

AIWA®**XT-003**

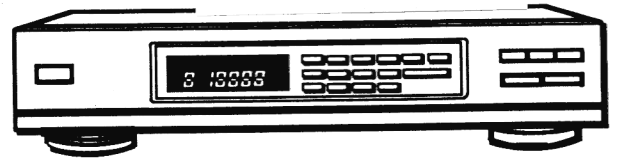
LS 222124

1 / SM-XT0-03 -

SERV-MANUAL XT-003

48 388 NIL

SERVICE MANUAL



STEREO TUNER

• TYPE. H,E,K,Z

SPECIFICATIONS

FM section

Frequency range	87.5-108 MHz
Usable sensitivity	75 Ω
(IHF) (Except Z model)	12.2 dBf, 1.1 μ V (MONO)
(DIN)	0.9 μ V (MONO)
(Z model)	1.1 μ V (MONO)
S/N 50 dB sensitivity (IHF)	38.2 dBf (STEREO)
Signal-to-noise ratio (IHF)	H, E and K models 74 dB (STEREO) 80 dB (MONO) Z model 69 dB (STEREO) 75 dB (MONO)
Total harmonic distortion (1 kHz)	0.12% (MONO) 0.2% (STEREO)
Capture ratio	1.5 dB
Alternate channel selectivity	70 dB
Stereo separation	40 dB at 1 kHz
Frequency response	30 Hz-15 kHz (+0.5/-2 dB)
Image interference	80 dB
AM (MW) suppression ratio	50 dB
Harmonic spurious	75 dB
Output level	700 mV (47 k Ω)

AM (MW) section

Frequency range	522-1,611 kHz (E, K and Z models) 531-1,602 kHz (H model, 9 kHz STEP) 530-1,710 kHz (H model, 10 kHz STEP)
AM (MW) sensitivity Loop antenna	300 μ V/m
Distortion	0.5%
Signal-to-noise ratio	52 dB (30%, 100 dB μ V input)
Image ratio	40 dB
Selectivity (9 kHz)	20 dB

LW section (E, K and Z models only)

Frequency range	144-290 kHz
LW sensitivity Loop antenna	1,000 μ V/m
Power source	E and Z models AC 220 V, 50 Hz K model AC 240 V, 50 Hz H model AC 110-120 V/220-240 V (switchable), 50/60 Hz
Power consumption	7 W
Maximum dimension	430(W) x 73(H) x 255(D) mm
Weight	2.5 kg

• Design and specifications are subject to change without notice.

AIWA Co., Ltd.**Tokyo Japan**

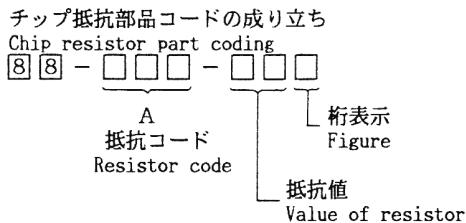
Printed in Japan

ELECTRICAL MAIN PARTS LIST

REF.NO.	PART NO.	DESCRIPTION	REF.NO.	PART NO.	DESCRIPTION
=== IC ===			C36	*87-010-401-019	CAP,ELECT 1-50 SME
	80-AT1-630-010	IC,L6514B-4431	C37	*87-010-404-019	CAP,ELECT 4.7-50 SME
	87-001-942-019	IC,LA1265G	C38	*87-010-405-019	CAP,ELECT 10-50 SME
	87-020-861-019	IC,LA3410	C39	*87-010-544-019	CAP,ELECT 0.1-50
	87-001-376-010	IC,LC7218	C40	*87-010-403-019	CAP,ELECT 3.3-50 SME
	87-020-871-010	IC,M5F78M12L	C41	*87-010-404-019	CAP,ELECT 4.7-50 SME
=== TRANSISTOR ===			C42	*87-010-404-019	CAP,ELECT 4.7-50 SME(Z)
	89-502-094-019	FET,2SK209Y	C43	*87-010-197-019	CAP,CHIP S 0.01-25 B
	89-502-115-010	FET,2SK211GR	C45	*87-010-404-019	CAP,ELECT 4.7-50 SME
	89-503-025-010	FET,2SK302GR	C46	*87-010-197-019	CAP,CHIP S 0.01-25 B
	89-111-625-019	TRANSISTOR,2SA1162GR	C47	*87-010-197-019	CAP,CHIP S 0.01-25 B
	89-318-155-019	TRANSISTOR,2SC1815GR	C48	*87-010-197-019	CAP,CHIP S 0.01-25 B
	89-320-011-019	TRANSISTOR,2SC2001K	C50	*87-010-197-019	CAP,CHIP S 0.01-25 B
	89-327-125-019	TRANSISTOR,2SC2712GR	C51	*87-010-197-019	CAP,CHIP S 0.01-25 B
	89-327-143-019	TRANSISTOR,2SC2714(O)	C53	*87-010-196-019	CAP,CHIP S 0.1-25 F
	89-333-266-019	TRANSISTOR,2SC3326B	C54	*87-010-197-019	CAP,CHIP S 0.01-25 B(E,K,Z)
	87-026-214-019	TRANSISTOR,DTA114YS	C55	*87-014-049-019	CAP,PP 470P-100 J
	87-026-213-019	TRANSISTOR,DTC114YK	C56	*87-010-158-019	CAP,CHIP S 22P-50 SL
=== DIODE ===			C57	*87-010-169-010	CAP,CHIP S 180P-50 SL(E,K,Z)
	87-001-783-019	DIODE,1N4002-T	C58	*87-014-050-010	CAP,PP 510P-100J(E,K,Z)
	87-020-465-019	DIODE,1SS133	C60	*87-010-404-019	CAP,ELECT 4.7-50 SME(Z)
	87-020-125-019	DIODE,CHIP 1SS181	C61	*87-010-101-019	CAP,ELECT 220-16 SME
	87-020-027-019	DIODE,CHIP 1SS184	C63	*87-010-131-019	CAP,ELECT BP 0.47-50
	87-020-583-010	DIODE,ZENER,02CZ5.1Y	C64	*87-010-132-019	CAP,ELECT BP 1-50
	87-020-585-010	DIODE,ZENER,02CZ6.2Y	C65	*87-010-405-019	CAP,ELECT 10-50 SME
	87-027-676-019	DIODE,ZENER,HZ12B3LT2	C66	*87-010-401-019	CAP,ELECT 1-50 SME
	87-027-402-019	DIODE,ZENER,HZ24-2L	C67	*87-014-048-019	CAP,PP 430P-100 J
	87-027-555-019	DIODE,ZENER,HZ5C2	C68	*87-014-048-019	CAP,PP 430P-100 J
=== MAIN CIRCUIT BOARD SECTION ===			C69	*87-010-402-019	CAP,ELECT 2.2-50 SME
C1	*87-010-155-019	CAP,CHIP S 12P-50 SL(H,E,K)	C70	*87-010-402-019	CAP,ELECT 2.2-50 SME
C1	*87-010-156-019	CAP,CHIP S 15P-50 SL(Z)	C71	*87-010-182-019	CAP,CHIP S 2200P-50 B
C3	*87-010-197-019	CAP,CHIP S 0.01-25 B	C72	*87-010-182-019	CAP,CHIP S 2200P-50 B
C4	*87-010-197-019	CAP,CHIP S 0.01-25 B	C73	*87-010-401-019	CAP,ELECT 1-50 SME
C5	*87-010-156-019	CAP,CHIP S 15P-50 SL	C74	*87-010-197-019	CAP,CHIP S 0.01-25 B
C6	*87-010-155-019	CAP,CHIP S 12P-50 SL	C75	*87-010-263-019	CAP,ELECT 100-10
C7	*87-010-147-019	CAP,CHIP S 3P-50 CH	C76	*87-010-312-019	CAP,CHIP S 15P-50 CH
C8	*87-010-145-019	CAP,CHIP S 1P-50 CH	C77	*87-010-313-019	CAP,CHIP S 18P-50 CH
C9	*87-010-158-019	CAP,CHIP S 22P-50 SL	C78	*87-010-197-019	CAP,CHIP S 0.01-25 B
C10	*87-010-154-019	CAP,CHIP S 10P-50 CH	C79	*87-010-197-019	CAP,CHIP S 0.01-25 B
C11	*87-010-156-019	CAP,CHIP S 15P-50 SL	C80	*87-010-384-019	CAP,ELECT 100-25 SME
C12	*87-010-156-019	CAP,CHIP S 15P-50 SL	C81	*87-010-186-019	CAP,CHIP S 4700P-50 B
C13	*87-010-197-019	CAP,CHIP S 0.01-25 B	C82	*87-010-400-019	CAP,ELECT 0.47-50 SME
C14	*87-010-146-019	CAP,CHIP S 2P-50 CH	C83	*87-010-384-019	CAP,ELECT 100-25 SME
C15	*87-010-148-019	CAP,CHIP S 4P-50 CH	C85	*87-010-260-019	CAP,ELECT 47-25 SME
C16	*87-010-149-019	CAP,CHIP S 5P-50 CH	C97	*87-010-170-019	CAP,CHIP S 220P-50 SL
C17	*87-010-197-019	CAP,CHIP S 0.01-25 B	C98	*87-010-170-019	CAP,CHIP S 220P-50 SL
C18	*87-010-170-019	CAP,CHIP S 220P-50 SL	C99	*87-015-768-019	CAP,CHIP 220P-50 SL
C19	*87-010-197-019	CAP,CHIP S 0.01-25 B	C100	*87-010-155-019	CAP,CHIP S 12P-50 SL(E,K,Z)
C20	*87-010-197-019	CAP,CHIP S 0.01-25 B	C101	*87-010-197-019	CAP,CHIP S 0.01-25 B
C21	*87-010-197-019	CAP,CHIP S 0.01-25 B	C102	*87-010-197-019	CAP,CHIP S 0.01-25 B
C22	*87-010-400-019	CAP,ELECT 0.47-50 SME	CF1	87-030-105-010	FILTER,BPMB6A(Z)
C23	*87-010-197-019	CAP,CHIP S 0.01-25 B	CF2	82-785-747-019	FILTER,CF MS2 GHY,R(H,E,K)
C24	*87-010-149-019	CAP,CHIP S 5P-50 CH	CF2	87-008-423-010	FILTER,SFE10.7(Z)
C25	*87-010-197-019	CAP,CHIP S 0.01-25 B	CF3	82-785-669-010	FILTER,CF SFE MA8H,R
C30	*87-010-401-019	CAP,ELECT 1-50 SME	CF4	82-785-669-010	FILTER,CF SFE MA8H,R
C31	*87-010-197-019	CAP,CHIP S 0.01-25 B	CF5	82-794-670-019	FILTER,BFU 450C4N
C32	*87-010-197-019	CAP,CHIP S 0.01-25 B	CF6	81-748-616-019	FILTER,CSB 456F11
C33	*87-010-405-019	CAP,ELECT 10-50 SME	D1	87-026-360-010	VARICAP,CHIP KV1430
C34	*87-010-166-019	CAP,CHIP S 100P-50 SL	D2	87-026-360-010	VARICAP,CHIP KV1430
C35	*87-010-197-019	CAP,CHIP S 0.01-25 B	D3	87-026-360-010	VARICAP,CHIP KV1430
			D4	87-026-360-010	VARICAP,CHIP KV1430
			J1	87-033-214-019	ANT TERMINAL 4P(JT)(FM,AM)(H)
			J1	81-631-646-010	ANT TERMINAL 2P FM,MW/LW(Z) (E,K,Z)
			J2	81-754-629-010	CONNECTOR,ANT(MW/LW)(E,K)

