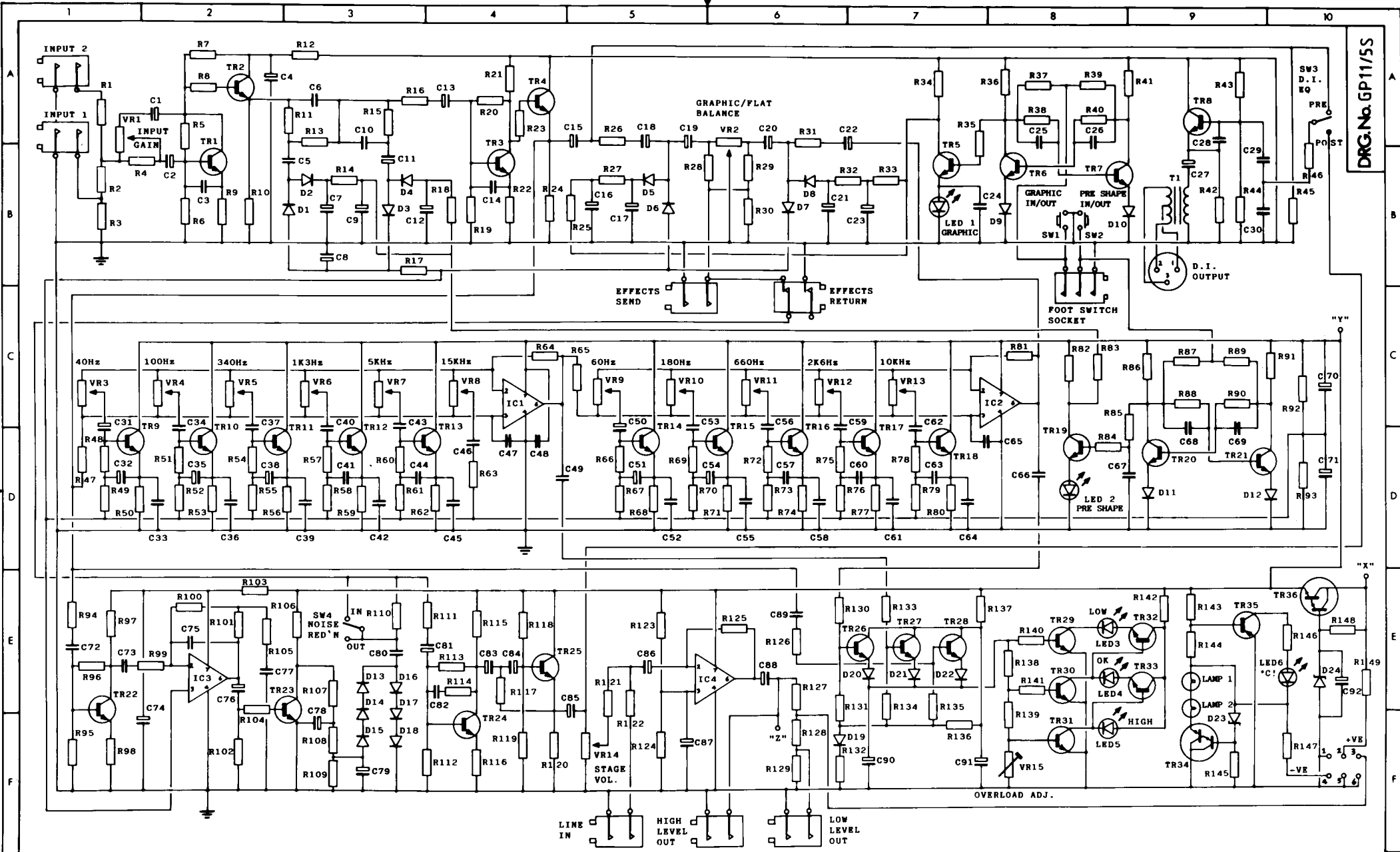


TRACE ELLIOT

SERVICE MANUAL

DATE : December 29, 1999
Product Code: N/A
Model Number : MK V Bass Amplifiers

Issued by:
Trace Elliot Limited
Blackwater Trading Estate
The Causeway
Maldon
Essex
England
CM4 4GG



DRG. No. GP11/55

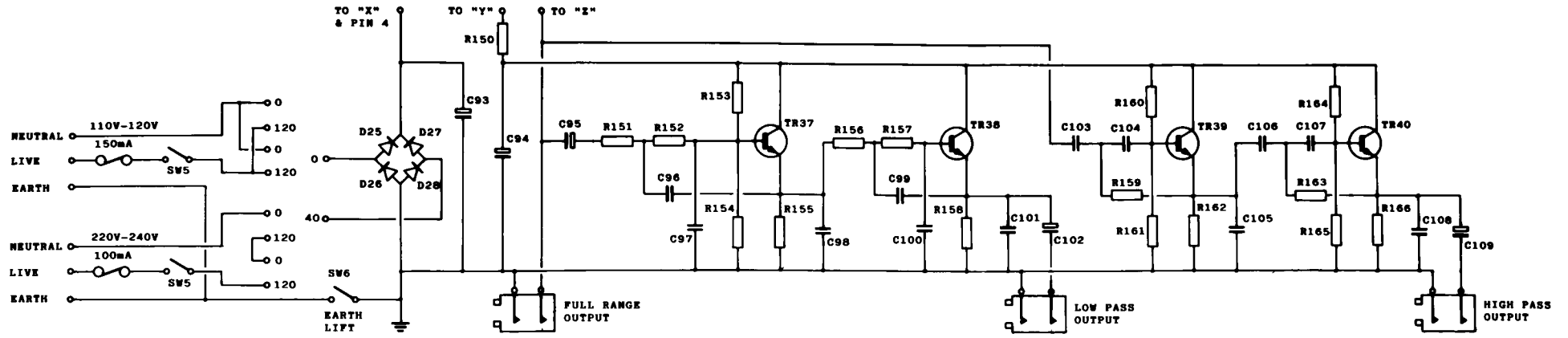
| ISSUE | PCB No | DESCRIPTION |
|-------|---------|-------------|
| 2 | GP11F5A | FRONT BOARD |
| 2 | GP11B5A | BACK BOARD |

UNIT 4&7. 49 BRAINTREE RD.
 WITHAM. ESSEX. CM8 2BZ. ENGLAND.
 TEL: (0376)517237. TELEX:
 FAX: (0376)518527.

