

SERVICE MANUAL

COLOR TELEVISION

- This Service Manual contains information about the difference between TV-C142S (KEJ4C) and TV-C142 (KEJ2NP).
If requiring other information, see Service Manual of TV-C142 (KE).
(S/M Code No. 09-974-156-7FP)

SPECIFICATIONS

Category

Color television

Broadcasting color system

PAL (B/G, D/K), SECAM (B/G, D/K, K1)

Television color system (Video input)

PAL, SECAM, NTSC_{3.58}, NTSC_{4.43}, PAL60

Receivable channel

BAND	CHANNEL
VHF	E2- E12 (WEST EUROPE) R1-R12 (EAST EUROPE) 1-9 (IVORY COAST) S1-S20 (OSCAR CABLE CH) S21-S23 (HYPER CABLE CH)
UHF	E21-E69 (EUROPE) S24-S41 (HYPER CABLE CH)

Aerial Input

75 ohms, unbalanced

Picture Tube

14"

Screen size

280(W) x 335(D) x 211(H)mm
(11¹/₈ x 13¹/₄ x 8³/₈ in.)

Video Input/Output

1 Vp-p, 75 ohms

Audio Input

0.5 Vrms., 33 kohms more

Audio Output

0.5 Vrms., 2.2 kohms less

Speaker

76 mm (3 in.) round

Operating Voltage

220 – 240 VAC, 50/60 Hz

Power Consumption

70W

Earphone jack

Monaural-mini jack

Operating temperature

5°C – 40°C

Operating humidity

35% – 80%

Dimensions

378(W) x 363.5(D) x 320(H)mm
(15 x 14³/₈ x 12⁵/₈ in.)

Weight

9.5 kg (19.8 lbs.)

- Design and specifications are subject to change without notice.

ACCESSORIES / PACKAGE LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-LB7-912-010	IB, KE (ERAP) - C202S/C142S-C	
2	86-LB4-951-010	RC UNIT, RC-6VT06	
3	86-LB7-641-010	ANT ASSY, TV 5 SEC (PAL)	

