to Commodore for credit to be issued.

February 1, 1991, Commodore will initiate a FRU replacement policy on ALL Commodore product lines. NO component level repairs will be recognized with special service rates. New warranty rates and a complete program overview will be mailed to all service centers.

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

End 31/1

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PARTS

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31/2-1.1 PC60-III Spare Parts List.

Commodore Parts Department now has the following parts in stock.

Part Number	Description	Dealer Billing	Return Credit
312709-01	Keyboard (Packaged) U.S.	\$88.00	
312966-01	Drive, 80MB Hard Disk	950.00	\$100.00
312970-01	Lock Assy., Keyswitch PC60-III	9.90	
313065-03	Drive Assy., Hard 40MB	575.00	100.00
313067-02	Drive Assy., FDD 3.5" 1.44MB FB357	150.00	
313306-01	PC60-III PCB	2100.00	800.00
314253-01	Kit Diagnostic PC60-III 3.5 Disk	150.00	
319292-01	Manual Basic 3.30A	16.50	
390484-02	Power Supply (CSA, UL) PSM2526-1	160.00	

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- 31/3-1.1** Addendum To Techtopic Issue 30/3-3.1, A2300 Genlock Fix To Work With A3000.

This modification corrects the clock frequency to 28.37515MHZ. The modification must be done for NTSC and PAL versions of the A2300 Genlock.

1. On the NTSC A2300 Genlock (PN#312803-01), a 0.1uf axial capacitor must be connected from pin 6 of IC6 (signal N_VSYNC), to ground.

Note: IC6 is inside the RF box, connect the capacitor from the small solderpad above pin 32 of the 36 pin edge connector, to the solder pad directly under the "7" of C72.
See A2300 service manual.

2. On the 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 11 of IC1. There already exists a silkscreened place for this jumper wire. It is marked NT and is the second NT jumper from the left as you look at the A2300 PCB from the component side. This jumper pad is above and to the left of the RF shield.

- 31/3-2.1** Quantum Prodrive Hard Drive Kit Update.

The Quantum Prodrive Hard Drive kit, CBM PN# 314687-01, is no longer available. The Rodime drive is again available under PN# 311833-01.

If anyone has received one of the kits, be sure to note that an A2090A does not work with 4 bit plane Overscanned Image. The access time is too slow.

30/3-3.1 Using Setclock Command After Changing Clock Chip Or Battery.

When changing a defective Clock chip, CBM PN# 318073-01 or the 3.6V battery CBM PN# 380393-01, you must use the Setclock command (In Shell) to set the time of day. The commands are as follows:

Setclock opt Reset	<hit return>
Date 11-Dec-90 12:00:00	<hit return>
Setclock opt Save	<hit return>

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CBM

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31/4-1.1 1541B Kit Substitution.

Please order 1541B Kit, PN# 390897-01 if PN# 1540048-03 is not in stock.

Included in this kit are the following:

<u>Part Number</u>	<u>Description</u>
250448-01	1541B PCB Assembly
368131-01	Instruction Sheet

Please note that only four (4), Back Left, Back Center and two (2) Heat Sink, screws are used to mount this PCB to the chassis. All of the other connections are the same.

If any problems or questions should arise, please contact the 800 Technical Support line.

31/4-2.1 1270 Ink Jet Service Manual, CBM PN# 314260-01 Release.

Mailed with Techtopics issue 31, for all authorized service centers, are the 1270 Ink Jet Service Manual.

31/4-2.2 Enclosure: 1270 Ink Jet Service Manual.

Enclosed in Techtopics issue 31, CBM PN# 314260-01, 1270 Ink Jet Service Manual.

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31/5-1.1 C286-LT Laptop Computer Announcement.