TRACE ELLIOT
 GP11 MK5
 PRE AMPLIFIER

| | | | | |
|---------------------------|------------------------------|---------------------------|-------------------------------|-----------------|
| DRAWN STUART WATSON | TRACED RICHARD HOPKINS | CHECKED MARK GOODAY | APPROVED FRED FRIEDLEIN | DATE 2.12.86 |
|---------------------------|------------------------------|---------------------------|-------------------------------|-----------------|

DRAWING No. GP11S mk5 SEE DRG. No. GP11/R FOR SELF-POWERED UNIT.



| CAPACITORS | |
|------------|---------|
| REF. No. | |
| C1 | 1.5uF |
| C2 | 0.47uF |
| C3 | 1000pF |
| C4 | 15uF |
| C5 | 0.068uF |
| C6 | 3300pF |
| C7 | 1.5uF |
| C8 | 15uF |
| C9 | 15uF |
| C10 | 6800pF |
| C11 | 0.33uF |
| C12 | 1.5uF |
| C13 | 0.22uF |
| C14 | 1000pF |
| C15 | 2.2uF |
| C16 | 15uF |
| C17 | 1.5uF |
| C18 | 0.47uF |
| C19 | 0.47uF |
| C20 | 0.47uF |
| C21 | 1.5uF |
| C22 | 0.47uF |
| C23 | 15uF |
| C24 | 0.1uF |
| C25 | 0.1uF |
| C26 | 0.1uF |
| C27 | 15uF |
| C28 | 1000pF |
| C29 | 0.1uF |
| C30 | 3300pF |

| PARTS LIST FOR GP11/5S & GP11/5R | | | |
|---|----------|-----|---------|
| STARRED ITEMS NOT FITTED TO GP11/5R MODEL | | | |
| C31 | 0.47uF | C61 | 220p |
| C32 | 2.2uF | C62 | 1000p |
| C33 | 220pF | C63 | 0.01uF |
| C34 | 0.1uF | C64 | 220pF |
| C35 | 1uF | C65 | 47pF |
| C36 | 220pF | C66 | 0.1uF |
| C37 | 0.033uF | C67 | 0.1uF |
| C38 | 0.33uF | C68 | 0.1uF |
| C39 | 220pF | C69 | 0.1uF |
| C40 | 7270pF | C70 | 1000uF |
| C41 | 0.1uF | C71 | 220uF |
| C42 | 220pF | C72 | 0.047uF |
| C43 | 2200pF | C73 | 0.1uF |
| C44 | 0.022uF | C74 | 15uF |
| C45 | 220pF | C75 | 47pF |
| C46 | 680pF | C76 | 15uF |
| C47 | 47pF | C77 | 1000pF |
| C48 | 0.1uF | C78 | 15uF |
| C49 | 0.1uF | C79 | 1.5uF |
| C50 | 0.22uF | C80 | 0.047uF |
| C51 | 1.5uF | C81 | 0.47uF |
| C52 | 220pF | C82 | 1000pF |
| C53 | 0.057uF | C83 | 0.22uF |
| C54 | 0.57uF | C84 | 0.22uF |
| C55 | 220p | C85 | 2.2uF |
| C56 | 0.015uF | C86 | 0.47uF |
| C57 | 0.22uF | C87 | 1.5uF |
| C58 | 220p | C88 | 1.5uF |
| C59 | 3300p | C89 | 0.1uF |
| C60 | 0.0377uF | C90 | 15uF |

| MISCELLANEOUS | |
|-----------------------------|-----------------------------|
| REF. No. | |
| TRANSISTORS | |
| TR1-TR33 | BC549C |
| *TR34 | BD677 |
| *TR35 | BC212L |
| TR36 | BD677 |
| TR37-TR40 | BC549C |
| DIODES | |
| D1-D22 | 1N4148 |
| *D23 | BZY88C27 |
| D24 | BZY88C33 |
| D25-D28 | 1N4002 |
| POTS SLIDERS PRESETS | |
| VR1 | 500K LN |
| VR2-VR13 | 100K LN |
| VR14 | 50K LN |
| VR15 | 10K PRESET |
| IC.S | |
| IC1-IC4 | TL071 |
| (IC4 GP11/5R CA3140E) | |
| TRANSFORMERS | |
| T1 | D.I. TRANSFORMER |
| T2 | 240/120V TO 40V TRANSFORMER |
| SWITCHES | |
| SW1-SW2 | SPST MOMENTARY ACTION |
| SW3-SW4 | SPDT MINIATURE TOGGLE |
| SW5 | SPST 3A. 240V ROCKER |
| SW6 | DPDT SLIDE ACTION |