ELECTRICAL MAIN PARTS LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC				C101	87-A12-087-080		CAP,E 1-50 SMG
	86-LB7-622-010		IC,M37221M6-286SP	C102	87-A12-072-080		CAP,E 100-25 SMG
	87-A21-133-080		IC,BMR-0101D	C103	87-A11-132-080		CAP,TC U 0.01-50 KB
	87-A21-377-010		IC,S-24C02BDP-1A	C104	87-018-119-080		CAP,CER 100P-50 V
	87-A20-371-080		IC,KA33V	C212	87-A12-087-080		CAP,E 1-50 SMG
	87-A20-436-010		IC,LA7565N				
	87-070-080-010		IC,TA8759BN	C213	87-A12-072-080		CAP,E 100-25 SMG
	87-027-938-010		IC,TC4053BP	C214	87-018-134-080		CAP,TC U 0.01-16 NY UP050
	87-070-117-010		IC,AN5265	C218	87-018-133-080		CAP,TC U 4700P-16 NX UP050
	87-070-237-010		IC,LA7832	C219	87-018-134-080		CAP,TC U 0.01-16 NY UP050
	87-A20-511-010		IC,STR-S6706-A (LF953)	C221	87-018-134-080		CAP,TC U 0.01-16 NY UP050
	87-A21-785-010		IC,KIA7812API	C222	87-018-121-080		CAP,TC U 150P-50 KB UP050
	87-A21-788-010		IC,KIA7809API	C223	87-A12-087-080		CAP,E 1-50 SMG
	87-020-881-080		IC,NJM78L05A	C225	87-018-119-080		CAP,TC U 100P-50 KB UP050
				C301	87-018-122-080		CAP,TC U 180P-50 KB UP050
				C302	87-018-122-080		CAP,TC U 180P-50 KB UP050
TRANSISTOR				C303	87-018-122-080		CAP,TC U 180P-50 KB UP050
	87-A30-065-080		TR,2SC2785FE	C307	87-018-209-080		CAP,TC U 0.1-50 ZF UP050
	87-026-218-080		TR,DTC144ES	C309	87-018-134-080		CAP,TC U 0.01-16 NY UP050
	87-A30-121-080		TR,DTC323TS	C310	87-018-134-080		CAP,TC U 0.01-16 NY UP050
	87-A30-066-080		TR,2SA1175FE	C311	87-018-209-080		CAP,TC U 0.1-50 ZF UP050
	87-A30-090-080		FET,2SK2541				
	84-LB2-699-080		TR,2SC945A(C) -T	C312	87-A12-086-080		CAP,E 0.47-50 SMG
	87-026-502-080		TR,DTC144TS	C313	87-018-134-080		CAP,TC U 0.01-16 NY UP050
	89-334-674-580		TR,2SC3467 (D/E)	C314	87-018-122-080		CAP,TC U 180P-50 KB UP050
	87-A30-051-010		TR,2SD2331	C315	87-018-107-080		CAP,TC U 18P-50 J SL UP050
	87-A30-114-080		TR,2SD1207TS	C316	87-018-131-080		CAP,TC U 1000P-50 KB UP050
DIODE				C320	87-010-529-080		CAP,E 1-50 M BP
	87-A40-291-080		DIODE,1N4148M (CPT)	C325	87-A12-087-080		CAP,E 1-50 M SMG
	87-A40-757-080		ZENER,UZ7.5BSC	C327	87-016-251-080		CAP,E 220-16 SMG
	87-A40-235-080		ZENER,MTZJ9.1C	C328	87-018-195-080		CAP,TC U 1200P-16 NX UP050
	87-070-274-080		DIODE,1N4003 SEM	C329	87-A12-087-080		CAP,E 1-50 SMG
	87-A40-286-080		DIODE,RGP10JE-5025				
⚠	87-A40-371-010		DIODE,D3SBA60-4101	C330	87-018-124-080		CAP,TC U 270P-50 KB UP050
⚠	87-070-111-060		DIODE,RU30A	C332	87-A12-089-080		CAP,E 3.3-50 SMG
	87-017-354-080		DIODE,RU3	C335	87-A10-918-080		CAP,E 100-16 SMG
	87-A40-001-080		ZENER,MTZJ12C	C336	87-018-134-080		CAP,TC U 0.01-16 NY UP050
				C339	87-018-116-080		CAP,CER 56P-50 V
