

CUBE-40/60 KEYBOARD

SERVICE NOTES

First Edition

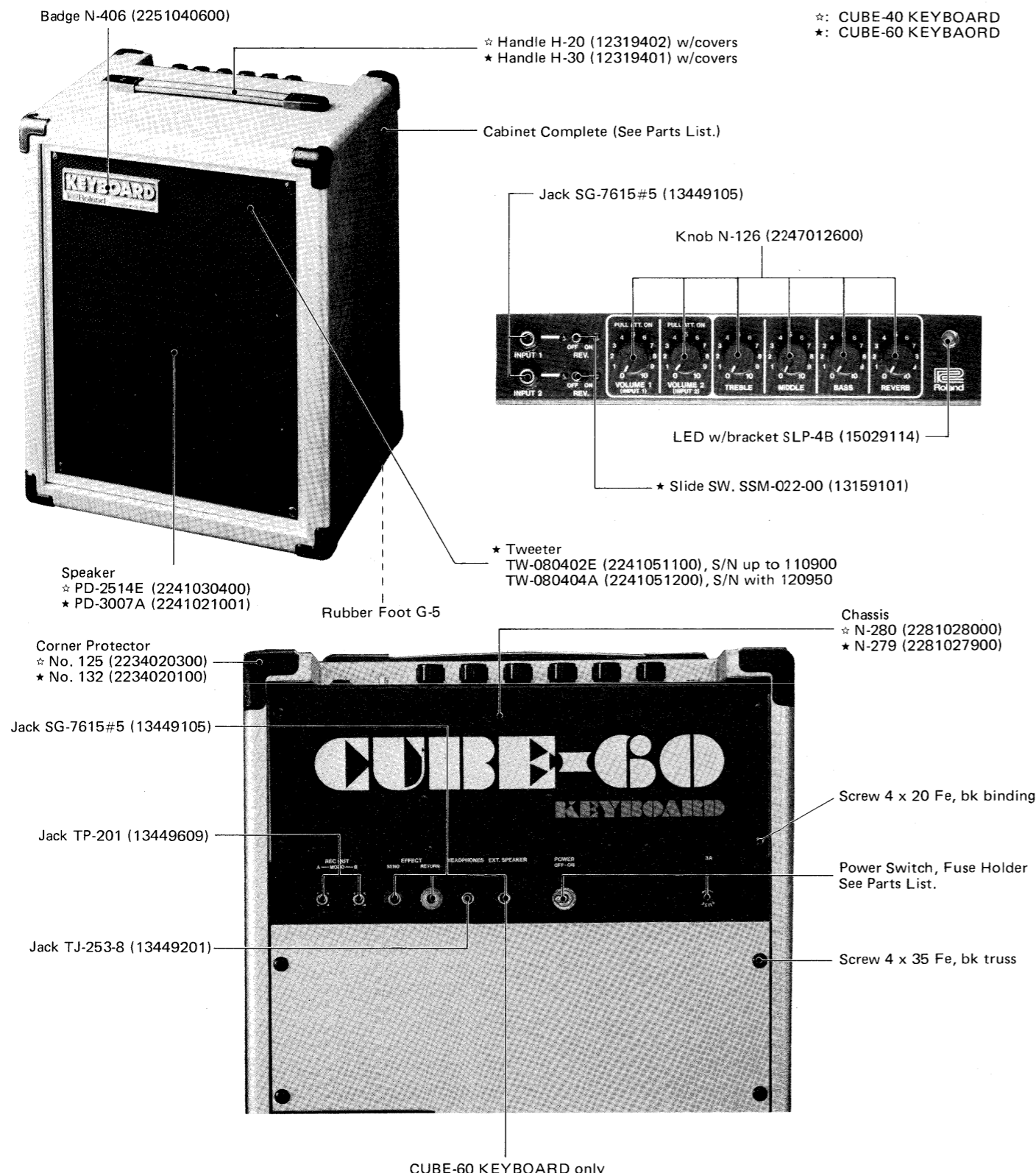
SPECIFICATIONS

● CUBE-40 Keyboard

Output 40W (rms)
 Speaker 25cm double corn x 1
 Power consumption . . . 33W
 Physical dimensions . . . 310(W) x 368(H) x 205(D)mm
 Weight 11kg