| RESISTORS | |
|-----------|------|
| REF. No. | |
| R1 | 6K8 |
| R2 | 6K8 |
| R3 | 1M |
| R4 | 220K |
| R5 | 1M |
| R6 | 100K |
| R7 | 27K |
| R8 | 6K8 |
| R9 | 560R |
| R10 | 6K8 |
| R11 | 33K |
| R12 | 1K5 |
| R13 | 33K |
| R14 | 56K |
| R15 | 56K |
| R16 | 15K |
| R17 | 15K |
| R18 | 56K |
| R19 | 180K |
| R20 | 1M |
| R21 | 15K |
| R22 | 1K5 |
| R23 | 6K8 |
| R24 | 3K3 |
| R25 | 33K |
| R26 | 56K |
| R27 | 33K |
| R28 | 33K |
| R29 | 33K |
| R30 | 10K |

| | |
|-----|------|
| R31 | 56K |
| R32 | 33K |
| R33 | 33K |
| R34 | 4K7 |
| R35 | 100K |
| R36 | 27K |
| R37 | 15K |
| R38 | 100K |
| R39 | 15K |
| R40 | 100K |
| R41 | 27K |
| R42 | 15K |
| R43 | 180K |
| R44 | 180K |
| R45 | 100K |
| R46 | 100K |
| R47 | 100K |
| R48 | 4K7 |
| R49 | 4K7 |
| R50 | 4K7 |
| R51 | 4K7 |
| R52 | 4K7 |
| R53 | 4K7 |
| R54 | 4K7 |
| R55 | 4K7 |
| R56 | 4K7 |
| R57 | 4K7 |
| R58 | 4K7 |
| R59 | 4K7 |
| R60 | 4K7 |
| R61 | 4K7 |
| R62 | 4K7 |
| R63 | 10K |
| R64 | 100K |
| R65 | 100K |

| | |
|------|------|
| R66 | 4K7 |
| R67 | 4K7 |
| R68 | 4K7 |
| R69 | 4K7 |
| R70 | 4K7 |
| R71 | 4K7 |
| R72 | 4K7 |
| R73 | 4K7 |
| R74 | 4K7 |
| R75 | 4K7 |
| R76 | 4K7 |
| R77 | 4K7 |
| R78 | 4K7 |
| R79 | 4K7 |
| R80 | 4K7 |
| R81 | 100K |
| R82 | 4K7 |
| R83 | 56K |
| R84 | 56K |
| R85 | 56K |
| R86 | 27K |
| R87 | 15K |
| R88 | 100K |
| R89 | 15K |
| R90 | 100K |
| R91 | 27K |
| R92 | 3K3 |
| R93 | 3K3 |
| R94 | 180K |
| R95 | 100K |
| R96 | 1M |
| R97 | 27K |
| R98 | 560R |
| R99 | 56K |
| R100 | 560K |

| | |
|------|------|
| R101 | 560K |
| R102 | 56K |
| R103 | 560R |
| R104 | 6K8 |
| R105 | 6K8 |
| R106 | 180K |
| R107 | 560R |
| R108 | 33K |
| R109 | 68K |
| R110 | 1M |
| R111 | 6K8 |
| R112 | 100K |
| R113 | 1M |
| R114 | 220K |
| R115 | 15K |
| R116 | 560R |
| R117 | 10K |
| R118 | 180K |
| R119 | 180K |
| R120 | 6K8 |
| R121 | 22K |
| R122 | 33K |
| R123 | 100K |
| R124 | 100K |
| R125 | 33K |
| R126 | 56K |
| R127 | 1K5 |
| R128 | 4K7 |
| R129 | 220R |
| R130 | 56K |
| R131 | 100K |
| R132 | 6K8 |
| R133 | 56K |
| R134 | 100K |
| R135 | 100K |

| | |
|-------|---------|
| R136 | 220K |
| R137 | 560R |
| R138 | 6K8 |
| R139 | 4K7 |
| R140 | 15K |
| R142 | 1K5 |
| *R143 | 1K5 |
| *R144 | 100K |
| *R145 | 15K |
| *R146 | 4K7 |
| *R147 | 220R 4W |
| R148 | 15K |
| *R149 | 220R 4W |
| R150 | 220R |
| R151 | 6K8 |
| R152 | 6K8 |
| R153 | 100K |
| R154 | 100K |
| R155 | 6K8 |
| R156 | 12K |
| R157 | 12K |
| R158 | 3K3 |
| R159 | 12K |
| R160 | 27K |
| R161 | 27K |
| R162 | 6K8 |
| R163 | 27K |
| R164 | 56K |
| R165 | 56K |
| R166 | 3K3 |