MAIN C.B				C340	87-A12-086-080		CAP,E 0.47-50 SMG
BT301	86-LB7-691-010		CONN ASSY,5P TN-3	C341	87-A12-086-080		CAP,E 0.47-50 SMG
BT801	84-LB3-690-110		CONN ASSY,4P TN-1	C342	87-A12-086-080		CAP,E 0.47-50 SMG
C1	87-018-109-080		CAP,TC U 22P-50 J SL UP050	C344	87-A12-087-080		CAP,E 1-50 SMG
C2	87-018-109-080		CAP,TC U 22P-50 J SL UP050	C347	87-A12-090-080		CAP,E 4.7-50 SMG
C3	87-018-109-080		CAP,TC U 22P-50 J SL UP050				
C4	87-018-109-080		CAP,TC U 22P-50 J SL UP050	C348	87-018-134-080		CAP,TC U 0.01-16 NY UP050
C5	87-018-109-080		CAP,TC U 22P-50 J SL UP050	C349	87-018-134-080		CAP,TC U 0.01-16 NY UP050
C6	87-018-109-080		CAP,TC U 22P-50 J SL UP050	C350	87-018-123-080		CAP,TC U 220P-50 J B UP050
C7	87-018-127-080		CAP,TC U 470P-50 KB UP050	C351	87-A12-087-080		CAP,E 1-50 SMG
C8	87-018-123-080		CAP,TC U 220P-50 KB UP050	C352	87-A12-087-080		CAP,E 1-50 SMG
C9	87-018-134-080		CAP,TC U 0.01-16 NY UP050				
C10	87-010-762-080		CAP,E 220-10 M SME	C354	87-018-134-080		CAP,TC U 0.01-16 NY UP050
C11	87-A12-091-080		CAP,E 10-50 SMG	C356	87-018-122-080		CAP,TC U 180P-50 KB UP050
C12	87-018-119-080		CAP,TC U 100P-50 KB UP050	C357	87-A12-091-080		CAP,E 10-50 SMG
C13	87-A12-083-080		CAP,E 0.1-50 SMG	C358	87-A12-066-080		CAP,E 47-16 SMG
C14	87-018-115-080		CAP,CER 47P-50 V	C359	87-018-134-080		CAP,TC U 0.01-16 NY UP050
C15	87-018-119-080		CAP,CER 100P-50 V				
C16	87-018-131-080		CAP,CER 1000P-50 V	C360	87-A12-091-080		CAP,E 10-50 SMG
C20	87-018-131-080		CAP,CER 1000P-50 V	C361	87-A12-087-080		CAP,E 1-50 SMG
C21	87-018-125-080		CAP,CER 330P-50 V	C363	87-016-459-080		CAP,E 470-10 SMG
C23	87-A12-087-080		CAP,E 1-50 SMG	C364	87-A12-091-080		CAP,E 10-50 SMG
C25	87-A12-090-080		CAP,E 4.7-50 SMG	C370	87-010-379-080		CAP,E 22-16 M 11L SME
C26	87-A12-090-080		CAP,E 4.7-50 SMG				
C27	87-A12-087-080		CAP,E 1-50 SMG	C371	87-A12-090-080		CAP,E 4.7-50 SMG
C28	87-A12-087-080		CAP,E 1-50 SMG	C372	87-A12-090-080		CAP,E 4.7-50 SMG
C29	87-A12-090-080		CAP,E 4.7-50 SMG	C373	87-018-115-080		CAP,TC U 47P-50 J SL UP050
C30	87-018-134-080		CAP,TC U 0.01-16 NY UP050	C374	87-018-134-080		CAP,TC U 0.01-16 NY UP050
C40	87-018-131-080		CAP,TC U 1000P-50 KB UP050	C375	87-018-134-080		CAP,TC U 0.01-16 NY UP050
				C377	87-A12-071-080		CAP,E 47-25 SMG
				C378	87-A12-087-080		CAP,E 1-50 SMG
				C379	87-A12-090-080		CAP,E 4.7-50 SMG
				C381	87-A12-091-080		CAP,E 10-50 SMG
				C382	87-A12-091-080		CAP,E 10-50 SMG
				C399	87-A10-211-010		CAP,CER 0.1-50 M
				C401	87-A12-068-090		CAP,E 470-16 SMG
				C402	87-A12-086-080		CAP,E 0.47-50 SMG
				C403	87-A10-831-090		CAP,E 1000-25 SMG
				C404	87-A12-072-080		CAP,E 100-25 SMG