● CUBE-60 Keyboard

Output 60W (rms)
 Speaker 30cm x 1, Horn Tweeter x 1
 Power consumption . . . 45W
 Physical dimensions . . . 370(W) x 465(H) x 300(D)mm
 Weight 16.5kg



☆: CUBE-40 KEYBOARD
 ★: CUBE-60 KEYBOARD

PARTS LIST

- ☆ : CUBE-40 KEYBOARD
- ★ : CUBE-60 KEYBOARD

CABINET COMPLETE

(Including Handle, Badge, Corner Protector, Rubber Feet, Grille Cloth, Baffle and Back board)

- ☆ 2101015801 N-158
- ★ 2101015903 N-159C

POWER SWITCH

- 13139502 ST-103AX 100/117V
- 13139501 GN-P1 220/240V

PCB ASSEMBLY

- ☆ 7016106004 AP0161-060A (pcb 2291047201)
- ★ 7016206004 AP0162-060A (pcb 2291047301)

POWER TRANSFORMER

- ☆ 22450170NO N-170N 100/117V
- ☆ 22450172DO N-172D 220/240V
- ★ 22450176NO N-176N 100/117V
- ★ 22450178DO N-178D 220/240V

POTENTIOMETER

- 13219113 EVH-6PA360B14 (10KB) MIDDLE, REVERB
- 13219109 EVH-6PA360AF5 (250KA) BASS
- 13219117 EVH-6PA360BF5 (250KB) TREBLE
- 13219810 EVH-Y13300A15 (100KA) w/push-pull sw VOLUME 1, 2

TRANSISTOR

- 15119111 2SA970-GR
- 15129120 2SC2240-GR
- 15119605 2SB646-C
- 15129601 2SD666-C
- 15119602 2SB647-C
- 15129602 2SD667-C
- 15129806 2SD526-O power
- ☆ 15119811 2SB686-O power
- ☆ 15129823 2SD716-O power
- ★ 15119703 2SA1169-O power
- ★ 15129706 2SC2773-O power
- 15139106 2SK117-GR, FET

IC

- 15189103 NJM4558DP

DIODE

- ☆ 15019236 W-02 rectifier
- ★ 15019237 M4C-31 rectifier, 200V 3A
- 15019205 1N4003 200V 1A
- 15019102 1S1588 35V
- 15029557 RD15EB3 zener, 15V

FUSE

- ☆ 12559116 MGC 2A primary, 100/117V
- ☆ 12559514 CEE 2A primary, 220/240V
- ☆ 12559118 MGC 4A secondary, 100/117V
- ☆ 12559517 CEE T4A secondary, 220/240V
- ★ 12559117 MGC 3A primary, 100/117V
- ★ 12559521 CEE T1.6A primary, 220/240V
- ★ 12559119 MGC 5A secondary, 100/117V
- ★ 12559518 CEE T5A secondary, 220/240V

FUSE HOLDER

- 12199523 FH-032 primary, 100/117V
- 12199524 FH-033 primary, 220/240V
- 12199518 TF-757 secondary, 100/117V
- 12199519 TF-758 secondary, 220/240V

CAPACITOR

- 13639942MO 1HN010S 1/50 electro. bi-polar
- 13639213MO 1HS471 470/50 electro.
- 13659232MO ECET50R332SW 3300/40, electro.

