

# SERVICE MANUAL

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COLOR TELEVISION

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- This Service Manual contains information about the difference between TV-AN145(NH1AL) and TV-AN145(NH).  
If requiring other information, see Service Manual of TV-AN145/AS205(NH), (S/M Code No. 09-99A-416-1R1).

**aiwa**  
S/M Code No. 09-00B-416-2S3

SUPPLEMENT  
DATA

## SPECIFICATIONS

<b>Tuner System</b>	Frequency synthesized tuner
<b>TV System</b>	NTSC-M
<b>Channel Coverage</b>	VHF: 2 to 13 UHF: 14 to 69 CATV: 5A, A-1 to A-5, A to W, W+1 to W+84
<b>Program Memory</b>	181
<b>Antenna Input</b>	75 ohms, unbalanced
<b>Picture Tube</b>	13"
<b>Screen Size</b>	208 (W) X 211 (H) mm (11 <sup>1</sup> / <sub>8</sub> X 8 <sup>3</sup> / <sub>8</sub> in.) 335 mm (diagonal) (13 <sup>1</sup> / <sub>4</sub> in.)
<b>Video Input</b>	1 Vp-p 75 ohms
<b>Audio Input</b>	0.5 Vrms., 33 kohms more
<b>Speaker</b>	103 X 45mm (4 <sup>1</sup> / <sub>8</sub> X 1 <sup>13</sup> / <sub>16</sub> in.)
<b>Operating Voltage</b>	120 V AC, 60 Hz
<b>Power Consumption</b>	67 W
<b>Phone Jack</b>	Stereo-mini jack
<b>Operating Temperature</b>	5 °C – 40 °C
<b>Operating Humidity</b>	35 % – 80 %
<b>Dimensions</b>	440 (W) X 320 (H) X 371 (D) mm (17 <sup>3</sup> / <sub>8</sub> X 12 <sup>5</sup> / <sub>8</sub> X 14 <sup>5</sup> / <sub>8</sub> in.)
<b>Weight</b>	10 kg (22 lbs.)

- Design and specifications are subject to change without notice.

## ACCESSORIES / PACKAGE LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-JBG-901-310	IB,NH (E/S)	AN145-D
2	87-A90-702-010	ANT ASSY,TV 5 SEC	(NTSC)
3	8Z-JBJ-953-010	RC UNIT,RC-ZVT10	