REF.NO.	PART NO.	DESCRIPTION	REF.NO.	PART NO.	DESCRIPTION
L1	*87-006-209-019	COIL,ANT FM 3/4T	SW5	87-036-142-019	TACT SW(4)
L2	*87-006-210-019	COIL,ANT FM 2-3/4T	SW6	87-036-142-019	TACT SW(5)
L3	*87-006-200-019	COIL,RF FM 3-1/2T	SW7	87-036-142-019	TACT SW(6)
L4	*87-006-201-019	COIL,RF FM3-1/2TS	SW8	87-036-142-019	TACT SW(7)
L5	*87-006-201-019	COIL,RF FM3-1/2TS	SW9	87-036-142-019	TACT SW(8)
L6	*87-006-205-019	COIL,OSC FM (7K)	SW10	87-036-142-019	TACT SW(9)
L7	*87-003-231-019	COIL,CHIP S IUH	SW11	87-036-142-019	TACT SW(10)
L8	*87-008-427-019	COIL,FM IFT(4T)	SW12	87-036-142-019	TACT SW(FM)
L9	*81-754-638-019	COIL,QUAD(P)	SW13	87-036-142-019	TACT SW(MW)(E,K,Z)
L11	*87-008-452-019	FILTER,CFAZ-450	SW14	87-036-142-019	TACT SW(LW)(E,K,Z)
L12	*87-006-206-019	COIL,ANT MW (2B)	SW14	87-036-142-019	TACT SW(AM)(H)
L13	*87-006-208-010	COIL,ANT LW(E,K,Z)	SW15	87-036-142-019	TACT SW(TUNING,UP)
L14	*82-794-687-019	COIL,OSC	SW16	87-036-142-019	TACT SW(TUNING,DOWN)
L15	*82-794-688-010	COIL,OSC LW(E,K,Z)	SW17	87-036-142-019	TACT SW(FM MODE)
L16	*87-008-421-010	COIL,ANTI BIRDIE FILTER(Z)	SW18	87-036-142-019	TACT SW(DIRECT)
L17	*87-008-419-019	COIL,FILTER MPX	SW19	87-036-142-019	TACT SW(MEMORY)
L18	*87-008-419-019	COIL,FILTER MPX	SW20	87-036-142-019	TACT SW(SHIFT)
L19	*87-003-098-019	COIL,2.2UH	SW21	87-036-142-019	TACT SW(PRESET SCAN)
L20	*81-754-639-019	COIL,OUAD(S)			
SFR1	*87-024-174-019	SFR,33K	=== POWER CIRCUIT BOARD SECTION ===		
SFR2	*87-024-176-019	SFR,100K	C88	*87-010-398-019	CAP,ELECT 2200-35V
TC1	*87-011-219-019	CAP,TRIMMER 10P	C91	*87-010-408-019	CAP,ELECT 47-50 SME
TC2	*87-011-219-019	CAP,TRIMMER 10P	C94	*87-010-409-019	CAP,ELECT 220-50 SME
TC3	*87-011-219-019	CAP,TRIMMER 10P	C95	*87-010-382-019	CAP,ELECT 22-25 SME
TC4	*87-011-220-019	CAP,TRIMMER 20P	△ PT1	80-AT1-607-019	POWER TRANSFORMER H(H)
TC5	*87-011-221-010	CAP,TRIMMER 30P(E,K,Z)	△ PT1	80-AT1-605-010	POWER TRANSFORMER E(E,Z)
X1	87-030-163-019	RESONATER,CRYSTAL 7.2MHZ(NDK)	△ PT1	80-AT1-606-010	POWER TRANSFORMER K(K)
			△ SW22	87-031-780-019	SLIDE SW(AC VOLTAGE)(H)
=== FRONT CIRCUIT BOARD SECTION ===			=== SWITCH CIRCUIT BOARD SECTION ===		
C201	*87-018-127-019	CAP,CERA-SOL U 470P-50 B	C209	*87-010-382-019	CAP,ELECT 22-25 SME
C202	*87-010-260-019	CAP,ELECT 47-25 SME	△ SW1	87-036-213-010	PUSH SW(POWER)
C203	*87-018-134-019	CAP,CERA-SOL U 0.01-16 Y	=== JACK CIRCUIT BOARD SECTION ===		
C204	*87-018-134-019	CAP,CERA-SOL U 0.01-16 Y	C96	*87-018-134-019	CAP,CERA-SOL U 0.01-16 Y
C205	*87-010-370-019	CAP,ELECT 330-6.3 SME	C103	*87-018-123-010	CAP,CERA-SOL U 220P-50 B(Z)
C206	*80-AT1-616-010	CAP,FILM 0.047F 5.5	C104	*87-018-123-010	CAP,CERA-SOL U 220P-50 B(Z)
C207	*87-015-691-019	CAP,ELECT 0.1-50 7L	J3	87-009-393-010	JACK,PIN 2P(OUTPUT)
C208	*87-015-688-019	CAP,ELECT 4.7-35 7L	=== MISCELLANEOUS ===		
CF200	87-030-209-010	RESONATER,CERAMIC CSB400P	△	82-187-797-019	AC CORD (E)(H)
L200	87-003-152-019	COIL,100UH	△	87-034-749-019	AC CORD H W/PLUG(HJ)
L201	87-003-102-019	COIL,10UH	△	87-034-781-010	AC CORD(E)(E,Z)
L202	87-003-102-019	COIL,10UH	△	87-034-592-010	AC CORD(K)(K)
ND1	80-AT1-625-010	FL,8-MT-57GK(DISPLAY)	△	87-085-185-010	AC CORD BUSHING E(EXCEPT HJ)
SW2	87-036-142-019	TACT SW(1)	△	87-085-184-010	AC CORD BUSHING D(HJ)
SW3	87-036-142-019	TACT SW(2)			
SW4	87-036-142-019	TACT SW(3)			

○チップ抵抗部品コード/CHIP RESISTOR PART CODE



チップ抵抗
Chip resistor

Wattage 容量	Type 種類	Tolerance 許容誤差	Symbol 記号	Dimensions/寸法(mm)			Resistor Code : A 抵抗コード : A	
				Form/外形	L	W		t
1/32W	1608	±5%	CJ		1.6	0.8	0.35	108
1/10W	2125	±5%	CJ		2	1.25	1.45	118
1/8W	3216	±5%	CJ		3.2	1.6	0.5 ~0.7	128

IC DESCRIPTION

IC, LC6514B-4431

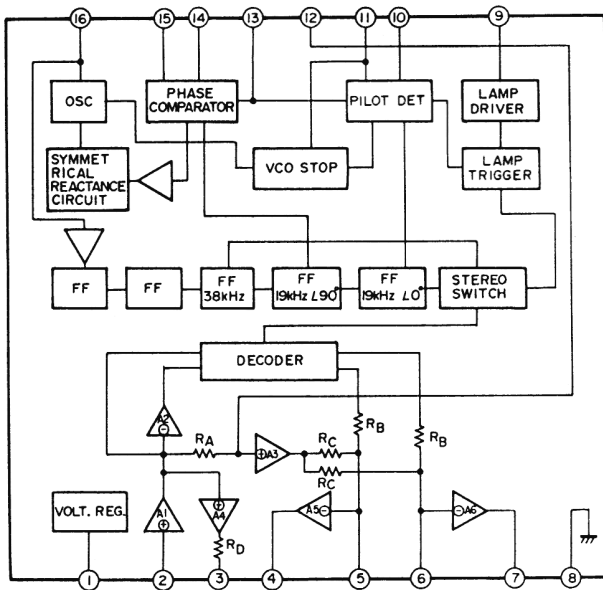
Pin No.	Pin Name	I/O	Description																
1	K2	I	Key return input.																
2	K3	I	Key return input.																
3	$\overline{\text{INT}}$	I	Interrupt request input (not used, connected to ground).																
4	B0	I	Specifications switching matrix <table border="1" style="display: inline-table; vertical-align: middle;"> <thead> <tr> <th></th> <th>B0</th> <th>B1</th> <th>B2</th> </tr> </thead> <tbody> <tr> <td>E,K</td> <td>L</td> <td>L</td> <td>H</td> </tr> <tr> <td>Z</td> <td>L</td> <td>L</td> <td>L</td> </tr> <tr> <td>H</td> <td>L</td> <td>H</td> <td>H</td> </tr> </tbody> </table> L: 0V H: 5V B2: FM 25kHz-step switching pin		B0	B1	B2	E,K	L	L	H	Z	L	L	L	H	L	H	H
	B0	B1		B2															
E,K	L	L		H															
Z	L	L		L															
H	L	H	H																
5	B1	I																	
6	B2	I																	
7	$\overline{\text{TEST}}$	I	Test mode input.																
8	P. SW	I	Power switch input.																
9	$\overline{\text{SD}}$	I	Auto stop signal input.																
10	$\overline{\text{STE}}$	I	Stereo signal input.																
11	CLK	O	PLL IC control pin.																
12	DATA	O	PLL IC control pin.																
13	CE	O	PLL IC control pin.																
14	$\overline{\text{POW}\cdot\text{C}}$	O	Reverse logic of POW·C 37 (not used).																
15	Sa	O	} Segment output.																
16	Sb	O																	
17	Sc	O																	
18	Sd	O																	
19	RES	I	Reset pin.																
20	TEST	I	Connected to ground.																
21	VSS	-	Ground.																
22	OSC1	I	Clock generating pin.																
23	OSC2	I/O	Clock generating pin.																
24	Se	O	} Segment output.																
25	Sf	O																	
26	Sg	O																	
27	Sh	O																	
28	D1	O	} Digit output.																
29	D2	O																	
30	D3	O																	
31	D4	O																	
32	D5	O																	
33	D6	O																	
34	D7	O																	
35	D8	O																	
36	$\overline{\text{K}\cdot\text{MUT}}$	O	Key muting																
37	$\overline{\text{POW}\cdot\text{C}}$	O	Power control.																
38	VP	I	Power input for high-voltage port pull-down resistors.																
39	$\overline{\text{PBD}}$	I	Mode input (power failure detection pin) PBD.																
40	VDD	I	+5V power supply.																
41	K0	I	} Key return input.																
42	K1	I																	