RESISTORS
KΩ UNLESS
STATED

| ISSUE | PCB No | DESCRIPTION |
|-------|--------|-------------|
| 2 | GP11X0 | CROSSOVER |

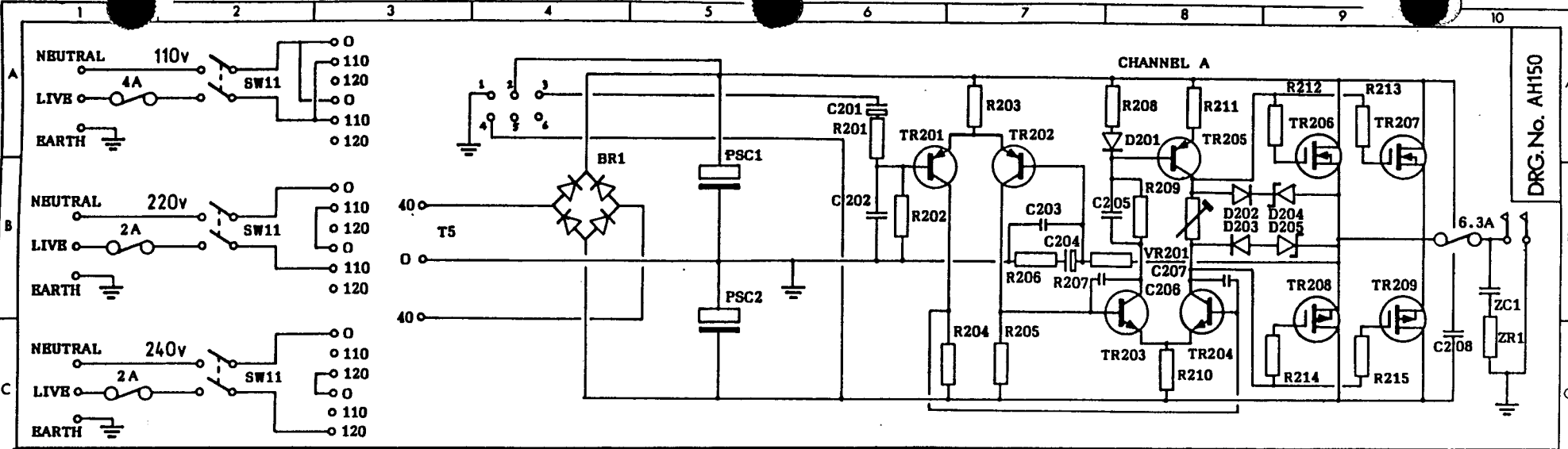
UNIT 4&7. 49 BRAINTREE RD.
WITHAM. ESSEX. CM8 2BZ. ENGLAND.
TEL: (0376)517237.
FAX: (0376)518527.

TRACE ELLIOT
GP11 MK5
RACK MOUNTING
PRE AMPLIFIER

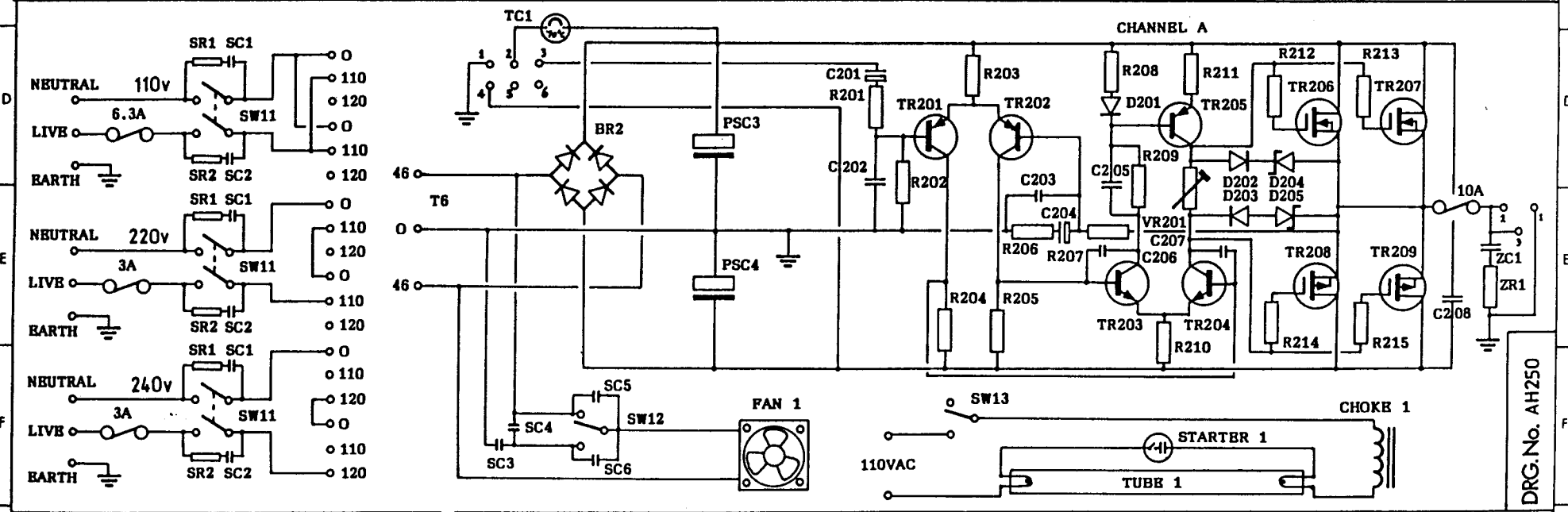
TRACE ELLIOT RESERVE THE RIGHT TO
ALTER SPECIFICATIONS WITHOUT NOTICE

| DRAWN | TRACED | CHECKED | APPROVED | DATE |
|---------------|-----------------|-------------|----------------|---------|
| STUART WATSON | RICHARD HOPKINS | MARK GOODAY | FRED FRIEDLEIN | 2.12.86 |

DRAWING No. GP11R mk5
ADDITIONAL CIRCUITRY
FOR SELF-POWERED UNIT.



