

VHF FM TRANSCEIVER

# TK-690H(B)

FRONT PANEL KIT

KCH-10/KCH-11

## SERVICE MANUAL

# KENWOOD

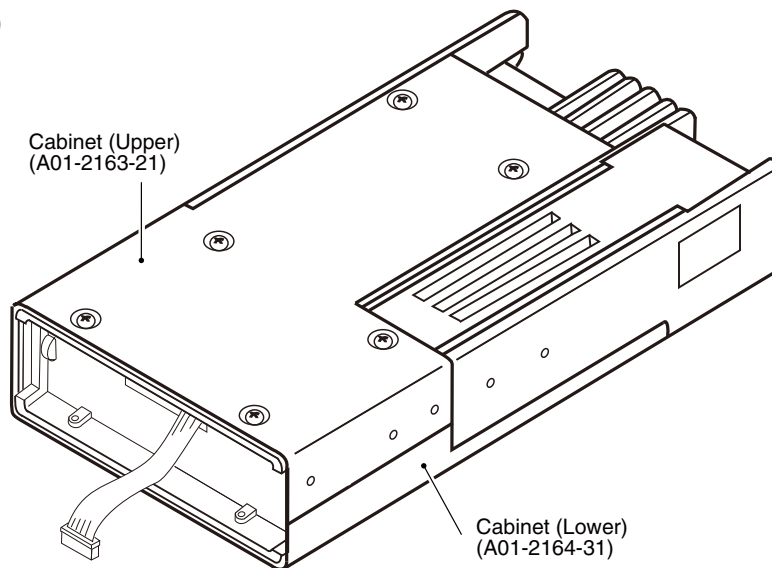
Kenwood Corporation

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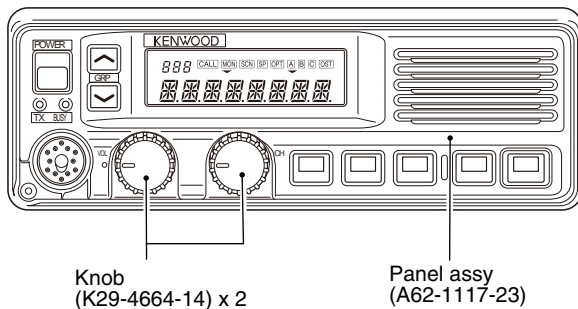
### SUPPLEMENT

This service manual applies to products with K:A9A00221,K2:A9600413,K3:A8B00031 or subsequent serial numbers. (KCH-10 and KCH-11 are applicable to the productions August 2007 and after.)  
In terms of the products with the serial numbers earlier than K:A9A00221,K2:A9600413,K3:A8B00031, refer to the TK-690H(B) service manual as per part No. B51-8460-10.

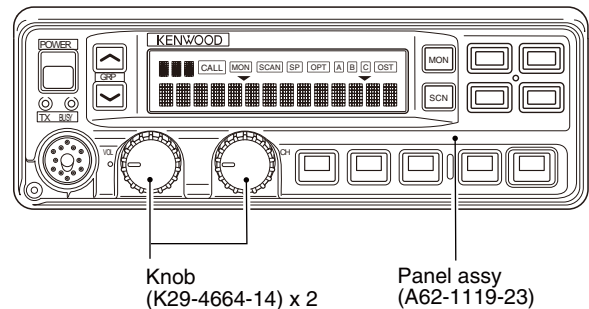
#### TK-690H(B)



#### KCH-10



#### KCH-11



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## DISASSEMBLY FOR REPAIR

### Compatibility information

#### 1. Final Unit

The following list is shown to the main modification part.

TK-690HB Final Unit				
	Old Ref.	OLD	New Ref.	NEW
Final unit	—	X45-3550-XX	—	X45-3830-XX
CHASSIS	—	A10-1389-01	—	A10-4119-12
Final Transistor	Q9,10	2SC2694	Q805,806	RD100HHF1-102

## DISASSEMBLY FOR REPAIR

Note:

- The New Final FET : RD100HHF1-102 is NOT available to use the older Final unit and older chassis due to drastic circuit modification for new final FET.
- The old Final Transistor : 2SC2694 is NOT available to user the newer Final unit and newer Chassis due to the above reason.
- When old Final Transistor or old final unit would not be available, it is necessary to replace the Chassis, Final unit and Final FET unit with new one. See below Compatibility Chart.

Compatibility Chart		Chassis	
		OLD	NEW
		A10-1389-01	A10-4119-12
Final Unit	OLD : 1. X45-3550-XX 2. Final: 2SC2694	Available	NOT available
	NEW : 1. X45-3830-XX 2. Final: RD100HHF1-102	NOT available	Available

### 2. TX-RX Unit

The following list is shown to the main modification part.

TK-690HB TX-RX Unit				
	Old Ref.	OLD	New Ref.	NEW
TX-RX unit	—	X57-5600-XX	—	X57-7590-XX
PLL IC	IC301	SA7025DK (Sub Part: CD8468)	IC3	LMX2485E
DTMFL IC (Encoder)	IC511	LC73872M	IC527 (Encoder/Decoder)	CMX865AE4
DTMF IC (Decoder)	IC525	PCD3312CT		

Note:

- The New PLL IC LMX2485E is NOT available to use the older TX-RX unit due to the different style IC packing.
- The old PLL IC SA7025DK(or CD8468) is NOT available to use for the new TX-RX unit due to the different style IC packing.
- The New DTMF IC CMX865E4 is NOT available to use on the older TX-RX unit due to the different style IC packing.
- The old DTMF IC LC73872M or PCD3312CT is NOT available to use for the new TX-RX unit due to the different style IC packing.
- New TX-RX unit (X57-7590-xx) requires the firmware V2.24 Sum="75DE" or later for supporting new PLL circuit.

Compatibility Chart		Firmware	
		OLD	NEW
		Firmware Version 2.23 "C54A" or earlier version.	Firmware Version 2.24 "75DE" or later version.
TX-RX Unit	OLD : X57-5600-XX (PLL IC : SA7025)	Available	Available
	NEW : X57-7590-XX (PLL IC : LMX2485E)	NOT available Unlock condition caused	Available

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## PARTS LIST

\* New Parts. Δ indicates safety critical components.

Parts without **Parts No.** are not supplied.

Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.

Teile ohne **Parts No.** werden nicht geliefert.

L : Scandinavia

Y : PX (Far East, Hawaii)

C : China

K : USA

T : England

X : Australia

P : Canada

E : Europe

M : Other Areas

### TK-690H(B)

#### FINAL UNIT (X45-3830-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination
<b>TK-690H(B)</b>					
1	3B		A01-2163-21	CABINET(UPPER)	
2	1B		A01-2164-31	CABINET(LOWER)	
3	2B		A10-4119-12	CHASSIS	
5	3A		B42-2455-04	STICKER(M4X8)	
7	1G		B62-0970-40	INSTRUCTION MANUAL	
8	2B	*	B72-1471-34	MODEL NAME-PLATE	K
8	2B	*	B72-1472-34	MODEL NAME-PLATE	K2
8	2B	*	B72-1473-34	MODEL NAME-PLATE	K3
11	2B		E04-0167-15	RF COAXIAL RECEPTACLE(M)	
12	2A	*	E31-3301-15	LEAD WIRE WITH MINIPIN PLUG(RA/DO)	
13	2B		E37-0709-05	LEAD WIRE WITH CONNECTOR	
14	2B		E37-0731-05	LEAD WIRE WITH CONNECTOR(DC4P)	
15	1H	*	E37-0733-15	SHORT PLUG(SP) ACCESSORY	
16	2B	*	E37-0773-55	LEAD WIRE WITH CONNECTOR (D-SUB)	
17	1H	*	E37-0776-15	FLAT CABLE(CONT-TX:18P)	
21	3A		F10-1488-02	SHIELDING PLATE(FINAL)	
22	3B	*	F29-0472-04	INSULATING COVER ACCESSORY	
23	3A		G02-0709-04	FLAT SPRING(AUDIO AMP)	
24	3A		G02-0715-04	FLAT SPRING(AVR)	
25	1B		G02-0894-04	EARTH SPRING	
26	2A	*	G13-2254-04	CUSHION	
27	2B		G53-0715-03	PACKING (DC,ACC)	
28	3B		G53-0871-03	PACKING (CABINET UPPER)	
29	1B		G53-0872-03	PACKING (CABINET LOWER)	
30	3B		G53-1626-03	PACKING (D-SUB CAP)	
31	3B		G53-1687-04	PACKING (D-SUB ORING)	
35	1G		H02-0604-03	INNER CARTON CASE	
36	2H		H10-6617-11	POLYSTYRENE FOAMED FIXTURE	
37	1H		H11-0815-04	POLYSTYRENE FOAMED BOARD	
38	2H		H11-0853-04	POLYSTYRENE FOAMED BOARD	
39	2G		H11-0892-04	POLYSTYRENE FOAMED BOARD	
40	2G		H12-1410-04	PACKING FIXTURE	
41	2H		H12-1442-04	PACKING FIXTURE	
42	2G		H13-1066-04	CARTON BOARD	
43	1H		H25-0103-04	PROTECTION BAG (125/250/0.07)	
44	1G		H25-0724-04	PROTECTION BAG (300/500/0.07)	
45	1H	*	H25-2063-04	PROTECTION BAG (80/120/0.03)	
46	3H		H52-1378-12	ITEM CARTON CASE	
48	2B	*	J32-0722-24	HEXAGON BOSS (FINAL)	
49	1H		J61-0307-05	BAND ACCESSORY	
A			N09-2292-05	HEXAGON HEAD SCREW	
B			N33-3006-43	OVAL HEAD MACHINE SCREW	
I			N35-2604-43	BINDING HEAD MACHINE SCREW	
C			N35-3006-48	BINDING HEAD MACHINE SCREW	
D			N67-3008-48	PAN HEAD SEMS SCREW	
E			N68-4006-48	PAN HEAD SEMS SCREW	
F			N87-2606-48	BRAZIER HEAD TAPTITE SCREW	
G			N87-2612-48	BRAZIER HEAD TAPTITE SCREW	
H			N87-3008-48	BRAZIER HEAD TAPTITE SCREW	
51	2H	*	N99-2051-05	SCREW SET ACCESSORY	

Ref. No.	Address	New parts	Parts No.	Description	Destination
<b>FINAL UNIT (X45-3830-XX) -10 : K -11 : K2 -12 : K3</b>					
C801,802			CK73GB1H472K	CHIP C 4700PF	K
C803,804			CK73FB1H472K	CHIP C 4700PF	K
C806			CK73GB1H472K	CHIP C 4700PF	K
C807			CC73FCH1H120G	CHIP C 12PF	G
C809			CK73GB1H104K	CHIP C 0.10UF	K
C810,811			CK73GB1H472K	CHIP C 4700PF	K
C812			CK73GB1H103K	CHIP C 0.010UF	K
C813			CC73GCH1H470J	CHIP C 47PF	J
C813			CC73GCH1H680J	CHIP C 68PF	J
C814			CC73GCH1H220J	CHIP C 22PF	J
C814			CC73GCH1H330J	CHIP C 33PF	J
C815,816			CK73GB1H472K	CHIP C 4700PF	K
C817		*	CK73GB1C334K	CHIP C 0.33UF	K
C818,819			CK73GB1H472K	CHIP C 4700PF	K
C820			CK73GB1H104K	CHIP C 0.10UF	K
C822			CK73GB1H472K	CHIP C 4700PF	K
C823			CK73GB1H103K	CHIP C 0.010UF	K
C824			CK73GB1H472K	CHIP C 4700PF	K
C825			CC73GCH1H270J	CHIP C 27PF	J
C825			CC73GCH1H390J	CHIP C 39PF	J
C826			CC73GCH1H471J	CHIP C 470PF	J
C826			CK73GB1H332K	CHIP C 3300PF	K
C827			CC73GCH1H121J	CHIP C 120PF	J
C827			CC73GCH1H680J	CHIP C 68PF	J
C828			CC73FCH1H470J	CHIP C 47PF	J
C829			CK73GB1H472K	CHIP C 4700PF	K
C830			CC73GCH1H101J	CHIP C 100PF	J
C831			CK73GB1H472K	CHIP C 4700PF	K
C832			CK73GB1H104K	CHIP C 0.10UF	K
C833			CD04AR1V470M	ELECTRO 47UF	35WV
C834			C93-0597-05	CHIP C 330PF	K
C834			C93-0599-05	CHIP C 470PF	K
C835			C93-0572-05	CHIP C 100PF	J
C835			C93-0595-05	CHIP C 220PF	K
C835			C93-0596-05	CHIP C 270PF	K
C836			C93-0568-05	CHIP C 47PF	J
C836			C93-0570-05	CHIP C 68PF	J
C837			C93-0573-05	CHIP C 120PF	J
C837			C93-0716-05	CHIP C 3300PF	K
C839			C93-0569-05	CHIP C 56PF	J
C839			C93-0570-05	CHIP C 68PF	J
C844			C93-0565-05	CHIP C 27PF	J
C845			CK73GB1H472K	CHIP C 4700PF	K
C847			CK73GB1H103K	CHIP C 0.010UF	K
C848			C93-0716-05	CHIP C 3300PF	K
C850			C93-0849-05	CHIP C 1000PF	J
C850		*	C93-1740-05	CHIP C 330PF	J
C851		*	C93-1742-05	CHIP C 390PF	J
C852			C93-0849-05	CHIP C 1000PF	J
C853			CC73GCH1H820J	CHIP C 82PF	J
C854			CK73GB1H472K	CHIP C 4700PF	K
C855			CK73GB1H103K	CHIP C 0.010UF	K
C858			C93-0849-05	CHIP C 1000PF	J
C858		*	C93-1740-05	CHIP C 330PF	J
C859		*	C93-1742-05	CHIP C 390PF	J

## PARTS LIST

FINAL UNIT (X45-3830-XX)

Ref. No.	Address	New parts	Parts No.	Description	Desti-nation	Ref. No.	Address	New parts	Parts No.	Description	Desti-nation
C860			C93-0849-05	CHIP C 1000PF J	K	C909,910			CK73GB1H472K	CHIP C 4700PF K	
C861			C93-0716-05	CHIP C 3300PF K		C911			CM73F2H561J	CHIP C 560PF J	K,K2
C864,865			CK73GB1H472K	CHIP C 4700PF K		C911			CM73F2H681J	CHIP C 680PF J	K3
C866			CK73GB1H104K	CHIP C 0.10UF K		C912			CC73GCH1H101J	CHIP C 100PF J	K3
C868			CC73FCH1H470J	CHIP C 47PF J		C912			CK73GB1H103K	CHIP C 0.010UF K	K,K2
						C914			CK73GB1H472K	CHIP C 4700PF K	
C869			C92-0898-05	ELECTRO 47UF 25WV		C920			CK73GB1H472K	CHIP C 4700PF K	
C870-872			CK73FB1H472K	CHIP C 4700PF K		C921			C90-4085-05	ELECTRO 47UF 20WV	
C873			CM73F2H390J	CHIP C 39PF J	K3	C926			C93-0595-05	CHIP C 220PF K	K2,K
C873,874			CM73F2H820J	CHIP C 82PF J	K	C926			C93-0598-05	CHIP C 390PF K	K
			CM73F2H390J	CHIP C 39PF J	K2						
C874			CM73F2H390J	CHIP C 39PF J	K	CN801			E04-0154-05	PIN SOCKET	
C874			CM73F2H560J	CHIP C 56PF J	K3	CN802,803			E23-1116-05	RELAY TERMINAL	
C875			C93-0603-05	CHIP C 1000PF K	K	CN804			E04-0154-05	PIN SOCKET	
C875			C93-0716-05	CHIP C 3300PF K	K2,K3	W801	*		E37-0701-15	LEAD WIRE WITH CONNECTOR(5P)	
C877	*		C93-0717-05	CHIP C 6800PF K		W802	*		E37-1218-15	LEAD WIRE WITH CONNECTOR	
C878			C93-0570-05	CHIP C 68PF J	K3				F10-2277-04	SHIELDING PLATE	
C878			C93-0571-05	CHIP C 82PF J	K,K2				G13-1354-04	CUSHION(30/15/4)	
C879			CM73F2H040D	CHIP C 4.0PF D	K2				G13-1737-14	CUSHION	
C879			CM73F2H080D	CHIP C 8.0PF D	K,K3						
C880			CK73FF1E224Z	CHIP C 0.22UF Z		L801	*		L41-1585-39	SMALL FIXED INDUCTOR(0.15UH)	K2,K3
C881			CK73FB1H472K	CHIP C 4700PF K		L801			L41-2785-39	SMALL FIXED INDUCTOR(0.27UH)	K
C882,883			CC73FCH1H470J	CHIP C 47PF J		L802			L92-0149-05	CHIP FERRITE	
C884-886			CD04BQ1E331M	ELECTRO 330UF 25WV		L803			L40-1585-92	SMALL FIXED INDUCTOR(150NH)	K2,K3
C887			CM73F2H101J	CHIP C 100PF J	K3	L803			L40-2285-92	SMALL FIXED INDUCTOR(220NH)	K
C887			CM73F2H121J	CHIP C 120PF J	K2						
C887			CM73F2H181J	CHIP C 180PF J	K	L805	*		L41-1285-39	SMALL FIXED INDUCTOR(0.12UH)	K2,K3
C888			CM73F2H101J	CHIP C 100PF J	K2	L805			L41-2785-39	SMALL FIXED INDUCTOR(0.27UH)	K
C889			CM73F2H121J	CHIP C 120PF J	K	L806			L34-4602-15	AIR-CORE COIL	
C890			CM73F2H470J	CHIP C 47PF J	K,K2	L807			L34-4616-05	AIR-CORE COIL	
C890			CM73F2H820J	CHIP C 82PF J	K3	L808			L92-0149-05	CHIP FERRITE	
C891			CK73GB1H472K	CHIP C 4700PF K	K2,K3	L809			L34-4607-15	AIR-CORE COIL	K3
C892			CM73F2H390J	CHIP C 39PF J	K3	L809			L34-4616-05	AIR-CORE COIL	K,K2
C892			CM73F2H820J	CHIP C 82PF J	K,K2	L810	*		L34-4611-15	AIR-CORE COIL	
C893			CC73GCH1H560J	CHIP C 56PF J		L811			L34-4615-05	AIR-CORE COIL	
C894			CM73F2H220J	CHIP C 22PF J	K,K2	L812	*		L33-1488-05	SMALL FIXED INDUCTOR(10UH)	
C894			CM73F2H270J	CHIP C 27PF J	K3	L813,814	*		L34-4884-05	AIR-CORE COIL	K3
C895			CC73FCH1H180J	CHIP C 18PF J	K3	L813,814	*		L34-4895-05	AIR-CORE COIL	K,K2
C895			CC73FCH1H820J	CHIP C 82PF J	K,K2	L815			L41-2205-33	SMALL FIXED INDUCTOR(22UH)	K2,K3
C896			CM73F2H330J	CHIP C 33PF J	K2	L815			L41-2705-33	SMALL FIXED INDUCTOR(27UH)	K
C896			CM73F2H470J	CHIP C 47PF J	K3	L816	*		L34-4883-05	AIR-CORE COIL	K3
C896			CM73F2H510J	CHIP C 51PF J	K	L816	*		L34-4931-05	AIR-CORE COIL	K,K2
C897			CC73FCH1H330J	CHIP C 33PF J	K2	L817	*		L34-4885-05	AIR-CORE COIL	K3
C897			CC73FCH1H470J	CHIP C 47PF J	K3	L817	*		L34-4889-05	AIR-CORE COIL	K,K2
C897			CC73FCH1H560J	CHIP C 56PF J	K	L818			L41-1085-33	SMALL FIXED INDUCTOR(0.1UH)	K3
C898			CM73F2H020C	CHIP C 2.0PF C		L818			L41-5675-33	SMALL FIXED INDUCTOR(0.056UH)	K
C899			CC73FCH1H121J	CHIP C 120PF J	K2	L818			L41-6875-33	SMALL FIXED INDUCTOR(0.068UH)	K2
C899			CC73FCH1H151J	CHIP C 150PF J	K	L819	*		L39-1420-25	TOROIDAL COIL	
C899			CC73FCH1H510J	CHIP C 51PF J	K3	L820			L41-2205-33	SMALL FIXED INDUCTOR(22UH)	
C900			CC73FCH1H330J	CHIP C 33PF J	K2	L821	*		L39-1520-05	TOROIDAL COIL	
C900			CC73FCH1H470J	CHIP C 47PF J	K3	L822	*		L39-1521-05	TOROIDAL COIL	K2,K3
C900			CC73FCH1H560J	CHIP C 56PF J	K	L822	*		L39-1557-05	TOROIDAL COIL	K
C901			CK73FB1H472K	CHIP C 4700PF K		L823			L33-0625-15	TOROIDAL COIL	
C902			CC73FCH1H470J	CHIP C 47PF J		R801			RK73FB2B181J	CHIP R 180 J 1/8W	K3
C903			CK73GB1H102K	CHIP C 1000PF K		R801			RK73FB2B271J	CHIP R 270 J 1/8W	K,K2
C904			CC73GCH1H560J	CHIP C 56PF J	K	R803			RK73FB2B180J	CHIP R 18 J 1/8W	K,K2
C904			CC73GCH1H680J	CHIP C 68PF J	K2,K3	R803			RK73FB2B330J	CHIP R 33 J 1/8W	K3
C905			CK73GB1H472K	CHIP C 4700PF K		R804			RK73GB2A682J	CHIP R 6.8K J 1/10W	
C906			CM73F2H020C	CHIP C 2.0PF C		R805			RK73GB2A332J	CHIP R 3.3K J 1/10W	
C907			CK73GB1H103K	CHIP C 0.010UF K		R806			RK73GB2A103J	CHIP R 10K J 1/10W	
C908			C93-0716-05	CHIP C 3300PF K		R807			RK73GB2A183J	CHIP R 18K J 1/10W	

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## PARTS LIST

FINAL UNIT (X45-3830-XX)  
TX-RX UNIT (X57-7590-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination	Ref. No.	Address	New parts	Parts No.	Description	Destination
R808			RK73GB2A120J	CHIP R 12 J 1/10W	K3	R862,863			RK73GB2A472J	CHIP R 4.7K J 1/10W	K
R808			RK73GB2A180J	CHIP R 18 J 1/10W	K2	R863			RK73GB2A472J	CHIP R 4.7K J 1/10W	K2,K3
R808			RK73GB2A330J	CHIP R 33 J 1/10W	K	R864			R92-1061-05	JUMPER REST0 OHM	
R809			RK73GB2A273J	CHIP R 27K J 1/10W		R865			RS14DB3F221J	FL-PROOF RS 220 J 3W	
R810			RK73GB2A000J	CHIP R 0 J 1/10W		R866			RK73GB2A000J	CHIP R 0 J 1/10W	
R811			RK73GB2A331J	CHIP R 330 J 1/10W	K2,K3	R868			RK73FB2B000J	CHIP R 0 J 1/8W	K
R811			RK73GB2A681J	CHIP R 680 J 1/10W	K	R869			RK73FB2B000J	CHIP R 0 J 1/8W	K2
R812			RK73FB2B181J	CHIP R 180 J 1/8W	K3	R870			RK73FB2B000J	CHIP R 0 J 1/8W	K3
R812			RK73FB2B271J	CHIP R 270 J 1/8W	K,K2	R880,881			RK73PB2H2R2J	CHIP R 2.2 J 1/2W	
R813			RK73GB2A102J	CHIP R 1.0K J 1/10W		R882			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R814			RK73GB2A473J	CHIP R 47K J 1/10W		R884			RK73GB2A000J	CHIP R 0 J 1/10W	
R815			RK73GB2A104J	CHIP R 100K J 1/10W		VR801			R12-6425-05	TRIMMING POT.(22K)	
R816			RK73GB2A000J	CHIP R 0 J 1/10W		D801	*		02DZ7.5F-Y	ZENER DIODE	
R817			RK73GB2A564J	CHIP R 560K J 1/10W		D803			MA4P4002F	DIODE	
R818			RK73GB2A101J	CHIP R 100 J 1/10W		D804			MA2S111-F	DIODE	
R819			RK73GB2A394J	CHIP R 390K J 1/10W		D805			HSM88AS-E	DIODE	
R820			RK73GB2A471J	CHIP R 470 J 1/10W		D806,807			MA4PH633	DIODE	
R821			RK73GB2A220J	CHIP R 22 J 1/10W	K2,K3	D808			HVC131	DIODE	
R821			RK73GB2A470J	CHIP R 47 J 1/10W	K	D809			ERZV10D220	SURGE ABSORBER	
R822			RK73GB2A103J	CHIP R 10K J 1/10W	K3	D810			DF25V60	DIODE	
R822			RK73GB2A153J	CHIP R 15K J 1/10W	K,K2	D811			HSM88AS-E	DIODE	
R823			RK73GB2A333J	CHIP R 33K J 1/10W	K3	D812			HVC131	DIODE	
R823			RK73GB2A473J	CHIP R 47K J 1/10W	K,K2	D813			CSA70-401L	SURGE ABSORBER	
R824			RK73PB2H271J	CHIP R 270 J 1/2W		IC801			TA75S01F-F	MOS-IC	
R825,826			RK73PB2H390J	CHIP R 39 J 1/2W		IC802			NJM2746RB1-ZB	ANALOGUE IC	
R827			RK73PB2H271J	CHIP R 270 J 1/2W		Q801			RD01MUS1-T113	FET	
R828			RK73GB2A473J	CHIP R 47K J 1/10W		Q802			2SC2712-F(Y)	TRANSISTOR	
R829			RK73GB2A274J	CHIP R 270K J 1/10W		Q804			2SC2712-F(Y)	TRANSISTOR	
R830			RK73GB2A222J	CHIP R 2.2K J 1/10W		Q803	1B		RD16HHF1-102	FET	
R831			RK73GB2A102J	CHIP R 1.0K J 1/10W		Q805,806	2B		RD100HHF1-102	FET	
R832			RK73GB2A472J	CHIP R 4.7K J 1/10W		TH801			S1R104J475H	THERMISTOR	K,K2
R833			RK73GB2A104J	CHIP R 100K J 1/10W		TH802			S1R104J475H	THERMISTOR	K3
R834			RK73GB2A000J	CHIP R 0 J 1/10W	K,K2	<b>TX-RX UNIT (X57-7590-XX) -10 : K -11 : K2 -12 : K3</b>					
R834,835			RK73GB2A000J	CHIP R 0 J 1/10W	K3	C1 -4			CK73GB1E103K	CHIP C 0.010UF	K
R835			RK73GB2A222J	CHIP R 2.2K J 1/10W	K	C5			CC73GCH1H101J	CHIP C 100PF	J
R835			RK73GB2A472J	CHIP R 4.7K J 1/10W	K2	C6			CK73FB0J106K	CHIP C 10UF	K
R836,837			RS14DB3F4R7J	FL-PROOF RS 4.7 J 3W		C8 ,9			CK73GB1E103K	CHIP C 0.010UF	K
R838			RK73GB2A153J	CHIP R 15K J 1/10W		C10 ,11			CK73GB1A105K	CHIP C 1.0UF	K
R839			RK73GB2A104J	CHIP R 100K J 1/10W		C12 -14			CK73GB1E103K	CHIP C 0.010UF	K
R840			RK73GB2A153J	CHIP R 15K J 1/10W		C15			CK73GB1A105K	CHIP C 1.0UF	K
R841			RK73GB2A563J	CHIP R 56K J 1/10W		C16 -19			CK73GB1E103K	CHIP C 0.010UF	K
R842			RS14DB3F221J	FL-PROOF RS 220 J 3W		C22			CK73GB1H473K	CHIP C 0.047UF	K
R843			RK73PB2H100J	CHIP R 10 J 1/2W	K3	C23 ,24			CK73GB1E103K	CHIP C 0.010UF	K
R843			RK73PB2H270J	CHIP R 27 J 1/2W	K	C25			CC73GCH1H100C	CHIP C 10PF	C
R843			RK73PB2H330J	CHIP R 33 J 1/2W	K2	C25			CC73GCH1H180J	CHIP C 18PF	J
R845			RK73GB2A563J	CHIP R 56K J 1/10W		C25 ,26			CC73GCH1H100C	CHIP C 10PF	C
R846			RS14DB3F221J	FL-PROOF RS 220 J 3W		C26			CC73GCH1H050B	CHIP C 5.0PF	B
R847			RK73PB2H100J	CHIP R 10 J 1/2W	K3	C26			CC73GCH1H220J	CHIP C 22PF	J
R847			RK73PB2H270J	CHIP R 27 J 1/2W	K	C27			CK73GB1H471K	CHIP C 470PF	K
R847			RK73PB2H330J	CHIP R 33 J 1/2W	K2	C28			CC73GCH1H060B	CHIP C 6.0PF	B
R849,850			RK73PB2H151J	CHIP R 150 J 1/2W		C28			CC73GCH1H070B	CHIP C 7.0PF	B
R852			RK73GB2A000J	CHIP R 0 J 1/10W		C28			CC73GCH1H090B	CHIP C 9.0PF	B
R854			RK73GB2A000J	CHIP R 0 J 1/10W	K2,K3	C29			CC73GCH1H080B	CHIP C 8.0PF	B
R854			RK73GB2A103J	CHIP R 10K J 1/10W	K						
R855			RK73GB2A330J	CHIP R 33 J 1/10W							
R857			RK73GB2A330J	CHIP R 33 J 1/10W							
R858			RK73GB2A823J	CHIP R 82K J 1/10W							
R859			RK73GB2A330J	CHIP R 33 J 1/10W							
R861			RK73GB2A330J	CHIP R 33 J 1/10W							
R862			RK73GB2A392J	CHIP R 3.9K J 1/10W	K2,K3						



## PARTS LIST

TX-RX UNIT (X57-7590-XX)

Ref. No.	Address	New parts	Parts No.	Description	Desti-nation	Ref. No.	Address	New parts	Parts No.	Description	Desti-nation
C29			CC73GCH1H100C	CHIP C 10PF C	K3	C102			CK73GB1E103K	CHIP C 0.010UF K	
C29			CC73GCH1H120J	CHIP C 12PF J	K	C103-106			CK73GB1H103K	CHIP C 0.010UF K	
C30			CK73GB1C104K	CHIP C 0.10UF K		C107			CC73GCH1H060B	CHIP C 6.0PF B	K3
C31			CC73GCH1H180J	CHIP C 18PF J	K3	C108			CC73GCH1H030B	CHIP C 3.0PF B	K,K2
C31			CC73GCH1H220J	CHIP C 22PF J	K	C108			CC73GCH1H040B	CHIP C 4.0PF B	K3
C31 ,32			CC73GCH1H270J	CHIP C 27PF J	K2	C109			CC73GCH1H040B	CHIP C 4.0PF B	K2
C32			CC73GCH1H270J	CHIP C 27PF J	K,K3	C109			CC73GCH1H080B	CHIP C 8.0PF B	K,K3
C33			CC73GCH1H060B	CHIP C 6.0PF B	K3	C110			CC73GCH1H030B	CHIP C 3.0PF B	K,K2
C33			CC73GCH1H070B	CHIP C 7.0PF B	K	C110			CC73GCH1H040B	CHIP C 4.0PF B	K3
C33			CC73GCH1H080B	CHIP C 8.0PF B	K2	C111			CK73GB1H103K	CHIP C 0.010UF K	
C34			CC73GCH1H090B	CHIP C 9.0PF B	K2	C112			CC73GCH1H040B	CHIP C 4.0PF B	K2
C34			CC73GCH1H120J	CHIP C 12PF J	K,K3	C112			CC73GCH1H080B	CHIP C 8.0PF B	K,K3
C35 ,36			CK73GB1E103K	CHIP C 0.010UF K		C113			CK73GB1H103K	CHIP C 0.010UF K	
C37			CC73GCH1H180J	CHIP C 18PF J	K3	C114			CC73GCH1H820J	CHIP C 82PF J	
C37			CC73GCH1H220J	CHIP C 22PF J	K	C115			CK73GB1H152K	CHIP C 1500PF K	
C37 ,38			CC73GCH1H270J	CHIP C 27PF J	K2	C116			CK73GB1H103K	CHIP C 0.010UF K	
C38			CC73GCH1H270J	CHIP C 27PF J	K,K3	C117			CC73GCH1H221J	CHIP C 220PF J	
C39			CC73GCH1H060B	CHIP C 6.0PF B	K3	C118			CC73GCH1H220J	CHIP C 22PF J	K
C39			CC73GCH1H070B	CHIP C 7.0PF B	K2	C118			CC73GCH1H470J	CHIP C 47PF J	K2,K3
C39			CC73GCH1H090B	CHIP C 9.0PF B	K	C119			CC73GCH1H390J	CHIP C 39PF J	
C40			CC73GCH1H080B	CHIP C 8.0PF B	K2	C120			CC73GCH1H050B	CHIP C 5.0PF B	K3
C40			CC73GCH1H100C	CHIP C 10PF C	K3	C120			CC73GCH1H120J	CHIP C 12PF J	K2
C40			CC73GCH1H120J	CHIP C 12PF J	K	C120			CC73GCH1H220J	CHIP C 22PF J	K
C41			CK73GB1E103K	CHIP C 0.010UF K		C121			CC73GCH1H470J	CHIP C 47PF J	K
C42			CC73GCH1H100C	CHIP C 10PF C	K	C121			CC73GCH1H820J	CHIP C 82PF J	K3
C42			CC73GCH1H180J	CHIP C 18PF J	K2	C121,122			CC73GCH1H101J	CHIP C 100PF J	K2
C42 ,43			CC73GCH1H100C	CHIP C 10PF C	K3	C122			CC73GCH1H101J	CHIP C 100PF J	K,K3
C43			CC73GCH1H050B	CHIP C 5.0PF B	K	C123			CC73GCH1H100C	CHIP C 10PF C	K3
C43			CC73GCH1H220J	CHIP C 22PF J	K2	C123			CC73GCH1H120J	CHIP C 12PF J	K2
C44			CK73GB1A105K	CHIP C 1.0UF K		C123			CC73GCH1H220J	CHIP C 22PF J	K
C45			CC73GCH1H330J	CHIP C 33PF J	K3	C124			CC73GCH1H101J	CHIP C 100PF J	K2
C45			CC73GCH1H470J	CHIP C 47PF J	K2	C124			CC73GCH1H470J	CHIP C 47PF J	K
C45			CC73GCH1H560J	CHIP C 56PF J	K	C124			CC73GCH1H680J	CHIP C 68PF J	K3
C46			CC73GCH1H330J	CHIP C 33PF J	K,K2	C125			CC73GCH1H331J	CHIP C 330PF J	
C46			CC73GCH1H390J	CHIP C 39PF J	K3	C126			CC73GCH1H100C	CHIP C 10PF C	K3
C47			CC73GCH1H121J	CHIP C 120PF J	K2,K3	C126			CC73GCH1H120J	CHIP C 12PF J	K2
C47			CC73GCH1H151J	CHIP C 150PF J	K	C126,127			CC73GCH1H220J	CHIP C 22PF J	K
C48			CC73GCH1H151J	CHIP C 150PF J	K2	C127			CC73GCH1H330J	CHIP C 33PF J	K3
C48			CC73GCH1H181J	CHIP C 180PF J	K,K3	C127			CC73GCH1H470J	CHIP C 47PF J	K2
C50			CC73GCH1H150J	CHIP C 15PF J	K2	C128,129			CC73GCH1H221J	CHIP C 220PF J	
C50			CC73GCH1H180J	CHIP C 18PF J	K,K3	C130			CK73GB1H103K	CHIP C 0.010UF K	
C51			CC73GCH1H180J	CHIP C 18PF J	K2	C131			CK73FB1E473K	CHIP C 0.047UF K	
C51			CC73GCH1H220J	CHIP C 22PF J	K3	C132			CC73GCH1H331J	CHIP C 330PF J	
C51			CC73GCH1H270J	CHIP C 27PF J	K	C133			CC73GCH1H181J	CHIP C 180PF J	
C52			CC73GCH1H121J	CHIP C 120PF J	K2,K3	C134			CC73GCH1H101J	CHIP C 100PF J	
C52			CC73GCH1H151J	CHIP C 150PF J	K	C135			CK73GB1H103K	CHIP C 0.010UF K	
C53			CC73GCH1H151J	CHIP C 150PF J	K2	C136,137			CC73GCH1H271J	CHIP C 270PF J	
C53			CC73GCH1H181J	CHIP C 180PF J	K,K3	C138			CK73GB1H102K	CHIP C 1000PF K	
C54			CC73GCH1H330J	CHIP C 33PF J	K,K2	C139			CK73FB1E473K	CHIP C 0.047UF K	
C54			CC73GCH1H390J	CHIP C 39PF J	K3	C140			CC73GCH1H331J	CHIP C 330PF J	
C55			CC73GCH1H330J	CHIP C 33PF J	K3	C141			CK73GB1E103K	CHIP C 0.010UF K	
C55			CC73GCH1H470J	CHIP C 47PF J	K2	C142			CC73GCH1H470J	CHIP C 47PF J	
C55			CC73GCH1H560J	CHIP C 56PF J	K	C143			CC73GCH1H181J	CHIP C 180PF J	
C62			CK73GB1E103K	CHIP C 0.010UF K		C144			CK73GB1E103K	CHIP C 0.010UF K	
C65			CK73GB1C104K	CHIP C 0.10UF K		C145			CK73GB1H102K	CHIP C 1000PF K	
C67			CK73GB1E103K	CHIP C 0.010UF K		C146			CC73GCH1H221J	CHIP C 220PF J	
C70			CK73GB1H473K	CHIP C 0.047UF K		C147			CC73GCH1H270J	CHIP C 27PF J	K3
C71			CK73GB1H103K	CHIP C 0.010UF K		C148			CK73GB1H103K	CHIP C 0.010UF K	
C73			CK73GB1A105K	CHIP C 1.0UF K		C149			CC73GCH1H221J	CHIP C 220PF J	
C101			CC73GCH1H180J	CHIP C 18PF J		C150			CK73GB1H102K	CHIP C 1000PF K	

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## PARTS LIST

TX-RX UNIT (X57-7590-XX)