IC, LC7218

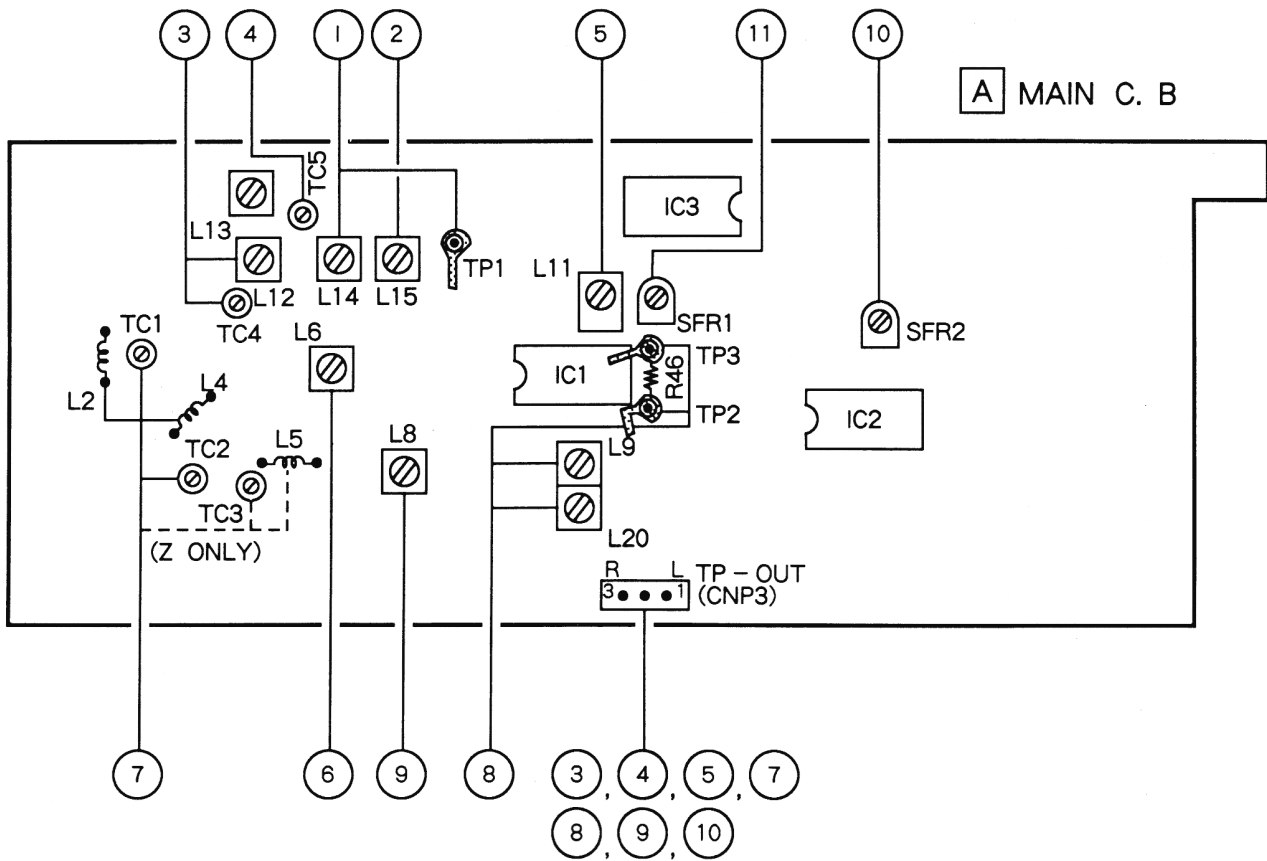
Pin No.	Pin Name	I/O	Description
1	X IN	I	Reference OSC input (7.2MHz).
2	CE	I	Serial data inputs from the CPU to control the PLL.
3	DATA		
4	CLK		
5	—		
6	—	-	Not used.
7	—	-	Not used.
8	—	-	Not used.
9	—	-	Not used.
10	MODE	O	FM mode switching signal output. STEREO: "H", MONO: "L"
11,12	—	-	Not used.
13	MW-L	O	MW/LW switching signal output. MW: "L", LW: "H"
14	—	-	Not used.
15	—		
16	—		
17	FM-L	O	FM front-end power supply switching signal output. FM: "L", MW/LW: "H"
18	AM-IN	I	AM OSC input.
19	FM-IN	I	FM OSC input.
20	VDD	-	Power supply.
21	EO	O	Error output.
22	EO	-	Not used.
23	VSS	-	Ground.
24	X-OUT	O	Reference OSC output (7.2MHz).

IC BLOCK DIAGRAM

• IC, LA3410



ADJUSTMENT



1. AM (MW) VT Adjustment
 Settings : • Test point : TP1 (VT)
 • Adjustment location : L14
 Method : Set to AM 531kHz (H), 522kHz (E, K, Z) and adjust so that the test point becomes $1.1V \pm 0.05V$ (H), $1.0V \pm 0.05V$ (E, K, Z).
2. LW VT Adjustment (E, K, Z only)
 Settings : • Test point : TP1 (VT)
 • Adjustment location : L15
 Method : Set to LW 144kHz and adjust so that the test point becomes $1.5V \pm 0.05V$.
3. AM (MW) Tracking Adjustment
 Settings : • Test point : TP - OUT (CNP3)
 L12 603kHz
 TC4 1404kHz
4. LW Tracking Adjustment (E, K, Z only)
 Settings : • Test point : TP - OUT (CNP3)
 L13 144kHz
 TC5 290kHz
5. AM IF Adjustment
 Settings : • Test point : TP - OUT (CNP3)
 L11 450kHz
6. FM VT Adjustment
 Settings : • Test point : TP1 (VT)
 • Adjustment location : L6
 Method : Set to FM 108.0MHz and adjust L6 so that the test point becomes $9.0V \pm 0.05V$.
7. FM Tracking Adjustment
 Settings : • Test point : TP - OUT (CNP3)
 TC1, 2 108.0MHz (H, E, K)
 TC1, 2, 3 108.0MHz (Z)
 L2, 4 87.5MHz (H, E, K)
 L2, 4, 5 87.5MHz (Z)
8. DC Balance/MONO Distortion Adjustment
 Settings : • Test point : TP2, 3 (DC balance)
 TP - OUT (CNP3)
 (Distortion)
 • Adjustment location : L9 (DC balance)
 L20 (MONO Distortion)
 Method : Set to FM 98.0MHz and adjust L9 so that TP2 and TP3 output becomes $0V \pm 0.04V$. Next, adjust L20 so that the distortion becomes minimum (less than 0.25%).
9. FM IF Adjustment
 Settings : • Test point : TP - OUT (CNP3)
 L8 10.7MHz

PRACTICAL SERVICE FIGURE

10. Separation Adjustment

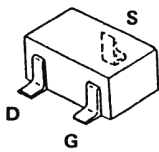
Settings : • Test point : TP - OUT (CNP3)
 • Adjustment location : SFR2

Method : Set to FM 98.0MHz and adjust SFR2 so that the separation at TP - OUT becomes more than 36dB.

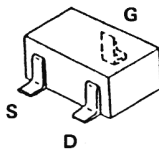
11. Light on tuning LED Adjustment

Settings : • Adjustment location : SFR1
 • Input level : 16dB

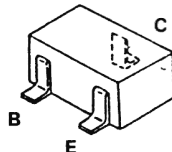
Method : Set to FM 98.0MHz and adjust TUNNING LED to light on by SFR1. After that, LED goes out by 2dB down.



