

KENWOOD

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TK-868HG

SERVICE MANUAL / 维修手册

128 channels / 128 条信道

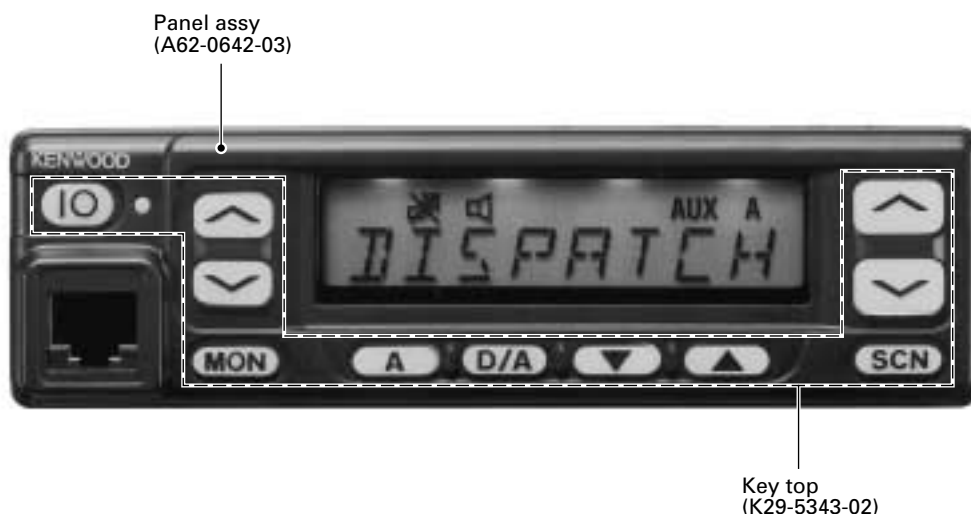
KENWOOD

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B51-8541-10 (N) 610

REVISED / 修订版

The service manual is the same as the C market, TK-868HG (B51-8541-00) service manual with the exception of the new C3 market.

本维修手册与TK-868HG (B51-8541-00) 相同带有类型C新类型C3除外。



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Service Manual List

Title	Parts number	Remarks	Destination	TX-RX unit PCB number
TK-868G	B51-8500-00		C,C3	J72-0678-02
TK-868G	B51-8502-00		M,M3	J72-0678-02
TK-868HG	B51-8541-00	SUPPLEMENT	C	J72-0760-02
TK-868HG	B51-8541-10	REVISED This Service manual	C,C3	J72-0760-12

Frequency range C,M : 450~490MHz
C3,M3 : 400~430MHz

Ignition Sense Cable (KCT-18 : Option)

The KCT-18 is an optional cable for enabling the ignition function. The ignition function lets you turn the power to the transceiver on and off with the car ignition key.

If you use the Horn Alert function or the Manual Relay function, you can turn the function off while driving with the ignition key.

■ Connecting the KCT-18 to the Transceiver

1. Install the KCT-19 in the transceiver.
2. Insert the KCT-18 lead terminal (2) into pin 3 of the square plug (1) supplied with the KCT-19, then insert the square plug into the KCT-19 connector (3).

点火传感器电缆(KCT-18 : 可选件)

KCT-18是用于使用点火功能的可选电缆。点火功能允许用户使用汽车点火器接通和关闭通信机的电源。

如果使用喇叭告警功能或手动继电器功能，用户可以在使用点火钥匙开车的过程中关闭此功能。

■ 将KCT-18连接到车台

1. 在车台上安装KCT-19。
2. 将KCT-18的引线头(2)插入KCT-19方形插头(1)的管脚3上，然后将方形插头插入KCT-19连接器(3)。

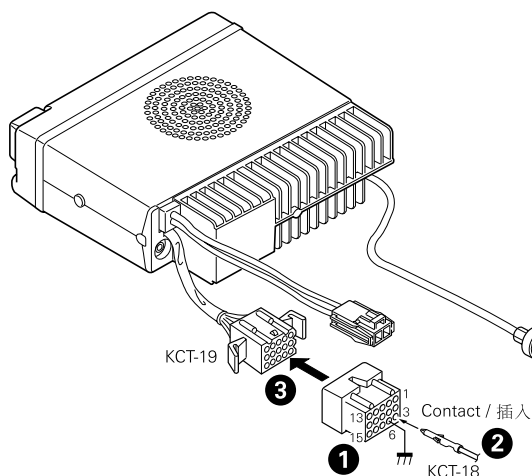


Fig. 1 / 图 1

■ Modifying the Transceiver

Modify the transceiver as follows to turn the power or the Horn Alert or Manual Relay function on and off with the ignition key.

1. Remove the lower half of the transceiver case.
2. Set jumper resistors (0Ω) R134 and R135 of the TX-RX unit (A/2) as shown in Table 1.

■ 改装车台

按照下述方法改装车台能够通过点火钥匙开启和关闭电源、喇叭告警或手动继电器功能。

1. 取下车台的底壳。
2. 按照表1的内容设定发射-接收单元的跳线电阻(0Ω)R134和R135。

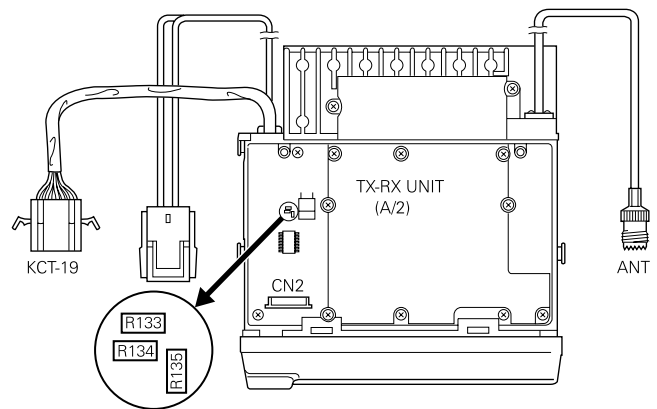


Fig. 2 / 图 2

Operation when KCT-18 is connected	R134	R135
	Yes	Yes
Power on/off and Horn Alert or AUX-A on/off	No	Yes
Horn Alert or AUX-A on/off	Yes	No
	No	No

← KCT-18 cannot be connected

← Power cannot be turned on

Table 1 R134 and R135 setup chart

当连接了KCT-18时操作	R134	R135
	使用	使用
接通/关闭电源和开启/关闭喇叭告警或AUX-A	不使用	使用
开启/关闭喇叭告警或AUX-A	使用	不使用
	不使用	不使用

← KCT-18不能被连接

← 不能接通电源

表1 R134和R135设置表

INSTALLATION / 安装

PA/HA Unit (KAP-1 : Option)

■ Installing the KAP-1 in the Transceiver

The Horn Alert (max. 2A drive) and Public Address functions are enabled by inserting the KAP-1 W1 (3P; white/black/red) into CN3 on the TX-RX unit, inserting W2 (3P; green) into CN7 on the TX-RX unit, and connecting the KCT-19 (option) to CN2 and CN3 of the KAP-1.

● Installation procedure

1. Open the upper case of the transceiver.
2. Insert the two cables (❶) with connectors from the KAP-1 switch unit into the connectors on the transceiver.
3. Secure the switch unit board to the chassis with a screw (❸). The notch (❷) in the board must be placed at the front left side.
4. Attach the cushion on the top of the KAP-1 switch unit.

PA/HA单元(KAP-1 : 可选件)

■ 在车台上安装KAP-1

喇叭告警(最大2A驱动)和扩音功能通过将KAP-1 W1 (3P; 白/黑/红)插入发射-接收单元上的CN3, 将W2 (3P; 绿)插入发射-接收单元上CN7. 并且将KCT-19(可选件)连接到KAP-1的CN2和CN3而生效。

● 安装步骤

1. 打开车台的上机壳。
2. 将KAP-1开关单元的两根带插头的电缆插到车载台的插座上(❶)。
3. 使用螺钉(❸)将开关单元板固定在底座上。板上的切口(❷)必须放置在前端左侧。
4. 将减震垫放置在KAP-1开关单元的顶部。

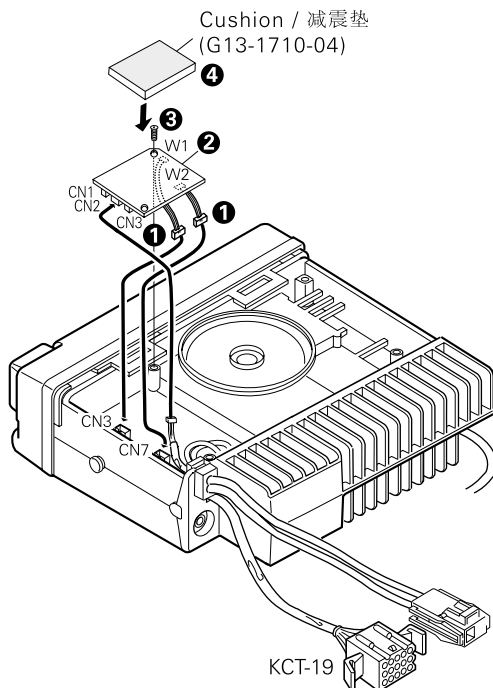


Fig. 3 / 图3

■ Modifying the Transceiver

● Horn alert

The signal from pin 4 of IC9 on the TX-RX unit turns Q5 and Q1 on and off and drives KAP-1 HA relay K2 to drive the horn with a maximum of 2A.

The default output is HR1. The relay open output can be obtained between HR1 and HR2 by removing R1 in the KAP-1.

	R1	Output form
HR1 (Default)	Yes	
HR2	No	

■ 改装车台

● 喇叭告警

来自于TX-RX单元上IC9的管脚4的信号接通和断开Q5和Q1, 并且驱动KAP-1 HA继电器K2, 使其以最大2A的电流驱动喇叭。

出厂设定的输出是HR1。通过移除KAP-1内的R1可以在HR1和HR2之间获得继电器开路输出。

	R1	输出形式
HR1 (出厂设定)	使用	
HR2	不使用	

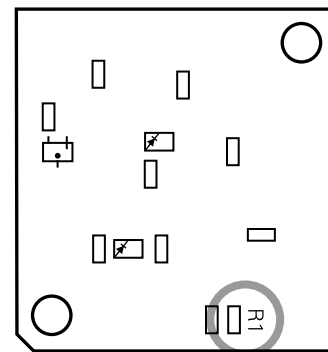


Fig. 4 KAP-1 foil side view

图4

INSTALLATION / 安装

● Public address

The signal from pin 13 of IC9 on the TX-RX unit drives PA relay in the KAP-1 and switches the audio power amplifier output between the external PA system (through KCT-19) and internal and external speakers.

To use the PA function, R153 on the TX-RX unit must be removed.

	R153
Use the PA function	No
Do not use the PA function	Yes

● 扩音功能

来自于TX-RX单元上IC9的管脚13的信号驱动KAP-1上的PA继电器K1，并且在外置PA系统(通过KCT-19)和内置以及外置扬声器之间转换音频功率放大器输出。

要使用PA功能，TX-RX单元上的R153必须被移除。

	R153
使用PA功能	不使用
不使用PA功能	使用

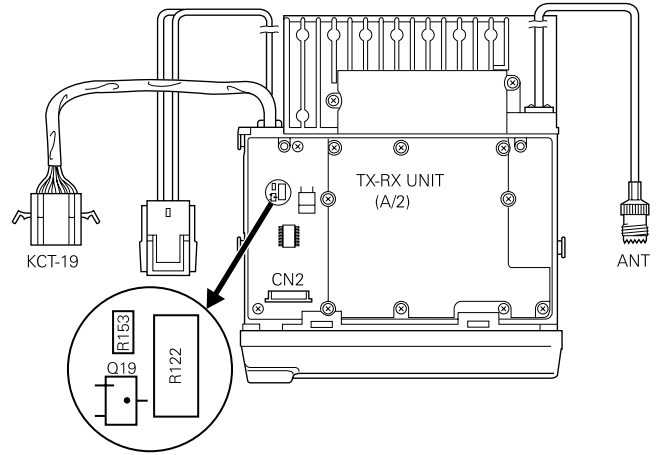


Fig. 5 / 图5

■ Others

If the PA and HR2 are not necessary and the speaker output is output to an external unit through the KCT-19, connect the KCT-19 C connector to CN8 on the TX-RX unit.

■ 其他

如果不需要PA和HR2，并且扬声器输出通过KCT-19被输出到外置单元，则将KCT-19 C连接器连接到TX-RX单元上的CN8。

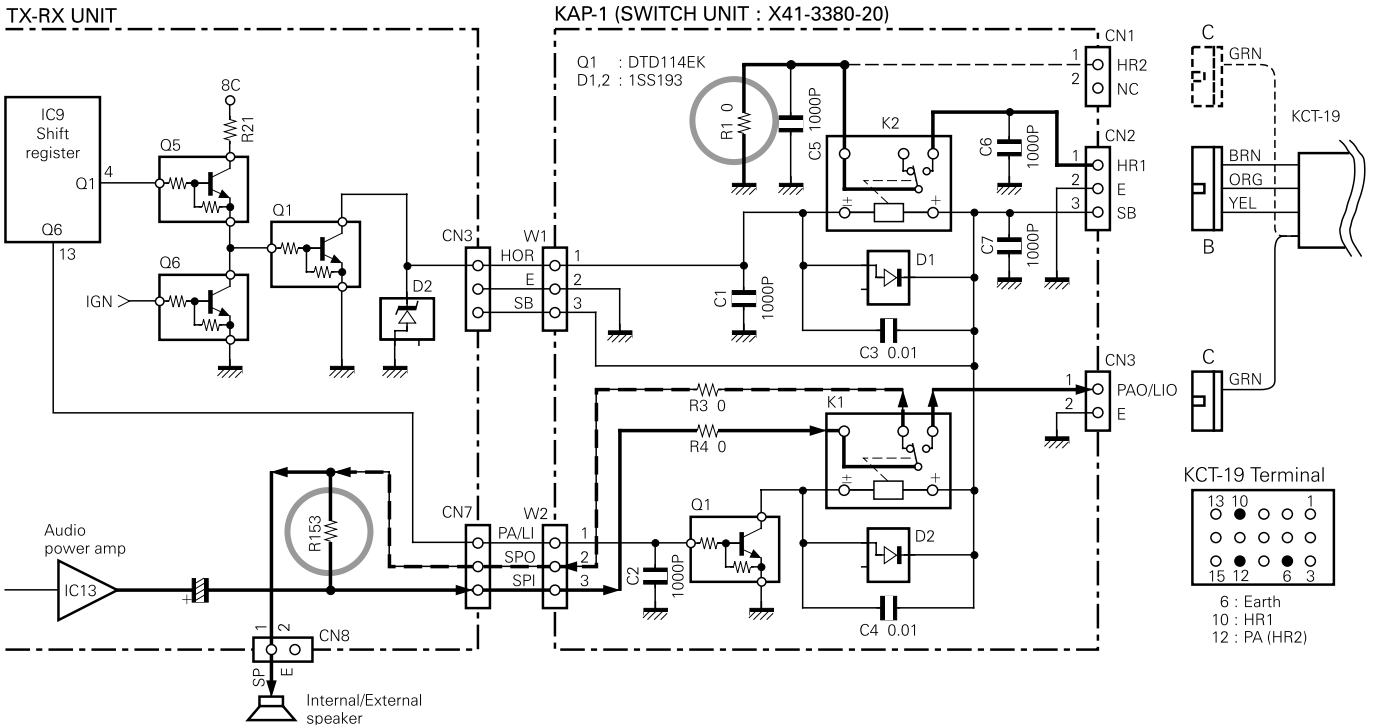


Fig. 6 / 图6

INSTALLATION / 安装

Emergency Mode

■ Transceiver Modification Procedure

● install the foot switch

Install the foot switch through the KCT-19 and KCT-18. When the switch is treaded on, the radio enters the emergency mode.

● Change the power switch circuit

TX-RX unit (B/2) : Control section
 \$R705 : Attach (R92-1252-05, 0Ω)

TX-RX unit (A/2) : RF section
 R142 : Remove (RK73GB1J473J, 47kΩ)

Once the transceiver is modified, it cannot be turned on and off with the power switch. The power switch turns the LCD backlight and display on and off. (The power is switched on and off by IGNITION SENSE.)

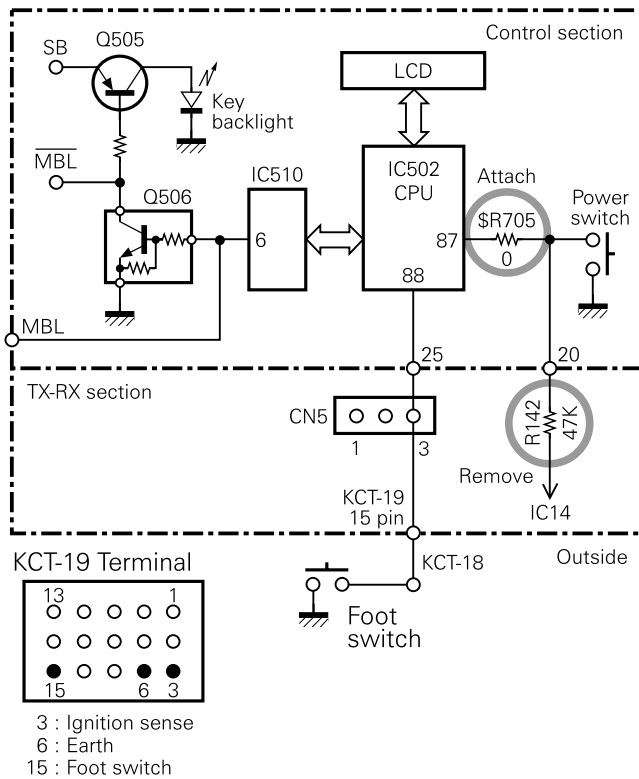


Fig. 7 / 图 7

应急模式

■ 车台机修改步骤

● 安装底脚开关

当按下开关时，通过KCT-19和KCT-18安装底脚开关，车台机进入应急模式。

● 改变电源开关电路

TX-RX单元 (B/2) : 控制部分
 \$R705 : 附带 (R92-1252-05, 0Ω)

TX-RX单元 (A/2) : 射频部分
 R142 : 移除 (RK73GB1J473J, 47kΩ)

由于车台机已被修改，所以不能通过电源开关开启和改变车台机。电源开关开启和关闭显示器背景灯光和显示器。(通过启动传感器开启和关闭电源。)