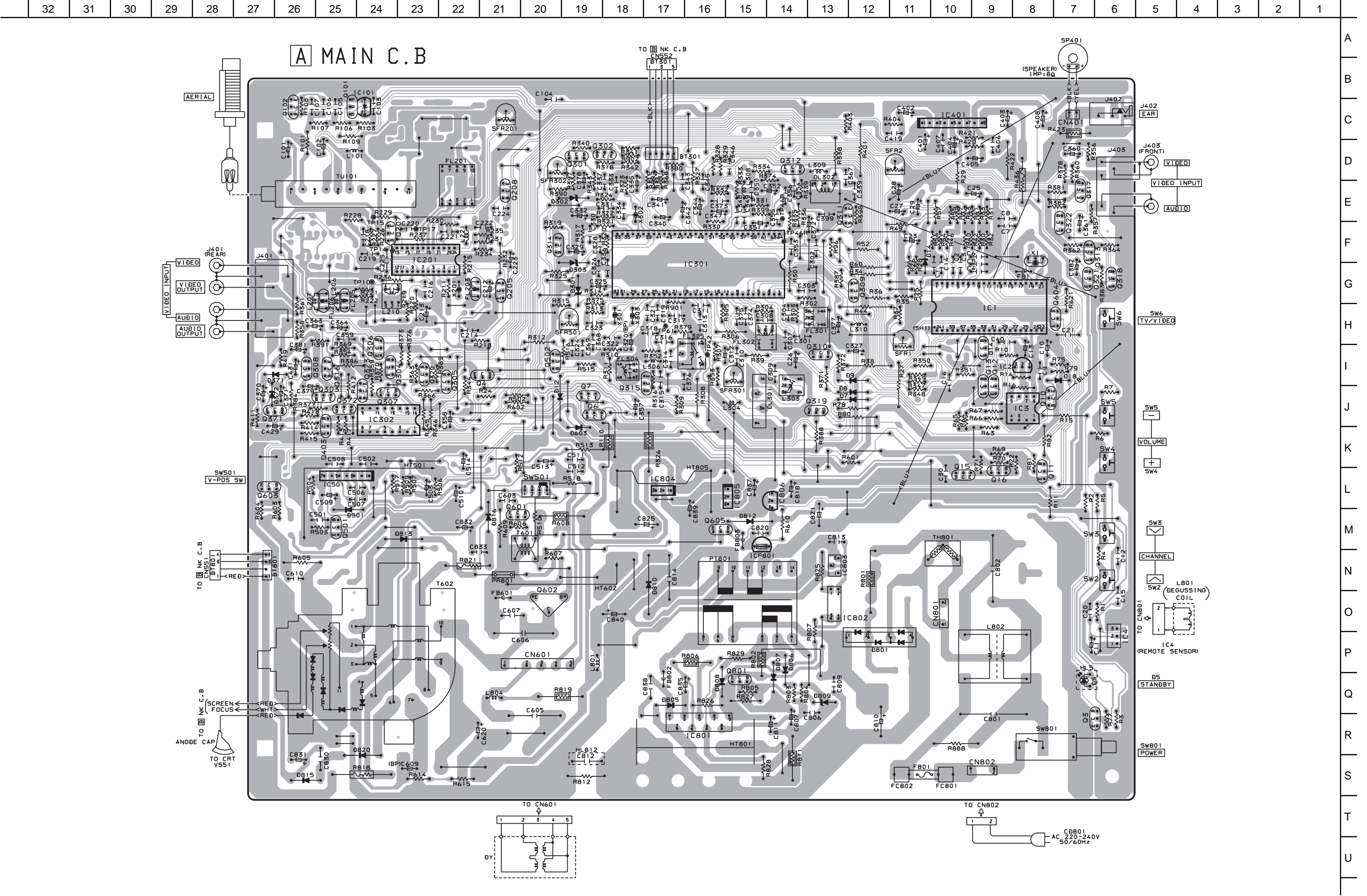
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C405	87-A12-090-080		CAP,E 4.7-50 SMG	IC4	87-A91-538-010		RCR UNIT,SBX1981-72P
C406	87-A10-210-010		CAP,CER 0.047-50 M	△ IC802	87-A30-096-010		P-COUPLER,TLP721F
C407	87-018-209-080		CAP,CER 0.1-50 V	IC803	87-A30-041-110		TR,SE115N
C408	87-A10-730-080		CAP,E 1000-16 SMG	△ ICP801	87-001-132-080		PROTECTOR,IC ICP-N38
C429	87-A12-091-080		CAP,E 10-50 SMG	J401	87-A60-323-010		JACK,PIN 4P Y-BLK
C431	87-A12-087-080		CAP,E 1-50 SMG	J402	87-A60-329-110		JACK,3.5 BLK MONO W/SW
C501	87-018-127-080		CAP,TC U 470P-50 KB UP050	J403	87-A60-370-010		JACK,PIN 2P BLK-Y W/SW
C502	87-018-134-080		CAP,TC U 0.01-16 NY UP050	L101	87-005-610-080		COIL,47UH J LAV35
C503	87-A12-087-080		CAP,E 1-50 SMG	L206	87-003-144-080		COIL,6.8UH K LAL02
C506	87-A10-408-080		CAP,CER 560P-500 K YP	L207	87-003-102-080		COIL,10UH K LAL02
C507	87-012-357-010		CAP,CER 47P-500 J CH DD10	L210	86-LB7-659-010		COIL,VCO3 38.0MHZ LA7565N
C508	87-018-131-080		CAP,TC U 1000P-50 KB UP050	L221	87-003-102-080		COIL,10UH
C509	87-A12-095-080		CAP,E 100-50 SMG	L303	82-JT2-608-010		FLTR,DL PHASE
C510	87-A12-080-080		CAP,E 220-35 SMG	L304	87-003-145-080		COIL,8.2UH K LAL02
C513	87-A10-831-090		CAP,E 1000-25 SMG	L306	87-005-611-080		COIL,56UH K LAL02
C514	87-A12-087-080		CAP,E 1-50 SMG	L308	87-003-147-080		COIL,22UH K LAL02
△ C603	87-A12-492-080		CAP,CER 1000P-500 KB Y5P	L309	87-003-286-080		COIL,56UH K LAL02
C605	87-A10-241-010		CAP,M/P 0.68-200 J DHS	L310	87-005-602-080		COIL,10UH J LAV35
C606	87-016-483-010		CAP,PP 8200P-1.6KJ DKR	L801	87-005-770-080		COIL,47UH 7607
C607	87-012-385-080		CAP,CER 330P-2K K BN DE	△ L802	87-A90-586-010		FLTR,LINE HL-28-153
C609	87-010-709-080		CAP,E 0.22-50 M(BP) SM	L804	82-226-689-080		COIL,2.2MH J TL08
C610	88-238-450-810		CAP,CER 150P-500	△ PR801	87-A90-090-080		PROTECTOR,1.5A 491 SERIES 60V
C620	87-A10-732-090		CAP,E 47-160 MSK	△ PT801	86-LB7-658-010		PT,KER S/W TRANS ("14")