Ref. No.	Address	New parts	Parts No.	Description	Desti-nation	Ref. No.	Address	New parts	Parts No.	Description	Desti-nation
C151			CC73GCH1H050B	CHIP C 5.0PF B		C321,322			CK73GB1H103K	CHIP C 0.010UF K	
C152			CC73GCH1H331J	CHIP C 330PF J		C323,324		*	CS77BA1A3R3M	CHIP TNTL 3.3UF 10WV	
C153			CC73GCH1H101J	CHIP C 100PF J		C327			CS77BA1E010M	CHIP TNTL 1.0UF 25WV	
C154			CK73GB1H102K	CHIP C 1000PF K		C328-331			CK73GB1H103K	CHIP C 0.010UF K	
C155			CC73GCH1H090B	CHIP C 9.0PF B		C332			CC73GCH1H390J	CHIP C 39PF J	K
C156			CC73GCH1H390J	CHIP C 39PF J		C332			CC73GCH1H470J	CHIP C 47PF J	K2
C157			CC73GCH1H090B	CHIP C 9.0PF B		C332			CC73GCH1H820J	CHIP C 82PF J	K3
C158-160			CK73GB1H103K	CHIP C 0.010UF K		C333			CC73GCH1H390J	CHIP C 39PF J	K3
C161			CC73GCH1H560J	CHIP C 56PF J		C333			CC73GCH1H560J	CHIP C 56PF J	K2
C162			CC73GCH1H820J	CHIP C 82PF J		C333			CC73GCH1H680J	CHIP C 68PF J	K
C163			CK73GB1C104K	CHIP C 0.10UF K		C334			CS77AA1A4R7M	CHIP TNTL 4.7UF 10WV	
C164			CK73GB1H103K	CHIP C 0.010UF K		C335			CC73GCH1H390J	CHIP C 39PF J	
C166			CS77AA1A4R7M	CHIP TNTL 4.7UF 10WV		C336			CC73GCH1H101J	CHIP C 100PF J	
C167			CK73GB1C104K	CHIP C 0.10UF K		C337			CC73GCH1H030B	CHIP C 3.0PF B	K
C168			CC73GCH1H820J	CHIP C 82PF J		C337			CC73GCH1H060B	CHIP C 6.0PF B	K3
C169			CK73FB1E104K	CHIP C 0.10UF K		C337,338			CC73GCH1H120J	CHIP C 12PF J	K2
C170-172			CK73GB1H102K	CHIP C 1000PF K		C338			CC73GCH1H150J	CHIP C 15PF J	K
C173			CK73GB1H472K	CHIP C 4700PF K		C338,339			CC73GCH1H020B	CHIP C 2.0PF B	K3
C174			CK73GB1H681K	CHIP C 680PF K		C339			CC73GCH1H020B	CHIP C 2.0PF B	K,K2
C175			CK73GB1H102K	CHIP C 1000PF K		C340-343			CC73GCH1H470J	CHIP C 47PF J	
C176			CK73GB1C333K	CHIP C 0.033UF K		C344-347			CK73GB1H103K	CHIP C 0.010UF K	
C177			CK73FB1C334K	CHIP C 0.33UF K		C348,349			CC73GCH1H040B	CHIP C 4.0PF B	
C181-183			CK73GB1H103K	CHIP C 0.010UF K		C350,351			CK73GB1H102K	CHIP C 1000PF K	
C185,186			CC73GCH1H090B	CHIP C 9.0PF B		C352			CK73GB1H103K	CHIP C 0.010UF K	
C189			CC73GCH1H060B	CHIP C 6.0PF B		C353			CC73GCH1H101J	CHIP C 100PF J	
C190			CC73GCH1H180J	CHIP C 18PF J		C354			CC73GCH1H680J	CHIP C 68PF J	
C192-194			CK73GB1H103K	CHIP C 0.010UF K		C355			CC73GCH1H101J	CHIP C 100PF J	
C197,198			CK73GB1H103K	CHIP C 0.010UF K		C356			CC73GCH1H680J	CHIP C 68PF J	
C201			CK73GB1H103K	CHIP C 0.010UF K		C357			CK73GB1H103K	CHIP C 0.010UF K	
C202			CC73GCH1H680J	CHIP C 68PF J		C358			CC73GCH1H100C	CHIP C 10PF C	K3
C203		*	CE32CL1A470M	ELECTRO 47UF 10WV		C358			CK73GB1E103K	CHIP C 0.010UF K	K,K2
C204		*	C92-2027-05	ELECTRO 22UF 16WV		C360			CK73GB1H102K	CHIP C 1000PF K	
C205			CK73GB1H102K	CHIP C 1000PF K		C361,362			CK73GB1H103K	CHIP C 0.010UF K	
C206			CK73GB1H103K	CHIP C 0.010UF K		C363			CK73GB1H102K	CHIP C 1000PF K	
C208			CK73GB1H102K	CHIP C 1000PF K		C373			CK73FB1E224K	CHIP C 0.22UF K	
C209			CK73GB1H103K	CHIP C 0.010UF K		C374			CK73FB1E104K	CHIP C 0.10UF K	
C210			CK73FB1E104K	CHIP C 0.10UF K		C376,377			CK73GB1H103K	CHIP C 0.010UF K	
C211		*	CS77AB21C3R3M	CHIP TNTL 3.3UF 16WV		C378			CK73FB1E224K	CHIP C 0.22UF K	
C212			CK73GB1H102K	CHIP C 1000PF K		C381,382			CK73GB1H103K	CHIP C 0.010UF K	
C213			CK73GB1H103K	CHIP C 0.010UF K		C383			CK73FB1E224K	CHIP C 0.22UF K	
C214			CC73FCH1H101J	CHIP C 100PF J	K2,K3	C384			CK73GB1C473K	CHIP C 0.047UF K	K2,K3
C214			CC73FCH1H470J	CHIP C 47PF J	K	C384			CK73GB1C683K	CHIP C 0.068UF K	K
C215			CK73GB1H102K	CHIP C 1000PF K		C389			CC73GCH1H102J	CHIP C 1000PF J	
C216		*	CE32CL1A470M	ELECTRO 47UF 10WV		C501			CC73GCH1H101J	CHIP C 100PF J	
C217			CK73GB1H103K	CHIP C 0.010UF K		C524			CK73GB1H102K	CHIP C 1000PF K	
C218			CK73FB1E104K	CHIP C 0.10UF K		C525			CK73FB1E683K	CHIP C 0.068UF K	
C219-222			CK73GB1H103K	CHIP C 0.010UF K		C526,527			CK73GB1H471K	CHIP C 470PF K	
C223			CK73GB1H102K	CHIP C 1000PF K		C528			CC73GCH1H101J	CHIP C 100PF J	
C225			CK73GB1E103K	CHIP C 0.010UF K	K	C529			C92-0949-05	CHIP TNTL 4.7UF 16WV	
C225			CK73GB1H103K	CHIP C 0.010UF K	K2,K3	C530			CK73GB1E123K	CHIP C 0.012UF K	
C226,227			CC73FCH1H820J	CHIP C 82PF J		C531			CS77BA0J100M	CHIP TNTL 10UF 6.3WV	
C301			CS77BA0J100M	CHIP TNTL 10UF 6.3WV		C532			CK73GB1H222K	CHIP C 2200PF K	
C302			CK73GB1H102K	CHIP C 1000PF K		C533			CS77BA0J100M	CHIP TNTL 10UF 6.3WV	
C305			CK73GB1H103K	CHIP C 0.010UF K		C534			CK73FB1E104K	CHIP C 0.10UF K	
C311,312			CK73GB1H103K	CHIP C 0.010UF K		C535			CS77BA0J100M	CHIP TNTL 10UF 6.3WV	
C316			CS77CB21A220M	CHIP TNTL 22UF 10WV		C536,537			CK73FB1E104K	CHIP C 0.10UF K	
C317			C90-5674-05	ELECTRO 47UF 16WV		C538			CK73GB1E223K	CHIP C 0.022UF K	
C318			CS77CA1V0R1M	CHIP TNTL 0.1UF 35WV		C539			CC73GCH1H470J	CHIP C 47PF J	
C319		*	C92-0930-05	ELECTRO 10UF 16WV		C540			CK73FB1E104K	CHIP C 0.10UF K	
C320			C90-5674-05	ELECTRO 47UF 16WV		C541			CK73GB1H102K	CHIP C 1000PF K	



## PARTS LIST

TX-RX UNIT (X57-7590-XX)

Ref. No.	Address	New parts	Parts No.	Description	Desti-nation	Ref. No.	Address	New parts	Parts No.	Description	Desti-nation
C542			CK73FB1E104K	CHIP C 0.10UF K		C617			CK73FB1E104K	CHIP C 0.10UF K	
C543			CK73GB1H102K	CHIP C 1000PF K		C618			CK73GB1H272J	CHIP C 2700PF J	
C544			CC73GCH1H121J	CHIP C 120PF J		C619		*	CE32BD1E331M	ELECTRO 330UF 25WV	
C545			CK73GB1H103K	CHIP C 0.010UF K		C622			CK73GB1H102K	CHIP C 1000PF K	
C546			CK73FB1E104K	CHIP C 0.10UF K		C623			CE32CL1C470M	ELECTRO 47UF 16WV	
C547			CK73GB1E223K	CHIP C 0.022UF K		C624			CK73GB1H102K	CHIP C 1000PF K	
C548			CS77BA0J4R7M	CHIP TNTL 4.7UF 6.3WV		C625			CK73GB1H103K	CHIP C 0.010UF K	
C549			CK73GB1H222K	CHIP C 2200PF K		C626			CS77BA1C010M	CHIP TNTL 1.0UF 16WV	
C550			CK73FB1E104K	CHIP C 0.10UF K		C627,628			CK73FB1E104K	CHIP C 0.10UF K	
C551			CK73FB1E333K	CHIP C 0.033UF K		C630			CK73GB1H102K	CHIP C 1000PF K	
C552			CC73GCH1H470J	CHIP C 47PF J		C631			CC73GCH1H101J	CHIP C 100PF J	
C553,554			CK73FB1E104K	CHIP C 0.10UF K		C632-639			CK73GB1H102K	CHIP C 1000PF K	
C555			CK73GB1H102K	CHIP C 1000PF K		C640			CS77BA0J100M	CHIP TNTL 10UF 6.3WV	
C557			CK73GB1E223K	CHIP C 0.022UF K		C641,642			CK73FB1E104K	CHIP C 0.10UF K	
C558			CS77BA0J4R7M	CHIP TNTL 4.7UF 6.3WV		C666-680			CC73GCH1H101J	CHIP C 100PF J	
C559			CE32CL1E4R7M	ELECTRO 4.7UF 25WV		C681			CK73GB1H102K	CHIP C 1000PF K	
C562			CK73GB1H103K	CHIP C 0.010UF K		C682,683			CC73GCH1H101J	CHIP C 100PF J	
C563			CK73GB1H102K	CHIP C 1000PF K		C684			CK73GB1H102K	CHIP C 1000PF K	
C565			CS77AA1ER47M	CHIP TNTL 0.47UF 25WV		C685			CC73GCH1H101J	CHIP C 100PF J	
C566			CC73GCH1H100C	CHIP C 10PF C		C686			CK73GB1H102K	CHIP C 1000PF K	
C567			CK73GB1E223K	CHIP C 0.022UF K		C687			CK73GB1H103K	CHIP C 0.010UF K	
C568			CK73GB1H102K	CHIP C 1000PF K		C688			CC73GCH1H221J	CHIP C 220PF J	
C570			CE32CL1E4R7M	ELECTRO 4.7UF 25WV		C689			CC73GCH1H101J	CHIP C 100PF J	
C571			C92-0949-05	CHIP TNTL 4.7UF 16WV		C690			CK73FB1E104K	CHIP C 0.10UF K	
C572,573			CC73GCH1H030B	CHIP C 3.0PF B		C691,692			CC73GCH1H101J	CHIP C 100PF J	
C574			CK73GB1H472K	CHIP C 4700PF K		C693			CK73GB1H103K	CHIP C 0.010UF K	
C575			CS77BA1A100M	CHIP TNTL 10UF 10WV		C694			CS77CB21A220M	CHIP TNTL 22UF 10WV	
C576			CC73GCH1H470J	CHIP C 47PF J		C695			CC73GCH1H101J	CHIP C 100PF J	
C578			CS77BA0J4R7M	CHIP TNTL 4.7UF 6.3WV		C696			CS77BA1A100M	CHIP TNTL 10UF 10WV	
C579			CK73GB1H472K	CHIP C 4700PF K		C697			CK73GB1H103K	CHIP C 0.010UF K	
C580-582			CK73GB1H102K	CHIP C 1000PF K		C698-701			CS77BA0J100M	CHIP TNTL 10UF 6.3WV	
C583			C92-0858-05	CHIP TNTL 1UF 16WV		C703			CK73FB1E104K	CHIP C 0.10UF K	
C585			CC73FCH1H751J	CHIP C 750PF J		C704			CK73GB1H103K	CHIP C 0.010UF K	
C586			CC73GCH1H180J	CHIP C 18PF J		C705			CS77BA1E010M	CHIP TNTL 1.0UF 25WV	
C587			CK73GB1H122K	CHIP C 1200PF K		C712			CK73GB1E473J	CHIP C 0.047UF J	
C588			CC73GCH1H070B	CHIP C 7.0PF B		C713			CS77AA1ER47M	CHIP TNTL 0.47UF 25WV	
C589			CC73GCH1H181J	CHIP C 180PF J		C714-716			CK73GB1C104K	CHIP C 0.10UF K	
C590			CK73GB1H332K	CHIP C 3300PF K		C717			CK73FB0J106K	CHIP C 10UF K	
C591			CC73GCH1H180J	CHIP C 18PF J		C718,719			CK73GB1C104K	CHIP C 0.10UF K	
C592			CK73GB1H102K	CHIP C 1000PF K		C720			CK73GB1H471K	CHIP C 470PF K	
C593			CS77CB21A220M	CHIP TNTL 22UF 10WV		C721			CK73GB1E105K	CHIP C 1.0UF K	
C594			CK73GB1H103K	CHIP C 0.010UF K		C722			CK73GB1C104K	CHIP C 0.10UF K	
C595-597			CK73GB1H102K	CHIP C 1000PF K		C723			CK73FB0J106K	CHIP C 10UF K	
C598,599			CK73FB1E104K	CHIP C 0.10UF K		C724			CC73GCH1H101J	CHIP C 100PF J	
C600			CS77BA0J4R7M	CHIP TNTL 4.7UF 6.3WV		C725,726			CC73GCH1H220J	CHIP C 22PF J	
C601			CK73GB1H102K	CHIP C 1000PF K		C727			CK73GB1H103K	CHIP C 0.010UF K	
C602			CK73GB1H562K	CHIP C 5600PF K		C728,729			CK73GB1C104K	CHIP C 0.10UF K	
C603			CK73GB1H102K	CHIP C 1000PF K		C730,731			CK73GB1H821K	CHIP C 820PF K	
C604,605			CK73GB1H562K	CHIP C 5600PF K		C732			CK73GB1H272K	CHIP C 2700PF K	
C606			CS77BA0J4R7M	CHIP TNTL 4.7UF 6.3WV		C733			CK73GB1H221K	CHIP C 220PF K	
C607			CK73GB1H102K	CHIP C 1000PF K		C734-741			CK73GB1H102K	CHIP C 1000PF K	
C608			CK73GB1H332J	CHIP C 3300PF J		TC301,302			C05-0393-05	CERAMIC TRIMMER CAPACIOR(8P)	
C609			CK73GB1H272J	CHIP C 2700PF J		CN101			E04-0154-05	PIN SOCKET	
C610			CK73FB1E104K	CHIP C 0.10UF K		CN102,103			E41-2735-05	PIN ASSY(2P)	
C611			CK73GB1H272J	CHIP C 2700PF J		CN104			E04-0154-05	PIN SOCKET	
C612		*	C92-0930-05	ELECTRO 10UF 16WV		CN201		*	E41-3087-05	PIN ASSY(5P)	
C613			CE32CL1C470M	ELECTRO 47UF 16WV		CN202		*	E40-6729-05	FLAT CABLE CONNECTOR(18P)	
C614			CK73GB1H102K	CHIP C 1000PF K		CN203			E04-0154-05	PIN SOCKET	
C615			CK73GB1H272J	CHIP C 2700PF J		CN501			E41-2672-05	PIN ASSY(3P)	
C616			CK73GB1H103K	CHIP C 0.010UF K							

# TK-690H(B)

## PARTS LIST

### TX-RX UNIT (X57-7590-XX)

Ref. No.	Address	New parts	Parts No.	Description	Desti-nation	Ref. No.	Address	New parts	Parts No.	Description	Desti-nation
CN502		*	E40-6729-05	FLAT CABLE CONNECTOR		L121			L41-6885-33	SMALL FIXED INDUCTOR(0.68UH)	
CN504			E40-6472-05	PIN ASSY(10P)		L122			L41-2785-33	SMALL FIXED INDUCTOR(0.27UH)	
CN505			E40-5960-05	PIN ASSY(30P)		L123			L39-1272-15	TOROIDAL COIL	
CN506			E40-6532-05	PIN ASSY(9)		L124			L34-4866-05	COIL	
CN507		*	E40-6775-05	PIN ASSY(10P)		L125			L41-6895-33	SMALL FIXED INDUCTOR(6.8UH)	
CN508		*	E41-3092-05	PIN ASSY(14P)		L126			L39-1272-15	TOROIDAL COIL	
W501		*	E37-0707-15	LEAD WIRE WITH CONNECTOR(11P)		L127			L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
F501			F53-0128-05	FUSE(0.5A)		L128,129			L30-0534-05	COIL	
F502			F53-0108-05	FUSE(1.8A)		L130			L41-6805-33	SMALL FIXED INDUCTOR(68UH)	
		*	G13-1742-04	CUSHION		L131-133		*	L34-4847-05	COIL	
CD101			L79-1701-05	TUNING COIL		L135			L41-2795-33	SMALL FIXED INDUCTOR(2.7UH)	
CF101,102			L72-0916-05	CERAMIC FILTER(455KHZ)		L201			L41-2285-33	SMALL FIXED INDUCTOR(0.22UH)	K2,K3
L1			L41-1085-14	SMALL FIXED INDUCTOR(100NH)	K3	L201			L41-3985-33	SMALL FIXED INDUCTOR(0.39UH)	K
L1			L41-1585-14	SMALL FIXED INDUCTOR(150NH)	K,K2	L303,304		*	L41-5605-33	SMALL FIXED INDUCTOR(56UH)	
L2			L41-1285-14	SMALL FIXED INDUCTOR(120NH)	K2	L305		*	L34-4876-05	COIL	K
L2			L41-1585-14	SMALL FIXED INDUCTOR(150NH)	K3	L305		*	L34-4877-05	COIL	K2
L2		*	L41-1885-14	SMALL FIXED INDUCTOR(180NH)	K	L305		*	L34-4878-05	COIL	K3
L3			L41-1285-14	SMALL FIXED INDUCTOR(120NH)	K3	L306		*	L34-4879-05	COIL	K2
L3		*	L41-1885-14	SMALL FIXED INDUCTOR(180NH)	K2	L306		*	L34-4880-05	COIL	K
L3			L41-2285-14	SMALL FIXED INDUCTOR(220NH)	K	L306		*	L34-4881-05	COIL	K3
L4			L41-1085-14	SMALL FIXED INDUCTOR(100NH)	K2	L307			L41-3985-33	SMALL FIXED INDUCTOR(0.39UH)	
L4			L41-1285-14	SMALL FIXED INDUCTOR(120NH)	K	L308,309			L41-2285-33	SMALL FIXED INDUCTOR(0.22UH)	
L4 ,5			L41-1085-14	SMALL FIXED INDUCTOR(100NH)	K3	L310			L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
L5			L41-1585-14	SMALL FIXED INDUCTOR(150NH)	K,K2	L311			L41-3385-33	SMALL FIXED INDUCTOR(0.33UH)	
L6			L41-1085-14	SMALL FIXED INDUCTOR(100NH)	K2	L313,314		*	L41-5605-33	SMALL FIXED INDUCTOR(56UH)	
L6			L41-1285-14	SMALL FIXED INDUCTOR(120NH)	K	L315			L40-1885-92	SMALL FIXED INDUCTOR(180NH)	K2,K3
L6			L41-8278-14	SMALL FIXED INDUCTOR(82NH)	K3	L315			L40-2285-92	SMALL FIXED INDUCTOR(220NH)	K
L7			L41-1085-14	SMALL FIXED INDUCTOR(100NH)	K3	L316			L40-2285-92	SMALL FIXED INDUCTOR(220NH)	K3
L7			L41-1585-14	SMALL FIXED INDUCTOR(150NH)	K,K2	L501,502			L41-1005-33	SMALL FIXED INDUCTOR(10UH)	
L8			L41-1085-14	SMALL FIXED INDUCTOR(100NH)	K2	X101			L77-1294-05	CRYSTAL RESONATOR(11.155M)	
L8			L41-1285-14	SMALL FIXED INDUCTOR(120NH)	K	X301		*	L77-3051-05	VCXO(16.8M)	
L8			L41-8278-14	SMALL FIXED INDUCTOR(82NH)	K3	X501			L77-1708-15	CRYSTAL RESONATOR(3.579545MHZ)	
L9			L41-1085-14	SMALL FIXED INDUCTOR(100NH)	K3	X502			L77-1863-05	CRYSTAL RESONATOR(12.0MHZ)	
L9			L41-1585-14	SMALL FIXED INDUCTOR(150NH)	K,K2	X503			L77-3037-05	CRYSTAL RESONATOR(6.144MHZ)	
L12			L41-1085-14	SMALL FIXED INDUCTOR(100NH)	K2,K3	XF101		*	L71-0534-25	CRYSTAL FILTER (10.7MHZ)	
L12			L41-1285-14	SMALL FIXED INDUCTOR(120NH)	K	XF102		*	L71-0533-15	CRYSTAL FILTER (10.7MHZ)	
L101,102		*	L34-4869-05	COIL	K,K2	R1			RK73GB2A103J	CHIP R	10K J 1/10W
L101,102		*	L34-4870-05	COIL	K3	R2			RK73GB2A100J	CHIP R	10 J 1/10W
L103			L41-1005-33	SMALL FIXED INDUCTOR(10UH)		R3 -6			RK73GB2A103J	CHIP R	10K J 1/10W
L104,105		*	L34-4869-05	COIL	K,K2	R7			RK73GB2A000J	CHIP R	0 J 1/10W
L104,105		*	L34-4870-05	COIL	K3	R10 ,11			RK73GB2A101J	CHIP R	100 J 1/10W
L106			L41-1585-33	SMALL FIXED INDUCTOR(0.15UH)		R12			RK73GB2A472J	CHIP R	4.7K J 1/10W
L107			L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)		R14			RK73GB2A103J	CHIP R	10K J 1/10W
L108			L41-1285-33	SMALL FIXED INDUCTOR(0.12UH)	K3	R15			RK73GB2A000J	CHIP R	0 J 1/10W
L108			L41-1585-33	SMALL FIXED INDUCTOR(0.15UH)	K,K2	R16			RK73GB2A121J	CHIP R	120 J 1/10W
L109			L41-2785-33	SMALL FIXED INDUCTOR(0.27UH)		R16			RK73GB2A331J	CHIP R	330 J 1/10W
L110			L41-1285-33	SMALL FIXED INDUCTOR(0.12UH)	K2	R17			RK73GB2A332J	CHIP R	3.3K J 1/10W
L110			L41-1585-33	SMALL FIXED INDUCTOR(0.15UH)	K,K2	R18			RK73GB2A101J	CHIP R	100 J 1/10W
L111			L41-6885-33	SMALL FIXED INDUCTOR(0.68UH)		R19 ,20			RK73GB2A103J	CHIP R	10K J 1/10W
L112			L41-1285-33	SMALL FIXED INDUCTOR(0.12UH)	K3	R21			RK73GB2A101J	CHIP R	100 J 1/10W
L112			L41-1585-33	SMALL FIXED INDUCTOR(0.15UH)	K,K2	R22			RK73GB2A103J	CHIP R	10K J 1/10W
L113			L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)		R23			RK73GB2A101J	CHIP R	100 J 1/10W
L114,115			L41-1295-33	SMALL FIXED INDUCTOR(1.2UH)		R24			RK73GB2A470J	CHIP R	47 J 1/10W
L116			L41-2205-33	SMALL FIXED INDUCTOR(22UH)		R25			RK73GB2A103J	CHIP R	10K J 1/10W
L117			L41-1295-33	SMALL FIXED INDUCTOR(1.2UH)		R26			RK73GB2A470J	CHIP R	47 J 1/10W
L118			L41-2285-32	SMALL FIXED INDUCTOR(0.22UH)	K3	R27			RK73GB2A101J	CHIP R	100 J 1/10W
L119			L41-1295-33	SMALL FIXED INDUCTOR(1.2UH)		R28			RK73GB2A100J	CHIP R	10 J 1/10W
L120			L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)		R29			RK73GB2A000J	CHIP R	0 J 1/10W
						R30			RK73GB2A101J	CHIP R	100 J 1/10W

## PARTS LIST

TX-RX UNIT (X57-7590-XX)

Ref. No.	Address	New parts	Parts No.	Description	Desti-nation	Ref. No.	Address	New parts	Parts No.	Description	Desti-nation
R31			RK73GB2A560J	CHIP R 56 J 1/10W		R205			RK73GB2A332J	CHIP R 3.3K J 1/10W	
R34 ,35			RK73GB2A103J	CHIP R 10K J 1/10W		R206			RK73GB2A473J	CHIP R 47K J 1/10W	
R36			RK73GB2A472J	CHIP R 4.7K J 1/10W		R207			RK73FB2B220J	CHIP R 22 J 1/8W	
R44			RK73GB2A000J	CHIP R 0 J 1/10W		R208			RK73GB2A473J	CHIP R 47K J 1/10W	
R46			RK73GB2A000J	CHIP R 0 J 1/10W	K2,K3	R209			RK73PB2H470J	CHIP R 47 J 1/2W	
R46 ,47			RK73GB2A000J	CHIP R 0 J 1/10W	K	R210			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R48			RK73GB2A000J	CHIP R 0 J 1/10W	K2	R211			RK73FB2B471J	CHIP R 470 J 1/8W	
R49 ,50			RK73GB2A000J	CHIP R 0 J 1/10W	K3	R212,213			RK73FB2B220J	CHIP R 22 J 1/8W	
R50			RK73GB2A000J	CHIP R 0 J 1/10W	K,K2	R214			RK73FB2B471J	CHIP R 470 J 1/8W	
R51			RK73GB2A473J	CHIP R 47K J 1/10W		R215			RK73FB2B000J	CHIP R 0 J 1/8W	
R52 ,53			RK73GB2A000J	CHIP R 0 J 1/10W		R217			RK73GB2A101J	CHIP R 100 J 1/10W	
R73			RK73GB2A100J	CHIP R 10 J 1/10W		R218			RK73GB2A680J	CHIP R 68 J 1/10W	
R101			RK73GB2A104J	CHIP R 100K J 1/10W		R219			RK73GB2A101J	CHIP R 100 J 1/10W	
R102			RK73GB2A680J	CHIP R 68 J 1/10W		R301			RK73GB2A221J	CHIP R 220 J 1/10W	
R103			RK73GB2A104J	CHIP R 100K J 1/10W		R302-305			RK73GB2A152J	CHIP R 1.5K J 1/10W	
R104-106			RK73GB2A103J	CHIP R 10K J 1/10W		R306			RK73GB2A000J	CHIP R 0 J 1/10W	
R107			RK73GB2A000J	CHIP R 0 J 1/10W		R311,312			RK73GB2A100J	CHIP R 10 J 1/10W	
R108			RK73GB2A271J	CHIP R 270 J 1/10W		R313,314			RK73GB2A152J	CHIP R 1.5K J 1/10W	
R109			RK73GB2A180J	CHIP R 18 J 1/10W		R317			RK73GB2A221J	CHIP R 220 J 1/10W	
R110			RK73GB2A271J	CHIP R 270 J 1/10W		R318			RK73GB2A101J	CHIP R 100 J 1/10W	
R111			RK73GB2A470J	CHIP R 47 J 1/10W		R319			RK73GB2A331J	CHIP R 330 J 1/10W	K3
R112			RK73GB2A271J	CHIP R 270 J 1/10W		R319			RK73GB2A471J	CHIP R 470 J 1/10W	K,K2
R113			RK73GB2A180J	CHIP R 18 J 1/10W		R320			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R114			RK73GB2A271J	CHIP R 270 J 1/10W		R321,322			RK73GB2A000J	CHIP R 0 J 1/10W	
R116			RK73GB2A222J	CHIP R 2.2K J 1/10W		R323			RK73FB2B152J	CHIP R 1.5K J 1/8W	
R117			RK73GB2A151J	CHIP R 150 J 1/10W		R324			RK73GB2A101J	CHIP R 100 J 1/10W	
R118			RK73GB2A102J	CHIP R 1.0K J 1/10W		R325,326			RK73GB2A000J	CHIP R 0 J 1/10W	
R119			RK73GB2A103J	CHIP R 10K J 1/10W		R327			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R120			RK73GB2A331J	CHIP R 330 J 1/10W		R328			RK73GB2A000J	CHIP R 0 J 1/10W	
R121			RK73GB2A103J	CHIP R 10K J 1/10W		R329			RK73GB2A101J	CHIP R 100 J 1/10W	K
R122			RK73GB2A561J	CHIP R 560 J 1/10W		R329			RK73GB2A470J	CHIP R 47 J 1/10W	K3
R126			RK73GB2A822J	CHIP R 8.2K J 1/10W		R329			RK73GB2A680J	CHIP R 68 J 1/10W	K2
R128, 129			RK73GB2A222J	CHIP R 2.2K J 1/10W		R330-332			RK73GB2A103J	CHIP R 10K J 1/10W	
R130			RK73GB2A103J	CHIP R 10K J 1/10W		R333			RK73GB2A104J	CHIP R 100K J 1/10W	
R132			RK73GB2A272J	CHIP R 2.7K J 1/10W		R334			RK73GB2A561J	CHIP R 560 J 1/10W	K
R133			RK73GB2A000J	CHIP R 0 J 1/10W		R334,335			RK73GB2A471J	CHIP R 470 J 1/10W	K2,K3
R134			RK73GB2A334J	CHIP R 330K J 1/10W		R335			RK73GB2A471J	CHIP R 470 J 1/10W	K
R136			RK73GB2A332J	CHIP R 3.3K J 1/10W		R336,337			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R137			RK73GB2A331J	CHIP R 330 J 1/10W		R338			RK73GB2A470J	CHIP R 47 J 1/10W	
R138			RK73GB2A152J	CHIP R 1.5K J 1/10W		R339			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R139			RK73GB2A154J	CHIP R 150K J 1/10W		R340			RK73GB2A470J	CHIP R 47 J 1/10W	
R140			RK73GB2A332J	CHIP R 3.3K J 1/10W		R341,342			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R141			RK73GB2A331J	CHIP R 330 J 1/10W		R343,344			RK73GB2A223J	CHIP R 22K J 1/10W	
R142			RK73GB2A332J	CHIP R 3.3K J 1/10W		R345			RK73GB2A330J	CHIP R 33 J 1/10W	
R144			RK73GB2A104J	CHIP R 100K J 1/10W		R346			RK73GB2A101J	CHIP R 100 J 1/10W	
R145			RK73GB2A823J	CHIP R 82K J 1/10W		R347			RK73GB2A221J	CHIP R 220 J 1/10W	
R146, 147			RK73GB2A271J	CHIP R 270 J 1/10W		R348			RK73GB2A103J	CHIP R 10K J 1/10W	K3
R148, 149			RK73GB2A103J	CHIP R 10K J 1/10W		R348,349			RK73GB2A103J	CHIP R 10K J 1/10W	K,K2
R150-153			RK73GB2A100J	CHIP R 10 J 1/10W		R349			RK73GB2A152J	CHIP R 1.5K J 1/10W	K3
R154			RK73GB2A103J	CHIP R 10K J 1/10W		R350			RK73GB2A000J	CHIP R 0 J 1/10W	
R155			RK73GB2A104J	CHIP R 100K J 1/10W		R353			RK73GB2A101J	CHIP R 100 J 1/10W	
R155			RK73GB2A563J	CHIP R 56K J 1/10W	K2,K3	R354			RK73GB2A122J	CHIP R 1.2K J 1/10W	
R162, 163			RK73GB2A152J	CHIP R 1.5K J 1/10W	K	R355			RK73GB2A471J	CHIP R 470 J 1/10W	
R164, 165			RK73GB2A560J	CHIP R 56 J 1/10W		R356			RK73GB2A221J	CHIP R 220 J 1/10W	
R166			RK73GB2A102J	CHIP R 1.0K J 1/10W		R357			RK73FB2B470J	CHIP R 47 J 1/8W	
R167			RK73GB2A474J	CHIP R 470K J 1/10W		R358			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R168			RK73GB2A101J	CHIP R 100 J 1/10W		R359			RK73GB2A100J	CHIP R 10 J 1/10W	K3
R201			RK73GB2A102J	CHIP R 1.0K J 1/10W		R359			RK73GB2A151J	CHIP R 150 J 1/10W	K,K2
R202			RK73GB2A561J	CHIP R 560 J 1/10W		R366			RK73GB2A152J	CHIP R 1.5K J 1/10W	K
R203			RK73GB2A222J	CHIP R 2.2K J 1/10W		R366,367			RK73GB2A102J	CHIP R 1.0K J 1/10W	K2,K3

# TK-690H(B)

## PARTS LIST

TX-RX UNIT (X57-7590-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination	Ref. No.	Address	New parts	Parts No.	Description	Destination
R367			RK73GB2A102J	CHIP R 1.0K J 1/10W	K	R578			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R371			RK73GB2A101J	CHIP R 100 J 1/10W		R579,580			RK73GB2A823J	CHIP R 82K J 1/10W	
R372			RK73GB2A103J	CHIP R 10K J 1/10W		R581,582			RK73GB2A683J	CHIP R 68K J 1/10W	
R375			RK73GB2A471J	CHIP R 470 J 1/10W	K,K2	R583			RK73FB2B000J	CHIP R 0 J 1/8W	
R501			RK73GB2A333J	CHIP R 33K J 1/10W		R584			RK73GB2A333J	CHIP R 33K J 1/10W	
R502			RK73GB2A471J	CHIP R 470 J 1/10W		R586			RK73GB2A104J	CHIP R 100K J 1/10W	
R504			RK73FB2B000J	CHIP R 0 J 1/8W		R587			RK73FB2B000J	CHIP R 0 J 1/8W	
R505			RK73GB2A103J	CHIP R 10K J 1/10W		R588			RK73GB2A473J	CHIP R 47K J 1/10W	
R507			RK73GB2A223J	CHIP R 22K J 1/10W		R589			RK73GB2A223J	CHIP R 22K J 1/10W	
R508			RK73GB2A102J	CHIP R 1.0K J 1/10W		R591,592			RK73GB2A124J	CHIP R 120K J 1/10W	
R509-511			RK73GB2A473J	CHIP R 47K J 1/10W		R594-597			RK73GB2A473J	CHIP R 47K J 1/10W	
R512			RK73GB2A184J	CHIP R 180K J 1/10W		R598			RK73GB2A332J	CHIP R 3.3K J 1/10W	
R513			RK73GB2A223J	CHIP R 22K J 1/10W		R599,600			RK73GB2A473J	CHIP R 47K J 1/10W	
R514			RK73GB2A184J	CHIP R 180K J 1/10W		R601			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R515			RK73FB2B000J	CHIP R 0 J 1/8W		R602			RK73FB2B473J	CHIP R 47K J 1/8W	
R516,517			RK73GB2A104J	CHIP R 100K J 1/10W		R603			RK73GB2A103J	CHIP R 10K J 1/10W	
R518			RK73GB2A181J	CHIP R 180 J 1/10W		R604			RK73FB2B000J	CHIP R 0 J 1/8W	
R519			RK73GB2A393J	CHIP R 39K J 1/10W		R605			RK73GB2A333J	CHIP R 33K J 1/10W	
R520			RK73GB2A154J	CHIP R 150K J 1/10W		R606			RK73GB2A154J	CHIP R 150K J 1/10W	
R521			RK73GB2A102J	CHIP R 1.0K J 1/10W		R607			RK73GB2A000J	CHIP R 0 J 1/10W	
R522			RK73GB2A104J	CHIP R 100K J 1/10W		R608			RK73GB2A123J	CHIP R 12K J 1/10W	
R523			RK73GB2A474J	CHIP R 470K J 1/10W		R609			RK73GB2A153J	CHIP R 15K J 1/10W	
R524			RK73GB2A224J	CHIP R 220K J 1/10W		R611			RK73GB2A474J	CHIP R 470K J 1/10W	
R525			RK73GB2A472J	CHIP R 4.7K J 1/10W		R612			RK73GB2A823J	CHIP R 82K J 1/10W	
R526			RK73GB2A104J	CHIP R 100K J 1/10W		R613			RK73GB2A393J	CHIP R 39K J 1/10W	
R527			RK73GB2A223J	CHIP R 22K J 1/10W		R615			RK73GB2A122J	CHIP R 1.2K J 1/10W	
R528			RK73GB2A104J	CHIP R 100K J 1/10W		R616			RK73GB2A152J	CHIP R 1.5K J 1/10W	
R529,530			RK73GB2A334J	CHIP R 330K J 1/10W		R617			RN73GH1J274D	CHIP R 270K D 1/16W	
R531			RK73GB2A154J	CHIP R 150K J 1/10W		R618			RN73GH1J334D	CHIP R 330K D 1/16W	
R532			RK73GB2A474J	CHIP R 470K J 1/10W		R619,620			RN73GH1J274D	CHIP R 270K D 1/16W	
R533			RN73GH1J473D	CHIP R 47K D 1/16W		R621			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R534			RN73GH1J563D	CHIP R 56K D 1/16W		R622			RK73GB2A473J	CHIP R 47K J 1/10W	
R535			RK73GB2A103J	CHIP R 10K J 1/10W		R623			RN73GH1J274D	CHIP R 270K D 1/16W	
R536			RK73GB2A681J	CHIP R 680 J 1/10W		R624			RK73GB2A103J	CHIP R 10K J 1/10W	
R537			RK73GB2A472J	CHIP R 4.7K J 1/10W		R625			RK73GB2A684J	CHIP R 680K J 1/10W	
R539			RK73GB2A561J	CHIP R 560 J 1/10W		R626			RK73GB2A822J	CHIP R 8.2K J 1/10W	
R541			RK73FB2B000J	CHIP R 0 J 1/8W		R627			RN73GH1J274D	CHIP R 270K D 1/16W	
R542			RK73GB2A470J	CHIP R 47 J 1/10W		R628			RK73FB2B000J	CHIP R 0 J 1/8W	
R543			RK73GB2A220J	CHIP R 22 J 1/10W		R629			RN73GH1J563D	CHIP R 56K D 1/16W	
R545			RK73GB2A564J	CHIP R 560K J 1/10W		R630			RN73GH1J473D	CHIP R 47K D 1/16W	
R546			RK73FB2B000J	CHIP R 0 J 1/8W		R633,634			RK73GB2A103J	CHIP R 10K J 1/10W	
R547			RK73GB2A000J	CHIP R 0 J 1/10W		R636			RK73GB2A104J	CHIP R 100K J 1/10W	
R549			RK73GB2A153J	CHIP R 15K J 1/10W		R638			RK73GB2A223J	CHIP R 22K J 1/10W	
R552			RK73GB2A101J	CHIP R 100 J 1/10W		R639			RK73GB2A473J	CHIP R 47K J 1/10W	
R553			RK73GB2A682J	CHIP R 6.8K J 1/10W		R641			RK73FB2B000J	CHIP R 0 J 1/8W	
R557			RK73GB2A473J	CHIP R 47K J 1/10W	K,K2	R642-648			RK73FB2B102J	CHIP R 1.0K J 1/8W	
R557-559			RK73GB2A104J	CHIP R 100K J 1/10W	K3	R652			RK73FB2B102J	CHIP R 1.0K J 1/8W	
R558,559			RK73GB2A104J	CHIP R 100K J 1/10W	K,K2	R654-656			RK73FB2B102J	CHIP R 1.0K J 1/8W	
R562			RK73GB2A274J	CHIP R 270K J 1/10W		R657			RK73FB2B000J	CHIP R 0 J 1/8W	
R563			RK73GB2A104J	CHIP R 100K J 1/10W		R658			RK73GB2A473J	CHIP R 47K J 1/10W	
R564			RK73GB2A474J	CHIP R 470K J 1/10W		R659			RK73GB2A333J	CHIP R 33K J 1/10W	
R565			RK73GB2A123J	CHIP R 12K J 1/10W		R661			RK73FB2B000J	CHIP R 0 J 1/8W	
R566			RK73GB2A153J	CHIP R 15K J 1/10W		R662			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R567			RK73GB2A224J	CHIP R 220K J 1/10W		R663			RK73GB2A473J	CHIP R 47K J 1/10W	
R568			RK73GB2A000J	CHIP R 0 J 1/10W		R664			RK73GB2A333J	CHIP R 33K J 1/10W	
R570			RK73GB2A223J	CHIP R 22K J 1/10W		R665			RK73GB2A104J	CHIP R 100K J 1/10W	
R572			RK73GB2A104J	CHIP R 100K J 1/10W		R666,667			RK73FB2B000J	CHIP R 0 J 1/8W	
R573			RK73GB2A274J	CHIP R 270K J 1/10W		R668			RK73GB2A000J	CHIP R 0 J 1/10W	
R575,576			RK73GB2A104J	CHIP R 100K J 1/10W		R670			RK73FB2B000J	CHIP R 0 J 1/8W	
R577			RK73GB2A122J	CHIP R 1.2K J 1/10W		R671			RK73GB2A683J	CHIP R 68K J 1/10W	

## PARTS LIST

TX-RX UNIT (X57-7590-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination	Ref. No.	Address	New parts	Parts No.	Description	Destination
R672			RK73GB2A473J	CHIP R 47K J 1/10W		D501		*	02CZ18(X,Y)F	ZENER DIODE	
R674,675			RK73GB2A472J	CHIP R 4.7K J 1/10W		D502,503			1SS355	DIODE	
R676			RK73GB2A473J	CHIP R 47K J 1/10W		D504		*	02CZ5.6(X,Y)F	ZENER DIODE	
R677			RK73GB2A472J	CHIP R 4.7K J 1/10W		D505			1SS355	DIODE	
R678,679			RK73GB2A332J	CHIP R 3.3K J 1/10W		D506			1SS301F	DIODE	
R680			RK73GB2A104J	CHIP R 100K J 1/10W		D507		*	02CZ15(X,Y)F	ZENER DIODE	
R690,691			RK73FB2B000J	CHIP R 0 J 1/8W		D508			1SS355	DIODE	
R693			RK73GB2A103J	CHIP R 10K J 1/10W		D511			1SS301F	DIODE	
R695			RK73GB2A000J	CHIP R 0 J 1/10W		D512			1SS355	DIODE	
R697			RK73GB2A000J	CHIP R 0 J 1/10W		D513-517			DA204U	DIODE	
R698			RK73GB2A472J	CHIP R 4.7K J 1/10W		D519			DA204U	DIODE	
R699			RK73GB2A000J	CHIP R 0 J 1/10W		D521			DA204U	DIODE	
R700			RK73GB2A220J	CHIP R 22 J 1/10W		D523,524			DA204U	DIODE	
R701			RK73GB2A103J	CHIP R 10K J 1/10W		D526,527			DA204U	DIODE	
R702			RK73GB2A472J	CHIP R 4.7K J 1/10W		D528,529			1SS355	DIODE	
R703			RK73GB2A473J	CHIP R 47K J 1/10W		IC1 ,2			TC7WBD125AFK	MOS-IC	
R706			RK73FB2B000J	CHIP R 0 J 1/8W		IC3		*	LMX2485E	MOS-IC	
R707-713			RK73GB2A474J	CHIP R 470K J 1/10W		IC4			XC6204B332M	MOS-IC	
R714			RK73GB2A104J	CHIP R 100K J 1/10W		IC5			LMC7101BIM5	MOS-IC	
R715			RK73GB2A474J	CHIP R 470K J 1/10W		IC101			TA31136FNG	MOS-IC	
R716			RK73GB2A104J	CHIP R 100K J 1/10W		IC201			BU4094BCF	MOS-IC	
R717			RK73GB2A102J	CHIP R 1.0K J 1/10W		IC202			NJM78L05UA-ZB	BI-POLAR IC	
R718			RK73GB2A333J	CHIP R 33K J 1/10W		IC203			AN8009M	MOS-IC	
R719			RS14DB3D2R2J	FL-PROOF RS 2.2 J 2W		IC501			TC4013BF(N)-F	MOS-IC	
R720			RK73GB2A474J	CHIP R 470K J 1/10W		IC502			NJM4558M-ZB	MOS-IC	
R721			RK73GB2A224J	CHIP R 220K J 1/10W		IC503			KIA7808API	MOS-IC	
R725			RK73FB2B000J	CHIP R 0 J 1/8W		IC504			TC35453FG6	MOS-IC	
R728			RK73GB2A000J	CHIP R 0 J 1/10W		IC505			NJM4558M-ZB	MOS-IC	
R729-736			RK73GB2A472J	CHIP R 4.7K J 1/10W		IC506			L78LR05B-FA	MOS-IC	
R737			RK73GB2A824J	CHIP R 820K J 1/10W		IC508			NJM4558M-ZB	MOS-IC	
R738			RK73GB2A684J	CHIP R 680K J 1/10W		IC510			NJM4558M-ZB	MOS-IC	
R739			RK73GB2A000J	CHIP R 0 J 1/10W		IC512			M62364FP-F	MOS-IC	
R740,741			RK73GB2A103J	CHIP R 10K J 1/10W		IC513			NJM4558M-ZB	MOS-IC	
R742			RK73FB2B000J	CHIP R 0 J 1/8W		IC514			AT24C64CN-SH	ROM IC	
R744			RK73GB2A104J	CHIP R 100K J 1/10W		IC515			BU4066BCF	MOS-IC	
R745,746			RK73GB2A000J	CHIP R 0 J 1/10W		IC516			784214AGC185A	MCP	
R747			RK73FB2B000J	CHIP R 0 J 1/8W		IC517			BU4094BCF	MOS-IC	
R748			RK73GB2A000J	CHIP R 0 J 1/10W		IC518			NJM4558M-ZB	MOS-IC	
R749,750			RK73GB2A103J	CHIP R 10K J 1/10W		IC519			AT29C02090TU	ROM IC	
R751			RK73GB2A683J	CHIP R 68K J 1/10W		IC520		*	TC7S02F-F	MOS-IC	
R752-754			RK73GB2A103J	CHIP R 10K J 1/10W		IC521			NJM4558M-ZB	MOS-IC	
R755			RK73GB2A104J	CHIP R 100K J 1/10W		IC522			TDA8561Q/N35	BI-POLAR IC	
R756			RK73GB2A563J	CHIP R 56K J 1/10W		IC523			BU4094BCF	MOS-IC	
R757			RK73GB2A101J	CHIP R 100 J 1/10W		IC524			NJM4558M-ZB	MOS-IC	
R758			RK73GB2A105J	CHIP R 1.0M J 1/10W		IC526			TA75S01F-F	MOS-IC	
R760			RK73GB2A103J	CHIP R 10K J 1/10W		IC527			CMX865AE4	MOS-IC	
R761-764			RK73GB2A104J	CHIP R 100K J 1/10W		IC528-530			TC7WBD125AFK	MOS-IC	
R765			RK73GB2A473J	CHIP R 47K J 1/10W		IC531			XC6204B332M	MOS-IC	
R766			RK73GB2A102J	CHIP R 1.0K J 1/10W		IC532			NJM4558M-ZB	MOS-IC	
R767			RK73GB2A000J	CHIP R 0 J 1/10W		IC533			S-80942C2NNB-G	MOS-IC	
VR501			R12-6417-05	TRIMMING POT.(1K)		IC534			LMC7101BIM5	MOS-IC	
D1 -4			MA2S077G	DIODE		IC535			TA75S01F-F	MOS-IC	
D5			1SS355	DIODE		Q3			DTA144EEB	TRANSISTOR	
D102-105			1SV228-F	VARIABLE CAPACITANCE DIODE		Q4			DTC144EEB	TRANSISTOR	
D106		*	MA3X716	DIODE		Q7			2SK1824-A	FET	
D107			1SS355	DIODE		Q101,102			2SK520-A(K43)	FET	
D301-304			1SV228-F	VARIABLE CAPACITANCE DIODE		Q103			2SK508NV(K52)	FET	
D305			1SV214-F	VARIABLE CAPACITANCE DIODE		Q105,106			2SK508NV(K52)	FET	
D306			DAN235K	DIODE		Q107			2SC4215-F(Y)	TRANSISTOR	