# ELECTRICAL MAIN PARTS LIST

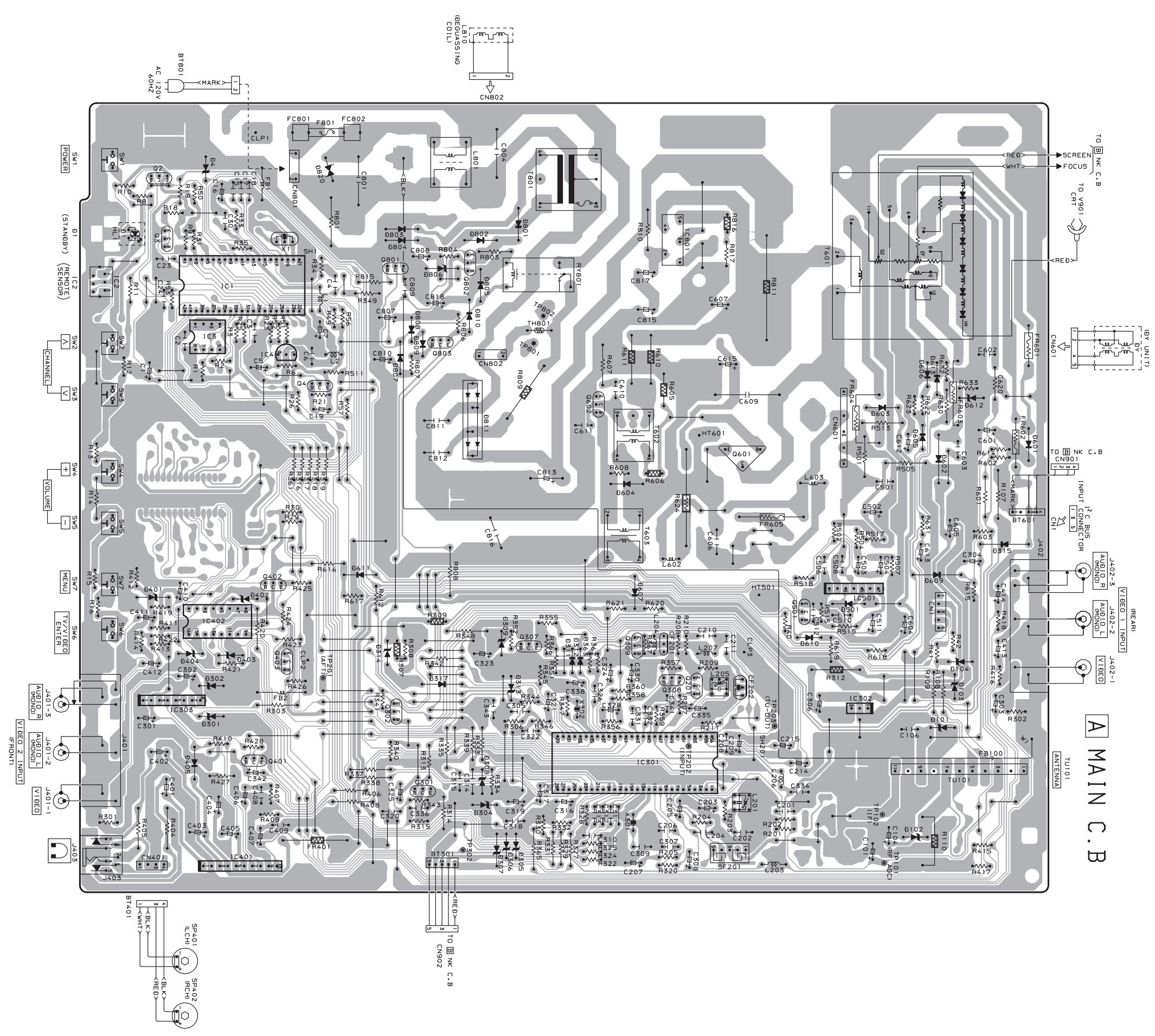
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
<b>IC</b>				C210	87-018-115-080		CAP, CER 47P-50V
	8Z-JBH-622-010		IC,M37272M8-183SP	C211	87-018-115-080		CAP, CER 47P-50V
	87-A91-538-010		RCR UNIT, SBX1981-72P	C214	87-A12-086-080		CAP,E 0.47-50 SMG
	87-A21-433-010		IC,KS24C041I	C215	87-A12-086-080		CAP,E 0.47-50 SMG
	87-A20-611-080		IC,M51943BSL-700A	C301	87-010-033-080		CAP,E 10-16 M BK
	87-A21-239-010		IC,TA1201CN	C302	87-010-033-080		CAP,E 10-16 M BK
	87-A21-788-010		IC,KIA7809API	C303	87-010-033-080		CAP,E 10-16 M BK
	87-002-421-010		IC,NJM2233BL	C304	87-A12-091-080		CAP,E 10-50 SMG
	87-A21-090-010		IC,LA4600	C305	87-018-134-080		CAPACITOR,TC-U 0.01-16
	87-027-666-010		IC,TC4052BP	C306	87-A12-062-080		CAP,E 100-10 SMG
	87-070-237-010		IC,LA7832	C307	87-A10-299-080		CAP,M 0.022-50 J
	87-A21-290-010		IC,STR30110	C308	87-A12-086-080		CAP,E 0.47-50 SMG
<b>TRANSISTOR</b>				C309	87-018-147-080		CAP,TC-U 10P-50 CH
	87-026-269-080		TR,DTA114ES	C310	87-018-119-080		CAP, CER 100P-50V
	89-327-854-080		TR,2SC2785F	C311	87-018-209-080		CAP, CER 0.1-50V
	89-111-755-080		TR,2SA1175F	C312	87-018-209-080		CAP, CER 0.1-50V
	89-110-154-080		TR,2SA1015Y	C313	87-018-209-080		CAP, CER 0.1-50V
	87-026-245-080		TR,DTC114ES	C314	87-018-134-080		CAPACITOR,TC-U 0.01-16
	87-A30-176-010		TR,2SC1573A P/Q/R	C315	87-018-131-080		CAP, CER 1000P-50V
	89-320-012-080		TR,2SC2001L	C316	87-A10-378-080		CAP,E 2.2-50 K SH
	89-418-771-060		TR,2SD1877	C317	87-A12-088-080		CAP,E 2.2-50 SMG
<b>DIODE</b>				C318	87-018-134-080		CAPACITOR,TC-U 0.01-16
	87-017-931-080		ZENER,MTZJ5.6B	C319	87-016-251-080		CAP,E 220-16 SMG