△ C801	87-A10-470-010		CAP,M/P 0.22-275 M MKT140	R110	87-A00-164-090		RES,M/F 12K-2W J RSF(S)
△ C802	87-A10-470-010		CAP,M/P 0.22-275 M MKT140	R326	87-A00-067-090		RES,M/F 6.8K-3W J RSF(S)
C806	88-238-630-810		CAP,CER 1500P-500 B	R423	87-025-569-010		RES,M/F 47-1/2W J
C807	87-A12-091-080		CAP,E 10-50 SMG	△ R436	87-A00-050-060		RES,FUSE 2.2-1W J R-TYPE
C809	87-016-515-080		CAP,CER 1000P-1K KB DE	R608	87-A00-185-010		RES,CEM 2.2K-5W J ZY
△ C810	87-A10-648-090		CAP,E 150-400 M SMH VN SN 30B	R801	87-A00-555-010		RES,CEM 2.2-10W J MP
C811	87-A12-067-080		CAP,E 330-16 SMG	R802	87-A00-170-090		RES,M/F 82K-3W J RSF(S)
△ C812	87-A10-519-010		CAP,CER 4700P-4K ME KX	R806	87-A00-208-090		RES,M/F 22-1/2W J RSF(S)
C813	87-A12-493-080		CAP,CER 2200P-500 KB Y5P	R811	87-A00-216-090		RES,M/F 0.33-2W J RSF(S)
C814	87-A10-238-010		CAP,CER 1000P-1.6JK DKR	R812	87-A00-224-090		RES,SD 8.2M-1 W J CE
C818	87-A12-058-080		CAP,E 470-6.3 SMG	△ R818	87-A00-321-090		RES,FUSE 3.9-2W J R-TYPE
△ C820	87-A12-492-080		CAP,CER 1000P-500 KB Y5P	R819	87-A00-246-090		RES,M/F 220-2W J RSF(S)
C821	87-010-389-090		CAP,E 2200-25 M SME	△ R821	87-A00-052-060		RES,FUSE 3.9-1W J R-TYPE
C825	87-010-389-090		CAP,E 2200-25 M SME	SFR1	87-024-438-080		SFR,220K H RH063MC
C830	87-012-386-080		CAP,CER 470P-2K K BN DE	SFR2	87-024-357-080		SFR,100K H EVN DJAA03
C831	87-016-373-080		CAP,E 10-250 M SME	SFR201	87-024-354-080		SFR,22K H EVN DJAA03
C832	87-010-397-090		CAP,E 1000-35 M SME	SFR301	87-024-349-080		SFR,1K H EVN DJAA03
△ C833	87-A12-492-080		CAP,CER 1000P-500 KB Y5P	SFR302	87-024-349-080		SFR,1K H EVN DJAA03
C835	87-A12-073-080		CAP,E 220-25 SMG	SFR501	87-024-357-080		SFR,100K H EVN DJAA03
C837	87-A12-091-080		CAP,E 10-50 SMG	SW2	87-036-267-080		SW,TACT SKHVBK
C838	87-A10-832-010		CAP,CER 1000P-1K KR	SW3	87-036-267-080		SW,TACT SKHVBK
C839	87-A10-730-080		CAP,E 1000-16 SMG	SW4	87-036-267-080		SW,TACT SKHVBK