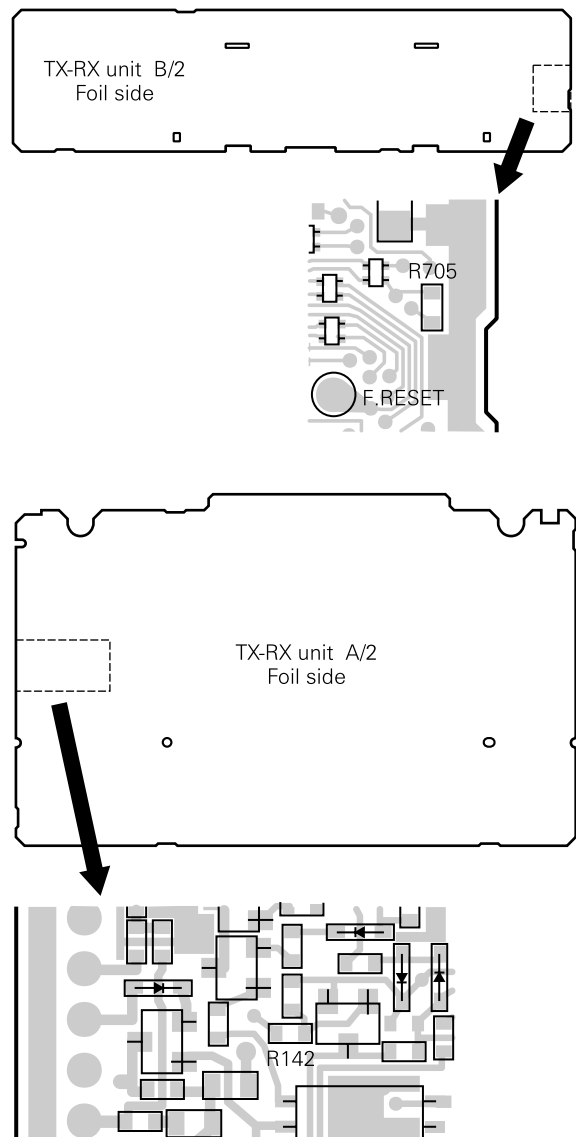
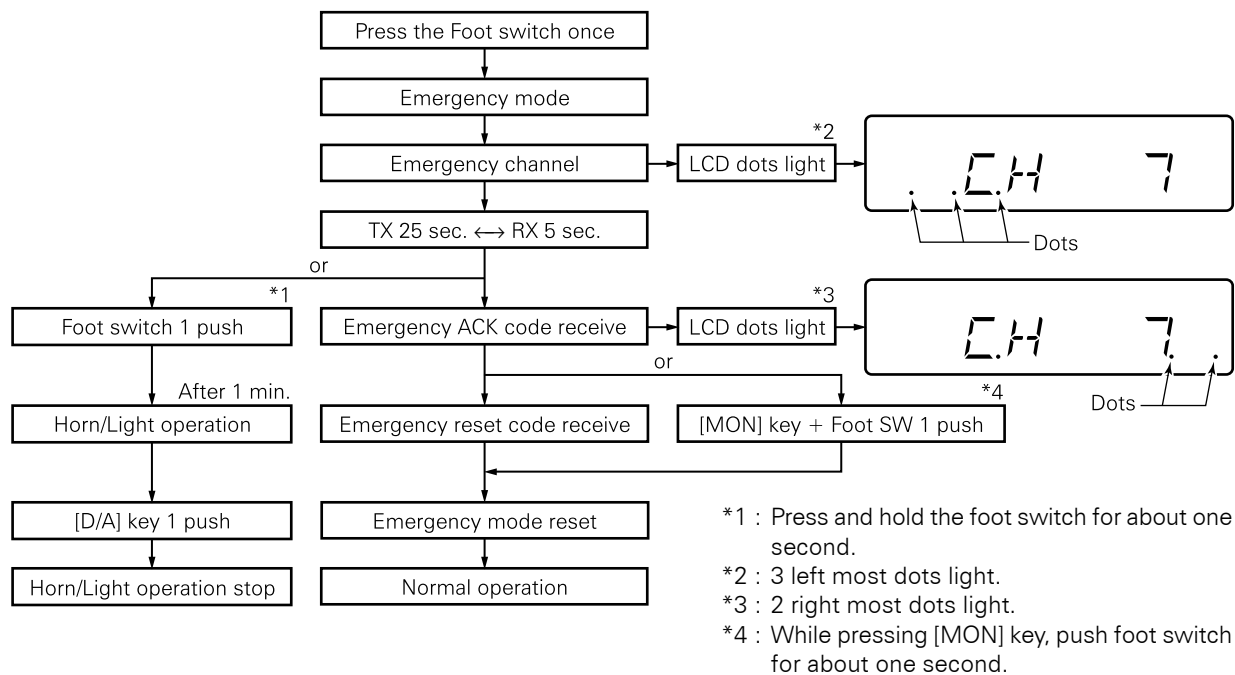


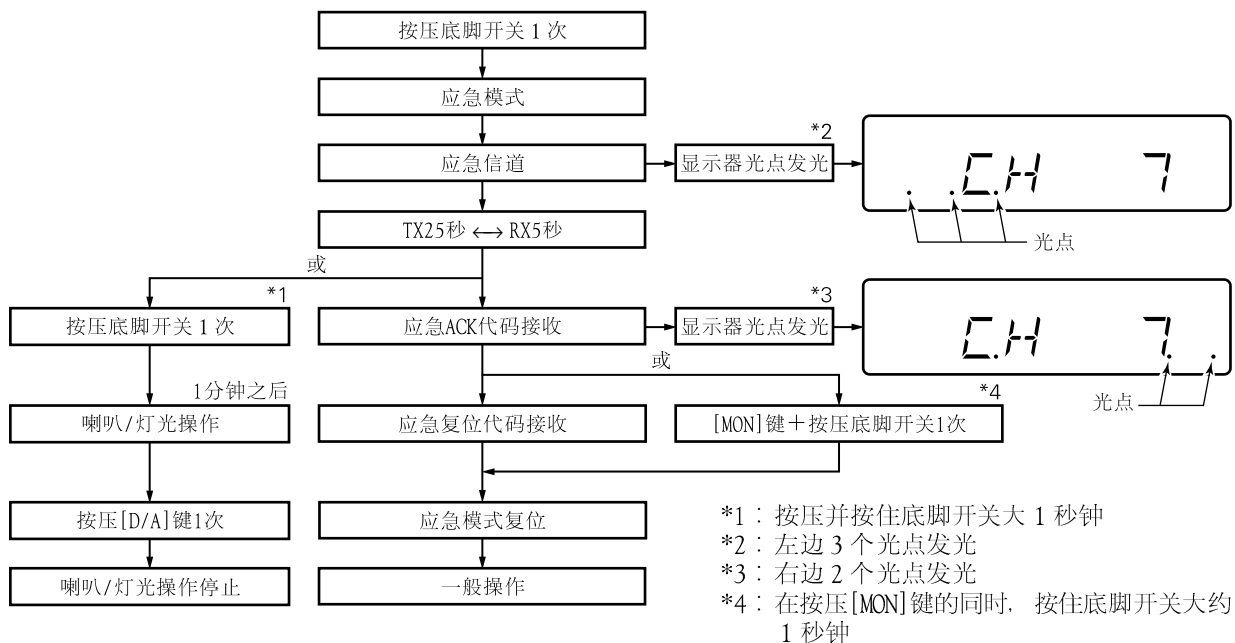
Fig. 8 / 图 8

INSTALLATION / 安装

Emergency Mode System Chart



应急模式系统图



PARTS LIST / 零件表

* 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 **K** : USA **P** : Canada
Y : PX (Far East, Hawaii) **T** : England **E** : Europe
Y : AAFES (Europe) **X** : Australia **M** : Other Areas

TK-868HG
DISPLAY UNIT (X54-3270-10)
TX-RX UNIT (X57-596X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Desti-nation
TK-868HG					
1	1B		A01-2165-13	CABINET UPPER	
2	2A		A01-2166-13	CABINET LOWER	
3	2A		A62-0642-03	PANEL ASSY	
6	2B		B11-1226-03	ILLUMINATION GUIDE	
7	2A		B38-0824-05	LCD	
8	2D		B62-1259-20	INSTRUCTION MANUAL	
9	1C	*	B72-1826-14	MODEL NAME PLATE	C
9	1C	*	B72-1917-04	MODEL NAME PLATE	C3
11	2B		E29-1179-04	INTER CONNECTOR	
12	1C		E30-2145-15	ANTENNA CABLE	
14	1C		E30-3340-05	DC CORD RADIO	
-			E30-3404-05	EXTENSION CABLE	
16	1C		E37-0790-25	LEAD WIRE WITH CONNECTOR (SP)	
17	2B		E37-0815-05	FLAT CABLE	
-			E37-0852-05	LEAD WIRE WITH CONNECTOR (15P)	
-			E37-0853-05	LEAD WIRE WITH CONNECTOR (10P)	
-			E37-0854-05	LEAD WIRE WITH CONNECTOR (8P)	
-			E37-0855-05	LEAD WIRE WITH CONNECTOR (3P)	
18	2B		F12-0435-04	CONDUCTIVE SHEET	
21	1C		G02-0791-04	FLAT SPRING AF, APC	
-			G02-0841-14	FLAT SPRING SIDE	
22	1B,1C		G10-1221-04	FIBROUS SHEET UP, DOWN	
23	1B		G10-1222-14	FIBROUS SHEET SHIELD	
24	1A,2C		G10-1223-14	FIBROUS SHEET DC CORD	
25	1C		G13-1468-04	CUSHION SP	
26	1B		G13-1759-04	CUSHION PHONE JACK	
27	2C		G53-0796-04	PACKING	
30	2D		H10-6628-02	POLYSTYRENE FOAMED FIXTURE (F)	
31	1E		H10-6629-02	POLYSTYRENE FOAMED FIXTURE (R)	
33	2E		H25-0720-04	PROTECTION BAG (200X350)	
34	3E		H52-1654-02	ITEM CARTON CASE	
37	2A		J21-8382-03	HARDWARE FIXTURE	
40	2A		K29-5343-02	KEY TOP	
A	2A,1B		N33-2606-45	OVAL HEAD MACHINE SCREW	
B	2C		N67-3008-46	PAN HEAD SEMS SCREW W	
C	2B,1C		N87-2606-46	BRAZIER HEAD TAPTITE SCREW	
D	2B		N87-2612-46	BRAZIER HEAD TAPTITE SCREW	
44	1B		T07-0368-05	SPEAKER	
DISPLAY UNIT (X54-3270-10)					
D802-805			B30-2220-05	LED (2P/YELLOW)	
C801-803			CC73GCH1H101J	CHIP C 100PF J	
C804			CK73GF1A105Z	CHIP C 1.0UF Z	
C805			CK73GB1H102K	CHIP C 1000PF K	
C806,807			CK73GB1H471K	CHIP C 470PF K	
CN801			E40-6020-05	PIN ASSY	
L801			L92-0138-05	FERRITE CHIP	

Ref. No.	Address	New parts	Parts No.	Description	Desti-nation
R801-803			RK73GB1J103J	CHIP R 10K J 1/16W	
R804			RK73GB1J473J	CHIP R 47K J 1/16W	
R805			RK73GB1J474J	CHIP R 470K J 1/16W	
R806			R92-1252-05	CHIP R 0 OHM	
R808			RK73GB1J392J	CHIP R 3.9K J 1/16W	
R809			RK73FB2A270J	CHIP R 27 J 1/10W	
D801			MA2S111	DIODE	
D808			HSB123	DIODE	
IC801			LC75823W	IC (LCD DRIVER)	
Q801			2SB1132(Q,R)	TRANSISTOR	
TX-RX UNIT (X57-596X-XX) 3-05 : C 3-07 : C3					
D509-514			B30-2050-05	LED	
D521			B30-2151-05	LED (RED/GREEN)	
C1 -11			CK73GB1H471K	CHIP C 470PF K	
C13 -19			CK73GB1H471K	CHIP C 470PF K	
C20			C92-0507-05	CHIP-TAN 4.7UF 6.3VW	
C21			CK73GB1H471K	CHIP C 470PF K	
C22			CK73GB1C104K	CHIP C 0.10UF K	
C23 ,24			C92-0507-05	CHIP-TAN 4.7UF 6.3VW	
C25			CC73GCH1H060D	CHIP C 6.0PF D	C
C25			CC73GCH1H080D	CHIP C 8.0PF D	C3
C26			CK73GB1H471K	CHIP C 470PF K	
C28			CC73GCH1H060D	CHIP C 6.0PF D	C
C28			CC73GCH1H080D	CHIP C 8.0PF D	C3
C29			C92-0507-05	CHIP-TAN 4.7UF 6.3VW	
C30			CC73GCH1H030C	CHIP C 3.0PF C	
C31			CK73GB1H102K	CHIP C 1000PF K	
C32			C92-0662-05	CHIP-TAN 15UF 6.3VW	
C33			CC73GCH1H220J	CHIP C 22PF J	
C35			CK73GB1C104K	CHIP C 0.10UF K	
C36			CK73GB1H102K	CHIP C 1000PF K	
C37			CK73FB1C334K	CHIP C 0.33UF K	
C40 ,41			CK73GB1H103K	CHIP C 0.010UF K	
C43			C92-0507-05	CHIP-TAN 4.7UF 6.3VW	
C44			CK73GB1H331K	CHIP C 330PF K	
C45			CK73GB1H102K	CHIP C 1000PF K	
C46			CK73GB1H103K	CHIP C 0.010UF K	
C47			C92-0561-05	CHIP-ELE 22UF 16VW	
C49			CK73GB1H102K	CHIP C 1000PF K	
C51			CK73GB1C104K	CHIP C 0.10UF K	
C52			CC73GCH1H680J	CHIP C 68PF J	
C53			CK73GB1C104K	CHIP C 0.10UF K	
C54			CK73GB1H103K	CHIP C 0.010UF K	
C56			CC73GCH1H220J	CHIP C 22PF J	
C58			CK73GB1E223K	CHIP C 0.022UF K	
C60 ,61			CK73GB1H102K	CHIP C 1000PF K	
C62			CC73GCH1H101J	CHIP C 100PF J	
C63			CK73GB1C104K	CHIP C 0.10UF K	
C64			CK73GB1H103K	CHIP C 0.010UF K	
C66			CK73GB1H102K	CHIP C 1000PF K	
C67			CK73GB1H471K	CHIP C 470PF K	
C68			CC73GCH1H101J	CHIP C 100PF J	

PARTS LIST / 零件表

TX-RX UNIT (X57-596X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination	Ref. No.	Address	New parts	Parts No.	Description	Destination
C69			CK73GB1E223K	CHIP C 0.022UF K		C139,140			CK73GB1H471K	CHIP C 470PF K	
C70			C92-0507-05	CHIP-TAN 4.7UF 6.3WV		C141			C92-0719-05	ELECTRO 47UF 25WV	
C71			CC73GCH1H101J	CHIP C 100PF J		C142,143			CK73GB1H471K	CHIP C 470PF K	
C72			C92-0507-05	CHIP-TAN 4.7UF 6.3WV		C144			CK73GB1H102K	CHIP C 1000PF K	
C73			CC73GCH1H101J	CHIP C 100PF J		C145			CC73GCH1H070D	CHIP C 7.0PF D	C3
C74,75			CK73GB1H471K	CHIP C 470PF K		C145			CC73GCH1H090D	CHIP C 9.0PF D	C
C78			CK73GB1H102K	CHIP C 1000PF K		C146			CK73GB1H471K	CHIP C 470PF K	
C79,80			CK73GB1H221K	CHIP C 220PF K		C148,149			CK73GB1H471K	CHIP C 470PF K	
C81			CK73GB1H471K	CHIP C 470PF K		C150			CK73FF1C105Z	CHIP C 1.0UF Z	
C82			C92-0507-05	CHIP-TAN 4.7UF 6.3WV		C152			CC73GCH1H060D	CHIP C 6.0PF D	C3
C83			CC73GCH1H270J	CHIP C 27PF J		C152			CC73GCH1H080D	CHIP C 8.0PF D	C
C84			C92-0507-05	CHIP-TAN 4.7UF 6.3WV		C153			CC73GCH1H040C	CHIP C 4.0PF C	C
C86			C92-0662-05	CHIP-TAN 15UF 6.3WV		C154			CK73GB1H102K	CHIP C 1000PF K	
C87			CC73GCH1H330J	CHIP C 33PF J		C155			CC73GCH1H040C	CHIP C 4.0PF C	C3
C88			CK73GB1H103K	CHIP C 0.010UF K		C155			CC73GCH1H060D	CHIP C 6.0PF D	C
C89			CK73GB1H471K	CHIP C 470PF K		C156			CK73GB1H471K	CHIP C 470PF K	
C91			CC73GCH1H020B	CHIP C 2.0PF B		C157			CK73GB1H102K	CHIP C 1000PF K	
C92			CK73GB1H471K	CHIP C 470PF K		C158			CK73GB1H471K	CHIP C 470PF K	
C93			C92-0555-05	CHIP-TAN 0.047UF 35WV		C160,161			C92-0719-05	ELECTRO 47UF 25WV	
C94-96			CK73GB1H471K	CHIP C 470PF K		C162,163			CK73GB1H471K	CHIP C 470PF K	
C97			C92-0546-05	CHIP-TAN 68UF 6.3WV		C164			CK73GB1H102K	CHIP C 1000PF K	
C98			CK73GB1H103K	CHIP C 0.010UF K		C165			C92-0719-05	ELECTRO 47UF 25WV	
C99			C92-0697-05	CHIP-TAN 3.3UF 16WV		C166			CE04EW1E471M	ELECTRO 470UF 25WV	
C100			CC73GCH1H020B	CHIP C 2.0PF B		C167			CK73GB1H471K	CHIP C 470PF K	
C101			CK73GB1H471K	CHIP C 470PF K		C168			CC73GCH1H060D	CHIP C 6.0PF D	C3
C102			CC73GCH1H020B	CHIP C 2.0PF B		C168			CC73GCH1H080D	CHIP C 8.0PF D	C
C103			CK73GB1H471K	CHIP C 470PF K		C169			CK73GB1H471K	CHIP C 470PF K	
C104			C92-0001-05	CHIP C 0.1UF 35WV		C172			CE04EW1E471M	ELECTRO 470UF 25WV	
C105			CK73GB1H471K	CHIP C 470PF K		C173			CK73GB1C104K	CHIP C 0.10UF K	
C106			CC73GCH1H180J	CHIP C 18PF J		C174			CK73GB1H471K	CHIP C 470PF K	
C107			CK73GB1H471K	CHIP C 470PF K		C175			CC73GCH1H020B	CHIP C 2.0PF B	C
C108			CC73GCH1H020B	CHIP C 2.0PF B		C177			CC73FCH1H220J	CHIP C 22PF J	
C109			CK73GB1H471K	CHIP C 470PF K		C178			CC73GCH1H060D	CHIP C 6.0PF D	C3
C110			CC73GCH1H070D	CHIP C 7.0PF D	C3	C178			CC73GCH1H080D	CHIP C 8.0PF D	C
C110			CC73GCH1H090D	CHIP C 9.0PF D	C	C179			CK73GB1H471K	CHIP C 470PF K	
C111			CC73GCH1H030C	CHIP C 3.0PF C		C181			CK73GB1H471K	CHIP C 470PF K	
C112			CK73GB1H471K	CHIP C 470PF K		C183			CK73GB1C104K	CHIP C 0.10UF K	
C113			C92-0507-05	CHIP-TAN 4.7UF 6.3WV		C185			CK73GB1C104K	CHIP C 0.10UF K	
C114			C92-0697-05	CHIP-TAN 3.3UF 16WV		C186			CK73GB1H471K	CHIP C 470PF K	
C115			CK73GB1H471K	CHIP C 470PF K		C187			CC73GCH1H060D	CHIP C 6.0PF D	C3
C116			CK73GB1H103K	CHIP C 0.010UF K		C187			CC73GCH1H080D	CHIP C 8.0PF D	C
C117			CK73GB1H102K	CHIP C 1000PF K		C188			CC73GCH1H040C	CHIP C 4.0PF C	C
C118			CK73GB1H471K	CHIP C 470PF K		C189,190			CK73GB1H471K	CHIP C 470PF K	
C119			CK73GB1H103K	CHIP C 0.010UF K		C191			CK73GB1C104K	CHIP C 0.10UF K	
C120			CC73GCH1H040C	CHIP C 4.0PF C		C192			C92-0719-05	ELECTRO 47UF 25WV	
C121			CK73GB1H471K	CHIP C 470PF K		C195			CK73GB1C104K	CHIP C 0.10UF K	
C122,123			CK73GB1C104K	CHIP C 0.10UF K		C196,197			CK73GB1H471K	CHIP C 470PF K	
C124			CC73GCH1H030C	CHIP C 3.0PF C	C3	C198			C92-0719-05	ELECTRO 47UF 25WV	
C125			C92-0004-05	CHIP-TAN 1.0UF 16WV		C201			CK73GB1H471K	CHIP C 470PF K	
C126			CC73GCH1H120J	CHIP C 12PF J		C202			CK73GB1C104K	CHIP C 0.10UF K	
C127			CK73GB1H103K	CHIP C 0.010UF K		C203			CK73GB1H471K	CHIP C 470PF K	
C128			C92-0543-05	CHIP-TAN 3.3UF 10WV		C204			C92-0004-05	CHIP-TAN 1.0UF 16WV	C3
C129			CK73FF1C105Z	CHIP C 1.0UF Z		C204			C92-0501-05	CHIP-TAN 1.5UF 10WV	C
C130			CK73GB1H103K	CHIP C 0.010UF K		C206			CK73GB1H102K	CHIP C 1000PF K	
C131			CK73GB1H102K	CHIP C 1000PF K		C207			CK73GB1H103K	CHIP C 0.010UF K	
C133			CK73GB1H471K	CHIP C 470PF K		C208			CC73GCH1H060D	CHIP C 6.0PF D	C3
C134			CK73FB1E104K	CHIP C 0.10UF K		C208			CC73GCH1H070D	CHIP C 7.0PF D	C
C135			CC73GCH1H120J	CHIP C 12PF J	C3	C209			CC73FCH1H050C	CHIP C 5.0PF C	
C135			CC73GCH1H180J	CHIP C 18PF J	C	C210			CK73GB1H103K	CHIP C 0.010UF K	
C138			CK73FB1E104K	CHIP C 0.10UF K		C211			CC73GCH1H180J	CHIP C 18PF J	

