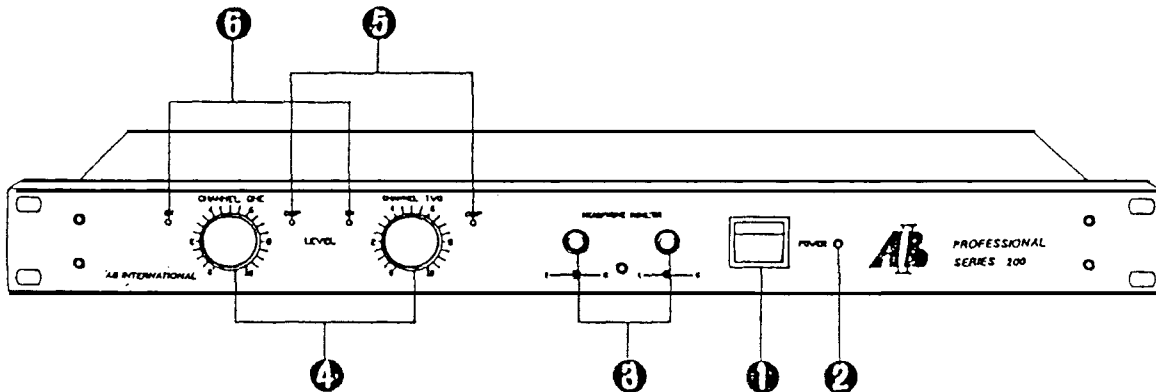


# 1. SPECIFICATIONS

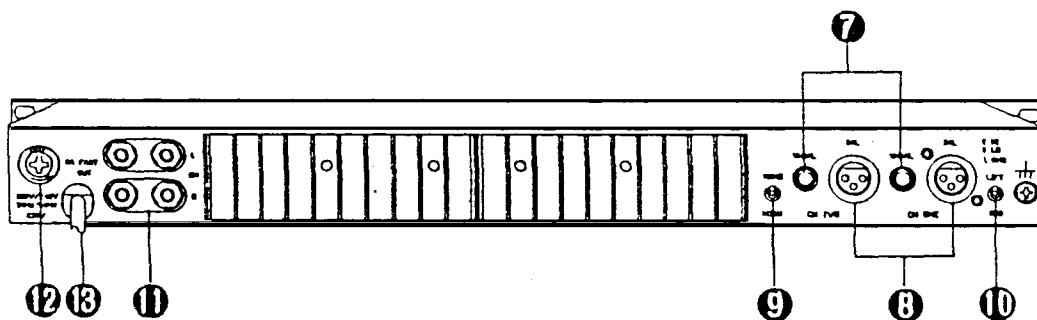
|                                 |   |
|---------------------------------|---|
| Type:                           | Two channel audio power amplifier   |
| Gain:                           | 26 dB (each channel)  |
| Continuous Average Power Output | 75 watts per channel at 8 ohms<br>100 watts per channel at 4 ohms<br>180 watts at Bridged mono at 8 ohms.   |
| Frequency Response:             | Plus/Minus 0.5dB 20Hz-20kHz   |
| Distortion:                     | No more than 0.25% THD or IM, 0.01W to rated power, 20Hz to 20kHz (typically 0.02%)   |
| Hum and Noise:                  | 101dB below rated output<br>(unweighted 20KHz bandwidth)  |
| Input Sensitivity:              | 1.6V RMS for rated output   |
| Input Impedance:                | 15K ohms, nominal   |
| Input Connector:                | (2) ¼-inch phone jacks and XLR jacks.<br>(unbalanced and balanced)  |
| Output Connectors:              | Dual 5-way binding posts  |
| Controls & Indicators:          | (Front Panel) AC main power switch,<br>Power-on LED indicator,<br>Signal on LED indicator<br>Clip LED indicator × 2pcs<br>Channel One and Two level controls<br>Monitor jacks 2 pcs |
| Power:                          | 110-120VAC/60Hz } switchable<br>220-240VAC/50Hz }<br>30W (idle), 300W (maximum)   |
| Dimensions:                     | 1-3/4''H (4.4cm) 19''W (48.3cm)<br>11.9'' (30.2cm) behind panel<br>13'' (32.5cm) overall  |
| Weight:                         | 16.2 lbs (7.3 kg)   |

