

JULY - SEPTEMBER 1989 ISSUE 26

commodore TECHTOPICS

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26/3-1.1 A2286 REV 6.1 TO REV 8.1 BOARD EXCHANGE.

SOME A2286 BRIDGEBOARDS WILL DISPLAY PARITY ERRORS. THERE IS NO FIELD FIX ISSUED FOR THIS PROBLEM. PLEASE REQUEST A "RETURN AUTHORIZATION" NUMBER FROM YOUR SALES CONTACT, AND RETURN THE A2286 FOR EXCHANGE.

[REPEAT OF 25/3-4.1]

26/3-2.1 A2000 PCB FIELD UPGRADE TO REV 4.5.

THE FOLLOWING INSTRUCTIONS DETAIL THE CHANGES WHICH MUST BE IMPLEMENTED TO UPGRADE A U.S. MANUFACTURED A2000 PCB FROM REV 4.0 (OR HIGHER) TO REV 4.5. CURRENT PRODUCTION BOARDS ARE EITHER REV 4.5 W/O NEW AGNUS OR REV 6 W/ NEW AGNUS. ALSO NOTE, SOME REV 6 PCBS MAY HAVE A DRAM TOWER AND STATIC COLUMN DRAMS, SOME MAY NOT. FIELD UPGRADES ARE NOT RECOMMENDED ON REV 3.X PCBS.

IT IS THE RESPONSIBILITY OF THE CUSTOMER TO PAY FOR THESE ENHANCEMENTS.

THESE UPGRADES ARE NOT REQUIRED FOR PROPER HARDWARE OPERATION, AND IT IS SOLELY WITHIN THE CUSTOMERS DISCRETION TO HAVE THEM IMPLEMENTED. ANY PROBLEMS RESULTING FROM IMPROPER INSTALLATION OF THESE UPGRADES BY THE SERVICE CENTER WILL VOID THE CREDIT ISSUED FOR A RETURNED REPAIRABLE UNIT.

26/3-2.1 A2000 PCB FIELD UPGRADE TO REV 4.5. (CONT)

- 1) THE FOLLOWING COMPONENTS WILL EITHER NOT BE INSTALLED, OR ARE TO BE REMOVED IF INSTALLED.

R901, C917, C902 (SHOULD NOT BE INSTALLED, LOCATED LEFT OF CN601, LAST EXPANSION CONNECTOR ON AMIGA BUS, NEAR PIN 1.)

C910, C911 (FIX FOR HYTEK KEYBOARDS, LOCATED OFF KEYBOARD CONNECTOR, CN300.)

C905, C908 (C908 LOCATED ABOVE CRYSTAL X1, C905 LOCATED BELOW GARY PIN 20.)

C230, C240 (LOCATED ABOVE U204, U303, THE TWO ICS BETWEEN THE 34 PIN DRIVE CONNECTOR AND THE 8520 AT U301.)

- 2) 1.2 KICKSTART ROM IS REPLACED WITH 1.3 KICKSTART ROM. (1.3 ROM IS CBM PN# 315093-02.)
- 3) INSTALL RP904, RP905, RP906 ONLY IF U205 AND U206 ARE 74HC244 TYPE ICS. (RESISTOR PACK IS 4.7K OHM X 5, 6 PIN, CBM PN# 902441-31.)

DO NOT INSTALL IF U205 AND U206 ARE HCT TYPE 244. RP905 IS LOCATED BETWEEN U205 AND U206, RP906 IS LOCATED BETWEEN PAULA AND DENISE, RP904 IS LOCATED TO THE RIGHT OF DENISE.

- 4) ADD .01 uF CERAMIC CAP ON J300. ADD THIS CAP ON SOLDER SIDE OF PCB, FROM PIN 12 (MIDDLE PIN ON CONNECTOR) TO GROUND (USE EITHER OF THE GROUND PADS LOCATED ON THE SOLDER SIDE, DOWN AND TO THE RIGHT, ABOVE PAULA BETWEEN PINS 46 AND 48.).
- 5) ADD 3.3K OHM, 1/4W RESISTOR TO U605, FROM PIN 11 TO PIN 20.
- 6) ADD 470 OHM, 1/4W RESISTOR TO D800, CATHODE SIDE, TO THE SECOND PAD FROM THE LEFT, UNDER CN605. (D800 IS LOCATED TO THE LEFT OF THE REAL TIME CLOCK IC AT U801.)