2SK211
2SK302



2SK209



2SA1162
2SC2712
2SC2714
2SC3326
DTC114



DTA114



2SC1815
2SC2001

< FM SECTION >

IHF Sensitivity : 2 ± 4 dB
 (THD 3%)
 (at 87.5MHz)
 1 ± 3 dB
 (at 98.0/108.0MHz)

S/N 50dB Quieting Sensitivity :
 Less than 32dB (H,E,K)
 (at 87.5/98.0/108.0MHz)
 (S/N 46dB)
 Less than 32dB (Z)
 (at 87.5/98.0/108.0MHz)

Signal to Noise Ratio : (MONO.)
 More than 76dB (H,E,K)
 (at 98.0MHz)
 More than 70dB (Z)
 (at 98.0MHz)
 (STEREO)
 More than 70dB (H,E,K)
 (at 98.0MHz)
 More than 64dB (Z)
 (at 98.0MHz)

Distortion : (MONO.)
 Less than 0.25%
 (at 98.0MHz)
 (STEREO)
 Less than 0.5%
 (at 98.0MHz)

Stereo Separation : More than 36dB
 Intermediate Frequency : 10.7MHz

< MW (AM) SECTION >

Sensitivity : 56 ± 4 dB
 (S/N 20dB)
 (at 603kHz)
 51 ± 5 dB
 (at 999/1404kHz)

Distortion : Less than 1.2%
 (at 999kHz)

Intermediate Frequency : 450kHz

< LW SECTION > (E,K,Z only)

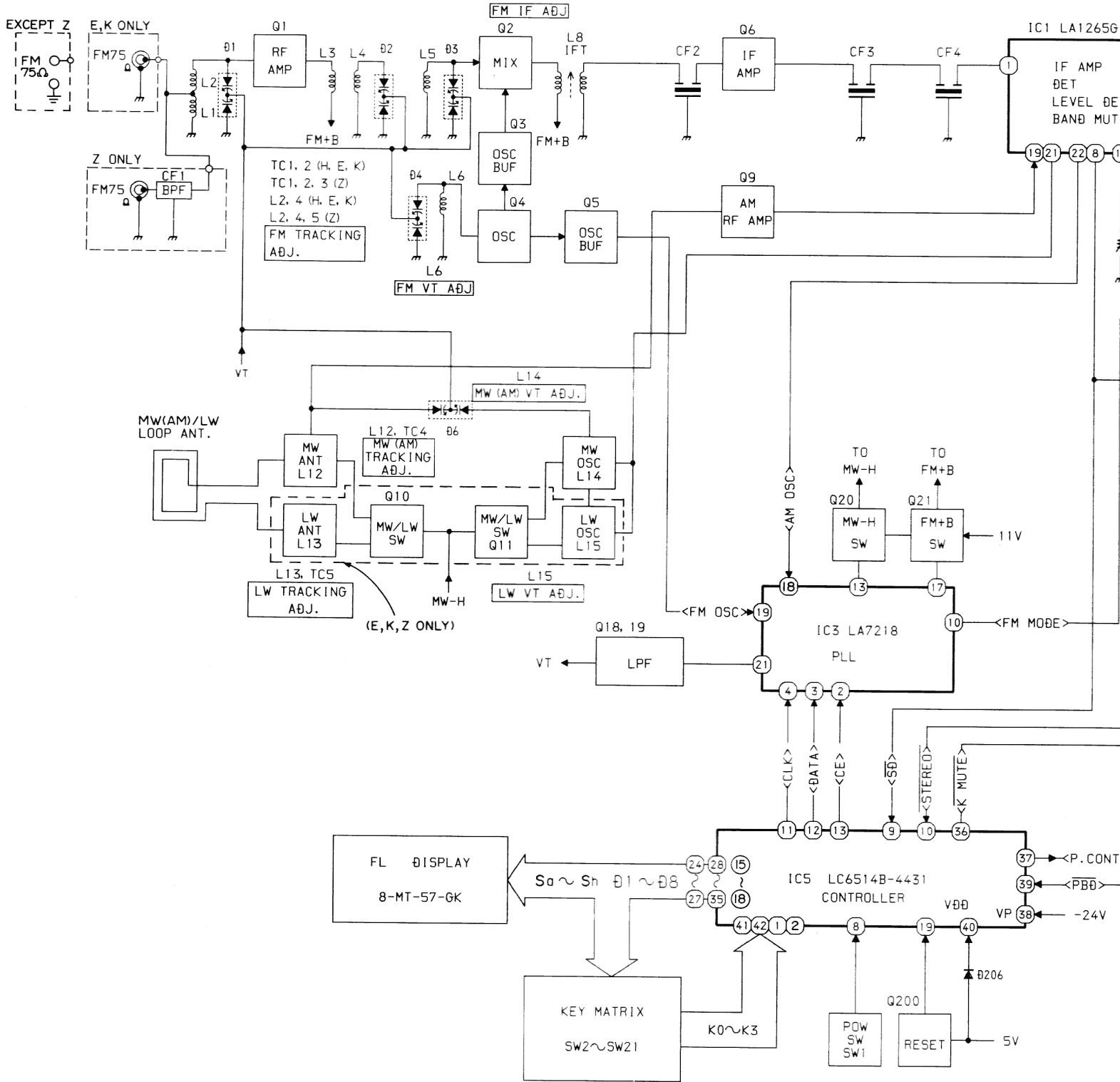
Sensitivity : 63 ± 5 dB
 (S/N 20dB)
 (at 144kHz)
 60 ± 5 dB
 (at 198/290kHz)

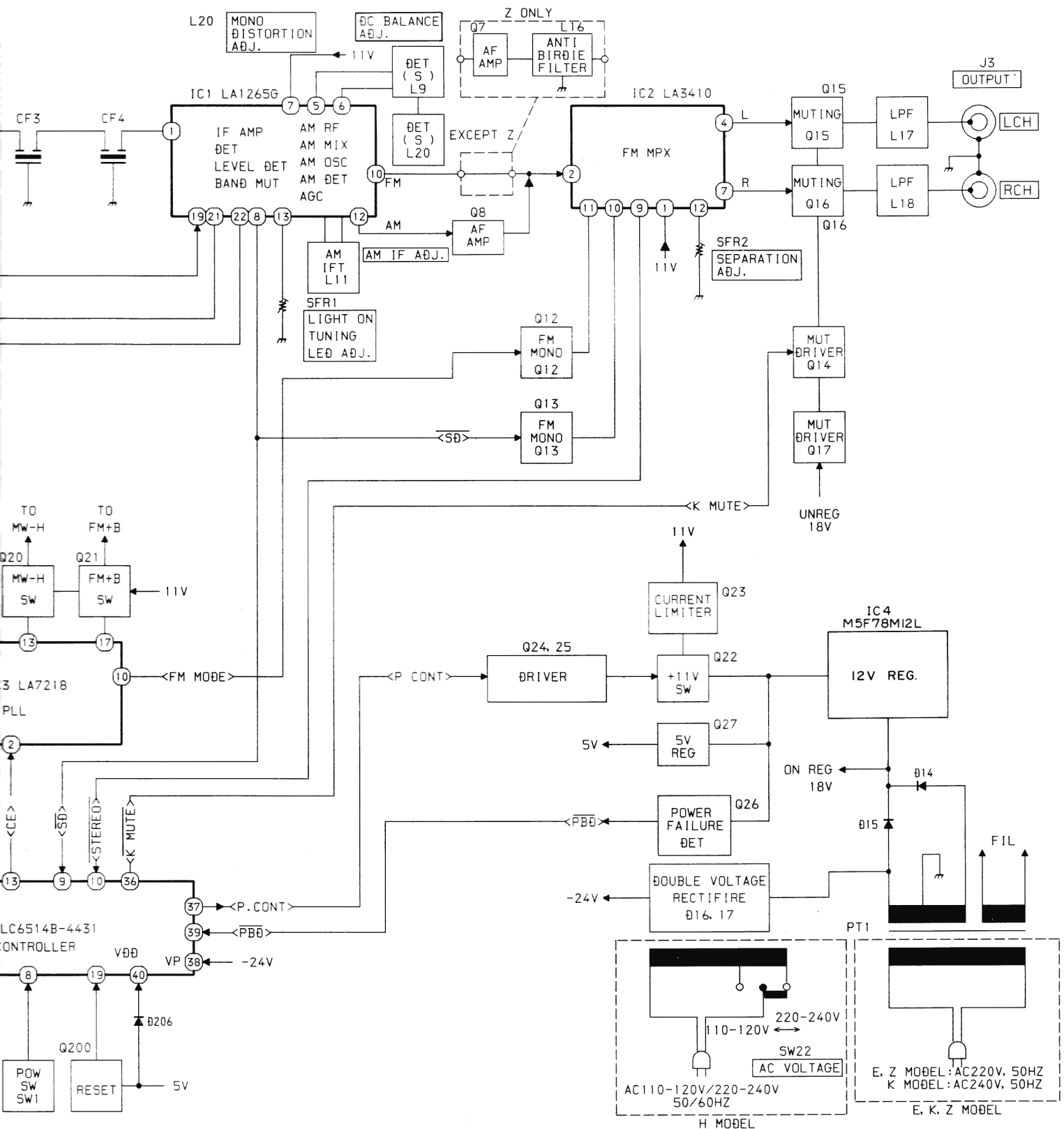
Distortion : Less than 1.2% (at 198kHz)

Intermediate Frequency : 450kHz

BLOCK DIAGRAM

L20 MONO
DISTOR
ADJ.