## 2. OPERATING THE AB 200

### -FRONT PANEL-



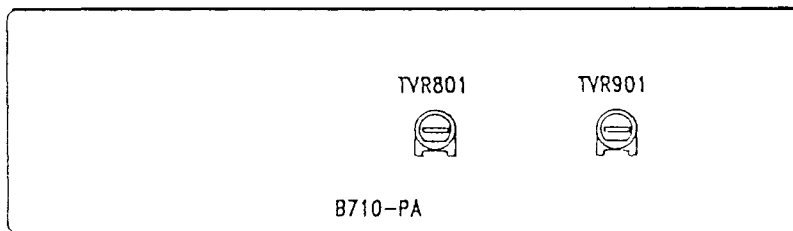
### -REAR PANEL-



- |                                       |                               |
|---------------------------------------|-------------------------------|
| FRONT: 1. POWER SWITCH                | 2. POWER INDICATING LED       |
| 3. HEADPHONE MONITOR JACKS            | 4. LEVEL CONTROLS             |
| 5. CLIP INDICATORS                    | 6. ON INDICATORS              |
| REAR: 7. UNBALANCED INPUT CONNECTIONS | 8. BALANCED INPUT CONNECTIONS |
| 9. NORM/MONO SELECTOR SWITCH          | 10. GROUND/LIFT SWITCH        |
| 11. OUTPUT CONNECTIONS                |                               |

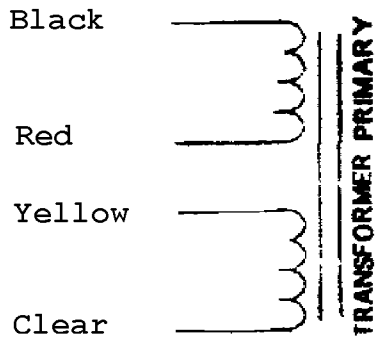


## 4. ADJUSTMENT AND TEST POINT LOCATIONS

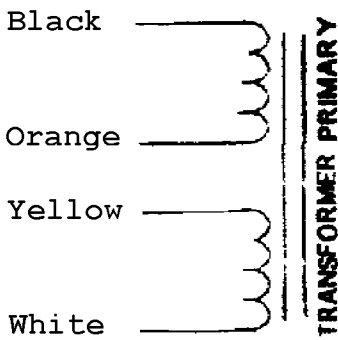


INITIAL SETTINGS:  
LEVEL CONTROL: MINIMUM

| ITEM              | MEASURING POINT    | ADJ.POINT | MEASURE |
|-------------------|--------------------|-----------|---------|
| IDEL CURRENT ADJ. | R827,828           | TVR801    | 6-10mV  |
| IDEL CURRENT ADJ. | R927,928           | TVR901    | 6-10mV  |
| CENTER VOLT.CHECK | CH 1 OUTPUT TO GND | -         | <30mV   |
| CENTER VOLT.CHECK | CH 2 OUTPUT TO GND | -         | <30mV   |