RESISTOR

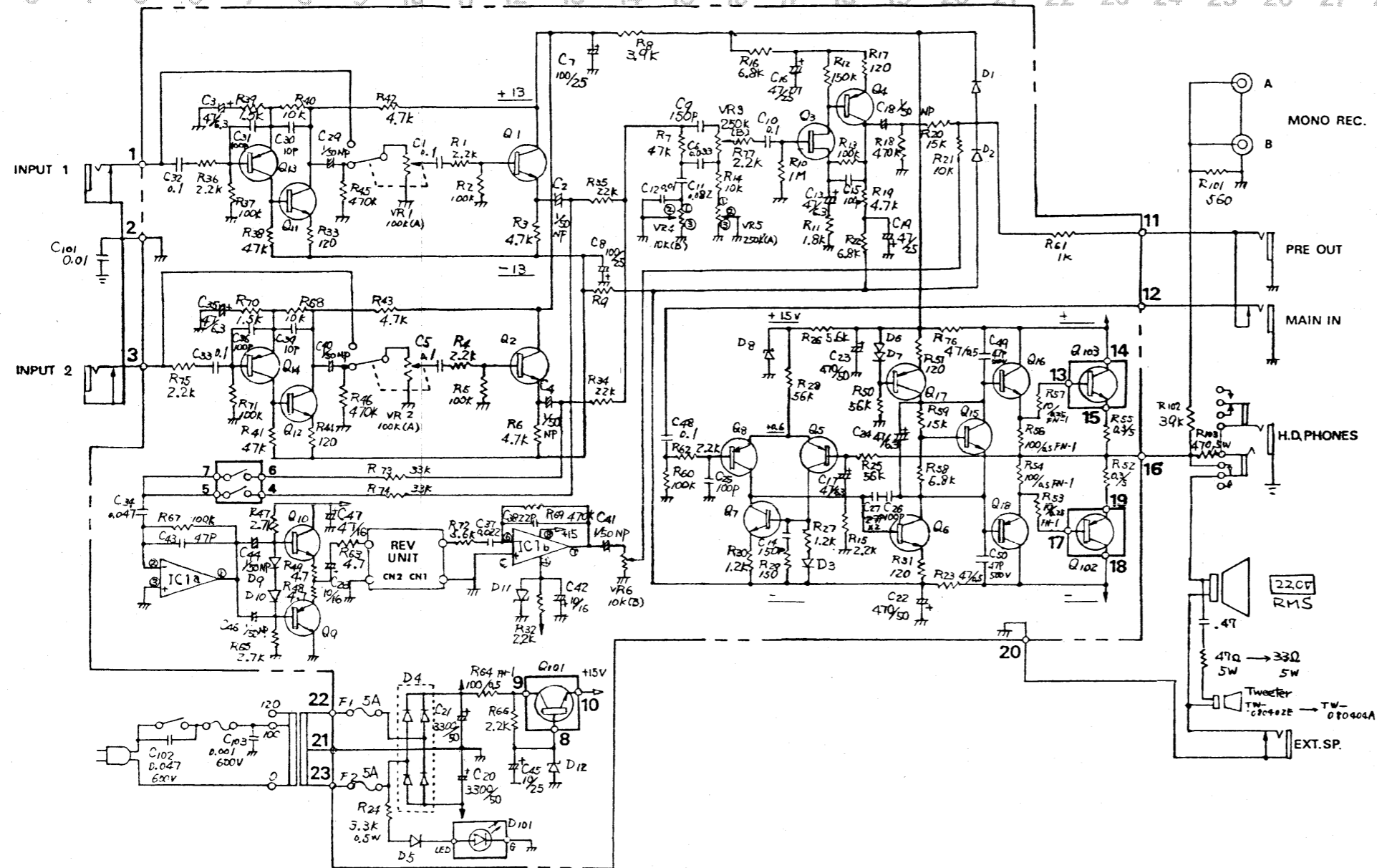
- 13869301 MPC-71 5W, 0.33 ohm, metal plate
- 12559705 FRNB ¼W, 10 ohm, fuse
- 12559704 FRNB ½W, 100 ohm, fuse
- ☆ 13839185FO MO-4S 330 ohm, cement
- ★ 13839186FO MO-4S 470 ohm, cement
- ★ 13839201FO MO-4 5W, 47 ohm, cement, for TW-080402E
- ★ 13839148FO MO-4 5W, 33 ohm, cement, for TW-080404A

OTHERS

- 12389104 Reverb Unit HS-700W
- 2341025000 Reverb Cord N-250, 450mm, red
- 2341025100 Reverb Cord N-251, 450mm, blue
- 2341013100 Connector assy N-131, 170mm
- 2341020900 Connector assy N-209, 170mm
- 2215050900 Long Nut N-509 3 x 13mm, pcb