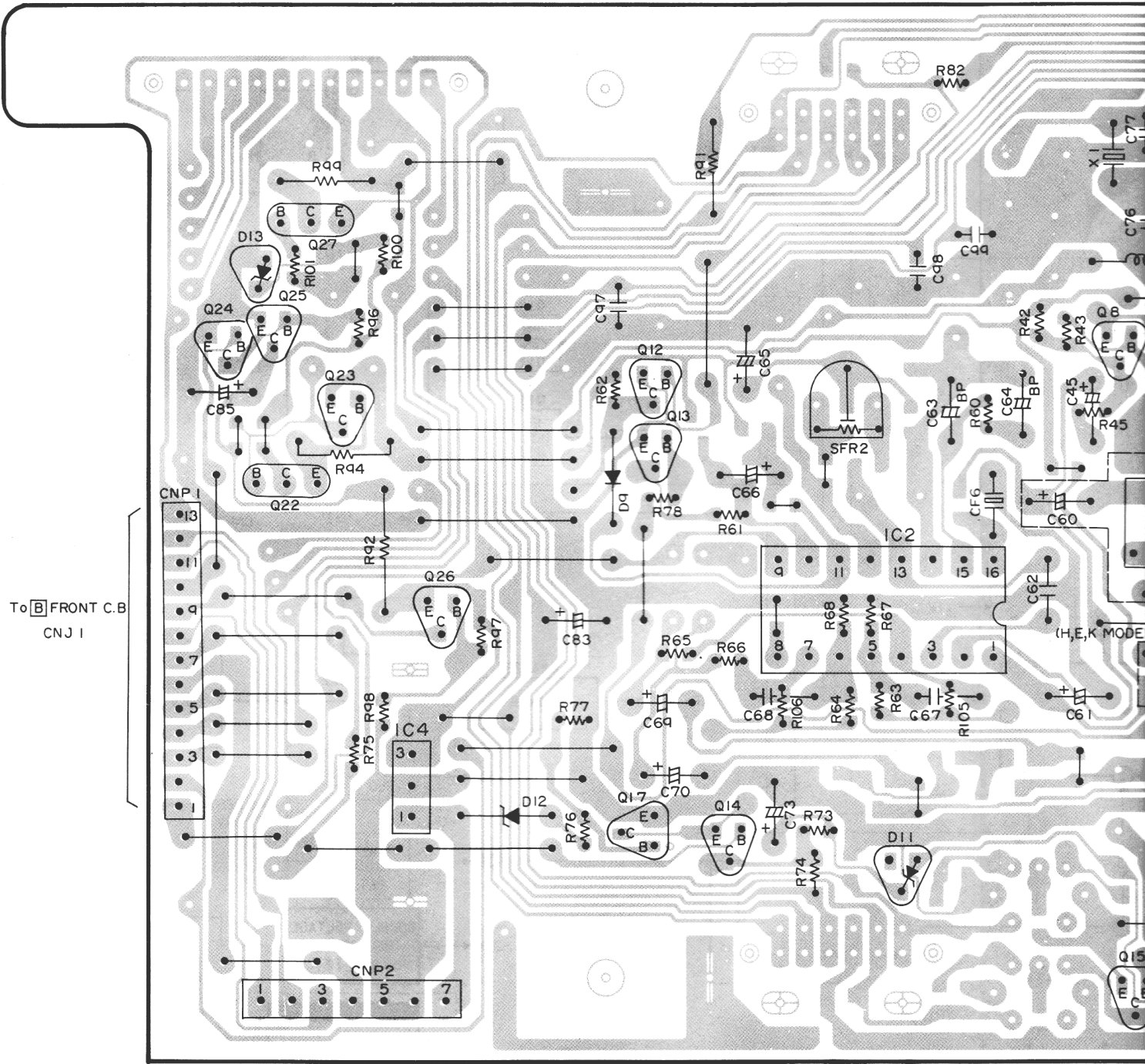




1 2 3 4 5 6 7 8

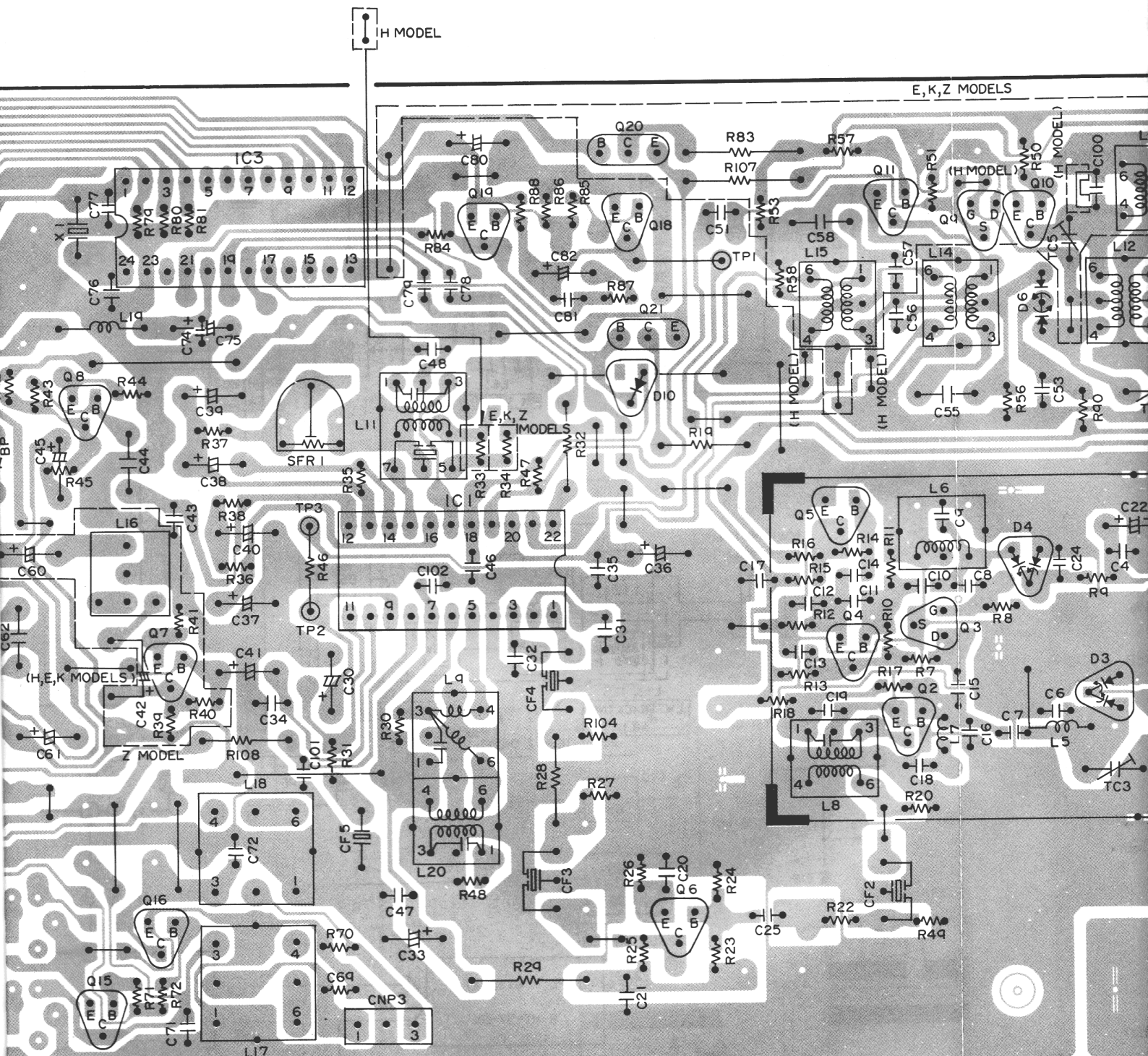
A
B
C
D
E
F
G
H
I
J
K

A MAIN C.B

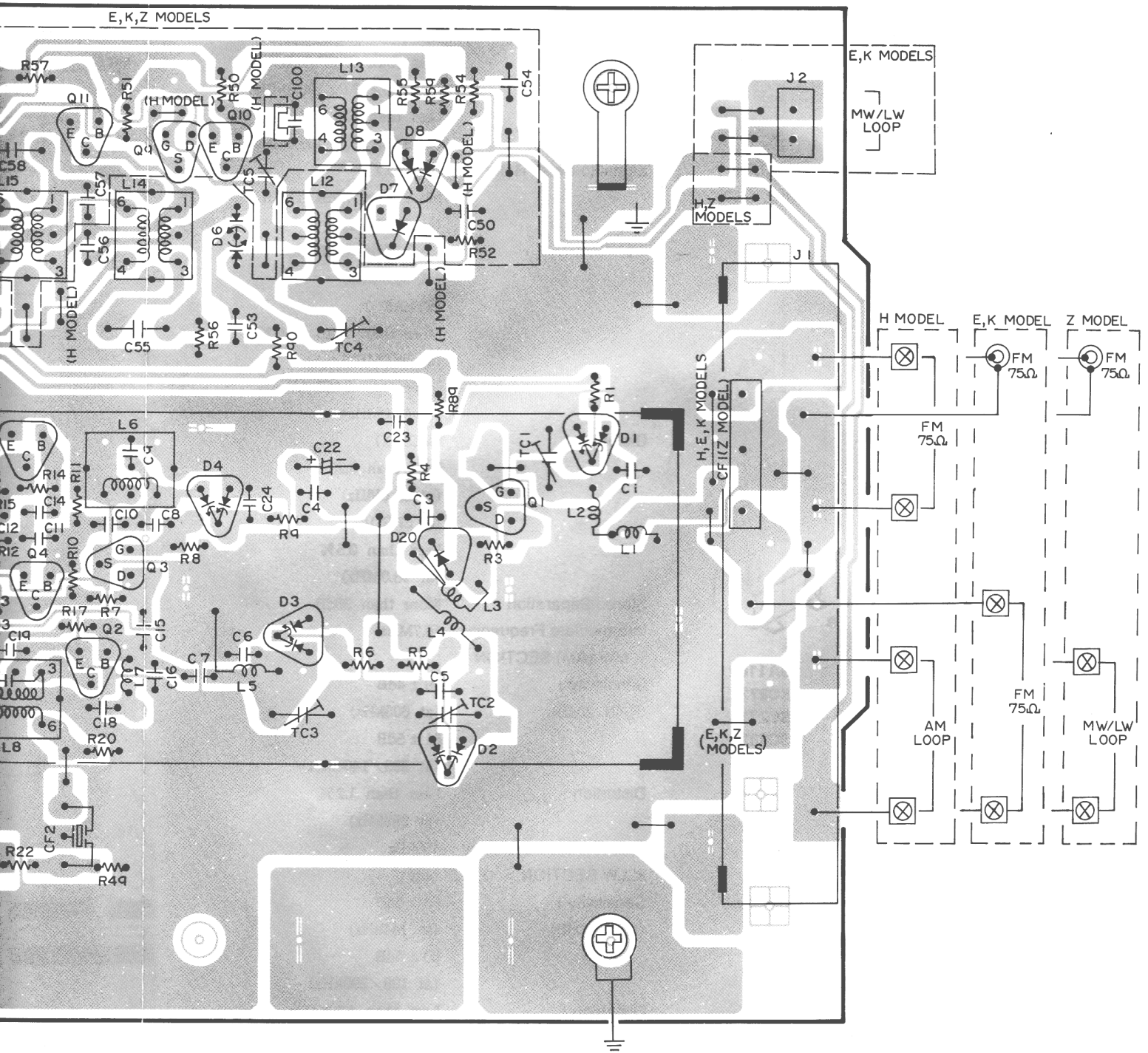


To **B** FRONT C.B.
CNJ 1

To **C** POWER C.B., CNJ2



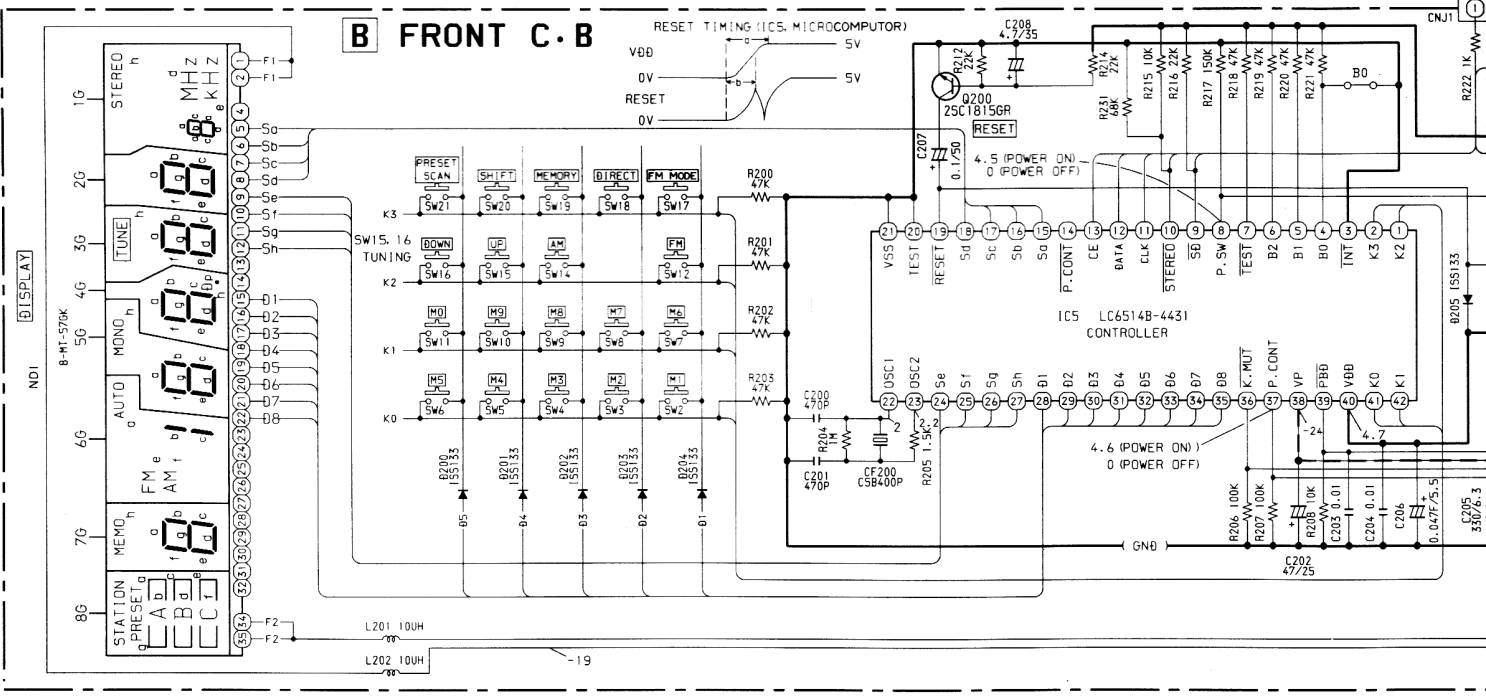