Original Xfmr Color Code



Replacement Xfrm Color Code PN 750-518B

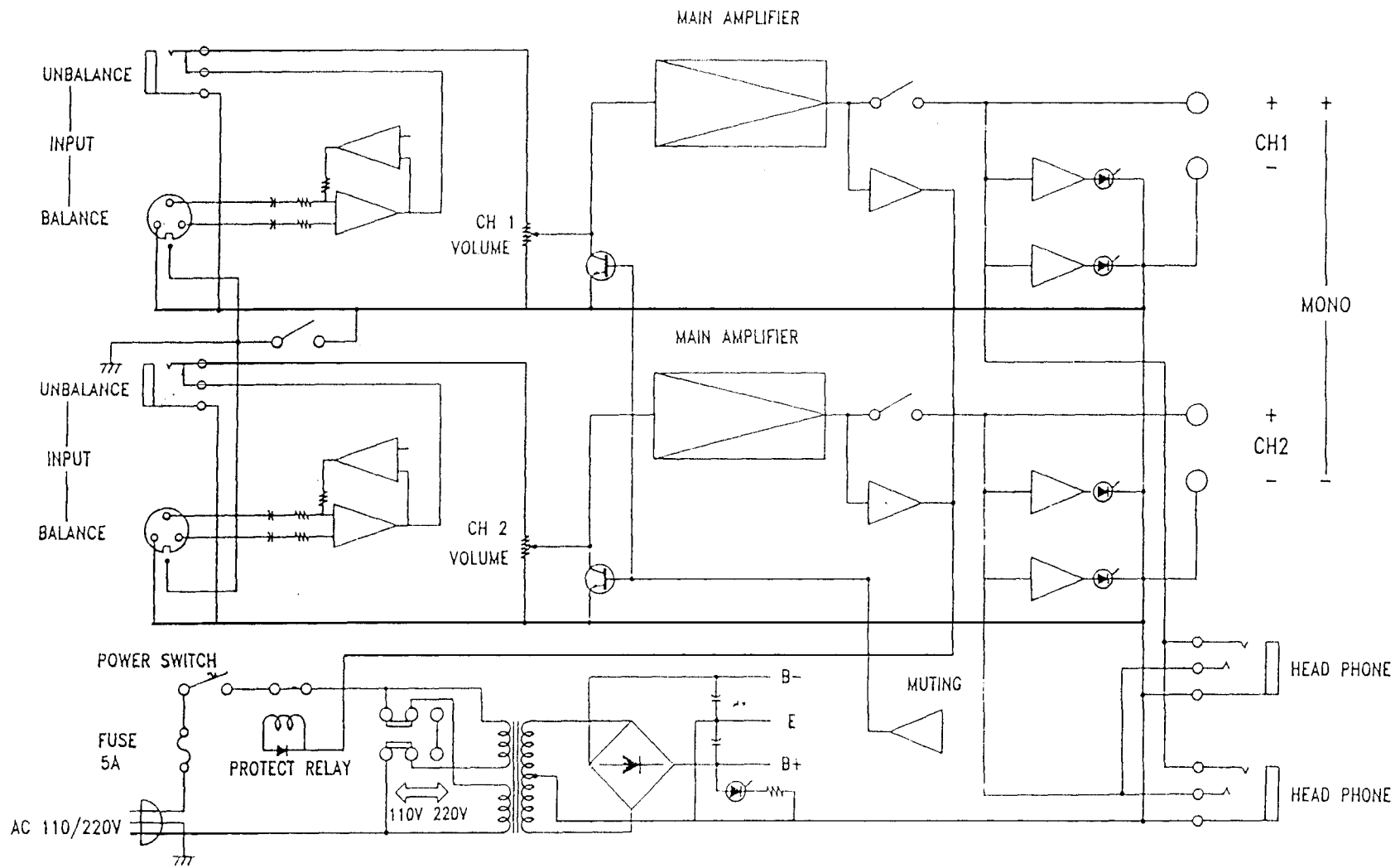
Like colors exchange for like colors for example:

Black on the new xfmr takes the place of Black on the old xfmr.

Yellow is the same.

Orange on the new xfmr takes the place of the red on the old xfmr.

White on the new xfmr takes the place of the clear on the old xfmr.