	87-002-743-080		ZENER,MTZJ33B	C320	87-018-196-080		CAP, CER 1500P-16V
	87-070-136-080		ZENER,MTZJ5.1B	C321	87-A12-090-080		CAP,E 4.7-50 SMG
	87-A40-523-080		ZENER,MTZJ9.1B	C323	87-010-379-080		CAP,E 22-16 M 11L SMG
	87-A40-348-080		ZENER,MTZJ3.3A	C324	87-A12-086-080		CAP,E 0.47-50 SMG
	87-A40-611-080		ZENER,MTZJ3.9B	C325	87-A12-086-080		CAP,E 0.47-50 SMG
	87-020-465-080		DIODE,1SS133 (110MA)	C328	87-010-033-080		CAP,E 10-16 M BK
	87-A40-520-080		ZENER,MTZJ11B	C330	87-A12-087-080		CAP,E 1-50 SMG
	87-A40-286-080		DIODE,RGP10JE-5025	C332	87-018-134-080		CAPACITOR,TC-U 0.01-16
	87-070-274-080		DIODE,1N4003 SEM	C334	87-018-134-080		CAPACITOR,TC-U 0.01-16
	87-A40-328-010		DIODE,GBU4JL	C335	87-A10-918-080		CAP,E 100-16 SMG
	87-A40-824-090		DIODE,RU3LFB1	C336	87-018-209-080		CAP, CER 0.1-50V
	87-A40-444-080		ZENER,MTZJ20B	C338	87-A12-086-080		CAP,E 0.47-50 SMG
<b>MAIN C.B</b>				C342	87-A12-087-080		CAP,E 1-50 SMG
BT301	87-JBC-625-010		CONN ASSY,5P V WHT TV-NK	C343	87-018-131-080		CAP, CER 1000P-50V
BT401	8Z-JBW-602-110		CONN ASSY,4P V W SP20	C344	87-018-109-080		CAP,TC U 22P-50 J SL
BT601	87-JBC-626-010		CONN ASSY,4P V WHT TV-NK	C401	87-012-068-080		CAP,E 470-16 SMG
C1	87-010-033-080		CAP,E 10-16 M BK	C402	87-A12-068-080		CAP,E 470-16 SMG
C2	87-018-134-080		CAPACITOR,TC-U 0.01-16	C403	87-A12-068-080		CAP,E 470-16 SMG
C3	87-018-134-080		CAPACITOR,TC-U 0.01-16	C404	87-A10-918-080		CAP,E 100-16 SMG
C4	87-018-196-080		CAP, CER 1500P-16V	C405	87-A12-090-080		CAP,E 4.7-50 SMG
C5	87-A12-087-080		CAP,E 1-50 SMG	C406	87-A12-084-080		CAP,E 0.22-50 SMG
C7	87-A12-063-080		CAP,E 220-10 SMG	C407	87-A12-084-080		CAP,E 0.22-50 SMG
C15	87-018-123-080		CAP, CER 220P-50V	C410	87-010-033-080		CAP,E 10-16 M BK