C840	87-A10-731-090		CAP,E 220-160 M KME	SW5	87-036-267-080		SW,TACT SKHVBK
CN401	86-LBU-691-210		CONN ASSY,2P SP MONO	SW6	87-036-267-080		SW,TACT SKHVBK
CN601	87-099-675-010		CONN,5P V	SW501	87-A90-567-010		SW,LVR 4-1-3 EVQRAAL10
△ CN801	82-481-649-010		CONN,2P V VT-50P	△ SW801	87-A90-364-010		SW,PUSH SDDLBI1-C-D-2
△ CN802	87-099-674-010		CONN,2P VA V	△ T601	84-LB3-651-010		TRANS,HD MS-101 N
D5	87-070-110-010		LED,SLP-181B-51 RED	△ T602	84-LB3-607-010		FBT,FTK-14B011
DL301	84-LB3-638-010		DL,ADL-CP144E	△ TH801	87-A90-759-010		POS-THMS,PH451C272BF 300N 270
DL302	87-A90-370-010		DELAY LINE,ELB10Z334	TU101	87-A91-904-010		TU UNIT, TUAWF4EG-761
△ F801	87-035-458-010		FUSE,4A 250V T 218	X1	87-030-212-080		VIB,CER 8.000MHZ CST
FB1	87-003-223-080		F-BEAD,-3.4-7.5 BL02RN2	X201	87-A70-043-010		VIB,CER 503KHZ CSBE5
FB601	87-003-223-080		F-BEAD,-3.4-7.5 BL02RN2	X301	87-A70-054-080		VIB,XTAL 4.43MHZ AQC-1018
FB802	87-003-223-080		F-BEAD,-3.4-7.5 BL02RN2	X302	87-030-327-010		VIB,CER 503.500KHZ CSB F30
FB803	87-003-223-080		F-BEAD,-3.4-7.5 BL02RN2	X303	87-A70-007-080		VIB,XTAL 3.58MHZ AQC 1001
△ FC801	87-A90-160-080		FUSE CLAMP,FC 51F	NK C.B			
△ FC802	87-A90-160-080		FUSE CLAMP,FC 51F	△ C551	87-A12-492-080		CAP,CER 1000P-500 KB Y5P
FL201	87-A90-337-010		FLTR,SAW OFW-K2959M	△ C552	87-016-037-060		CAP,CER 1000P-2K KB DE
FL203	87-A90-223-080		FLTR,SFSH6.0MCB	C553	87-018-125-080		CAP,TC U 330P-50 KB UP505
FL205	87-008-578-080		FLTR,TPS6.5MB2	C554	87-018-125-080		CAP,TC U 330P-50 KB UP505
FL206	87-008-577-080		FLTR,TPS5.5MB2	C555	87-018-129-080		CAP,TC U 680P-50 KB UP505
FL301	84-LB3-668-010		FLTR,SECAM DET	C557	87-A12-091-080		CAP,E 10-50 SMG
FL302	84-LB3-668-010		FLTR,SECAM DET	CN551	87-049-469-010		CONN,4P V WHT EH
FL304	82-JT2-611-010		FLTR,SECAM REF	CN552	87-009-033-010		CONN,5P V WHT PH
FL305	84-LB3-622-010		FLTR,BELL 2 S-10E	CN553	87-099-672-010		CONN,1P V LV GRA
HL5	84-LB3-216-010		HLDR,LED				
HL812	87-A90-667-010		COVER,CAP 851640-23				