5. BLOCK DIAGRAM

# 8. PARTS LIST

AB-200

| REF. NO. | DESCRIPTION                            | Q'TY | REMARK       |
|----------|--|------|--------------|
| 1.       | FRONT PANEL L-311                      | 1    |              |
| 2.       | MAIN CHASSIS C-1418                    | 1    |              |
| 3.       | REAR PANEL C-1417                      | 1    |              |
| 4.       | UPPER COVER C-1415                     | 1    |              |
| 5.       | PHONE HOLDER C-1432                    | 1    |              |
| 6.       | CAPACITOR HOLDER C-1433A               | 1    |              |
| 7.       | HEAT SINK H-190                        | 2    |              |
| 8.       | SPEAKER TERMINAL HT-2874               | 2    |              |
| 9.       | AC CORD 3P VDE (EUR)                   | 1    |              |
|          | AC CORD 3P SVT (USA)                   | 1    |              |
| 10.      | BUSHING 6W-2                           | 1    |              |
| 11.      | FUSE 5 $\phi$ x20x2.5A (EUR)           | 1    |              |
|          | FUSE 6.3 $\phi$ x31.7x5A (USA)         | 1    |              |
| 12.      | FUSE HOLDER R3-22B (EUR)               | 1    |              |
|          | FUSE HOLDER R3-22A (USA)               | 1    |              |
| 13.      | CONNECTOR E-D331 (BLACK)               | 1    |              |
| 14.      | CONNECTOR E-D337 (RED , WHITE)         | 1    |              |
| 15.      | POWER SW 1804 112119015                | 1    |              |
| 16.      | WIRE CONNECTOR S-1                     | 2    |              |
| 17.      | TOROID TRANSFORMER RH51834S2ABD        | 1    |              |
| 18.      | LED 2 $\phi$ L-211D RED                | 3    |              |
| 19.      | LED 2 $\phi$ L-211GD GREEN             | 2    |              |
| 20.      | CABLE TIE 90MM                         | 13   |              |
| 21.      | FOOT CUSHION 18 $\phi$ x 10MM          | 4    |              |
| 22.      | KNOB KB-252 23.8 $\phi$                | 2    |              |
| 23.      | RUBBER WASHER D-070                    | 3    |              |
| 24.      | STYROFORM PF-107                       | 1    |              |
| 25.      | STYROFORM PF-104                       | 1    |              |
| 26.      | OWNER'S MANUAL                         | 1    |              |
| 27.      | INSIDE CARTON                          | 1    |              |
| 28.      | OUTSIDE CARTON                         | 1    |              |
| 29.      | SCREW CRIS 3x6 (Y)                     | 2    | FOR E/C      |
| 30.      | SCREW CRIS 3x6 (B)                     | 3    | FOR PCB.     |
| 31.      | SCREW CRMS 3x6 (B)                     | 4    | SW , XLR     |
| 32.      | SCREW CRMS 3x6 (W)                     | 1    |              |
| 33.      | SCREW CRMS 4x12 (B)                    | 4    | HEAT SINK    |
| 34.      | SCREW CRWMS 4x8 (B)                    | 4    | FOOT CUSTION |
| 35.      | SCREW CRWMS 4x8 (W)                    | 1    | GROUND       |
| 36.      | FLAT & HEXAGON SCREW SCREW MS 4x10 (B) | 5    | FRONT PANEL  |
| 37.      | NUT WITH GEAR 3 $\phi$ (Y)             | 3    | SW , GROUND  |
| 38.      | GEAR WASHER 3 $\phi$ (W)               | 2    | GROUND       |
| 39.      | GEAR WAHER 4 $\phi$                    | 1    | GROUND       |

P.C. BOARD B710-PA

| REF.NO. | DESCRIPTION                    | Q'TY | REMARKS |
|---------|--------------------------------|------|---------|
|         | TEMPERATURE SW T95AR1U1        | 2    |         |
|         | TEMPERATURE SW HOLDER C-1307   | 2    |         |
|         | TAGGER SW A1M4-T05             | 1    |         |
|         | TAGGER SW A2M4-T05             | 1    |         |
|         | PHONE JACK HTJ064-03L1         | 2    |         |
|         | XLR PLUG 4-24027               | 2    |         |
|         | XLR HOLDER C-1419              | 1    |         |
|         | PLASTIC SCREW 1/8x9 (B)        | 4    | XLR     |
|         | CABLE TIE 1 $\phi$ 100MM       | 1    |         |
|         | CABLE TIE 5.8 $\phi$ 38MM      | 1    |         |
|         | HEAT SINK H-198                | 4    |         |
|         | HEAT SINK HOLDER (SMALL) H-154 | 4    |         |
|         | L TYPE HEAT SINK H-189         | 1    |         |
|         | SCREW CRTS 3x6 (Y)             | 4    |         |
|         | SCREW CRTS 3x6 (Y)             | 2    |         |
|         | SCREW CRTS 3x8 (Y)             | 2    |         |
|         | SCREW CRMS 3x8 (Y)             | 4    |         |
|         | SCREW CRMS 3x14 (W)            | 8    |         |
|         | COIL 15Tx10 $\phi$ x1 $\phi$   | 2    |         |
|         | WAFER 5045-3                   | 4    |         |
|         | WAFER 5273-2                   | 1    |         |
|         | WAFER 5273-3                   | 1    |         |
|         | PIN 1.2x1.2x19                 | 4    |         |
|         | SPRING WASHER 3 $\phi$ (Y)     | 12   |         |
|         | NUT WITH GEAR 3 $\phi$ (Y)     | 8    |         |