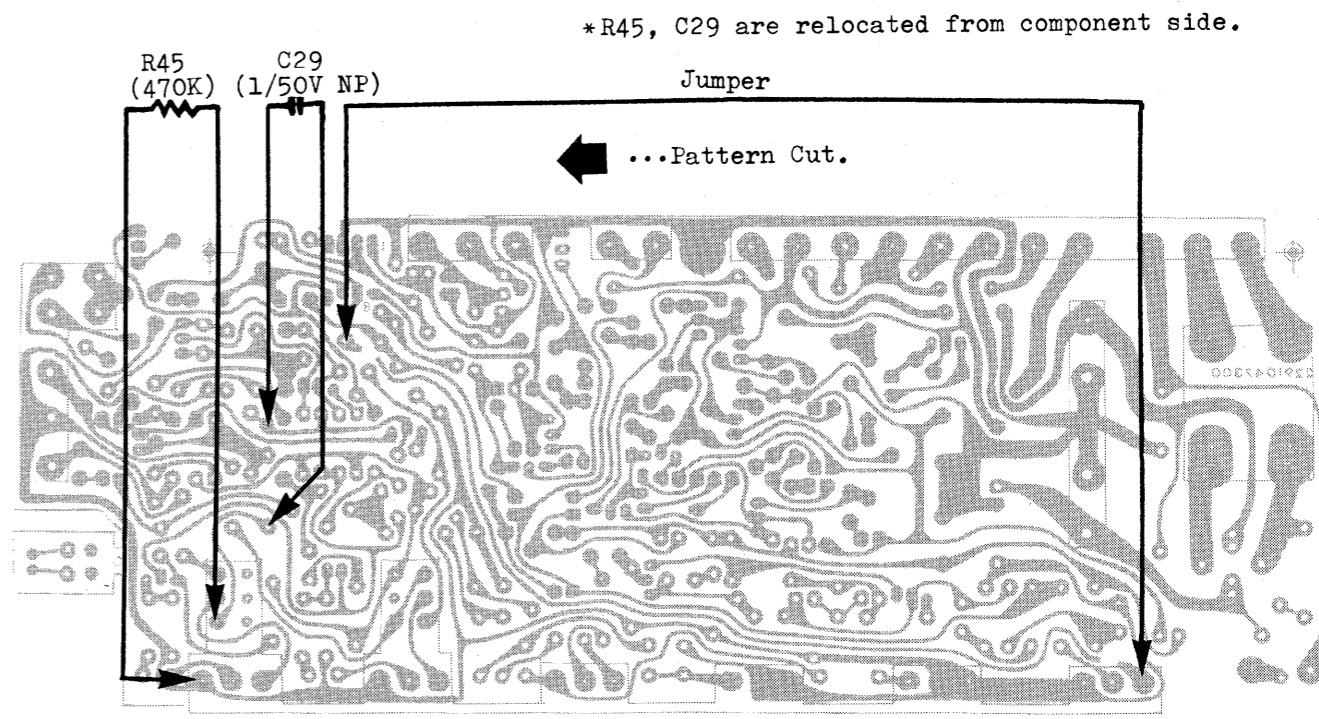
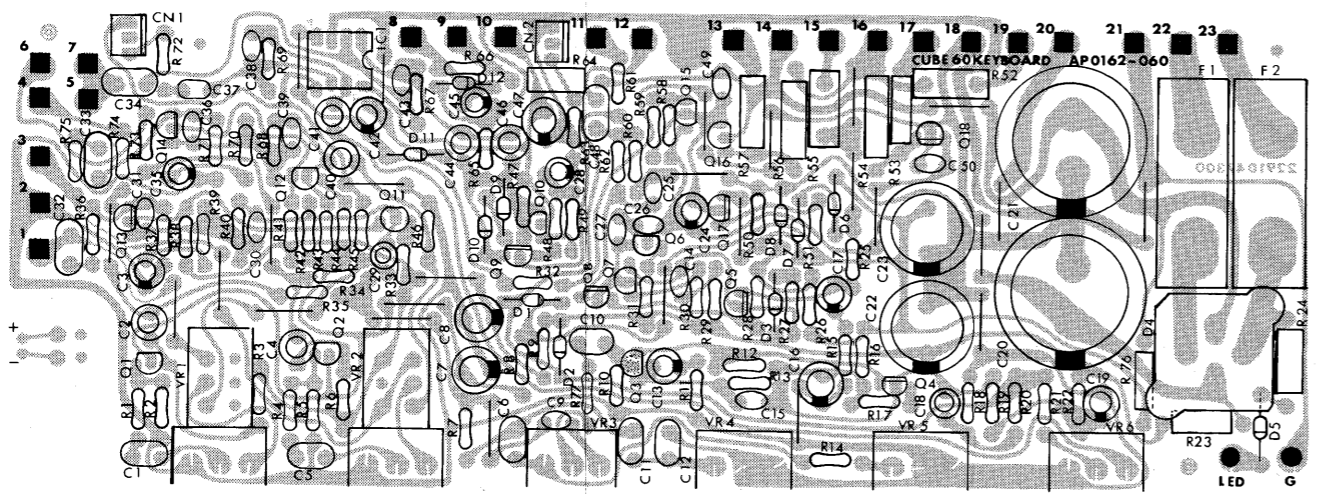
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41