C16	87-A12-087-080		CAP,E 1-50 SMG	C411	87-010-033-080		CAP,E 10-16 M BK
C17	87-018-131-080		CAP, CER 1000P-50V	C412	87-010-033-080		CAP,E 10-16 M BK
C18	87-018-128-080		CAP,TC U 560P-50 K B UP050	C413	87-010-033-080		CAP,E 10-16 M BK
C19	87-A12-083-080		CAP,E 0.1-50 SMG	C414	87-010-033-080		CAP,E 10-16 M BK
C23	87-018-123-080		CAP, CER 220P-50V	C502	87-A10-831-080		CAP,E 1000-25 M SMG
C24	87-018-131-080		CAP, CER 1000P-50V	C503	87-A12-087-080		CAP,E 1-50 SMG
C101	87-A12-090-080		CAP,E 4.7-50 SMG	C504	87-A12-087-080		CAP,E 1-50 SMG
C104	87-A12-063-080		CAP,E 220-10 SMG	C508	87-A10-469-080		CAP,CER 2200P-500 K B DD10
C201	87-018-134-080		CAPACITOR,TC-U 0.01-16	C510	87-018-131-080		CAP, CER 1000P-50V
C202	87-018-134-080		CAPACITOR,TC-U 0.01-16	C511	87-A12-079-080		CAP,E 100-35 SSL
C203	87-A12-086-080		CAP,E 0.47-50 SMG	C512	87-018-127-080		CAP,TC U 470P-50 K B UP050
C204	87-018-134-080		CAPACITOR,TC-U 0.01-16	C601	87-016-373-080		CAP,E 10-250 SSL
C205	87-A12-068-080		CAP,E 470-16 SMG	C603	87-010-974-080		CAP,CER 220P-500 K B DD10
C206	87-A10-287-080		CAP,M 2200P-50 J	C604	87-010-396-080		CAP,E 470-35 SME
C207	87-A12-086-080		CAP,E 0.47-50 SMG	C605	87-A10-831-090		CAP,E 1000-25 M SMG
C208	87-018-134-080		CAPACITOR,TC-U 0.01-16	C606	8Z-JBH-625-010		CAP,M/P 0.39-250 J A TYPE
C209	87-A12-066-080		CAP,E 47-16 SMG	C607	87-A11-320-090		CAP,E 47-160 M 105 YXA
				C608	87-012-397-010		CAP,CER 1000P-2K K BN DE
				C609	87-A11-169-010		CAP,M/P 5600P-1.6K J DKR
				C610	87-010-974-080		CAP,CER 220P-500 B
				C611	87-010-974-080		CAP,CER 220P-500 B
				C612	87-010-033-080		CAP,E 10-16 M BK
				C613	87-A12-088-080		CAP,E 2.2-50 SMG
				C615	87-016-215-080		CAP,E 1-160 M TWSS