-CARBON RESISTORS T TYPE-

ALL RESISTORS ARE RATED  $\pm 5\%$  TOLERANCE AND 1/4W

|            |         |
|------------|---------|
| R817, R917 | 200 ohm |
| R816, R916 | 560 ohm |
| R819, R919 | 820 ohm |
| R810, R910 | 2K2 ohm |
| R934       | 4K7 ohm |

-CARBON RESISTORS T TYPE-

ALL RESISTORS ARE RATED  $\pm 5\%$  TOLERANCE AND 1/3W

|                                    |          |
|------------------------------------|----------|
| R921, R924, R821, R824, R835, R935 | 100 ohm  |
| R808, R908                         | 150 ohm  |
| R812, R912                         | 750 ohm  |
| R822, R823, R922, R923             | 1K ohm   |
| R832, R932                         | 3K9 ohm  |
| R806, R807, R834, R906, R907       | 10K ohm  |
| R809, R909, R818, R918             | 15K ohm  |
| R801, R901                         | 22K ohm  |
| R802, R803, R902, R903             | 100K ohm |
| R804, R805, R904, R905             | 220K ohm |

-CARBON RESISTORS T TYPE-

ALL RESISTORS ARE RATED  $\pm 5\%$  TOLERANCE AND 1/2W

|                        |         |
|------------------------|---------|
| R815, R820, R825, R826 | 47 ohm  |
| R920, R915, R925, R926 | 47 ohm  |
| R813, R913             | 220 ohm |
| R831, R931             | 4K7 ohm |



-CARBON RESISTORS T TYPE-  
ALL RESISTORS ARE RATED  $\pm 5\%$  TOLERANCE AND 2W

R830, R930 10 ohm

-METAL RESISTORS T TYPE-

ALL RESISTORS ARE RATED  $\pm 2\%$  TOLERANCE

R811, R814, R911, R914 18K ohm 1W  
R833, R933 10 ohm 2W

-WIRE WOUND RESISTORS-

R827, R828, R829, R927, R928, R929 0.27 ohm 3W

-CAPACTIORS-

|                        |           |         |    |
|------------------------|-----------|---------|----|
| C803, C804, C903, C904 | 7P/500V   | CERAMIC |    |
| C818, C918             | 10P/500V  | CERAMIC |    |
| C805, C905             | 15P/500V  | CERAMIC |    |
| C817, C907             | 500P/500V | CERAMIC |    |
| C808, C908             | 50P/500V  | CERAMIC |    |
| C813, C814, C913, C914 | 220P/500V | CERAMIC |    |
| C810, C811, C812, C817 | 0.047K    | MYLAR   |    |
| C910, C911, C912, C917 | 0.047K    | MYLAR   |    |
| C801, C802, C901, C902 | 0.47u/50V | ELEC.   | NP |
| C806, C809, C815       | 33u/25V   | ELEC.   | NP |
| C906, C909, C915       | 33u/25V   | ELEC.   | NP |
| C819, C919             | 100u/25V  | ELEC.   |    |

-TRASISTOR-

|                                  |                 |
|----------------------------------|-----------------|
| Q801-Q803, Q901-Q903, Q807, Q907 | 2SC2240 GR      |
| Q808, Q908                       | 2SA970 GR       |
| Q806, Q906                       | 2SD1563         |
| Q805, Q905                       | 2SB1086         |
| Q804, Q904                       | 2SC3421/2SC3423 |
| Q809, Q909                       | 2SC2167         |
| Q810, Q910                       | 2SA957          |
| Q811, Q812, Q811, Q912           | MJ15011         |

-TRIAC-

T801, T901 MC97A6

-IC-

IC801, IC901 JRC072D

-DIODE-

D809, D909, D810, D910 IN4004 RECTIFIER

-TVR-

TVR801, TVR901 300 ohm, 3 PIN 8  $\phi$  H

P.C. BOARD B711-CA, PR, LED, PS

| REF. NO. | DESCRIPTION                       | Q'TY | REMARKS  |
|----------|-----------------------------------|------|----------|
|          | VR R-10A50K41PC                   | 2    |          |
|          | PHONE JACK JY-6304-02-030         | 2    |          |
|          | AC SELECTOR SW T-8716             | 1    |          |
|          | PRESS TERMINAL FDN1-205           | 4    |          |
|          | LED 2 $\phi$ L-212D               | 1    |          |
|          | CONNECT HOLDER C-1430             | 4    |          |
|          | GEAR WASHER 5.3x10.2x0.5          | 2    | WITH E/C |
|          | SCREW CRMS 4.5x10 (Y)             | 2    | WITH E/C |
|          | PLASTIC WIRE #22 1015 BROWN 140MM | 1    |          |
|          | PLASTIC WIRE #22 1015 WHITE 140MM | 1    |          |
|          | PIN 1x1x19                        | 2    |          |
|          | REPAY MEI DC24V                   | 1    |          |

