

SERVICE MANUAL

MODEL : MPC500 (AKAI)



Specification

■ General

| | |
|--------------------|--|
| Display: | 2 x 16 charatec LCD w/back light |
| Memory card slot: | Compact Flash (The size of the compact flash card that MPC500 can handle if from 32MB to 2 GB) |
| Dimensions: | 266mm x 175mm x 44mm |
| Weight: | 1.34kg |
| Power requiremntn: | 12v DC 600mA (negative tip) |
| Battery life: | Approximately 4.5 hour of continuous use with LCD backlight |

■ Sound Generator

| | |
|------------------------|--|
| Sampling rate: | 44.1kHz |
| Memory capacity: | 16MB standard (11.5MB for sound memory), expandable to 128MB |
| Recording time: | 136sec. (16MB, MONO) ; 24M28sec. (128MB,MONO) |
| Memory expansion slot: | 1 x for optional EXM128 |
| Data format: | 16-bit linear |
| Polyphony: | up to 32 (dependent on processing) |
| Dynamic filtering: | 2-pole lowpass filter per voice |
| Preset sound memory: | 5MB |
| Number of programs: | 24 |

■ Effects

| | |
|----------------|--|
| Effects: | 2 stereo effects and Master effect |
| Effect type: | Chorus, Flanger, Bit grunger, 4 band EQ, Compressor, phase shifter, Tremolo, Flying pan, Reverb, Delay |
| Master effect: | 4 band EQ, Compressor |

■ Sequencer

| | |
|-----------------------|--------------------------------------|
| Maximum events: | 100,000 notes |
| Resolution: | 96 parts per 1/4-note |
| Sequences: | 99 |
| Tracks per sequence: | 48 |
| MIDI output channels: | 16 |
| Song mode: | 20 songs, 250 steps per song |
| Drum pad: | 12 (velocity and pressure sensitive) |
| Drum pad banks: | 4 |
| Sync mode: | MIDI clock |

■ Inputs/Outputs

| | |
|--------------------------|---|
| Record input (L and R): | 1/4-inch stereo phone x 2, pseudo balanced + 11dBu, input impedance 9k ohm |
| Max. Input level: | +10dBu |
| Stereo output (L and R): | 1/4-inch phone x 2 pseudo balanced + 11dBu, output impedance 1k Ohms, |
| Max. Output level: | +5 dBu |
| Phones output: | 1/4-inch stereo phone x 1, 200mW / 100 ohms |
| MIDI inputs: | 1 x 5-pin DIN |
| MIDI outputs: | 1 x 5-pin DIN |
| USB: | Slave connector x 1, USB MASS STORAGE CLASS support (Windows 2000/ME/XP or later version, or Mac OS 9.x/10.x or later version) |

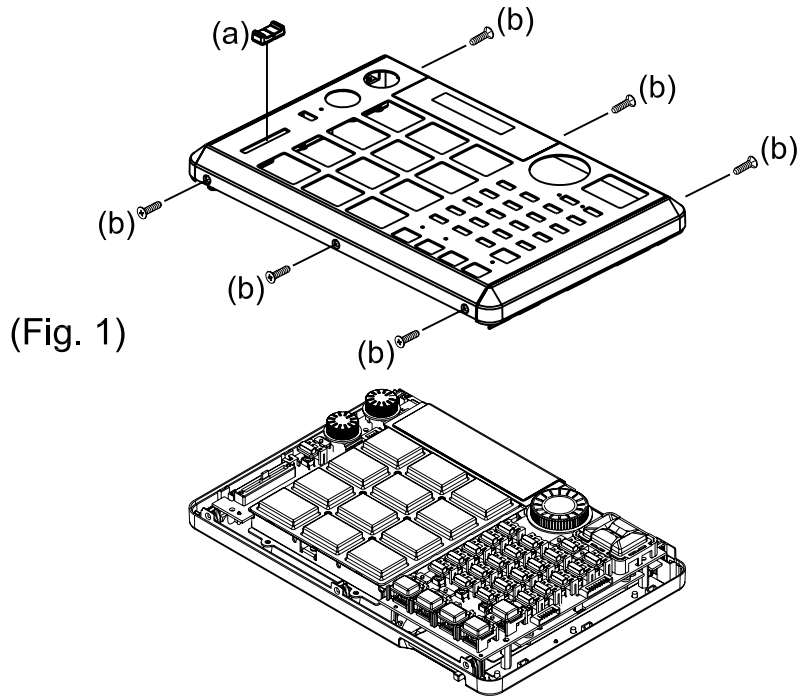
■ Data Compatibility

| | |
|-----------------|---|
| MPC1000: | SEQ, WAV, PGM |
| MPC2000/2000XL: | SEQ, WAV, SND, PGM (Most parameters of PGM file can be loaded) |
| MPC2500: | SEQ, WAV, PGM |
| MPC4000: | SEQ, WAV, PGM (DRUM program only. Only note assign and tune are loaded) |
| MPC3000: | SND (THRU Computer) |
| Z4/Z8: | WAV, PGM (DRUM program only. Only note assign and tune are loaded) |
| S5000/6000: | WAV only (THRU Computer) |

DISASSEMBLY PROCEDURES

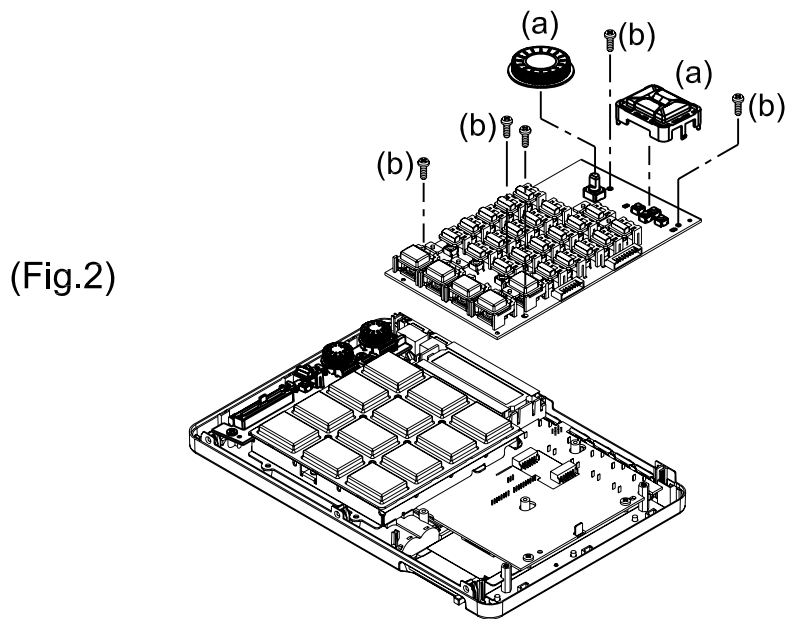
1. REMOVAL OF METAL TOP COVER/BOTTOM COVER (Fig. 1)

- (a) Take off knob slide from the top panel.
- (b) Unscrew and remove 6 pcs of screw from the bottom cover.



2. REMOVAL OF SW PCB ASS'Y/BOTTOM COVER (Fig. 2)

- (a) Remove knob jog and cursor button from PCB.
- (b) Unscrew and remove 5 pcs of screw from bottom cover.