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
△ C801	87-A10-374-010		CAP,M/P 0.1-275 K RMR	R307	87-025-427-080		RES,M/F 27K-1/6W F
△ C804	87-A10-374-010		CAP,M/P 0.1-275 K RMR	R309	87-025-425-080		RES,M/F 12K-1/6W F
C807	87-A10-831-090		CAP,E 1000-25 M SMG	R312	87-A00-356-090		RES,M/F 22-2W J RSS2X
C808	87-A12-071-080		CAP,E 47-25 SMG	R606	8Z-JBH-628-080		RES,M/F 0.47-1/2W K ERX 12SJ
C809	87-018-209-080		CAP, CER 0.1-50V	R610	87-A00-561-090		RES,M/F 4.7K-2W J ERGS
C810	87-010-405-080		CAP,E 10-50M 1LL SME	R611	87-A00-123-090		RES,M/F 3.9K-2W J RSI-2SB
C811	87-A10-867-090		CAP,CER 2200P-2K K R	R624	87-A00-668-090		RES,FUSE 180-2W J RF2S
△ C812	87-A10-867-090		CAP,CER 2200P-2K K R	R801	8Z-JBH-629-080		RES,SD 2.2M-1/2W K ERC 12UG
C813	87-016-094-010		CAP,E 470-200 M SMH	R809	87-A00-277-090		RES,CEM 2.2-10W J RGC
C815	87-A11-319-080		CAP,E 22-160 M 105 YXA	R811	87-A00-189-010		RES,CEM 220-15W J ZY
△ C816	87-012-388-010		CAP,CER 2200P-125 UL	R816	87-025-425-080		RES,M/F 12K-1/6W F
C817	87-A11-319-080		CAP,E 22-160 M 105 YXA	△ RY801	87-A90-358-010		RELAY,12V LK1AF
C818	87-A10-831-090		CAP,E 1000-25 M SMG	SF201	8Z-JBH-633-010		FLTR,SAW M1969-US
CF201	84-LB3-626-010		FLTR,TPS4.5MB2	SW1	87-A90-712-080		SW,TACT EVQ11L07K
CF202	87-008-574-080		FLTR,SFSH4.5MCB	SW2	87-A90-712-080		SW,TACT EVQ11L07K
CN1	87-009-195-010		CONN,5P B5BEH	SW3	87-A90-712-080		SW,TACT EVQ11L07K
CN401	87-049-469-010		CONN,4P V WHT EH	SW4	87-A90-712-080		SW,TACT EVQ11L07K
△ CN601	87-A60-933-010		CONN,4P V B04(5-3)B-DVS-L	SW5	87-A90-712-080		SW,TACT EVQ11L07K
△ CN801	87-099-674-010		CONN,2P VA V	SW6	87-A90-712-080		SW,TACT EVQ11L07K
△ CN802	82-481-649-010		PLUG,2P MINI (*)	SW7	87-A90-712-080		SW,TACT EVQ11L07K
D1	87-070-110-010		LED,SLP-181B-51 RED	△ T601	8Z-JBH-604-010		FBT,MSU1FVR508
△ D820	8Z-JBH-606-010		VRIS,TNR15G271K	△ T602	8Z-JBH-615-010		TRANS,US ETH09K10AZ
△ F801	87-035-489-010		FUSE,4A125V D UL	△ T603	8Z-JBH-612-010		FLTR,PULSE ELF15N005A
FB1	8Z-JBH-635-080		COIL,CORE BL01RN1-A62	△ T801	8Z-JBH-614-010		PT,US TP8155T
FB2	8Z-JBH-635-080		COIL,CORE BL01RN1-A62	△ TH801	87-A90-996-010		POS-THMS,S1481-B50-A10
△ FB100	8Z-JBH-636-010		F-BEAD,2.7-5.5-4 FSOB060	TU101	8Z-JBE-610-010		TU UNIT,USA ENV56D74G3
△ FC801	87-A90-160-080		FUSE CLAMP,FC 51F	X1	87-030-212-080		CERA LOCK CST8.0M
FC802	87-A90-160-080		FUSE CLAMP,FC 51F	X301	87-A70-007-080		VIB,XTAL 3.58MHZ AQC-1001
FR401	87-A00-492-090		RES,FUSE 6.8-8W J	X302	87-030-327-010		VIB,CER 503.500KHZ CSB F30
FR601	87-A00-063-060		RES,FUSE 2.2-1/2W J R-TYPE				
FR602	87-A00-477-090		RES,FUSE 1.8-1W J	NK C.B			
FR603	87-A00-056-060		RES,FUSE 1.5-2W J R-TYPE	BT903	84-LB3-693-210		CONN ASSY,1P CRT GND
FR604	87-A00-050-060		RES,FUSE 2.2-1W J R-TYPE	C901	87-A10-833-090		CAP,CER 1000P-2K K R
FR605	87-029-175-060		RES FUSE,2.2K-1/2W J RF2S	C902	87-018-124-080		CAP,TC U 270P-50 K B
HL1	84-LB3-216-010		HLDR,LED	C903	87-018-124-080		CAP,TC U 270P-50 K B
J401	87-A60-322-110		JACK,PIN 3P Y-W-R W/SW	C904	87-018-124-080		CAP,TC U 270P-50 K B
J402	8Z-JBH-616-010		JACK,PIN 3P Y	C907	87-A12-068-080		CAP,E 470-16 SMG
J403	87-A60-420-010		JACK,3.5 ST (MSC)	C908	87-A12-066-080		CAP,E 47-16 SMG
L1	87-003-147-080		COIL,22UH J LAL02	CN901	87-049-469-010		CONN,4P V
L2	87-005-614-080		COIL 100UH LAV35 J	CN902	87-009-033-010		CONNECTOR, 5P
L201	8Z-JBR-612-010		COIL,SIF 4.5MHZ 504BN	CN903	87-A60-485-010		CONN,2P V LV GRA
L203	87-003-148-080		COIL BIAS 33UH	L901	87-005-615-080		COIL,120UH J LAV35
L204	87-003-282-080		COIL,12UH	R904	87-A00-165-090		RES,M/F 15K-2W J RSF(S)
L205	8Z-JBH-610-010		COIL,PIF-SQ57EL349A 45.75MHZ	R905	87-A00-165-090		RES,M/F 15K-2W J RSF(S)
L206	87-005-612-080		COIL,68UH J LAV35	R906	87-A00-165-090		RES,M/F 15K-2W J RSF(S)
L602	87-A50-040-010		COIL,2.2MH	S901	8Z-JB4-670-010		SOCKET,CRT 9P CVT3327 1603
△ L603	8Z-JBG-605-010		COIL,220UH K ELC18B221L				
△ L801	8Z-JBH-613-010		FLTR,LINE ELF18N016A				
R107	87-A00-331-090		RES,M/F 27K-2W J RSF(S)				
R110	87-A00-160-090		RES,M/F 33-2W J RSF(S)				