DRG.No. AH150



DRG.No. AH250

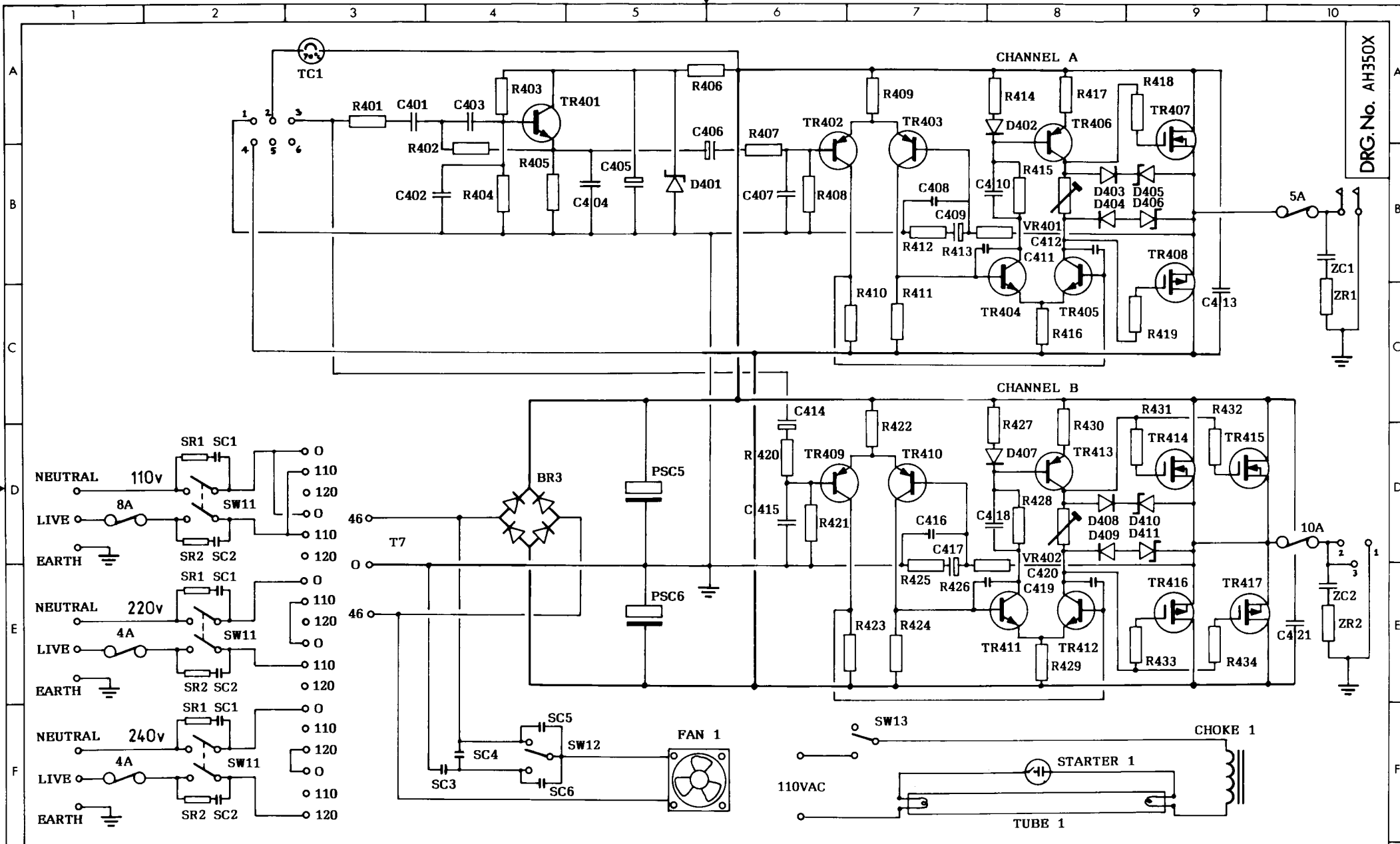
| ISSUE | PCB | DESCRIPTION |
|-------|------|----------------|
| 4 | MPB2 | PM4S CHANNEL A |

UNIT 447, 49 BRAINTREE RD.
 WITHAM, ESSEX, CM8 2BZ, ENGLAND.
 TEL: (0376)517237. TELEX:
 FAX: (0376)518527.

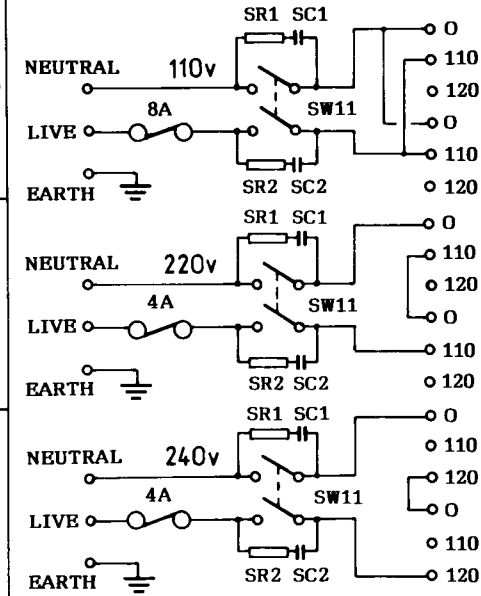
TRACE ELLIOT
 AH150 & AH250 BASS
 AMPLIFIER POWER
 SECTION ONLY.
 TRACE ELLIOT RESERVE THE RIGHT TO
 ALTER SPECIFICATIONS WITHOUT NOTICE

| DRAWN | TRACED | CHECKED | APPROVED | DATE |
|---------------|-----------------|-------------|----------------|---------|
| STUART WATSON | RICHARD HOPKINS | MARK GOODAY | FRID FRIEDLEIN | 2.12.86 |