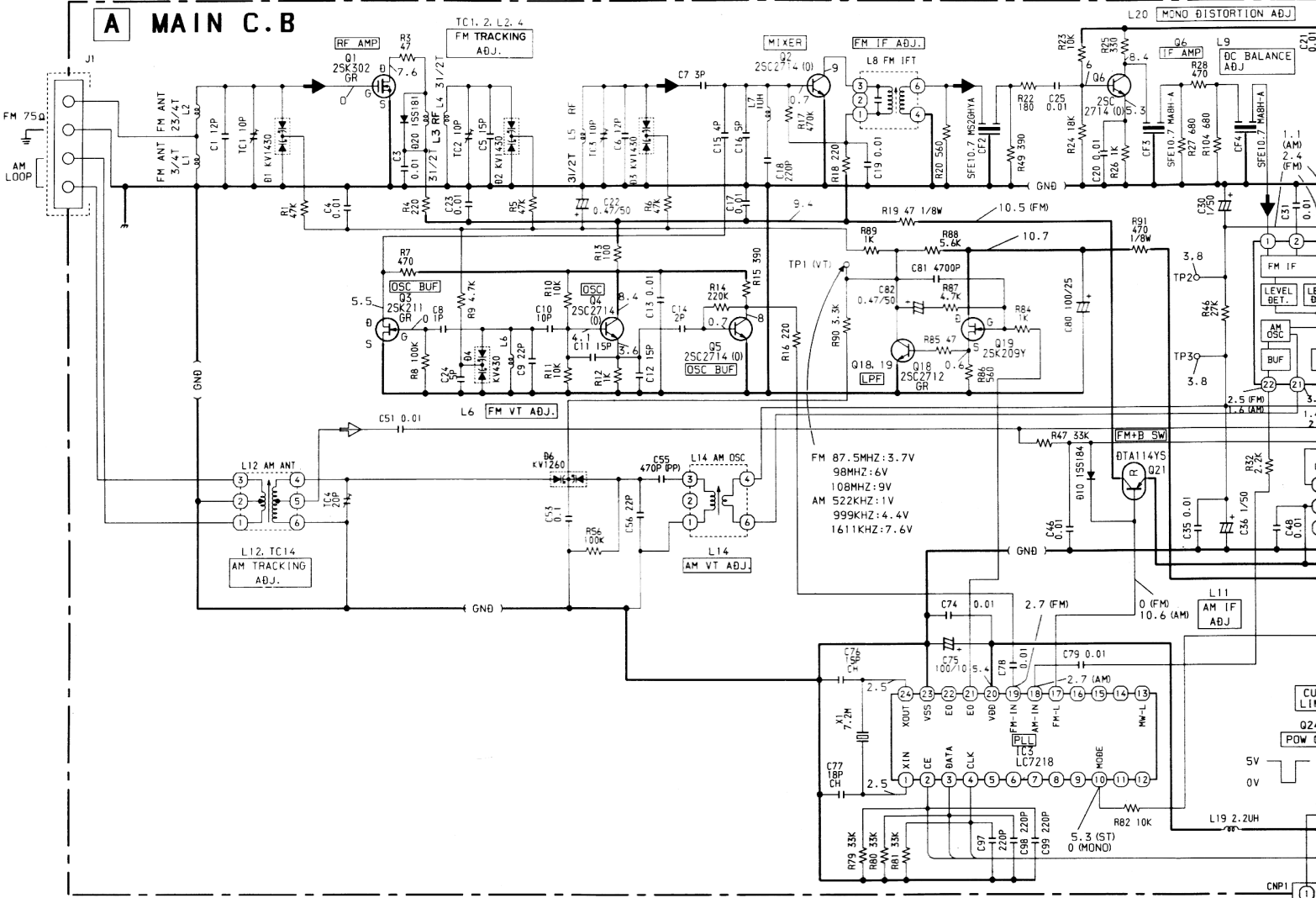
To [E] JACK C.B
CNJ3



GRAPHIC SYMBOLS PRINTED CIRCUIT BOARD OF ELECT. CAP. ARE DESIGNED AS NEGATIVE POLE.

(プリント基板内のケミコンの極性表示は⊖表示です。)

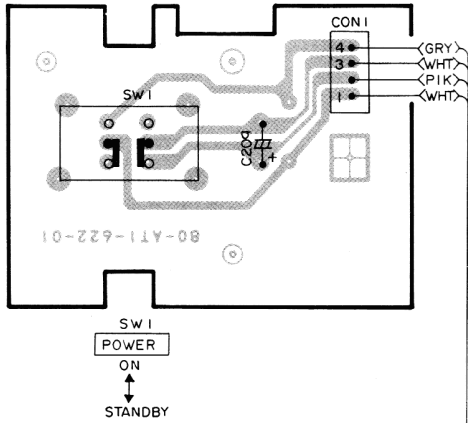
SCHEMATIC DIAGRAM - 1 (H MODEL)