NOTE: ON REV 4.3 AND ABOVE THIS RESISTOR IS ON PCB AS R1000, LOCATED TO THE LEFT OF Q302.

26/3-2.1 A2000 PCB FIELD UPGRADE TO REV 4.5. (CONT)

- 7) IF R5719 IS NOT PRESENT (LOCATED OFF PIN 1 OF CN400, POWER CONNECTOR.) ADD 470 OHM RESISTOR BETWEEN VCC AND CPU SIDE OF R106. (USE PAD LOCATED TO THE RIGHT OF U100, THE 68000, BETWEEN PINS 11 AND 12, AND THE PAD ON THE GROUND TRACE WHICH RUNS UNDER PIN 14 OF THE 68000.)
- 8) REPLACE GARY IC, THE 5719, AT U102, WITH A MOS MANUFACTURED TYPE, IF IT IS A TOSHIBA MANUFACTURED TYPE. PART NUMBER FOR GARY IS 318072-01, ONLY MOS TYPE ARE IN STOCK.

[REPEAT OF 25/3-1.1]

26/3-3.1 A2620 COPROCESSOR ROM UPGRADE.

NEW ROMS ARE AVAILABLE FROM THE PARTS DEPARTMENT TO UPGRADE THE A2620 FOR USE WITH SOME THIRD PARTY HARDWARE ADD-ON BOARDS (GVP TYPE). THIS A RUNNING CHANGE AND IS NOT COVERED UNDER WARRANTY.

CBM PART NUMBERS FOR THE NEW ROMS ARE # 390282-02 FOR IC AT U4, AND 390283-02 FOR IC AT U5. BOTH ROMS MUST BE CHANGED FOR THE UPGRADE.

26/3-4.1 A2000 CR REV 6.0 PCB EXPANSION BUS PROBLEMS.

IF PROBLEMS ON A2000 CR REV 6.0 PCB'S OCCUR, SUCH AS GURU CODES, AUTO-CONFIG OR SYSTEM HANGING UP, WITH SOME THIRD PARTY ADD-ON CARDS IT MAY BE THE RESULT OF THE MOTORLOA TYPE 68000 CPU IC'S WHICH HAVE A MASK CODE OF 0B26

PARTS DEPARTMENT IS STOCKING SIGNETICS TYPE 68000'S UNDER PART NUMBER 390084-03, DEALER BILLING IS \$18.50. PLEASE NOTE: NO REIMBURSHMENTS WILL BE ISSUED FOR 68000 ICS NOT PURCHASED FROM COMMODORE. IN ADDITION ANY MOTOROLA 68000 ICS RETURNED FOR CREDIT WHICH DO NOT HAVE A MASK CODE OF 0B26 WILL BE RETURNED TO THE SERVICE CENTER WITH NO CREDIT ISSUED. IF REPLACING THE 68000 WITH A SIGNETICS TYPE DOES NOT CORRECT THE PROBLEM THEN THE PCB WILL HAVE TO BE REPLACED.

26/3-4.1 A2000 CR REV 6.0 PCB EXPANSION BUS PROBLEMS. (CONT)

A SPECIAL WARRANTY RATE OF \$30.00 WILL BE PAID FOR REPLACEMENT OF THE SOCKETED MOTOROLA 68000'S WHICH HAVE A MASK CODE OF 0B26.

IF PROBLEMS PERSIST AFTER THE 68000 IS REPLACED, THE MOTHER BOARD WILL HAVE TO BE EXCHANGED FOR THE CURRENT REVISION 6.2, A2000 PCB ASSY.

26/3-5.1 A2000 POWER SUPPLY - 12 VOLT LOAD CAN EFFECT VIDEO.