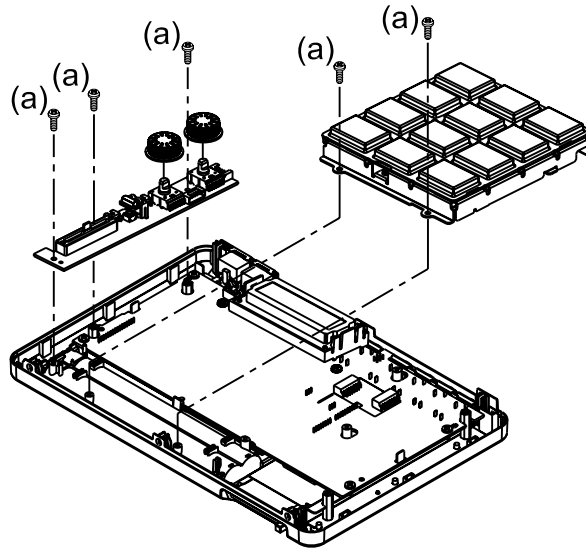


DISASSEMBLY PROCEDURES

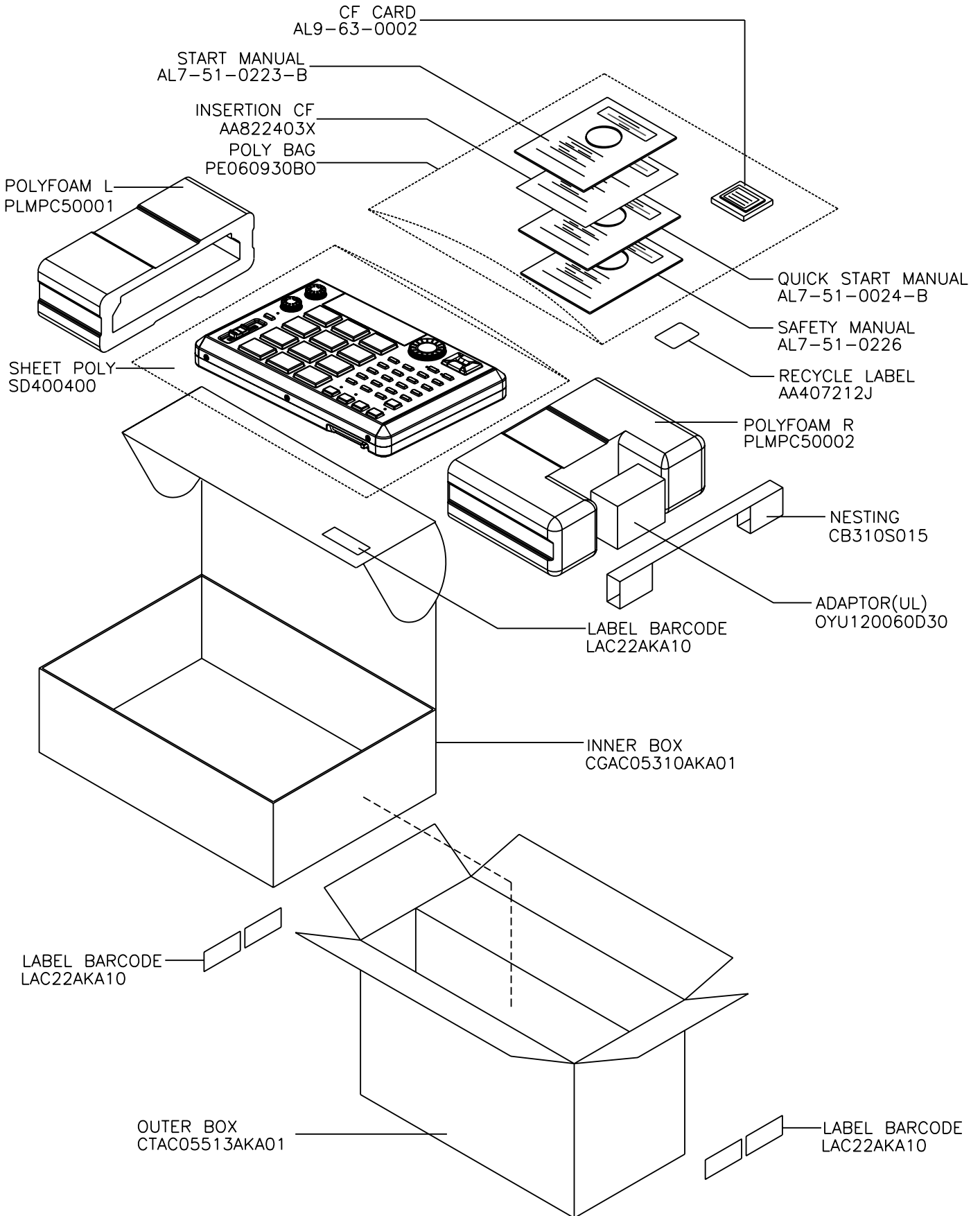
3. REMOVAL OF POT PCB ASS'Y AND HOLDER PAD (Fig. 3)

(a) Unscrew and remove 5 pcs of screw from bottom cover.

(Fig. 3)