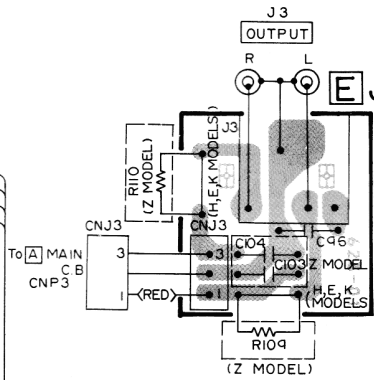
1 2 3 4 5 6 7 8

A
B
C
D
E
F
G
H
I
J
K

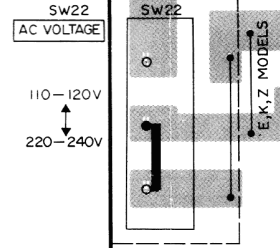
D SWITCH C.B



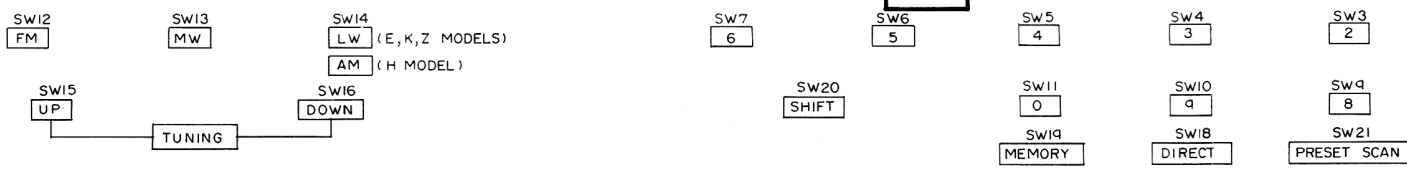
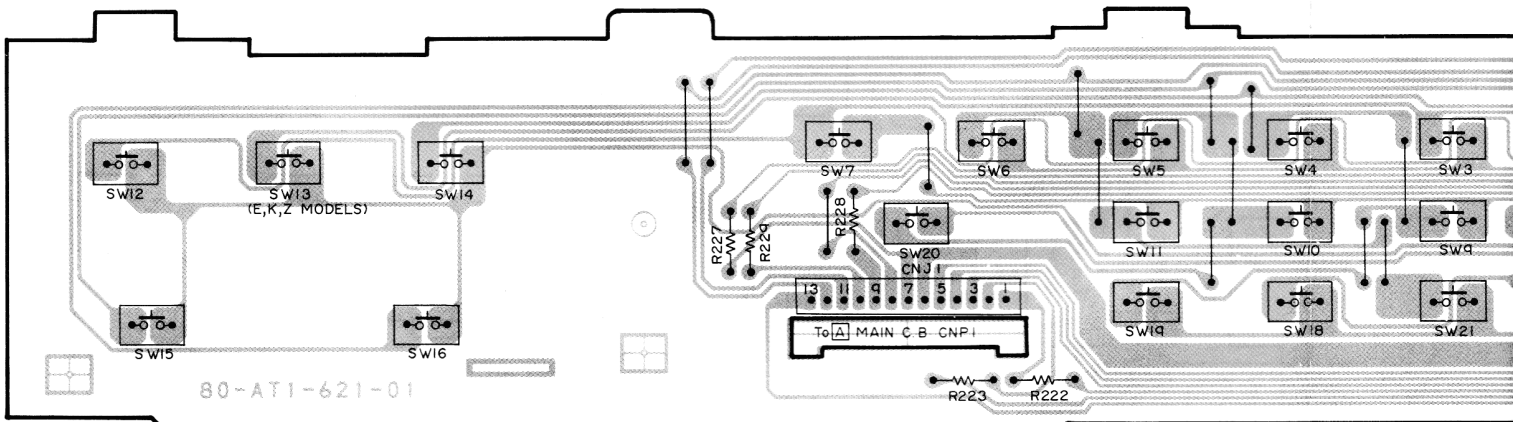
E JACK C.B



C POWER

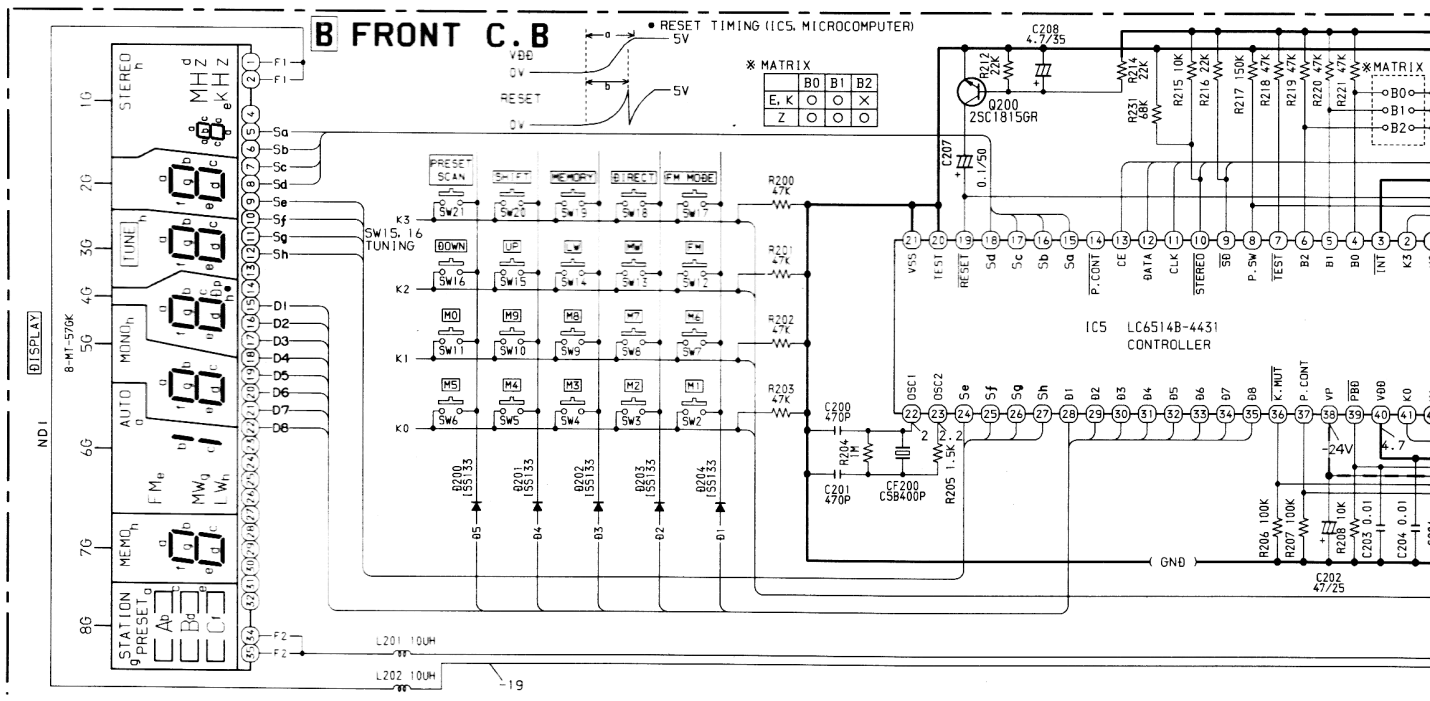
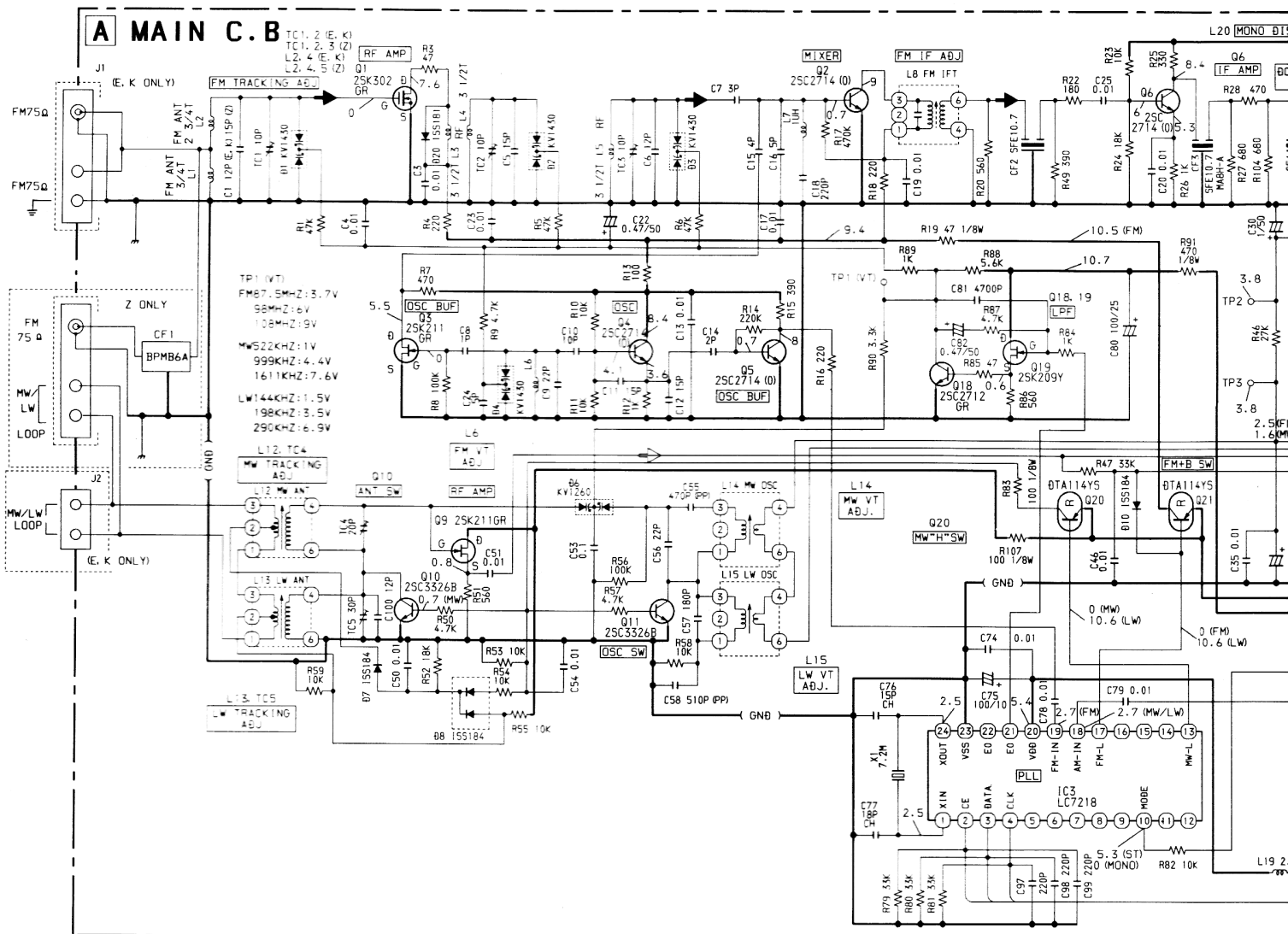