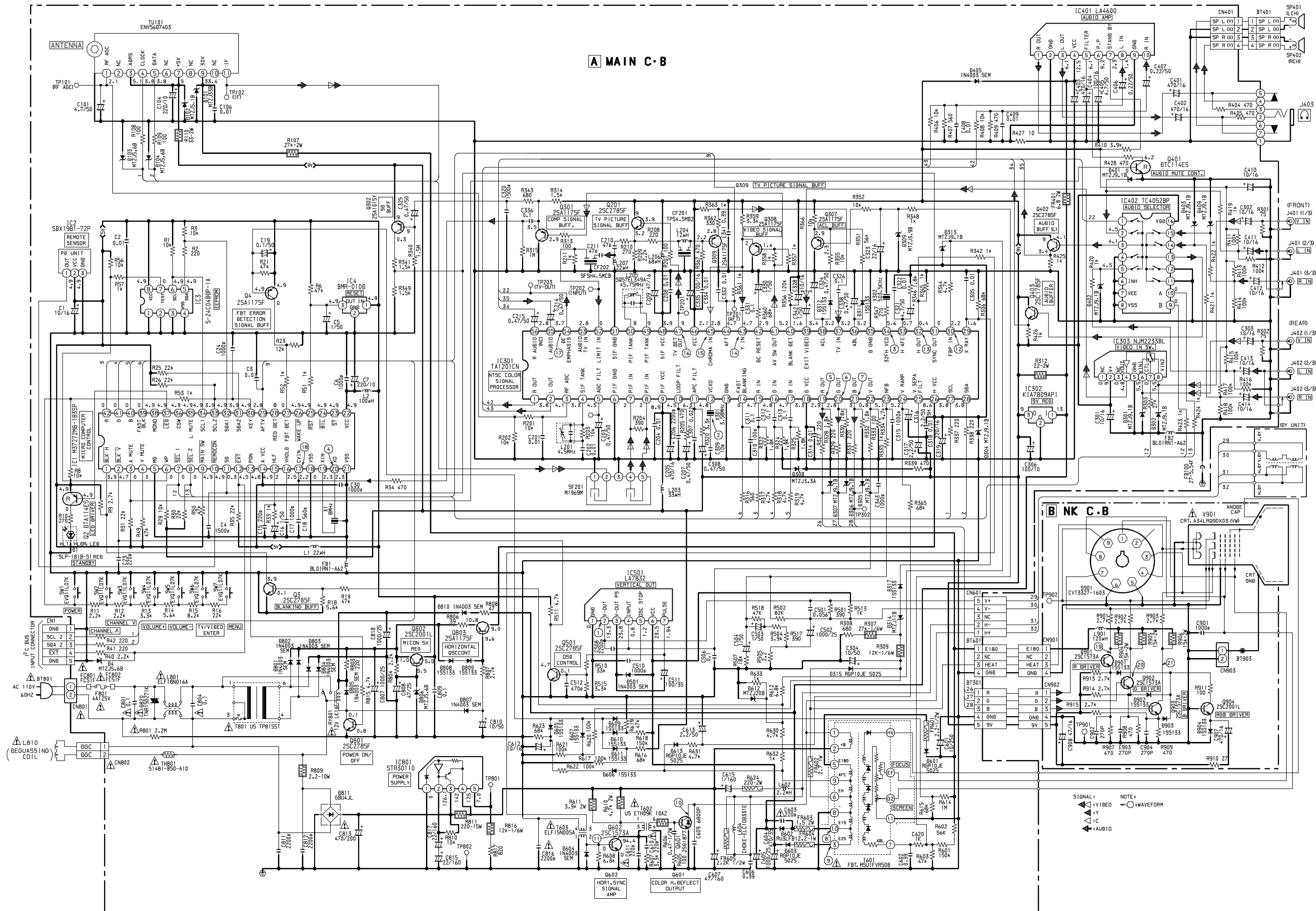
WIRING - 1 ( MAIN )