DRAWING No. AH150 & AH250 mky



DRG. No. AH350X

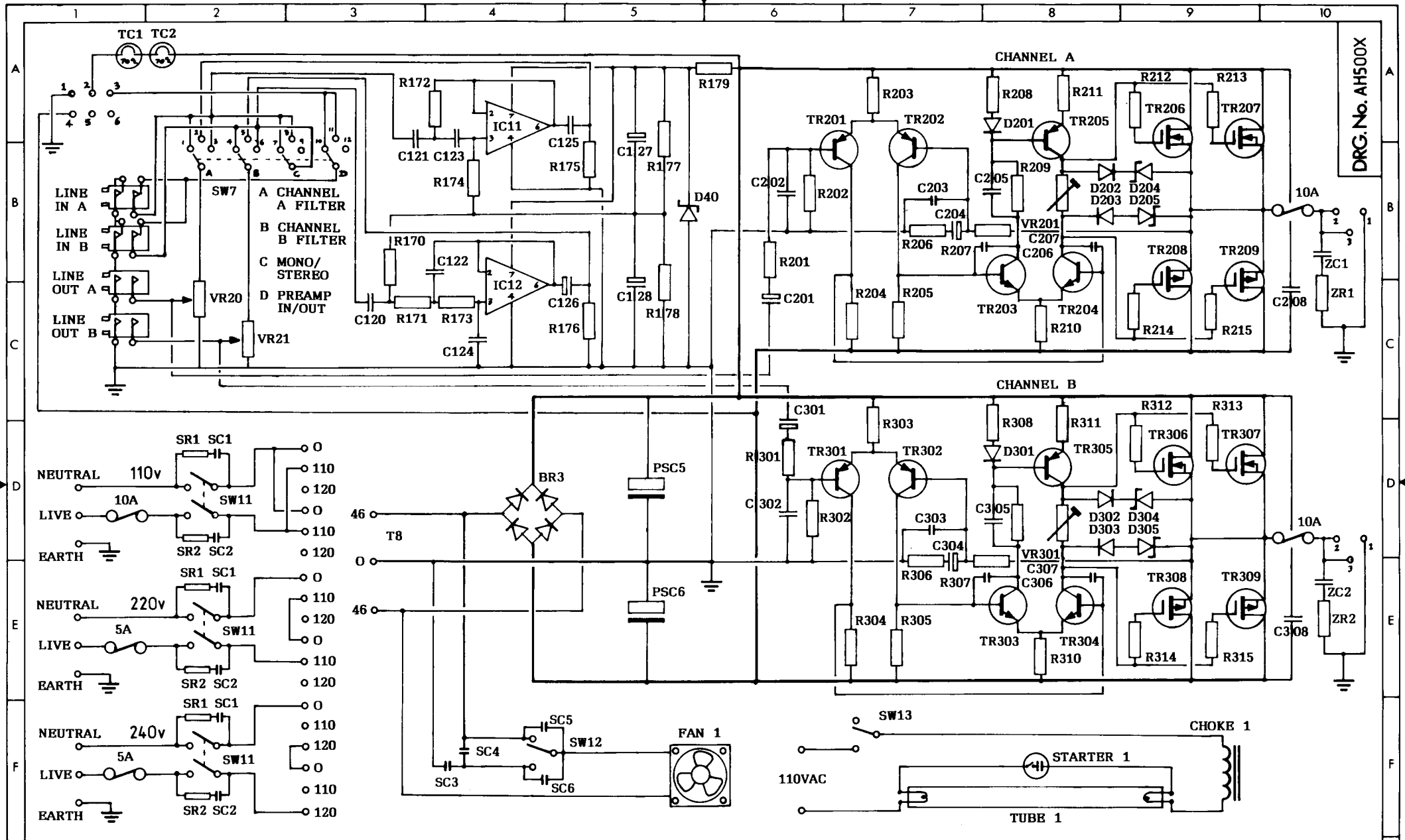


| ISSUE | PCB | DESCRIPTION |
|-------|------|--------------------|
| 2 | MPB3 | PM6S CHANNEL A & B |
| | | |
| | | |

UNIT 4&7. 49 BRAINTREE RD.
 WITHAM. ESSEX. CM8 2BZ. ENGLAND.
 TEL: (0376) 517237. TELEX.
 FAX: (0376) 518527.

TRACE ELLIOT
 AH350X BASS
 AMPLIFIER POWER
 SECTION ONLY.
 TRACE ELLIOT RESERVE THE RIGHT TO
 ALTER SPECIFICATIONS WITHOUT NOTICE

| DRAWN | TRACED | CHECKED | APPROVED | DATE |
|------------------------|-----------------|--------------|----------------|---------|
| STUART WATSON | RICHARD HOPKINS | MARK GOODYAY | FRED FRIEDLEIN | 2.12.86 |
| DRAWING No. AH350X mkv | | | | |