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## PARTS LIST

TX-RX UNIT (X57-7590-XX)  
NB (X58-4610-10)

Ref. No.	Address	New parts	Parts No.	Description	Destination	Ref. No.	Address	New parts	Parts No.	Description	Destination
Q108			2SC4617(S)	TRANSISTOR		C16			CK73GB1H102K	CHIP C 1000PF K	
Q110-113			2SK508NV(K52)	FET		C18			CK73GB1H103K	CHIP C 0.010UF K	
Q114		*	DTC144EUB	TRANSISTOR		C19			CK73GB1H102K	CHIP C 1000PF K	
Q115			2SK1824-A	FET		C20			CC73GCH1H221J	CHIP C 220PF J	
Q201			2SB1132(Q,R)	TRANSISTOR		C21			CC73GCH1H680J	CHIP C 68PF J	
Q202		*	DTC114EUB	TRANSISTOR		C22 -24			CK73GB1H103K	CHIP C 0.010UF K	
Q203			2SC3357-A	TRANSISTOR		C25			CC73GCH1H221J	CHIP C 220PF J	
Q204		*	DTC114EUB	TRANSISTOR		C28			CK73GB1E105K	CHIP C 1.0UF K	
Q205			2SB1132(Q,R)	TRANSISTOR		CN1 ,2		*	E40-6007-05	PIN ASSY(3P)	
Q301,302			2SC4116(GR)F	TRANSISTOR					F10-2204-04	SHIELDING CASE	
Q303,304			2SC4116(BL)F	TRANSISTOR							
Q306,307			2SK508NV(K52)	FET		L2 ,3			L41-1205-33	SMALL FIXED INDUCTOR(12UH)	
Q308,309			2SC4116(Y)F	TRANSISTOR		R1			RK73GB2A104J	CHIP R 100K J 1/10W	
Q310		*	DTC144EUB	TRANSISTOR	K,K2	R2			RK73GB2A000J	CHIP R 0 J 1/10W	
Q311			2SC4215-F(Y)	TRANSISTOR	K3	R3			RK73GB2A333J	CHIP R 33K J 1/10W	
Q311,312			2SC4215-F(Y)	TRANSISTOR	K,K2	R4			RK73GB2A103J	CHIP R 10K J 1/10W	
Q312			2SC4226-A(R24)	TRANSISTOR		R5			RK73GB2A104J	CHIP R 100K J 1/10W	
Q313			2SC3357-A	TRANSISTOR		R6			RK73GB2A333J	CHIP R 33K J 1/10W	
Q501		*	DTA114EUB	TRANSISTOR		R7			RK73GB2A101J	CHIP R 100 J 1/10W	
Q502,503		*	DTC114EUB	TRANSISTOR		R8			RK73GB2A681J	CHIP R 680 J 1/10W	
Q504			DTC363EU	TRANSISTOR		R9			RK73GB2A151J	CHIP R 150 J 1/10W	
Q505		*	DTC144EUB	TRANSISTOR		R10			RK73GB2A330J	CHIP R 33 J 1/10W	
Q506			DTA114YUB	TRANSISTOR		R11			RK73GB2A333J	CHIP R 33K J 1/10W	
Q507		*	DTC114YUB	TRANSISTOR		R12			RK73GB2A684J	CHIP R 680K J 1/10W	
Q509-513		*	DTC144EUB	TRANSISTOR		R13			RK73GB2A104J	CHIP R 100K J 1/10W	
Q514			DTA144TKA	TRANSISTOR		R14			RK73GB2A102J	CHIP R 1.0K J 1/10W	
Q516		*	DTA114TUB	TRANSISTOR		R15			RK73GB2A103J	CHIP R 10K J 1/10W	
Q517		*	DTC144EUB	TRANSISTOR		R16			RK73GB2A562J	CHIP R 5.6K J 1/10W	
Q518		*	DTA114EUB	TRANSISTOR		R17			RK73GB2A103J	CHIP R 10K J 1/10W	
Q519			2SJ506-E(S)	FET		R18			RK73GB2A123J	CHIP R 12K J 1/10W	
Q520			DTD114EK	TRANSISTOR		R19			RK73GB2A101J	CHIP R 100 J 1/10W	
Q522			2SC4215-F(Y)	TRANSISTOR		R20			RK73GB2A562J	CHIP R 5.6K J 1/10W	
Q523,524		*	DTC114TUB	TRANSISTOR		R21			RK73GB2A223J	CHIP R 22K J 1/10W	
Q525		*	DTC144EUB	TRANSISTOR		R22			RK73GB2A103J	CHIP R 10K J 1/10W	
Q533-536		*	DTC144EUB	TRANSISTOR		R23			RK73GB2A273J	CHIP R 27K J 1/10W	
Q537-540			DTD114EK	TRANSISTOR		R24			RK73GB2A151J	CHIP R 150 J 1/10W	
Q541		*	DTC114EUB	TRANSISTOR		R25			RK73GB2A000J	CHIP R 0 J 1/10W	
Q542		*	DTA114EUB	TRANSISTOR		R26 ,27			RK73GB2A103J	CHIP R 10K J 1/10W	
Q543,544		*	DTC114EUB	TRANSISTOR		R28			RK73GB2A272J	CHIP R 2.7K J 1/10W	
Q545			DTC144EEB	TRANSISTOR		R29			RK73GB2A334J	CHIP R 330K J 1/10W	
Q546			2SK1830F	FET		R30			RK73GB2A103J	CHIP R 10K J 1/10W	
TH101			157-503-53006	THERMISTOR		R31			RK73GB2A104J	CHIP R 100K J 1/10W	
<b>NB (X58-4610-10)</b>						R32			RK73GB2A684J	CHIP R 680K J 1/10W	
C1			CK73GB1H103K	CHIP C 0.010UF K		R33			RK73GB2A222J	CHIP R 2.2K J 1/10W	
C2			CK73GB1H104K	CHIP C 0.10UF K		R34			RK73GB2A223J	CHIP R 22K J 1/10W	
C3			CC73GCH1H680J	CHIP C 68PF J		R35			RK73GB2A103J	CHIP R 10K J 1/10W	
C4 ,5			CS77AA1C4R7M	CHIP TNTL 4.7UF 16WV		R36			RK73GB2A102J	CHIP R 1.0K J 1/10W	
C6 ,7			CK73GB1H103K	CHIP C 0.010UF K		R37			RK73GB2A101J	CHIP R 100 J 1/10W	
C8			CC73GCH1H330J	CHIP C 33PF J		R38			RK73GB2A103J	CHIP R 10K J 1/10W	
C9			CK73GB1H103K	CHIP C 0.010UF K		R39			RK73GB2A101J	CHIP R 100 J 1/10W	
C10			CC73GCH1H330J	CHIP C 33PF J		R40 ,41			RK73GB2A102J	CHIP R 1.0K J 1/10W	
C11			CK73GB1H103K	CHIP C 0.010UF K		R42			RK73GB2A100J	CHIP R 10 J 1/10W	
C12			CK73GB1H102K	CHIP C 1000PF K		R43			RK73GB2A272J	CHIP R 2.7K J 1/10W	
C13 ,14			CK73GB1H103K	CHIP C 0.010UF K		D1			HSC119	DIODE	
C15		*	CS77AA1A3R3M	CHIP TNTL 3.3UF 10WV		IC1		*	LMH6505MM	ANALOGUE IC	
						IC2			TA75S01F-F	MOS-IC	





# TK-690H(B)

## PARTS LIST

DISPLAY UNIT (X54-3190-20) : KCH-10

KCH-11

DISPLAY UNIT (X54-3200-20) : KCH-11

Ref. No.	Address	New parts	Parts No.	Description	Destination
R49 -51			RK73GB2A473J	CHIP R 47K J 1/10W	
R52			RK73GB2A822J	CHIP R 8.2K J 1/10W	
R54			RK73GB2A103J	CHIP R 10K J 1/10W	
R55			RK73GB2A682J	CHIP R 6.8K J 1/10W	
R67			RK73GB2A000J	CHIP R 0 J 1/10W	
R68			RK73GB2A105J	CHIP R 1.0M J 1/10W	
R69			RK73GB2A471J	CHIP R 470 J 1/10W	
VR1			R31-0607-05	VARIABLE RESISTOR(10K)	
S1			S40-1420-15	TACT PUSH SWITCH	
S2 ,3			S70-0502-05	TACT SWITCH	
S5 -9			S70-0502-05	TACT SWITCH	
D1 ,2			DA204U	DIODE	
D5			02CZ9.1(X,Y)F	ZENER DIODE	
D16 ,17			DA204U	DIODE	
D19 -21			DA204U	DIODE	
D24			1SS301F	DIODE	
D25			MA2S111-F	DIODE	
IC1			NJM78L05UA-ZB	BI-POLAR IC	
IC2			R3111H421C-F	MOS-IC	
IC3		*	AT24C64CN-SH	ROM IC	
IC4			78064CA718EUA	MCU	
Q1			2SC2873(Y)F	TRANSISTOR	
Q3 -7		*	DTC144EUB	TRANSISTOR	
Q9		*	DTC144EUB	TRANSISTOR	
Q11		*	DTC144EUB	TRANSISTOR	
Q12 ,13		*	DTC114TUB	TRANSISTOR	
Q14 ,15			DTD114EK	TRANSISTOR	
S4		*	W02-0393-15	ENCODER	
<b>KCH-11</b>					
301	3C	*	A62-1119-3	PANEL ASSY	
302	1C	*	F20-1098-04	INSULATING SHEET	
303	2D		G11-4387-04	SHEET	
304	1D		G11-4394-04	SHEET	
305	3C	*	G53-0838-23	PACKING	
306	3C		G53-1523-04	PACKING	
307	2C		G53-1739-04	PACKING	
311	2J	*	H10-6622-02	POLYSTYRENE FOAMED FIXTURE	
312	1I	*	H11-0894-04	POLYSTYRENE FOAMED BOARD	
313	1J	*	H13-1059-04	CARTON BOARD	
314	2J		H25-0029-04	PROTECTION BAG (60/110/0.07)	
315	3I		H25-0103-04	PROTECTION BAG (125/250/0.07)	
316	1J		H25-0117-04	PROTECTION BAG (80/250/0.07)	
315	3I	*	H52-1271-02	ITEM CARTON CASE	
321	1C	*	J21-8444-03	MOUNTING HARDWARE	
322	2D		J32-0942-04	CYLINDRICAL BOSS	
323	1C		J39-0625-04	SPACER	
326	3C		K29-4664-14	KNOB	
327	2J	*	K29-4704-14	KNOB ACCESSORY	
328	2J		K29-5276-03	KNOB ACCESSORY	
329	2J		K29-5277-03	KNOB ACCESSORY	
330	2J		K29-5305-03	KNOB ACCESSORY	
331	2C	*	K29-9429-03	KEY TOP	
332	3C		N14-0831-04	CIRCULAR NUT	
S		*	N82-2006-48	BINDING HEAD TAPTITE SCREW	
R			N82-3006-48	BINDING HEAD TAPTITE SCREW	
P			N87-2605-48	BRAZIER HEAD TAPTITE SCREW	
Q			N87-2608-48	BRAZIER HEAD TAPTITE SCREW	
333	1J		N99-2058-05	SCREW SET ACCESSORY	
<b>DISPLAY UNIT(X54-3200-20) : KCH-11</b>					
D6			B30-2194-05	LED(GREEN)	
D7			B30-2193-05	LED(RED)	
ED1			B38-0910-15	LCD ASSY	
C9			CC73GCH1H101J	CHIP C 100PF J	
C14			CC73GCH1H101J	CHIP C 100PF J	
C20			CK73GB1H102K	CHIP C 1000PF K	
C22			CK73GB1H103K	CHIP C 0.010UF K	
C23 ,24			CC73GCH1H101J	CHIP C 100PF J	
C25			CK73GB1H103K	CHIP C 0.010UF K	
C27			CK73GB1E223K	CHIP C 0.022UF K	
C28 ,29			CK73GB1H103K	CHIP C 0.010UF K	
C30			CC73GCH1H101J	CHIP C 100PF J	
C32			CC73GCH1H101J	CHIP C 100PF J	
C35 ,36			CK73GB1H103K	CHIP C 0.010UF K	
C40			CK73GB1H103K	CHIP C 0.010UF K	
C50 -60			CC73GCH1H101J	CHIP C 100PF J	
C61 -67			CK73GB1H102K	CHIP C 1000PF K	
C68 -70			CK73GB1H103K	CHIP C 0.010UF K	
C73 ,74			CC73GCH1H270J	CHIP C 27PF J	
CN1			E41-2674-05	PIN ASSY(11PIN)	
CN2			E41-2671-05	PIN ASSY(2PIN)	
CN3			E41-2688-05	PIN ASSY(9PIN)	
CN4		*	E41-3085-05	PIN ASSY	
CN5			E40-6452-05	FLAT CABLE CONNECTOR	
J1			E56-0410-15	CYLINDRICAL RECEPTACLE	
W1		*	E37-0703-15	LEAD WIRE WITH CONNECTOR	
			G10-0775-04	FIBROUS SHEET (85/5/0.25MM)	
			G11-2663-04	SHEET	
		*	G13-1713-04	CUSHION	
L1			L92-0155-05	CHIP FERRITE	
X1		*	L77-3035-05	CRYSTAL RESONATOR(4.19MHZ)	
R1 ,2			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R5			RK73FB2B561J	CHIP R 560 J 1/8W	
R6			RK73PB2H821J	CHIP R 820 J 1/2W	
R7			RK73FB2B000J	CHIP R 0 J 1/8W	
R8 ,9			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R10			RK73FB2B151J	CHIP R 150 J 1/8W	
R11			RK73GB2A103J	CHIP R 10K J 1/10W	
R12			RK73GB2A331J	CHIP R 330 J 1/10W	
R13			R92-1281-05	RESISTOR 4.7 0.25W	
R14			RK73GB2A473J	CHIP R 47K J 1/10W	

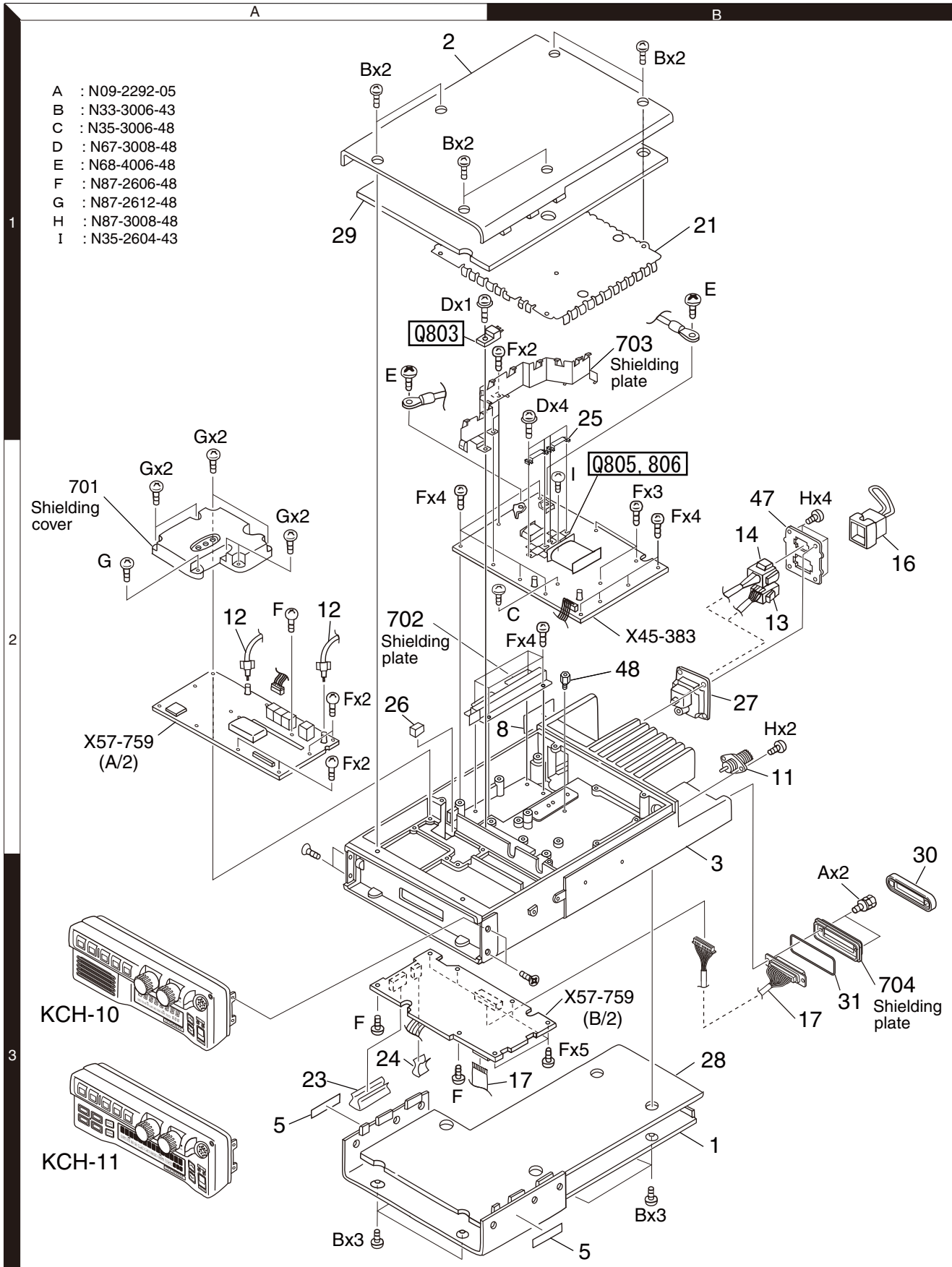
## PARTS LIST

DISPLAY UNIT (X54-3200-20) : KCH-11

Ref. No.	Address	New parts	Parts No.	Description	Destination	Ref. No.	Address	New parts	Parts No.	Description	Destination
R16			RK73GB2A473J	CHIP R 47K J 1/10W							
R19 ,20			RK73GB2A473J	CHIP R 47K J 1/10W							
R21			RK73GB2A102J	CHIP R 1.0K J 1/10W							
R22			RK73GB2A101J	CHIP R 100 J 1/10W							
R24			RK73GB2A102J	CHIP R 1.0K J 1/10W							
R26			RK73GB2A472J	CHIP R 4.7K J 1/10W							
R28 -32			RK73GB2A102J	CHIP R 1.0K J 1/10W							
R33 ,34			RK73GB2A473J	CHIP R 47K J 1/10W							
R35			RK73GB2A102J	CHIP R 1.0K J 1/10W							
R37 ,38			RK73GB2A102J	CHIP R 1.0K J 1/10W							
R39			RK73FB2B331J	CHIP R 330 J 1/8W							
R40 ,41			RK73PB2H681J	CHIP R 680 J 1/2W							
R42			RK73FB2B181J	CHIP R 180 J 1/8W							
R43			RK73PB2H681J	CHIP R 680 J 1/2W							
R44			RK73PB2H821J	CHIP R 820 J 1/2W							
R45 -56			RK73GB2A473J	CHIP R 47K J 1/10W							
R57 -62			RK73GB2A102J	CHIP R 1.0K J 1/10W							
R63			RK73GB2A473J	CHIP R 47K J 1/10W							
R65			RK73GB2A103J	CHIP R 10K J 1/10W							
R66			RK73GB2A682J	CHIP R 6.8K J 1/10W							
R67			RK73GB2A000J	CHIP R 0 J 1/10W							
R68			RK73GB2A105J	CHIP R 1.0M J 1/10W							
R69			RK73GB2A471J	CHIP R 470 J 1/10W							
VR1			R31-0607-05	VARIABLE RESISTOR(10K)							
S1		*	S40-1420-15	TACT PUSH SWITCH							
S2 ,3			S70-0502-05	TACT SWITCH							
S5 -15			S70-0502-05	TACT SWITCH							
D1 ,2			DA204U	DIODE							
D5			02CZ9.1(X,Y)F	ZENER DIODE							
D11 ,12			DA204U	DIODE							
D14 -16			DA204U	DIODE							
D18			1SS301F	DIODE							
D19			MA2S111-F	DIODE							
IC1			NJM78L05UA-ZB	BI-POLAR IC							
IC2			R3111H421C-F	MOS-IC							
IC3			AT24C64CN-SH	ROM IC							
IC4		*	78064CA718EUA	MCU							
Q1			2SC2873(Y)F	TRANSISTOR							
Q2 -8		*	DTC144EUB	TRANSISTOR							
Q9 ,10		*	DTC114TUB	TRANSISTOR							
Q14 ,15			DTD114EK	TRANSISTOR							
S4		*	W02-0393-15	ENCODER							

# TK-690H(B)

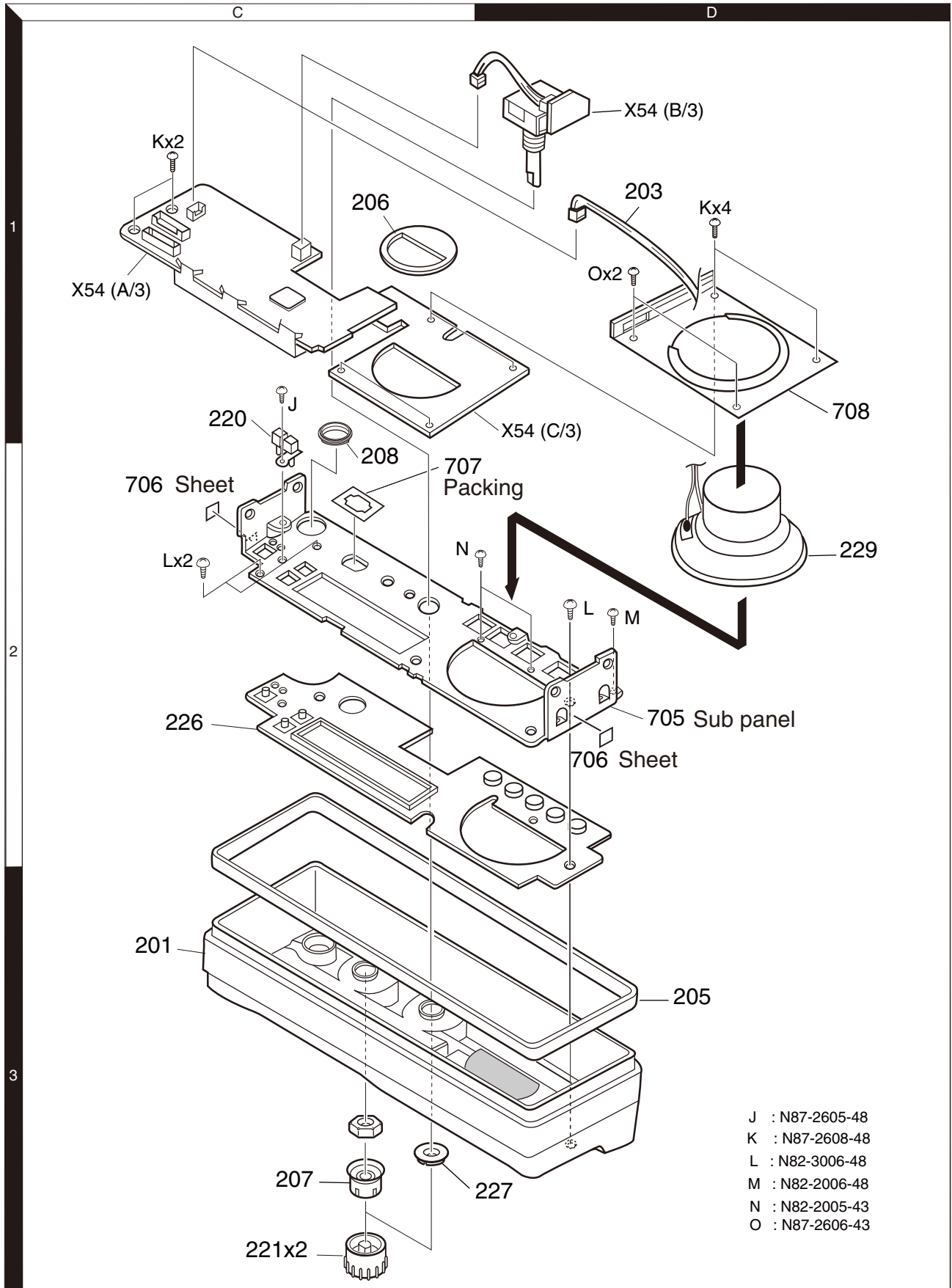
## EXPLODED VIEW



Parts with the exploded numbers larger than 700 are not supplied.  
 If a part reference number is listed in a box on the exploded view of the PCB, that part does not come with the PCB.  
 These parts must be ordered separately.

# TK-690H(B)

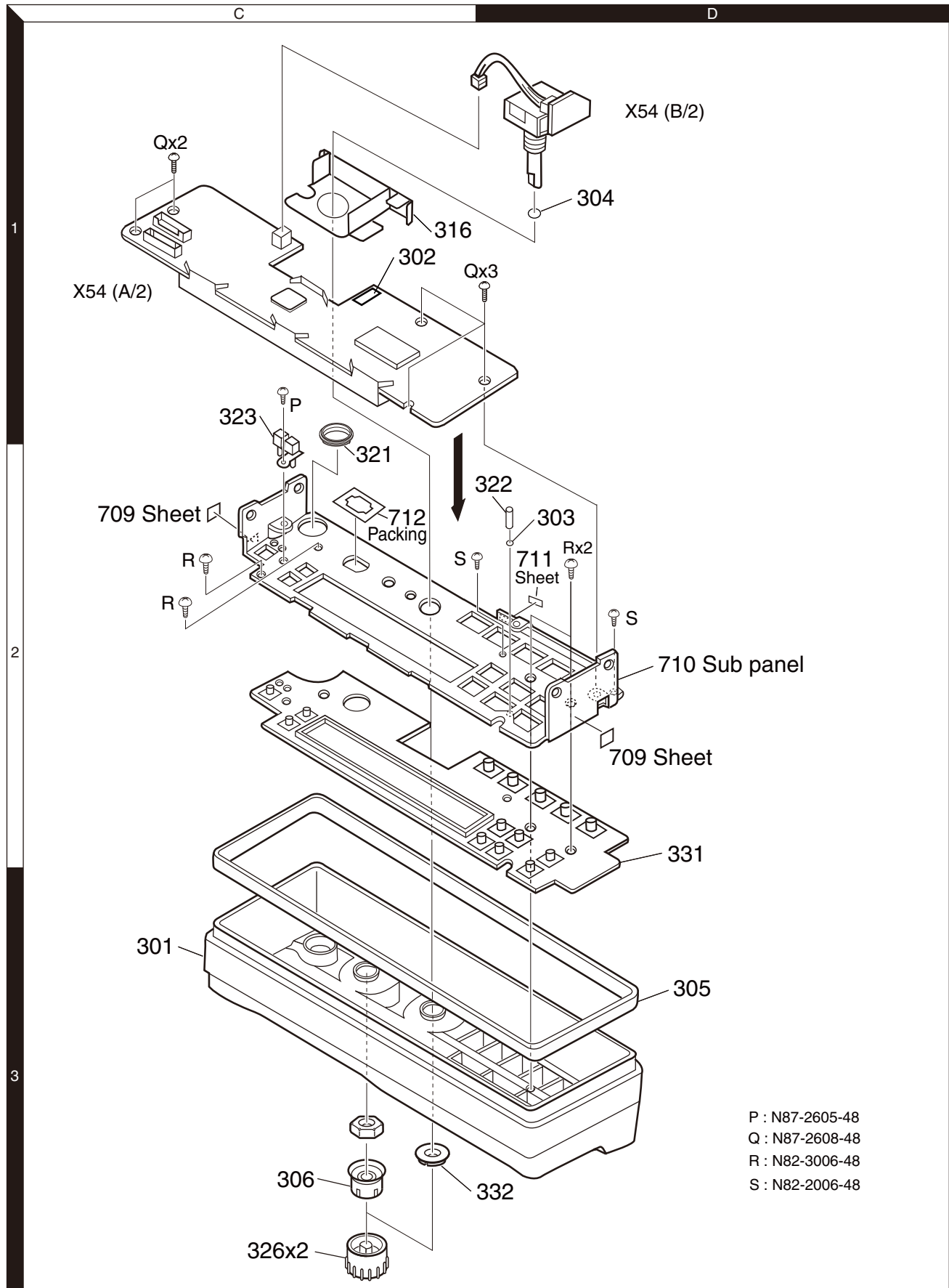
## EXPLODED VIEW (KCH-10)



Parts with the exploded numbers larger than 700 are not supplied.

# TK-690H(B)

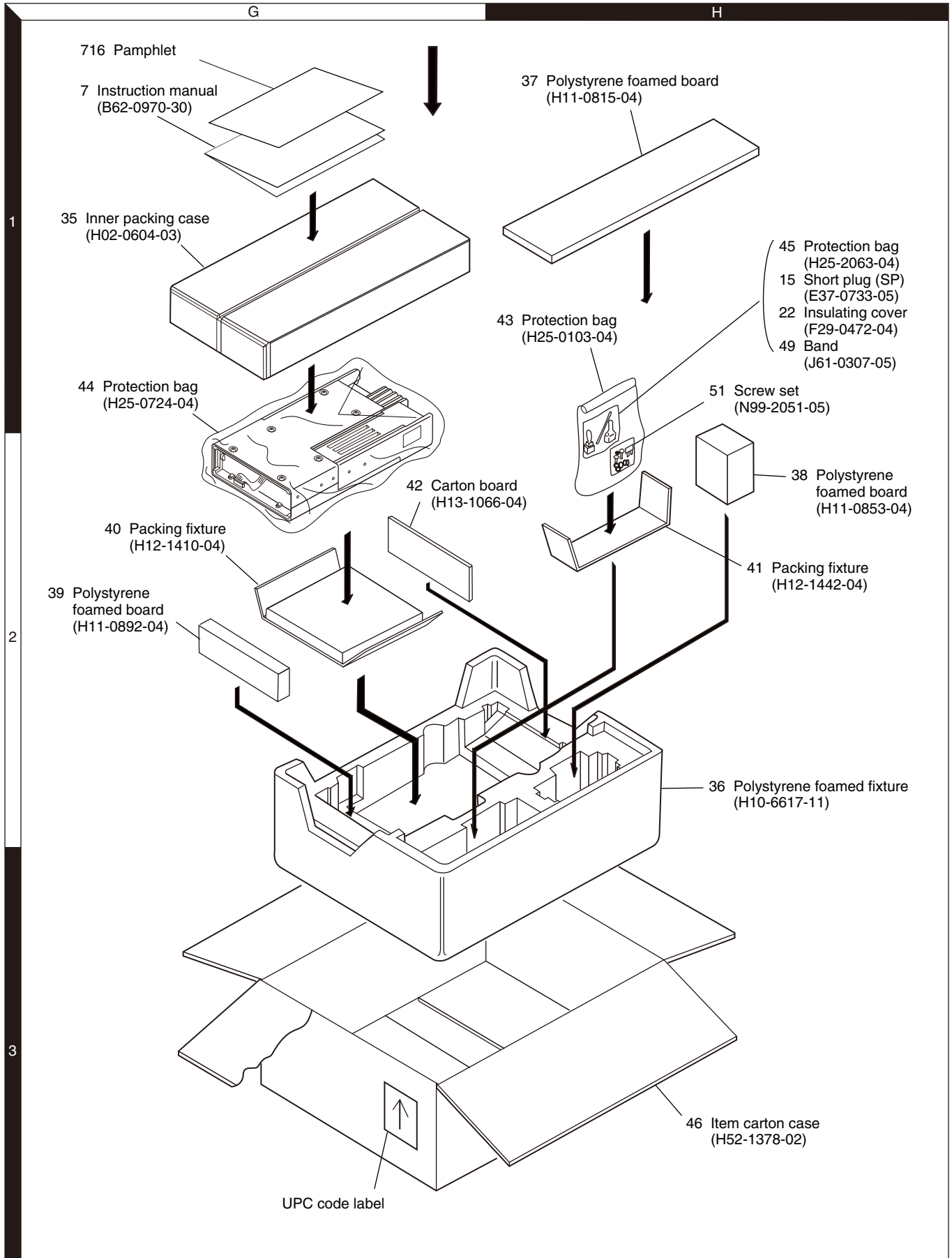
## EXPLODED VIEW (KCH-11)



P : N87-2605-48  
Q : N87-2608-48  
R : N82-3006-48  
S : N82-2006-48



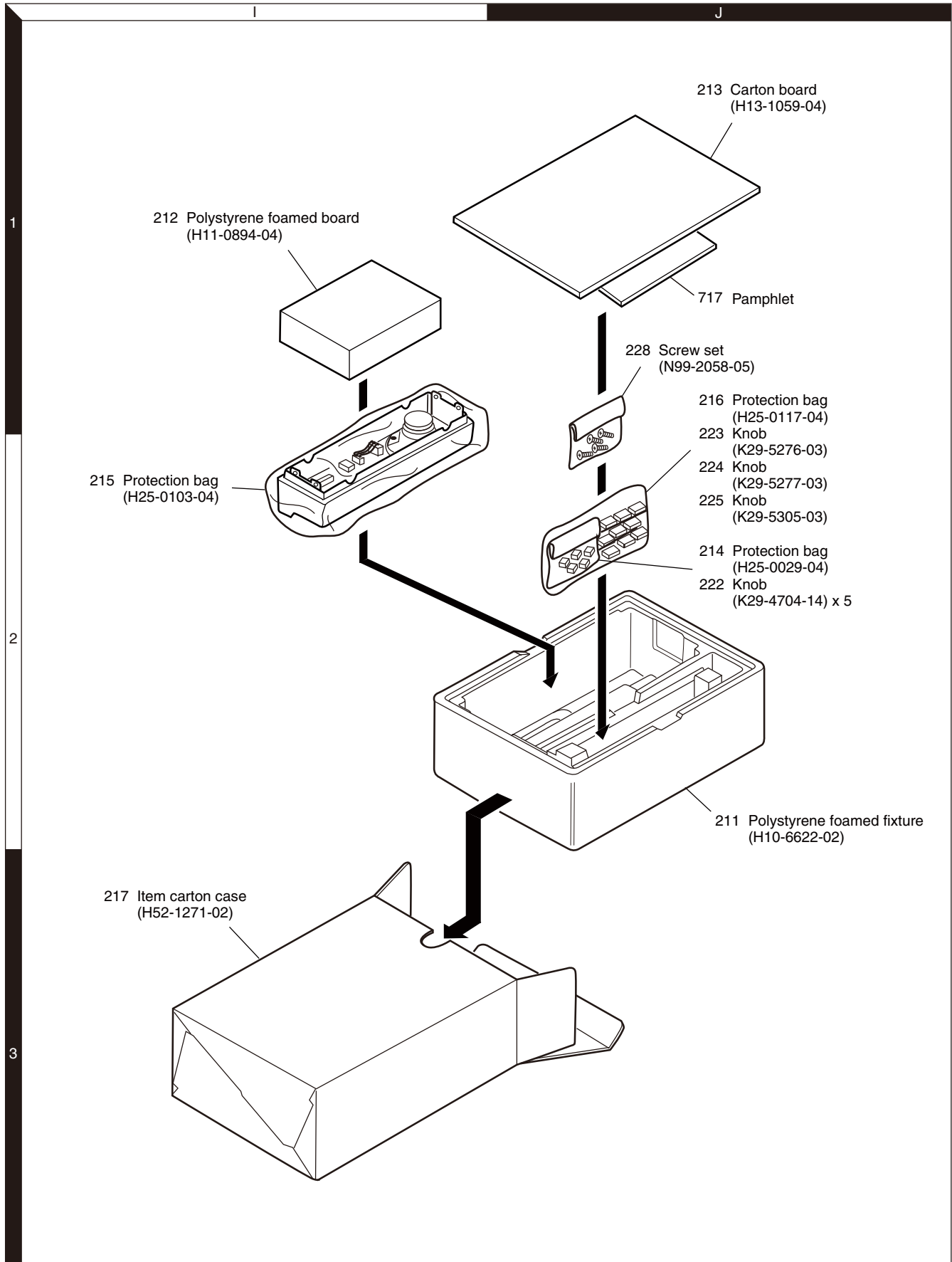
## PACKING



Parts with the exploded numbers larger than 700 are not supplied.

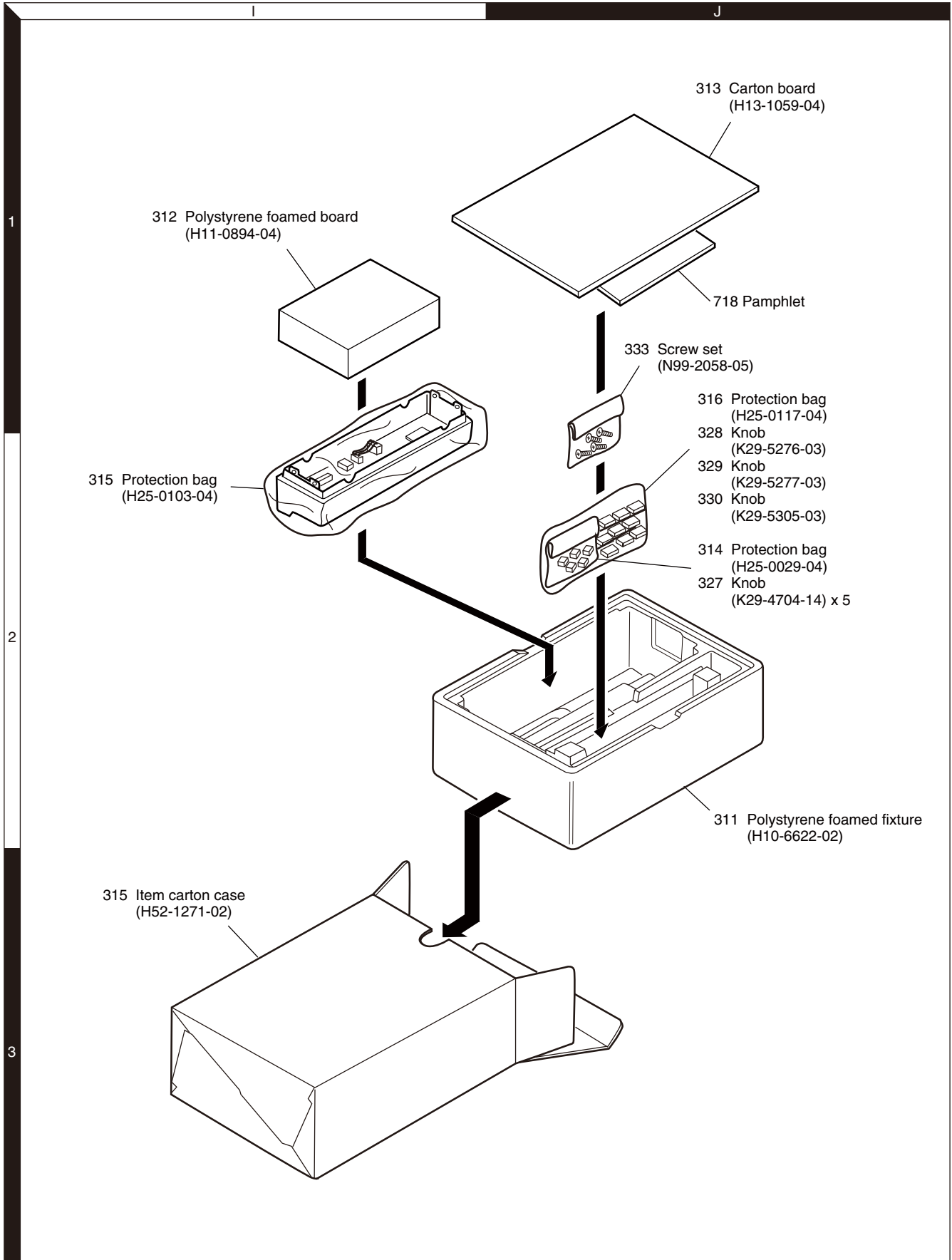
# TK-690H(B)

## PACKING (KCH-10)



Parts with the exploded numbers larger than 700 are not supplied.