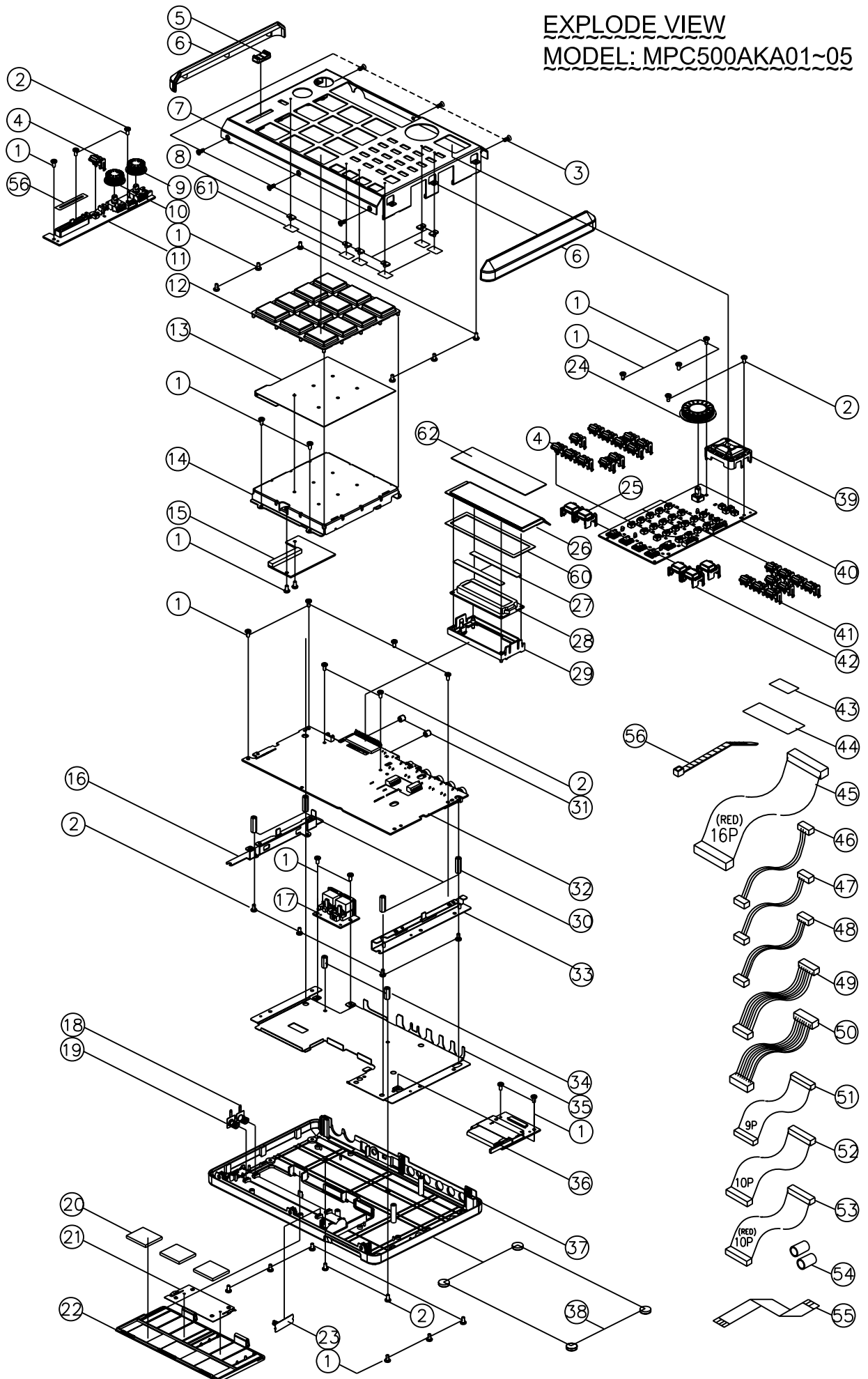


MPC500 PACKING DRAWING



1 CARTON = 2 UNIT

EXPLODE VIEW
MODEL: MPC500AKA01~05



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YA HORNG
Electronic Co.,Ltd

APPROVED
ANDREW

CHECKED
CHARLES

PREPARED
李靜怡 5/03 '06

CODE NO.
MPC500AKA01

PAGE

MPC500 (AKAI) BOM

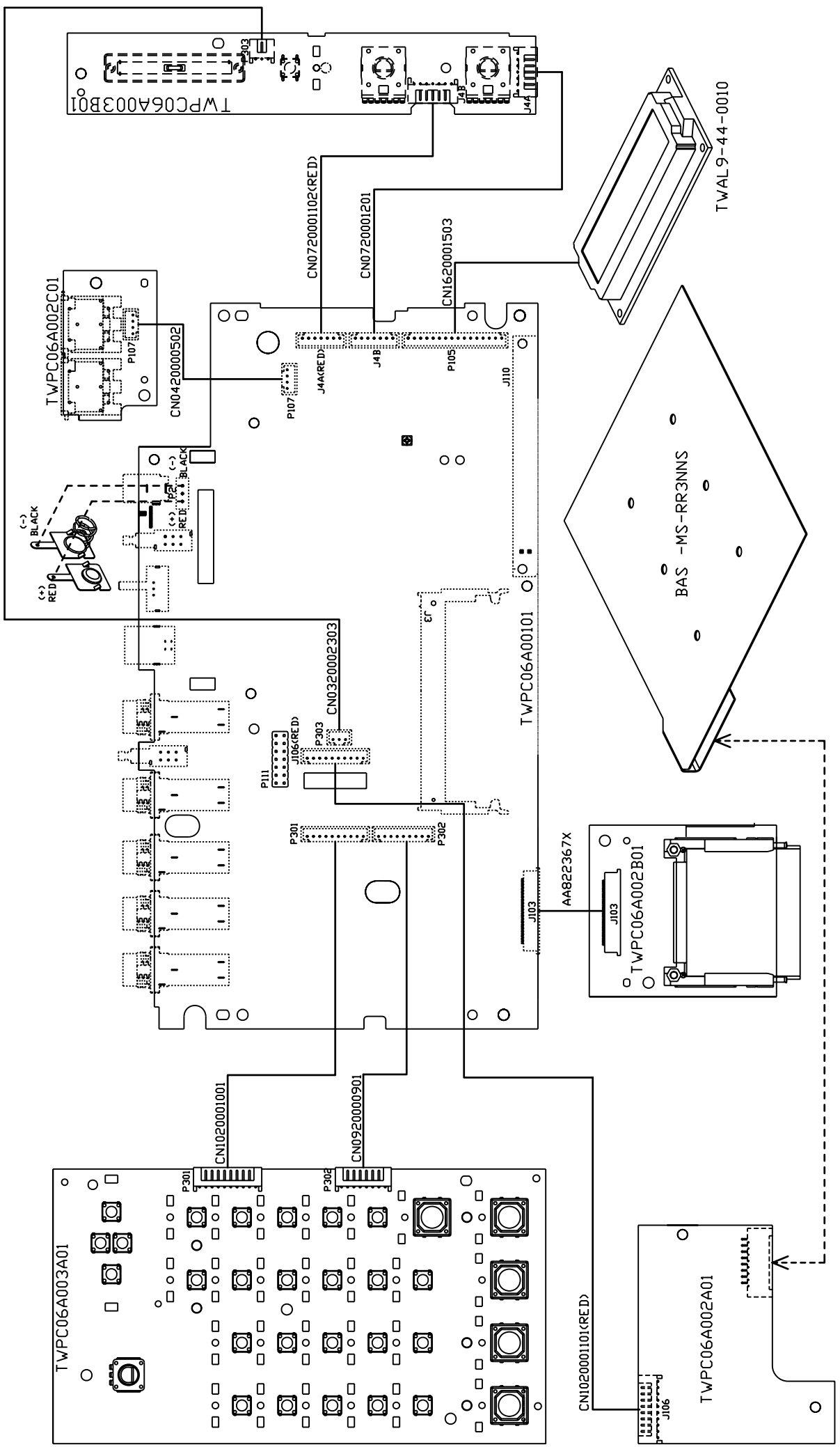
| LEVEL | PART NUMBER | DESCRIPTION | QTY | REF |
|-------|----------------|--|--------|-----|
| .1 | AA406633J | PE BAG 370X280X.03 PRINTING | 0.006 | |
| .1 | AA407212J | LABEL RECYCLE PE04 | 1.000 | |
| .1 | AA810353J | LENS LED | 6.000 | 8 |
| .1 | AA811571J | CAUTION LABEL | 1.000 | 44 |
| .1 | AA821339X | SHEET POLY 0450X0450 | 1.000 | |
| .1 | AA821858X | EVA | 1.000 | 56 |
| .1 | AA822124X | LABEL FCC-S | 1.000 | 43 |
| .1 | AA822330X | BUTTON PUSH (B)-7 | 13.000 | 4 |
| .1 | AA822331X | BUTTON PUSH (B)-8 | 9.000 | 41 |
| .1 | AA822367X | 42P FLAT WIRE 60MM | 1.000 | 55 |
| .1 | AA822403X | INSERTION CF MPC | 1.000 | |
| .1 | AL7-40-0052 | ADAPTOR 12VDC 600MA MPC500-UL | 1.000 | |
| .1 | AL7-51-0223-B | START MANUAL (MPC500) | 1.000 | |
| .1 | AL7-51-0224-B | QUICK START MANUAL (MPC500) | 1.000 | |
| .1 | AL7-51-0226 | SAFETY INSTRUCTION | 1.000 | |
| .1 | AL9-63-0002 | CF CARD 128MB | 1.000 | |
| .1 | BA71028-130 | BATTERY TERMINAL 71028-130 | 1.000 | 18 |
| .1 | BA71209-130 | BATTERY TERMINAL 71029-130 | 1.000 | 19 |
| .1 | BA71228-130 | BATTERY TERMINAL 71228-130 | 1.000 | 23 |
| .1 | BAAR-291 | FOOT | 4.000 | 38 |
| .1 | BAS-MS-RR3NNS | PAD SENSOR | 1.000 | 13 |
| .1 | CB310S015 | NESTING | 1.000 | |
| .1 | CGAC05310AKA01 | INNER CARTON (CARTON CASE MPC50) | 1.000 | |
| .1 | CN0320002005 | 3P CONNECTOR WIRE 200MM (L4040 W901) | 1.000 | 46 |
| .1 | CN0320002303 | 3P CONNECTOR WIRE 230MM (L4040 W303) | 1.000 | 47 |
| .1 | CN0420000502 | 4P CONNECTOR WIRE 50MM (L4040 W107) | 1.000 | 48 |
| .1 | CN0720001101 | 7P CONNECTOR WIRE 110MM (L4040 J4B) | 1.000 | 49 |
| .1 | CN0720001201 | 7P CONNECTOR WIRE 120MM (L4040 J4A) | 1.000 | 50 |
| .1 | CN0920000901 | 9P CONNECTOR WIRE 90MM (L4040 W302) | 1.000 | 51 |
| .1 | CN1020001002 | 10P CONNECTOR WIRE 100MM (L4040 W301) | 1.000 | 52 |
| .1 | CN1020001102 | 10P CONNECTOR WIRE 110MM (L4040 J106) | 1.000 | 53 |
| .1 | CTAC05513AKA01 | OUTER CARTON (CARTON MASTER MPC) | 0.500 | |
| .1 | EVA1504401 | SHIELD LCD EVA01 | 2.000 | 27 |
| .1 | EVA1504402 | BATTERY CUSHION | 3.000 | 20 |
| .1 | HST030012BUL | HEAT SHRINKABLE TUBE 3X12MM | 2.000 | 54 |
| .1 | K46-1 | CABLE TIE | 1.000 | 59 |
| .1 | LAC22AKA11 | LABEL BARCODE-B MPC500(A) | 1.000 | |
| .1 | LAC67YAH261 | LABEL (GREEN MARKING) | 1.000 | |
| .1 | LAM67AKA01 | DOUBLE SIDE TAPE (SEKON) 45MM X 122MM | 1.000 | 60 |
| .1 | LAM67AKA02 | DOUBLE SIDE TAPE (SEKON) 10MM X 3MM | 6.000 | 61 |
| .1 | LAM67AKA03 | PROTECTION TAPE (SEKON) (ID-S040) 111.5MM X 37.5MM | 1.000 | 62 |
| .1 | LAM67AKA04 | LABEL STICKER FOR CF CARD | 1.000 | |
| .1 | MT1504308 | COPPER L=18.2 | 4.000 | 30 |
| .1 | MT1504309 | COPPER L=13 | 2.000 | 34 |
| .1 | MT1504310 | ANGLE PCB L | 1.000 | 16 |
| .1 | MT1504311 | ANGLE PCB R | 1.000 | 33 |
| .1 | MT1504406 | HOLDER PAD | 1.000 | 14 |
| .1 | MT1512201 | SHIELD MEMORY | 1.000 | 21 |
| .1 | MT1512202 | SHIELD PCB | 1.000 | 35 |
| .1 | MT153000301 | METAL TOP MPC500 | 1.000 | 7 |
| ..2 | MT1530003 | METAL TOP MPC500 (R) | 1.000 | |
| .1 | PLMPC50001 | POLY FOAM-L | 1.000 | |
| .1 | PLMPC50002 | POLY FOAM-R | 1.000 | |
| .1 | PT150140301 | LENS TOP | 1.000 | 26 |
| ..2 | PT1501403 | LENS TOP (R) | 1.000 | |
| .1 | PT1504304 | HOLDER LCD | 1.000 | 29 |
| .1 | PT151060301 | BUTTON CURSOR (AA822307X) | 1.000 | 39 |
| ..2 | PT1510603 | BUTTON CURSOR (AA822307X) | 1.000 | |
| .1 | PT151060801 | KNOB JOG | 1.000 | 24 |