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Ref. No.	Address	New parts	Parts No.	Description	Desti-nation	Ref. No.	Address	New parts	Parts No.	Description	Desti-nation
C212			CK73GB1H471K	CHIP C 470PF K		C530			CK73GB1H152K	CHIP C 1500PF K	
C214			C93-0553-05	CHIP C 3.0PF C	C3	C531			CK73GB1H272K	CHIP C 2700PF K	
C215			CC73FCH1H060D	CHIP C 6.0PF D		C532,533			CK73GB1C104K	CHIP C 0.10UF K	
C216			CC73GCH1H0R5B	CHIP C 0.5PF B		C534,535			CK73GB1H103K	CHIP C 0.010UF K	
C217			CC73GCH1H020B	CHIP C 2.0PF B		C536,537			CK73GB1C104K	CHIP C 0.10UF K	
C218			CK73GB1C104K	CHIP C 0.10UF K		C538			C92-0566-05	CHIP-TAN 10UF 6.3WV	
C219			CC73FCH1H040C	CHIP C 4.0PF C		C539			CK73GB1H103K	CHIP C 0.010UF K	
C220			CK73GB1H471K	CHIP C 470PF K		C540,541			CK73GB1C104K	CHIP C 0.10UF K	
C221			C93-0552-05	CHIP C 2.0PF C	C3	C542			CC73GCH1H331J	CHIP C 330PF J	
C221			C93-0554-05	CHIP C 4.0PF C	C	C543			CK73GB1H102K	CHIP C 1000PF K	
C222			CC73GCH1H0R5B	CHIP C 0.5PF B		C544-546			CK73GB1H562K	CHIP C 5600PF K	
C223			CC73GCH1H020B	CHIP C 2.0PF B		C547			CC73GCH1H030C	CHIP C 3.0PF C	
C224			CK73GB1H471K	CHIP C 470PF K		C548-550			CK73GB1H272K	CHIP C 2700PF K	
C225			C93-0603-05	CHIP C 1000PF K		C551			CC73GCH1H151J	CHIP C 150PF J	
C226			C93-0556-05	CHIP C 6.0PF D	C	C552			CC73GCH1H030C	CHIP C 3.0PF C	
C226			C93-0558-05	CHIP C 8.0PF D	C3	C553			CK73GB1H102K	CHIP C 1000PF K	
C227			C93-0558-05	CHIP C 8.0PF D	C	C554			CK73GB1H122K	CHIP C 1200PF K	
C227			C93-0560-05	CHIP C 10PF D	C3	C555			C92-0566-05	CHIP-TAN 10UF 6.3WV	
C229			C93-0556-05	CHIP C 6.0PF D		C556			CK73GB1C333K	CHIP C 0.033UF K	
C230,231			CK73GB1C104K	CHIP C 0.10UF K		C557			CK73GB1C104K	CHIP C 0.10UF K	
C241			CK73GB1H102K	CHIP C 1000PF K	C3	C558			CC73GCH1H101J	CHIP C 100PF J	
C243			CK73GB1H102K	CHIP C 1000PF K	C3	C559			CK73GB1H102K	CHIP C 1000PF K	
C245			CK73GB1C104K	CHIP C 0.10UF K	C	C560-563			CK73GB1C104K	CHIP C 0.10UF K	
C248			C92-0585-05	CHIP-TAN 4.7UF 16WV		C564			C92-0507-05	CHIP-TAN 4.7UF 6.3WV	
C250			CK73FF1C105Z	CHIP C 1.0UF Z		C565,566			CK73GB1H472K	CHIP C 4700PF K	
C254			CK73GB1C104K	CHIP C 0.10UF K		C567			CC73GCH1H101J	CHIP C 100PF J	
C258			CK73GB1H102K	CHIP C 1000PF K	C3	C568			C92-0507-05	CHIP-TAN 4.7UF 6.3WV	
C259			CK73GB1C104K	CHIP C 0.10UF K		C569			CK73GB1E223K	CHIP C 0.022UF K	
C265			CK73GB1H102K	CHIP C 1000PF K		C570			CK73FF1C105Z	CHIP C 1.0UF Z	
C267			CK73GB1H102K	CHIP C 1000PF K	C	C571,572			CK73GB1H102K	CHIP C 1000PF K	
C270			CK73GB1H471K	CHIP C 470PF K		C573			CK73FB1H563K	CHIP C 0.056UF K	
C271			CK73GB1H472K	CHIP C 4700PF K		C574			CC73GCH1H470J	CHIP C 47PF J	
C274			CC73GCH1H050C	CHIP C 5.0PF C	C3	C575			CK73GB1H102K	CHIP C 1000PF K	
C275			CK73GB1H102K	CHIP C 1000PF K		C576			CK73GB1C104K	CHIP C 0.10UF K	
C276			C90-2046-05	ELECTRO 22UF 10WV		C577,578			CK73GB1H103K	CHIP C 0.010UF K	
C290			C92-0004-05	CHIP-TAN 1.0UF 16WV	C	C579			CC73GCH1H101J	CHIP C 100PF J	
C501			CK73GB1H102K	CHIP C 1000PF K		C580			CK73GB1C104K	CHIP C 0.10UF K	
C502			CK73GB1C104K	CHIP C 0.10UF K		C581			CK73GB1H102K	CHIP C 1000PF K	
C503			CK73GB1H471K	CHIP C 470PF K		C582			CK73GB1C473K	CHIP C 0.047UF K	
C504			CK73GB1H103K	CHIP C 0.010UF K		C583			C92-0566-05	CHIP-TAN 10UF 6.3WV	
C505			CK73GB1C104K	CHIP C 0.10UF K		C584			CK73GB1H103K	CHIP C 0.010UF K	
C506,507			CK73GB1H103K	CHIP C 0.010UF K		C585			CC73GCH1H101J	CHIP C 100PF J	
C508			CK73GB1H472K	CHIP C 4700PF K		C587			CK73GB1H103K	CHIP C 0.010UF K	
C509			C92-0507-05	CHIP-TAN 4.7UF 6.3WV		C589			C92-0606-05	CHIP-TAN 4.7UF 10WV	
C514			CC73GCH1H680J	CHIP C 68PF J		C590			CK73GB1H102K	CHIP C 1000PF K	
C515			CK73GB1H103K	CHIP C 0.010UF K		C594			CK73GB1H102K	CHIP C 1000PF K	
C516			CC73GCH1H270J	CHIP C 27PF J		C596			CK73GB1H102K	CHIP C 1000PF K	
C517			CK73GB1C683K	CHIP C 0.068UF K		C597			CC73GCH1H101J	CHIP C 100PF J	
C518			CC73GCH1H270J	CHIP C 27PF J		C598			CK73GB1H102K	CHIP C 1000PF K	
C519			CK73GB1H102K	CHIP C 1000PF K		C599			CC73GCH1H101J	CHIP C 100PF J	
C520			CK73GB1C104K	CHIP C 0.10UF K		C600			CK73GB1H102K	CHIP C 1000PF K	
C521			CK73GB1H102K	CHIP C 1000PF K		C601,602			CC73GCH1H101J	CHIP C 100PF J	
C522			C92-0507-05	CHIP-TAN 4.7UF 6.3WV		C603			CK73GB1H102K	CHIP C 1000PF K	
C523			CC73GCH1H221J	CHIP C 220PF J		C604-606			CC73GCH1H101J	CHIP C 100PF J	
C524			CK73GB1H103K	CHIP C 0.010UF K		C608-610			CC73GCH1H101J	CHIP C 100PF J	
C525			CK73GB1E123K	CHIP C 0.012UF K		C611,612			CK73GB1H471K	CHIP C 470PF K	
C526			CK73GB1C683K	CHIP C 0.068UF K		C613			CC73GCH1H101J	CHIP C 100PF J	
C527			CK73GB1H222K	CHIP C 2200PF K		C615			CK73GB1H471K	CHIP C 470PF K	
C528			CK73GB1H103K	CHIP C 0.010UF K		C616			CC73GCH1H101J	CHIP C 100PF J	
C529			CK73GB1H272K	CHIP C 2700PF K		C618			CK73GB1H102K	CHIP C 1000PF K	

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Ref. No.	Address	New parts	Parts No.	Description	Destination	Ref. No.	Address	New parts	Parts No.	Description	Destination
C620			CK73GB1H471K	CHIP C 470PF K		L33 ,34			L92-0179-05	FERRITE CHIP	
C621			CK73GB1H102K	CHIP C 1000PF K		L35			L40-2775-77	SMALL FIXED INDUCTOR (27NH)	C3
C623			CK73GB1H102K	CHIP C 1000PF K		L501			L92-0138-05	FERRITE CHIP	
C626			CK73GB1C104K	CHIP C 0.10UF K		L503,504			L92-0138-05	FERRITE CHIP	
C628			CK73GB1C104K	CHIP C 0.10UF K		L510			L92-0138-05	FERRITE CHIP	
C629			CC73GCH1H470J	CHIP C 47PF J		X1			L77-1826-05	TCXO (16.8MHZ)	
C630			C92-0507-05	CHIP-TAN 4.7UF 6.3WV		X501			L77-1708-05	CRYSTAL RESONATOR (3.579545MHZ)	
C631			CK73GB1H103K	CHIP C 0.010UF K		X502			L78-0462-05	RESONATOR (9.8304MHZ)	
C632			CK73FF1C105Z	CHIP C 1.0UF Z		XF1			L71-0551-25	MCF (49.95MHZ)	
C633			CK73GB1C104K	CHIP C 0.10UF K		CP501-505			R90-0741-05	MULTIPLE RESISTOR	
C720			C92-0566-05	CHIP-TAN 10UF 6.3WV		CP508-514			R90-0741-05	MULTIPLE RESISTOR	
CN1			E40-6047-05	PIN ASSY		CP516-524			R90-0741-05	MULTIPLE RESISTOR	
CN2			E40-6021-05	FLAT CABLE CONNECTOR		CP526,527			R90-0741-05	MULTIPLE RESISTOR	
CN3			E40-3247-05	PIN ASSY		CP529-536			R90-0741-05	MULTIPLE RESISTOR	
CN4			E40-5737-05	PIN ASSY		CP538			R90-0741-05	MULTIPLE RESISTOR	
CN5			E40-5738-05	PIN ASSY		CP539			R90-0724-05	MULTI-COMP 1K X4	
CN6			E40-5751-05	PIN ASSY		R1			R92-1252-05	CHIP R 0 OHM	
CN7			E40-3247-05	PIN ASSY		R2			RK73GB1J102J	CHIP R 1.0K J 1/16W	
CN8			E40-3246-05	PIN ASSY		R3			R92-1252-05	CHIP R 0 OHM	
CN501			E40-6021-05	FLAT CABLE CONNECTOR		R4			RK73GB1J333J	CHIP R 33K J 1/16W	
J1			E11-0442-05	3.5D PHONE JACK (3P)		R6			R92-1252-05	CHIP R 0 OHM	
J501			E08-0877-05	MODULAR JACK		R7 ,8			RK73GB1J102J	CHIP R 1.0K J 1/16W	
F1			F53-0108-05	FUSE		R9 ,10			R92-1252-05	CHIP R 0 OHM	
-			J31-0543-05	COLLAR		R11			RK73GB1J102J	CHIP R 1.0K J 1/16W	
CF1			L72-0959-05	CERAMIC FILTER		R12			RK73GB1J104J	CHIP R 100K J 1/16W	
CF2			L72-0973-05	CERAMIC FILTER		R13			RK73GB1J472J	CHIP R 4.7K J 1/16W	
L1			L40-1005-34	SMALL FIXED INDUCTOR (10UH)		R14			RK73GB1J474J	CHIP R 470K J 1/16W	
L2 -4			L40-3381-86	SMALL FIXED INDUCTOR (0.33UH)		R15			RK73GB1J104J	CHIP R 100K J 1/16W	
L5			L34-4530-05	COIL		R16			RK73GB1J220J	CHIP R 22 J 1/16W	
L6			L40-8275-77	SMALL FIXED INDUCTOR (82NH)		R17			RK73GB1J154J	CHIP R 150K J 1/16W	
L7			L40-5685-85	SMALL FIXED INDUCTOR (0.56UH)		R18			RK73GB1J103J	CHIP R 10K J 1/16W	
L8			L40-8285-85	SMALL FIXED INDUCTOR (0.82UH)		R19			RK73GB1J392J	CHIP R 3.9K J 1/16W	
L9			L40-1575-77	SMALL FIXED INDUCTOR (15NH)		R20			RK73GB1J224J	CHIP R 220K J 1/16W	
L10			L40-2775-77	SMALL FIXED INDUCTOR (27NH)		R21			RK73GB1J102J	CHIP R 1.0K J 1/16W	
L11 ,12			L40-1575-34	SMALL FIXED INDUCTOR (15NH)		R22			RK73GB1J474J	CHIP R 470K J 1/16W	
L13			L79-1585-05	HELICAL BLOCK	C	R23			RK73GB1J223J	CHIP R 22K J 1/16W	
L13			L79-1591-05	HELICAL BLOCK	C3	R24			RK73GB1J563J	CHIP R 56K J 1/16W	
L14			L40-1875-77	SMALL FIXED INDUCTOR (18NH)	C	R25			R92-1252-05	CHIP R 0 OHM	
L14			L40-2775-77	SMALL FIXED INDUCTOR (27NH)	C3	R26			RK73GB1J104J	CHIP R 100K J 1/16W	
L15			L40-4775-77	SMALL FIXED INDUCTOR (47NH)		R29			R92-1252-05	CHIP R 0 OHM	
L16			L40-6875-34	SMALL FIXED INDUCTOR (68NH)		R30			RK73GB1J103J	CHIP R 10K J 1/16W	
L17			L40-1875-77	SMALL FIXED INDUCTOR (18NH)		R31			RK73GB1J152J	CHIP R 1.5K J 1/16W	
L18			L40-1075-34	SMALL FIXED INDUCTOR (10NH)		R32			RK73GB1J103J	CHIP R 10K J 1/16W	
L19			L40-1085-77	SMALL FIXED INDUCTOR (100NH)	C3	R33			R92-1252-05	CHIP R 0 OHM	
L19			L40-5675-77	SMALL FIXED INDUCTOR (56NH)	C	R34 ,35			RK73GB1J104J	CHIP R 100K J 1/16W	
L20			L40-1875-77	SMALL FIXED INDUCTOR (18NH)	C	R36			RK73GB1J223J	CHIP R 22K J 1/16W	
L20			L40-2775-77	SMALL FIXED INDUCTOR (27NH)	C3	R37			RK73GB1J100J	CHIP R 10 J 1/16W	
L21			L34-4478-05	AIR-CORE COIL		R38 -40			RK73GB1J103J	CHIP R 10K J 1/16W	
L22			L79-1585-05	HELICAL BLOCK	C	R41			RK73GB1J224J	CHIP R 220K J 1/16W	
L22			L79-1591-05	HELICAL BLOCK	C3	R42			RK73GB1J473J	CHIP R 47K J 1/16W	
L24			L92-0179-05	FERRITE CHIP		R43			RK73GB1J683J	CHIP R 68K J 1/16W	
L26			L40-3375-34	SMALL FIXED INDUCTOR (33NH/8)		R44			RK73GB1J153J	CHIP R 15K J 1/16W	
L27			L40-1575-34	SMALL FIXED INDUCTOR (15NH/8)	C	R46			RK73GB1J223J	CHIP R 22K J 1/16W	
L27			L40-1875-34	SMALL FIXED INDUCTOR (18NH/8)	C3	R47			RK73GB1J101J	CHIP R 100 J 1/16W	
L29			L34-1185-05	AIR-CORE COIL		R48			RK73GB1J184J	CHIP R 180K J 1/16W	
L30 ,31			L34-1039-05	AIR-CORE COIL		R49			RK73GB1J152J	CHIP R 1.5K J 1/16W	
L32			L34-4478-05	AIR-CORE COIL		R50			RK73GB1J473J	CHIP R 47K J 1/16W	
						R51 -53			RK73GB1J102J	CHIP R 1.0K J 1/16W	
						R54 ,55			R92-1252-05	CHIP R 0 OHM	

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Ref. No.	Address	New parts	Parts No.	Description	Destination	Ref. No.	Address	New parts	Parts No.	Description	Destination
R56			RK73GB1J100J	CHIP R 10 J 1/16W		R124			RK73GB1J103J	CHIP R 10K J 1/16W	
R57			RK73GB1J471J	CHIP R 470 J 1/16W		R125			RK73GB1J333J	CHIP R 33K J 1/16W	
R58			RK73GB1J332J	CHIP R 3.3K J 1/16W		R126			RK73GB1J471J	CHIP R 470 J 1/16W	
R59			RK73GB1J472J	CHIP R 4.7K J 1/16W		R127,128			RK73GB1J104J	CHIP R 100K J 1/16W	
R60			RK73GB1J334J	CHIP R 330K J 1/16W		R129			RK73GB1J331J	CHIP R 330 J 1/16W	
R61			RK73GB1J102J	CHIP R 1.0K J 1/16W		R130			RK73GB1J152J	CHIP R 1.5K J 1/16W	
R62			RK73GB1J224J	CHIP R 220K J 1/16W		R131			RK73GB1J681J	CHIP R 680 J 1/16W	
R63			RK73GB1J474J	CHIP R 470K J 1/16W		R132			R92-0670-05	CHIP R 0 OHM	
R64,65			RK73GB1J223J	CHIP R 22K J 1/16W		R133-136			R92-1252-05	CHIP R 0 OHM	
R66			RK73GB1J101J	CHIP R 100 J 1/16W		R138			RK73GB1J102J	CHIP R 1.0K J 1/16W	
R67			RK73GB1J472J	CHIP R 4.7K J 1/16W		R139			R92-0699-05	CHIP R 10 J 1/2W	C
R68			RK73GB1J182J	CHIP R 1.8K J 1/16W		R140			RK73FB2A2R2J	CHIP R 2.2 J 1/10W	
R69			R92-1252-05	CHIP R 0 OHM		R141			R92-0685-05	CHIP R 22 J 1/2W	C3
R70,71			RK73GB1J103J	CHIP R 10K J 1/16W		R142			RK73GB1J473J	CHIP R 47K J 1/16W	
R72			R92-1252-05	CHIP R 0 OHM		R143			RK73GB1J101J	CHIP R 100 J 1/16W	
R73			RK73GB1J223J	CHIP R 22K J 1/16W		R144			RK73GB1J222J	CHIP R 2.2K J 1/16W	
R75			R92-1252-05	CHIP R 0 OHM		R145,146			RK73GB1J473J	CHIP R 47K J 1/16W	
R76			RK73GB1J223J	CHIP R 22K J 1/16W		R147			RK73GB1J683J	CHIP R 68K J 1/16W	
R77			RK73GB1J224J	CHIP R 220K J 1/16W		R148			RK73GB1J104J	CHIP R 100K J 1/16W	
R78			RK73GB1J104J	CHIP R 100K J 1/16W		R149			RK73GB1J151J	CHIP R 150 J 1/16W	
R79			RK73GB1J102J	CHIP R 1.0K J 1/16W		R150			RK73GB1J104J	CHIP R 100K J 1/16W	
R80			RK73GB1J471J	CHIP R 470 J 1/16W		R151			RK73FB2A102J	CHIP R 1.0K J 1/10W	C
R81			RK73GB1J101J	CHIP R 100 J 1/16W		R151			RK73FB2A331J	CHIP R 330 J 1/10W	C3
R82			RK73GB1J102J	CHIP R 1.0K J 1/16W		R152			R92-1252-05	CHIP R 0 OHM	
R83			RK73GB1J684J	CHIP R 680K J 1/16W		R153			R92-0670-05	CHIP R 0 OHM	
R84			R92-1252-05	CHIP R 0 OHM		R154			RK73GB1J152J	CHIP R 1.5K J 1/16W	
R85,86			RK73GB1J122J	CHIP R 1.2K J 1/16W		R155			RK73GB1J103J	CHIP R 10K J 1/16W	
R87			RK73GB1J102J	CHIP R 1.0K J 1/16W		R156			RK73FB2A180J	CHIP R 18 J 1/10W	C3
R88			RK73GB1J271J	CHIP R 270 J 1/16W		R156			RK73FB2A5R6J	CHIP R 5.6 J 1/10W	C
R89			RK73GB1J102J	CHIP R 1.0K J 1/16W		R158			R92-0670-05	CHIP R 0 OHM	
R90			RK73GB1J104J	CHIP R 100K J 1/16W		R159			RK73GB1J473J	CHIP R 47K J 1/16W	
R91			RK73GB1J823J	CHIP R 82K J 1/16W		R160			RK73FB2A102J	CHIP R 1.0K J 1/10W	C
R92			RK73GB1J822J	CHIP R 8.2K J 1/16W		R160			RK73FB2A331J	CHIP R 330 J 1/10W	C3
R93			RK73GB1J152J	CHIP R 1.5K J 1/16W		R161,162			RK73GB1J104J	CHIP R 100K J 1/16W	
R94			RK73GB1J392J	CHIP R 3.9K J 1/16W		R163			R92-0670-05	CHIP R 0 OHM	
R95,96			RK73GB1J103J	CHIP R 10K J 1/16W		R164			R92-1215-05	CHIP R 470 J 1/2W	
R97,98			RK73GB1J101J	CHIP R 100 J 1/16W		R166			RK73GB1J151J	CHIP R 150 J 1/16W	
R99			RK73GB1J331J	CHIP R 330 J 1/16W		R169			RK73GB1J103J	CHIP R 10K J 1/16W	
R100,101			RK73GB1J222J	CHIP R 2.2K J 1/16W		R170			RK73FB2A222J	CHIP R 2.2K J 1/10W	
R103			RK73GB1J472J	CHIP R 4.7K J 1/16W		R171			RK73GB1J153J	CHIP R 15K J 1/16W	
R104			RK73GB1J682J	CHIP R 6.8K J 1/16W		R172			RK73GB1J683J	CHIP R 68K J 1/16W	
R105			RK73GB1J101J	CHIP R 100 J 1/16W		R173			RK73GB1J472J	CHIP R 4.7K J 1/16W	C3
R106			RK73GB1J102J	CHIP R 1.0K J 1/16W		R173			RK73GB1J822J	CHIP R 8.2K J 1/16W	C
R107			RK73GB1J473J	CHIP R 47K J 1/16W		R174			RK73GB1J103J	CHIP R 10K J 1/16W	
R108			RK73GB1J152J	CHIP R 1.5K J 1/16W		R175			RK73GB1J682J	CHIP R 6.8K J 1/16W	
R109			RK73GB1J103J	CHIP R 10K J 1/16W		R176			RK73GB1J103J	CHIP R 10K J 1/16W	
R110			RK73GB1J470J	CHIP R 47 J 1/16W		R177			R92-1214-05	CHIP R 120 J 1/2W	
R111			RK73GB1J101J	CHIP R 100 J 1/16W		R178			RK73GB1J822J	CHIP R 8.2K J 1/16W	
R112			RK73GB1J471J	CHIP R 470 J 1/16W		R179			RK73GB1J273J	CHIP R 27K J 1/16W	
R113			RK73GB1J100J	CHIP R 10 J 1/16W		R180			RK73GB1J272J	CHIP R 2.7K J 1/16W	C3
R114			RK73GB1J472J	CHIP R 4.7K J 1/16W		R180,181			RK73GB1J562J	CHIP R 5.6K J 1/16W	C
R115			RK73GB1J223J	CHIP R 22K J 1/16W		R181			RK73GB1J103J	CHIP R 10K J 1/16W	C3
R116			RK73GB1J473J	CHIP R 47K J 1/16W		R182			R92-0670-05	CHIP R 0 OHM	
R117			RK73GB1J221J	CHIP R 220 J 1/16W		R184			R92-1252-05	CHIP R 0 OHM	C
R118			RK73GB1J681J	CHIP R 680 J 1/16W		R185			RK73GB1J473J	CHIP R 47K J 1/16W	
R119			RK73GB1J222J	CHIP R 2.2K J 1/16W		R186			RK73GB1J100J	CHIP R 10 J 1/16W	C
R120			R92-1252-05	CHIP R 0 OHM		R186			R92-1252-05	CHIP R 0 OHM	C3
R121			RK73GB1J100J	CHIP R 10 J 1/16W		R187			RK73GB1J220J	CHIP R 22 J 1/16W	
R122			R92-1215-05	CHIP R 470 J 1/2W		R188			RK73GB1J102J	CHIP R 1.0K J 1/16W	
R123			RK73GB1J472J	CHIP R 4.7K J 1/16W		R189			RK73GB1J101J	CHIP R 100 J 1/16W	