## PACKING (KCH-11)

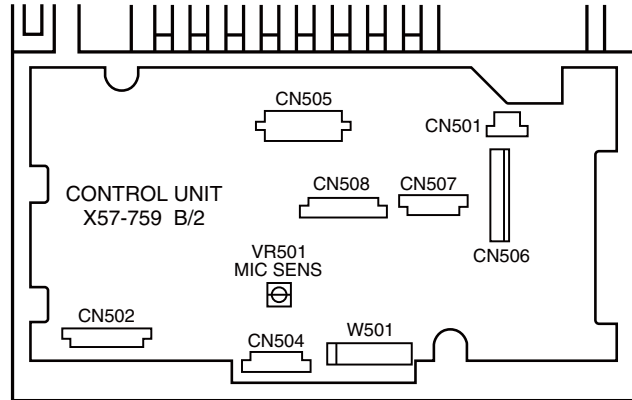
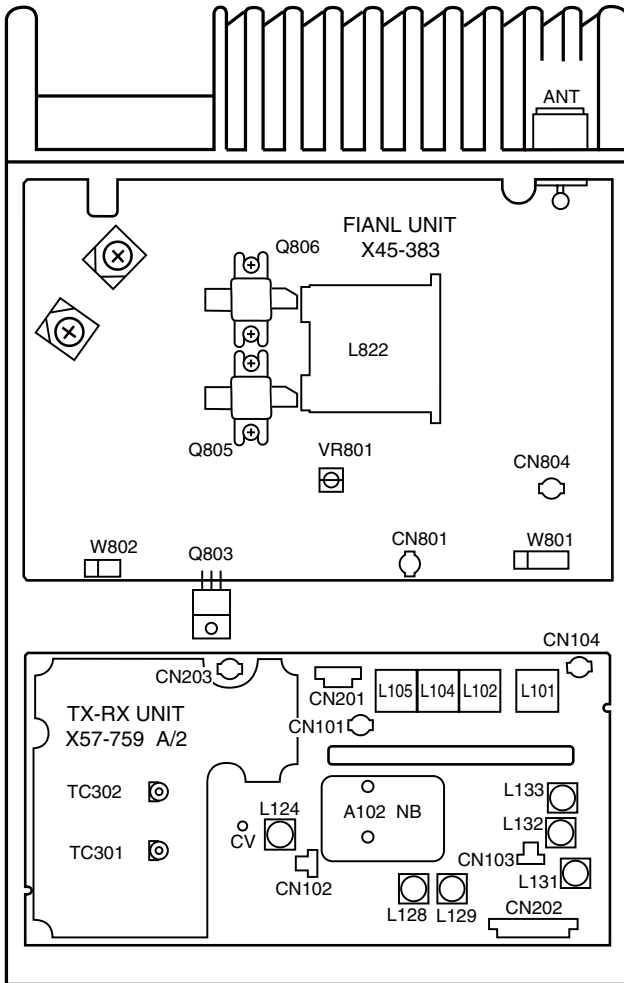


Parts with the exploded numbers larger than 700 are not supplied.

# TK-690H(B)

## ADJUSTMENT

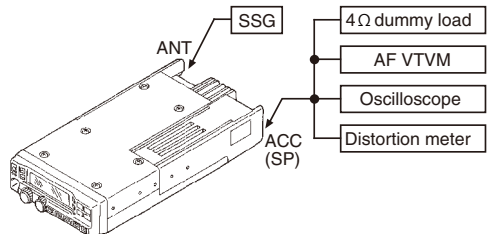
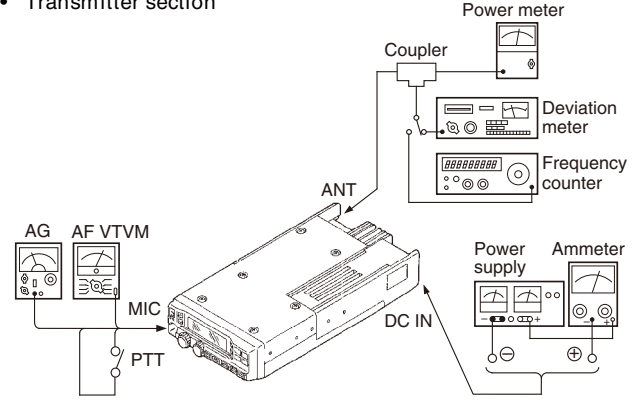
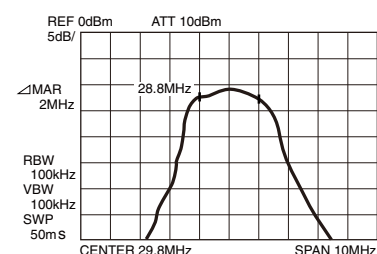
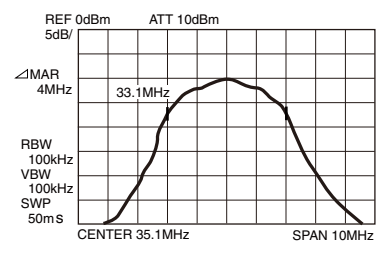
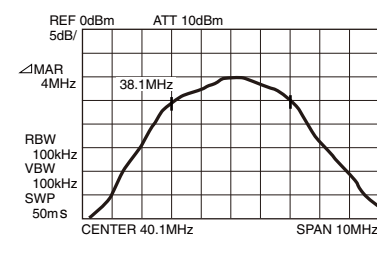
### Adjustment Points



### Common Section

Item	Condition	Measurement			Adjustment			Specifications/Remarks																																																																																			
		Test-equipment	Unit	Terminal	Unit	Parts	Method																																																																																				
1. Frequency list	<ul style="list-style-type: none"> <li>Frequency range (MHz) K : 29.7~37.0    K2 : 35.0~43.0    K3 : 40.0~50.0</li> <li>Adjustment frequency (MHz)</li> </ul>																																																																																										
	<table border="1" style="display: inline-table; margin-right: 20px;"> <thead> <tr> <th rowspan="2">CH</th> <th colspan="2">K</th> <th colspan="2">K2</th> <th colspan="2">K3</th> </tr> <tr> <th>TX</th> <th>RX</th> <th>TX</th> <th>RX</th> <th>TX</th> <th>RX</th> </tr> </thead> <tbody> <tr> <td>1 (Center)</td> <td>33.300</td> <td>33.400</td> <td>39.000</td> <td>39.100</td> <td>45.000</td> <td>45.100</td> </tr> <tr> <td>2 (Low)</td> <td>29.700</td> <td>29.800</td> <td>35.000</td> <td>35.100</td> <td>40.000</td> <td>40.100</td> </tr> <tr> <td>3 (High)</td> <td>37.000</td> <td>36.900</td> <td>43.000</td> <td>42.900</td> <td>50.000</td> <td>49.900</td> </tr> <tr> <td>4</td> <td>33.300</td> <td>33.300</td> <td>39.000</td> <td>39.000</td> <td>45.000</td> <td>45.000</td> </tr> <tr> <td>5</td> <td>33.500</td> <td>33.500</td> <td>39.200</td> <td>39.200</td> <td>45.200</td> <td>45.200</td> </tr> <tr> <td>6</td> <td>33.700</td> <td>33.700</td> <td>39.400</td> <td>39.400</td> <td>45.400</td> <td>45.400</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>Signalling</li> </ul> <table border="1" style="display: inline-table;"> <thead> <tr> <th>CH No.</th> <th>Encode tone</th> <th>Decode tone</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>None</td> <td>None</td> </tr> <tr> <td>2</td> <td>100Hz square wave</td> <td>None</td> </tr> <tr> <td>3</td> <td>QT 67.0Hz</td> <td>QT 67.0Hz</td> </tr> <tr> <td>4</td> <td>QT 151.4Hz</td> <td>QT 151.4Hz</td> </tr> <tr> <td>5</td> <td>QT 250.3Hz</td> <td>QT 250.3Hz</td> </tr> <tr> <td>6</td> <td>DQT 023N</td> <td>DQT 023N</td> </tr> <tr> <td>7</td> <td>Single tone 1633Hz</td> <td>2 tone 321.7/928.1Hz</td> </tr> <tr> <td>8</td> <td>DTMF [9]</td> <td>DTMF [159]</td> </tr> <tr> <td>9</td> <td>MSK</td> <td>None</td> </tr> </tbody> </table>	CH	K		K2		K3		TX	RX	TX	RX	TX	RX	1 (Center)	33.300	33.400	39.000	39.100	45.000	45.100	2 (Low)	29.700	29.800	35.000	35.100	40.000	40.100	3 (High)	37.000	36.900	43.000	42.900	50.000	49.900	4	33.300	33.300	39.000	39.000	45.000	45.000	5	33.500	33.500	39.200	39.200	45.200	45.200	6	33.700	33.700	39.400	39.400	45.400	45.400	CH No.	Encode tone	Decode tone	1	None	None	2	100Hz square wave	None	3	QT 67.0Hz	QT 67.0Hz	4	QT 151.4Hz	QT 151.4Hz	5	QT 250.3Hz	QT 250.3Hz	6	DQT 023N	DQT 023N	7	Single tone 1633Hz	2 tone 321.7/928.1Hz	8	DTMF [9]	DTMF [159]	9	MSK	None					
CH	K		K2		K3																																																																																						
	TX	RX	TX	RX	TX	RX																																																																																					
1 (Center)	33.300	33.400	39.000	39.100	45.000	45.100																																																																																					
2 (Low)	29.700	29.800	35.000	35.100	40.000	40.100																																																																																					
3 (High)	37.000	36.900	43.000	42.900	50.000	49.900																																																																																					
4	33.300	33.300	39.000	39.000	45.000	45.000																																																																																					
5	33.500	33.500	39.200	39.200	45.200	45.200																																																																																					
6	33.700	33.700	39.400	39.400	45.400	45.400																																																																																					
CH No.	Encode tone	Decode tone																																																																																									
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2	100Hz square wave	None																																																																																									
3	QT 67.0Hz	QT 67.0Hz																																																																																									
4	QT 151.4Hz	QT 151.4Hz																																																																																									
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6	DQT 023N	DQT 023N																																																																																									
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8	DTMF [9]	DTMF [159]																																																																																									
9	MSK	None																																																																																									

## ADJUSTMENT

Item	Condition	Measurement			Adjustment			Specifications/Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
2. Setting	<ul style="list-style-type: none"> <li>Receiver section The indicated SSG output level are for maximum output. Whenever there is no modulation designation, standard modulation (MOD : 1kHz, DEV : 3kHz)</li> </ul>   <p>Connect the front panel (KCH-10 or KCH-11) to the transceiver's body.</p>							
3. PLL lock voltage	1) CH-SIG : 3-1 2) CH-SIG : 3-1 PTT : ON 3) CH-SIG : 2-1 4) CH-SIG : 2-1 PTT : ON	DC VM Power meter	TX-RX (A/2)	CV	TX-RX (A/2)	A (TC302) C (TC301)	1.5V	±0.1V
							Check	8.0V or less
4. Transmit frequency	1) CH-SIG : 1-1 Select <b>FREQ_XXX</b> in tune mode PTT : ON	Power meter f. counter	Rear	ANT	Panel	PF3 key PF4 key	CH-1 frequency	K : ±50Hz K2 : ±60Hz K3 : ±70Hz
5. BPF	1) CH-SIG : 2-1 Spectrum analyzer Span : 50MHz Scale : 5dB div Tracking generator Output : -20dBm	Spectrum analyzer  Tracking generator	TX-RX (A/2)	CN101	TX-RX (A/2)	L101 L102 L104 L105	Adjust the coils in the following order : L101, L102, L104, L105	
	<p><b>K</b> Adjust it so it is almost symmetrical (±1MHz), and so the gain is maximum.</p> 							
	<p><b>K2</b> Adjust it so it is almost symmetrical (±2MHz), and so the gain is maximum.</p> 							
	<p><b>K3</b> Adjust it so it is almost symmetrical (±2MHz), and so the gain is maximum.</p> 							

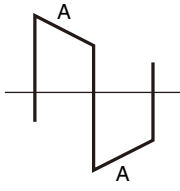
# TK-690H(B)

## ADJUSTMENT

Item	Condition	Measurement			Adjustment			Specifications/Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
6. MCF	1) CH-SIG : 1-1 Spectrum analyzer Span : 25kHz Scale : 2dB div Center frequency : 10.70MHz Tracking generator Output : -20dBm	Spectrum analyzer  Tracking generator	TX-RX (A/2)	CN101  CN102	TX-RX (A/2)	L133 L132 L131 L129 L128	Adjust it so it is almost symmetrical, and so the gain is maximum. Adjust the coils in the following order : L133, L132, L131, L129, L128.	
7. Distortion	1) CH-SIG : 1-1 SSG output : -53dBm/501μV AF output : 1V/4Ω	SSG Distortion meter AF VTVM Oscilloscope 4Ω dummy load	Rear	ANT EXT.SP			Check	3% or less If the distortion value exceeds 3%, you must adjust L129 to obtain a minimum distortion value.
8. RF power (High power)	1) CH-SIG : 1-1 Select _POW_XXX in tune mode PTT : ON	Power meter Ammeter	Rear	ANT	Final	VR801	Maximum clockwise	115W or more
							110W adj.	110W±5W, 20A or less
(Low power)	1) CH-SIG : 1-1 Select LPOW_XXX in tune mode PTT : ON				Panel	PF3 key PF4 key	Check	110W±1W
							45W adj.	45W±1W
9. Maximum deviation	1) Select __L MXDV_XXX in tune mode PTT : ON Deviation meter filter HPF : OFF LPF : 15kHz De-emphasis : OFF AG : 1kHz/50mV	Power meter Deviation meter AF VTVM AG Oscilloscope	Rear	ANT	Panel	PF3 key PF4 key	±4.05kHz	±0.05kHz
	2) Select __C MXDV_XXX in tune mode PTT : ON							
	3) Select __H MXDV_XXX in tune mode PTT : ON							
10. MIC sensitivity	1) CH-SIG : 1-1 PTT : ON Deviation meter filter HPF : OFF LPF : 15kHz De-emphasis : OFF AG : 1kHz/5mV				TX-RX (B/2)	VR501	Check	2.75~3.25kHz



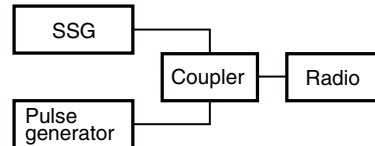
## ADJUSTMENT

Item	Condition	Measurement			Adjustment			Specifications/Remarks		
		Test-equipment	Unit	Terminal	Unit	Parts	Method			
11. DQT balance	1) CH-SIG : 1-2 Select BLNC_XXX in tune mode PTT : ON Deviation meter filter HPF : OFF LPF : 3kHz De-emphasis : OFF	Power meter Deviation meter AF VTVM AG Oscilloscope	Rear	ANT	Panel	PF3 key PF4 key	Make the demodulation waveform neat.	Flat the a parts. 		
12. QT deviation	1) CH-SIG : 1-4 Select QTDV_XXX in tune mode PTT : ON Deviation meter filter HPF : OFF LPF : 3kHz De-emphasis : OFF		Panel	MIN					±0.75kHz	±0.05kHz
13. DQT deviation	1) CH-SIG : 1-6 Select DQDV_XXX in tune mode PTT : ON Deviation meter filter HPF : OFF LPF : 3kHz De-emphasis : OFF		±0.75kHz	±0.05kHz						
14. DTMF deviation	1) CH-SIG : 1-8 Select DTDV_XXX in tune mode PTT : ON Deviation meter filter HPF : OFF LPF : 15kHz De-emphasis : OFF		±3.0kHz	±0.1kHz						
15. MSK deviation	1) CH-SIG : 1-9 Select MSDV_XXX in tune mode PTT : ON Deviation meter filter HPF : OFF LPF : 15kHz De-emphasis : OFF		±3.0kHz	±0.1kHz						
16. Sensitivity	1) Select __L SENS_XXX in tune mode SSG output : -116dBm/0.35μV AF output : 1V/4Ω	SSG AF VTVM Distortion meter Oscilloscope 4Ω dummy load	Rear	ANT EXT.SP	Panel TX-RX (A/2)	PF3 key PF4 key L124	Low check	SINAD 12dB or more		
	2) Select __C SENS_XXX in tune mode						Center check			
	3) Select __H SENS_XXX in tune mode						High check			

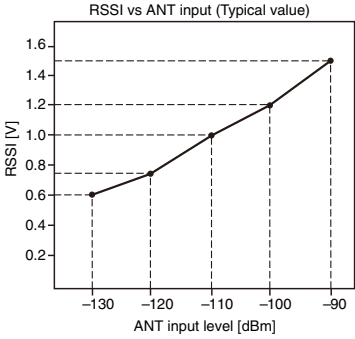
# TK-690H(B)

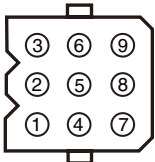
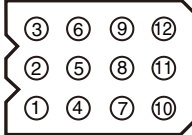
## ADJUSTMENT

Item	Condition	Measurement			Adjustment			Specifications/Remarks	
		Test-equipment	Unit	Terminal	Unit	Parts	Method		
17. Squelch tight point	1) CH-SIG : 1-1 Select SQ_T_XXX in tune mode SSG output : Value when 6dB is added from the sensitivity value of 12dB SINAD. Up/down knob : Set the NB on	SSG AF VTVM Distortion meter Oscilloscope 4Ω dummy load	Rear	ANT EXT.SP	Panel	PF3 key PF4 key	Adjust to point of opening squelch	Set the value to 255. Adjust the SSG output to "Condition". Then, decrease the value to the point of opening the squelch.	
18. Squelch open point	1) CH-SIG : 1-1 Select SQ_O_XXX in tune mode SSG output : Value when 3dB is subtracted from the sensitivity value of 12dB SINAD. Up/down knob : Set the NB on						Check		Squelch must be closed.
	2) SSG output : OFF								
19. NB	1) Output : -110dBm/0.71μV Pulse generator Output : 0.5Vp-p/50Ω Cycle : 100μsec Pulse width : 10ns Up/down knob : Set the NB on	SSG Pulse generator Distortion meter Oscilloscope AF VTVM	Rear	ANT EXT.SP			Check	SINAD 12dB or more.	



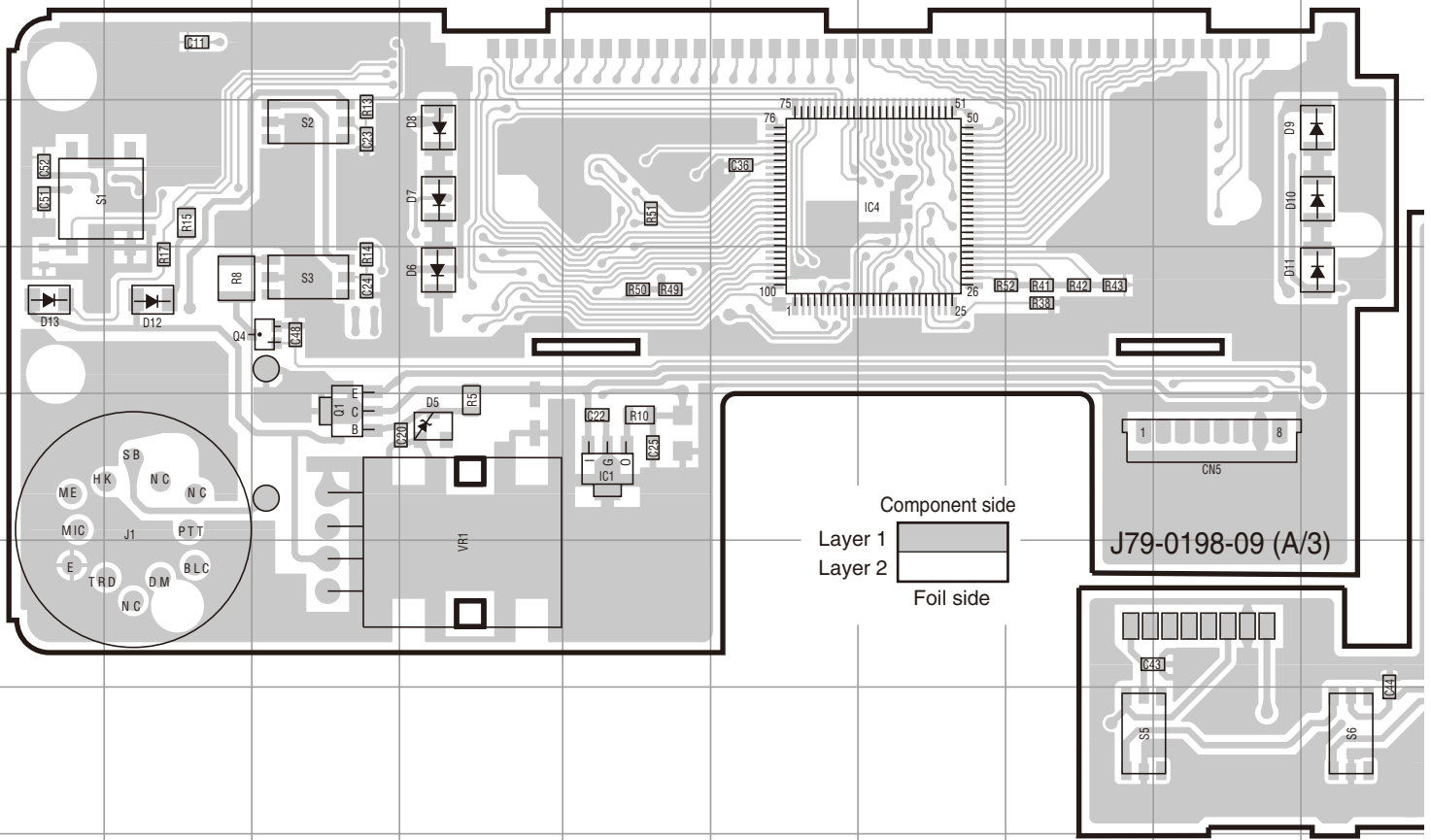
## TERMINAL FUNCTION

Connector No.	Terminal No.	Terminal Name	I/O	Terminal Function
<b>Acc 25 pin D-sub connector</b>				
	1	RSI	O	RSSI signal output.  
	2	AI1	I	Auxiliary input 1 (FPU selectable).
	3	AI2	I	Auxiliary input 2 (FPU selectable).
	4	AI3	I	Auxiliary input 3 (FPU selectable).
	5	AI4	I	Auxiliary input 4 (FPU selectable).
	6	AI5	I	Auxiliary input 5 (FPU selectable).
	7	E	-	Earth
	8	AO2	O	Auxiliary output 1 (FPU selectable).
	9	TXD2	O	Serial data output.
	10	RXD2	I	Serial data input.
	11	TXS	O	TX sense signal output. "H" : TX, "L" : Another
	12	MCM	I	MIC mute signal input. "L" : Mute on, "H" : No change
	13	MI/DI	I	MIC/Data signal input 1. (Default : DI) Input impedance DI : 10kΩ or more MI : 600Ω Coupling DI : DC coupling MI : DC coupling Frequency response DI : ~9.6kHz +1/-3dB (1kHz=0dB) MI : Compliance with TIA/EIA-603 Deviation DI : 60% deviation or more. (1kHz 2.5Vp-p input) MI : 60% deviation (1kHz 5mV±1.5mV input)
	14	NC (SB)	O	Non connection. (SB : 13.4V 0.5A max. Refer to page 20)
	15	RSV1	-	Reserved.
	16	RSV2	-	Reserved.
	17	AFO	O	RX audio signal output (Same as CN504 pin No.1) RX condition : RX audio output. Output level 350mVrms typ. (Standard modulation) PA condition : MIC output. Output level 300mVrms. (1kHz 5mV input)
	18	E	-	Earth
	19	DEO	O	Detector signal output. Output impedance 1kΩ or less Coupling DC coupling

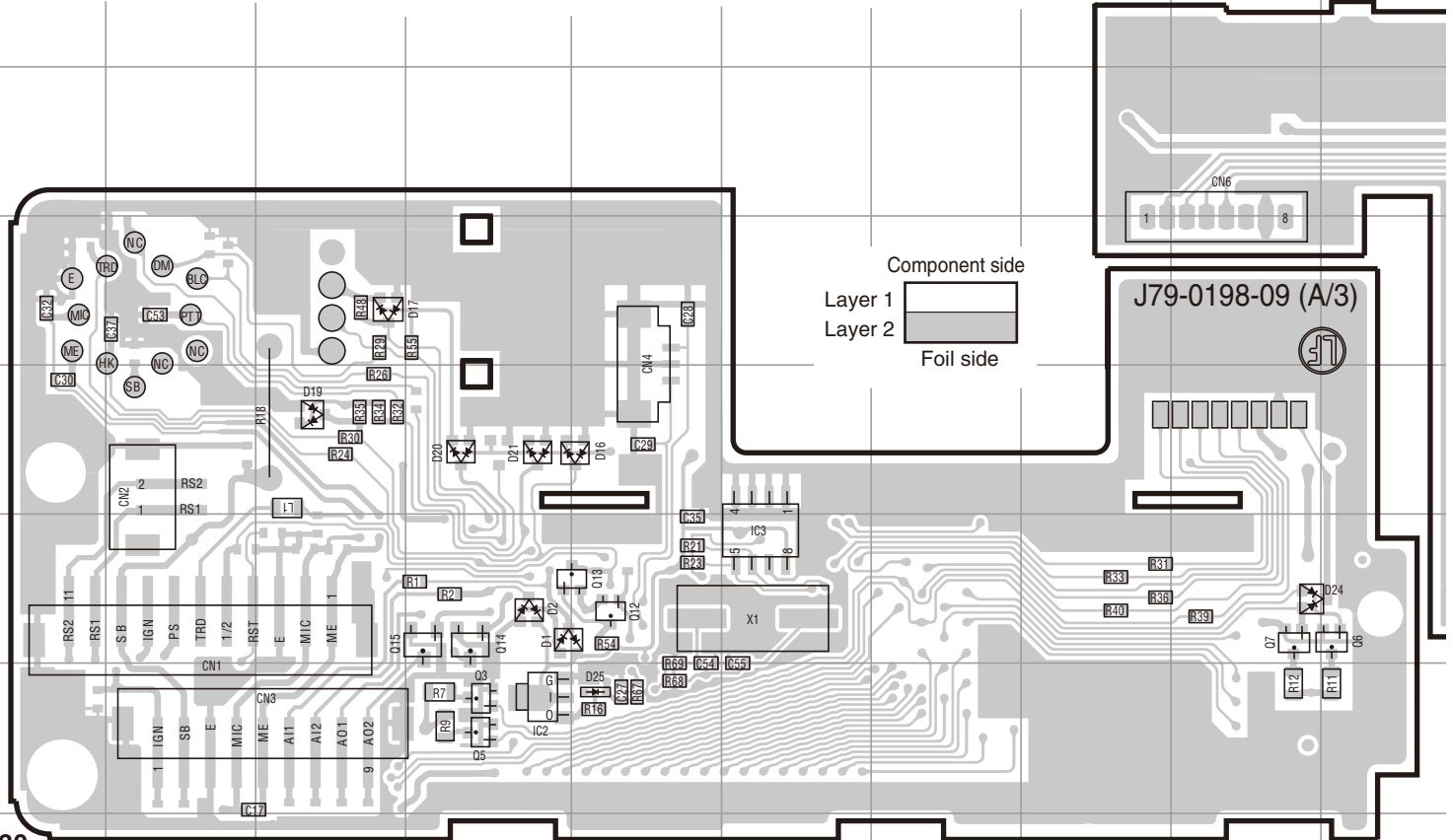
Connector No.	Terminal No.	Terminal Name	I/O	Terminal Function
				Output level : 100mVrms (Standard modulation) Output frequency response : 300~4.8kHz +1/-5dB (1kHz=0dB)
	20	AO1	O	Auxiliary output 1 (FPU selectable).
	21	AO3	O	Auxiliary output 3 (FPU selectable).
	22	AO4	O	Auxiliary output 4 (FPU selectable).
	23	SQ	O	Squelch signal output. "L" : Busy, "H" : Not busy
	24	SPM	I	Speaker mute signal input. "L" : Mute on
	25	ME	-	MIC earth.
<b>Acc 9 pin connector</b>				
	1	IGN	I	Ignition sense input.
	2	ES2	O	BTL output for external speaker A.
	3	RS1	I	Remote speaker switch
	4	HR1	O	Horn alert signal output 1.
	5	HR2	O	Horn alert signal output 2.
	6	ES1	O	BTL output for external speaker A.
	7	OS1	O	BTL output for external speaker B (PA).
	8	OS2	O	BTL output for external speaker B (PA).
	9	E	-	Earth.
				
<b>Acc 12 pin connector (Remote kit)</b>				
	1	IGN	I	Ignition sense input.
	2	SB	O	Power output after power switch (13.4V±15%).
	3	E	-	Earth.
	4	MIC	I	MIC signal input.
	5	ME	-	MIC earth.
	6	AI1	I	Auxiliary input 1 (FPU selectable).
	7	AI2	I	Auxiliary input 2 (FPU selectable).
	8	AO1	O	Auxiliary output 1 (FPU selectable).
	9	AO2	O	Auxiliary output 2 (FPU selectable).
	10	RS1	O	Remote speaker output.
	11	RS2	O	Remote speaker output.
	12	-	-	Non connection.
				

# TK-690H(B) PC BOARD

DISPLAY UNIT (X54-3190-20) Component side view (J79-0198-09) : KCH-10

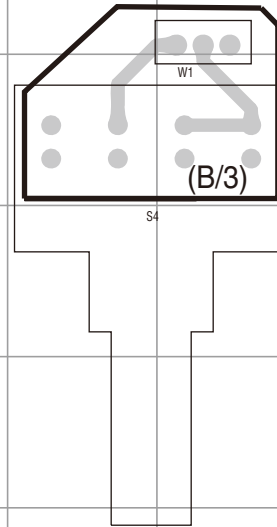
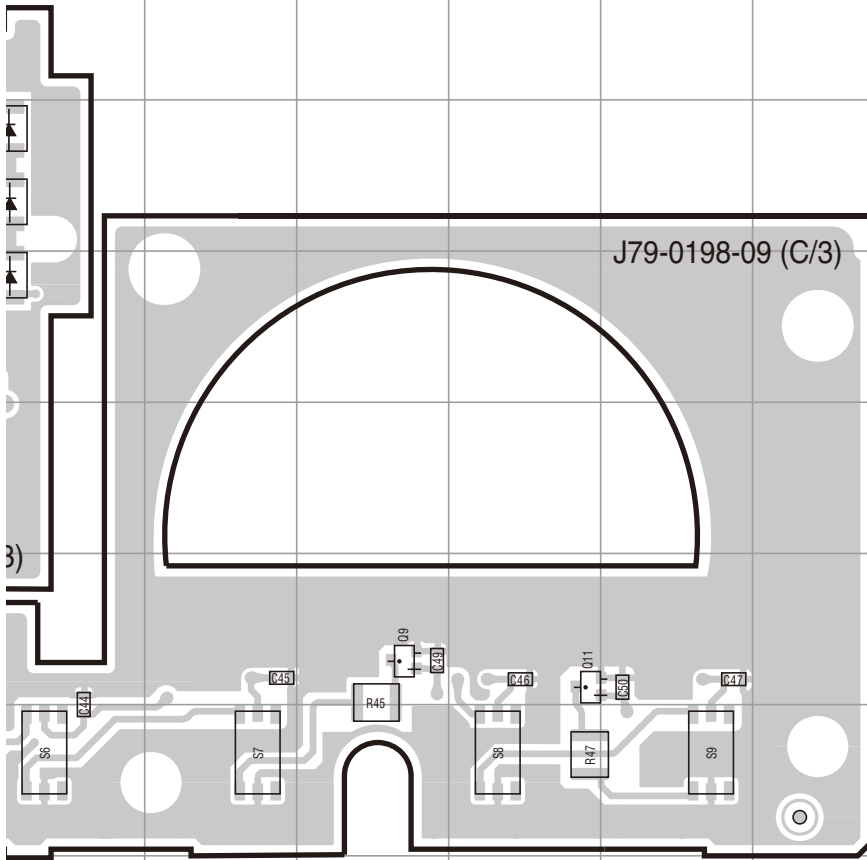


DISPLAY UNIT (X54-3190-20) Foil side view (J79-0198-09) : KCH-10



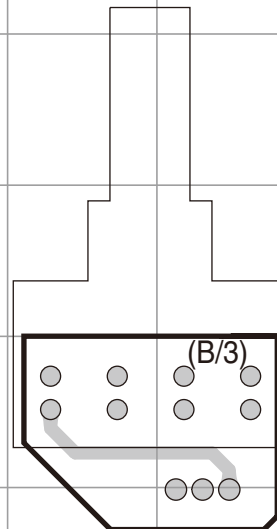
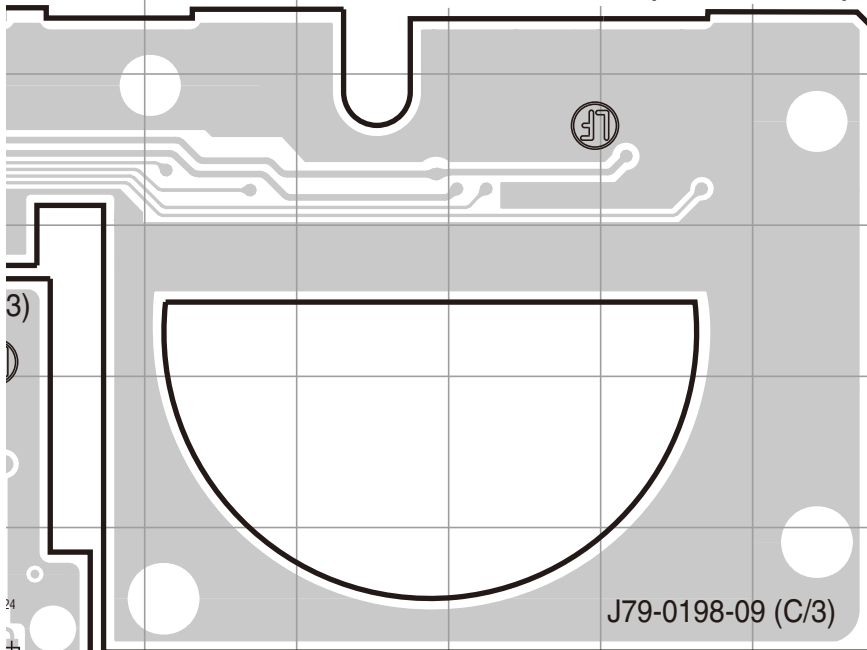
# PC BOARD TK-690H(B)

DISPLAY UNIT (X54-3190-20) Component side view (J79-0198-09) : KCH-10



Ref. NO.	Address
IC1	5E
IC4	3G
Q1	5C
Q4	4C
Q9	6L
Q11	6M
D5	5D
D6	4D
D7	3D
D8	3D
D9	3J
D10	3J
D11	4J
D12	4B
D13	4A

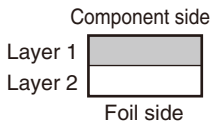
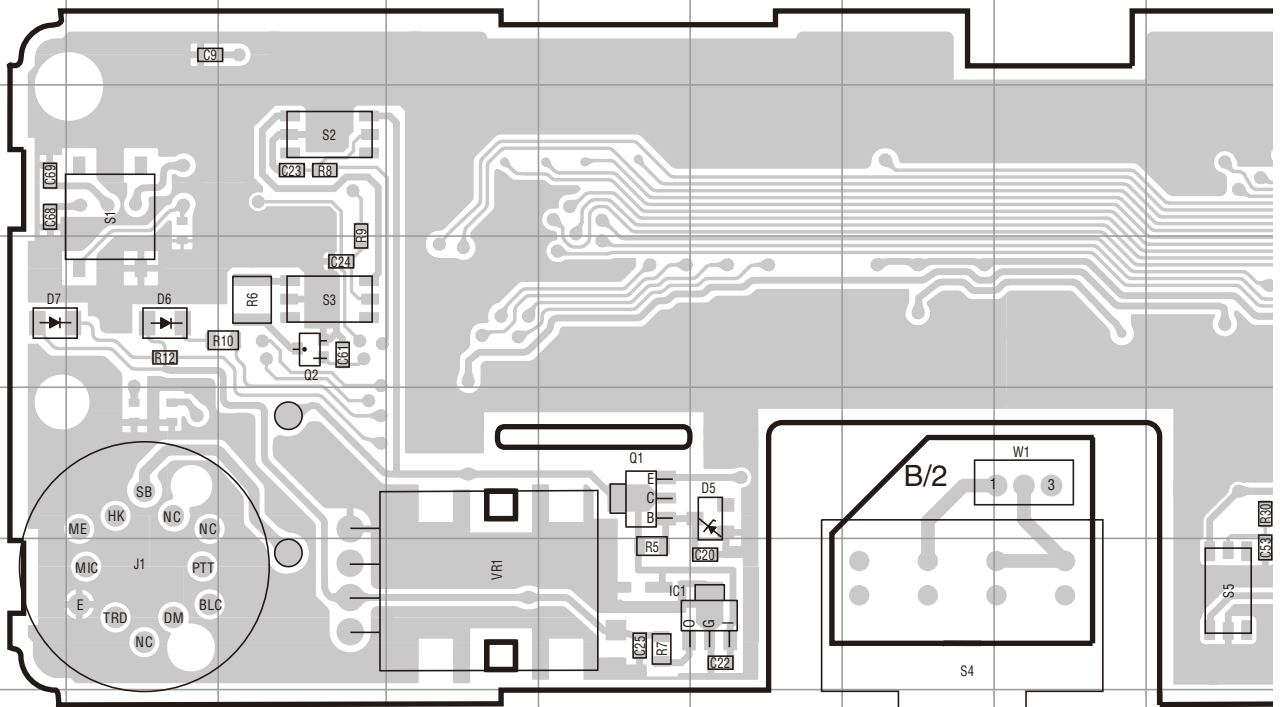
DISPLAY UNIT (X54-3190-20) Foil side view (J79-0198-09) : KCH-10



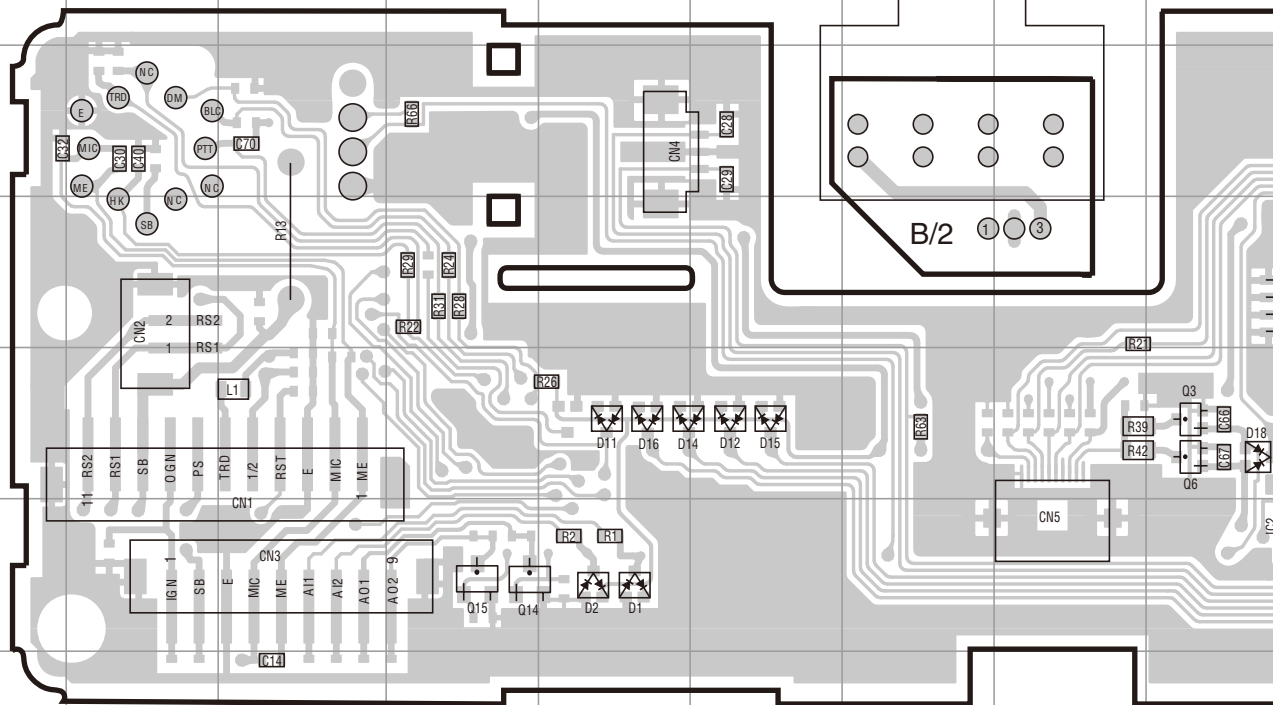
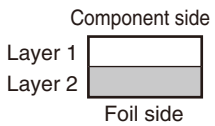
Ref. NO.	Address
IC2	13D
IC3	12F
Q3	13D
Q5	13D
Q6	12J
Q7	12I
Q12	12E
Q13	12E
Q14	12D
Q15	12D
D1	12D
D2	12D
D16	11E
D17	10C
D19	11C
D20	11D
D21	11D
D24	12I
D25	13E