-CARBON RESISTORS T TYPE-

ALL RESISTORS ARE RATED  $\pm 5\%$  TOLERANCE AND 1/4W

|                              |          |
|------------------------------|----------|
| R302, R402                   | 200 ohm  |
| R005, R305, R307, R405, R407 | 3K9 ohm  |
| R301, R401                   | 6K8 ohm  |
| R004, R008, R009             | 22K ohm  |
| R304, R404                   | 33K ohm  |
| R308, R408, R311, R411       | 56K ohm  |
| R303, R403                   | 100K ohm |
| R309, R312, R409, R412       | 150K ohm |
| R006                         | 220K ohm |
| R306, R406                   | 1M ohm   |

-CARBON RESISTORS T TYPE-

ALL RESISTORS ARE RATED  $\pm 5\%$  TOLERANCE

|                        |         |      |
|------------------------|---------|------|
| R010                   | 1K ohm  | 1/2W |
| R310, R313, R410, R413 | 5K6 ohm | 1/2W |

-METAL RESISTORS T TYPE-

ALL RESISTORS ARE RATED  $\pm 2\%$  TOLERANCE AND 1W

|            |         |
|------------|---------|
| R314, R414 | 100 ohm |
| R001, R002 | 1K8 ohm |
| R003       | 3K9 ohm |

-CAPACTIORS-

|            |            |         |    |
|------------|------------|---------|----|
| C007, C008 | 0.005/500V | CERAMIC |    |
| C304, C404 | 0.1K/50V K | MYLAR   |    |
| C301, C401 | 6.8u/50V   | ELEC.   | NP |
| C005       | 47u/50V    | ELEC.   |    |
| C003, C004 | 470u/16V   | ELEC.   |    |
| C006       | 470u/50V   | ELEC.   |    |

-TRAS ISTOR-

|                              |         |       |
|------------------------------|---------|-------|
| Q001, Q301, Q302, Q401, Q402 | 2SA970  |       |
| Q303, Q304, Q403, Q404       | 2SC2240 |       |
| T301, Q302, Q401, Q402       | MA97A6  | TRIAC |
| Q002, Q003                   | 2SC3327 |       |