As of 10-1-90, Commodore has released the C286-LT Laptop computer. Basic C286-LT technical specifications are:

- 1) 20MB Hard Drive
 - a) Cylinders = 653
 - b) Heads = 2
 - c) Size = 2.5 inch
 - d) Seek Time = 23ms
- 2) 1MB of RAM expandable to 5MB.
- 3) Clock speeds of 12.5MHZ, 8MHZ.
- 4) VGA video mode.
- 5) MS-DOS 4.01 with Shell.
- 6) 3.5 inch internal floppy, 1.44MB.
- 7) Space for optional internal Modem.
- 8) Centronics parallel 25 pin female connector.
- 9) RS232C 9-pin male connector, 110-9600 Baud.
- 10) VGA compatible 15-pin female external connector.
- 11) Weight = 7.0 lbs, with battery.
- 12) Optional rechargeable 12V NiCad battery.

31/5-2.1 BIOS ROMS Rev. 2.03 Upgrade - PC40/30-III.

New BIOS ROMS, revision 2.03, have been released for the PC40/30-III, CBM part numbers:

390339-04 (checksum 03BC)
390340-04 (checksum 3344)

The following changes have been made:

- 1) Reset drive and wait for ready before issuing hard disk diag command in POST. Also add proper "ready check" after issuing reset command in function 0, int 13h.
- 2) Reset floppy transfer rate to 250KB/sec on reset (cold or warm). This corrects the 360K floppy drive configuration problem.
- 3) Add delay in all back to back IO.
- 4) Corrected the floppy disk FORMAT problem (Format low density disks in high density drives with DOS v4.01).
- 5) Changed hard disk table for types 26, 27, 32 and 47 (so these 4 types have the same definition as PC60-III BIOS).
- 6) Corrected the bug in function 15h of int 13h so the OS/2 v1.2 can find hard disk in FDISK.

This is considered a running change and is not covered under warranty. Customers must pay for this upgrade. Dealer billing is \$13.20 each.

31/5-3.1 BIOS ROMS Rev. 1.35 Upgrade - PC60-III.

Warranty Policy Number - WPC60-1290

New BIOS ROMS, revision 1.35, have been released for the PC60-III, CBM part numbers:

390473-06 (checksum 720E)
390474-06 (checksum 5CF2)

The following changes have been made:

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31/5-3.1 BIOS ROMS Rev. 1.35 Upgrade - PC60-III. (CONT.)

- 1) Drive type 47 (Seagate 200 meg) support added. Corrected 1.44MB floppy drive media fixes.
- 2) COM and LPT autoconfig problems corrected.
- 3) COM3 COM4 support changed to WIN 3.0 address defaults.
- 4) Can now install DOS without hard drive attached.

A new Warranty Policy number - WPC60-1290, has been assigned to this upgrade. This number must appear in the "Part Number" field of the NARDA form. A warranty labor rate of \$25.00 will be issued for this fix.

31/5-4.1 C286-LT Laptop Computer Service Manual, CBM PN# 400400-01 Release.

Mailed with Techtomics issue 31, for PC authorized service centers only, are the C286-LT Laptop Computer Service Manual.

31/5-4.2 Enclosure: C286-LT Laptop Computer Service Manual.

Enclosed in Techtomics issue 31, CBM PN# 400400-01, C286-LT Laptop Computer Service Manual.

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To: All Service Centers

Enclosed please find the service training calendar for January 1, 1991 through March 31, 1991, an Amiga Service course outline, and a Training Request Form.

Currently Commodore offers Amiga service training in nine major cities per quarter. A calendar is distributed quarterly indicating the cities and dates of these seminars. There will be no charge to service centers or dealers for these classes. PC Service Training has been discontinued.

The material to be covered in the course has been condensed into one full day starting at 9:00 AM and ending at 5:00 PM. It is imperative that attendees be present for the entire course in order to receive certification. Attendees should make travel arrangements accordingly.

Amiga service training encompasses the Amiga 500, A2000 and A3000 series at the field replaceable unit (FRU) level. Since class space is limited, requests should be submitted promptly. Based upon demand, either two or three sessions of the course will be scheduled in each designated city.