# TK-690H(B) PC BOARD

DISPLAY UNIT (X54-3200-20) Component side view (J79-0199-09) : KCH-11

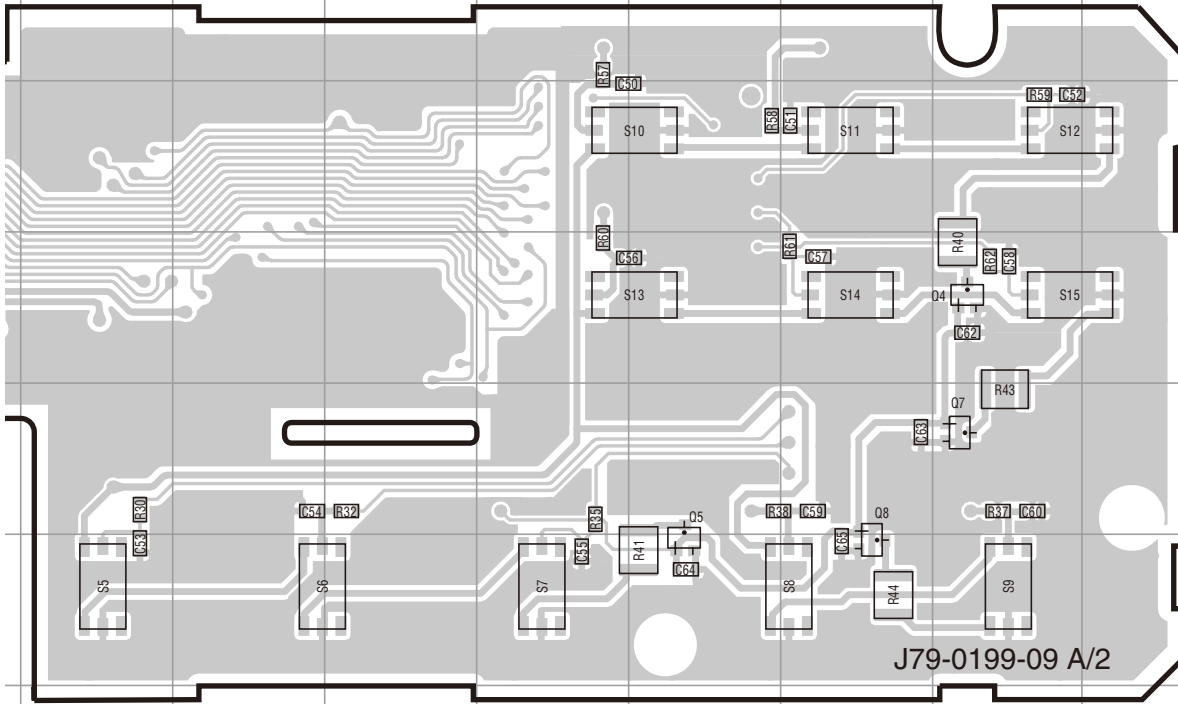


DISPLAY UNIT (X54-3200-20) Foil side view (J79-0199-09) : KCH-11



# PC BOARD TK-690H(B)

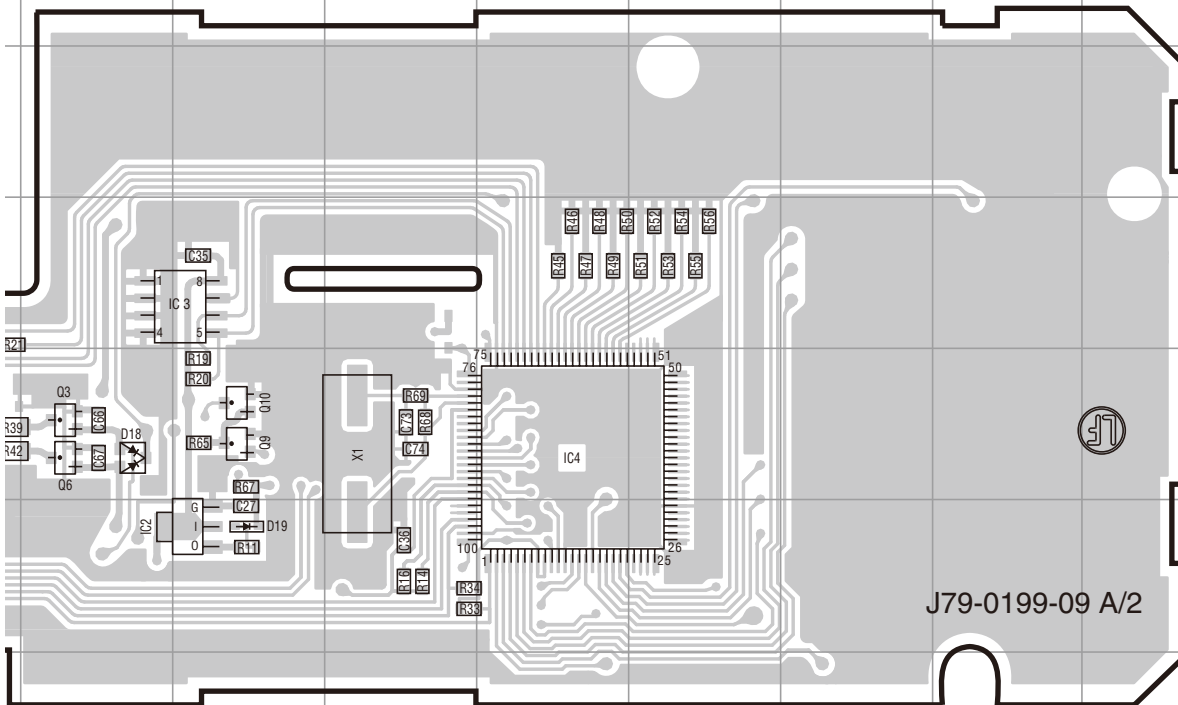
DISPLAY UNIT (X54-3200-20) Component side view (J79-0199-09): KCH-11



Ref. NO.	Address
IC1	6G
Q1	5F
Q2	4D
Q4	4P
Q5	6N
Q7	5P
Q8	6O
D5	5G
D6	4C
D7	4B

J79-0199-09 A/2

DISPLAY UNIT (X54-3200-20) Foil side view (J79-0199-09): KCH-11



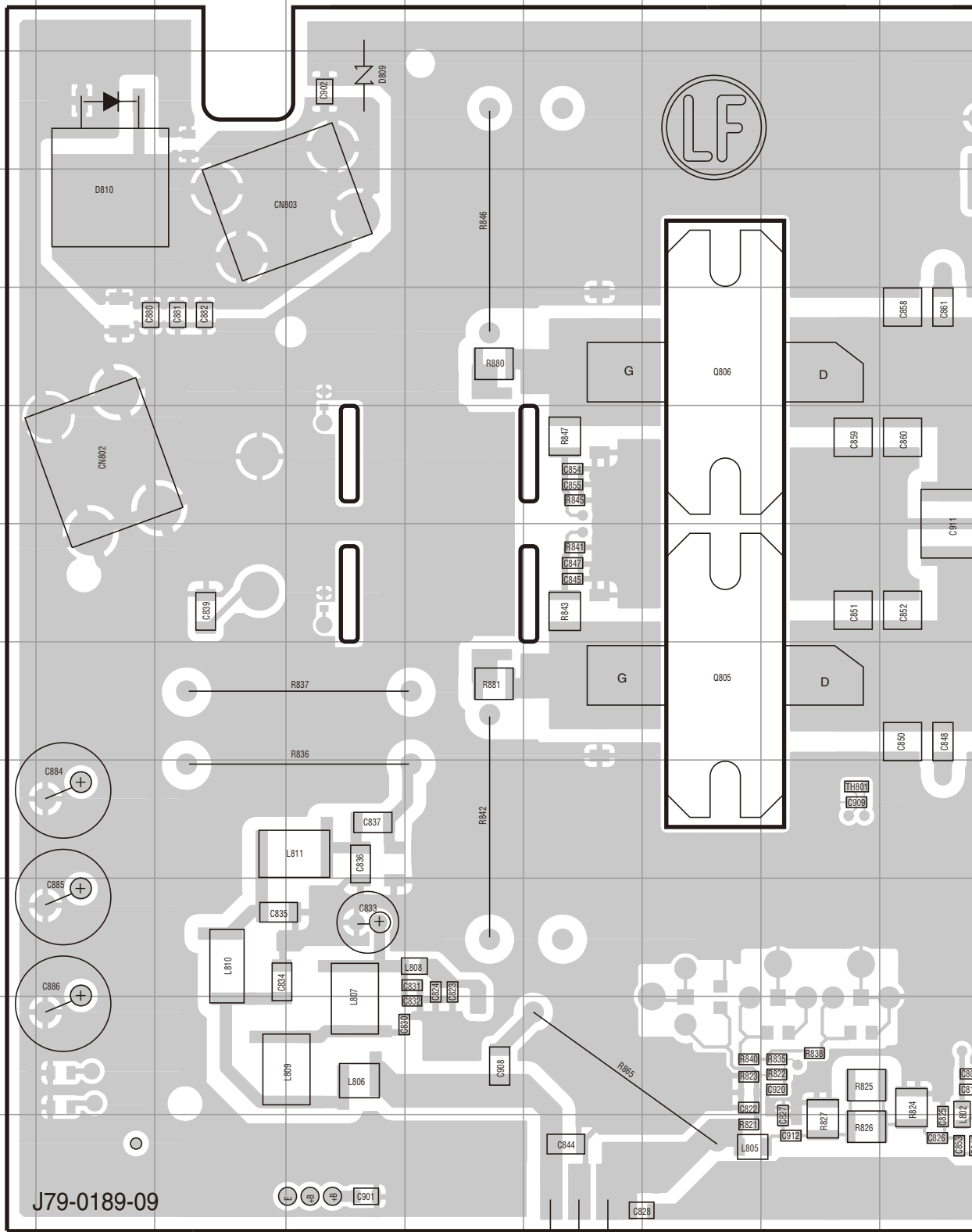
Ref. NO.	Address
IC2	13K
IC3	11K
IC4	12M
Q3	12J
Q6	12J
Q9	12K
Q10	12K
Q14	13E
Q15	13E
D1	13F
D2	13F
D11	12F
D12	12G
D14	12F
D15	12G
D16	12F
D18	12J
D19	13K

J79-0199-09 A/2



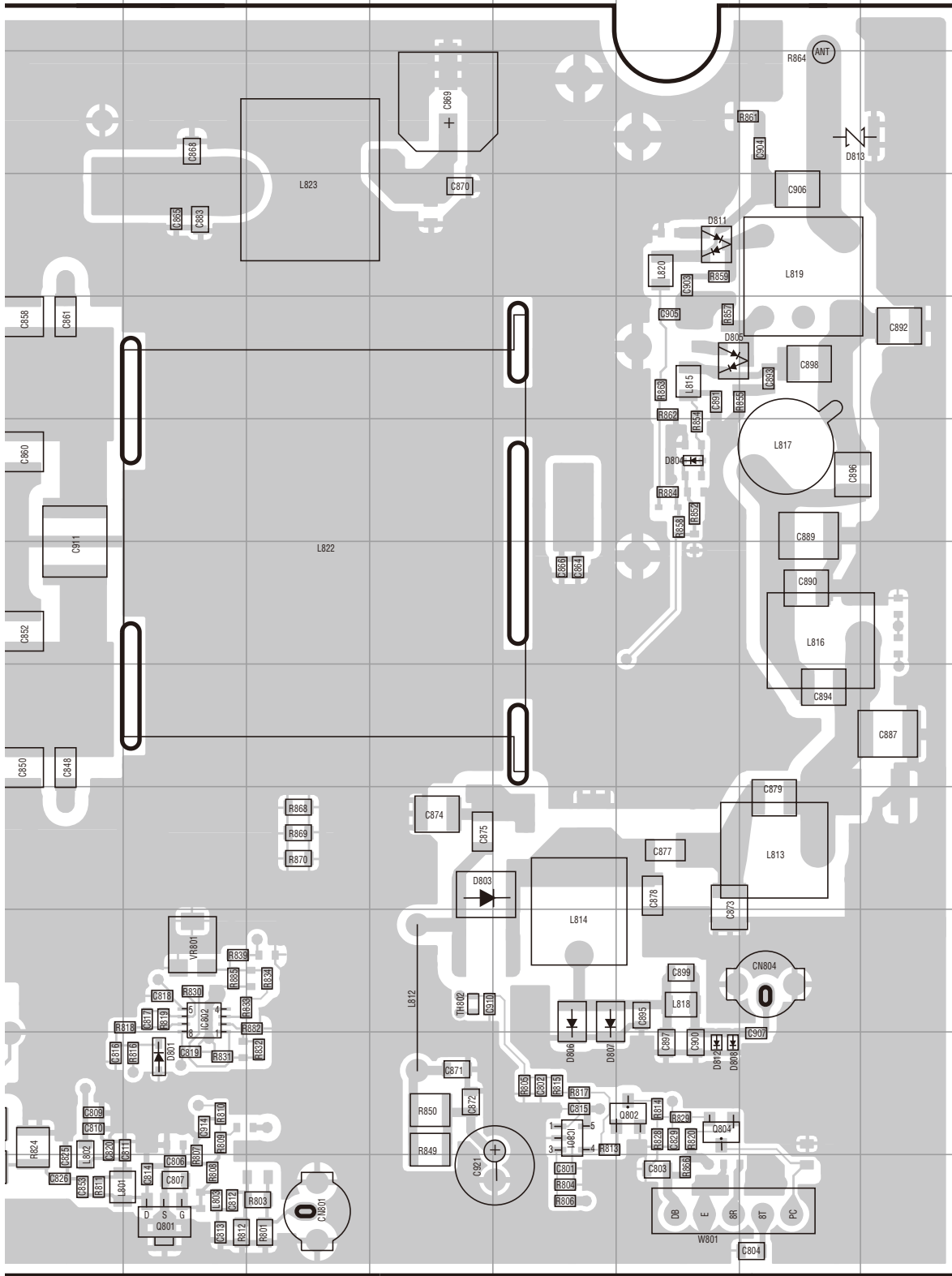
# TK-690H(B) PC BOARD

FINAL UNIT (X45-3830-XX) Component side view (J79-0189-09)



# PC BOARD TK-690H(B)

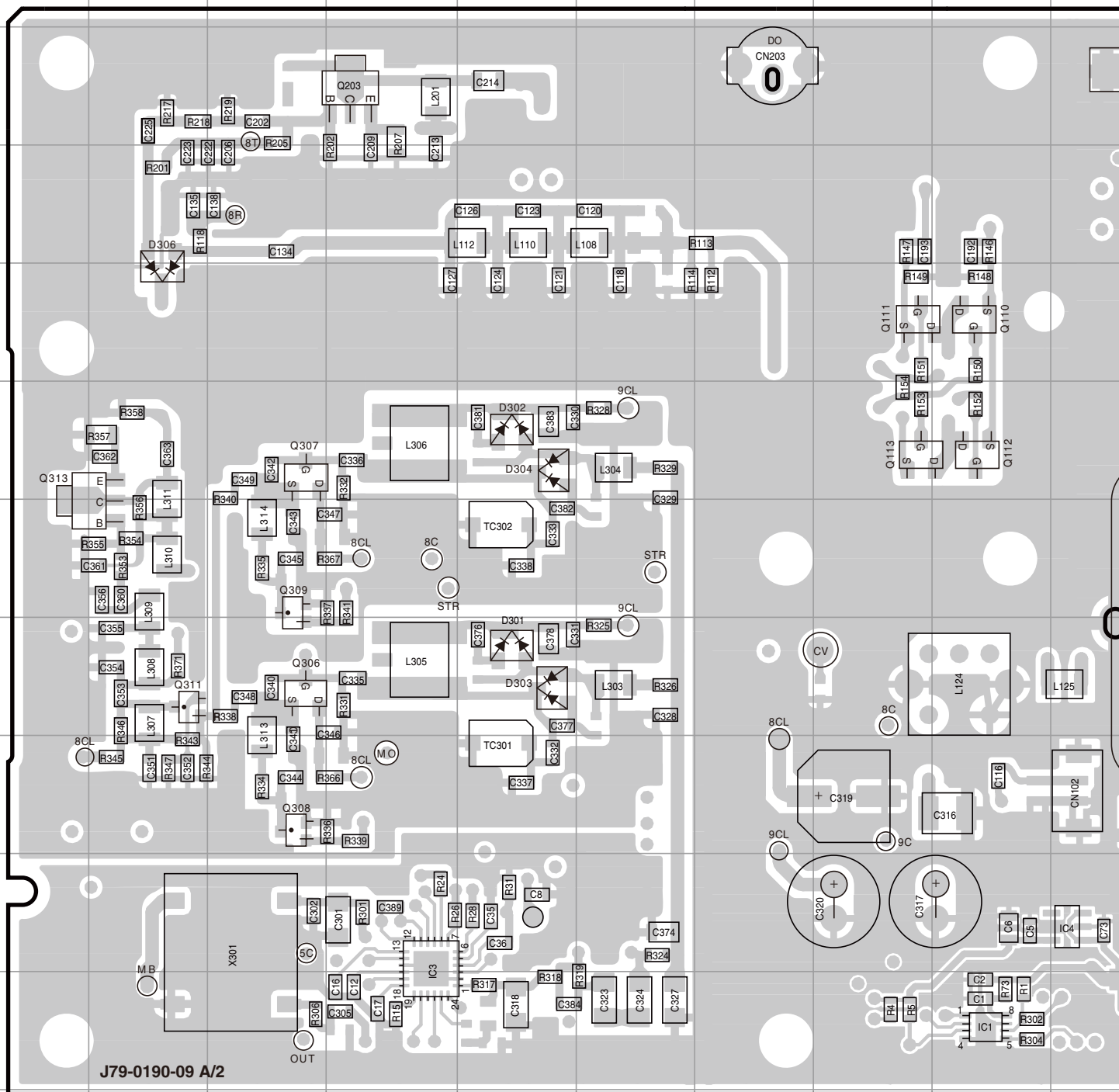
Component side view (J79-0189-09) FINAL UNIT (X45-3830-XX)



Ref. NO.	Address
IC801	11N
IC802	10K
Q801	12K
Q802	11O
Q803	13G
Q804	11O
Q805	8H
Q806	5H
D801	11K
D803	9M
D804	6O
D805	5O
D806	10N
D807	10N
D808	11O
D809	3E
D810	4C
D811	4O
D812	11O
D813	3P

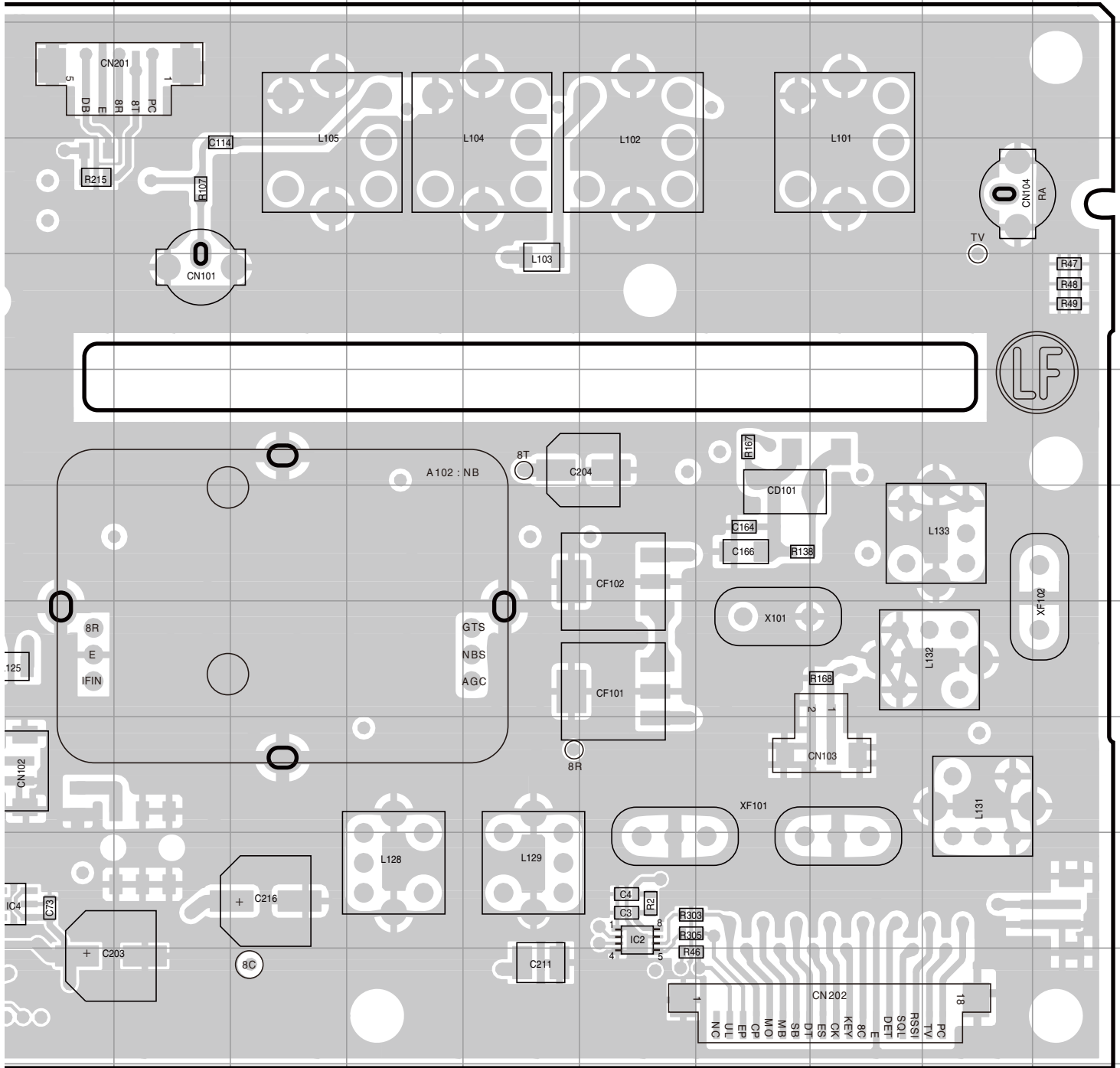
# TK-690H(B) PC BOARD

## TX-RX UNIT : TX-RX SECTION (X57-7590-XX)(A/2) Component side view (J79-0190-09)



# PC BOARD TK-690H(B)

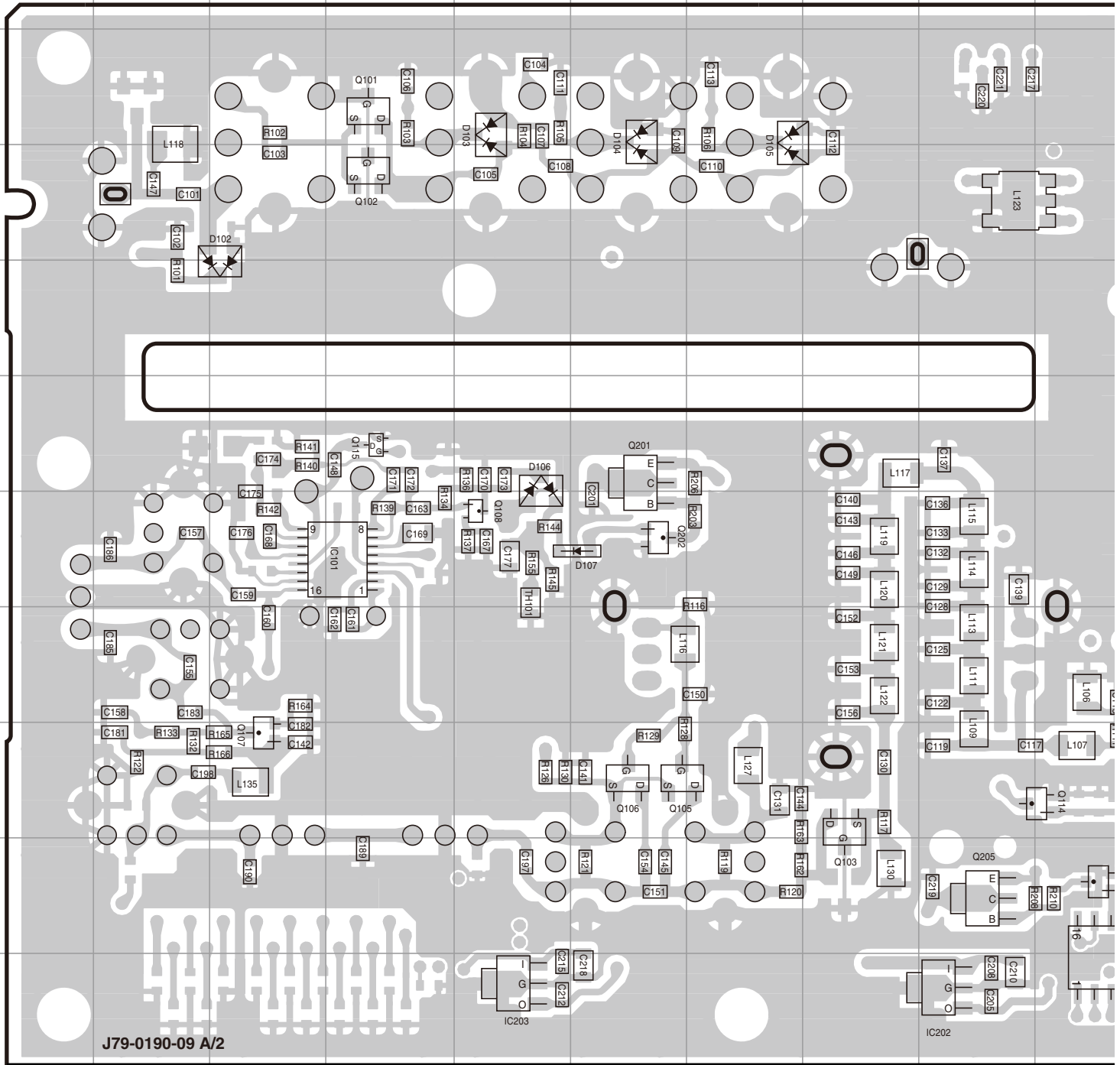
TX-RX UNIT : TX-RX SECTION (X57-7590-XX)(A/2) Component side view (J79-0190-09)



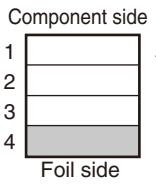
Ref No.	Address	Ref No.	Address	Ref No.	Address
IC301	10D	Q307	6C	D303	8E
Q110	5I	Q308	9C	D304	6E
Q111	5H	Q309	7C	D306	5B
Q112	6I	Q311	8B		
Q113	6H	Q313	6B		
Q203	3D	D301	8E		
Q306	8C	D302	6E		

# TK-690H(B) PC BOARD

TX-RX UNIT : TX-RX SECTION (X57-7590-XX)(A/2) Foil side view (J79-0190-09)

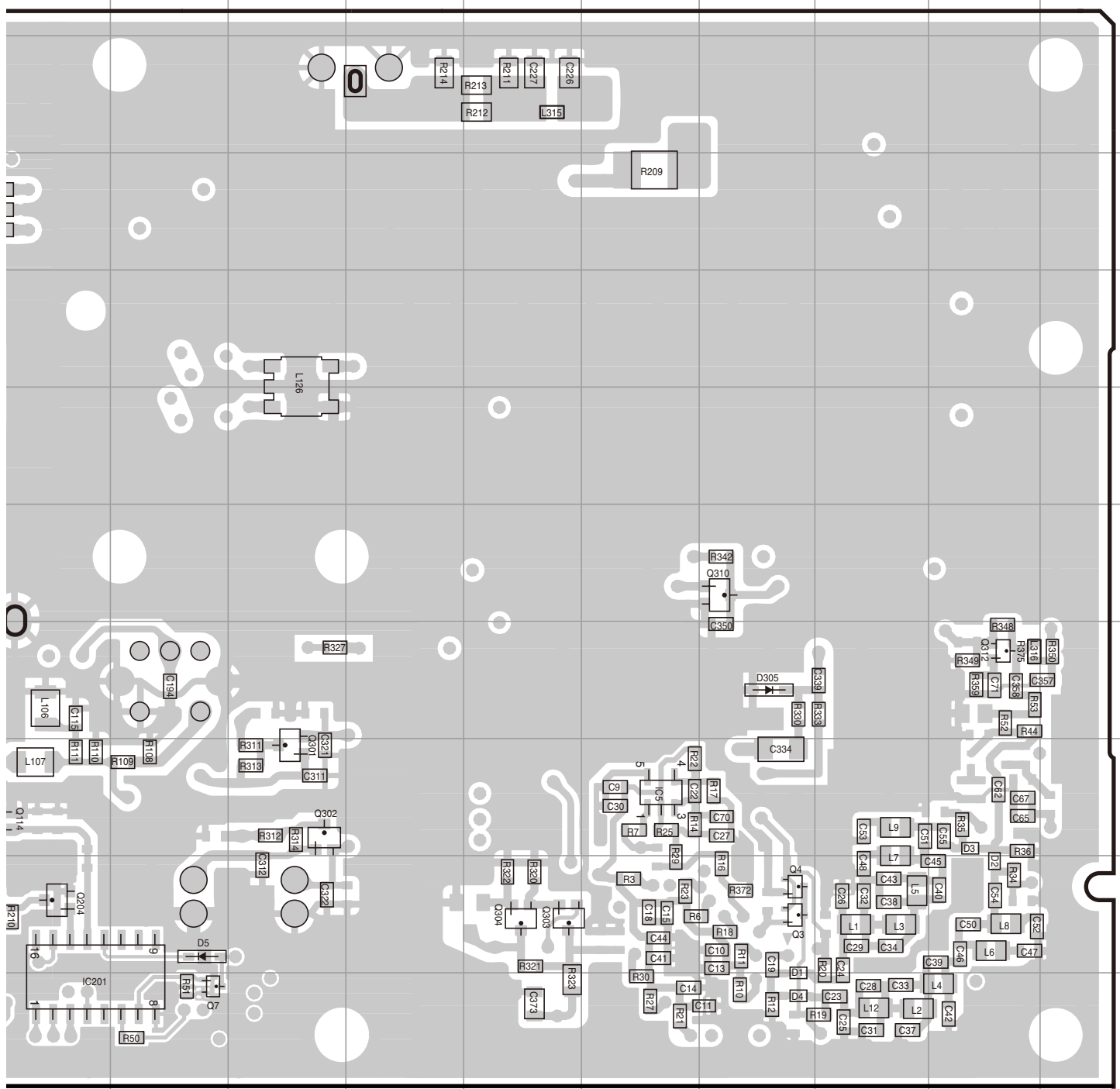


J79-0190-09 A/2



# PC BOARD TK-690H(B)

TX-RX UNIT : TX-RX SECTION (X57-7590-XX)(A/2) Foil side view (J79-0190-09)

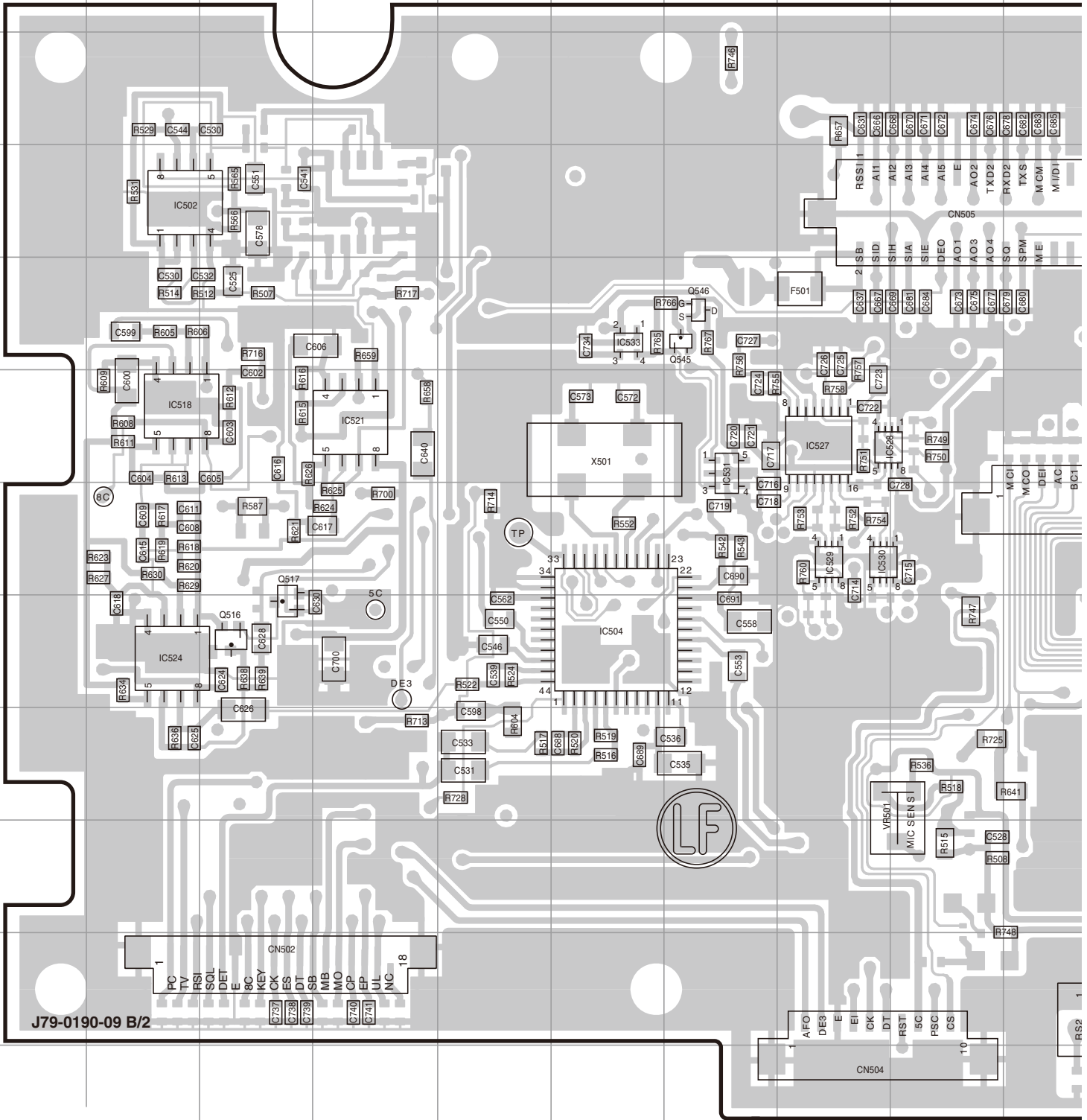


Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address
IC5	9O	Q7	11K	Q108	7E	Q301	9L	D102	4C
IC101	7D	Q101	3D	Q114	9J	Q302	9L	D103	3E
IC201	11J	Q102	4D	Q115	6D	Q303	10N	D104	3F
IC202	10I	Q103	9H	Q201	6F	Q304	10N	D105	3G
IC203	11E	Q105	9F	Q202	7F	Q310	7P	D106	6E
Q3	10P	Q106	9F	Q204	10J	Q312	8R	D107	7F
Q4	10P	Q107	9C	Q205	10I	D5	11K	D305	8P

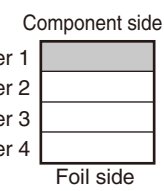


# TK-690H(B) PC BOARD

TX-RX UNIT : CONTROL SECTION (X57-7590-XX)(B/2) Component side view (J79-0190-09)

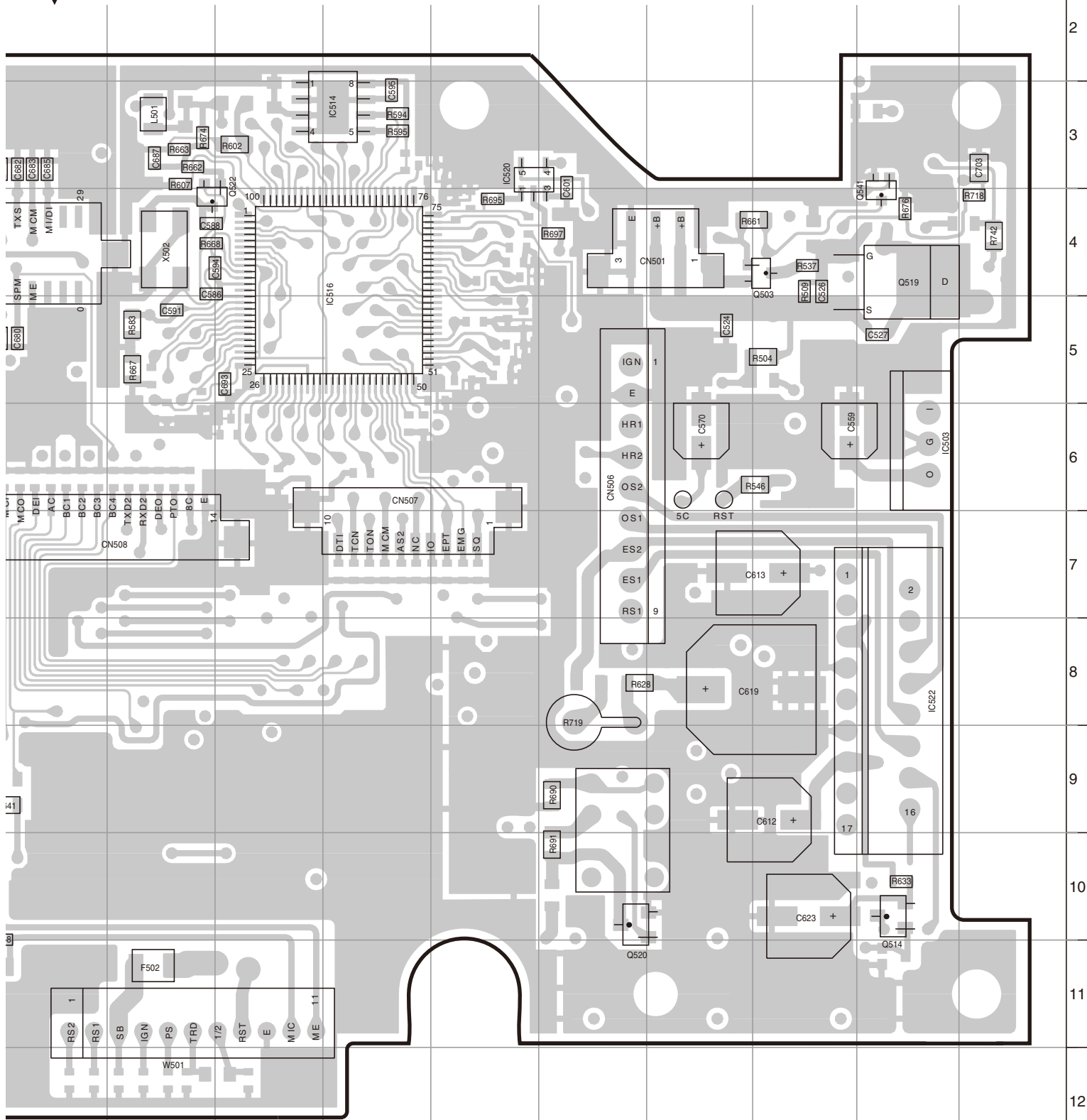


J79-0190-09 B/2



# PC BOARD TK-690H(B)

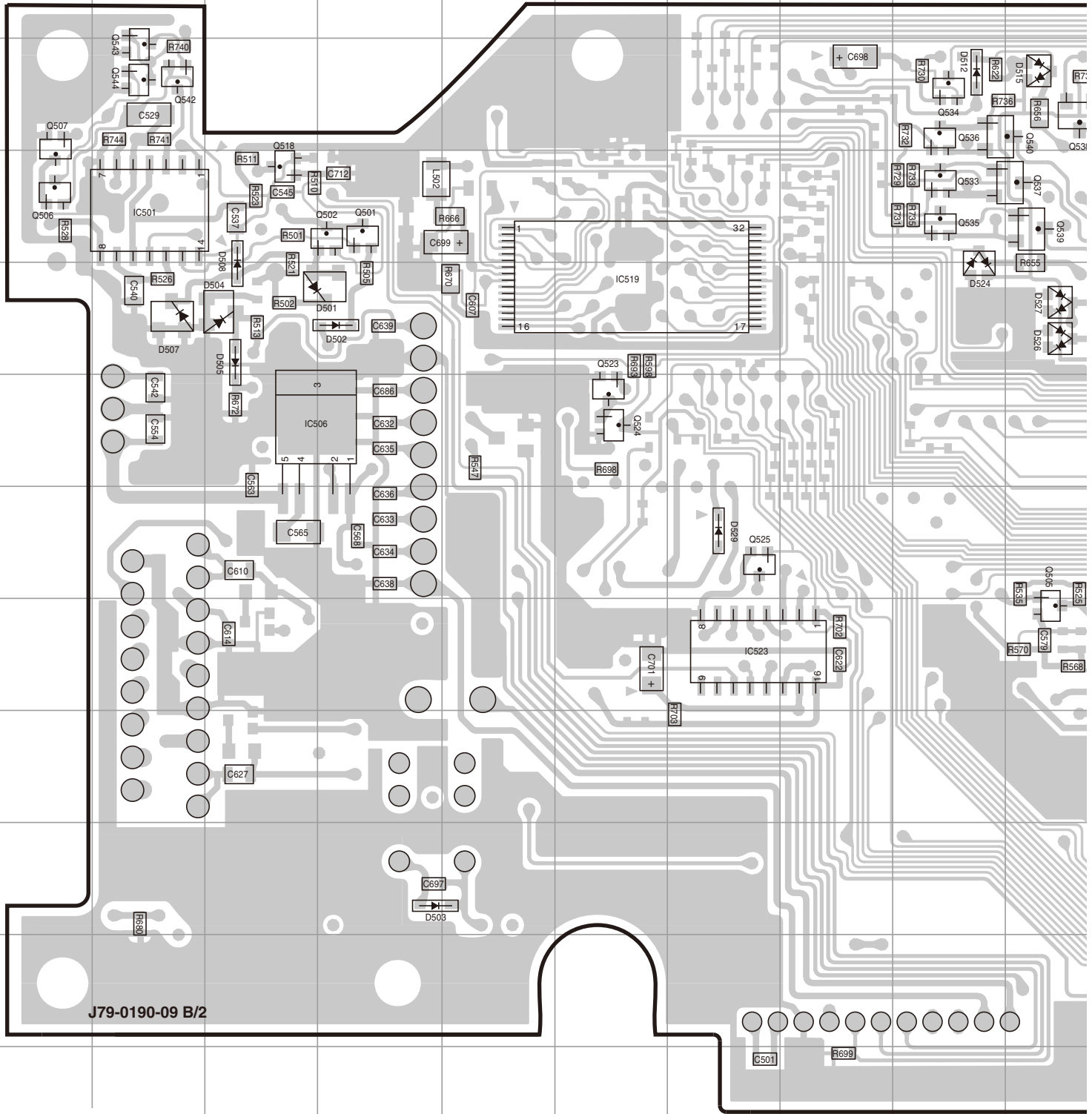
) TX-RX UNIT : CONTROL SECTION (X57-7590-XX)(B/2) Component side view (J79-0190-09)



Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address
IC502	4B	IC521	6D	IC531	6G	Q520	10O
IC503	6R	IC522	8R	IC533	5F	Q522	4K
IC504	8F	IC524	8B	Q503	4Q	Q541	4R
IC514	3M	IC527	6H	Q514	9R	Q545	5G
IC516	4M	IC528	6H	Q516	8C	Q546	5G
IC518	6B	IC529	7H	Q517	8C		
IC520	3N	IC530	7H	Q519	4R		

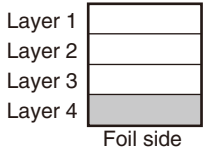
# TK-690H(B) PC BOARD

TX-RX UNIT : CONTROL SECTION (X57-7590-XX)(B/2) Foil side view (J79-0190-09)



J79-0190-09 B/2

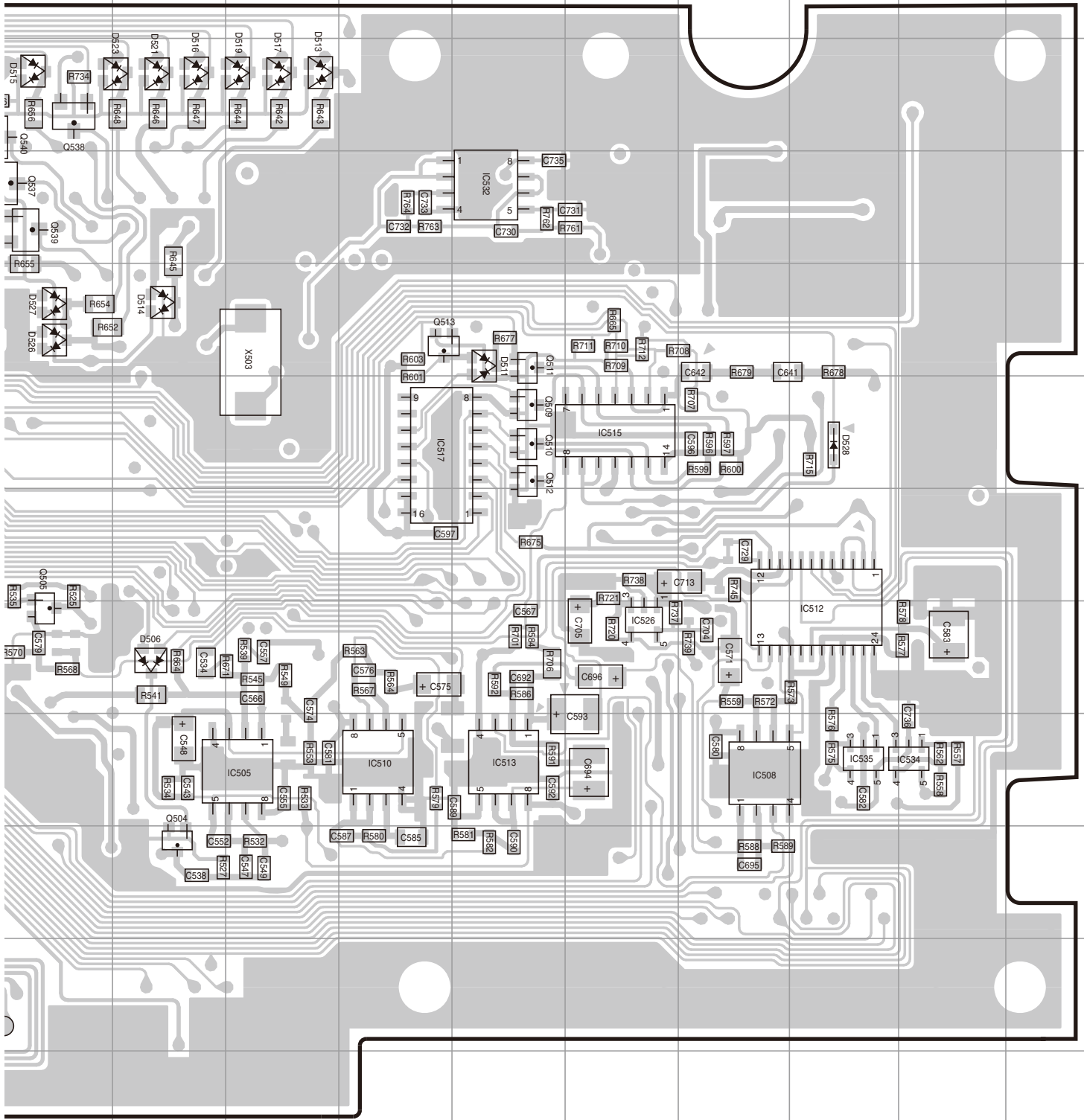
Component side



Ref No.	Address	Ref No.	Address	Ref
IC501	4B	IC513	9N	IC
IC505	9L	IC515	6O	IC
IC506	6C	IC517	6M	QE
IC508	9P	IC519	5F	QE
IC510	9M	IC523	8G	QE
IC512	8Q	IC526	8O	QE

# PC BOARD TK-690H(B)

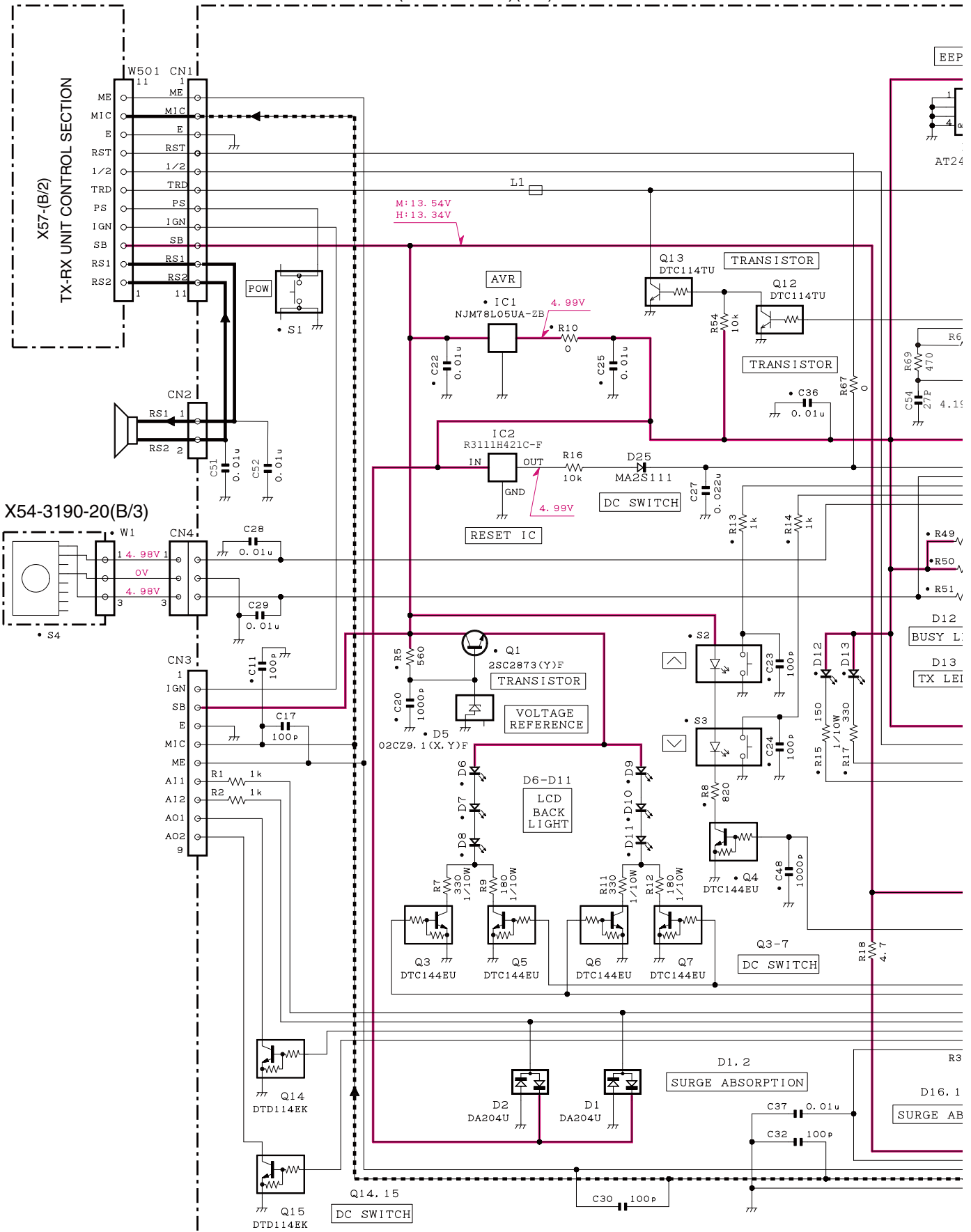
TX-RX UNIT : CONTROL SECTION (X57-7590-XX)(B/2) Foil side view (J79-0190-09)



Address	Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.
9N	IC534	9R	Q506	4A	Q513	5M	Q534	3I	Q540	3I	D503	10D	D511	5N	D517	3L	D527	5J	
6O	IC535	9Q	Q507	3A	Q518	4C	Q535	4I	Q542	3B	D504	5C	D512	3I	D519	3L	D528	6Q	
6M	Q501	4D	Q509	6N	Q523	6F	Q536	3I	Q543	3B	D505	5C	D513	3L	D521	3K	D529	7G	
5F	Q502	4D	Q510	6N	Q524	6F	Q537	4J	Q544	3B	D506	8K	D514	5K	D523	3K			
8G	Q504	10K	Q511	5N	Q525	7G	Q538	3J	D501	5D	D507	5B	D515	3J	D524	4I			
8O	Q505	8J	Q512	6N	Q533	4I	Q539	4J	D502	5D	D508	5B	D516	3K	D526	5J			

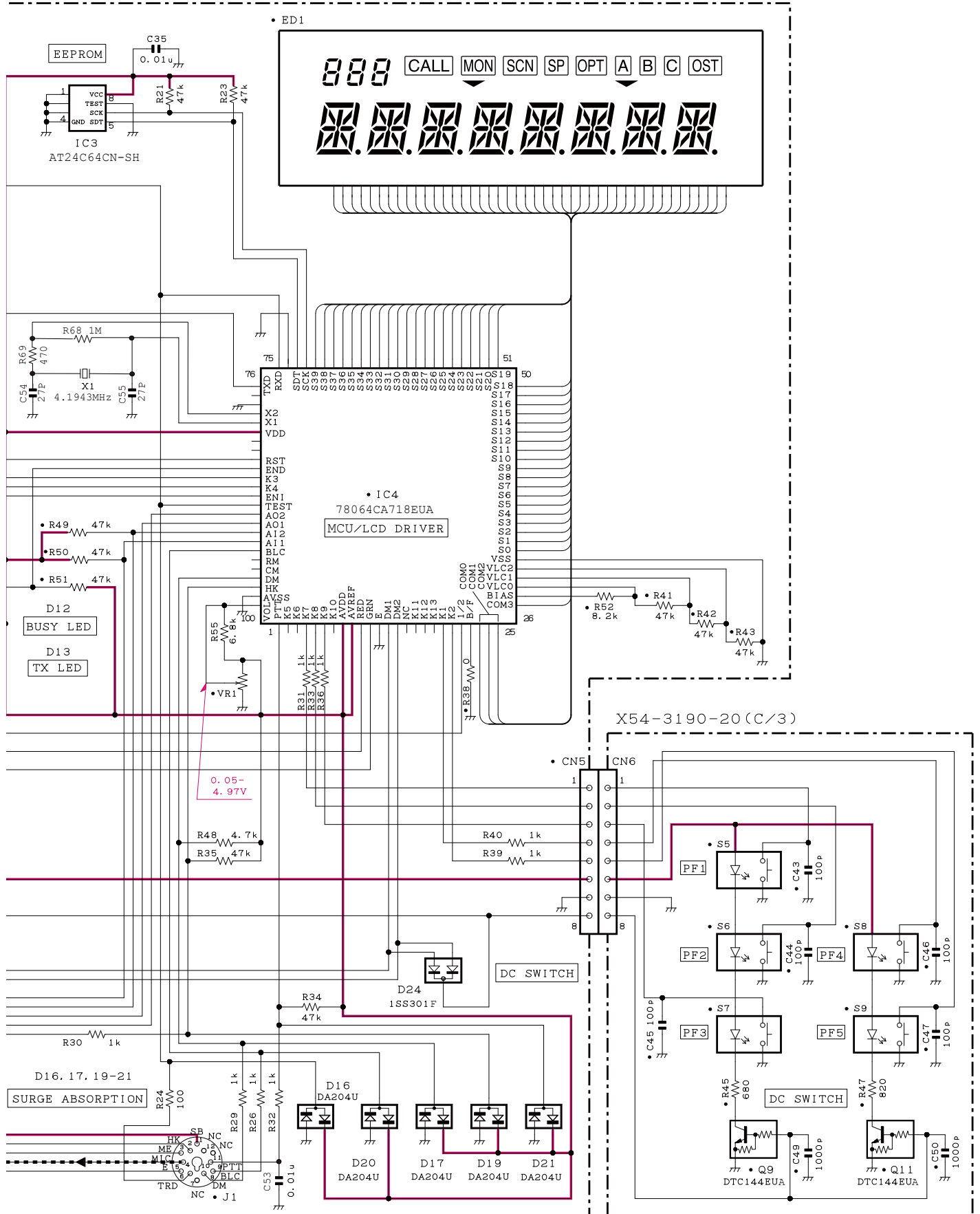
# TK-690H(B) SCHEMATIC DIAGRAM

KCH-10 DISPLAY UNIT (X54-3190-20)(A/3)



# SCHEMATIC DIAGRAM TK-690H(B)

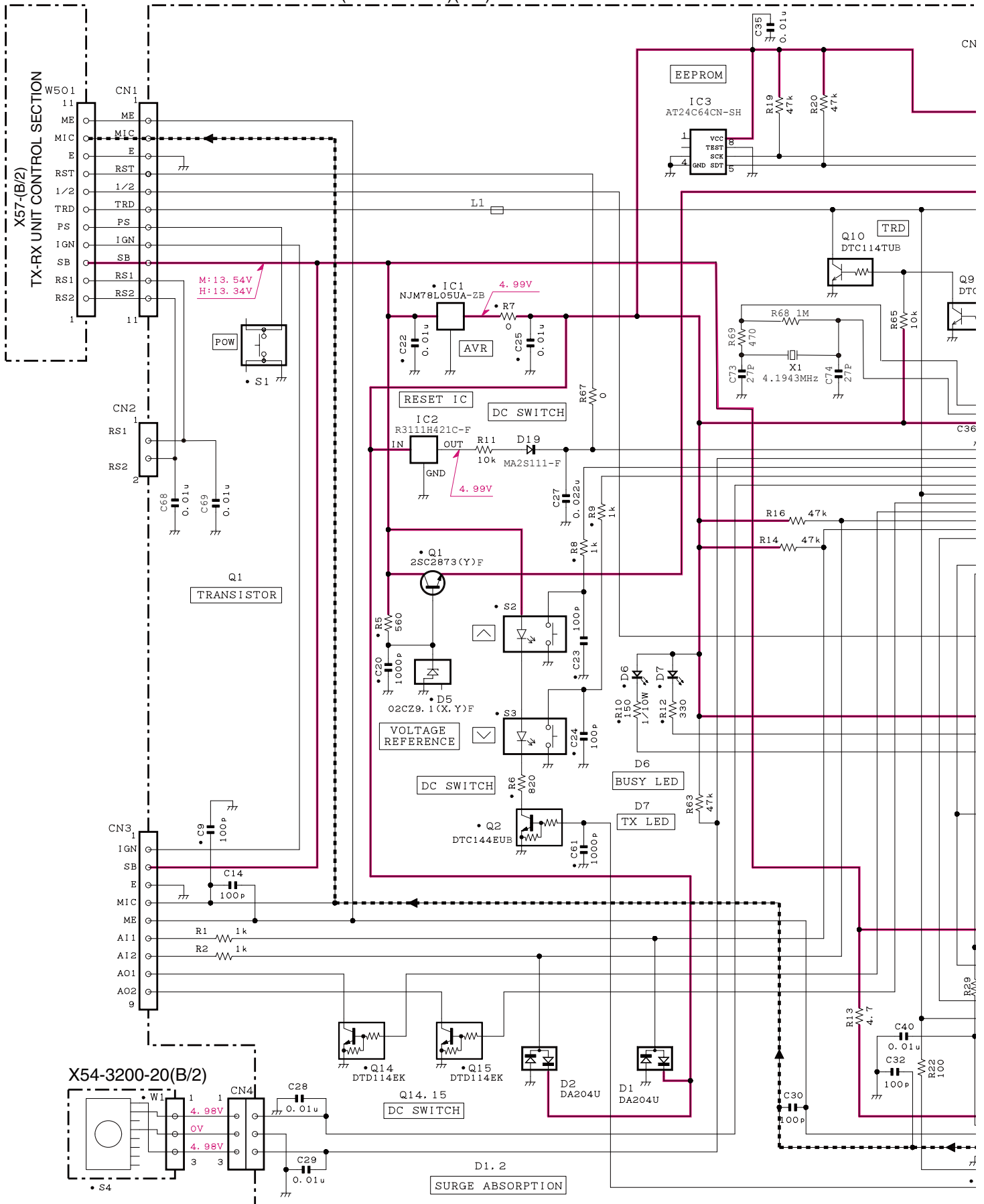
## ▼ DISPLAY UNIT (X54-3190-20)





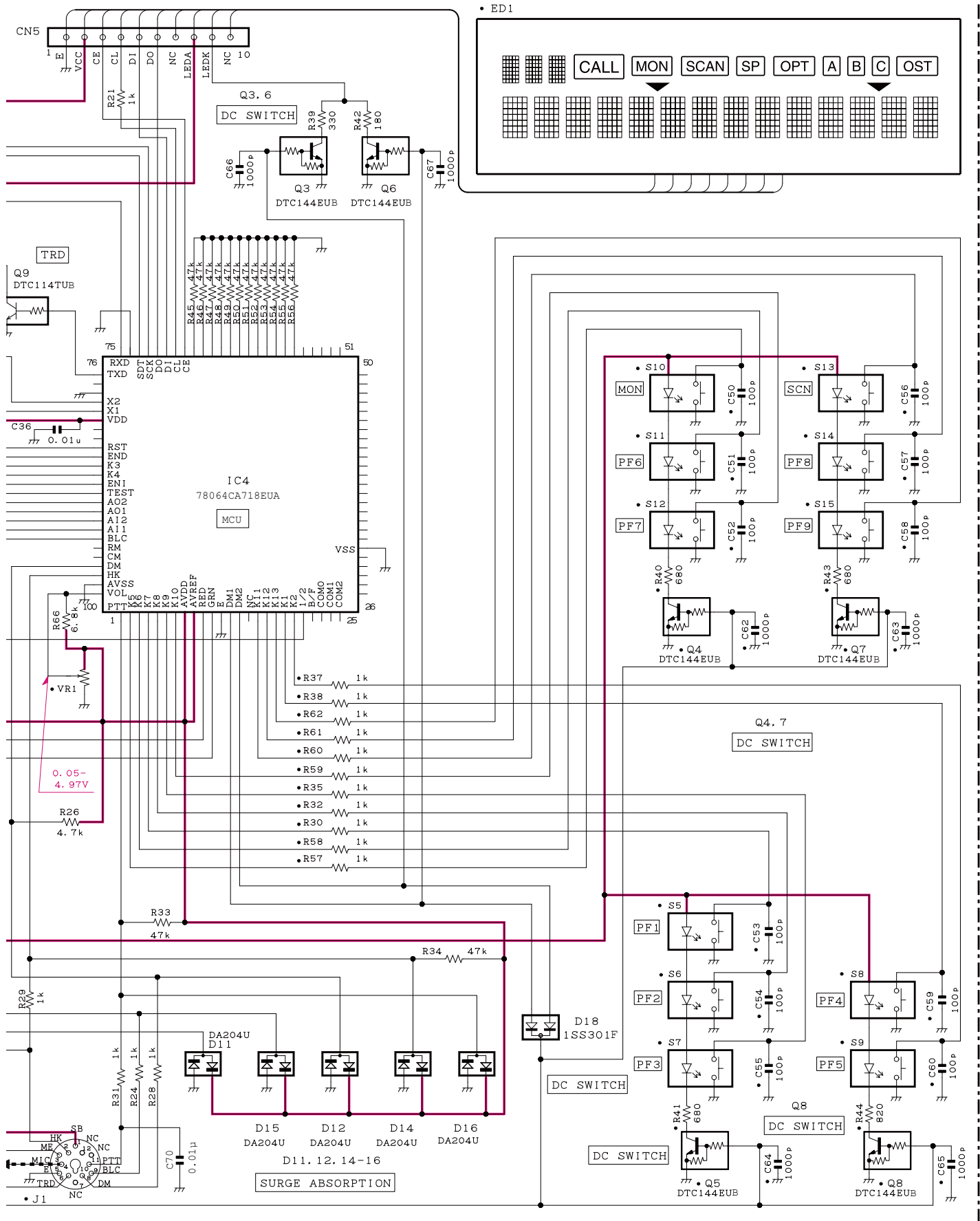
# TK-690H(B) SCHEMATIC DIAGRAM

KCH-11 DISPLAY UNIT (X54-3200-20)(A/2)



# SCHEMATIC DIAGRAM TK-690H(B)

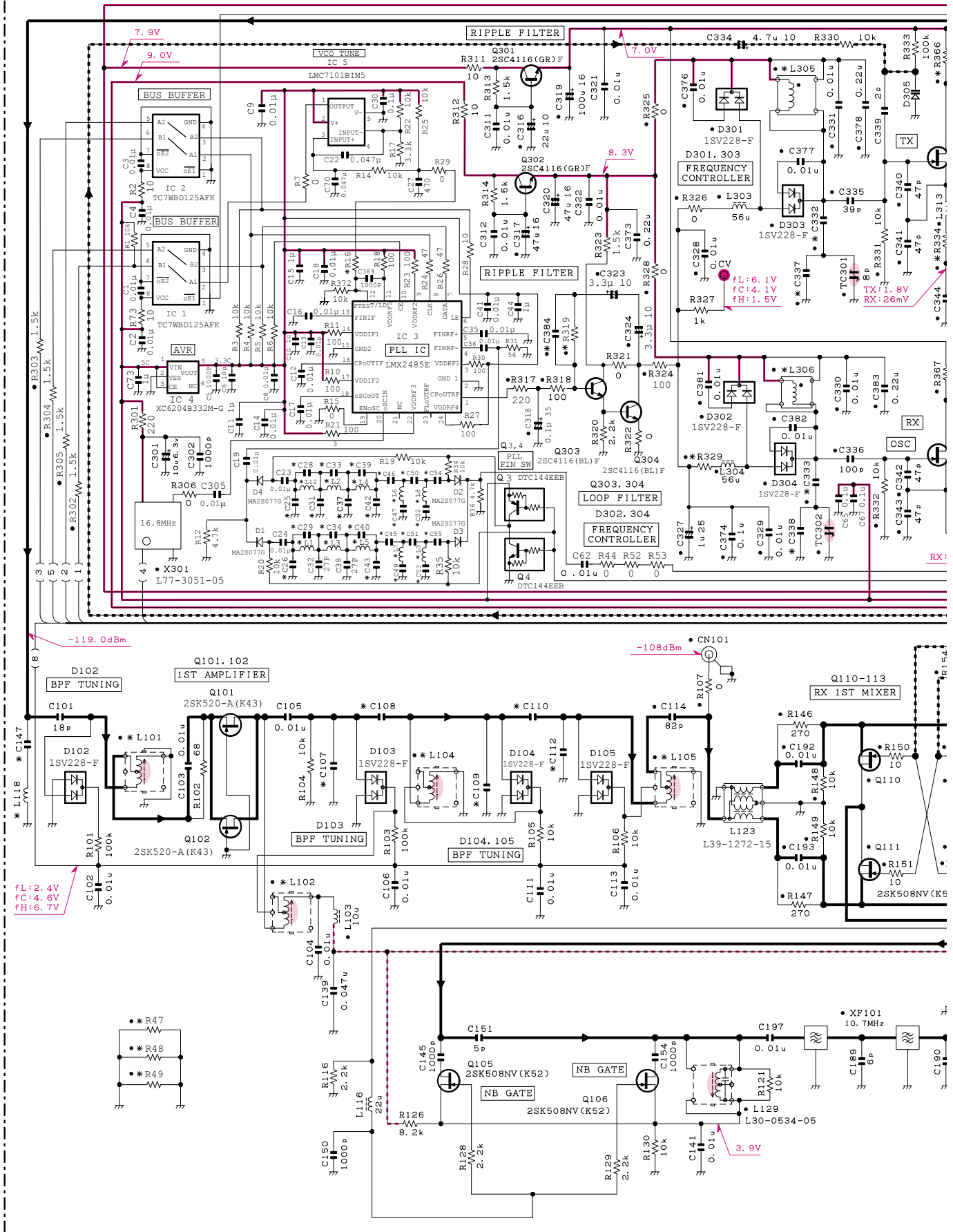
## ▼ DISPLAY UNIT (X54-3200-20)



Note : The components marked with a dot (•) are parts of layer 1.

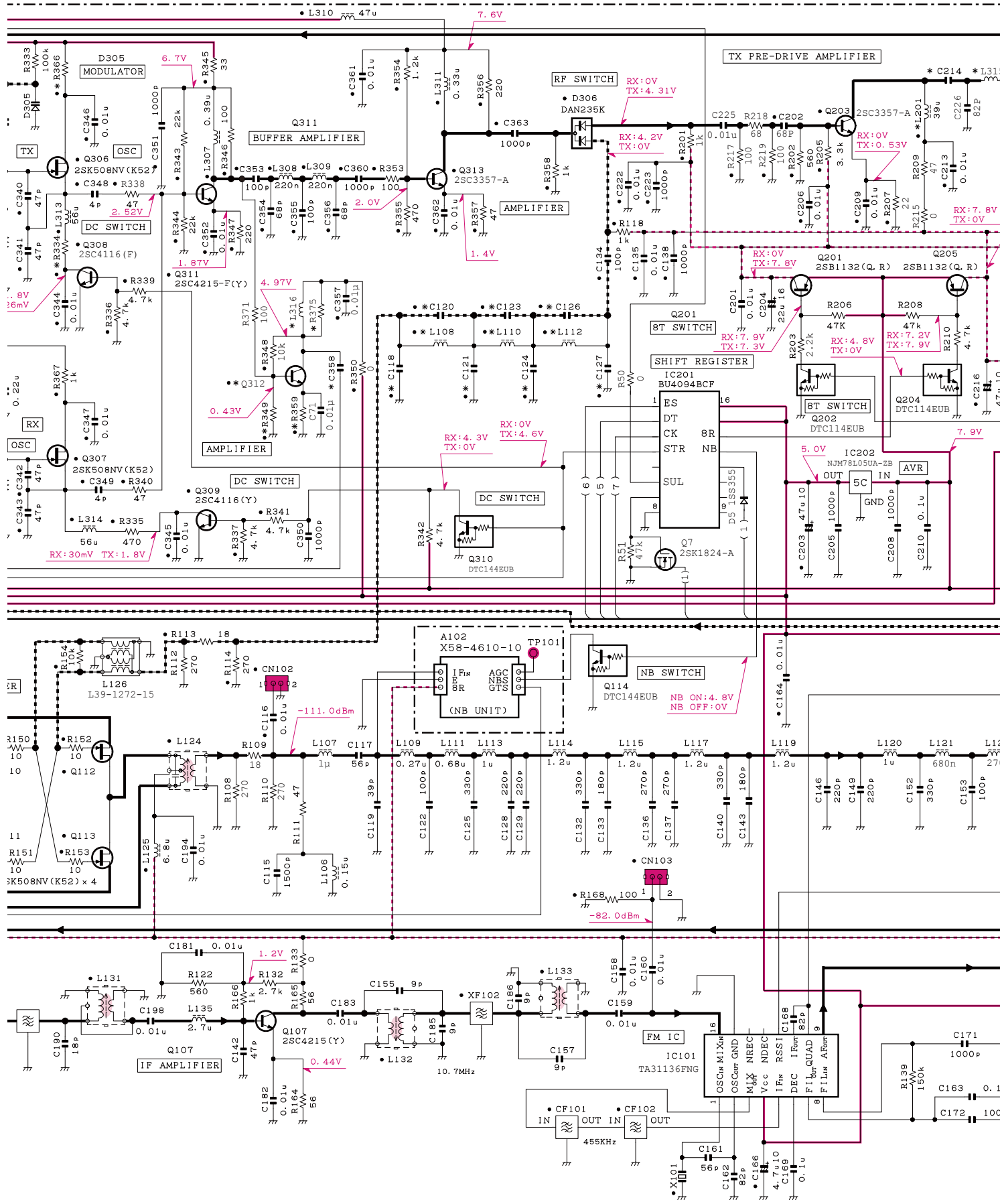
# TK-690H(B) SCHEMATIC DIAGRAM

TX-RX UNIT TX-RX SECTION (X57-7590-XX)(A/2)



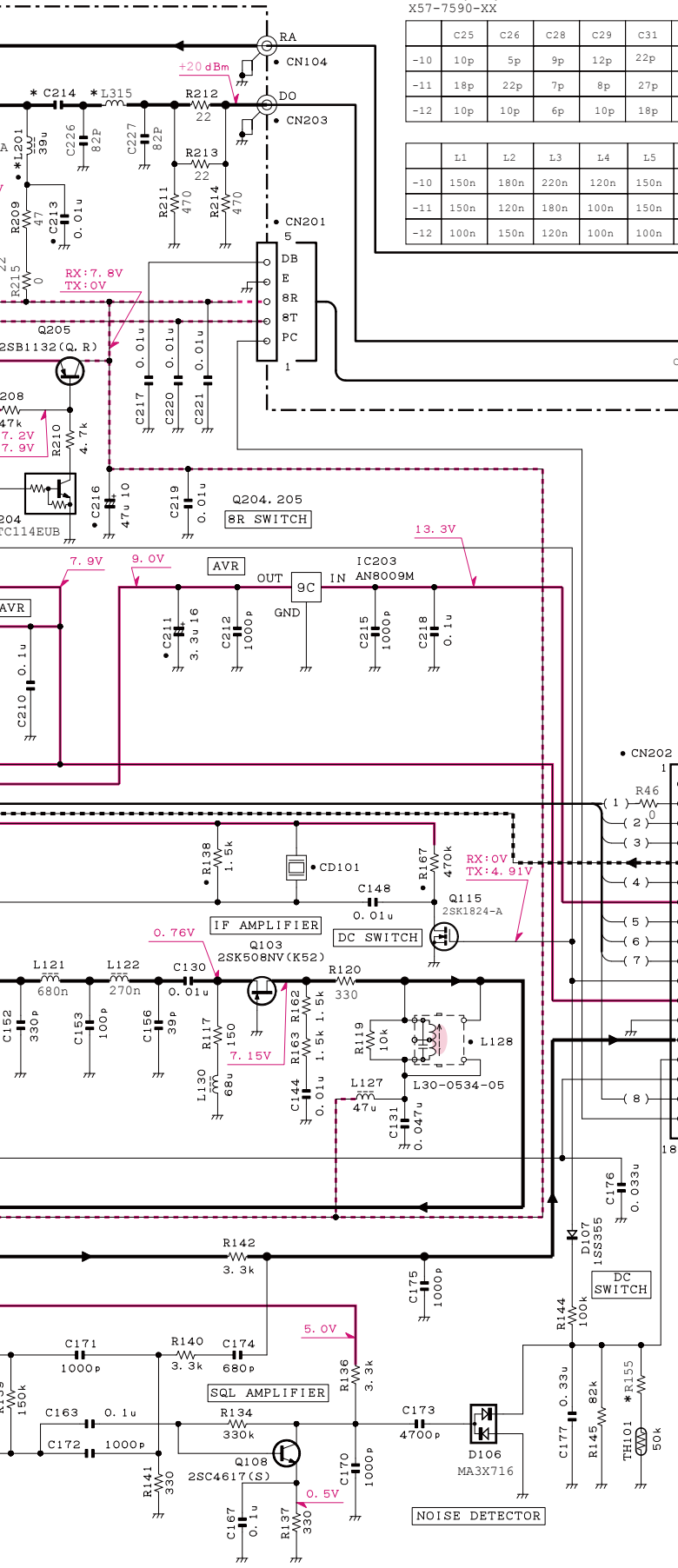
# SCHEMATIC DIAGRAM TK-690H(B)

## TX-RX UNIT TX-RX SECTION X57-7590-XX (A/2)



# TK-690H(B) SCHEMATIC DIAGRAM

TX-RX UNIT TX-RX SECTION X57-7590-XX (A/2)

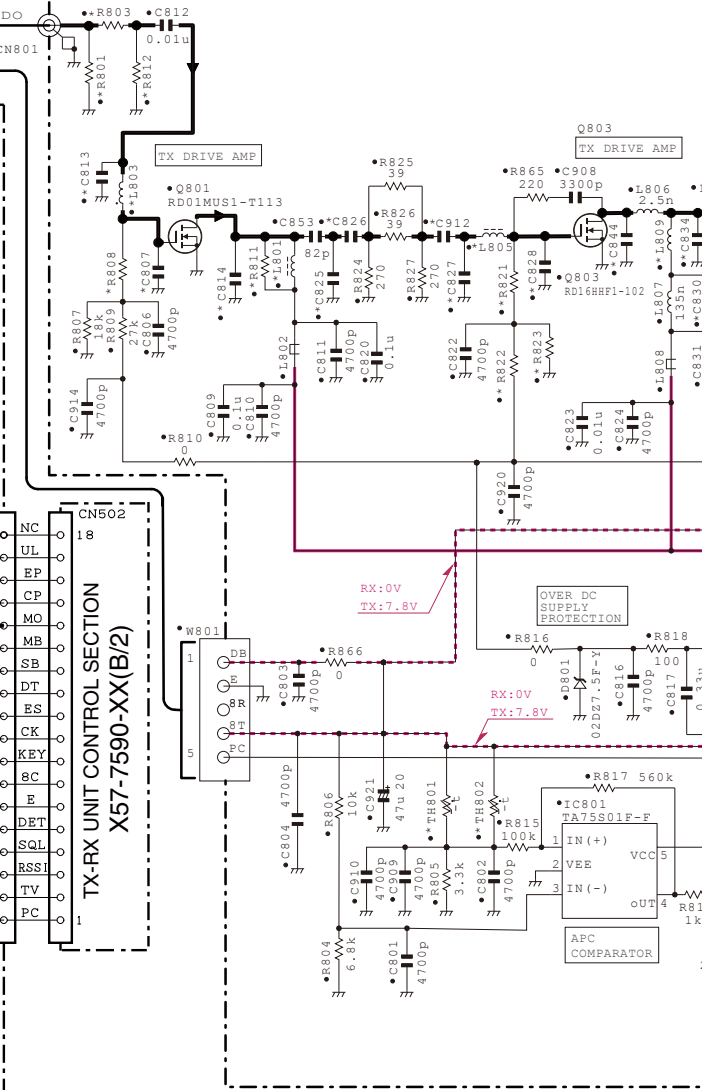


X57-7590-XX

	C25	C26	C28	C29	C31	C33	C34	C37	C39	C40	C42	C43	C45	C46	C47	C48	C50	C51
-10	10p	5p	9p	12p	22p	7p	12p	22p	9p	12p	10p	5p	56p	33p	150p	180p	18p	27p
-11	18p	22p	7p	8p	27p	8p	9p	27p	7p	8p	18p	22p	47p	33p	120p	150p	15p	18p
-12	10p	10p	6p	10p	18p	6p	12p	18p	6p	10p	10p	10p	33p	39p	120p	180p	18p	22p

	L1	L2	L3	L4	L5	L6	L7	L8	L9	L12	L101	L102	L104	L105
-10	150n	180n	220n	120n	150n	120n	150n	120n	150n	120n	L34-4869-05	L34-4869-05	L34-4869-05	L34-4869-05
-11	150n	120n	180n	100n	150n	100n	150n	100n	150n	100n	L34-4869-05	L34-4869-05	L34-4869-05	L34-4869-05
-12	100n	150n	120n	100n	100n	82n	100n	82n	100n	100n	L34-4870-05	L34-4870-05	L34-4870-05	L34-4870-05

## FINAL UNIT (X45-3830-XX)



X45-3830-XX

	C807	C813	C814	C825	C826	C827	C828	C830	C834	C835	C836	C837	
-10	K	NO	47p	22p	39p	3300p	120p	NO	100p	470p	270p	68p	3300p
-11	K2	NO	68p	33p	27p	3300p	68p	NO	100p	330p	220p	47p	3300p
-12	K3	12p	68p	33p	27p	470p	68p	47p	100p	330p	100p	47p	120p

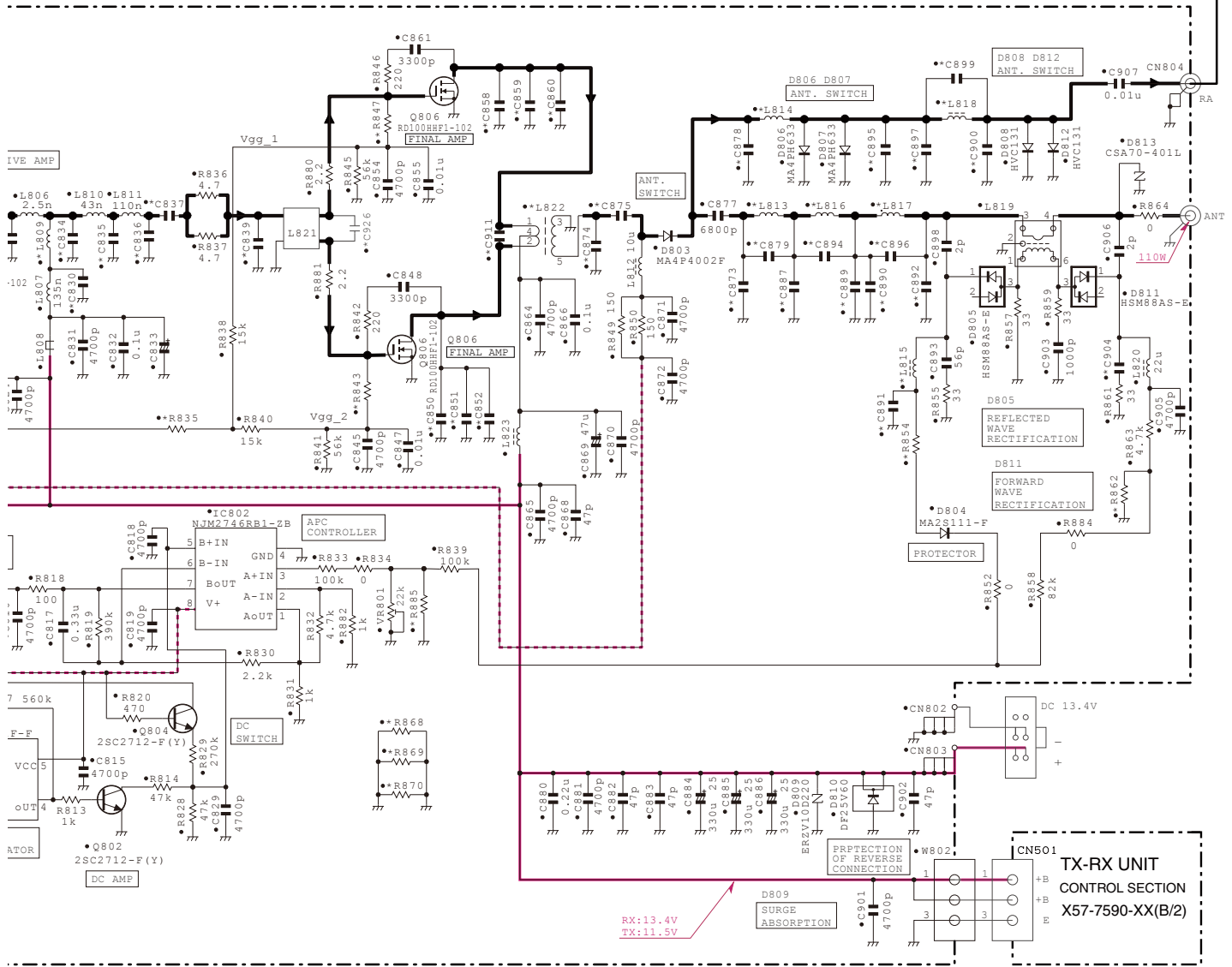
	L801	L803	L805	L809	L813	L814
-10	K	L41-2785-39	L40-2285-92	L41-2785-39	L34-4616-05	L34-4895-05
-11	K2	L41-1585-39	L40-1585-92	L41-1285-39	L34-4616-05	L34-4895-05
-12	K3	L41-1585-39	L40-1585-92	L41-1285-39	L34-4607-15	L34-4884-05