DRG. No. AH500X

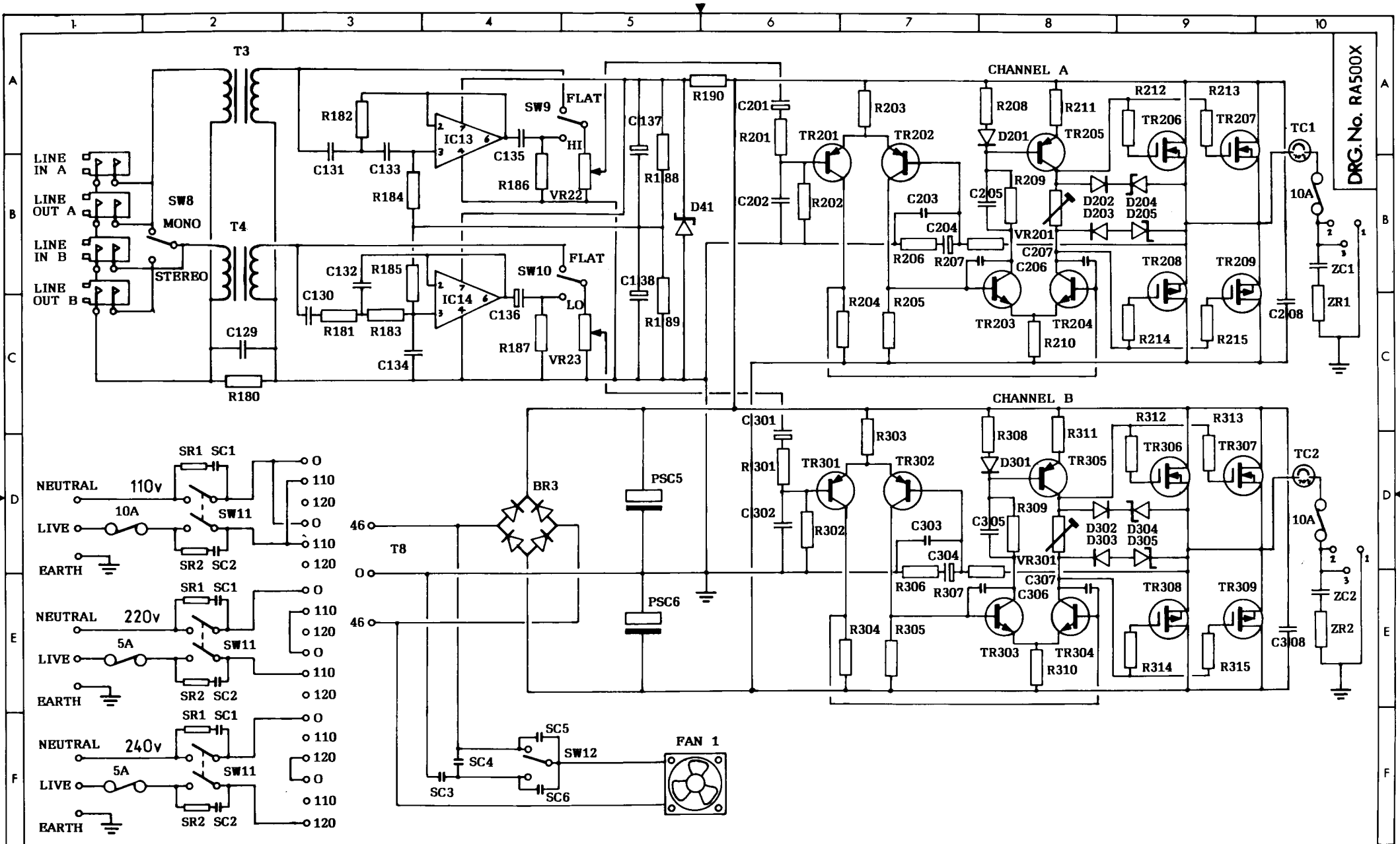
| ISSUE | PCB | DESCRIPTION |
|-------|---------|---------------------------|
| 2 | AH500XO | CROSSOVER & I/P SWITCHING |
| 4 | MPB2 | PM4S CHANNEL A |
| 4 | MPB2 | PM4X CHANNEL B |

UNIT 4&7. 49 BRAINTREE RD.
 WITHAM. ESSEX. CM8 2BZ. ENGLAND.
 TEL: (0376) 517237. TELEX:
 FAX: (0376) 518527.

TRACE ELLIOT
 TRACE ELLIOT RESERVE THE RIGHT TO ALTER SPECIFICATIONS WITHOUT NOTICE

| DRAWN | TRACED | CHECKED | APPROVED | DATE |
|---------------|-----------------|-------------|----------------|---------|
| STUART WATSON | RICHARD HOPKINS | MARK GOODAY | FRED FRIEDLEIN | 2.12.86 |

DRAWING No. AH500X mky



DRG. No. RA500X

| ISSUE | PCB | DESCRIPTION |
|-------|---------|----------------|
| 1 | RA500X0 | CROSSOVERS |
| 4 | MPB2 | PM4S CHANNEL A |
| 4 | MPB2 | PM4X CHANNEL B |

UNIT 4&7, 49 BRAINTREE RD.
 WITHAM, ESSEX, CM8 2BZ, ENGLAND.
 TEL: (0376) 517237. TELEX:
 FAX: (0376) 518527.
 2390

TRACE ELLIOT
 RA500X 19" RACK MOUNTING POWER AMPLIFIER.
 TRACE ELLIOT RESERVE THE RIGHT TO ALTER SPECIFICATIONS WITHOUT NOTICE

| DRAWN | TRACED | CHECKED | APPROVED | DATE |
|---------------|-----------------|-------------|----------------|---------|
| STUART WATSON | RICHARD HOPKINS | MARK GOODAY | FRED FRIEDLEIN | 2.12.86 |