| LEVEL | PART NUMBER | DESCRIPTION | QTY | REF |
|-----------|----------------------|--|--------------|-------------------------------|
| ..2 | PT1510608 | KNOB JOG (R) | 1.000 | |
| .1 | PT151060901 | KNOB VOLUME (A) ADD RED | 1.000 | 9 |
| ..2 | PT1510609 | KNOB VOLUME (A) (R) | 1.000 | |
| .1 | PT151060902 | KNOB VOLUME (B) ADD WHITE | 1.000 | 10 |
| ..2 | PT1510609 | KNOB VOLUME (A) (R) | 1.000 | |
| .1 | PT151061101 | KNOB SLIDE SMALL (ADD WHITE LINE) | 1.000 | 5 |
| ..2 | PT1510611 | KNOB SLIDE SMALL | 1.000 | |
| .1 | PT1510612 | BUTTON TRANSPORT (A) | 2.000 | 25 |
| .1 | PT1510613 | BUTTON TRANSPORT (B) | 3.000 | 42 |
| .1 | PT1510615 | SWITCH BUTTON | 2.000 | 31 |
| .1 | PT152060101 | SIDE CAP (SPRAYING) | 2.000 | 6 |
| ..2 | PT1520601 | SIDE CAP (R) | 1.000 | |
| .1 | PT153010601 | BATTERY DOOR (SPRAYING) | 1.000 | 22 |
| ..2 | PT1530106 | BATTERY DOOR (R) | 1.000 | |
| .1 | PT153030201 | BOTTOM (SPRAYING) | 1.000 | 37 |
| ..2 | PT1530302 | BOTTOM (R) | 1.000 | |
| .1 | RU1504303 | SILICON PAD | 1.000 | 12 |
| .1 | SC0306PBBI | SCREW | 22.000 | 1 |
| .1 | SC0306RIBI | SCREW (BLACK) | 2.000 | 2 |
| .1 | SC0306RINI | SCREW | 10.000 | 58 |
| .1 | SC0308FBBI | SCREW | 6.000 | 3 |
| .1 | SC0308PBBI | SCREW | 6.000 | 57 |
| .1 | SD870530 | LAMIN SHEET | 1.000 | |
| | | | | |
| .1 | TWAL9-44-0010 | LCD ASS'Y | 1.000 | 28 |
| ..2 | BC1602CHBWAJB | IND LCD BC-1602C-HBWA-J-B | 1.000 | |
| ..2 | CN1620001501 | 16P CONNECTOR WIRE 150MM (L4040 W105) | 1.000 | 45 |
| ..2 | TE522501601 | 16P CONNECTOR SOCKET 90° | 1.000 | |
| | | | | |
| .1 | TWPC06A00101 | MAIN PCB ASS'Y (MPC500) | 1.000 | 32 |
| ..2 | EC10550TM | E. CAPACITOR 1UF/50V | 2.000 | C40,41 |
| ..2 | EC10716TM | E. CAPACITOR 100UF/16V | 3.000 | C907,908,909 |
| ..2 | EC22716TM | E. CAP 220UF/16V | 5.000 | C403,404,910,911,912 |
| ..2 | EC47616TM | E. CAP 47UF/16V | 2.000 | C303,304 |
| ..2 | AA428998J | D SILICON C.1SS355TE-17 T08E | 1.000 | D1 |
| ..2 | AA812979J | IC HD74LVC245ATELL | 3.000 | IC5,6,7 |
| ..2 | AA821781X | SOCKET DMM3-RS144A2B-13 144P | 1.000 | J3 |
| ..2 | AA821788X | TR FET CHIP 2SK3065T100 T12E | 4.000 | TR1,2,3,4 |
| ..2 | AA821789X | TR CHIP DTB113ZKT146 T08E | 3.000 | Q1,TR5,6 |
| ..2 | AA821831X | IC DS1811R-10 | 1.000 | IC13 |
| ..2 | AA821836X | IC SI9706DY | 1.000 | IC8 |
| ..2 | AA821874X | DETECTOR HCPL-0701 | 1.000 | PH1 |
| ..2 | AA822373X | SOCKET BL112-42RL 42P | 1.000 | J103 |
| ..2 | AA822757X | TRANSISTOR 2SC3326 | 2.000 | TR301,302 |
| ..2 | AAHD6417727F | IC HD6417727F100CV QFTY | 1.000 | IC1 |
| ..2 | AALM2674M | IC LM2674M-ADJ | 3.000 | IC901,902,903 |
| ..2 | AL0-17-0330 | RES CHIP ARRAY 4 X 33 OHM 1/16W 5% C-C=0.8MM | 1.000 | IB1 |
| ..2 | AL0-20-1103 | POT TRIM SMD 10KB SING-TURN RH03ADC14X | 1.000 | VR1 |
| ..2 | AL2-51-0220 | DIODE POWER SCHOTTKY B240-A 20V 2A SMA | 5.000 | D901,902,903,904 |
| ..2 | AL2-51-4403 | TRANSISTOR PNP 2N4403 40V 800MA SOT-23 | 1.000 | TR901 |
| ..2 | AL2-52-5228 | DIODE ZENER MMBZ5230BLT1 SOT-23 SMD | 1.000 | D2 |
| ..2 | AL2-61-0431 | REG ADJ-SHUNT LM431 2.5V-37V 100mA 2% SOT-23 | 1.000 | IC18 |
| ..2 | AL2-64-2541 | IC 74HCT541 OCTAL BUFFERS/DRIVERS W/TRI-STATE OUTS | 1.000 | IC9 |
| ..2 | AL2-64-8032 | IC 74AUP1G32 SINGLE 2-IN POS OR SOT23-5 | 1.000 | IC12 |
| ..2 | AL2-65-0014 | IC 74LVC1G14 SINGLE INVERTER SOT-23 | 1.000 | IC14 |
| ..2 | AL2-71-0914 | IC TS914 OP-AMP SOP-14 | 1.000 | IC19 |
| ..2 | AL2-71-2084 | IC TLC084 4-OP AMP (SMD) | 1.000 | IC11 |
| ..2 | AL2-75-0320 | IC CODEC TLV320AIC23 STEREO TSSOP-28 | 1.000 | IC101 |
| ..2 | AL7-20-0077 | INDUCTOR FERRITE BEAD 330 OHM @ 100MHZ 0805 | 4.000 | FL1,2,3,4 |
| ..2 | AL7-20-0078 | INDUCTOR FERRITE BEAD 30 OHM @ 100MHZ 0805 | 11.000 | FL5,6,7,8,9,10,11,12,13,14,15 |
| ..2 | AL7-20-1039 | INDUCTOR 39UH PE-53814SNL SMD LCI-30 | 3.000 | L901,902,903 |
| ..2 | CS103K5005X7R | C.CAP 0.010UF 50V X7R,±10% SMD 0805 | 8.000 | C53,54,59,904,905,906,913,914 |