# SCHEMATIC DIAGRAM TK-690H(B)

C51	C52	C53	C54	C55	C107	C108	C109	C110	C112	C118	C120	C121	C123	C124	C126	C127	C147	C214	C332	C333	C337	C338	C358	C384
27p	150p	180p	33p	56p	NO	3p	8p	3p	8p	22p	22p	47p	22p	47p	22p	22p	NO	47p	39p	68p	3p	15p	0.01u	0.068u
18p	120p	150p	33p	47p	NO	3p	4p	3p	4p	47p	12p	100p	12p	100p	12p	47p	NO	100p	47p	56p	12p	12p	0.01u	0.047u
22p	120p	180p	39p	33p	6p	4p	8p	4p	8p	47p	5p	82p	10p	68p	10p	33p	27p	100p	82p	39p	6p	2p	10p	0.047u

L105	L108	L110	L112	L118	L201	L305	L306	L315	L316	R16	R47	R48	R49	R155	R319	R329	R334	R349	R359	R366	R375	Q312
4869-05	150n	150n	150n	NO	390n	L34-4876-05	L34-4880-05	220n	NO	330	0	NO	NO	56k	470	100	560	10k	150	1.5k	470	2SC4226-A(R24)
4869-05	150n	150n	150n	NO	220n	L34-4877-05	L34-4879-05	180n	NO	330	NO	0	NO	100k	470	68	470	10k	150	1k	470	2SC4226-A(R24)
4870-05	120n	120n	120n	220n	220n	L34-4878-05	L34-4881-05	180n	220n	120	NO	NO	0	100k	330	47	470	1.5k	10	1k	NO	2SC4215-F(Y)

## FINAL UNIT X45-3830-XX



RX:13.4V  
TX:11.5V

6	C837	C839	C844	C850	C851	C852	C858	C859	C860	C873	C874	C875	C878	C879	C887	C889	C890	C891	C892	C894	C895	C896	C897	C899	C900	C904	C911	C912	C926
1	3300p	68p	NO	1000p	NO	1000p	1000p	NO	1000p	82p	39p	1000p	82p	8p	180p	120p	47p	NO	82p	22p	82p	51p	56p	150p	56p	56p	560p	0.01u	390p
2	3300p	68p	27p	1000p	390p	NO	1000p	390p	NO	39p	39p	3300p	82p	4p	120p	100p	47p	4700p	82p	22p	82p	33p	33p	120p	33p	68p	560p	0.01u	220p
3	120p	56p	NO	330p	NO	NO	330p	NO	NO	39p	56p	3300p	68p	8p	100p	NO	82p	4700p	39p	27p	18p	47p	47p	51p	47p	68p	680p	100p	220p

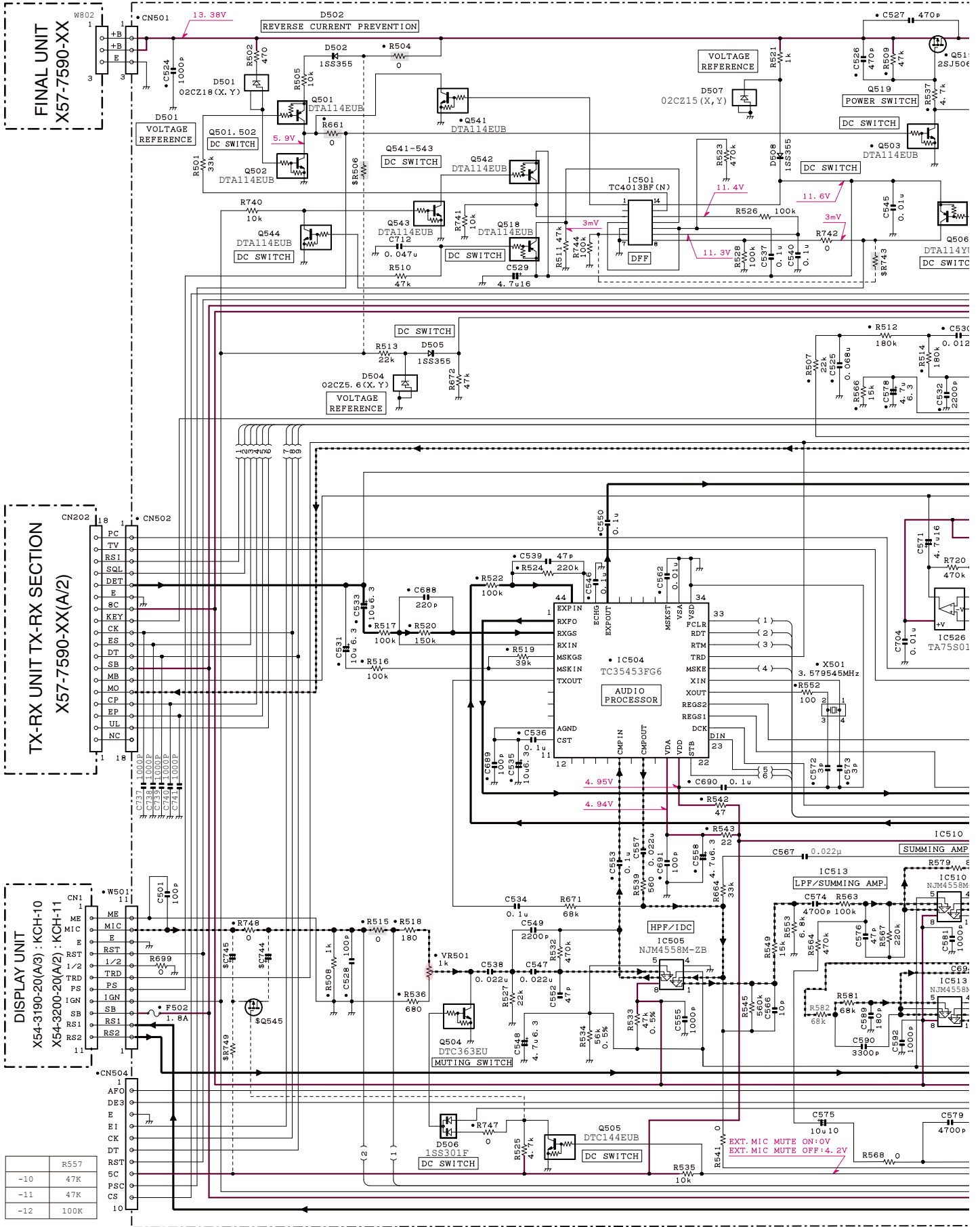
L814	L815	L816	L817	L818	L822	R801	R803	R808	R811	R812	R821	R822	R823	R835	R843	R847	R854	R862	TH801	TH802
14-4895-05	L41-2705-33	L34-4931-05	L34-1259-05	L41-5675-33	L39-1557-05	270	18	33	680	270	47	15k	47k	2.2k	27	27	10k	4.7k	S1R104J475H	NO
14-4895-05	L41-2205-33	L34-4931-05	L34-4889-05	L41-6875-33	L39-1521-05	270	18	18	330	270	22	15k	47k	4.7k	33	33	0	3.9k	S1R104J475H	NO
14-4884-05	L41-2205-33	L34-4883-05	L34-4885-05	L41-1085-33	L39-1521-05	180	33	12	330	180	22	10k	33k	0	10	10	0	3.9k	NO	S1R104J475H

▲ Note : The components marked with a dot (•) are parts of layer 1.



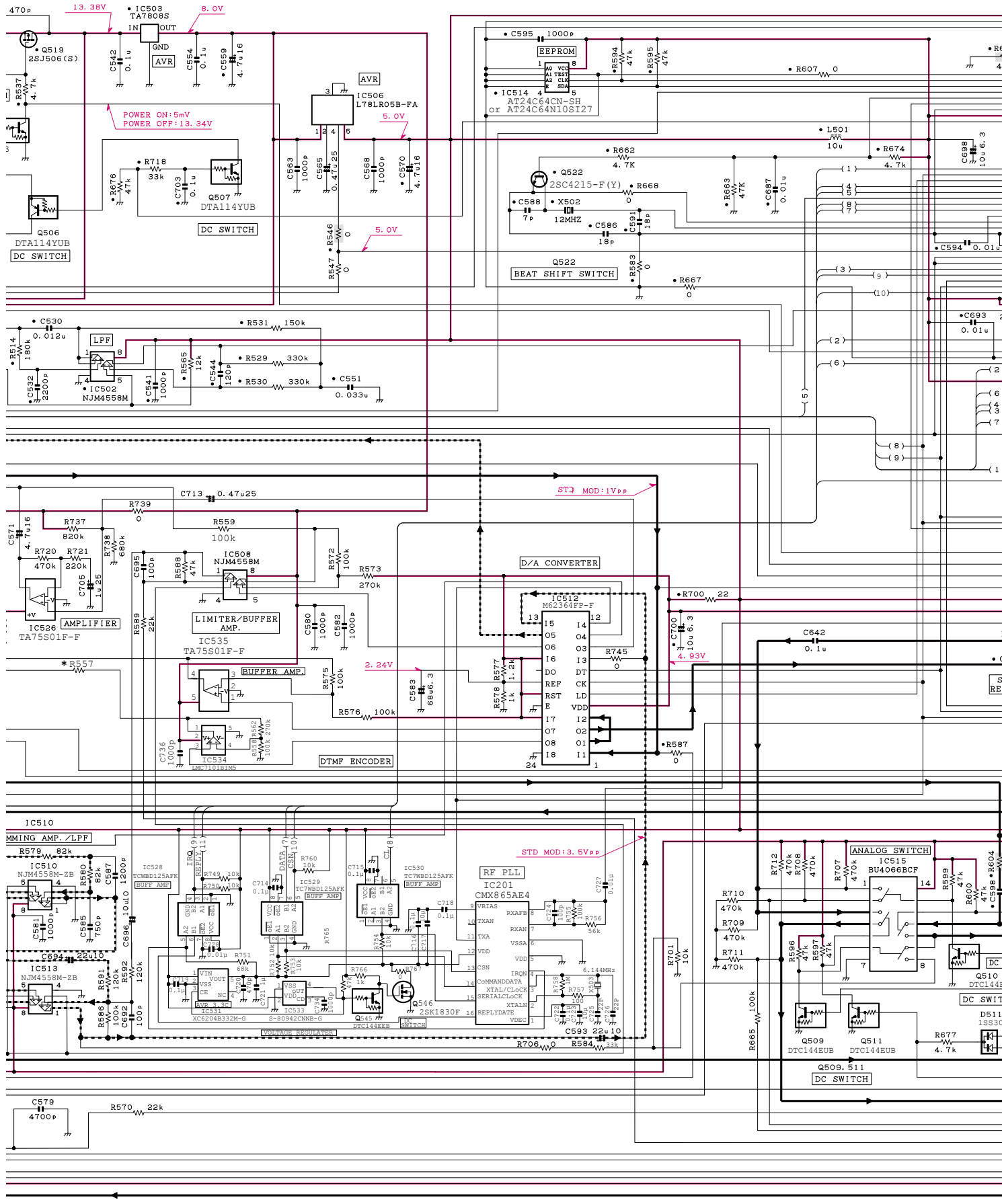
# TK-690H(B) SCHEMATIC DIAGRAM

## TX-RX UNIT CONTROL SECTION (X57-7590-XX)(B/2)



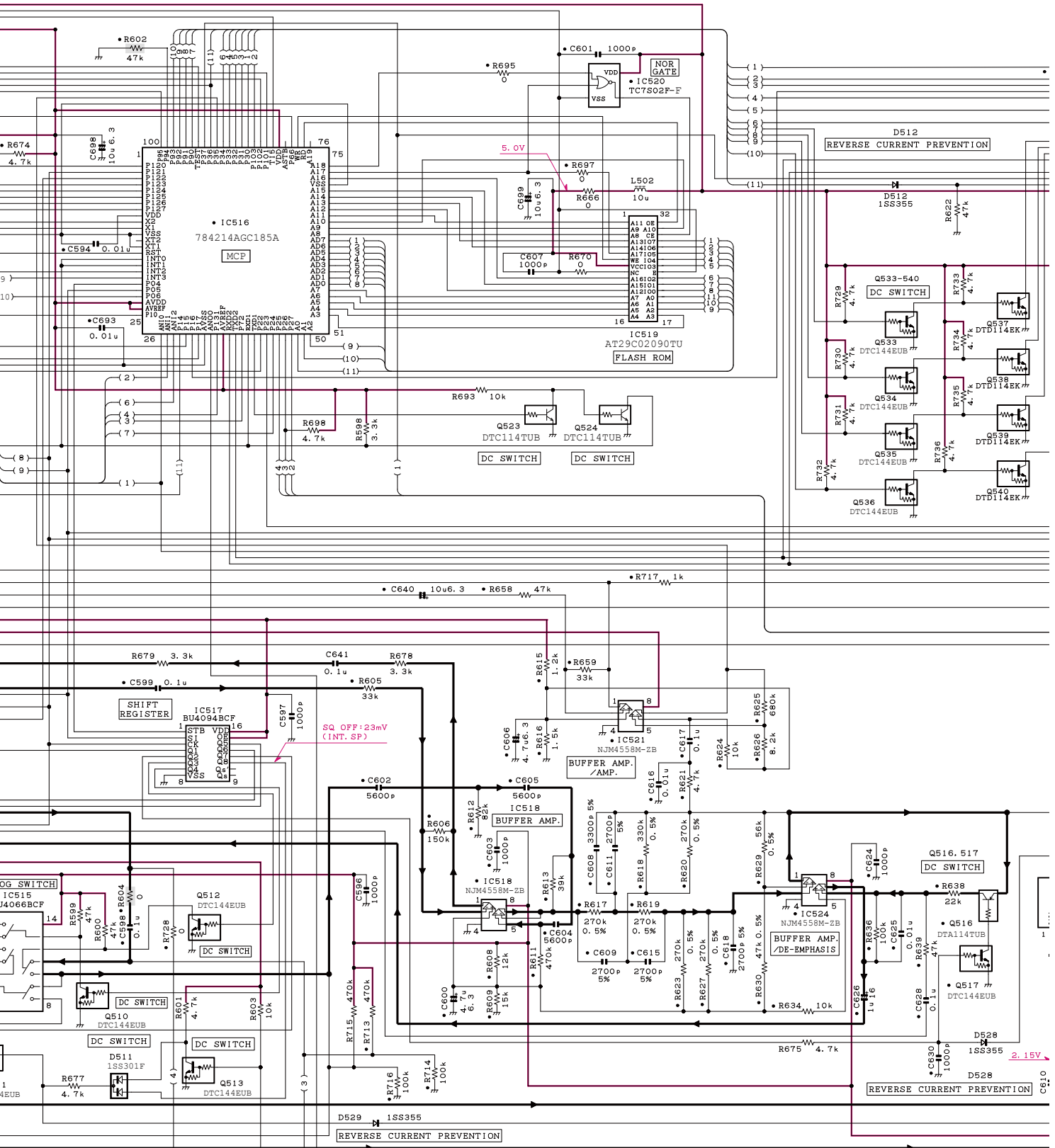
# SCHEMATIC DIAGRAM TK-690H(B)

## TX-RX UNIT X57-759 (A/2)



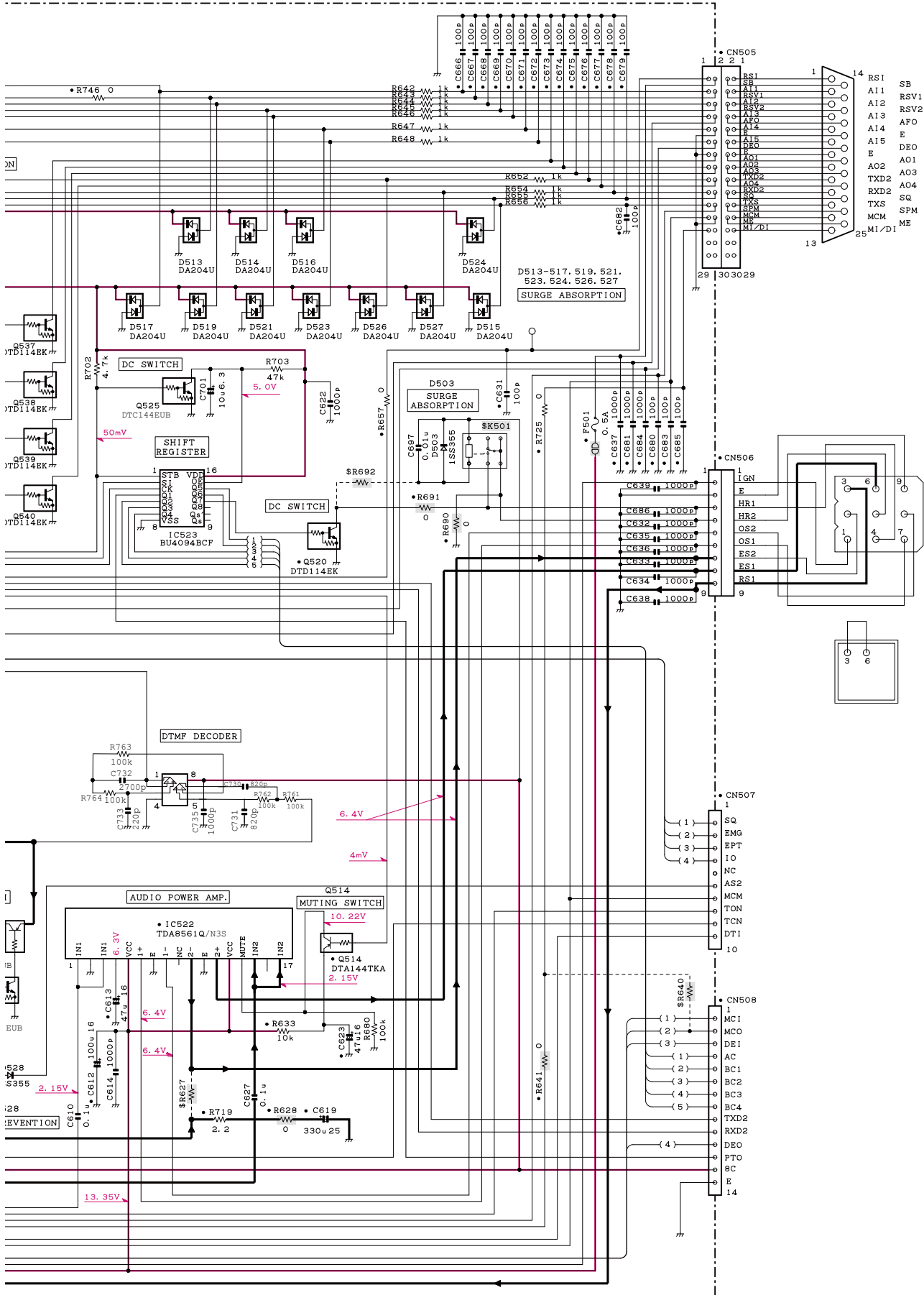
# TK-690H(B) SCHEMATIC DIAGRAM

TX-RX UNIT X57-759 (B/2)



# SCHEMATIC DIAGRAM TK-690H(B)

▼ TX-RX UNIT X57-759 (B/2)



Note : The components marked with a dot (•) are parts of layer 1.

# TK-690H(B)

## **Kenwood Corporation**

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WD18 9EB United Kingdom

### **Kenwood Electronics Europe B.V.**

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### **Kenwood Electronics Italia S.p.A.**

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### **Kenwood Ibérica, S.A.**

Bolivia, 239-08020 Barcelona, Spain

### **Kenwood Electronics Australia Pty. Ltd.**

Talavera Business Park Building A, 4 Talavera Road,  
North Ryde NSW 2113 Australia

### **Kenwood Electronics (Hong Kong) Ltd.**

Suite 2504, 25/F, Tower 2, Nina Tower, No. 8 Yeung Uk Road,  
Tsuen Wan, New Territories, Hong Kong

### **Kenwood Electronics Singapore Pte Ltd**

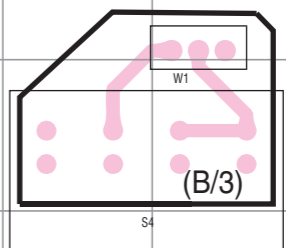
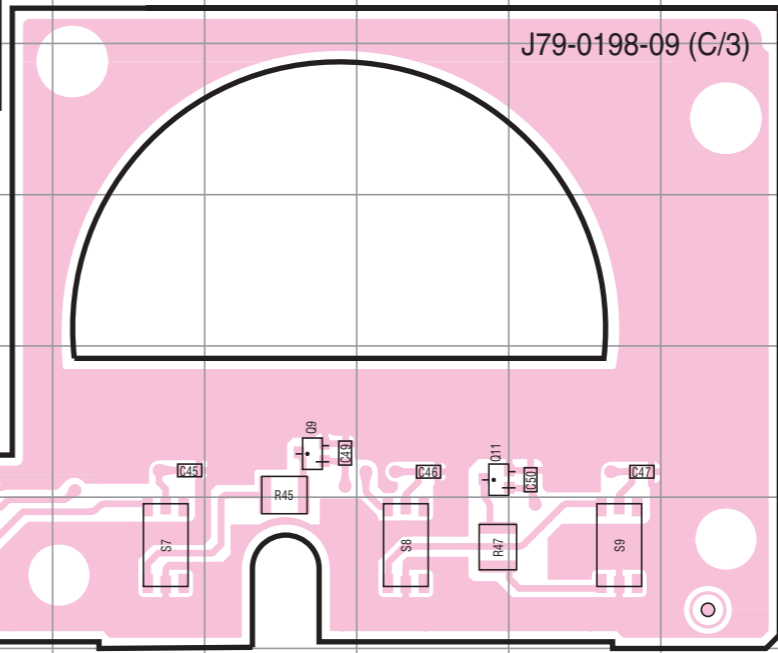
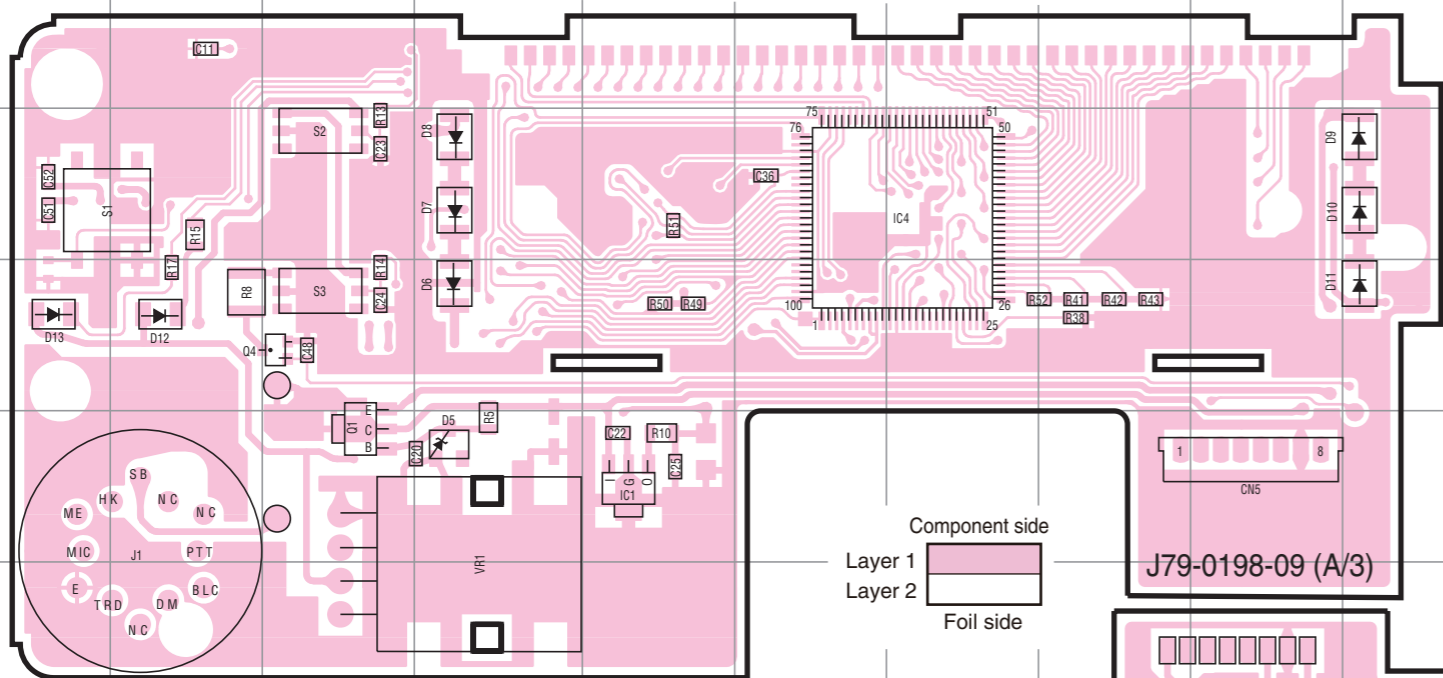
1 Ang Mo Kio Street 63, Singapore 569110

# TK-690H(B) PC BOARD

# PC BOARD TK-690H(B)

DISPLAY UNIT (X54-3190-20) Component side view (J79-0198-09) : KCH-10

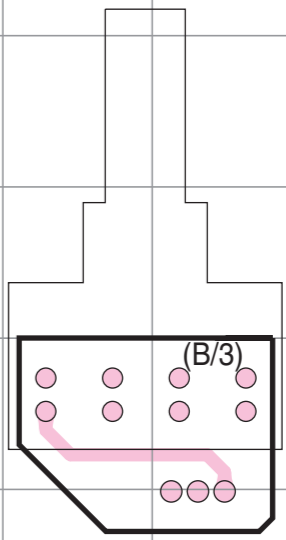
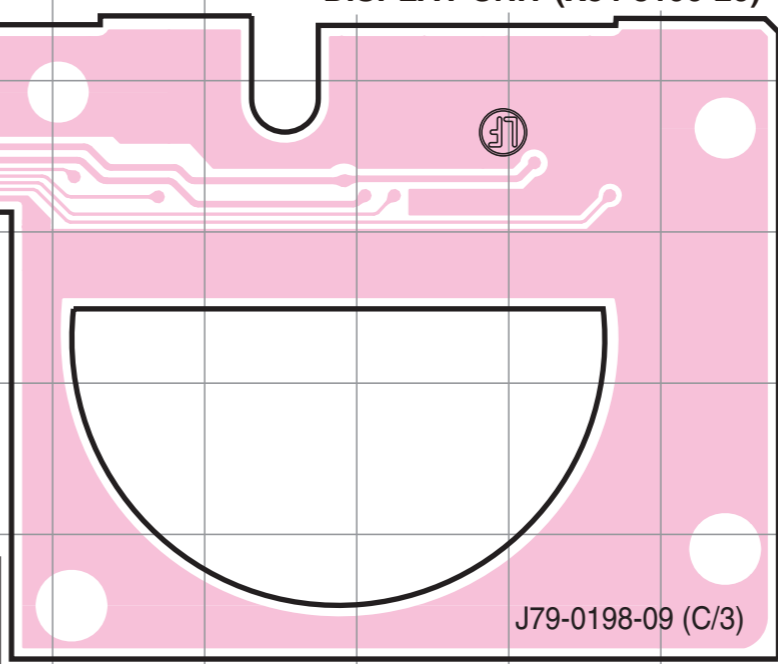
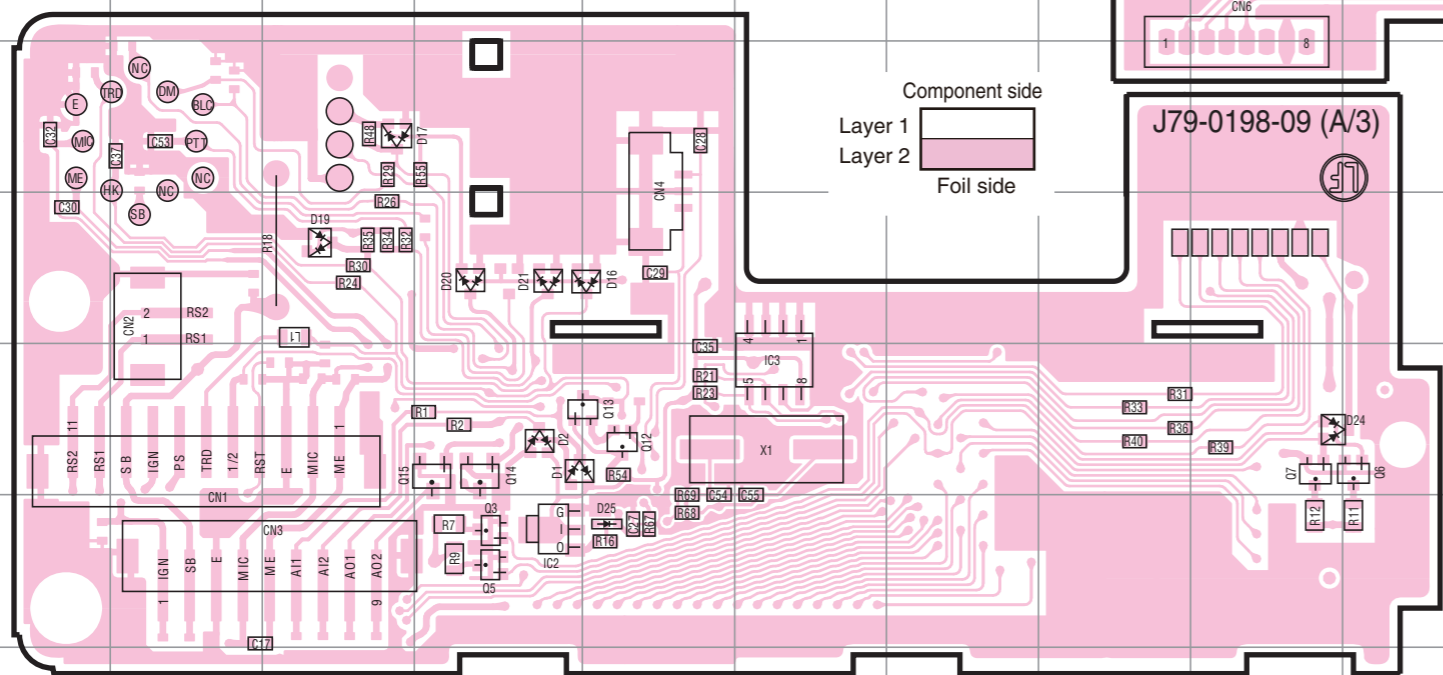
DISPLAY UNIT (X54-3190-20) Component side view (J79-0198-09) : KCH-10



Ref. NO.	Address
IC1	5E
IC4	3G
Q1	5C
Q4	4C
Q9	6L
Q11	6M
D5	5D
D6	4D
D7	3D
D8	3D
D9	3J
D10	3J
D11	4J
D12	4B
D13	4A

DISPLAY UNIT (X54-3190-20) Foil side view (J79-0198-09) : KCH-10

DISPLAY UNIT (X54-3190-20) Foil side view (J79-0198-09) : KCH-10



Ref. NO.	Address
IC2	13D
IC3	12F
Q3	13D
Q5	13D
Q6	12J
Q7	12I
Q12	12E
Q13	12E
Q14	12D
Q15	12D
D1	12D
D2	12D
D16	11E
D17	10C
D19	11C
D20	11D
D21	11D
D24	12I
D25	13E

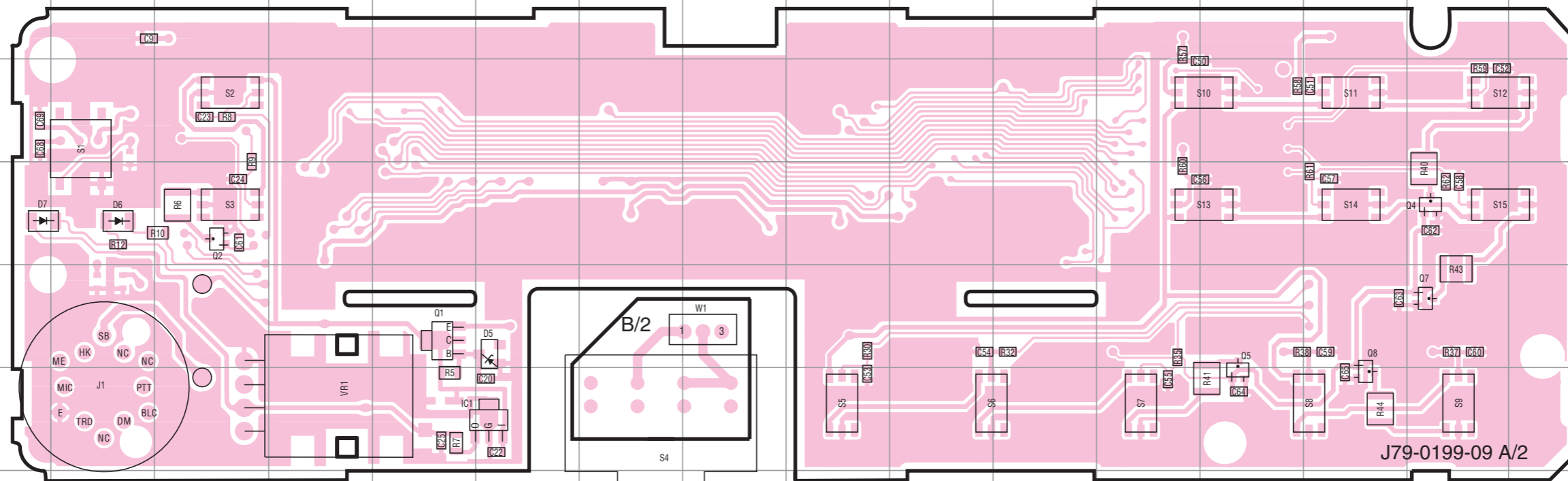


# TK-690H(B) PC BOARD

# PC BOARD TK-690H(B)

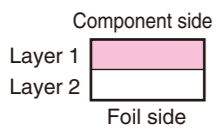
DISPLAY UNIT (X54-3200-20) Component side view (J79-0199-09) : KCH-11

DISPLAY UNIT (X54-3200-20) Component side view (J79-0199-09) : KCH-11



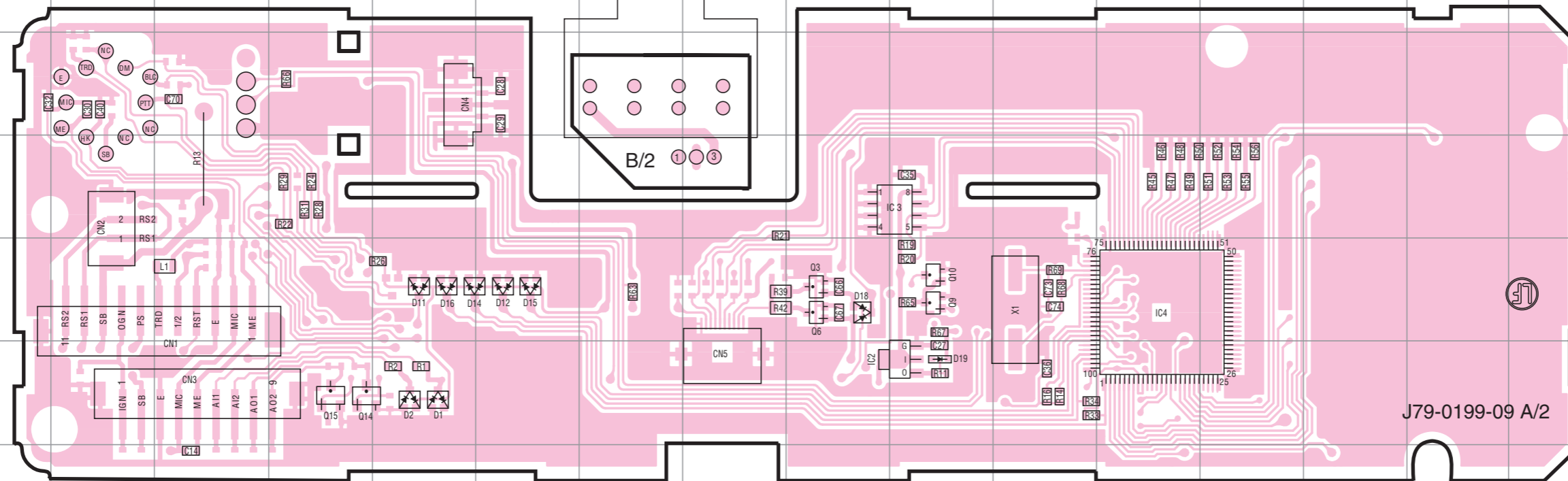
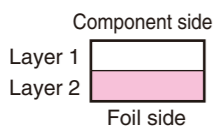
Ref. NO.	Address
IC1	6G
Q1	5F
Q2	4D
Q4	4P
Q5	6N
Q7	5P
Q8	6O
D5	5G
D6	4C
D7	4B

J79-0199-09 A/2



DISPLAY UNIT (X54-3200-20) Foil side view (J79-0199-09) : KCH-11

DISPLAY UNIT (X54-3200-20) Foil side view (J79-0199-09) : KCH-11



Ref. NO.	Address
IC2	13K
IC3	11K
IC4	12M
Q3	12J
Q6	12J
Q9	12K
Q10	12K
Q14	13E
Q15	13E
D1	13F
D2	13F
D11	12F
D12	12G
D14	12F
D15	12G
D16	12F
D18	12J
D19	13K

J79-0199-09 A/2

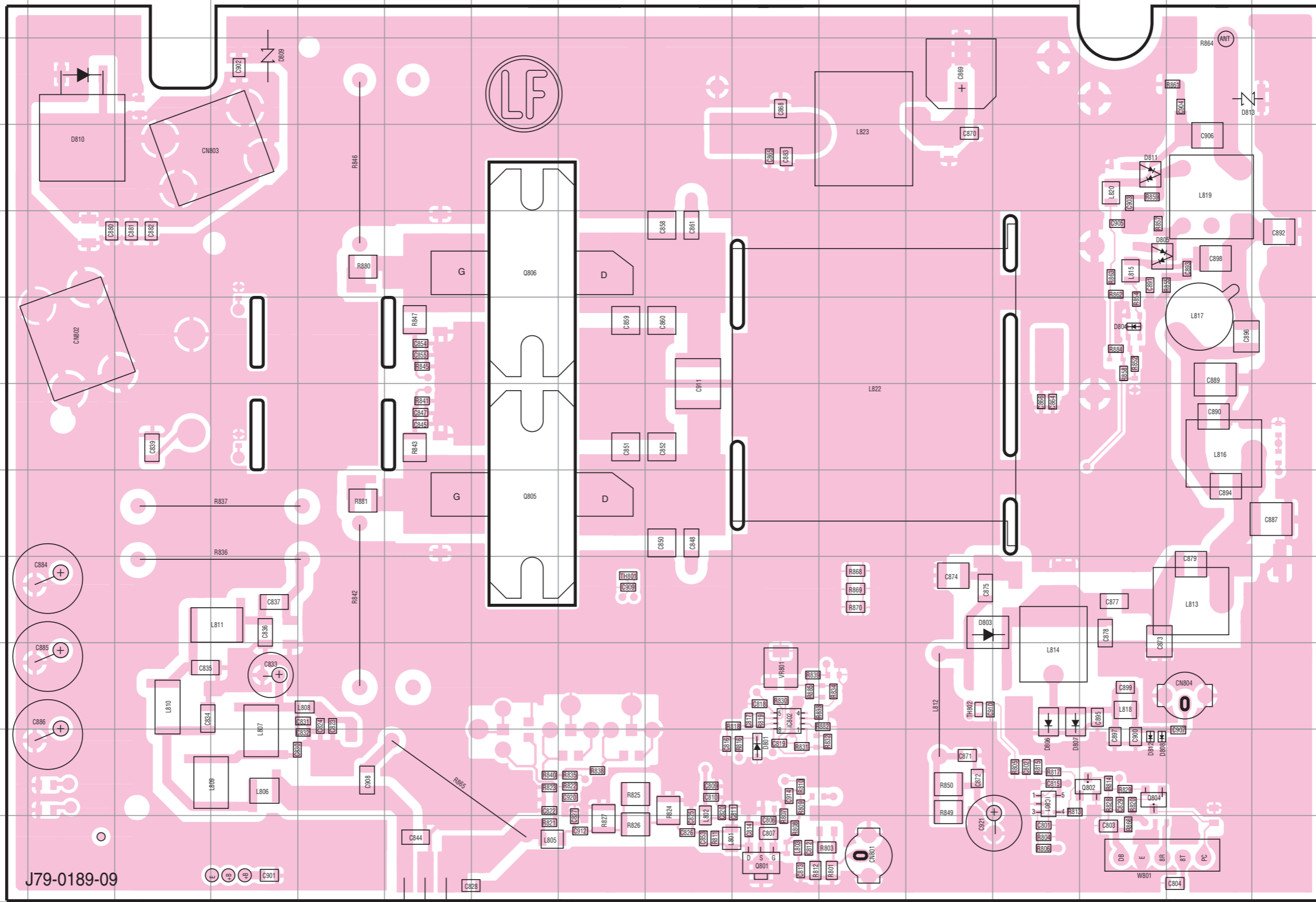


# TK-690H(B) PC BOARD

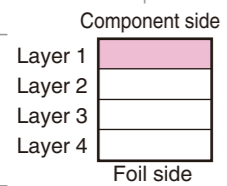
FINAL UNIT (X45-3830-XX) Component side view (J79-0189-09)

# PC BOARD TK-690H(B)

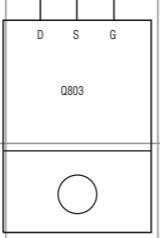
Component side view (J79-0189-09) FINAL UNIT (X45-3830-XX)