PARTS LIST / 零件表

TX-RX UNIT (X57-596X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination	Ref. No.	Address	New parts	Parts No.	Description	Destination
R190			RK73GB1J473J	CHIP R 47K J 1/16W		R561			RK73GB1J333J	CHIP R 33K J 1/16W	
R192			RK73GB1J103J	CHIP R 10K J 1/16W		R562			R92-1252-05	CHIP R 0 OHM	
R193			RK73GB1J102J	CHIP R 1.0K J 1/16W		R563			RK73GB1J473J	CHIP R 47K J 1/16W	
R196			RK73GB1J332J	CHIP R 3.3K J 1/16W		R564			RK73GB1J223J	CHIP R 22K J 1/16W	
R197			R92-1252-05	CHIP R 0 OHM		R565			R92-1252-05	CHIP R 0 OHM	
R198			RK73GB1J104J	CHIP R 100K J 1/16W		R566			RK73GB1J563J	CHIP R 56K J 1/16W	
R199-202			R92-1252-05	CHIP R 0 OHM		R567			RK73GB1J334J	CHIP R 330K J 1/16W	
R207			R92-1252-05	CHIP R 0 OHM		R568			RK73GB1J473J	CHIP R 47K J 1/16W	
R208			R92-0670-05	CHIP R 0 OHM		R569			RK73GB1J102J	CHIP R 1.0K J 1/16W	
R210			R92-1252-05	CHIP R 0 OHM		R570			RK73GB1J155J	CHIP R 1.5M J 1/16W	
R219			R92-1252-05	CHIP R 0 OHM		R571			RN73GH1J682D	CHIP R 6.8K D 1/16W	
R221			R92-1252-05	CHIP R 0 OHM		R572			RK73GB1J473J	CHIP R 47K J 1/16W	
R501			RK73GB1J473J	CHIP R 47K J 1/16W		R573			RK73GB1J474J	CHIP R 470K J 1/16W	
R502			RK73GB1J472J	CHIP R 4.7K J 1/16W		R574			RN73GH1J683D	CHIP R 68K D 1/16W	
R503			RK73GB1J102J	CHIP R 1.0K J 1/16W		R575			RK73GB1J101J	CHIP R 100 J 1/16W	
R504-507			RK73GB1J473J	CHIP R 47K J 1/16W		R576			RK73GB1J224J	CHIP R 220K J 1/16W	
R508			RK73GB1J102J	CHIP R 1.0K J 1/16W		R577			RK73GB1J103J	CHIP R 10K J 1/16W	
R509,510			R92-1252-05	CHIP R 0 OHM		R578			RN73GH1J682D	CHIP R 6.8K D 1/16W	
R511			RK73GB1J473J	CHIP R 47K J 1/16W		R579			RK73GB1J223J	CHIP R 22K J 1/16W	
R512			RK73GB1J104J	CHIP R 100K J 1/16W		R580			R92-1252-05	CHIP R 0 OHM	
R513			RK73GB1J223J	CHIP R 22K J 1/16W		R581			RK73GB1J394J	CHIP R 390K J 1/16W	
R514			RK73GB1J473J	CHIP R 47K J 1/16W		R582			RK73GB1J273J	CHIP R 27K J 1/16W	
R515,516			RK73GB1J223J	CHIP R 22K J 1/16W		R583			RK73GB1J470J	CHIP R 47 J 1/16W	
R517			RK73GB1J473J	CHIP R 47K J 1/16W		R584			RK73GB1J220J	CHIP R 22 J 1/16W	
R518			RK73GB1J472J	CHIP R 4.7K J 1/16W		R585			R92-1252-05	CHIP R 0 OHM	
R519			RK73GB1J103J	CHIP R 10K J 1/16W		R586			RK73GB1J473J	CHIP R 47K J 1/16W	
R520-523			RK73GB1J102J	CHIP R 1.0K J 1/16W		R587			R92-1252-05	CHIP R 0 OHM	
R526			RK73GB1J154J	CHIP R 150K J 1/16W		R588			RK73GB1J103J	CHIP R 10K J 1/16W	
R527			R92-1252-05	CHIP R 0 OHM		R590			RK73GB1J333J	CHIP R 33K J 1/16W	
R528			RK73GB1J472J	CHIP R 4.7K J 1/16W		R591			R92-1252-05	CHIP R 0 OHM	
R529			RK73GB1J154J	CHIP R 150K J 1/16W		R592			RK73GB1J103J	CHIP R 10K J 1/16W	
R530			RK73GB1J473J	CHIP R 47K J 1/16W		R593			RK73GB1J181J	CHIP R 180 J 1/16W	
R531			RK73GB1J394J	CHIP R 390K J 1/16W		R594			RK73GB1J392J	CHIP R 3.9K J 1/16W	
R532			RK73GB1J103J	CHIP R 10K J 1/16W		R595			RK73GB1J181J	CHIP R 180 J 1/16W	
R533			RK73GB1J104J	CHIP R 100K J 1/16W		R598			RK73GB1J473J	CHIP R 47K J 1/16W	
R534			RK73GB1J823J	CHIP R 82K J 1/16W		R599			RK73GB1J102J	CHIP R 1.0K J 1/16W	
R535			RK73GB1J103J	CHIP R 10K J 1/16W		R600			R92-1252-05	CHIP R 0 OHM	
R536			RK73GB1J153J	CHIP R 15K J 1/16W		R602			RK73GB1J473J	CHIP R 47K J 1/16W	
R537			RK73GB1J105J	CHIP R 1.0M J 1/16W		R603			RK73GB1J101J	CHIP R 100 J 1/16W	
R538			RK73GB1J103J	CHIP R 10K J 1/16W		R604			RK73GB1J472J	CHIP R 4.7K J 1/16W	
R539			R92-1252-05	CHIP R 0 OHM		R605			RK73GB1J332J	CHIP R 3.3K J 1/16W	
R540			RK73GB1J223J	CHIP R 22K J 1/16W		R606			RK73GB1J102J	CHIP R 1.0K J 1/16W	
R541			RK73GB1J184J	CHIP R 180K J 1/16W		R607			RK73GB1J101J	CHIP R 100 J 1/16W	
R542			RK73GB1J102J	CHIP R 1.0K J 1/16W		R608			RK73GB1J122J	CHIP R 1.2K J 1/16W	
R543			RK73GB1J184J	CHIP R 180K J 1/16W		R610,611			RK73GB1J473J	CHIP R 47K J 1/16W	
R544			RK73GB1J103J	CHIP R 10K J 1/16W		R612			R92-1201-05	CHIP R 220 J 1/2W	
R545			RK73GB1J472J	CHIP R 4.7K J 1/16W		R613			RK73GB1J103J	CHIP R 10K J 1/16W	
R546			RN73GH1J913D	CHIP R 91K D 1/16W		R614,615			R92-1252-05	CHIP R 0 OHM	
R547			RK73GB1J103J	CHIP R 10K J 1/16W		R616			RK73GB1J474J	CHIP R 470K J 1/16W	
R548			RN73GH1J333D	CHIP R 33K D 1/16W		R617			RK73GB1J472J	CHIP R 4.7K J 1/16W	
R549			RN73GH1J913D	CHIP R 91K D 1/16W		R618			RK73GB1J683J	CHIP R 68K J 1/16W	
R550			RN73GH1J683D	CHIP R 68K D 1/16W		R619			RK73GB1J104J	CHIP R 100K J 1/16W	
R551,552			RK73GB1J223J	CHIP R 22K J 1/16W		R620,621			RK73GB1J103J	CHIP R 10K J 1/16W	
R553			RK73GB1J105J	CHIP R 1.0M J 1/16W		R622			RK73GB1J473J	CHIP R 47K J 1/16W	
R554			RN73GH1J913D	CHIP R 91K D 1/16W		R630			R92-1252-05	CHIP R 0 OHM	
R555,556			RK73GB1J104J	CHIP R 100K J 1/16W		R701			RK73GB1J473J	CHIP R 47K J 1/16W	
R557			RN73GH1J274D	CHIP R 270K D 1/16W		R704			RK73GB1J223J	CHIP R 22K J 1/16W	
R558			R92-1252-05	CHIP R 0 OHM		R720			R92-1252-05	CHIP R 0 OHM	
R559			RK73GB1J333J	CHIP R 33K J 1/16W		R722			R92-1252-05	CHIP R 0 OHM	
R560			RK73GB1J474J	CHIP R 470K J 1/16W							

PARTS LIST / 零件表

TX-RX UNIT (X57-596X-XX)
PLL/VCO (X58-4670-XX)

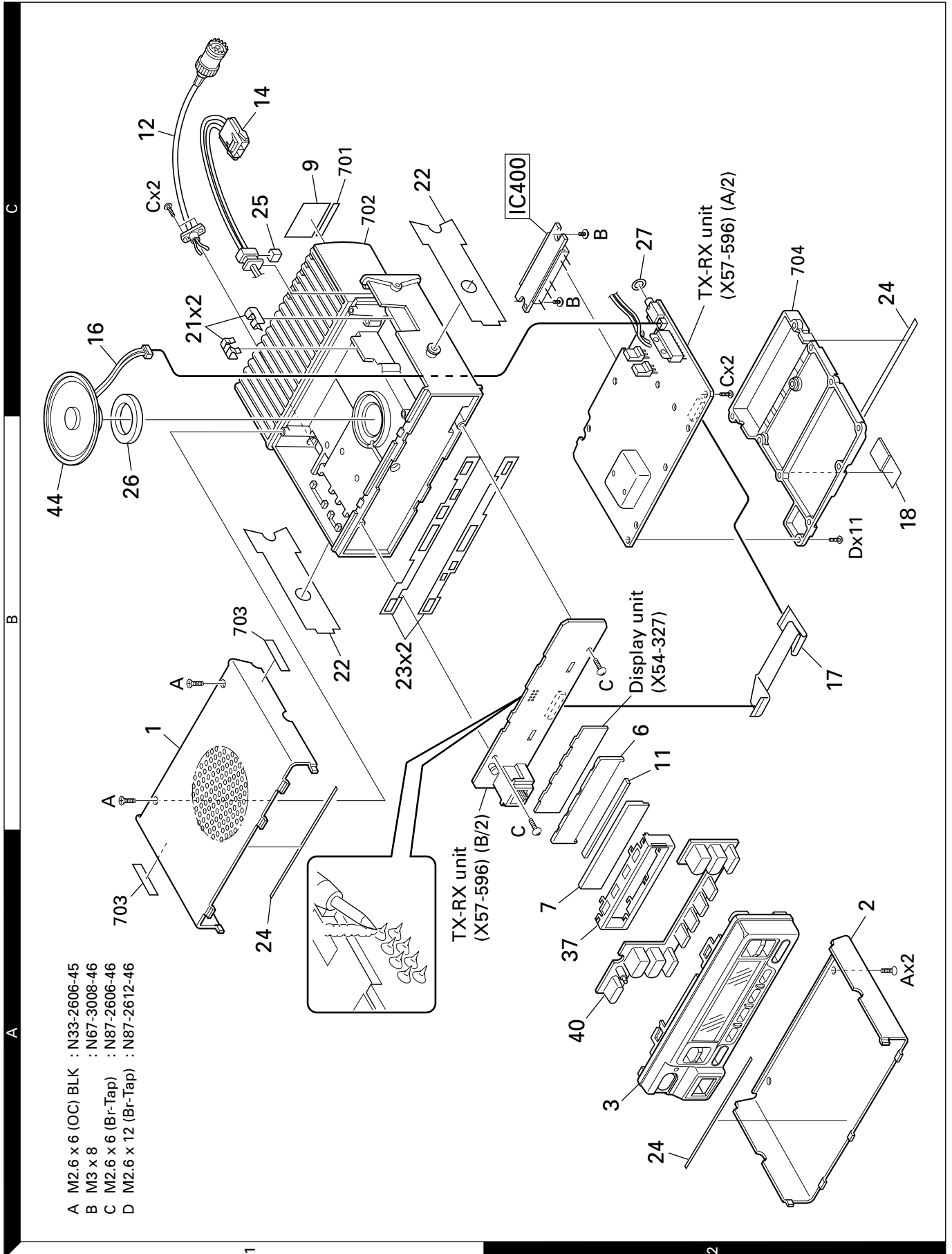
Ref. No.	Address	New parts	Parts No.	Description	Desti-nation	Ref. No.	Address	New parts	Parts No.	Description	Desti-nation
D1			HSB123	DIODE		IC509			BU4066BCFV	IC (ANALOG SWITCH X4)	
D2			02DZ20(Y,Z)	ZENER DIODE		IC510			BU4094BCFV	IC (8BIT SHIFT/STORE REGISTER)	
D3 -5			HSB123	DIODE		IC511			LC73872M	IC (DTMF RECEIVER)	
D8			DAN235K	DIODE		IC512			NJM78L05UA	IC (VOLTAGE REGULATOR)	
D9			1SS355	DIODE		IC513			TA75W558FU	IC (OP AMP X2)	
D10			DAN235K	DIODE		IC514			TC75W51FU	IC (OP AMP X2)	
D11			MA742	DIODE		Q1			DTD114EK	DIGITAL TRANSISTOR	
D14			1SS355	DIODE		Q2			KRA225S	DIGITAL TRANSISTOR	
D15			DAN202K	DIODE		Q3			DTA114EKA	DIGITAL TRANSISTOR	
D16			DAN235K	DIODE	C3	Q4 -6			DTC114EKA	DIGITAL TRANSISTOR	
D16			HVC131	DIODE	C	Q7			2SC4649(N,P)	TRANSISTOR	
D17			HSB123	DIODE		Q8			2SC2412K	TRANSISTOR	
D18			1SV280	VARIABLE CAPACITANCE DIODE		Q9			2SC4215(Y)	TRANSISTOR	
D19 ,20			1SS355	DIODE		Q10			2SC2412K	TRANSISTOR	
D21			02DZ18(X,Y)	ZENER DIODE		Q11			2SA1832(GR)	TRANSISTOR	
D23			1SV280	VARIABLE CAPACITANCE DIODE		Q12			2SC4738(GR)	TRANSISTOR	
D24			02DZ15(X,Y)	ZENER DIODE		Q13			2SC4649(N,P)	TRANSISTOR	
D25			22ZR-10D	SURGE ABSORBER		Q14			2SC5110(O)	TRANSISTOR	
D26			DSA3A1-FK	DIODE		Q15			3SK228	FET	
D27			1SS355	DIODE		Q16			DTC114EKA	DIGITAL TRANSISTOR	
D28			1SV280	VARIABLE CAPACITANCE DIODE		Q17			DTC363EU	DIGITAL TRANSISTOR	
D30			MA4PH633	DIODE		Q18			2SA1745(6,7)	TRANSISTOR	
D31			1SV280	VARIABLE CAPACITANCE DIODE		Q19			DTC114EKA	DIGITAL TRANSISTOR	
D33 ,34			XB15A709	DIODE		Q20			DTA114EKA	DIGITAL TRANSISTOR	
D35 ,36			MA742	DIODE		Q21			DTC114EKA	DIGITAL TRANSISTOR	
D37			MA4PH633	DIODE		Q22			2SC4093	TRANSISTOR	
D39			UD24.7(B)	ZENER DIODE		Q23			2SA1641(S,T)	TRANSISTOR	
D40			MA742	DIODE		Q24			DTA114EKA	DIGITAL TRANSISTOR	
D41			1SS355	DIODE		Q25			2SC3357	TRANSISTOR	
D42			HZU5ALL	DIODE		Q26			DTA114EKA	DIGITAL TRANSISTOR	
D54			HVC131	DIODE	C	Q27			2SC2954	TRANSISTOR	
D501-504			MA2S111	DIODE		Q28			2SB1132(Q,R)	TRANSISTOR	
D506			MA2S111	DIODE		Q29			DTC114EKA	DIGITAL TRANSISTOR	
D508			MA742	DIODE		Q31			2SC2412K	TRANSISTOR	
D523			DAN202U	DIODE		Q32			2SB1565(E,F)	TRANSISTOR	
D524,525			HSB123	DIODE		Q33			DTC114EKA	DIGITAL TRANSISTOR	
D526			1812L075PR	VARIATOR		Q34			3SK228	FET	
D527,528			HSB123	DIODE		Q35			DTC144EKA	DIGITAL TRANSISTOR	
D529			MA742	DIODE		Q36			2SC2412K	TRANSISTOR	
IC1 ,2			TA75S01F	IC (OP AMP)		Q37 ,38			2SK1824	FET	
IC3			MB15A02	IC (PLL)		Q501			2SC4619	TRANSISTOR	
IC4			NJM4558M	IC (OP AMP X2)		Q502,503			DTC114EE	DIGITAL TRANSISTOR	
IC5			TA31136FN	IC (FM IF DETECTOR)		Q504			2SC4617(S)	TRANSISTOR	
IC6			M62363FP	IC (8BIT D/A CONVERTER)		Q505			2SB1132(Q,R)	TRANSISTOR	
IC7			NJM2904M	IC (OP AMP X2)		Q506			DTC114EE	DIGITAL TRANSISTOR	
IC9			BU4094BCF	IC (8-STAGE SHIFT/STORE REGISTER)		Q508			2SC4617(S)	TRANSISTOR	
IC10			NJM78L05UA	IC (VOLTAGE REGULATOR/ +5V)		Q509			DTC363EU	DIGITAL TRANSISTOR	
IC11			AN8009M	IC (REGULATOR)		TH1			157-153-65001	THERMISTOR	
IC12			TA7808S	IC (REGULATOR)		PLL/VCO (X58-4670-XX) -12 : C -14 : C3					
IC13			LA4422	IC (AF POWER AMP/ 5.8W)		C102			CK73GB1H471K	CHIP C 470PF K	
IC14			TC4013BF(N)	IC (MEMORY)		C104			CC73GCH1H060D	CHIP C 6.0PF D	C
IC15			TA75S01F	IC (OP AMP)		C104			CC73GCH1H080D	CHIP C 8.0PF D	C3
IC400	2C		M68769H-22	IC (POWER MODULE)	C	C105			CC73GCH1H070D	CHIP C 7.0PF D	
IC400	2C		M68769L	IC (POWER MODULE)	C3	C107			CC73GCH1H030B	CHIP C 3.0PF B	C
IC501			AT29C020-90TI	IC (FLASH ROM)		C107			CC73GCH1H040B	CHIP C 4.0PF B	C3
IC502			30622M4102GP	CPU		C108			CC73GCH1HR75B	CHIP C 0.75PF B	
IC503			RH5VL42C	IC (REGULATOR)		C110			CC73GCH1H040B	CHIP C 4.0PF B	C3
IC505			AT2408N10SI2.5	IC (8KBIT SERIAL EEPROM)							
IC507			NJM2904V	IC (APC)							
IC508			TC35453F	IC (AUDIO PROCESSOR)							