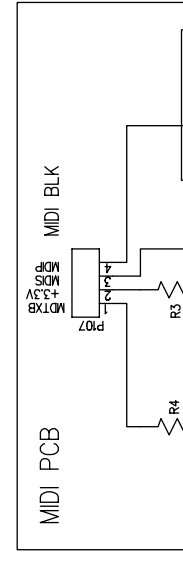
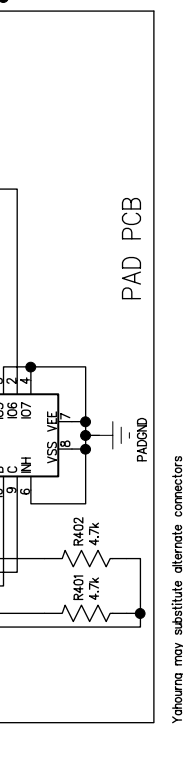
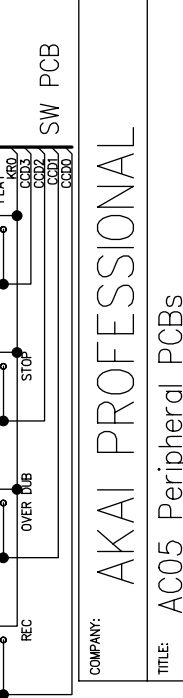
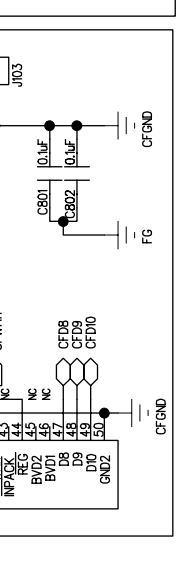
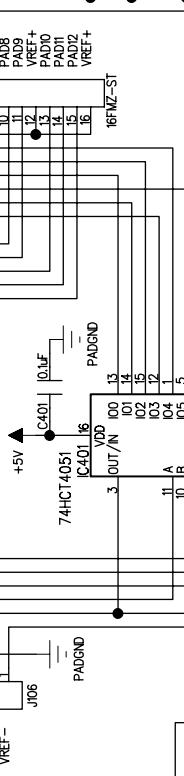
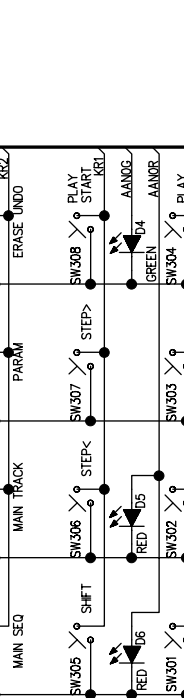
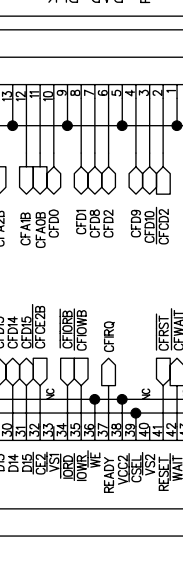
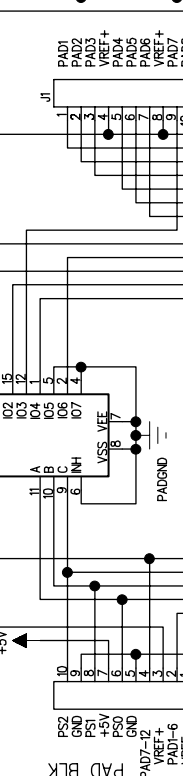
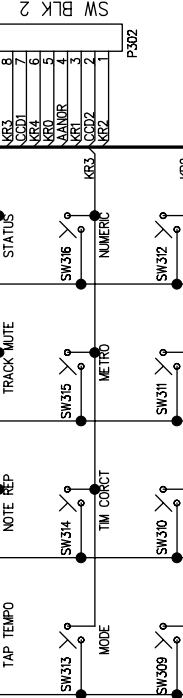
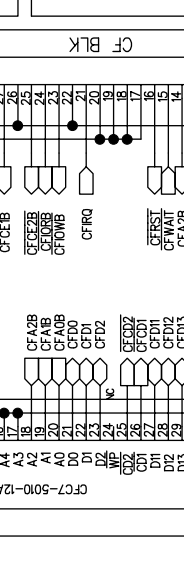
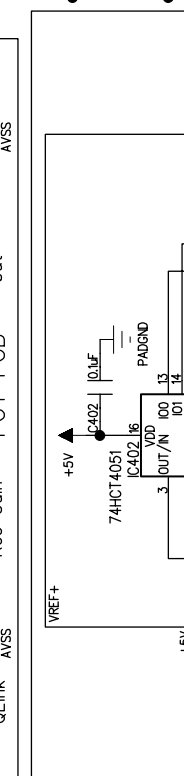
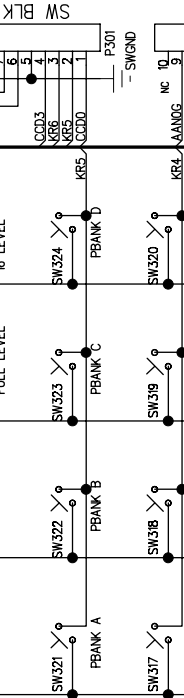
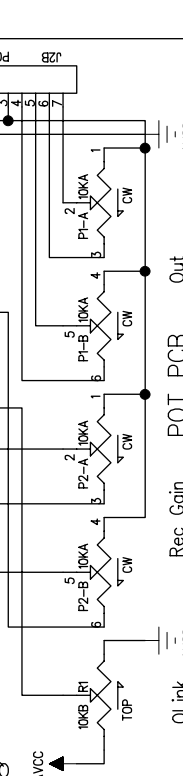
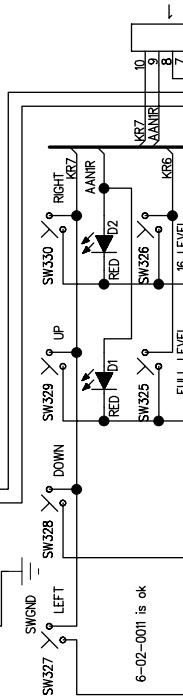
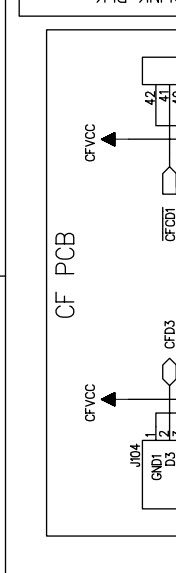
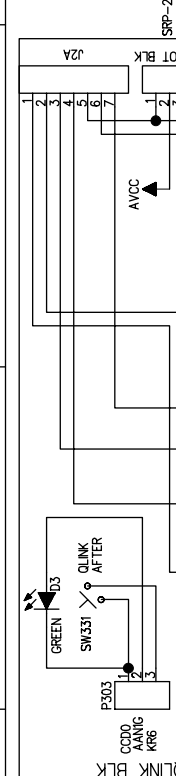
| LEVEL | PART NUMBER | DESCRIPTION | QTY | REF |
|-------|----------------|---|--------|--|
| ..2 | CS104K5005X7R | CHIP CAP 0.1UF ±10% 50V 0805 | 47.000 | C1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17, C18,20,21,22,23,24,25,26,27,28,29,30,31, C32,33,34,35,36,37,39,46,90,91,101,102, C103,104,888,915,916 |
| ..2 | CS220J5005COG | C.CAP 22PF/50V/+5% (0805 SMD) | 2.000 | C61,62 |
| ..2 | CS470J5005COG | CAPACITOR 47PF NPO 50V 0805 | 2.000 | C201,202 |
| ..2 | CS471J5005COG | CAPACITOR 470PF 5% NPO 50V 0805 (SMD) | 2.000 | C301,302 |
| ..2 | CS471K5005X7R | CAP 470PF CER X7R 50V | 2.000 | C51,52 |
| ..2 | CS472K5005X7R | CAPACITOR (SMD) | 2.000 | C401,402 |
| ..2 | CS473K5005X7R | CAPACITOR (SMD) 47000PF | 5.000 | C56,58,901,902,903 |
| ..2 | ICK4S641632E | IC (SDRAM) 64MB SDRAM | 2.000 | IC3,4 |
| ..2 | ICSN74LVCC3245 | IC 74LVCC3245 (ADWR)-DR39 | 1.000 | IC10 |
| ..2 | PC06A001 | PCB BOARD (MAIN) | 1.000 | |
| ..2 | RS00018J05 | CHIP RES. 0 OHM,1/8W,±5%,0805 | 1.000 | R37 |
| ..2 | RS10118J05 | CHIP RES. 100 OHM,1/8W,±5%,0805 | 1.000 | R3 |
| ..2 | RS10218J05 | CHIP RES. 1K OHM,1/8W,±5%,0805 | 4.000 | R1,6,22,907 |
| ..2 | RS10318J05 | CHIP RES. 10K OHM,1/8W,±5%,0805 | 6.000 | R16,28,42,307,308,913 |
| ..2 | RS10418J05 | CHIP RES. 100K OHM,1/8W,±5%,0805 | 6.000 | R18,19,30,32,34,911 |
| ..2 | RS15218J05 | CHIP RES. 1.5K OHM,1/8W,±5%,0805 | 3.000 | R11,17,23 |
| ..2 | RS15318J05 | CHIP RES. 15K OHM,1/8W,±5%,0805 | 1.000 | R9 |
| ..2 | RS16318J05 | CHIP RES. 16K (0805) SMD | 1.000 | R4 |
| ..2 | RS20118J05 | CHIP RES. 200 OHM,1/8W,±5%,0805 | 2.000 | R24,35 |
| ..2 | RS22118J05 | CHIP RES. 220 OHM,1/8W,±5%,0805 | 1.000 | R2 |
| ..2 | RS22218J05 | CHIP RES. 2.2K OHM,1/8W,±5%,0805 | 1.000 | R29 |
| ..2 | RS22318J05 | CHIP RES. 22K OHM,1/8W,±5%,0805 | 4.000 | R305,306,403,404 |
| ..2 | RS24118J05 | CHIP RES. 240 OHM,1/8W,±5%,0805 | 3.000 | R901,902,906 |
| ..2 | RS24218J05 | CHIP RES. 2.4K OHM,1/8W,±5%,0805 | 1.000 | R909 |