Ref. NO.	Address
IC801	11N
IC802	10K
Q801	12K
Q802	11O
Q803	13G
Q804	11O
Q805	8H
Q806	5H
D801	11K
D803	9M
D804	6O
D805	5O
D806	10N
D807	10N
D808	11O
D809	3E
D810	4C
D811	4O
D812	11O
D813	3P



J79-0189-09

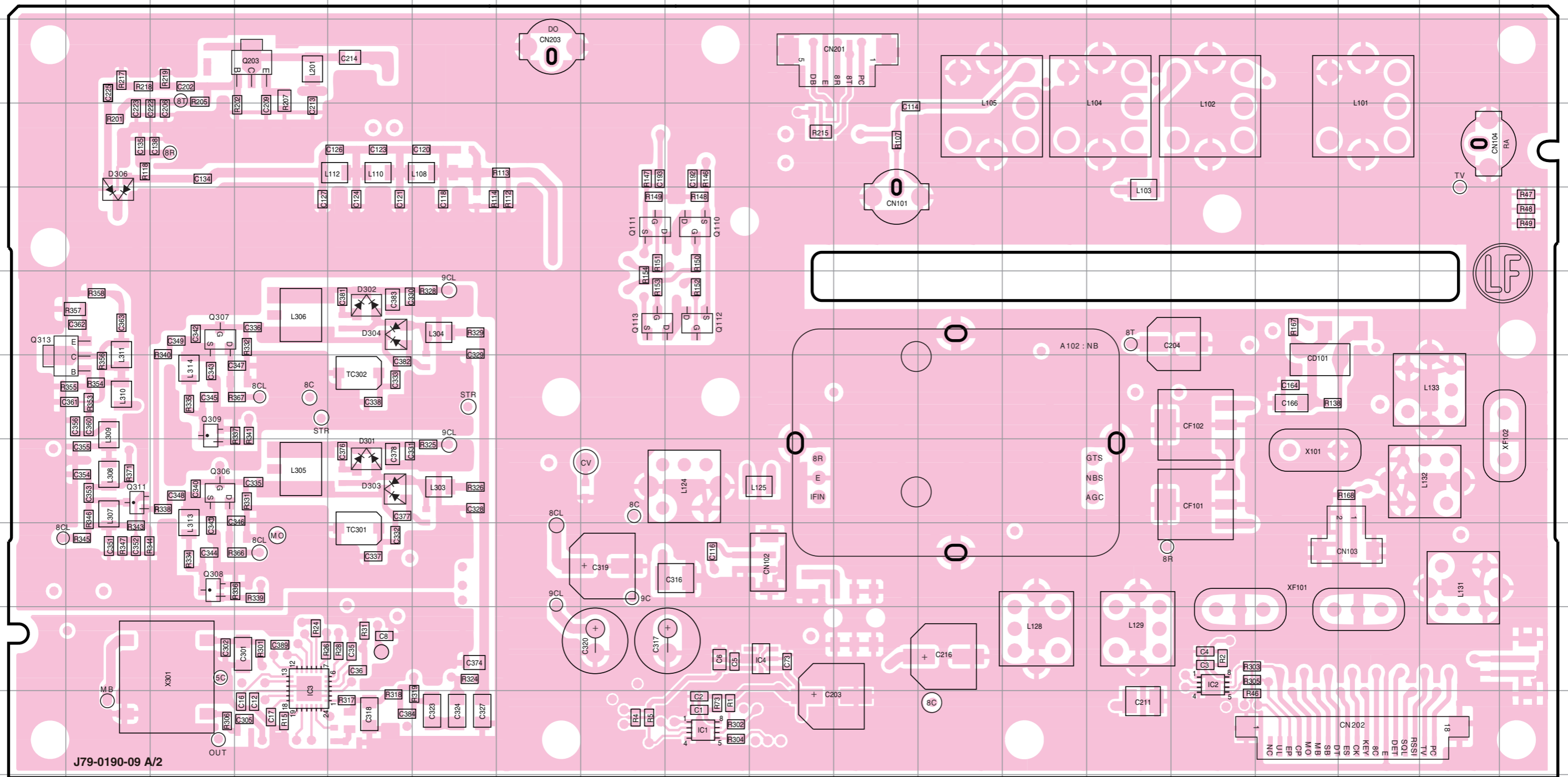


# TK-690H(B) PC BOARD

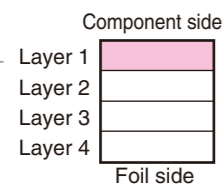
# PC BOARD TK-690H(B)

TX-RX UNIT : TX-RX SECTION (X57-7590-XX)(A/2) Component side view (J79-0190-09)

TX-RX UNIT : TX-RX SECTION (X57-7590-XX)(A/2) Component side view (J79-0190-09)



J79-0190-09 A/2



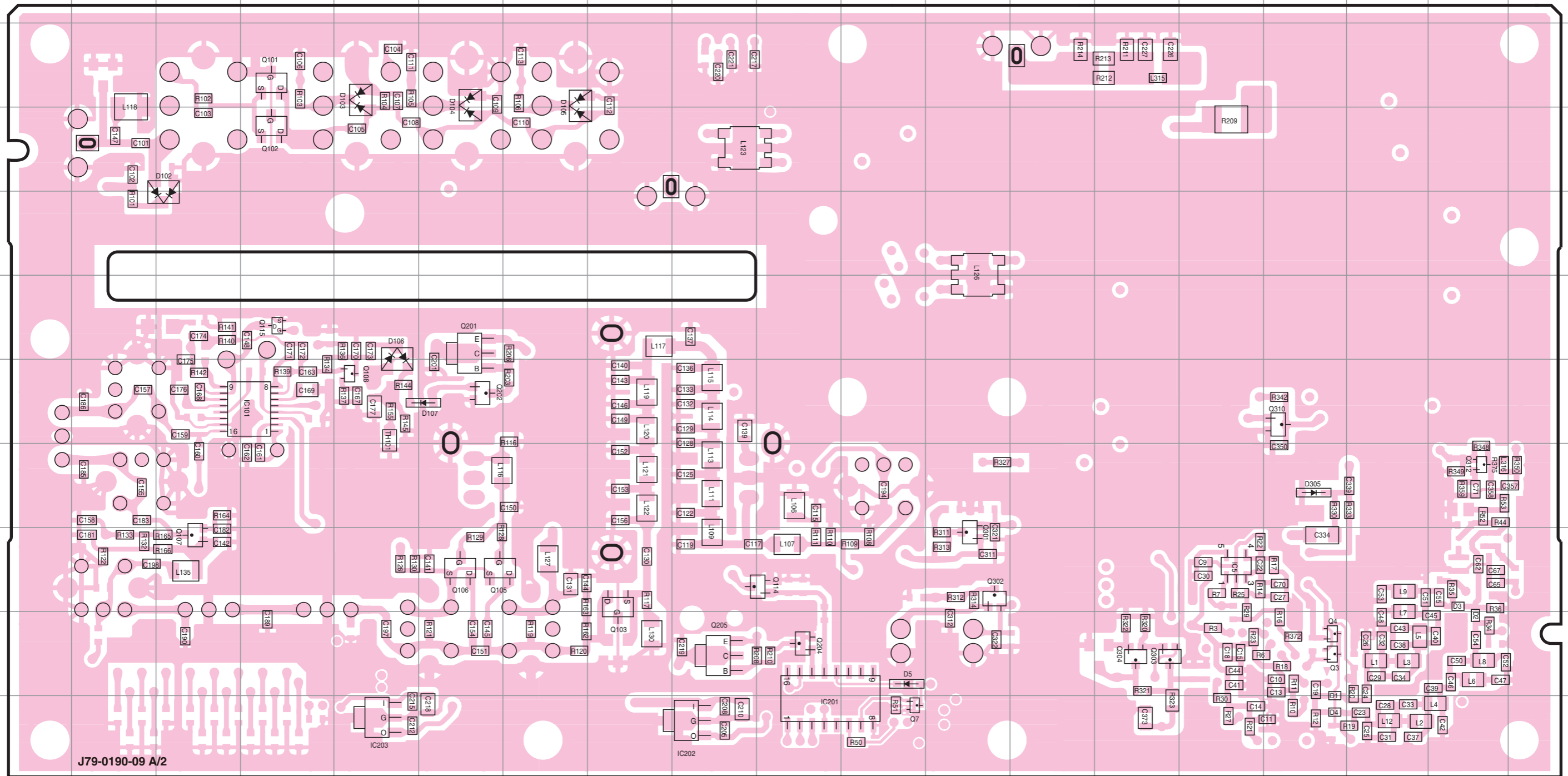
Ref No.	Address	Ref No.	Address	Ref No.	Address
IC301	10D	Q307	6C	D303	8E
Q110	5I	Q308	9C	D304	6E
Q111	5H	Q309	7C	D306	5B
Q112	6I	Q311	8B		
Q113	6H	Q313	6B		
Q203	3D	D301	8E		
Q306	8C	D302	6E		

# TK-690H(B) PC BOARD

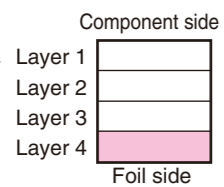
# PC BOARD TK-690H(B)

TX-RX UNIT : TX-RX SECTION (X57-7590-XX)(A/2) Foil side view (J79-0190-09)

TX-RX UNIT : TX-RX SECTION (X57-7590-XX)(A/2) Foil side view (J79-0190-09)



J79-0190-09 A/2



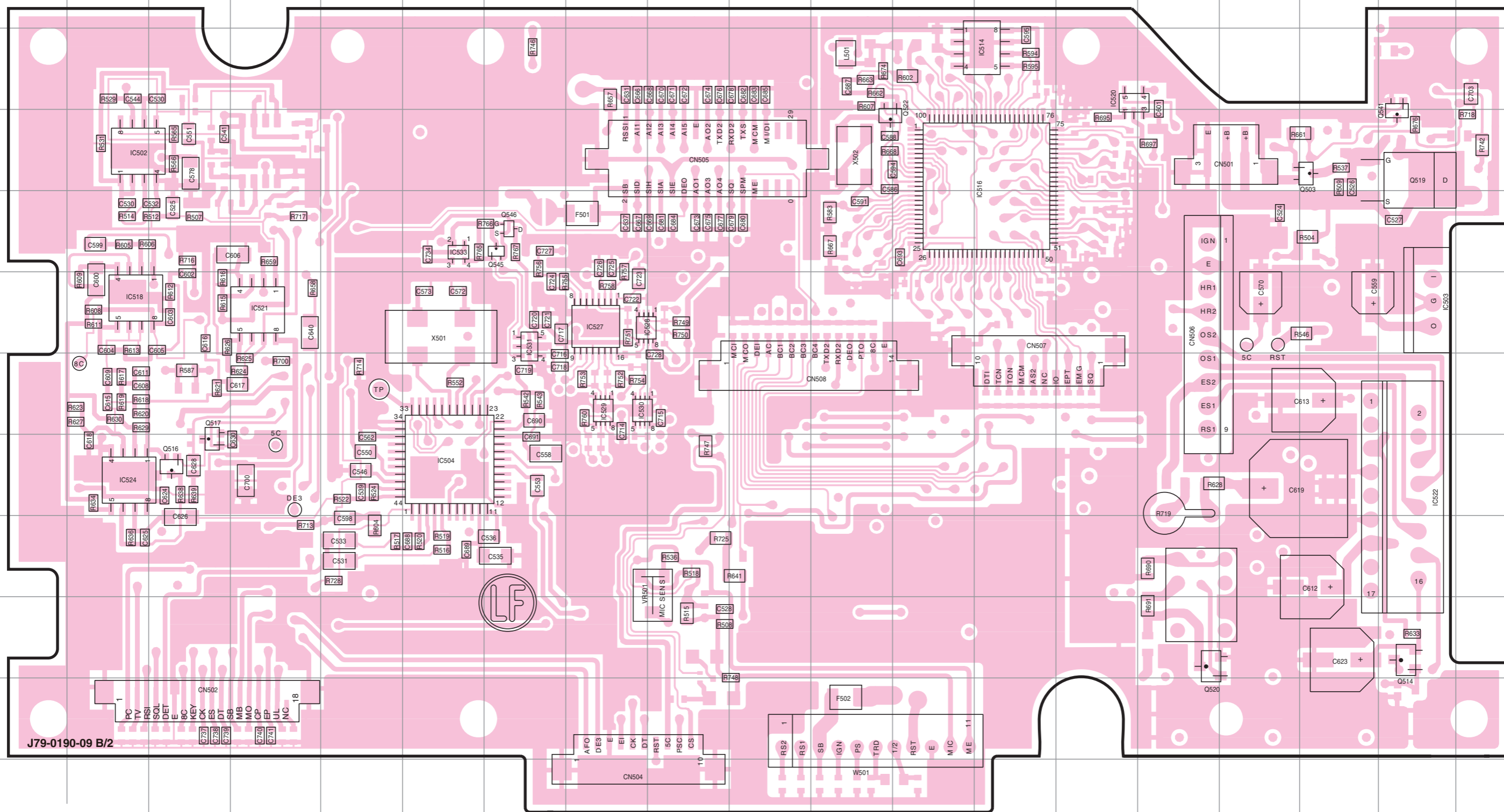
Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address
IC5	9O	Q7	11K	Q108	7E	Q301	9L	D102	4C
IC101	7D	Q101	3D	Q114	9J	Q302	9L	D103	3E
IC201	11J	Q102	4D	Q115	6D	Q303	10N	D104	3F
IC202	10I	Q103	9H	Q201	6F	Q304	10N	D105	3G
IC203	11E	Q105	9F	Q202	7F	Q310	7P	D106	6E
Q3	10P	Q106	9F	Q204	10J	Q312	8R	D107	7F
Q4	10P	Q107	9C	Q205	10I	D5	11K	D305	8P

# TK-690H(B) PC BOARD

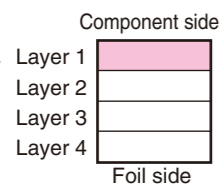
# PC BOARD TK-690H(B)

TX-RX UNIT : CONTROL SECTION (X57-7590-XX)(B/2) Component side view (J79-0190-09)

TX-RX UNIT : CONTROL SECTION (X57-7590-XX)(B/2) Component side view (J79-0190-09)



Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address
IC502	4B	IC521	6D	IC531	6G	Q520	10O
IC503	6R	IC522	8R	IC533	5F	Q522	4K
IC504	8F	IC524	8B	Q503	4Q	Q541	4R
IC514	3M	IC527	6H	Q514	9R	Q545	5G
IC516	4M	IC528	6H	Q516	8C	Q546	5G
IC518	6B	IC529	7H	Q517	8C		
IC520	3N	IC530	7H	Q519	4R		



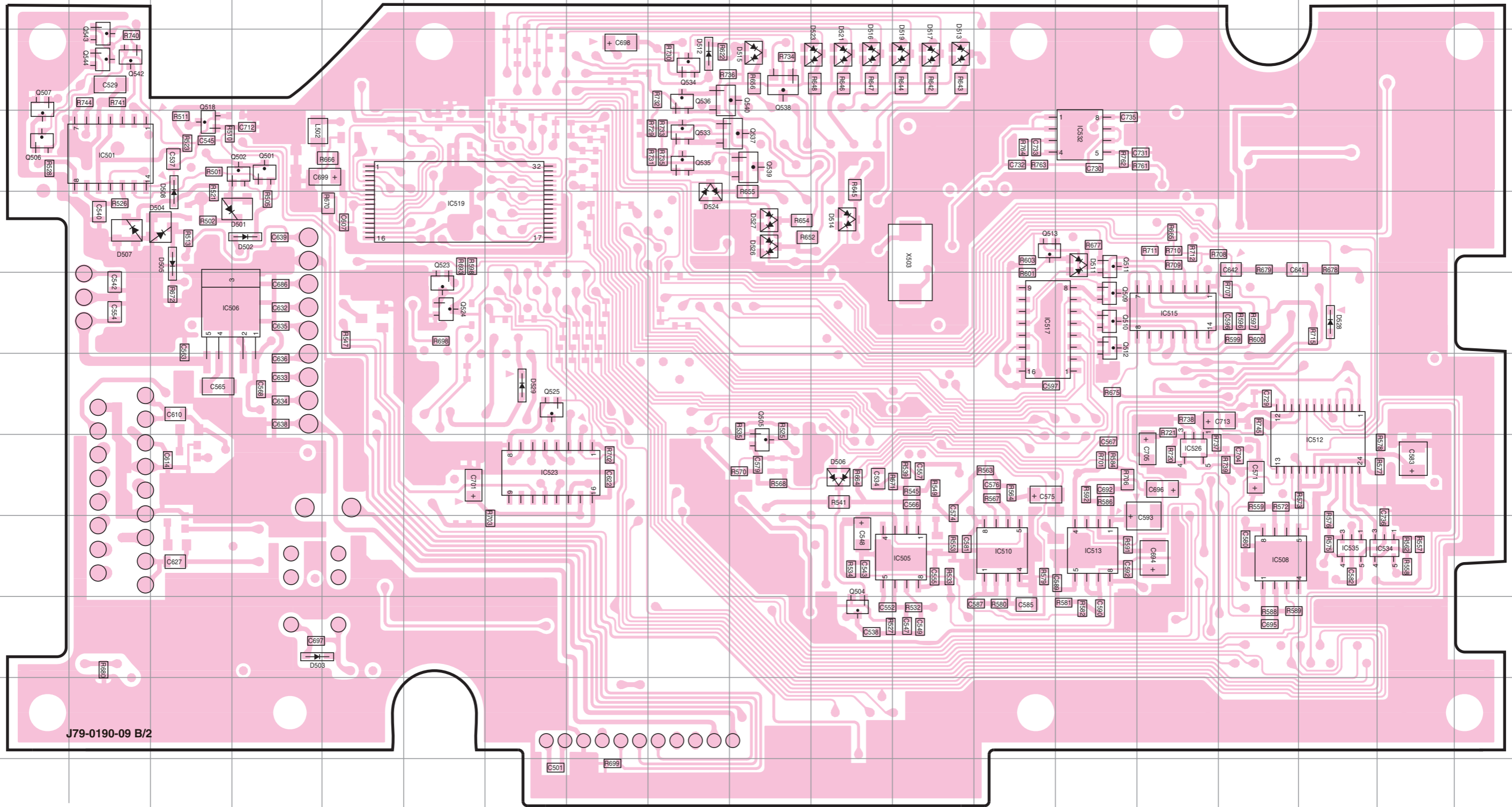


# TK-690H(B) PC BOARD

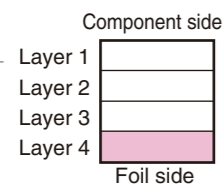
# PC BOARD TK-690H(B)

TX-RX UNIT : CONTROL SECTION (X57-7590-XX)(B/2) Foil side view (J79-0190-09)

TX-RX UNIT : CONTROL SECTION (X57-7590-XX)(B/2) Foil side view (J79-0190-09)

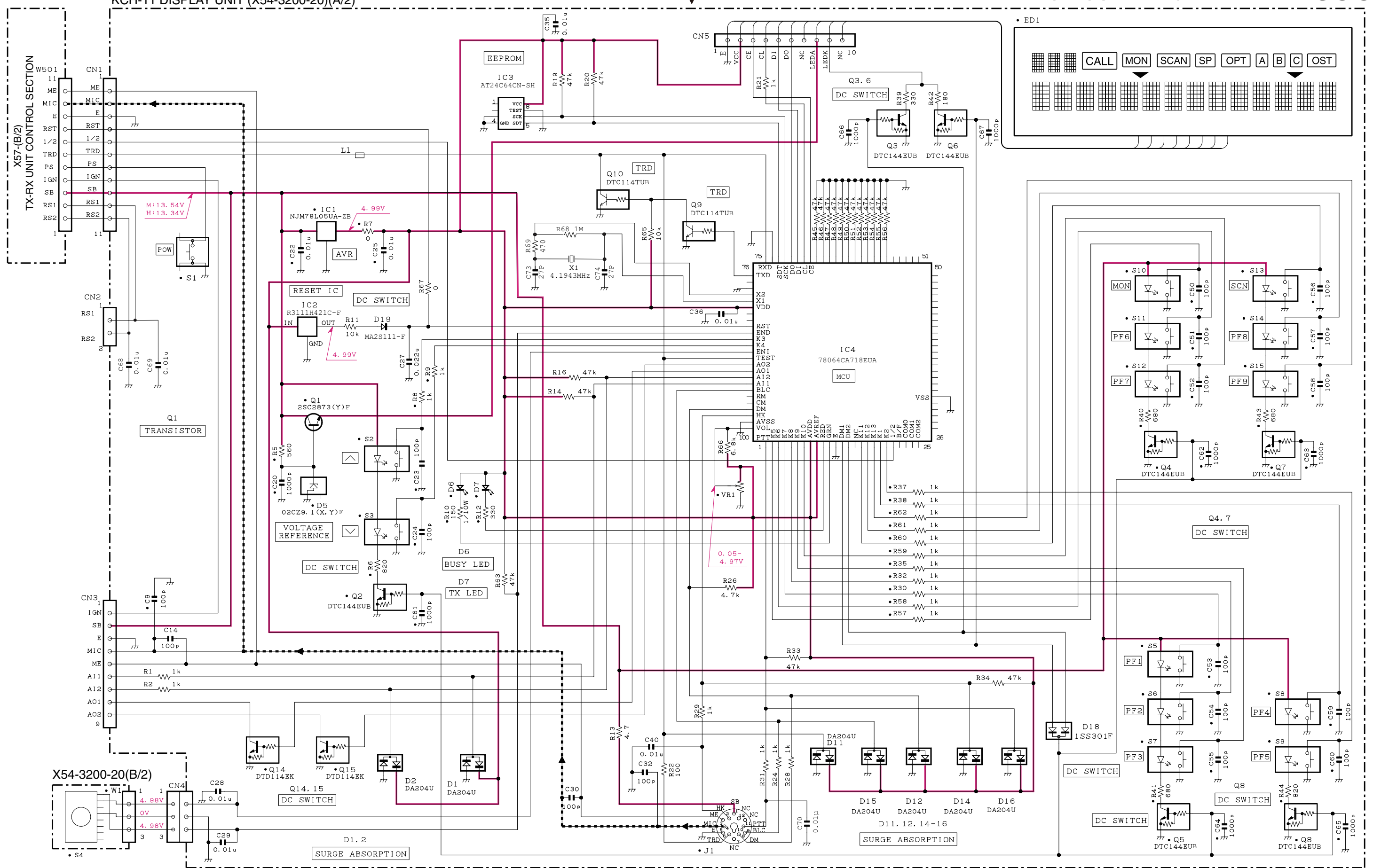
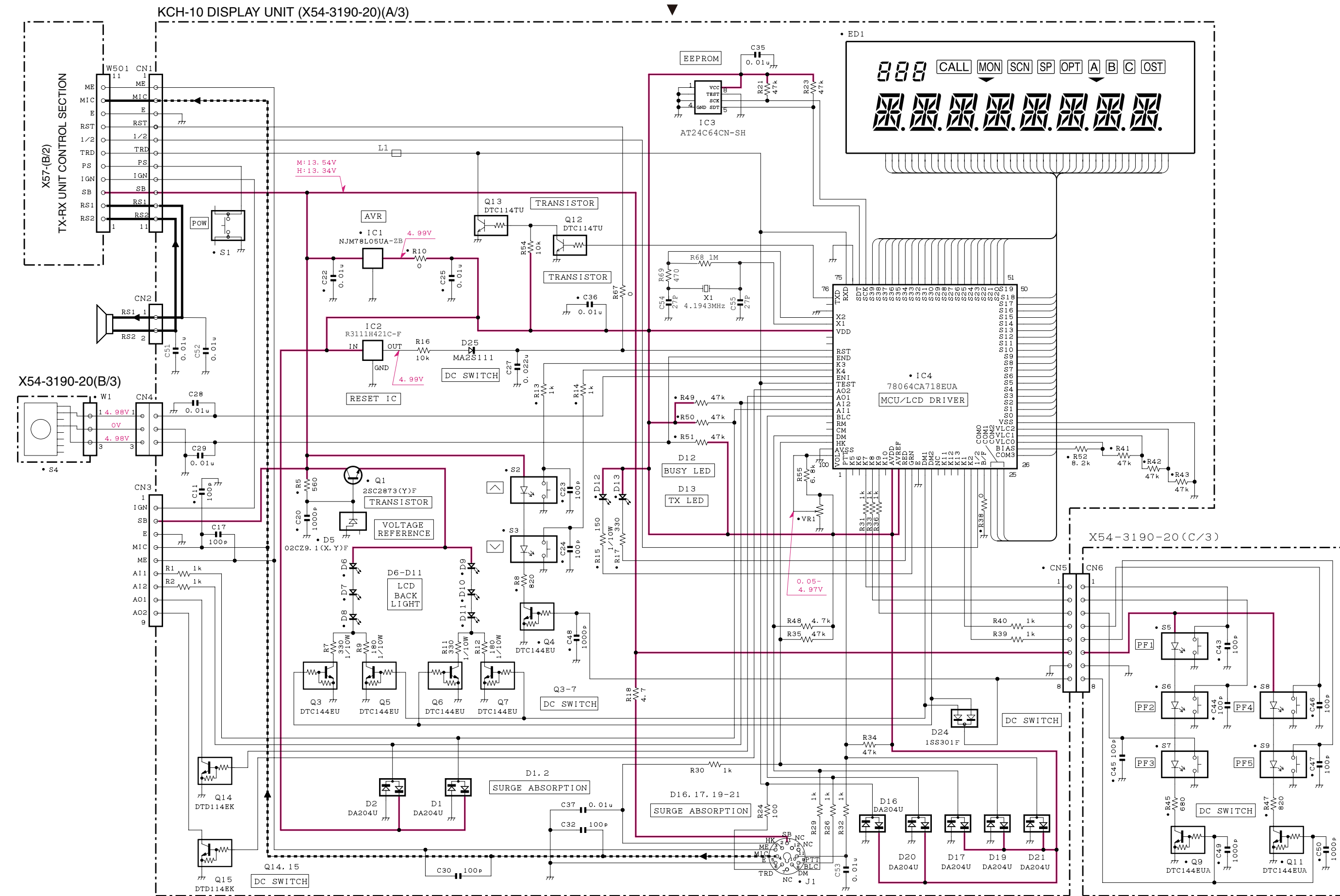


J79-0190-09 B/2



Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address		
IC501	4B	IC513	9N	IC534	9R	Q506	4A	Q513	5M	Q534	3I	Q540	3I	D503	10D	D511	5N	D517	3L	D527	5J
IC505	9L	IC515	6O	IC535	9Q	Q507	3A	Q518	4C	Q535	4I	Q542	3B	D504	5C	D512	3I	D519	3L	D528	6Q
IC506	6C	IC517	6M	Q501	4D	Q509	6N	Q523	6F	Q536	3I	Q543	3B	D505	5C	D513	3L	D521	3K	D529	7G
IC508	9P	IC519	5F	Q502	4D	Q510	6N	Q524	6F	Q537	4J	Q544	3B	D506	8K	D514	5K	D523	3K		
IC510	9M	IC523	8G	Q504	10K	Q511	5N	Q525	7G	Q538	3J	D501	5D	D507	5B	D515	3J	D524	4I		
IC512	8Q	IC526	8O	Q505	8J	Q512	6N	Q533	4I	Q539	4J	D502	5D	D508	5B	D516	3K	D526	5J		

Note : Components marked with a dot (•) are parts of pattern 1.



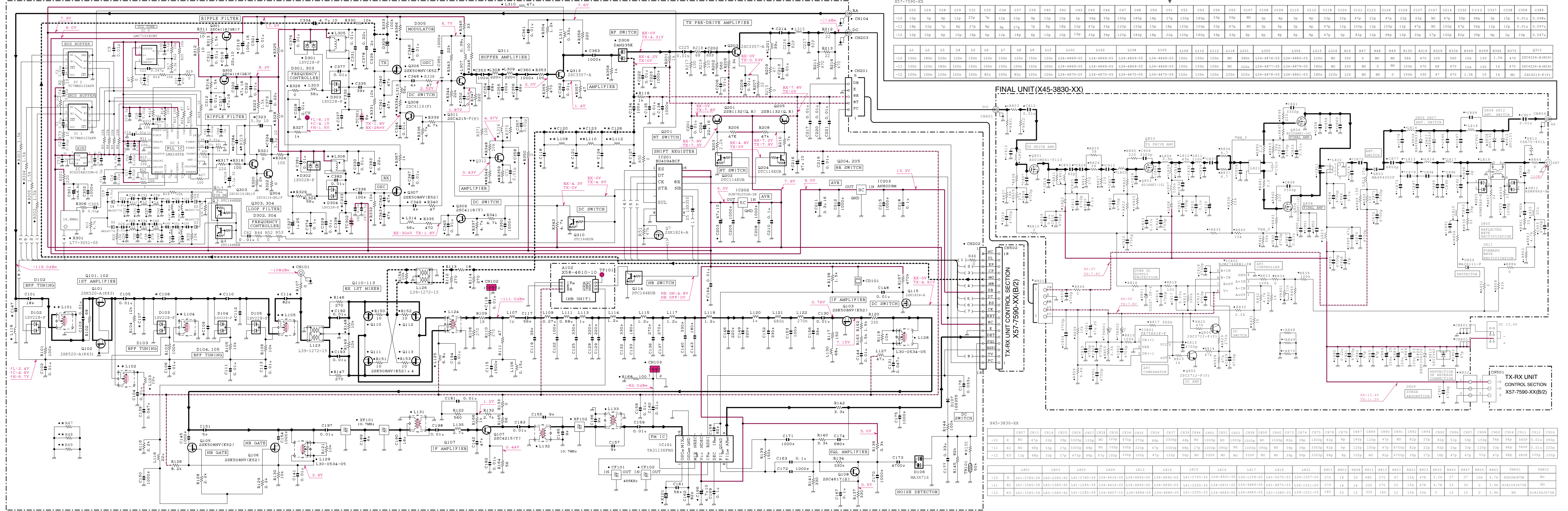
# CIRCUIT DIAGRAM TK-690H(B)



# TK-690H(B) CIRCUIT DIAGRAM

TX-RX UNIT TX-RX SECTION (X57-7590-XX)(A/2)

Note : Components marked with a dot (·) are parts of pattern 1.

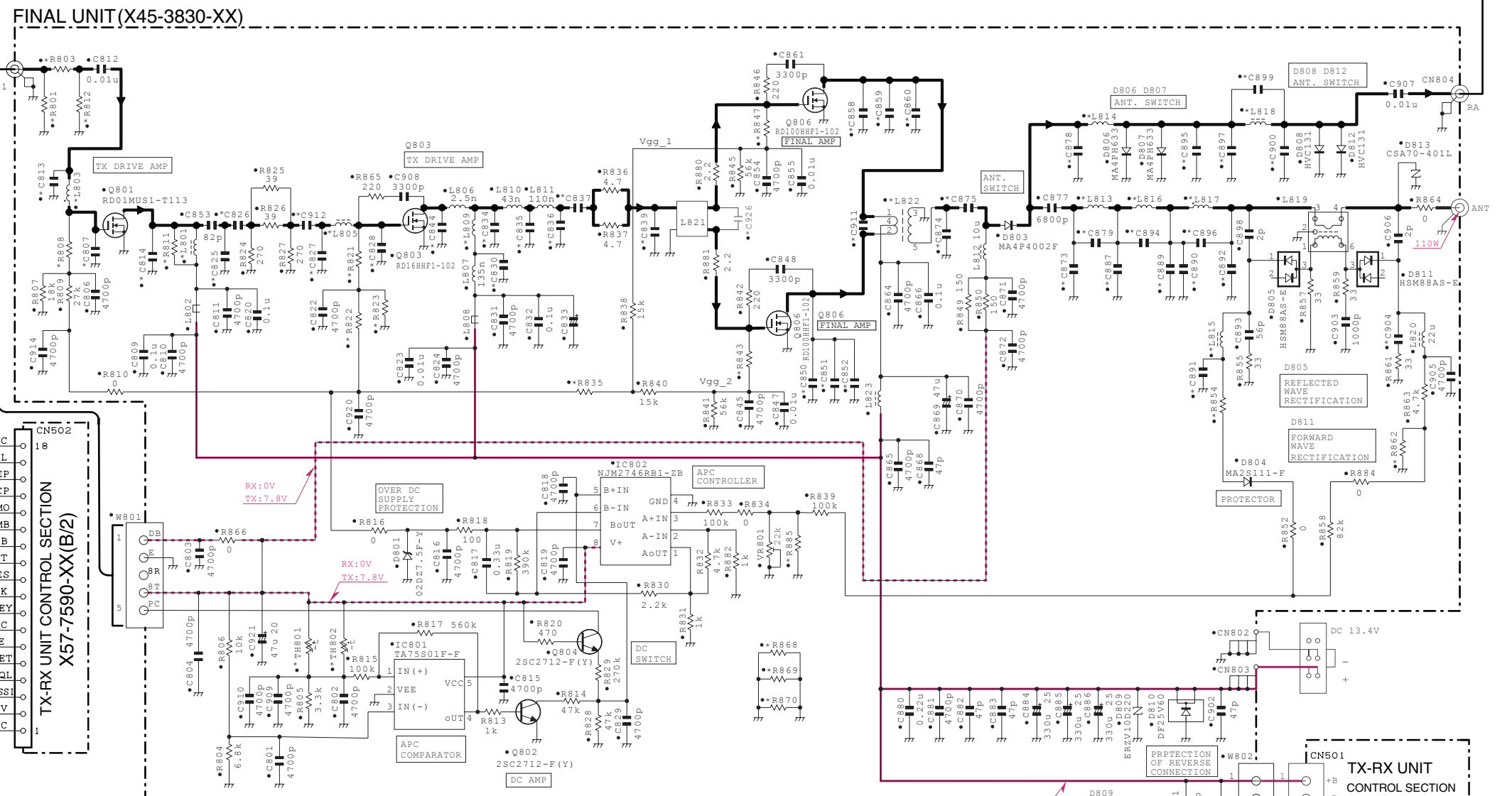


X57-7590-XX

C25	C26	C28	C29	C31	C33	C34	C37	C39	C40	C42	C43	C45	C46	C47	C48	C50	C51	C52	C53	C54	C55	C107	C108	C109	C110	C112	C118	C120	C121	C123	C124	C126	C127	C147	C214	C332	C333	C337	C338	C358	C384
-10	10p	5p	9p	12p	22p	7p	12p	22p	9p	12p	10p	5p	56p	33p	150p	180p	18p	27p	150p	180p	33p	56p	NO	3p	8p	3p	8p	22p	22p	47p	22p	22p	NO	47p	39p	68p	3p	15p	0.01u	0.068u	
-11	18p	22p	7p	8p	27p	8p	9p	27p	7p	8p	18p	22p	47p	33p	120p	150p	15p	18p	120p	150p	33p	47p	NO	3p	4p	3p	4p	47p	12p	100p	12p	100p	12p	100p	47p	56p	12p	12p	0.01u	0.047u	
-12	10p	10p	6p	10p	18p	6p	12p	18p	6p	10p	10p	10p	33p	39p	120p	180p	18p	22p	120p	180p	39p	33p	6p	4p	8p	4p	8p	47p	5p	82p	10p	68p	10p	33p	27p	100p	6p	2p	10p	0.047u	

L1	L2	L3	L4	L5	L6	L7	L8	L9	L12	L101	L102	L104	L105	L108	L110	L112	L118	L201	L305	L306	L315	L316	R16	R47	R48	R49	R155	R319	R329	R334	R349	R359	R366	R375	Q312	
-10	150n	180n	220n	120n	150n	120n	150n	120n	150n	L34-4869-05	L34-4869-05	L34-4869-05	L34-4869-05	L34-4869-05	L34-4869-05	L34-4869-05	L34-4869-05	NO	390n	L34-4876-05	L34-4880-05	220n	NO	330	0	NO	NO	56k	470	100	560	10k	150	1.5k	470	28C4226-A(R24)
-11	150n	120n	180n	100n	150n	100n	150n	100n	150n	L34-4869-05	L34-4869-05	L34-4869-05	L34-4869-05	L34-4869-05	L34-4869-05	L34-4869-05	L34-4869-05	NO	220n	L34-4877-05	L34-4879-05	180n	NO	330	NO	0	NO	100k	470	68	470	10k	150	1k	470	28C4226-A(R24)
-12	100n	150n	120n	100n	100n	82n	100n	82n	100n	L34-4870-05	L34-4870-05	L34-4870-05	L34-4870-05	L34-4870-05	L34-4870-05	L34-4870-05	L34-4870-05	NO	220n	L34-4878-05	L34-4881-05	180n	220n	120	NO	NO	0	100k	330	47	470	1.5k	10	1k	NO	28C4215-F(Y)



X45-3830-XX

C807	C813	C814	C825	C826	C827	C828	C830	C834	C835	C836	C837	C839	C844	C850	C851	C852	C858	C859	C860	C873	C874	C875	C876	C879	C887	C889	C890	C891	C892	C894	C895	C896	C897	C899	C900	C904	C911	C912	C916		
-10	X	NO	47p	22p	39p	3300p	120p	NO	100p	47p	27p	68p	330p	68p	NO	100p	1000p	NO	1000p	NO	1000p	82p	39p	1000p	82p	8p	180p	120p	47p	NO	82p	22p	82p	51p	56p	150p	56p	560p	0.01u	390p	
-11	K2	NO	68p	33p	27p	3300p	68p	NO	100p	330p	22p	47p	330p	68p	27p	1000p	390p	NO	1000p	390p	NO	39p	39p	3300p	82p	4p	120p	100p	47p	4700p	82p	22p	82p	33p	33p	120p	33p	56p	560p	0.01u	220p
-12	K3	12p	68p	33p	27p	470p	68p	47p	100p	330p	100p	47p	120p	56p	NO	330p	NO	NO	330p	NO	NO	39p	56p	3300p	68p	8p	100p	NO	82p	4700p	39p	27p	18p	47p	51p	47p	68p	68p	100p	220p	

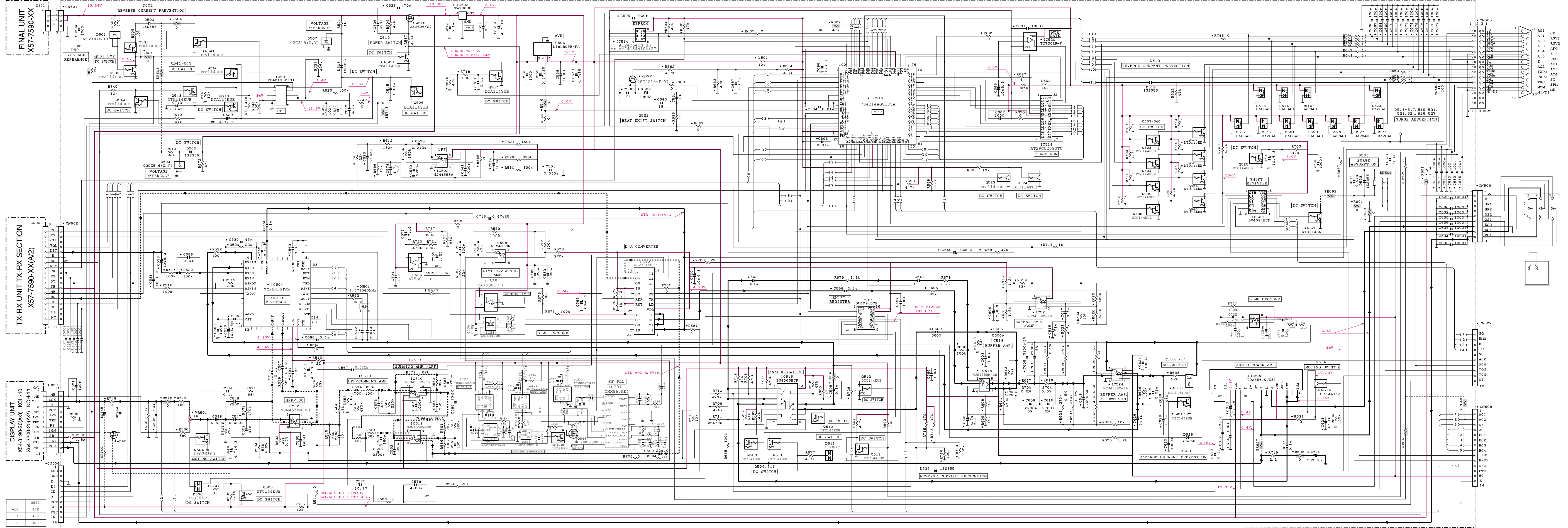
L801	L803	L805	L809	L813	L815	L816	L817	L818	L822	R801	R803	R808	R811	R812	R822	R823	R835	R843	R847	R854	R862	TH801	TH802				
-10	X	L41-2785-39	L40-2285-92	L40-2285-92	L34-4616-05	L34-4895-05	L41-2705-33	L34-4931-05	L34-1259-05	L41-5675-33	L39-1557-05	270	18	33	680	270	47	15k	47k	82p	27	10k	4.7k	SIR104J475H	NO		
-11	R2	L41-1585-39	L40-1585-92	L41-1285-39	L34-4616-05	L34-4895-05	L34-4895-05	L41-2205-33	L34-4931-05	L34-4889-05	L41-6875-33	L39-1521-05	270	18	18	330	270	22	15k	47k	4.7k	33	33	0	3.9k	SIR104J475H	NO
-12	K3	L41-1585-39	L40-1585-92	L41-1285-39	L34-4607-15	L34-4884-05	L34-4884-05	L41-2205-33	L34-4883-05	L34-4895-05	L41-1085-33	L39-1521-05	180	33	12	330	180	22	10k	33k	0	10	10	0	3.9k	SIR104J475H	NO



Note : Components marked with a dot (·) are parts of pattern 1.

# CIRCUIT DIAGRAM TK-690H(B)

## TX-RX UNIT CONTROL SECTION (X57-7590-XX)(B/2)



W501	100k
R557	-10 47k
R558	-11 47k
R559	-12 100k