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SW1, 2	: ATT SW (-15dB)
SW3, 4	: REV. ON/OFF SW
SW5	: POWER SW
IC1	: NJM4558DP
Q3	: 2SK117-GR
Q4, 5, 8, 13, 14	: 2SA970-GR
Q17	: 2SB646-C
Q9, 18	: 2SB647-C
Q7, 11, 12, 15	: 2SC2240-GR
Q6	: 2SD666-C
Q10, 16	: 2SD667-C
Q101	: 2SD526-0
Q102	: 2SA1169-0
Q103	: 2SC2773-0
D1, 2, 5	: 1N4003
D3, 6, 7, 9, 10	: 1S1588 (1S2473)
D4	: M4C31
D8, 11, 12	: RD-15EB3

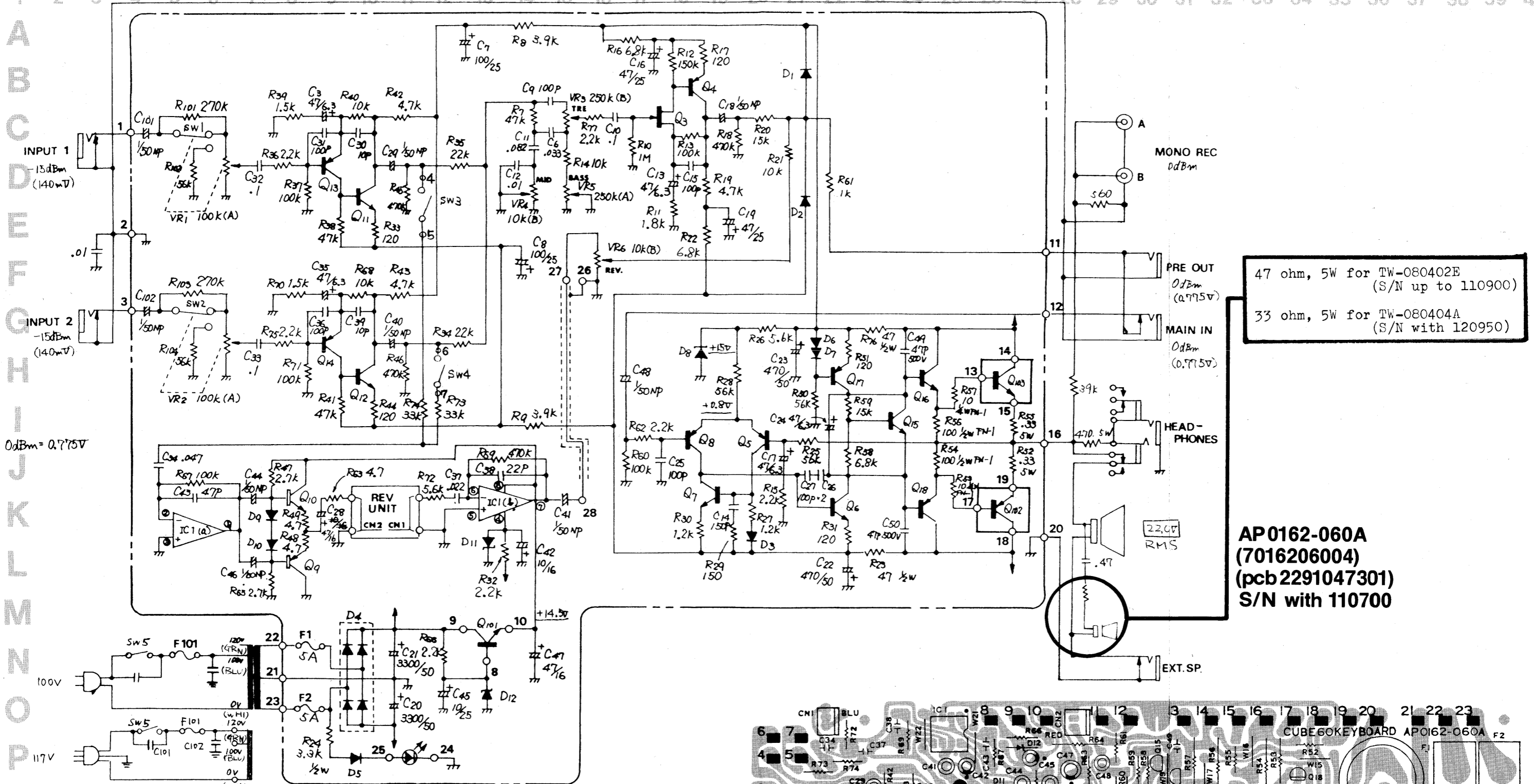
AP 0162-060 (7016206002) (pcb 2291047300)
S/N up to 100600