| ..2 | RS27018J05 | CHIP RES. 27 OHM,1/8W,±5%,0805 | 3.000 | R7,8,12 |
| ..2 | RS30410J05 | CHIP RES. 300K OHM,1/10W,±5%,0805 | 1.000 | R31 |
| ..2 | RS33018J05 | CHIP RES. 33 OHM,1/8W,±5%,0805 | 6.000 | R20,21,26,27,401,402 |
| ..2 | RS33118J05 | CHIP RES. 330 OHM,1/8W,±5%,0805 | 4.000 | R43,44,301,302 |
| ..2 | RS33218J05 | CHIP RES. 3.3K OHM,1/8W,±5%,0805 | 2.000 | R13,14 |
| ..2 | RS33318J05 | CHIP RES. 33K OHM,1/8W,±5%,0805 | 1.000 | R10 |
| ..2 | RS39318J05 | CHIP RES. 39K OHM,1/8W,±5%,0805 | 1.000 | R912 |
| ..2 | RS43018J05 | CHIP RESISTOR 43 OHM 1/8W, ±5%, 0805 | 2.000 | R45,46 |
| ..2 | RS43118J05 | CHIP RES. 430 OHM,1/8W,±5%,0805 | 1.000 | R905 |
| ..2 | RS43318J05 | CHIP RES. 43K OHM,1/8W,±5%,0805 | 2.000 | R38,41 |
| ..2 | RS47218J05 | CHIP RES. 4.7K OHM,1/8W,±5%,0805 | 7.000 | R25,33,36,39,40,201,202 |
| ..2 | RS47318J05 | CHIP RES. 47K OHM,1/8W,±5%,0805 | 1.000 | R101 |
| ..2 | RS51118J05 | CHIP RES. 510 OHM,1/8W,±5%,0805 | 1.000 | R903 |
| ..2 | RS51218J05 | CHIP RES. 5.1K OHM,1/8W,±5%,0805 | 1.000 | R908 |
| ..2 | RS51318J05 | CHIP RES. 51K OHM,1/8W,±5%,0805 | 1.000 | R15 |
| ..2 | RS68118J05 | CHIP RES. 680 OHM,1/8W,±5%,0805 | 2.000 | R303,304 |
| ..2 | RS75018J05 | CHIP RES. 75 OHM,1/10W,±5%,0805 | 1.000 | R910 |
| ..2 | RS75118J05 | CHIP RES. 750 OHM,1/8W,±5%,0805 | 1.000 | R904 |
| ..2 | RS82118J05 | CHIP RES. 820 OHM,1/8W,±5%,0805 | 1.000 | R5 |
| ..2 | RS91218J05 | CHIP RES. 9.1K OHM,1/8W,±5%,0805 | 2.000 | R203,204 |
| ..2 | TCS106M1006 | TAN-CAP 10UF/10V (A CASE)SND A CASE | 9.000 | C70,71,72,73,74,75,105,108,175 |
| ..2 | TWAA822384X | IC AM29LV641DL90REI | 1.000 | IC2 |
| ...3 | AA822384X | IC S29GL064A90TFIR70 (PROGRAM BY PE) | 1.000 | |
| ..2 | XTM11289X | 11.2896MHZ 5X7X1.75MM OSCILLATOR,FRE STAB 50PPM | 1.000 | X2 |
| ..2 | XTM12000XSMD | OSCILLATOR 12.000MHZ 3.3V SMD | 1.000 | X1 |
| ..2 | AA419246J | SOCKET 128A-050S2A-S14A 50P | 1.000 | J110 |
| ..2 | AA820568X | 20P IC SOCKET | 1.000 | (IC17) |
| ..2 | AA820569X | 24P IC SOCKET | 2.000 | (IC15,16) |
| ..2 | AA821000X | PHONE J YKB26-5264 S.NUT 6.3 | 5.000 | J201,202,301,302,401 |
| ..2 | AL1-08-0222 | E.CAP. 22UF 16V 20%(PANASONIC) | 8.000 | C19,38,42,43,48,49,203,204 |
| ..2 | AL4-08-0402 | CON USB SOCKET 4 PIN FEMALE PC-MNT HORIZONTAL | 1.000 | J2 |
| ..2 | AL6-01-0012 | SWITCH (OPEN/CLOSE) SSSF122NB1-YN2 | 1.000 | SW2 |
| ..2 | AL6-02-0059 | SWITCH PUSH DPDT 2.5MM SPPJ32NE01 | 2.000 | SW1,3 |
| ..2 | AL9-61-0151 | IC (PROGRAMMED AL2-33-0010) | 1.000 | IC15 |
| ...3 | AL2-33-0010 | IC GAL GAL20V8 24-PIN DIP (PROGRAM BY PE) | 1.000 | |