PARTS LIST / 零件表

PLL/VCO (X58-4670-XX)

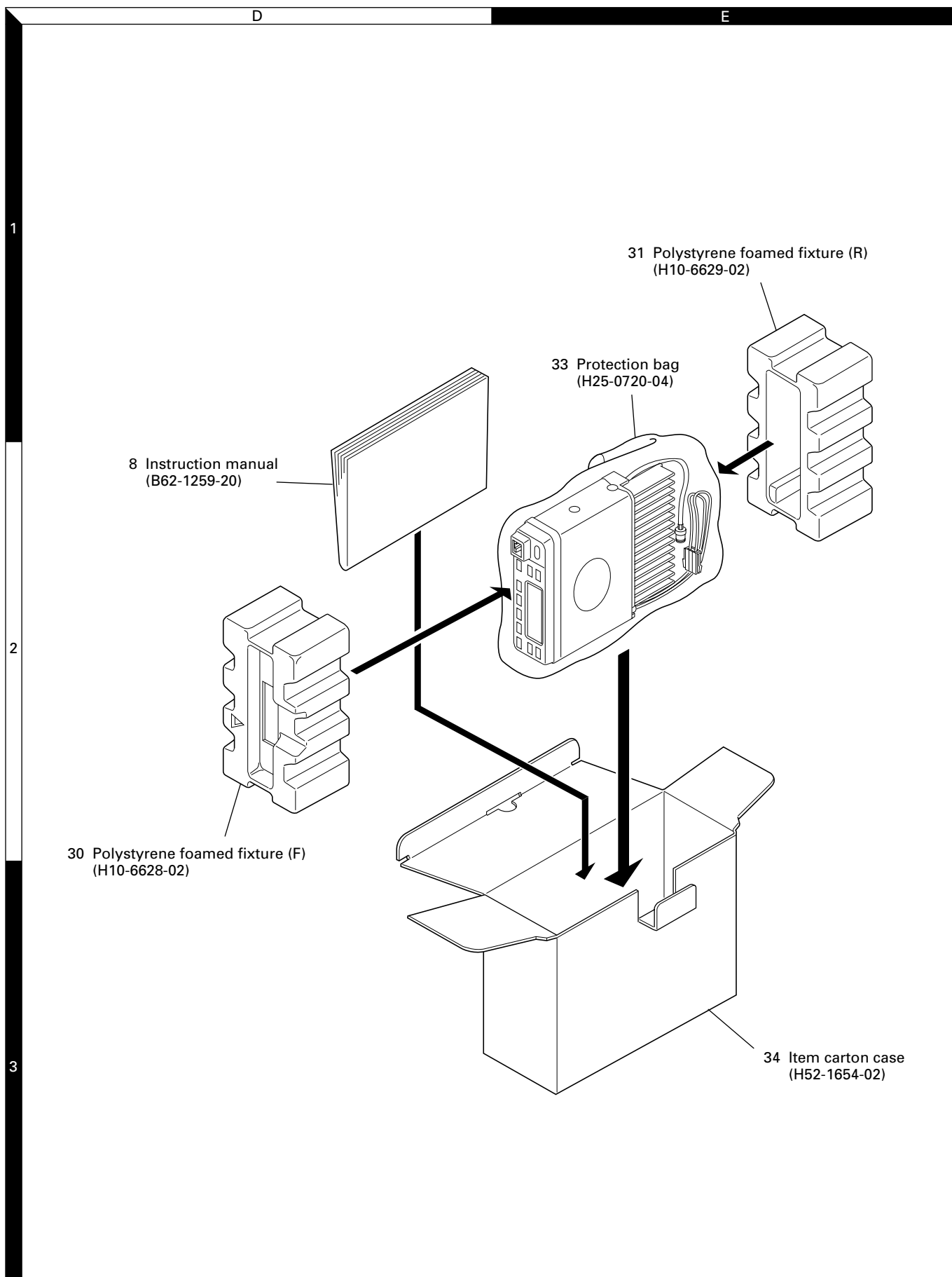
Ref. No.	Address	New parts	Parts No.	Description	Destination	Ref. No.	Address	New parts	Parts No.	Description	Destination
C110			CC73GCH1H060D	CHIP C 6.0PF D	C						
C111			CC73GCH1H050B	CHIP C 5.0PF B							
C112			CC73GCH1H1R5B	CHIP C 1.5PF B							
C113			CC73GCH1H010B	CHIP C 1.0PF B	C						
C113			CC73GCH1H020B	CHIP C 2.0PF B	C3						
C114			CC73GCH1H040B	CHIP C 4.0PF B	C						
C114			CC73GCH1H050B	CHIP C 5.0PF B	C3						
C115			CC73GCH1H060D	CHIP C 6.0PF D	C						
C115			CC73GCH1H070D	CHIP C 7.0PF D	C3						
C116			CC73GCH1H050B	CHIP C 5.0PF B	C						
C116			CC73GCH1H060D	CHIP C 6.0PF D	C3						
C117			CK73GB1H471K	CHIP C 470PF K							
C118			CC73GCH1H050B	CHIP C 5.0PF B							
C119,120			CK73GB1H471K	CHIP C 470PF K							
C121			CC73GCH1H050B	CHIP C 5.0PF B							
C122			CC73GCH1H0R5B	CHIP C 0.5PF B							
C123			CK73GB1H471K	CHIP C 470PF K							
C124			CC73GCH1H0R5B	CHIP C 0.5PF B							
C125			CK73GB1H102K	CHIP C 1000PF K							
C126			CK73GB1H471K	CHIP C 470PF K							
C127			CC73GCH1H050B	CHIP C 5.0PF B							
TC106			C05-0384-05	CERAMIC TRIMMER CAP (10PF)							
TC109			C05-0384-05	CERAMIC TRIMMER CAP (10P)							
CN101			E40-6019-05	PIN ASSY							
-			F10-2279-04	SHIELDING CASE							
L101-104			L40-1595-34	SMALL FIXED INDUCTOR (1.5UH)							
L105			L40-3975-34	SMALL FIXED INDUCTOR (39NH)							
L106			L40-2775-34	SMALL FIXED INDUCTOR (27NH)							
L107,108			L40-1098-76	SMALL FIXED INDUCTOR (1UH)							
L109,110			L40-1595-34	SMALL FIXED INDUCTOR (1.5UH)							
L112			L34-4548-05	AIR-CORE COIL	C						
L112			L34-4549-05	AIR-CORE COIL	C3						
L115			L34-4547-05	AIR-CORE COIL	C						
L116			L34-4548-05	AIR-CORE COIL	C3						
R101,102			RK73GB1J101J	CHIP R 100 J 1/16W							
R103			RK73GB1J102J	CHIP R 1.0K J 1/16W							
R104			RK73GB1J101J	CHIP R 100 J 1/16W							
R105			RK73GB1J154J	CHIP R 150K J 1/16W							
R106			RK73GB1J470J	CHIP R 47 J 1/16W							
R107-110			RK73GB1J103J	CHIP R 10K J 1/16W							
R111			RK73GB1J331J	CHIP R 330 J 1/16W							
R112			RK73GB1J181J	CHIP R 180 J 1/16W	C3						
R112,113			RK73GB1J221J	CHIP R 220 J 1/16W	C						
R113			RK73GB1J221J	CHIP R 220 J 1/16W	C3						
R114			RK73GB1J470J	CHIP R 47 J 1/16W							
R115			RK73GB1J103J	CHIP R 10K J 1/16W							
R116			RK73GB1J392J	CHIP R 3.9K J 1/16W							
R117			RK73GB1J101J	CHIP R 100 J 1/16W							
D101-104			1SV283	VARIABLE CAPACITANCE DIODE							
D105			1SV214	VARIABLE CAPACITANCE DIODE							
Q101			2SK508NV(K52)	FET							
Q102			DTC114EUA	DIGITAL TRANSISTOR							
Q103			2SK508NV(K52)	FET							
Q104,105			2SC4081	TRANSISTOR							
Q106			2SC4226(R24)	TRANSISTOR							

EXPLODED VIEW / 部件分解图



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

PACKING / 包装



ADJUSTMENT / 调整

Test Mode

■ Test Mode Operating Features

This transceiver has a test mode. **To enter test mode, press [SCN] key and turn power on. Hold [SCN] key until test channel No. and test signalling No. appears on LCD.** Test mode can be inhibited by programming. To exit test mode, switch the power on again. The following functions are available in test mode.

● Controls

[PTT]	Used when making a transmission.
[MON]	Monitor on and off.
[SCN]	Sets to the tuning mode.
[A]	Function on.
[D/A]	RF power high and low.
[▼]	Changes signalling.
[▲]	Changes wide and narrow
[CH▲/▼]	Changes channel.
[Volume▲/▼]	Volume up/down.

● LCD indicator

"SCN"	Unused.
"AUX"	Lights at RF power low.
"MON"	Lights at monitor on.
"Right side dot"	Lights at narrow.

● LED indicator

Red LED	Lights during transmission.
Green LED	Lights when there is a carrier.

■ Frequency and Signalling

The set has been adjusted for the frequencies shown in the following table. When required, re-adjust them following the adjustment procedure to obtain the frequencies you want in actual operation.

● Frequency (MHz)

Channel No.	TK-868HG C		TK-868HG C3	
	RX	TX	RX	TX
1	470.050	470.100	415.050	415.100
2	450.050	450.100	400.050	400.100
3	489.950	489.900	429.950	429.900
4	470.000	470.000	415.000	415.000
5	470.200	470.200	415.200	415.200
6	470.400	470.400	415.400	415.400
7~16	-	-	-	-

测试模式

■ 测试模式操作功能

本车台具有测试模式。要进入测试模式，按下[SCN]键并接通电源。按住[SCN]键直到测试信道

号码和测试信令号码出现在LCD上为止。测试模式可以通过编程被禁止。要退出测试模式，再一次开启电源。下述功能在测试模式中有效。

● 控制

[PTT]	进行发射时使用。
[MON]	监听开启和关闭。
[SCN]	设定到调整模式。
[A]	开启功能。
[D/A]	射频高和低功率。
[▼]	改变信令。
[▲]	改变宽带和窄带。
[信道▲/▼]	改变信道。
[音量▲/▼]	音量高/低。

● LCD指示器

"SNC"	不使用。
"AUX"	低发射功率时显示。
"MON"	开启监视器时显示。
"右边的句点"	窄时燃亮。

● LED指示器

红色LED	发射过程中发光。
绿色LED	有载波时发光。

■ 频率和信令

为下表所列的频率调整设定。需要时，按照调整步骤重新调整以获得用户在实际操作中想要的频率。

● 频率(MHz)

信道号码	TK-868HG C		TK-868HG C3	
	接收频率	发射频率	接收频率	发射频率
1	470.050	470.100	415.050	415.100
2	450.050	450.100	400.050	400.100
3	489.950	489.900	429.950	429.900
4	470.000	470.000	415.000	415.000
5	470.200	470.200	415.200	415.200
6	470.400	470.400	415.400	415.400
7-16	-	-	-	-

ADJUSTMENT / 调整

● Signalling

Signalling No.	RX	TX
1	None	None
2	None	100Hz square
3	QT 67.0Hz	QT 67.0Hz
4	QT 151.4Hz	QT 151.4Hz
5	QT 210.7Hz	QT 210.7Hz
6	QT 250.3Hz	QT 250.3Hz
7	DQT D023N	DQT D023N
8	DQT D754I	DQT D754I
9	DTMF DEC, (159D)	DTMF ENC, (159D)
10	None	DTMF tone (9)
11	2-tone 321.7/928.1Hz	None
12	Single tone 1200Hz	Single tone 1200Hz

■ Preparations for tuning the transceiver

Before attempting to tune the transceiver, connect the unit to a suitable power supply.

Whenever the transmitter is turned, the unit must be connected to a suitable dummy load (i.e. power meter).

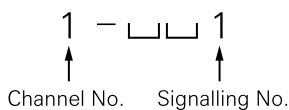
The speaker output connector must be terminated with a 4Ω dummy load and connected to an AC voltmeter and an audio distortion meter or a SINAD measurement meter at all times during tuning.

■ Transceiver tuning

(To place transceiver in tuning mode)

Channel appears on LCD. Set channel according to tuning requirements.

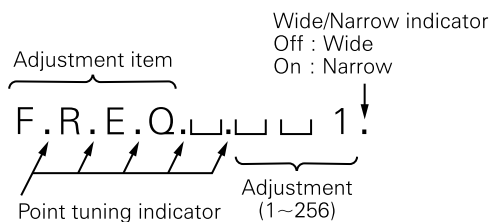
LCD display (Test mode)



Press [SCN], now in tuning mode. Use [D/A] button to write tuning data through tuning modes, and [CH▲/▼] to adjust tuning requirements (1 to 256 appears on LCD).

Use [▼] button to select the adjustment item through tuning modes. Use [A] button to adjust 3-point or 5-point tuning, and use [▲] button to switch between wide/narrow.

LCD display (Tuning mode)



● 信令

信令号码	接收	发射
1	无	无
2	无	100Hz方波
3	QT67.0Hz	QT67.0Hz
4	QT151.4Hz	QT151.4Hz
5	QT210.7Hz	QT210.7Hz
6	QT250.3Hz	QT250.3Hz
7	DQT D023N	DQT D023N
8	DQT D754I	DQT D754I
9	DTMF DEC, (159D)	DTMF ENC, (159D)
10	无	DTMF 音频9
11	双音信令321.7/928.1Hz	无
12	单音信令1200Hz	单音信令1200Hz

■ 调整车台机的准备

在进行调整车台机之前，将主机与电源连接。

无论何时调整发射部分，主机必须连接到合适的假负载（或功率仪）。

在整个调整过程中，扬声器输出必须经过4Ω假负载并被连接到一个交流电压表和一个音频失真测试仪或一个SINAD测量仪。

■ 车台调整

(将车台置于调整模式)

信道显示在LCD上。按照调整所需设定信道。

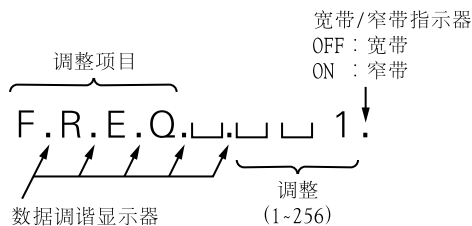
LCD显示(测试模式)



按[SCN]键进入调谐模式。使用[数/模]按键通过调谐模式写入调谐数据，并使用[CH▲/▼]键调整调谐要求(1到256出现在LCD上)。

使用[▼]按键通过调谐模式选择调整项。使用[A]键调整3点或5点调谐，并使用[▲]键转换宽/窄。

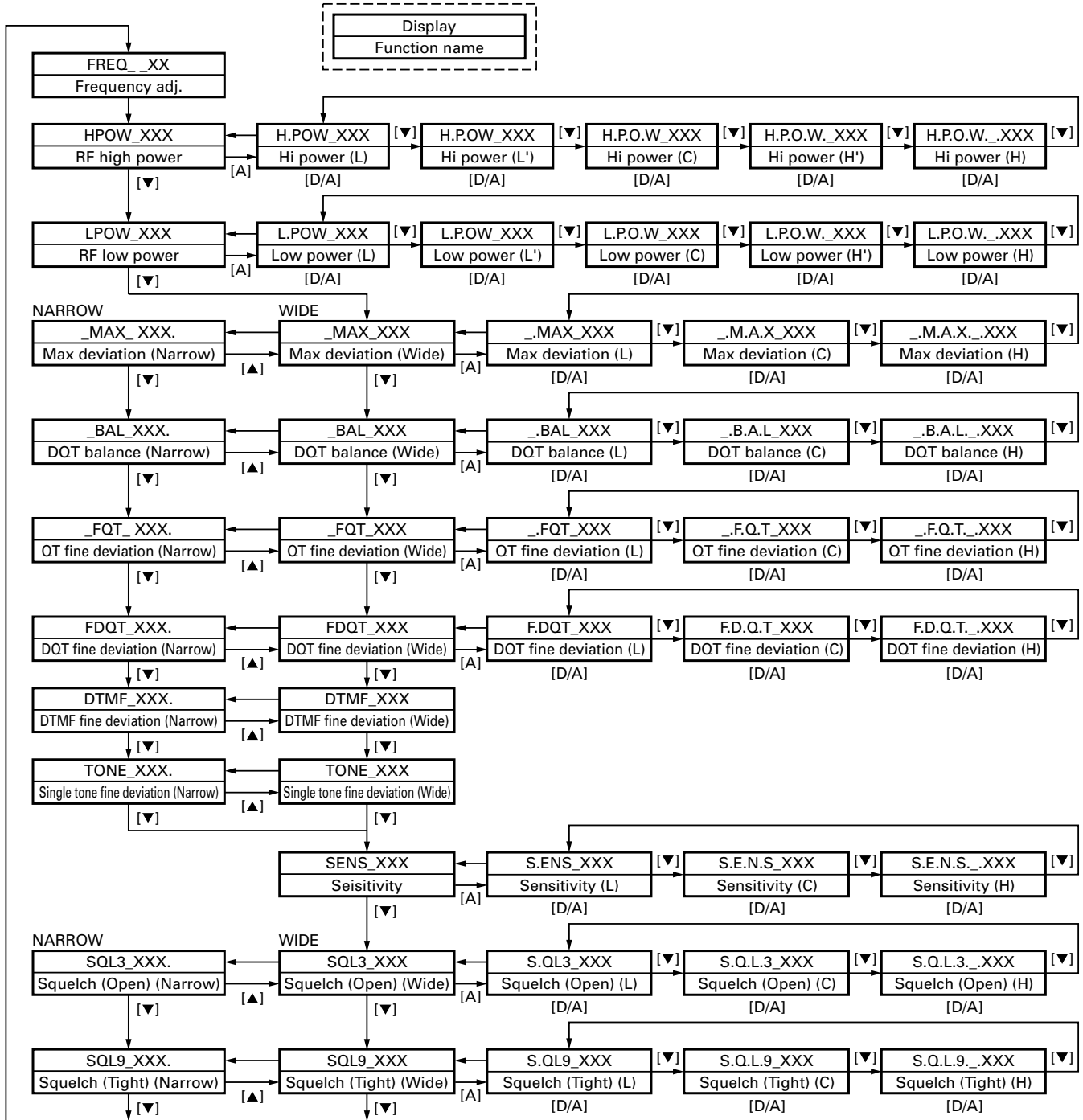
LCD显示(调谐模式)



ADJUSTMENT / 调整

■ Tuning Mode

■ 调谐模式



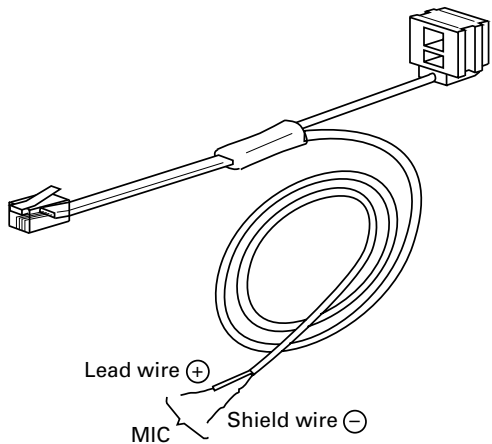
ADJUSTMENT

Test Equipment Required for Alignment

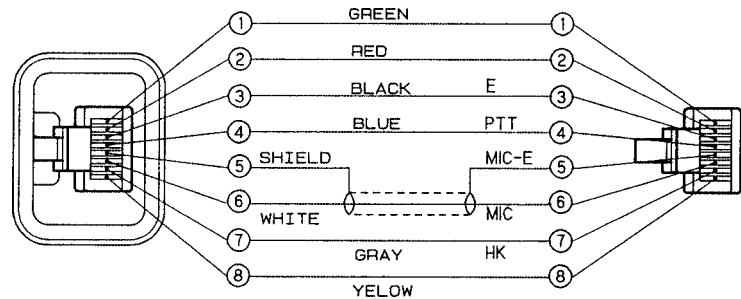
Test Equipment	Major Specifications	
1. Standard Signal Generator (SSG)	Frequency Range Modulation Output	400 to 520MHz Frequency modulation and external modulation -127dBm/0.1μV to greater than -7dBm/100mV
2. Power Meter	Input Impedance Operation Frequency Measurement Capability	50Ω 400 to 520MHz or more Vicinity of 100W
3. Deviation Meter	Frequency Range	400 to 520MHz
4. Digital Volt Meter (DVM)	Measuring Range Accuracy	1 to 20V DC High input impedance for minimum circuit loading
5. Oscilloscope		DC through 30MHz
6. High Sensitivity Frequency Counter	Frequency Range Frequency Stability	10Hz to 1000MHz 0.2ppm or less
7. Ammeter		20A
8. AF Volt Meter (AF VTVM)	Frequency Range Voltage Range	50Hz to 10kHz 1mV to 3V
9. Audio Generator (AG)	Frequency Range Output	20Hz to 20kHz or more 0 to 1V
10. Distortion Meter	Capability Input Level	3% or less at 1kHz 50mV to 10Vrms
11. 4Ω Dummy Load		Approx. 4Ω, 10W or more
12. Regulated Power Supply		13.6V, approx. 20A (adjustable from 9 to 17V) Useful if ammeter required

Tuning cable (E30-3383-05)

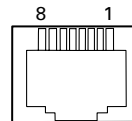
Adapter cable (E30-3383-05) is required for injecting an audio if PC tuning is used.