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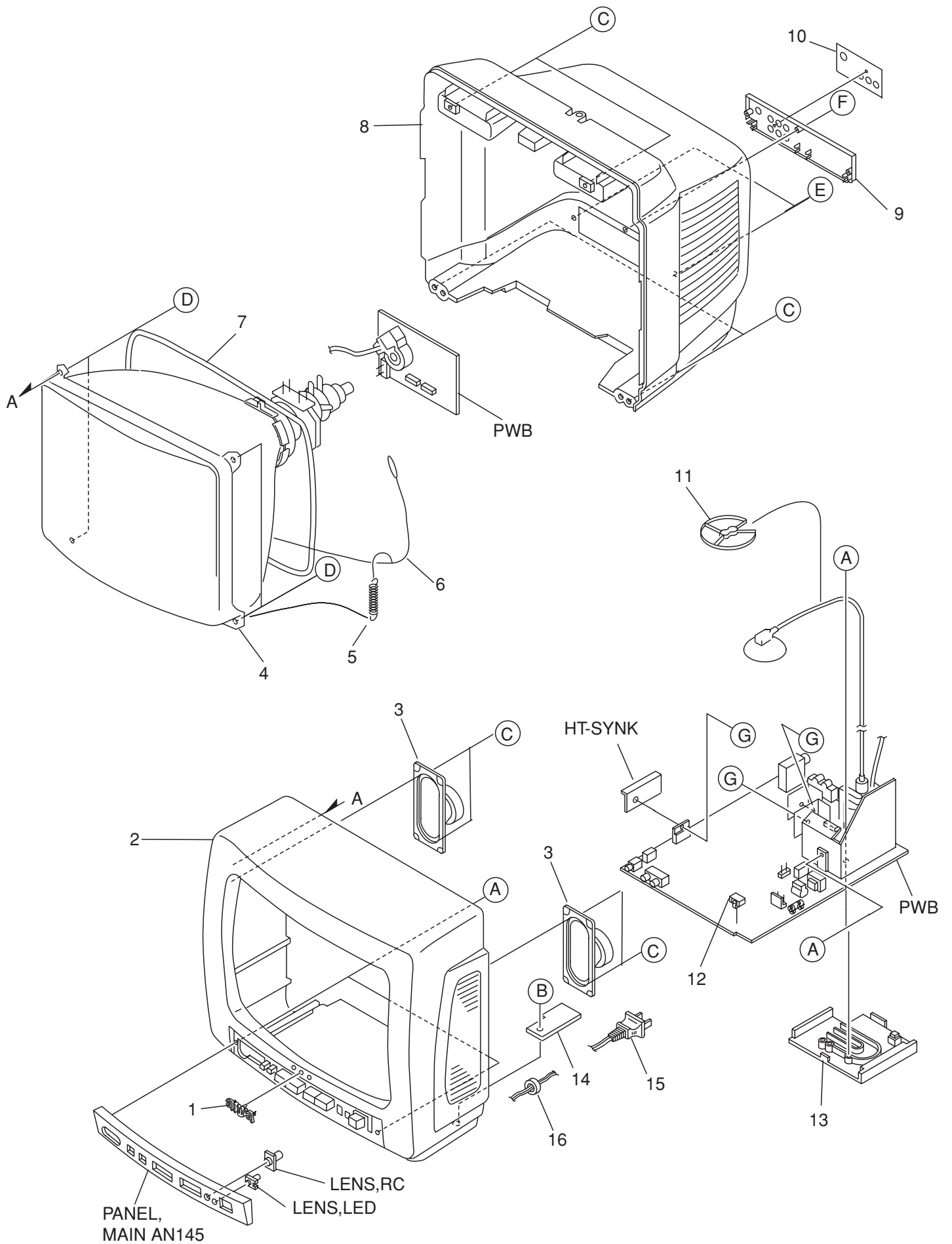
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SCHEMATIC DIAGRAM (MAIN / NK)