*R45, C29 are relocated from component side.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

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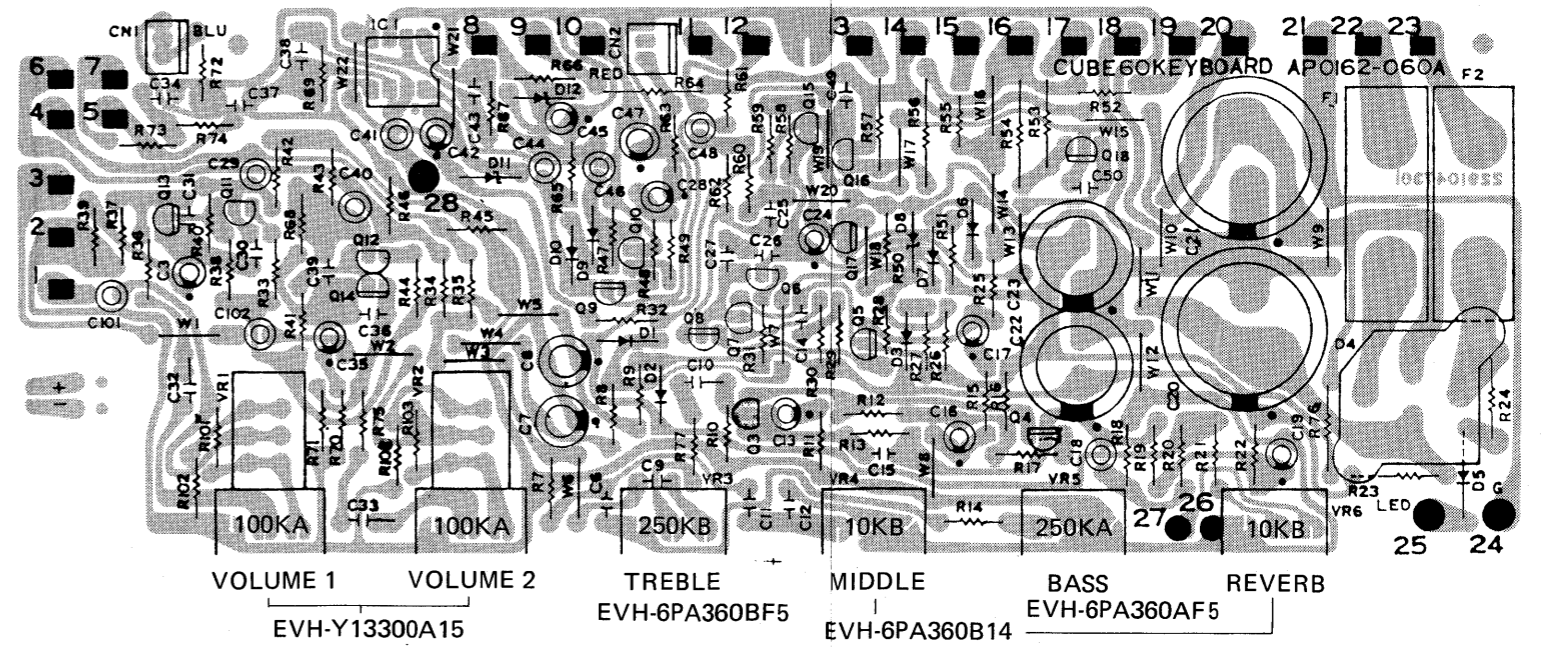