Test cable for microphone input (E30-3360-08)



MIC connector (Front view)



- 1 : BLC
- 2 : PSB
- 3 : E
- 4 : PTT
- 5 : ME
- 6 : MIC
- 7 : HOOK
- 8 : CM

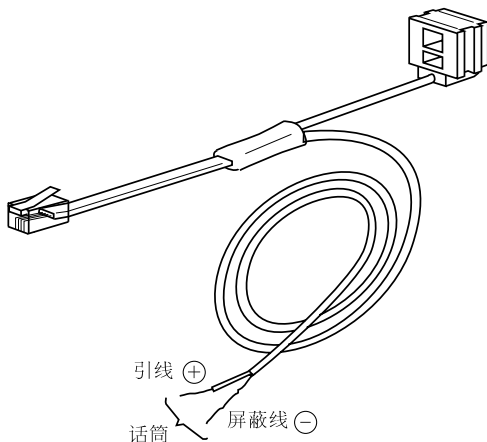
调 整

所需的用于调整的测试设备

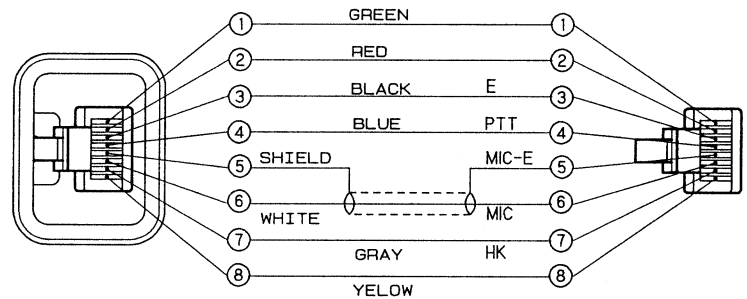
测试设备	主要特性	
1. 标准信号发生器 (SSG)	频率范围 调制 输出	400到520MHz 调频和外部调制 -127dBm/0.1 μ V到大于-7dBm/100mV
2. 功率计	输入阻抗 工作频率 测量范围	50 Ω 400到520MHz或更高 100W左右
3. 频偏仪	频率范围	400到520MHz
4. 数字电压表 (DVM)	测量范围 输入阻抗	直流1V到20V 最小电路负载时为高输入阻抗
5. 示波器		直流到30MHz
6. 高灵敏度频率计数器	频率范围 频率稳定性	10Hz到1000MHz 0.2ppm或更低
7. 电流表		20A
8. 音频电压表 (AF VTVM)	频率范围 电压范围	50Hz到10kHz 1mV到3V
9. 音频发生器 (AG)	频率范围 输出	20Hz到20kHz或更高 0到1V
10. 失真测试仪	测量能力 输入电平	在1kHz时3%或更低 50mV到10Vrms
11. 4 Ω 假负载		大约4 Ω , 10W或更高
12. 可调电源		13.6V, 大约20A 最好具备电流表

调谐电缆 (E30-3383-05)

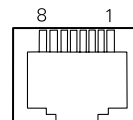
如果使用计算机调谐, 接头电缆 (E30-3383-05) 将用于接入音频信号。



用于麦克风输入的测试电缆 (E30-3360-08)



麦克风连接器 (前视)





- 1 : BLC
- 2 : PSB
- 3 : E
- 4 : PTT
- 5 : ME
- 6 : MIC
- 7 : HOOK
- 8 : CM

ADJUSTMENT

Common Section

Item	Condition	Measurement			Adjustment			Specifications/Remarks	
		Test-equipment	Unit	Terminal	Unit	Parts	Method		
1. PLL lock voltage	RX 1) Set test mode CH : CH3 - Sig1 AUX : ON	DVM Power meter F. conter	TX-RX (A/2)	CV	PLL	TC106	7.5V	±0.1V	
						TC109	7.5V		
	RX 2) PTT : ON (Transmit)						Check		0.9V or more
	TX 3) CH : CH2 - Sig1 AUX : ON								0.9V or more

Receiver Section

Item	Condition	Measurement			Adjustment			Specifications/Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
1. Discriminator • Wide	1) Set test mode CH : CH1 - Sig1 SSG freq' : 470.050MHz C : 415.050MHz C3 SSG output : -53dBm/501μV SSG MOD : 3kHz AF : 1.4V/4Ω	SSG AF VTVM Oscilloscope	Rear panel	ANT ACC (EXT.SP)	TX-RX (A/2)	L5	AF output maximum.	
2. Sensitivity • Wide	1) Set test mode Select "SENS" in tuning mode. "S.E.N.S._" Adjust [250] SSG freq' : 489.950MHz C : 429.950MHz C3 SSG output : -116dBm/0.35μV SSG MOD : 3kHz AF output : 1V/4Ω	SSG AF VTVM Distortion meter Oscilloscope AG	Rear panel	ANT ACC (EXT.SP)	TX-RX (A/2)	L13 L22	RSSI voltage maximum.	
	2) "S.ENS" Adjust [***] SSG freq' : 450.050MHz C : 400.050MHz C3	DVM	TX-RX (A/2)	RSSI	Front panel	CH 		
	3) "S.E.N.S." Adjust [***] SSG freq' : 470.050MHz C : 415.050MHz C3							
3. Squelch 3 • Wide	1) Set test mode Select "SQL3" in tuning mode. "S.QL3" Adjust [***] SSG freq' : 450.050MHz C : 400.050MHz C3 SSG output : -125dBm/0.12μV SSG MOD : 3kHz (Wide) 1.5kHz (Narrow)				Front panel	CH 	Adjust to the squelch threshold point.	

调 整

公用部分

项 目	条 件	测 量			调 整			规 格 / 备 注		
		测量装置	单元	端子	单元	部件	方 法			
1. PLL锁定 电压 接收	1) [测试模式] CH: CH3-Sig1 AUX: 开启	DVM 功率计 频率计	TX-RX (A/2)	CV	PLL	TC106	7.5V	±0.1V		
						TC109	7.5V			
	发射				2) PTT: 开启(发射)				检查	0.9V或更高
	接收				3) CH: CH2-Sig1 AUX: 开启					0.9V或更高
发射	4) PTT: 开启(发射)						0.9V或更高			

接收部分

项 目	条 件	测 量			调 整			规 格 / 备 注	
		测量装置	单元	端子	单元	部件	方 法		
1. 鉴频器 ●宽	1) [测试模式] CH: CH1-Sig1 标准信号发生器输出 : -53dBm/501 μV 标准信号发生器频率 : 470.050MHz C : 415.050MHz C3 标准信号发生器调制: 3kHz AF: 1.4V/4 Ω	SSG AF VTVM 示波器	背面板	ANT ACC (EXT. SP)	TX-RX (A/2)	L5	最大音频输出		
2. 灵敏度 ●宽	1) [测试模式] 在调谐模式中选择“SENS” “S. E. N. S.” 调整[250] 标准信号发生器频率 : 489.950MHz C : 429.950MHz C3 标准信号发生器输出 : -116dBm/0.35 μV 标准信号发生器调制: 3kHz AF: 1V/4 Ω	SSG AF VTVM 失真测试仪 示波器 AG DVM	背面板	ANT ACC (EXT. SP) RSSI	TX-RX (A/2)	L13 L22	最大RSSI电压		
	2) “S. ENS” 调整[***] 标准信号发生器频率 : 450.050MHz C : 400.050MHz C3					前面板			CH^/~/
	3) “S. E. N. S” 调整[***] 标准信号发生器频率 : 470.050MHz C : 415.050MHz C3								
3. 静噪3 ●宽	1) [测试模式] 在调谐模式中选择“SQL3” “S. QL3” 调整[***] 标准信号发生器频率 : 450.050MHz C : 400.050MHz C3 标准信号发生器输出 : -125dBm/0.12 μV 标准信号发生器调制 : 3kHz(宽) : 1.5kHz(窄)				前面板	CH^/~/	调整到噪音抑制 电路临界点		

ADJUSTMENT

Item	Condition	Measurement			Adjustment			Specifications/Remarks		
		Test-equipment	Unit	Terminal	Unit	Parts	Method			
<ul style="list-style-type: none"> 2) "S.Q.L.3" Adjust [***] SSG freq' : 470.050MHz C : 415.050MHz C3 	<ul style="list-style-type: none"> 3) "S.Q.L.3_." Adjust [***] SSG freq' : 489.950MHz C : 429.950MHz C3 	SSG	Rear panel	ANT	Front panel	CH	Adjust to the squelch threshold point.			
								<ul style="list-style-type: none"> 4) "SQL3***." Adjust [***] SSG freq' : 470.050MHz C : 415.050MHz C3 	AF VTVM Distortion meter	ACC (EXT.SP)
								<ul style="list-style-type: none"> 4. Squelch 9 • Wide 	<ul style="list-style-type: none"> 1) Set test mode Select "SQL9" in tuning mode. "S.QL9" Adjust [***] SSG freq' : 450.050MHz C : 400.050MHz C3 SSG output : -115dBm/0.4μV SSG MOD : 3kHz (Wide) 1.5kHz (Narrow) 	
<ul style="list-style-type: none"> • Narrow 	<ul style="list-style-type: none"> 2) "S.Q.L.9" Adjust [***] SSG freq' : 470.050MHz C : 415.050MHz C3 									
		<ul style="list-style-type: none"> • Wide 	<ul style="list-style-type: none"> 3) "S.Q.L.9_." Adjust [***] SSG freq' : 489.950MHz C : 429.950MHz C3 							
<ul style="list-style-type: none"> • Narrow 	<ul style="list-style-type: none"> 4) "SQL9***." Adjust [***] SSG freq' : 470.050MHz C : 415.050MHz C3 									
		<ul style="list-style-type: none"> 5. Squelch check 	<ul style="list-style-type: none"> 1) Set test mode CH : CH1 - Sig1~CH3 - Sig1 SSG output : -116dBm/0.35μV 					Check	Squelch must be opened. (Wide/Narrow)	
<ul style="list-style-type: none"> 2) SSG output : OFF 	Squelch must be closed. (Wide/Narrow)									
<ul style="list-style-type: none"> 6. QT check 	<ul style="list-style-type: none"> 1) Set test mode CH : CH1 - Sig4 SSG MOD INT : 3kHz (Wide) 1.5kHz (Narrow) EXT : 151.4Hz SSG system MOD DEV : ±3.75kHz (Wide) ±1.85kHz (Narrow) SSG output : 10dB SINAD level 									
									<ul style="list-style-type: none"> 2) CH : CH1 - Sig3 CH1 - Sig5 CH1 - Sig6 	Check

调 整

项 目	条 件	测 量			调 整			规 格 / 备 注
		测量装置	单元	端子	单元	部件	方 法	
	2) "S. Q. L. 3" 调整[***] 标准信号发生器频率 : 470.050MHz C : 415.050MHz C3	SSG AF VTVM 失真测试仪 示波器 AG	背面板	ANT ACC (EXT. SP)	前面板	CH \wedge / \vee	调整到噪音抑制 电路临界点	
	3) "S. Q. L. 3. _." 调整[***] 标准信号发生器频率 : 489.950MHz C : 429.950MHz C3							
●窄	4) "SQL3***." 调整[***] 标准信号发生器频率 : 470.050MHz C : 415.050MHz C3							
4. 静噪9	1) [测试模式] 在调谐模式中选择 "SQL9" "S. QL9" 调整[***] 标准信号发生器频率 : 450.050MHz C : 400.050MHz C3 标准信号发生器输出 : -115dBm/0.4 μ V 标准信号发生器调制 : 3kHz(宽) : 1.5kHz(窄)							
●宽	2) "S. Q. L. 9" 调整[***] 标准信号发生器频率 : 470.050MHz C : 415.050MHz C3							
	3) "S. Q. L. 9. _." 调整[***] 标准信号发生器频率 : 489.950MHz C : 429.950MHz C3							
●窄	4) "SQL9***." 调整[***] 标准信号发生器频率 : 470.050MHz C : 415.050MHz C3							
5. 静噪检查	1) [测试模式] CH : CH1-Sig1-CH3-Sig1 标准信号发生器输出 : -116dBm/0.35 μ V					检查	静噪必须被打开(宽/窄带)	
	2) 标准信号发生器输出: 关闭						静噪必须被关闭(宽/窄带)	
6. QT检查	1) [测试模式] CH : CH1-Sig4 标准信号发生器调制 INT : 3kHz(宽), 1.5kHz(窄) EXT : 151.4Hz 标准信号发生器系统MOD DEV : \pm 3.75kHz(宽) : \pm 1.85kHz(窄) 标准信号发生器输出 : 10dB SINAD电平							
	2) CH : CH1-Sig3 CH1-Sig5 CH1-Sig6					检查	静噪必须被打开	

ADJUSTMENT

Transmitter Section




Item	Condition	Measurement			Adjustment			Specifications/Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
1. Frequency	1) Set test mode Select "FREQ" in tuning mode. PTT : ON Adjust [_**]	Power meter F. counter	Rear panel	ANT	Front panel	CH 	Check	470.100MHz±100Hz C 415.100MHz±100Hz C3
2. Power output	1) Maximum power Set test mode Select "HPOW" in tuning mode. "H.POW" Adjust [256] PTT : ON						Check	More than 42.0W
3. High power	1) Set test mode Select "HPOW" in tuning mode. "H.POW" PTT : ON Adjust [***]						40.0W	±2.0W
	2) "H.P.O.W" PTT : ON Adjust [***]							
	3) "H.P.O.W" PTT : ON Adjust [***]							
	4) "H.P.O.W." PTT : ON Adjust [***]							
	5) "H.P.O.W._." PTT : ON Adjust [***]							
4. Low power	1) Set test mode Select "LPOW" in tuning mode. "L.POW" PTT : ON Adjust [***]	Power meter	10.0W	±1.0W				
	2) "L.P.O.W" PTT : ON Adjust [***]							
	3) "L.P.O.W" PTT : ON Adjust [***]							
	4) "L.P.O.W." PTT : ON Adjust [***]							
	5) "L.P.O.W._." PTT : ON Adjust [***]							
5. Power check	1) Set test mode CH : CH1 - Sig1 CH2 - Sig1 CH3 - Sig1 PTT : ON	Power meter Ammeter	ANT DC IN	Check	40W±2W 12A or less			

调 整


发射部分

项 目	条 件	测 量			调 整			规 格 / 备 注				
		测量装置	单元	端子	单元	部件	方 法					
1. 频率	1) [测试模式] 在调谐模式中选择“FREQ” PTT: 开启 调整[**]	功率计 频率计	背面板	ANT	前面板	CH \wedge / \vee	检查	470.100MHz \pm 50Hz C 415.100MHz \pm 50Hz C3				
2. 功率输出	1) 最大功率 [测试模式] 在调谐模式中选择“HPOW” “H.POW” 调整[256] PTT: 开启						检查	42.0W或更高				
3. 高功率	1) [测试模式] 在调谐模式中选择“HPOW” “H.POW” PTT: 开启 调整[***] 2) “H.P.O.W” PTT: 开启 调整[***] 3) “H.P.O.W” PTT: 开启 调整[***] 4) “H.P.O.W.” PTT: 开启 调整[***] 5) “H.P.O.W._.” PTT: 开启 调整[***]						40.0W	\pm 2.0W				
4. 低功率	1) [测试模式] 在调谐模式中选择“LPOW” “L.POW” PTT: 开启 调整[***] 2) “L.P.O.W” PTT: 开启 调整[***] 3) “L.P.O.W” PTT: 开启 调整[***] 4) “L.P.O.W.” PTT: 开启 调整[***] 5) “L.P.O.W._.” PTT: 开启 调整[***]	功率计					10.0W	\pm 1.0W				
5. 功率检查	1) [测试模式] CH: CH1-Sig1 CH2-Sig1 CH3-Sig1 PTT: 开启						功率计 电流表	ANT DC IN			检查	4W \pm 2W 12A或更低





ADJUSTMENT

Item	Condition	Measurement			Adjustment			Specifications/Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
6. Modulation balanced • Wide	1) Set test mode MIC input : OFF Select "BAL" in tuning mode. "_.BAL" Deviation meter filter LPF : 3kHz HPF : OFF De-emphasis : OFF PTT : ON Adjust [***]	Power meter Deviation meter Oscilloscope	Rear panel	ANT	Front panel	CH 	Make the de-modulation waveform neat.	(Wide/Narrow) 
	2) "_.B.A.L." PTT : ON Adjust [***]	AF VTVM AG	Front panel	MIC				
	3) "_.B.A.L._." PTT : ON Adjust [***]							
	• Narrow				4) "_.BAL***." PTT : ON Adjust [***]			
7. Maximum deviation • Wide	1) Set test mode Connect AG to the MIC terminal. Select "MAX" in tuning mode. "_.MAX" AG : 1kHz/50mV Deviation meter filter LPF : 15kHz HPF : OFF De-emphasis : OFF PTT : ON Adjust [***]					3.95kHz (Wide) 1.95kHz (Narrow) (According to the larger +, -)	±50Hz (Wide/Narrow)	
	2) "_.M.A.X." PTT : ON Adjust [***]							
	3) "_.M.A.X._." PTT : ON Adjust [***]							
	• Narrow							4) "_.MAX***." PTT : ON Adjust [***]
8. MIC sensitivity check	1) Set test mode CH : CH1 - Sig1 AG : 1kHz/5mV PTT : ON Adjust [***]						Check	±1.5kHz±0.05kHz (Narrow) ±3kHz±0.2kHz (Wide)
9. QT deviation • Wide	1) Set test mode Select "FQT" in tuning mode. "_.FQT" Deviation meter filter LPF : 3kHz HPF : OFF PTT : ON Adjust [***]				Front panel	CH 	0.75kHz	±50Hz (Wide/Narrow)

调 整

项 目	条 件	测 量			调 整			规 格 / 备 注
		测量装置	单元	端子	单元	部件	方 法	
6. 调制平衡 ●宽	1) [测试模式] 话筒输入：关闭 在调谐模式中选择“BAL” “_ BAL” 频偏仪滤波器 LPF：3kHz HPF：关闭 去加重：关闭 PTT：开启 调整[***]	功率计 频偏仪 示波器	背面板	ANT	前面板	CH \wedge / \vee	使调整波形为 方形波	(宽/窄带) 
	2) “_ B. A. L” PTT：开启 调整[***]	AF VTVM AG	前面板	MIC				
	3) “_ B. A. L. _.” PTT：开启 调整[***]							
	●窄 4) “_BAL***.” PTT：开启 调整[***]							
7. 最大频偏 ●宽	1) [测试模式] 将音频发生器连接到话筒终端 在调谐模式中选择“MAX” “_ MAX” AG：1kHz/50mV 频偏仪滤波器 LPF：15kHz HPF：关闭 去加重：关闭 PTT：开启 调整[***]							
	2) “_ M. A. X” PTT：开启 调整[***]							
	3) “_ M. A. X. _.” PTT：开启 调整[***]							
	●窄 4) “_MAX***.” PTT：开启 调整[***]							
8. 麦克风灵 敏度检查	1) [测试模式] CH：CH1-Sig1 AG：1kHz/5mV PTT：开启 调整[***]					检查	±1.5kHz±0.05kHz (窄带) ±3kHz±0.2kHz (宽带)	
9. QT频偏 ●宽	1) [测试模式] 在调谐模式中选择“FQT” “_ FQT” 频偏仪滤波器 LPF：3kHz HPF：关闭 PTT：开启 调整[***]				前面板	CH \wedge / \vee	0.75kHz	±50Hz (宽/窄带)