| LEVEL | PART NUMBER | DESCRIPTION | QTY | REF |
|------------|----------------------|---|--------------|---|
| ..2 | AL9-61-0152 | IC (PROGRAMMED AL2-33-0010) | 1.000 | IC16 |
| ...3 | AL2-33-0010 | IC GAL GAL20V8 24-PIN DIP (PROGRAM BY PE) | 1.000 | |
| ..2 | AL9-61-0153 | IC (PROGRAMMED AL2-33-0009) | 1.000 | IC17 |
| ...3 | AL2-33-0009 | IC GAL GAL16V8D-15QP 20-PIN DIP (PROGRAM BY PE) | 1.000 | |
| ..2 | JKDJ-0702B-025 | DC SOCKET | 1.000 | J1 |
| ..2 | TE10200702 | 7P CONNECTOR SOCKET | 1.000 | J4B |
| ..2 | TE10201002 | 10P CONNECTOR SOCKET | 1.000 | P301 |
| ..2 | TE612000301 | 3P CONNETOR SOCKET | 2.000 | P2,303 |
| ..2 | TE612000402 | 4P CONNECTOR SOCKET | 1.000 | P107 |
| ..2 | TE612000702 | 7P CONNECTOR SOCKET (RED) | 1.000 | J4A |
| ..2 | TE612000901 | 9P CONNECTOR SOCKET | 1.000 | P302 |
| ..2 | TE612001002 | 10P CONNECTOR SOCKET 180° (RED) | 1.000 | J106 |
| ..2 | TE612001602 | 16P CONNECTOR SOCKET | 1.000 | P105 |
| ..2 | TE962541401 | 14P CONNECTOR SOCKET | 1.000 | P111 |
| | | | | |
| .1 | TWPC06A00201 | FUNCTION PCB ASS'Y | 1.000 | |
| ..2 | PC06A002 | PCB BOARD (FUNCTION) | 1.000 | |
| ..2 | TWPC06A002A01 | PAD PCB ASS'Y | 1.000 | 15 |
| ...3 | CS104K5005X7R | CHIP CAP 0.1UF ±10% 50V 0805 | 2.000 | C401,402 |
| ...3 | IC4051BFN | IC (TC4051BFN) | 2.000 | IC401,402 |
| ...3 | RS47218J05 | CHIP RES. 4.7K OHM,1/8W,±5%,0805 | 2.000 | R401,402 |
| ...3 | AL4-15-3116 | HEADER 16-PIN SIL ZIF FMZ | 1.000 | J1 |
| ...3 | TE622001002 | 10P CONNECTOR SOCKET 90° (RED) | 1.000 | J106 |
| ..2 | TWPC06A002B01 | CF PCB ASS'Y | 1.000 | 36 |
| ...3 | AA822373X | SOCKET BL112-42RL 42P | 1.000 | J103 |
| ...3 | AA822374X | SOCKET CFHD-19-0034 50P | 1.000 | J104 |
| ...3 | CS104K5005X7R | CHIP CAP 0.1UF ±10% 50V 0805 | 2.000 | C801,802 |
| ...3 | AA822406X | CF CARD CONNECTOR EJECTOR | 1.000 | (J104) |
| ...3 | NUT0102IID | N20STL N13 | 2.000 | |
| ...3 | SC0206RINI | SCREW | 2.000 | |
| ..2 | TWPC06A002C01 | MIDI PCB ASS'Y | 1.000 | 17 |
| ...3 | AL7-20-0078 | INDUCTOR FERRITE BEAD 30 OHM @ 100MHZ 0805 | 4.000 | FL501,502,503,504 |
| ...3 | CS471J5005COG | CAPACITOR 470PF 5% NPO 50V 0805 (SMD) | 4.000 | C503,504,505,506 |
| ...3 | CS473K5005X7R | CAPACITOR (SMD) 47000PF | 1.000 | C501 |
| ...3 | RS47018J05 | CHIP RES. 47 OHM,1/8W,±5%,0805 | 2.000 | R3,4 |
| ...3 | AL4-00-0002 | JACK DIN 5 PIN MIDI PCB MOUNT 180° W/SHIELD SOCKE | 2.000 | J501,502 |
| ...3 | TE612000402 | 4P CONNECTOR SOCKET | 1.000 | P107 |
| | | | | |
| .1 | TWPC06A00301 | OPERATION PCB ASS'Y | 1.000 | |
| ..2 | PC06A003 | PCB BOARD (OPERATION) | 1.000 | |
| ..2 | TWPC06A003A01 | SW PCB ASS'Y | 1.000 | 40 |
| ...3 | AA415015J | SW TACT SKQEAD | 5.000 | SW301,302,303,304,308 |
| ...3 | AA812086J | LED 3MM GREEN (EVERYLIGHT) 264-10GD | 1.000 | D4 |
| ...3 | AA812087J | LED 3MM RED (KINGBRIGHT) L-934SRD-G | 4.000 | D5,6,304,305 |
| ...3 | AL6-00-0016 | ENCODER 24-POSITION 10MM SC12F2420406 | 1.000 | SW2 |
| ...3 | AL6-02-0033 | SWITCH (OPEN/CLOSE)5MM | 25.000 | SW305,306,307,309,310,311,312,313,314, SW315,316,317,318,319,320,321,322,323, SW324,325,326,327,328,329,330 |
| ...3 | CS103K5005X7R | C.CAP 0.010UF 50V X7R,±10% SMD 0805 | 2.000 | C203,204 |
| ...3 | TE622000901 | 9P CONNECTOR SOCKET | 1.000 | P302 |
| ...3 | TE622001001 | 10P CONNECTOR SOCKET | 1.000 | P301 |
| ..2 | TWPC06A003B01 | POT PCB ASS'Y | 1.000 | 11 |
| ...3 | AA812086J | LED 3MM GREEN (EVERYLIGHT) 264-10GD | 1.000 | D3 |
| ...3 | AL0-09-0056 | VARIABLE RESISTOR SLIDE 10KB | 1.000 | R1 |
| ...3 | AL0-09-0058 | VR RK14K1230005-10K15AX2 10KA DUAL VERT 15MM | 2.000 | P1,2 |
| ...3 | AL6-02-0033 | SWITCH (OPEN/CLOSE)5MM | 1.000 | SW331 |
| ...3 | CS103K5005X7R | C.CAP 0.010UF 50V X7R,±10% SMD 0805 | 2.000 | C201,202 |
| ...3 | JW5206T | JUMPER WIRE (A.I.) 52MM | 1.000 | J3 |
| ...3 | TE622000302 | 3P CONNECTOR SOCKET | 1.000 | P303 |
| ...3 | TE622000701 | 7P CONNECTOR SOCKET | 1.000 | J4B |
| ...3 | TE622000702 | 7P CONNECTOR SOCKET (RED) | 1.000 | J4A |