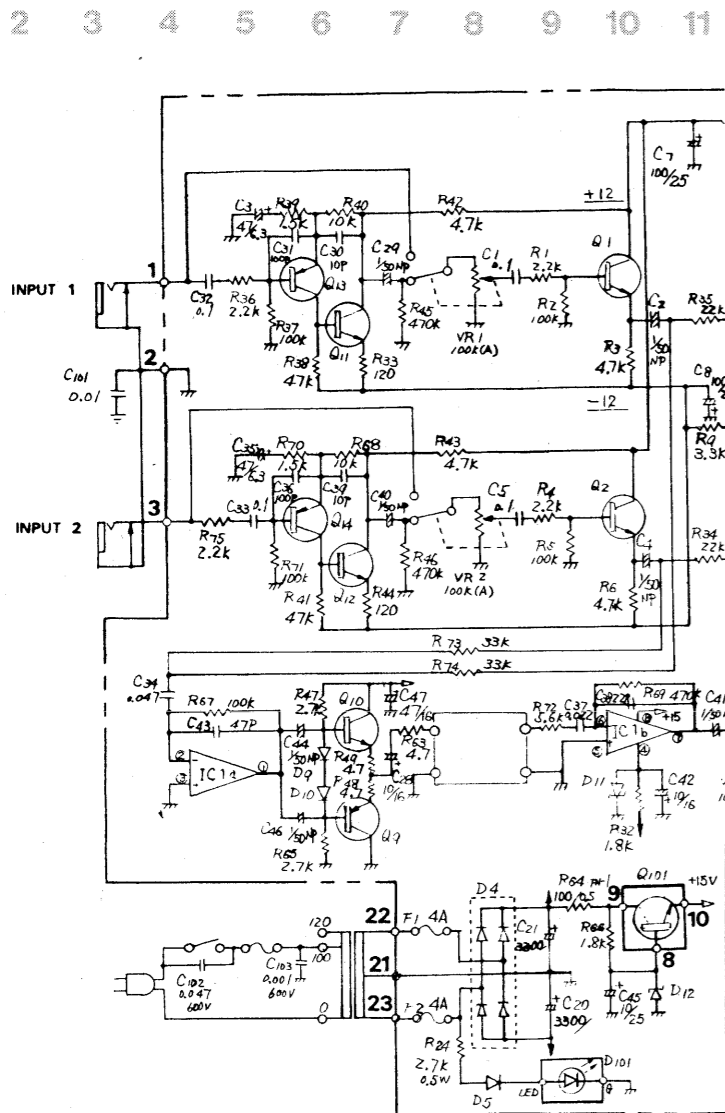
47 ohm, 5W for TW-080402E (S/N up to 110900)
33 ohm, 5W for TW-080404A (S/N with 120950)

AP0162-060A
(7016206004)
(pcb 2291047301)
S/N with 110700

		100/117V	220/240V
PRIMARY	FUSE	MGC 3A	CEE T1.6A
	FUSE HOLDER	FH-032	FH-033
F1, F2	FUSE	MGC 5A	CEE T5A
	FUSE HOLDER	TF-757	TF-758