DRAWING No. RA500X mky

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|--|--|---|---|--|--|----------------------------|---|---|----|
| PM4S PCB No. MPB2 REF. No. RESISTORS R201 4K7 R202 56K R203 68K R204 4K7 R205 4K7 R206 560R R207 56K R208 220R R209 15K R210 220R R211 220R R212 220R R213 220R R214 220R R215 220R DIODES D201 1N4148 D202 1N4148 D203 1N4148 D204 BZY88C12 D205 BZY88C12 CAPACITORS C201 1.5uF C202 220pF C203 47pF C204 47uF C205 0.01uF C206 47pF C207 47pF C208 0.22uF TRANSISTORS TR201 BF423 TR202 BF423 TR203 BF422 TR204 BF422 TR205 BF423 TR206 2SK135 TR207 2SK135 TR208 2SJ50 TR209 2SJ50 PRESETS VR201 220R ½W | PM4X PCB No. MPB2 REF. No. RESISTORS R301 4K7 R302 56K R303 68K R304 4K7 R305 4K7 R306 560R R307 56K R308 220R R309 15K R310 220R R311 220R R312 220R R313 220R R314 220R R315 220R DIODES D301 1N4148 D302 1N4148 D303 1N4148 D304 BZY88C12 D305 BZY88C12 CAPACITORS C301 1.5uF C302 220pF C303 47pF C304 47uF C305 0.01uF C306 47pF C307 47pF C308 0.22uF TRANSISTORS TR301 BF423 TR302 BF423 TR303 BF422 TR304 BF422 TR305 BF423 TR306 2SK135 TR307 2SK135 TR308 2SJ50 TR309 2SJ50 PRESETS VR301 220R ½W | PM6S PCB No. MPB3 REF. No. RESISTORS R401 6K8 R402 27K R403 180K R404 180K R405 10K R406 15K R407 4K7 R408 56K R409 68K R410 4K7 R411 4K7 R412 560R R413 56K R414 220R R415 15K R416 220R R417 220R R418 220R R419 220R R420 4K7 R421 56K R422 68K R423 4K7 R424 4K7 R425 560R R426 56K R427 220R R428 15K R429 220R R430 220R R431 220R R432 220R R433 220R R434 220R DIODES D401 BZY88C30 D402 1N4148 D403 1N4148 D404 1N4148 D405 BZY88C12 D406 BZY88C12 D407 1N4148 D408 1N4148 D409 1N4148 D410 BZY88C12 D411 BZY88C12 | CAPACITORS C401 0.01uF C402 1000pF C403 0.022uF C404 0.022uF C405 100uF C406 1.5uF C407 220pF C408 47pF C409 2.2uF C410 0.01uF C411 47pF C412 47pF C413 0.22uF C414 1.5uF C415 220pF C416 47pF C417 47uF C418 0.01uF C419 47pF C420 47pF C421 0.22uF TRANSISTORS TR401 BC549C TR402 BF423 TR403 BF423 TR404 BF422 TR405 BF422 TR406 BF423 TR407 2SK135 TR408 2SJ50 TR409 BF423 TR410 BF423 TR411 BF422 TR412 BF422 TR413 BF423 TR414 2SK135 TR415 2SK135 TR416 2SJ50 TR417 2SJ50 PRESETS VR401 220R ½W VR402 220R ½W | PARTS LIST FOR Mk5 AMPLIFIERS AH150 AH250 AH350X AH500X RA500X AH500X CROSSOVER PCB No. AH500XO REF. No. RESISTORS R170 100K R171 68K R172 68K R173 68K R174 68K R175 100K R176 100K R177 27K R178 27K R179 4K7 1W DIODES D40 BZY88C30 RA500X CROSSOVER PCB No. RA500XO REF. No. RESISTORS R180 100K R181 68K R182 68K R183 68K R184 68K R185 1M R186 68K R187 27K R188 27K R189 27K R190 4K7 1W DIODES D41 BZY88C30 | MISCELLANEOUS REF. No. ZOBEL NETWORK ZC1 0.1uF ZC2 0.1uF ZR1 10R 3W ZR2 10R 3W BRIDGE RECTIFIERS BR1 6A 400V BR2 10A 400V BR3 25A 400V TEMPERATURE SWITCHES TC1 70 C N/C 10A TC2 70 C N/C 10A POWER SUPPLY CAPACITORS PSC1 4700uF/63V PSC2 4700uF/63V PSC3 4700uF/100V PSC4 4700uF/100V PSC5 10000uF/100V PSC6 10000uF/100V SUPPRESSION NETWORK SC1 0.1uF/250V SR1 100R SC2 0.1uF/250V SR2 100R SC3 1uF OR 1.5uF/250V SC4 2.2uF/250V SC5 0.01uF/1KV SC6 0.01uF/1KV ULTRA VIOLET & FAN FAN 1 110VAC 20 WATT TUBE 1 15-18 WATT UV CHOKE 1 110VAC 15 WATT STARTER 1 110VAC 22 WATT SWITCHES SW7 4POLE 3WAY ROTARY SW8 SPDT MIN. TOGGLE SW9 SPDT MIN. TOGGLE SW10 SPDT MIN. TOGGLE SW11 DPST 10A ROCKER SW12 SPDT 10A ROCKER SW13 SPST 10A ROCKER TRANSFORMERS T3 1:1 RATIO 150R ISOLATING T4 1:1 RATIO 150R ISOLATING T5 110/240V TO 40-0-40 250VA T6 110/240V TO 46-0-46 300VA T7 110/240V TO 46-0-46 400VA T8 110/240V TO 46-0-46 600VA | DRG. No. PARTS LIST | | | |

| ISSUE | DESCRIPTION |
|-------|-------------|
| | |
| | |
| | |

UNIT 4&7. 49 BRAINTREE RD.
WITHAM. ESSEX. CM8 2BZ. ENGLAND.
TEL: (0376) 517237. TELEX:
FAX: (0376) 518527.

TRACE ELLIOT
PARTS LIST FOR
BASS AMPLIFIER
POWER SECTIONS

TRACE ELLIOT RESERVE THE RIGHT TO
ALTER SPECIFICATIONS WITHOUT NOTICE

| DRAWN | TRACED | CHECKED | APPROVED | DATE |
|--|--------------------|---------------|-------------------|---------|
| STUART WATSON | RICHARD HOPKINS | MARK GOODY | FRED FRIEDLEIN | 2.12.86 |
| DRAWING No. PARTS LIST FOR Mk5 AMPLIFIERS | | | | |