MPC500 WIRING DIAGRAM



| REVISION RECORD | | | |
|-----------------|---------|-----------|-------|
| LTR | ECD NO. | APPROVED: | DATE: |
| | | | |
| | | | |
| | | | |



| | |
|---|---------|
| COMPANY: AKAI PROFESSIONAL | |
| TITLE: AC05 Peripheral PCBs PP version | |
| PART NUMBER: 9-40-0409-2 | REV: 1 |
| ASSY NUMBER: | SIZE: B |
| FLENAME: AC09PE204asch | SCALE: |
| SHEET: 1 OF 1 | |

| | |
|------------|----------------------|
| DRAWN: AWS | DATED: 28-April-2006 |
| RELEASED: | DATED: |

| | |
|--------------|--|
| DRAWING: AWS | |
| RELEASED: | |

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3

4

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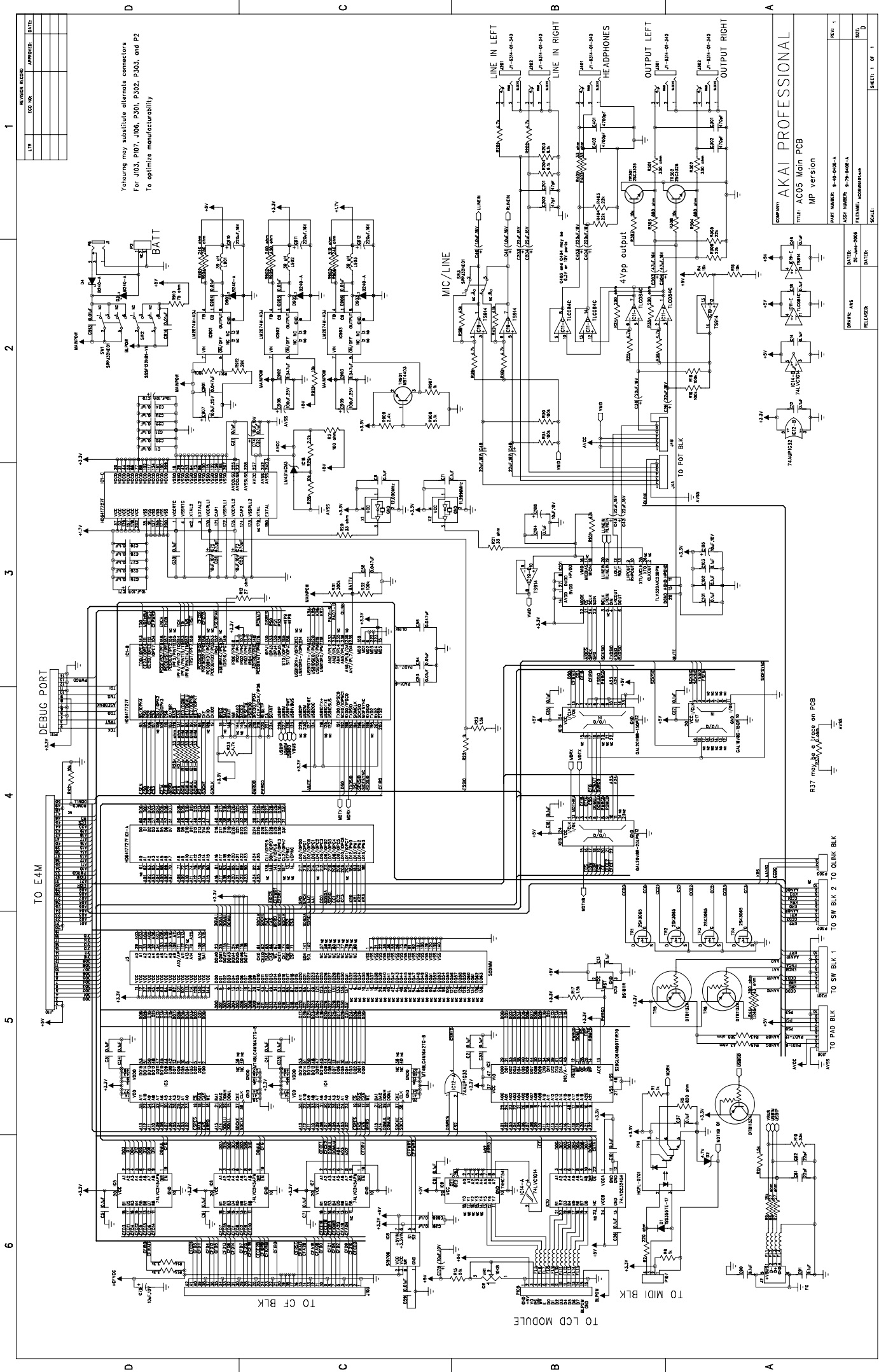
6

D

C

B

A



Yabourg may substitute alternate connectors
 For J03, J07, J08, P301, P302, J303, and P2
 To optimize manufacturability

COMPANY: AKAI PROFESSIONAL
 TITLE: AC05 Main PCB
 MP version

PART NUMBER: R-00-048-A
 REV: 1
 FILENAME: A05MAIN.ASM
 DATE: 2008-04-20
 DRAWN BY: [Name]
 CHECKED BY: [Name]
 RELEASED BY: [Name]
 DATE: [Date]

TO SW BLK 1
 TO SW BLK 2
 TO LINK BLK
 TO PAD BLK
 TO MIDI BLK
 TO CF BLK

TO E4M
 DEBUG PORT

LINE IN LEFT
 LINE IN RIGHT
 HEADPHONES
 OUTPUT LEFT
 OUTPUT RIGHT

TO LCD MODULE

TO CF BLK
 TO MIDI BLK
 TO PAD BLK
 TO SW BLK 1
 TO SW BLK 2
 TO LINK BLK

| | | |
|---------------------|--------------------|---------------|
| REV: 1 | DATE: 2008-04-20 | SCALE: 1 OF 1 |
| FILE: A05MAIN.ASM | DRAWN BY: [Name] | |
| DATE: 2008-04-20 | CHECKED BY: [Name] | |
| RELEASED BY: [Name] | DATE: [Date] | |
| SHEET 1 OF 1 | | |