ADJUSTMENT

Item	Condition	Measurement			Adjustment			Specifications/Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
• Narrow	2) “_F.Q.T” PTT : ON Adjust [***]	Power meter Deviation meter Oscilloscope	Rear panel	ANT	Front panel	CH 	0.75kHz	±50Hz (Wide/Narrow)
	3) “_F.Q.T._.” PTT : ON Adjust [***]	AF VTVM AG	Front panel	MIC			0.35kHz	
	4) “_FQT***.” PTT : ON Adjust [***]							
10. DQT deviation • Wide	1) Set test mode Select “FDQT” in tuning mode. “F.DQT” Deviation meter filter LPF : 3kHz HPF : OFF PTT : ON Adjust [***]				Front panel	CH 	0.75kHz	±50Hz
• Narrow	2) “F.D.Q.T” PTT : ON Adjust [***]							±40Hz
	3) “F.D.Q.T._.” PTT : ON Adjust [***]							
	4) “FDQT***.” PTT : ON Adjust [***]						0.36kHz	
11. DTMF deviation • Wide	1) Set test mode Select “DTMF” in tuning mode. Deviation meter filter LPF : 15kHz HPF : OFF PTT : ON Adjust [***]				Front panel	CH 	3.0kHz	±0.2kHz
• Narrow	2) “DTMF***.” PTT : ON Adjust [***]						1.5kHz	±0.1kHz
12. TONE deviation • Wide	1) Set test mode Select “TONE” in tuning mode. Deviation meter filter LPF : 15kHz HPF : OFF PTT : ON Adjust [***]				Front panel	CH 	3.0kHz	±0.1kHz (Wide/Narrow)
• Narrow	2) “TONE***.” PTT : ON Adjust [***]						1.5kHz	

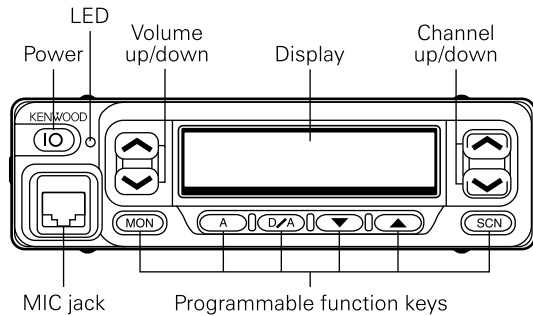
调 整

项 目	条 件	测 量			调 整			规 格 / 备 注					
		测量装置	单元	端子	单元	部件	方 法						
●窄	2) “_ F. Q. T” PTT：开启 调整[***]	功率计 频偏仪 示波器	背面板	ANT	前面板	CH \wedge / \vee	0.75kHz	±50Hz (宽/窄带)					
	3) “_ F. Q. T. _.” PTT：开启 调整[***]						AF VTVM AG		前面板	MIC	0.35kHz		
	4) “_FQT***.” PTT：开启 调整[***]												
10. DQT频偏 ●宽	1) [测试模式] 在调谐模式中选择“FDQT” “F. DQT” 频偏仪滤波器 LPF：3kHz HPF：关闭 PTT：开启 调整[***]	功率计 频偏仪 示波器	背面板	ANT	前面板	CH \wedge / \vee	0.75kHz	±50Hz					
●窄	2) “F. D. Q. T” PTT：开启 调整[***]						AF VTVM AG		前面板	MIC	CH \wedge / \vee	0.36kHz	±40Hz
	3) “F. D. Q. T. _.” PTT：开启 调整[***]												
	4) “FDQT***.” PTT：开启 调整[***]												
11. DTMF频偏 ●宽	1) [测试模式] 在调谐模式中选择“DTMF” 频偏仪滤波器 LPF：15kHz HPF：关闭 PTT：开启 调整[***]	功率计 频偏仪 示波器	背面板	ANT	前面板	CH \wedge / \vee	3.0kHz	±0.2kHz					
●窄	2) “DTMF***.” PTT：开启 调整[***]						AF VTVM AG		前面板	MIC	CH \wedge / \vee	1.5kHz	±0.1kHz
12. TONE频偏 ●宽	1) [测试模式] 在调谐模式中选择“TONE” 频偏仪滤波器 LPF：15kHz HPF：关闭 PTT：开启 调整[***]	功率计 频偏仪 示波器	背面板	ANT	前面板	CH \wedge / \vee		3.0kHz				±0.1kHz (宽/窄带)	
●窄	2) “TONE***.” PTT：开启 调整[***]						AF VTVM AG	前面板	MIC	CH \wedge / \vee	1.5kHz		±0.1kHz (宽/窄带)

ADJUSTMENT / 调整

Adjustment Location / 调整位置

■ Switch / 开关



■ Note

● Flash memory

The firmware program (User mode, Test mode, Tuning mode, etc.) and the data programmed by the FPU (KPG-56D) for the flash memory, is stored in memory. When parts are changed, program the data again.

● EEPROM

The tuning data (Deviation, Squelch, etc.) for the EEPROM, is stored in memory. When parts are changed, readjust the transceiver.

■ 注释

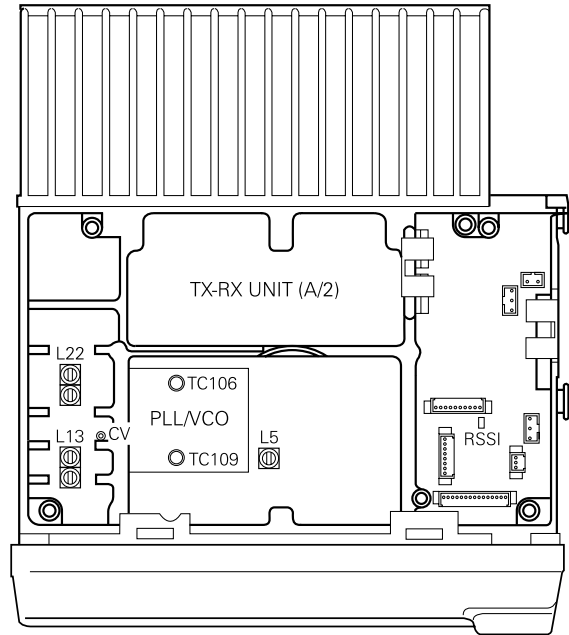
● 闪存

固件程序(用户模式, 测试模式, 调谐模式等), 和由FPU (KPG-62D CPS) 处理的可编程数据, 安全号码 (MPT序列号) 保存在存储器中。当更换闪存时, 重新对数据进行编程。

● EEPROM

EEPROM的调谐数据(频偏, 静噪, 等等)被储存在存储器中。当零件被更换时, 需要重新调整车台。

■ Adjustment Point / 调整点



■ Repair Jig

● Chassis

Use jig (Part No. : A10-4010-02) for repairing the TK-868HG. The jig facilitates the voltage check when the voltage on the component side TX-RX unit is checked during repairs.

● Extension cable

Part No. : E30-3404-05

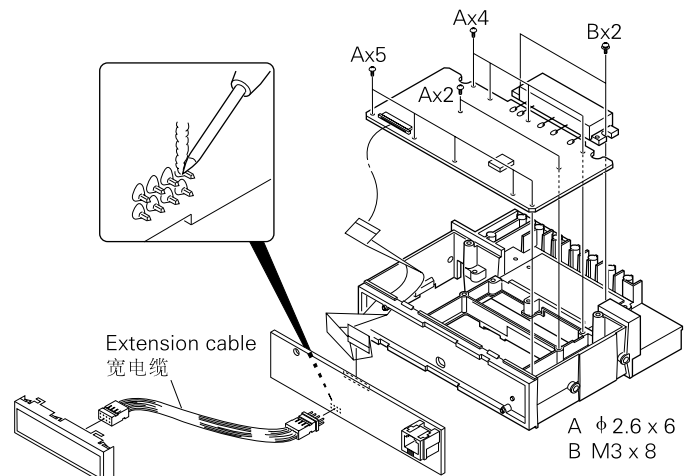
■ 维修用具

● 底座

使用维修用具(零件号码: A10-4010-02)修理TK-868HG。维修用具能够在修理时方便地检测发射-接收单元电路板元器件面上的电压。

● 宽电缆

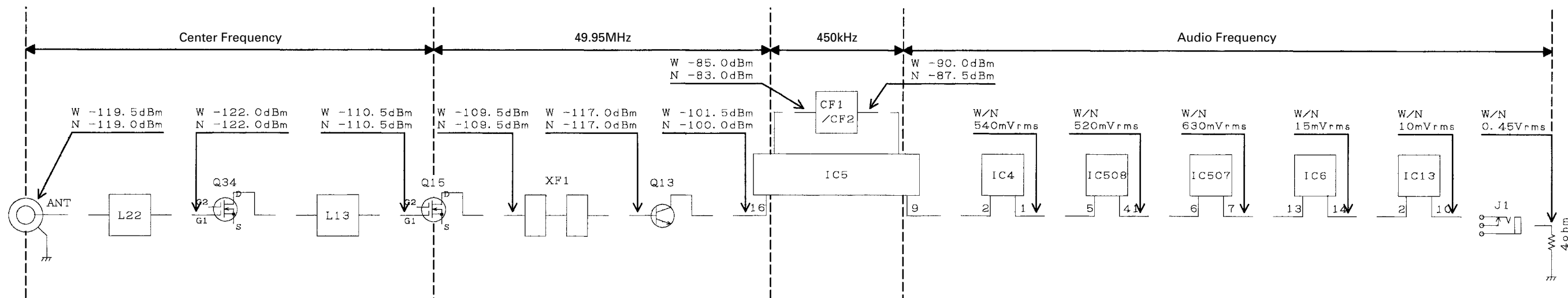
零件号码: E30-3404-05



TK-868HG TK-868HG

LEVEL DIAGRAM / 电平图

Receiver Section / 接收部



SG input level for 12dB SINAD are obtained measured by connecting SG to each point via a 0.01 μ F capacitor.

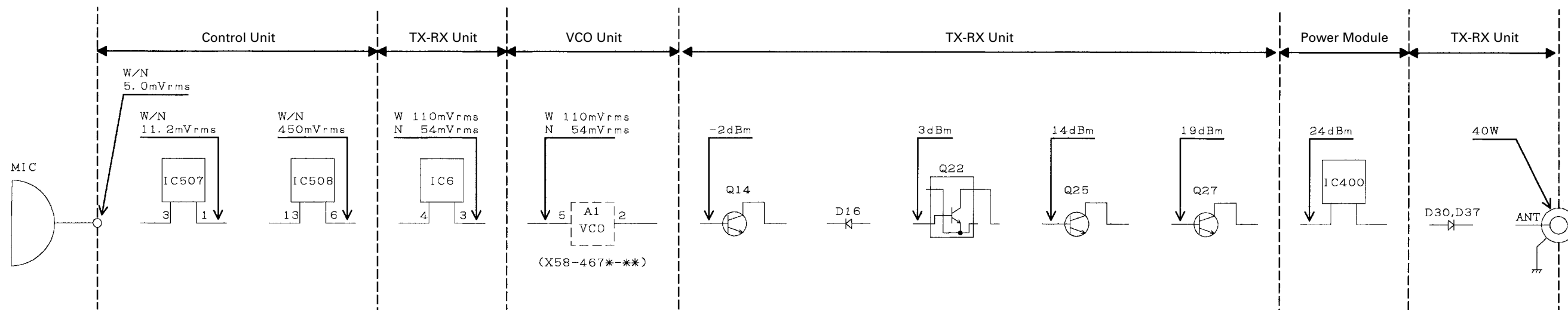
通过将SG经由0.1 μ F电容与每一点连接获得12dB SINAD SG输入电平。

AF VTVM

AF level obtained when the AF output level is adjusted for 0.45V/4 Ω with the front panel AF VOL control. Measured with AF voltmeter connected to the external speaker jack, receiving a -53dBm SSG signal modulated at 1kHz, DEV. 3kHz (Wide), 1.5kHz (Narrow).

AF电平的测量要在通过调整前面板上的音量旋钮使音频输出为0.45V/4 Ω 的条件下进行。使用连接到外置扬声器接口上的音频电压计测量。接收调制为1KHz, DEV. 3KHz(宽带), 1.5KHz(窄带)的-53dBm SSG信号。

Transmitter Section / 发射部



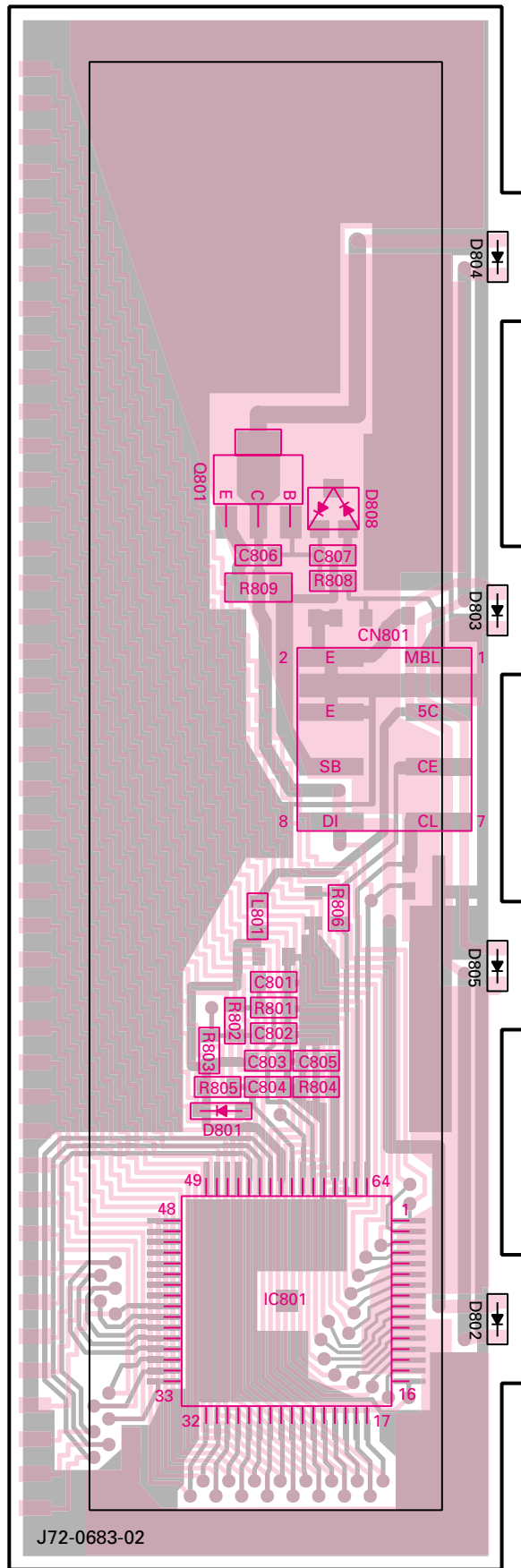
1. AG is set so that MIC input becomes 3kHz (Wide), 1.5kHz (Narrow) DEV. at 1kHz MOD.
2. Transmitting frequency : Center frequency.

1. 设定AG使MIC输入在1kHz MOD时变为3kHz(宽), 1.5kHz(窄) DEV.
2. 发送频率: 中心频率

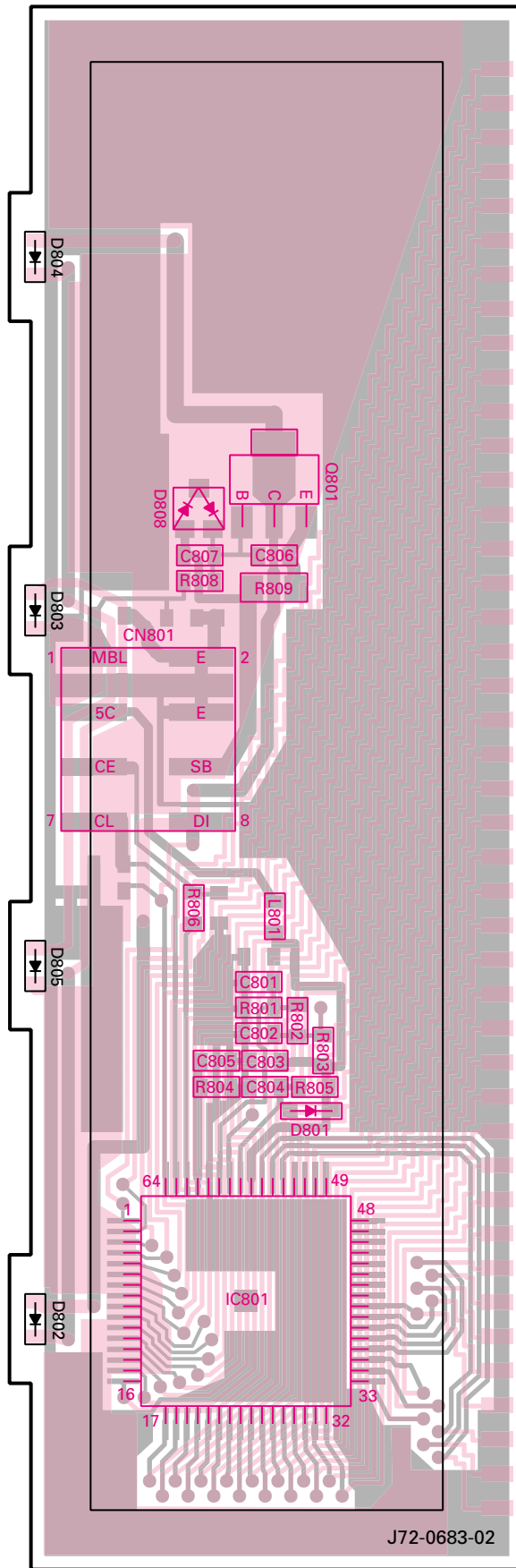
RF wattmeter (50 Ω).