MECHANICAL EXPLODED VIEW 1 / 1



# MECHANICAL PARTS LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
	1 87-054-087-010		BADGE,AIWA 40
	2 8Z-JBG-001-010		CABI,FR ASSY AN145
	3 87-A91-412-010		SPKR,F 4*10 8OHM 5W S0410J06
△	4 8Z-JBG-610-010		CRT,A34LRQ90X03 (VW)
	5 84-LB3-205-010		SPR-E,EARTH
△	6 84-LB3-693-310		CONN ASSY,1P CRT GND
	7 8Z-JBH-609-010		DGC,14'US
	8 86-LB6-005-510		CABI,REAR/A145KERJ
	9 86-LB6-010-210		PANEL,REAR
	10 8Z-JBE-009-010		PLATE,JACK UL
	11 87-A90-332-010		HLDL,SF-2001 HV CABLE
	12 84-LB3-216-010		HLDL,LED
	13 8Z-JBH-201-010		HLDL,FBT ST
	14 86-LBU-201-010		HLDL,AC CORD
△	15 87-JBC-628-010		AC CORD SET,NH BLK
	16 8Z-JBH-636-010		F-BEAD,2.7-5.5-4 FSOB060
A	87-067-680-010		BVI T3+3-10
B	87-067-758-010		BVT2+3-12 W/O SLOT
C	87-067-844-010		BVT2+4-16 BLK
D	87-078-203-110		S-SCREW,W5-25
E	87-067-690-010		TAPPING SCREW, BVIT3+3-12
F	87-067-761-010		TAPPING SCREW, BVT2+3-10
G	87-067-579-010		TAPPING SCREW, BVT2+3-8

## COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange	GM	Metallic Green
YM	Metallic Yellow	DM	Metallic Orange	PT	Transparent Pink
LA	Aqua Blue	GL	Light Green		



**アイワ株式会社** 〒110-8710 東京都台東区池之端1-2-11 ☎03(3827)3111 (代表)  
**AIWA CO.,LTD.** 2-11, IKENOHATA 1-CHOME, TAITO-KU, TOKYO 110, JAPAN TEL:03 (3827) 3111