To enroll in the course, complete the attached Training Request Form, *indicate your date preference*, and return it to:

Commodore Business Machines
1200 Wilson Drive
West Chester, PA 19380
Attention: John DiMeo, Technical Training

Upon receipt of your Training Request Form, Commodore will return to you a confirmation letter and *information about the exact location and date of the training*.

Amiga Service Training

Course Outline

Objective	To increase the technician's awareness of system operations, and in the event of a failure, to provide proper procedures for performing system diagnostics and repair at the field replaceable unit level.
Prerequisite	Familiarity with the Amiga computer and previous experience in the field of computer repair.
Outline	<ul style="list-style-type: none">I. A500/A2000 Operation Theory<ul style="list-style-type: none">A. Architecture<ul style="list-style-type: none">1. Custom chips2. Circuit descriptionB. Troubleshooting tips II. A500/A2000 Hands-on Lab<ul style="list-style-type: none">A. Defective Assembly DeterminationB. Hard Card Installation III. A3000 Operation Theory<ul style="list-style-type: none">A. Architecture<ul style="list-style-type: none">1. Custom chips2. Circuit descriptionB. Troubleshooting tips IV. A3000 Hands-on Lab V. Question/Answer Session



Commodore Business Machines, Inc.

For enrollment and scheduling information contact:
 Mary Lou Light
 Training Manager
 Commodore Business Machines
 1200 Wilson Drive
 West Chester, PA 19380
 (215) 344-3036

Professional
 Development
 Series

Commodore Training • January 1991

Service Training				
Mon	Tues	Wed	Thurs	Fri
	1	2	3	4
7	8	9	10	11
14	15 Boston, MA	16 Boston, MA	17	18
21	22 Nashville, TN	23 Nashville, TN	24	25
28	29 Houston, TX	30 Houston, TX	31	

John DiMeo, Service Trainer
 1200 Wilson Drive
 West Chester, PA 19380
 (215) 431-9100 extension 9214



Commodore Business Machines, Inc.

For enrollment and scheduling information contact:
 Mary Lou Light
 Training Manager
 Commodore Business Machines
 1200 Wilson Drive
 West Chester, PA 19380
 (215) 344-3036

Professional
 Development
 Series

Commodore Training • February 1991

Service Training				
Mon	Tues	Wed	Thurs	Fri
				1
4	5	6	7	8
11	12 Dayton, OH	13 Dayton, OH	14	15
18	19 Denver, CO	20 Denver, CO	21	22
25	26 Orange Co., CA	27 Orange Co., CA	28	

John DiMeo, Service Trainer
 1200 Wilson Drive
 West Chester, PA 19380
 (215) 431-9100 extension 9214



Commodore Business Machines, Inc.

For enrollment and scheduling information contact:
 Mary Lou Light
 Training Manager
 Commodore Business Machines
 1200 Wilson Drive
 West Chester, PA 19380
 (215) 344-3036

Professional
 Development
 Series

Commodore Training • March 1991

Service Training				
Mon	Tues	Wed	Thurs	Fri
				1
4	5	6	7	8
11	12 Reston, VA	13 Reston, VA	14	15
18	19 Atlanta, GA	20 Atlanta, GA	21	22
25	26 Chicago, IL	27 Chicago, IL	28	29

John DiMeo, Service Trainer
 1200 Wilson Drive
 West Chester, PA 19380
 (215) 431-9100 extension 9214

Trainig Request Form

Service Training

Please complete one per attendee. Return completed form 30-60 days prior to requested date.

1. Requested Course _____

2. Requested Date _____ Alternate Date _____

3. Technician _____

Company Name _____

Address _____

City _____ State _____ Zip _____

Telephone _____ Service Account Number _____

4. Briefly describe the skill level of attending technician.

Authorized Signature

Date

**Please return completed form to:
Commodore Business Machines
1200 Wilson Drive
West Chester, PA 19380
Attn: John DiMeo**

CBM Use Only--Do not write in this space

CBM Approval: _____ Date: _____

Signature (attending technician): _____ Date: _____

Signature (service trainer): _____ Date: _____