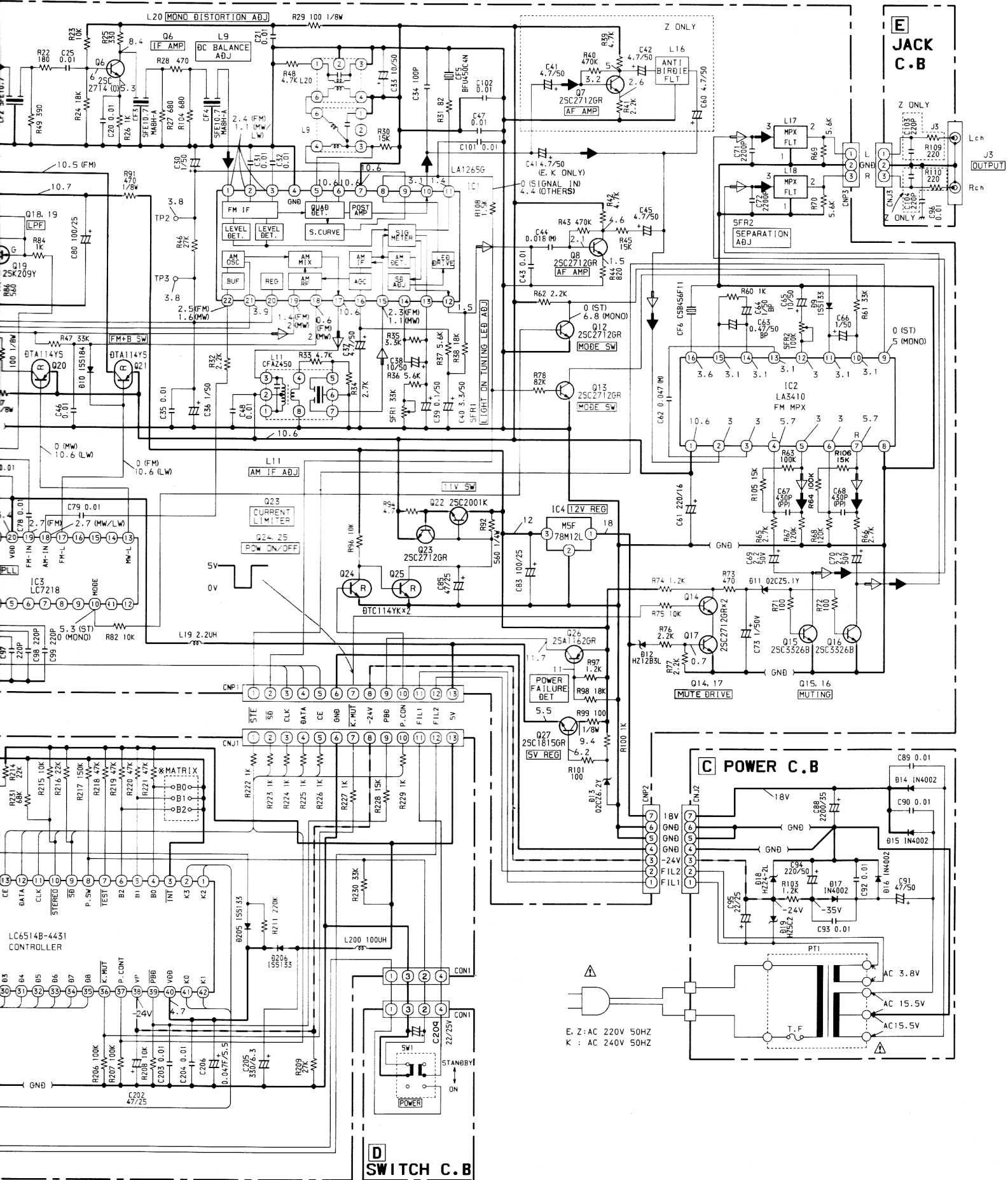
B FRONT C.B



GRAPHIC SYM
ELECT. CAP. A
(プリント基板内)

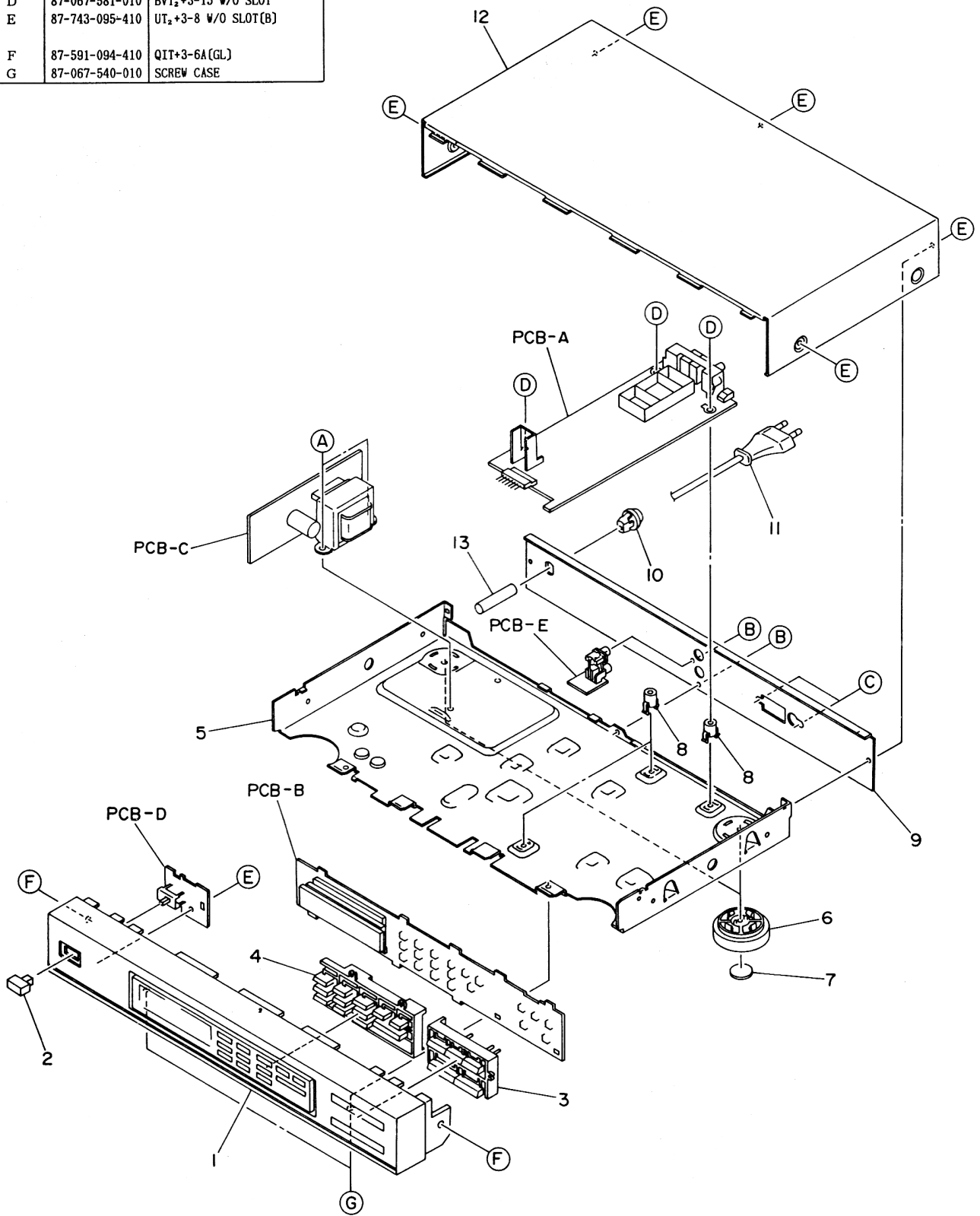
SCHEMATIC DIAGRAM - 2 (E,K,Z MODELS)





EXPLODED VIEW

REF.NO.	PART NO.	DESCRIPTION
A	87-067-585-010	BVT1+4-6
B	87-067-660-010	BVT ₂ +3-8 W/O SLOT(B)
C	87-067-761-010	BVT ₂ +3-10(B)
D	87-067-581-010	BVT ₂ +3-15 W/O SLOT
E	87-743-095-410	UT ₂ +3-8 W/O SLOT(B)
F	87-591-094-410	QIT+3-6A(GL)
G	87-067-540-010	SCREW CASE



MECHANICAL PARTS LIST

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q, TY
	1	*09-047-623-010	CABINET FRONT ASSY(H)	*	1
	1	*09-047-622-010	CABINET FRONT ASSY(E,K,Z)	*	1
	2	*84-721-023-010	BUTTON,POWER	*	1
	3	*80-AT1-008-019	KEY,BAND(H)	*	1
	3	*80-AT1-006-019	KEY,BAND(E,K,Z)	*	1
	4	*80-AT1-005-019	KEY,PRESET	*	1
	5	---	CHASSIS,MAIN		1
	6	*80-DS3-014-119	FOOT,REAR ST		2
	7	*80-DS3-206-019	G-CUSHION,DIA 15-1		2
	8	*81-664-202-010	HOLDER,PCB		3
	9	*80-AT1-004-019	PANEL,REAR(H)	*	1
	9	*80-AT1-012-019	PANEL,REAR(HJ)	*	1
	9	*80-AT1-009-019	PANEL,REAR(E)	*	1
	9	*80-AT1-010-019	PANEL,REAR(K)	*	1
	9	*80-AT1-011-019	PANEL,REAR(Z)	*	1
	10	87-085-185-010	BUSHING,AC CORD(EXCEPT FOR HJ)		1
	10	87-085-184-010	BUSHING,AC CORD(HJ)		1
	11	82-187-797-019	AC CORD(H)		1
	11	87-034-749-010	AC CORD(HJ)		1
	11	87-034-781-018	AC CORD(E,Z)		1
	11	87-034-592-018	AC CORD(K)		1
	12	*80-AT1-003-019	CABINET,STEEL	*	1
	13	*87-830-816-019	TUBE,UL 8PH1-160		1

■ ACCESSORIES/PACKAGE LIST

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q, TY
	1	★ 80-AT1-901-019	INSTRUCTION BOOKLET, H (H)	※	1
	1	★ 80-AT1-902-018	INSTRUCTION BOOKLET, E,K,Z (E,K,Z)	※	1
	2	★ 81-653-645-010	AM-LOOP ANT (6T) NC (H,Z)		1
	2	★ 81-653-647-010	AM-LOOP ANT (6T) CON (E,K)		1
	3	★ 81-748-632-010	FEEDER ANT,FM N (EXCEPT Z)		1
	4	★ 87-042-062-010	PLUG, ADAPTOR S-16115 (H)		1
	5	★ 87-032-845-019	PLUG, CONVERSION (HJ)		1
	6	★ 87-034-773-010	PIN CORD R-237W-1M		1