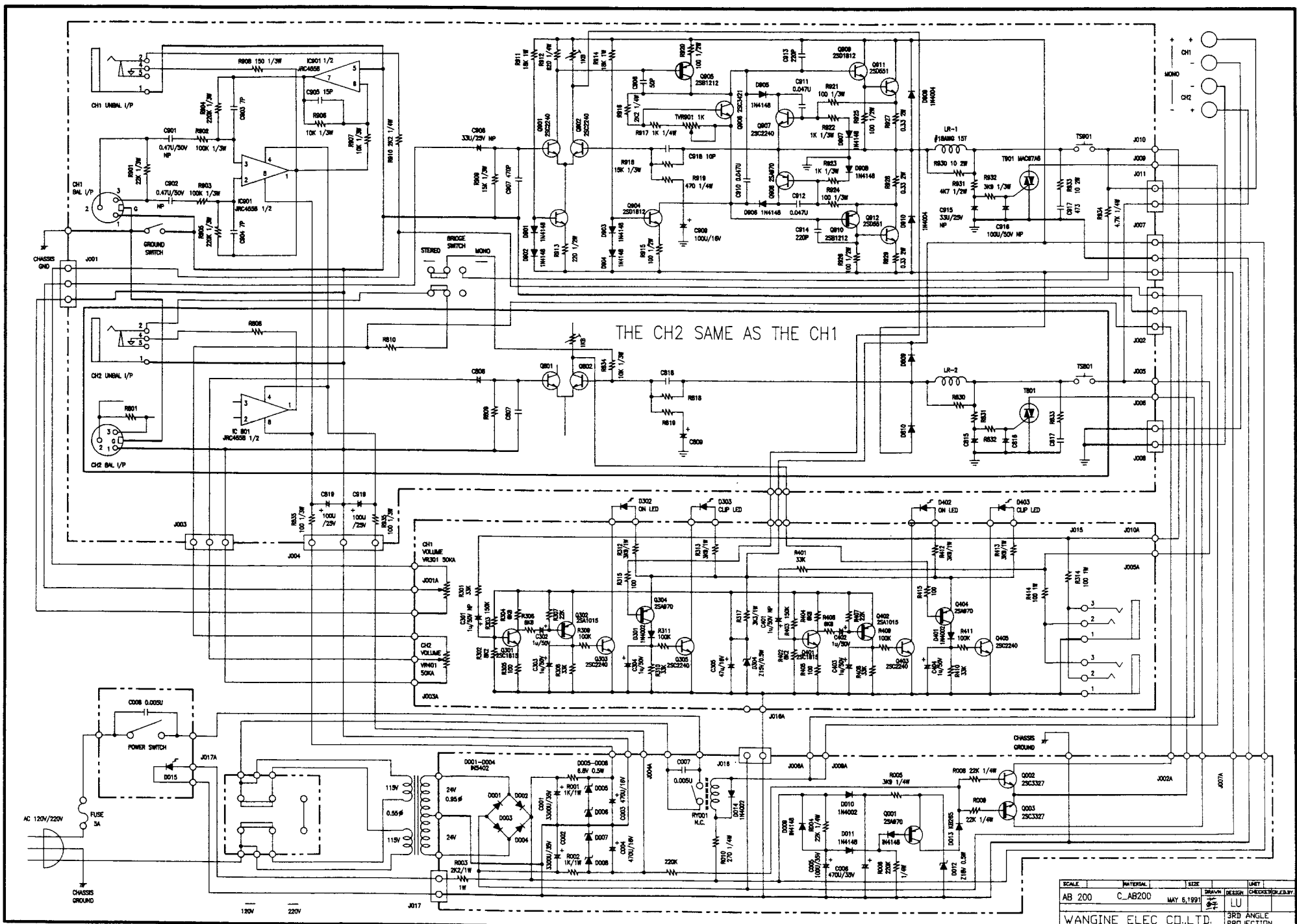
D011, D009, D301, D401  
D005, D008  
D012  
D013  
D010, D014