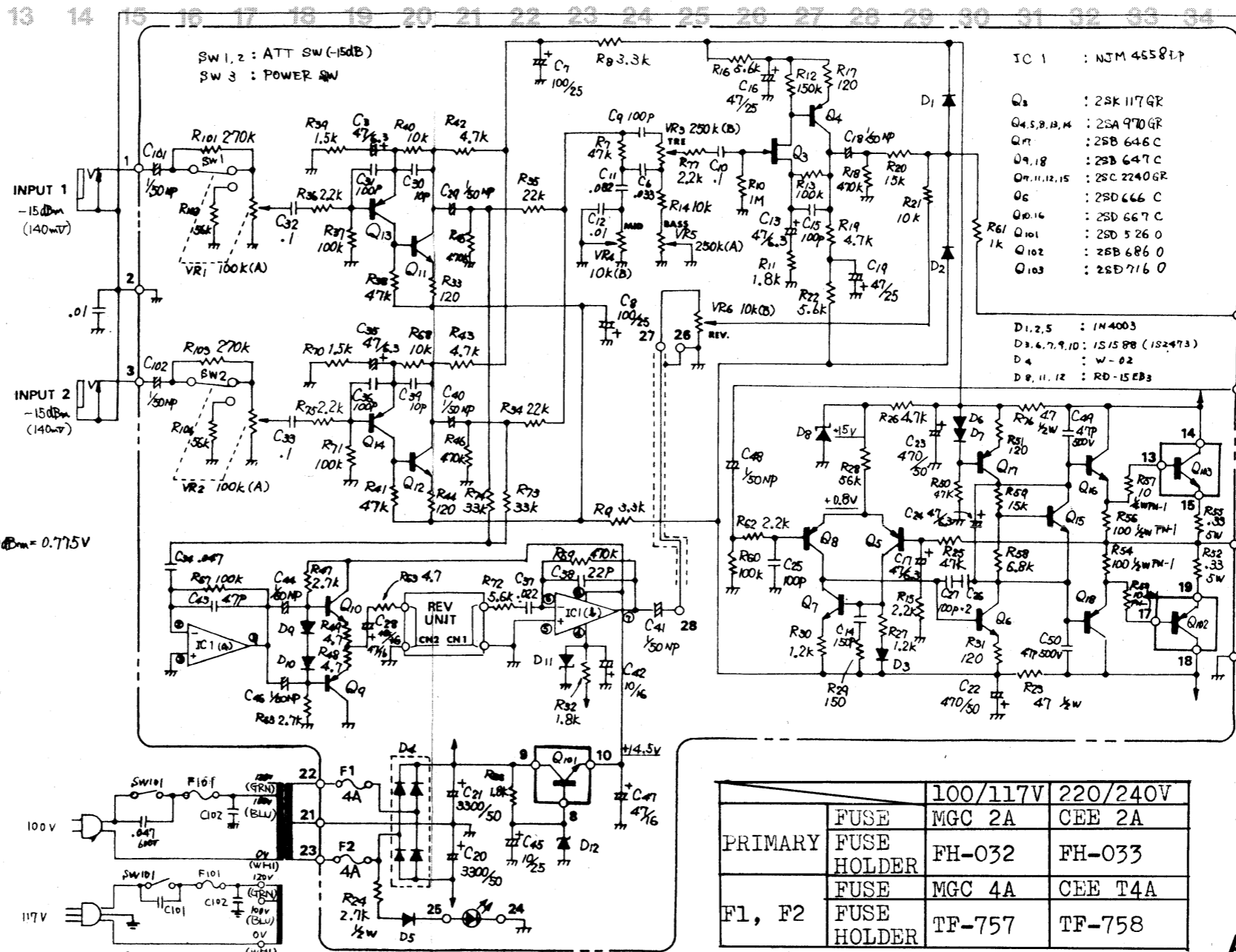
Power Transformer Secondary Rating:
36.0VDC x 2 @ 1.25A
Input Cap. 3300µF





AP 0161-060
(7016106002)
(pcb 2291047200)
S/N up to 101000

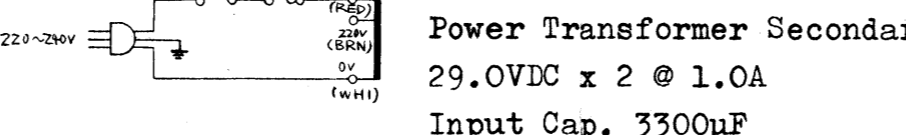
For modifications on the foil side (R45, C29, Jumper and Pattern cut), see p.2.



0dBm = 0.775V

- IC 1 : NJM 45581P
- Q3 : 2SK 117GR
 - Q4,5,8,13,14 : 2SA 970GR
 - Q7 : 2SB 646 C
 - Q9,18 : 2SB 647 C
 - Q7,11,12,15 : 2SC 2240GR
 - Q6 : 2SD 666 C
 - Q10,16 : 2SD 667 C
 - Q101 : 2SD 526 O
 - Q102 : 2SB 686 O
 - Q103 : 2SD 716 O

- D1,2,5 : 1N 4003
- D3,6,7,9,10 : 1S15 PB (1S2473)
- D4 : W-02
- D8,11,12 : RD-15EB3



Power Transformer Secondary Rating:
 29.0VDC x 2 @ 1.0A
 Input Cap. 3300µF

		100/117V	220/240V
PRIMARY	FUSE	MGC 2A	CEE 2A
	FUSE HOLDER	FH-032	FH-033
F1, F2	FUSE	MGC 4A	CEE T4A
	FUSE HOLDER	TF-757	TF-758

AP 0162-060A
(7016206004)
(pcb 2291047301)
S/N with 111100