A2000 UNITS WITH PHI HONG TYPE POWER SUPPLIES WHICH ARE NOT PLACING A SIGNIFICANT LOAD ON THE 12 VOLT SOURCE (NO HARD DRIVE OR OTHER ADD-ONS USING 12 VOLTS) MAY EXHIBIT VIDEO PROBLEMS. CONFIGURATIONS WITH A HARD DISK DRIVE OR OTHER THIRD PARTY EXPANSION HARDWARE WHICH USES THE 12 VOLT SOURCE WILL NOT HAVE VIDEO FLICKER AND DO NOT REQUIRE THIS CHANGE.

VIDEO NOISE OR FLICKERING, WHICH OCCURS DURING DISK OR PROCESSOR ACTIVITY CAN BE IMPROVED BY RE-OREINTING OR BY REMOVING AND REPLACING WITH THE SAME VALUE, RESISTOR R215 (CBM PN#901550-118 1 OHM, 5%, 1/2W) AS DETAILED BELOW.

NOTE: THIS UPDATE IS FOR UNITS WITH "PHI HONG" TYPE POWER SUPPLIES ONLY.

LOCATE R215 (ABOVE PIN 40 OF 8520 AT U300), CLIP OR UNSOLDER THE LEFT-HAND LEAD OF R215 (SIDE TOWARD EMI200). AND THEN SOLDER A PIECE OF JUMPER WIRE OR RESISTOR LEAD TO THE FREE END OF R215, EXTENDING IT ENOUGH (3/4") TO REACH THE FEEDTHRU HOLE LOCATED BETWEEN EMI310 AND EMI301. (THIS FEEDTHRU HOLE IS ABOUT 1/4" ABOVE THE RIGHT SIDE OF R310.)

THE LEFT-HAND LEAD OF R215, AFTER BEING CLIPPED, WILL BE TOO SHORT TO REACH THE FEEDTHRU HOLE. YOU MAY EXTEND THE LEAD, AS DESCRIBED ABOVE, OR REPLACE R215 WITH A NEW RESISTOR (1 OHM, 5%, 1/2W) PLACING IT MID-WAY BETWEEN THE RIGHT SIDE FEEDTHRU HOLE OF R215 AND THE FEEDTHRU HOLE BETWEEN EMI310 AND EMI301. THERE ARE NO EXPOSED COMPONENTS OR TRACES BETWEEN THE TWO POINTS, HOWEVER A GOOD PROCEDURE WOULD INCLUDE INSULATING BOTH SIDES OF THE RESISTOR LEADS WITH SHRINK TUBING BEFORE SOLDERING.

A WARRANTY RATE OF \$30.00 WILL BE CREDITED FOR THIS UPGRADE.

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26/3-6.1 A590 SERVICE MANUAL CBM PN# 314899-01 RELEASE.

MAILED WITH TECHTOPICS ISSUE 26, FOR AMIGA AUTHORIZED SERVICE CENTERS ONLY, IS THE NEW A590 SERVICE MANUAL.

26/3-6.2 ENCLOSURE: A590 SERVICE MANUAL.

ENCLOSED IN TECHTOPICS ISSUE 26, #314899-01 A590 SERVICE MANUAL.

26/3-7.1 A500 REVISION 6A/7 SCHEMATICS CBM PN# 314981-02 RELEASE.

MAILED WITH TECHTOPICS ISSUE 26, FOR AMIGA AUTHORIZED SERVICE CENTERS ONLY, ARE THE A500 REV 6A/7 SCHEMATICS.

26/3-7.2 ENCLOSURE: A500 REV 6A/7 SCHEMATICS.

ENCLOSED IN TECHTOPICS ISSUE 26, #314981-02 A500 REV 6A/7 SCHEMATICS.

26/3-8.1 A2000 REVISION 6 SCHEMATICS CBM PN# 314135-02 RELEASE.

MAILED WITH TECHTOPICS ISSUE 26, FOR AMIGA AUTHORIZED SERVICE CENTERS ONLY, ARE THE A2000 REV 6 SCHEMATICS.

26/3-8.2 ENCLOSURE: A2000 REV 6 SCHEMATICS.

ENCLOSED IN TECHTOPICS ISSUE 26, #314135-02 A2000 REV 6 SCHEMATICS.

END 26/3.