-DIODE-  
IN4148  
6.8V/0.5W ZENER  
26V/0.5W ZENER  
KB-265  
IN4002 RECTIFIER

J007, J012, J013, J014, J015  
J010A  
J005A  
J016A  
J001A, J003A  
J009A, J006A  
J004A

-CONNECT-  
E-D311  
E-D335  
E-D336  
E-D225  
E-D333  
E-D332  
E-D338



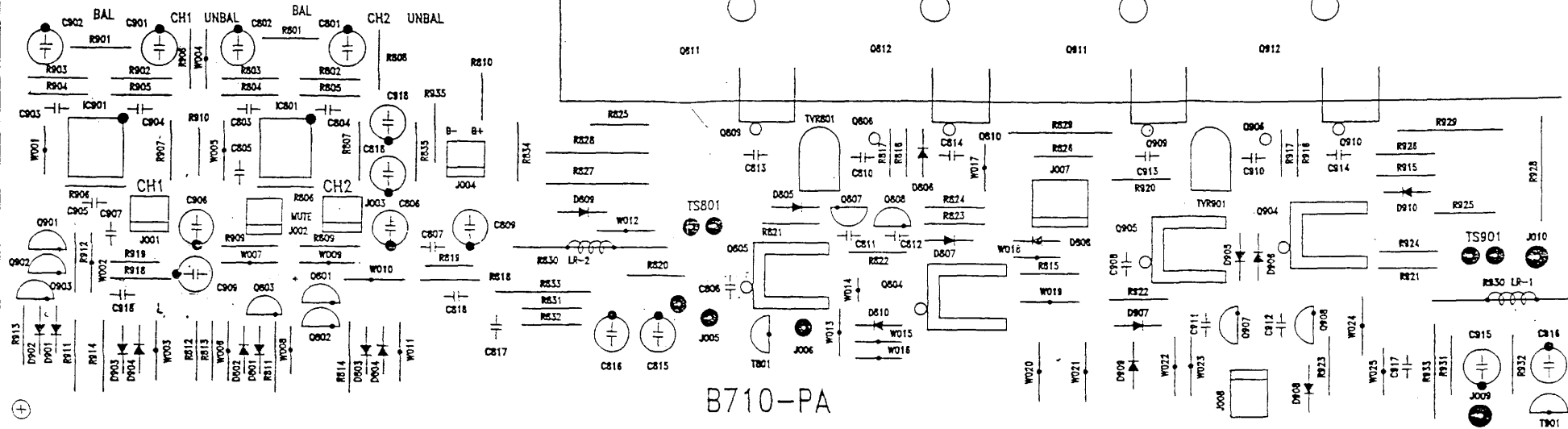


THE CH2 SAME AS THE CH1

| SCALE                   | MATERIAL | SIZE        | DRAWN | DESIGN | UNIT | CHECKED | FOR                  |
|-------------------------|----------|-------------|-------|--------|------|---------|----------------------|
| AB 200                  | C.AB200  | MAY 5, 1991 | LU    | LU     |      |         |                      |
| WANGINE ELEC. CO., LTD. |          |             |       |        |      |         | 3RD ANGLE PROJECTION |

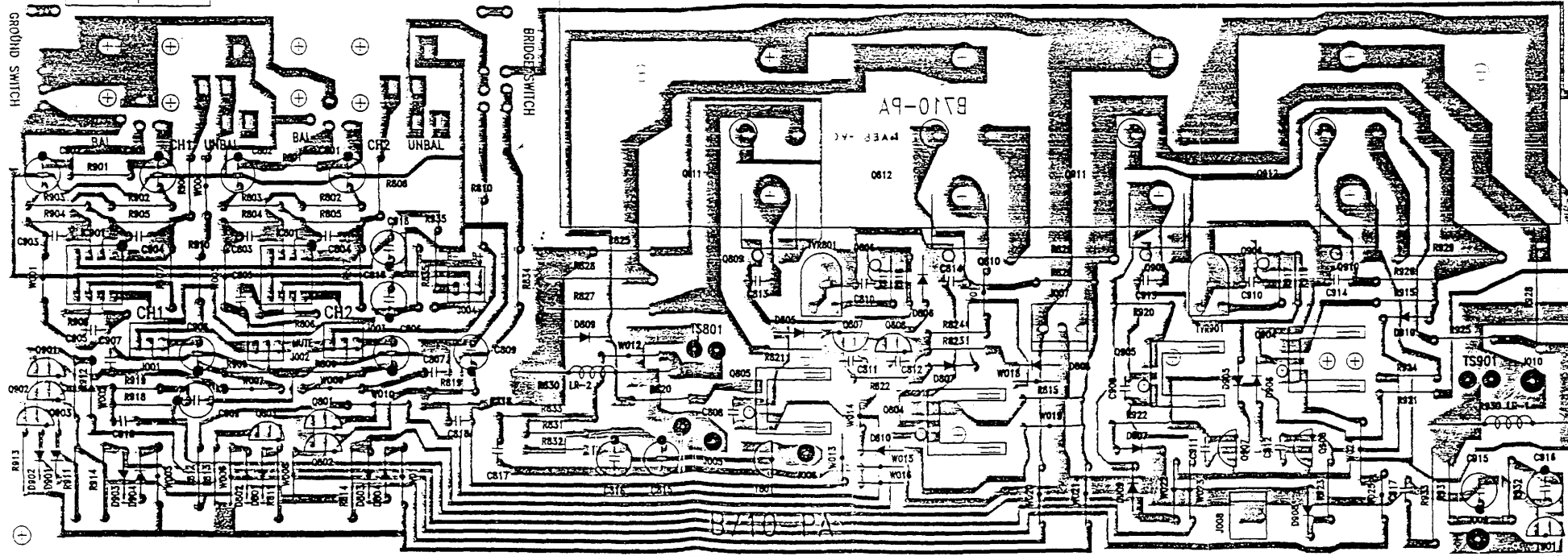
GROUND SWITCH

BRIDGE SWITCH



B710-PA

PCB B710-PA



B710-PA