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
L551	87-005-614-080		COIL,100UH J LAV35
△ R551	87-022-302-090		RES,M/F 12K-1W J
△ R552	87-022-302-090		RES,M/F 12K-1W J
△ R553	87-022-302-090		RES,M/F 12K-1W J
SFR551	87-024-522-080		SFR,4.7K DIAV NTP
SFR552	87-024-522-080		SFR,4.7K DIAV NTP
SFR553	87-024-522-080		SFR,4.7K DIAV NTP
SFR554	87-024-519-080		SFR,470 DIAV NTP
SFR555	87-024-519-080		SFR,470 DIAV NTP
SO551	8Z-JB4-670-010		SOCKET,CRT 9P CVT3327 1603

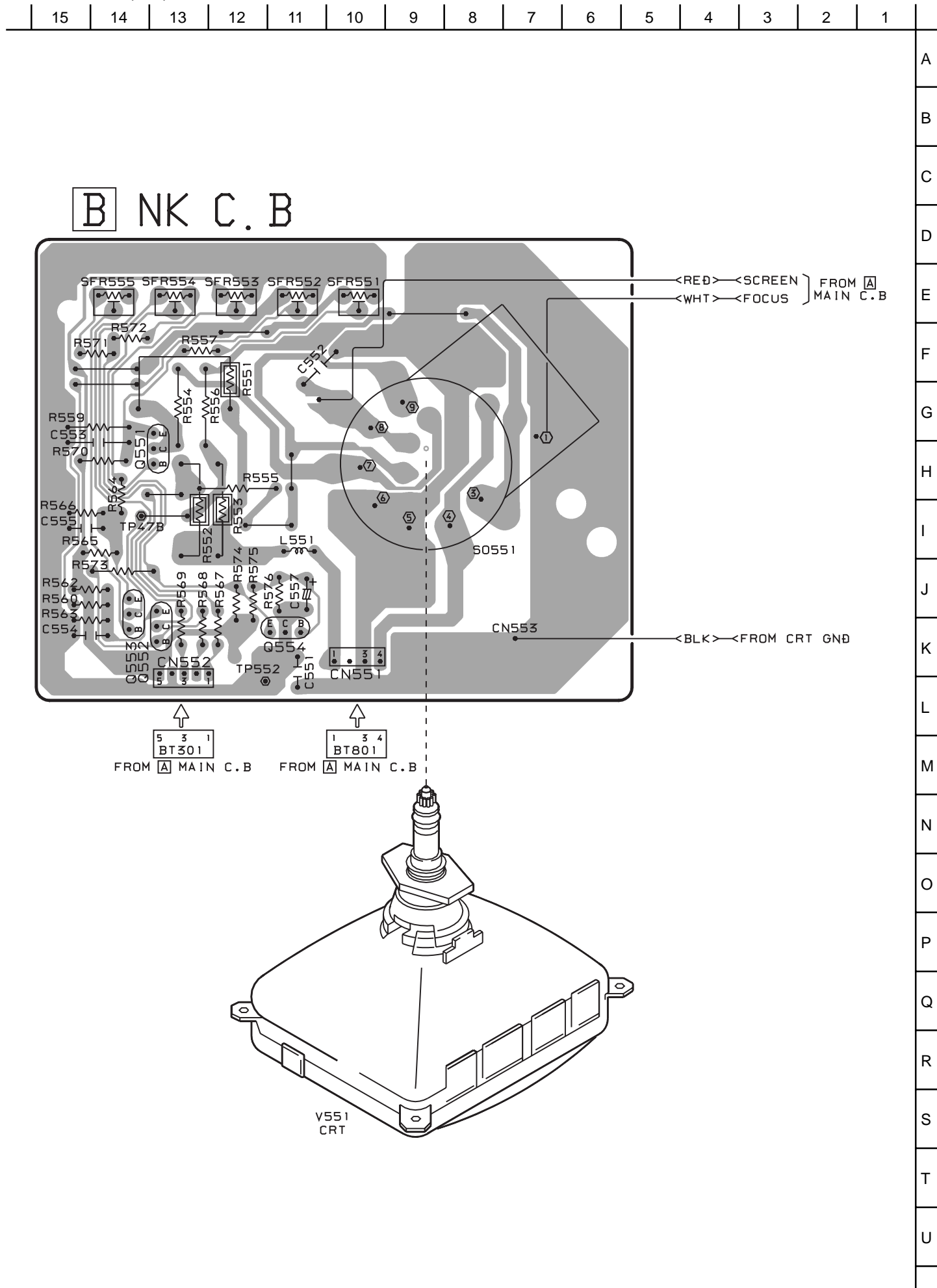
TRANSISTOR ILLUSTRATION



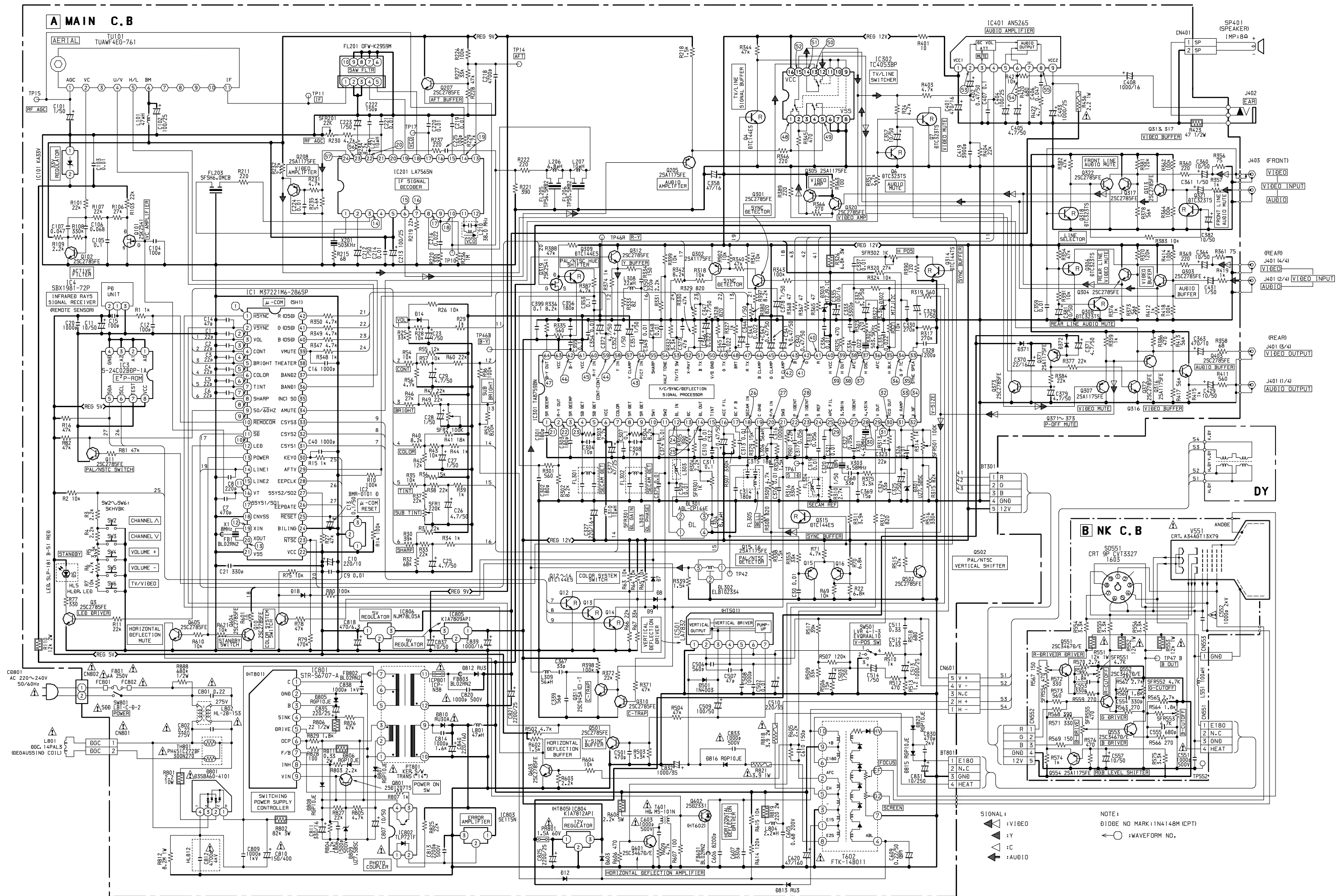
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DTC323TS



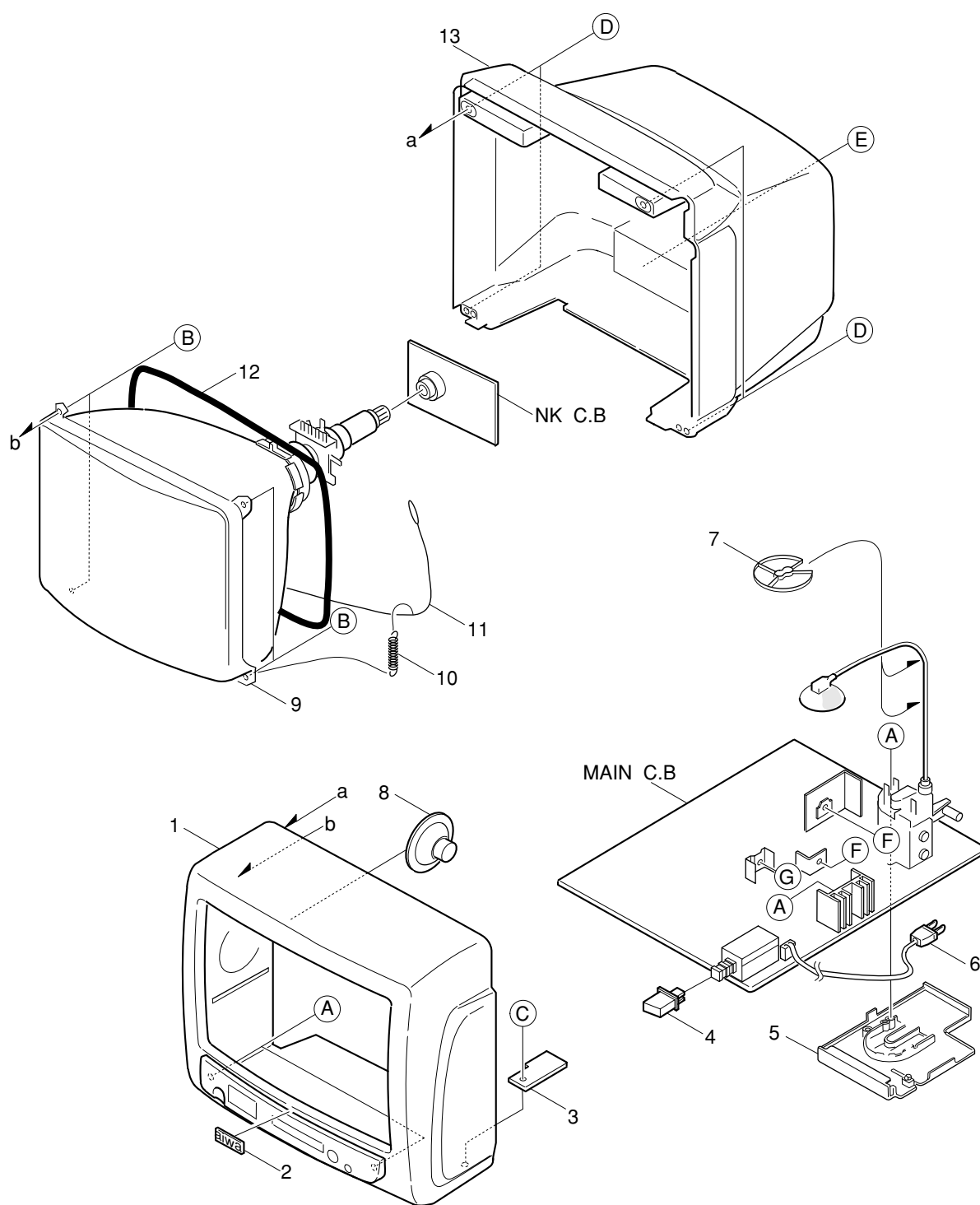
WIRING – 2 (NK)



SCHEMATIC DIAGRAM (MAIN / NK)



MECHANICAL EXPLODED VIEW 1 / 1



MECHANICAL PARTS LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-LB7-031-010		CABI,FR ASSY C142S M
2	87-054-087-010		BADGE,AIWA 40 ABS GLD
3	86-LBU-201-010		HLDL,AC CORD
4	87-JBG-011-010		BTN,POWER 2 ST
5	86-LB7-212-010		HLDL,FBT
△	6	86-LB7-694-010	AC CORD SET,KE2 BLK
	7	87-A90-332-010	HLDL,SF-2001 HV CABLE
	8	84-LB3-641-010	SPKR,F DIA77 8OHM 2W
△	9	86-LB7-605-010	CRT,A34AGT13X79
	10	84-LB3-205-010	SPR-E,EARTH
	11	84-LB3-693-310	CONN ASSY,1P CRT GND
△	12	84-LB3-640-010	DGC,14PAL3
	13	86-LB7-025-110	CABI,REAR KE2 EX
	A	87-067-680-010	BVIT3B+3-10
	B	87-078-203-110	S-SCREW,W+5-25
	C	87-067-758-010	BVT2+3-12 W/O SLOT
	D	87-067-844-010	BVT2+4-16 BLK
	E	87-067-761-010	BVT2+3-10 BLK
	F	87-067-579-010	BVT2+3-8 W/O SLOT
	G	87-067-584-010	BVT2+3-6 W/O SLOT

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				

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