功率计 (50 Ω)

DISPLAY UNIT (X54-3270-10)
Component side view

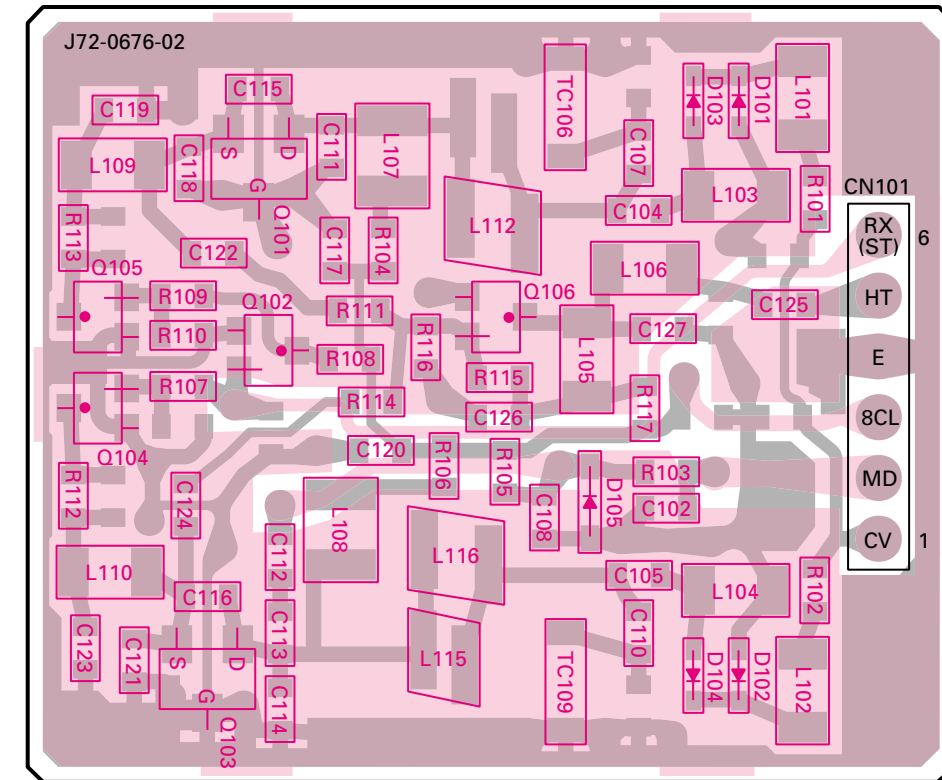


DISPLAY UNIT (X54-3270-10)
Foil side view

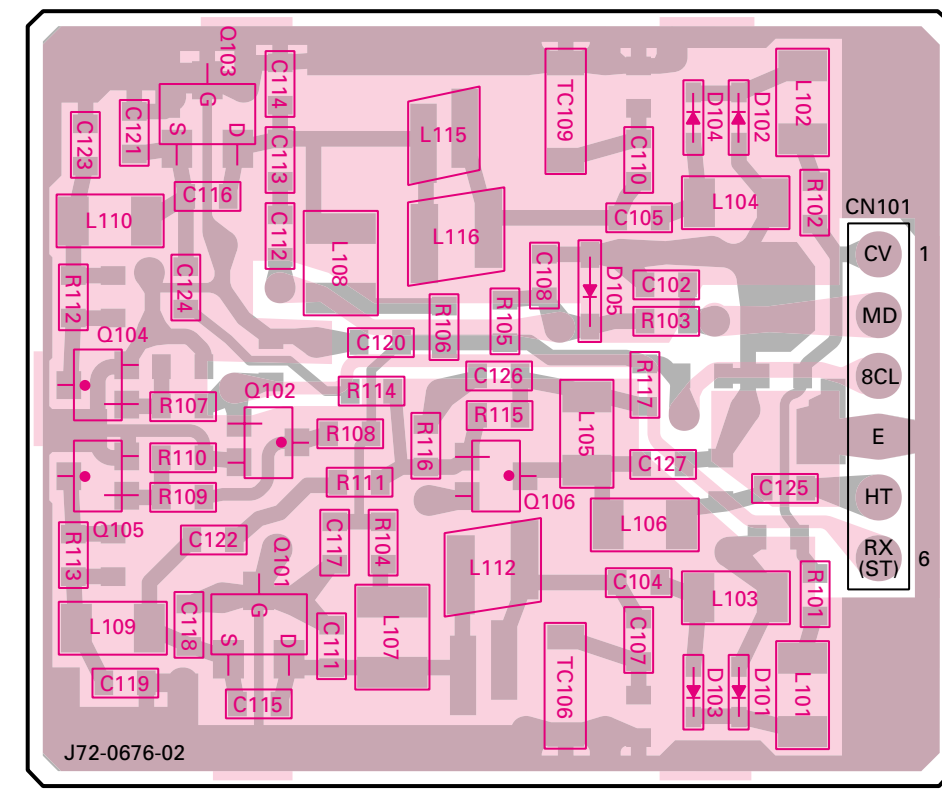


Component side Foil side

PLL/VCO (X58-4670-XX) -12 : C -14 : C3 Component side view



PLL/VCO (X58-4670-XX) -12 : C -14 : C3 Foil side view

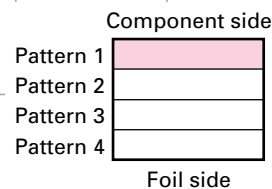
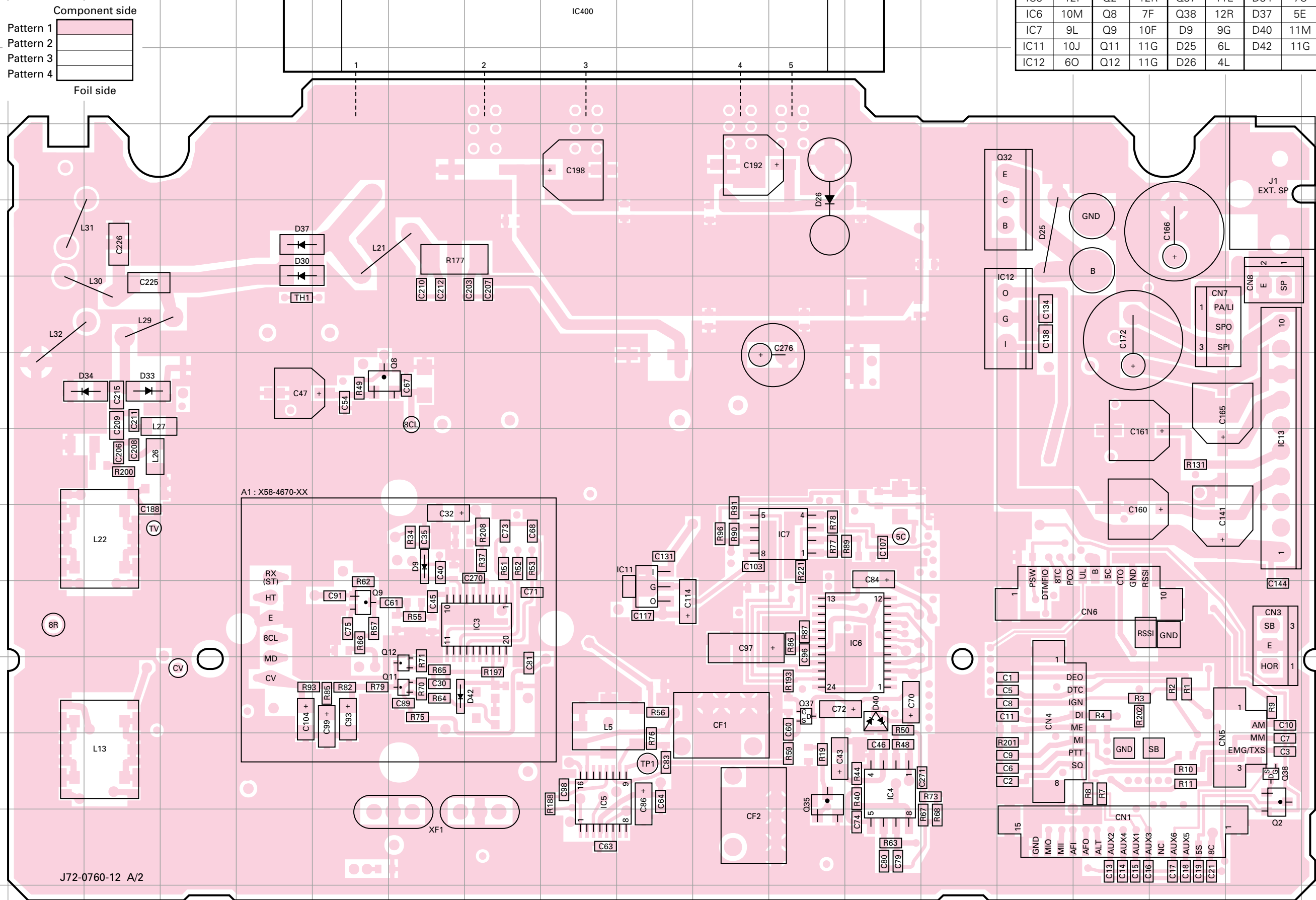


Component side Foil side

TK-868HG PC板视图

TX-RX UNIT (X57-596X-XX) (A/2) 3-05 : C 3-07 : C3 Component side view

Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC3	10H	IC13	8R	Q32	4O	D30	5E
IC4	12M	IC400	2I	Q35	12L	D33	7C
IC5	12I	Q2	12R	Q37	11L	D34	7C
IC6	10M	Q8	7F	Q38	12R	D37	5E
IC7	9L	Q9	10F	D9	9G	D40	11M
IC11	10J	Q11	11G	D25	6L	D42	11G
IC12	6O	Q12	11G	D26	4L		

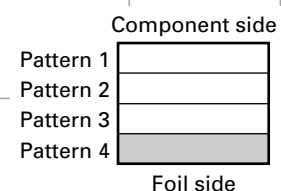
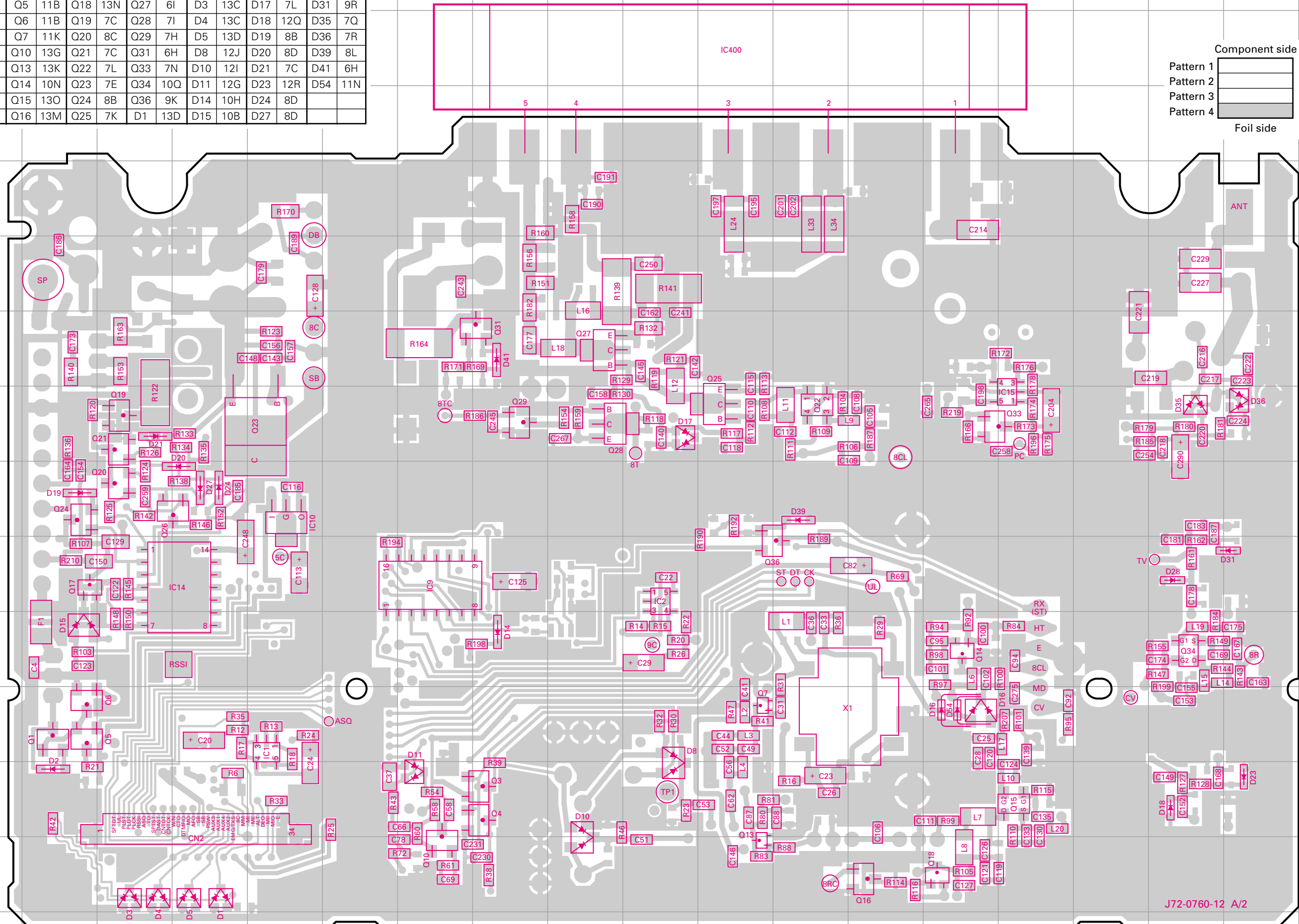


A1 : X58-4670-XX

J72-0760-12 A/2

Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC1	11E	Q4	12H	Q17	9B	Q26	8C	D2	12B	D16	11N
IC2	9J	Q5	11B	Q18	13N	Q27	6I	D3	13C	D17	7L
IC9	9G	Q6	11B	Q19	7C	Q28	7I	D4	13C	D18	12Q
IC10	8E	Q7	11K	Q20	8C	Q29	7H	D5	13D	D19	8B
IC14	9D	Q10	13G	Q21	7C	Q31	6H	D8	12J	D20	8D
IC15	7O	Q13	13K	Q22	7L	Q33	7N	D10	12I	D21	7C
IC400	2K	Q14	10N	Q23	7E	Q34	10Q	D11	12G	D23	12R
Q1	11B	Q15	13O	Q24	8B	Q36	9K	D14	10H	D24	8D
Q3	12H	Q16	13M	Q25	7K	D1	13D	D15	10B	D27	8D

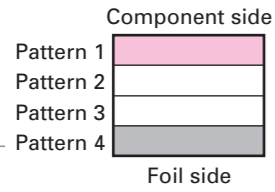
TX-RX UNIT (X57-596X-XX) (A/2) 3-05 : C 3-07 : C3 Foil side view



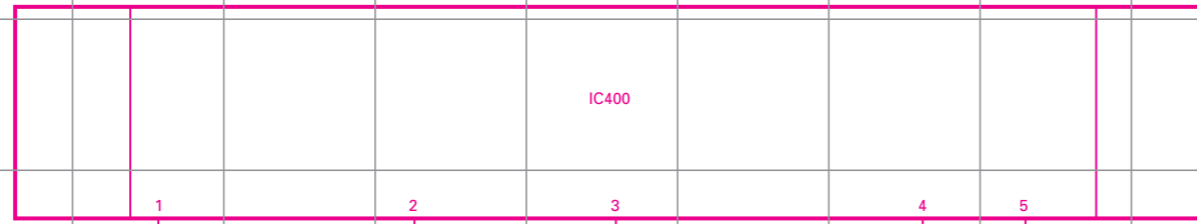
J72-0760-12 A/2

TK-868HG PC板视图 TX-RX UNIT (X57-596X-XX) (A/2) 3-05 : C 3-07 : C3

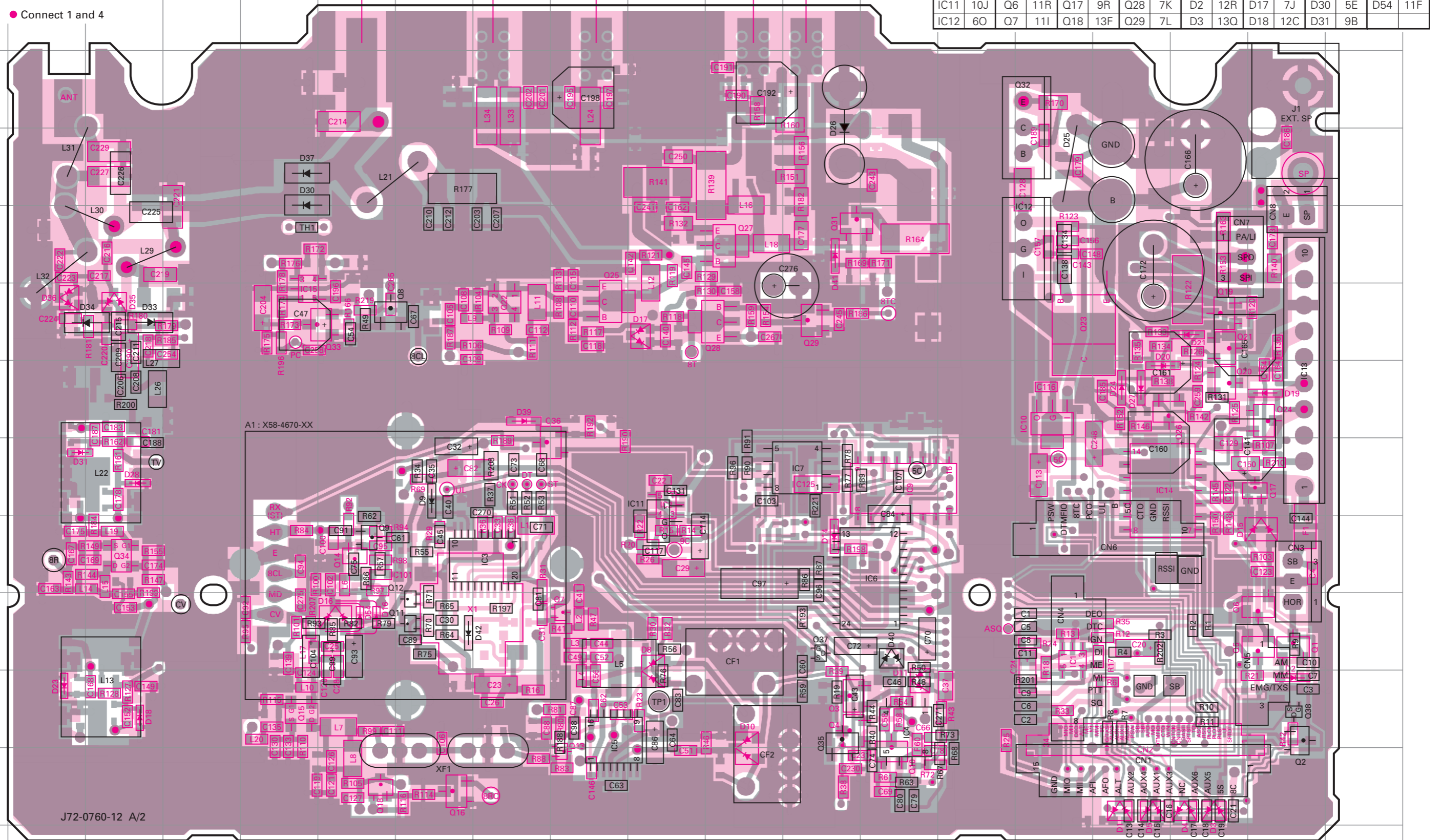
Component side view + Foil side



● Connect 1 and 4



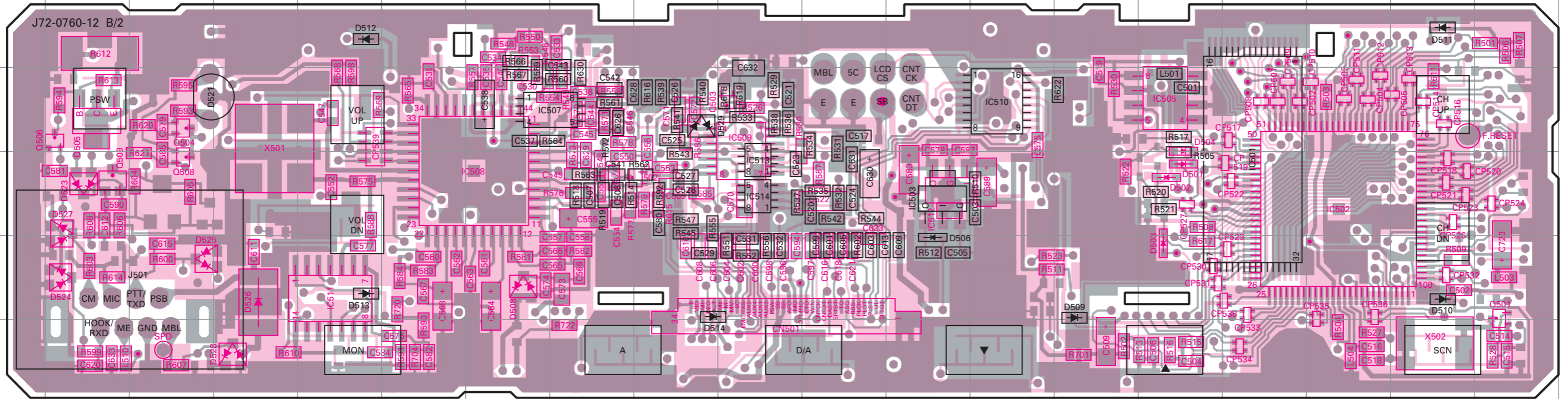
Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC1	11O	IC13	8R	Q8	7G	Q19	7Q	Q31	6L	D4	13Q	D19	8R	D33	7C
IC2	9J	IC14	9P	Q9	10F	Q20	8Q	Q32	4O	D5	13P	D20	8P	D34	7C
IC3	10H	IC15	7E	Q10	13M	Q21	7Q	Q33	7F	D8	12J	D21	7Q	D35	7C
IC4	12M	IC400	2I	Q11	11G	Q22	7H	Q34	10C	D9	9G	D23	12B	D36	7B
IC5	12I	Q1	11R	Q12	11G	Q23	7O	Q35	12L	D10	12K	D24	8P	D37	5E
IC6	10M	Q2	12R	Q13	13I	Q24	8R	Q36	9I	D11	12M	D25	6L	D39	8H
IC7	9L	Q3	12L	Q14	10F	Q25	7I	Q37	11L	D14	10L	D26	4L	D40	11M
IC9	9M	Q4	12L	Q15	12E	Q26	8Q	Q38	12R	D15	10R	D27	8P	D41	6L
IC10	8O	Q5	11R	Q16	13G	Q27	6K	D1	13P	D16	11F	D28	9C	D42	11G
IC11	10J	Q6	11R	Q17	9R	Q28	7K	D2	12R	D17	7J	D30	5E	D54	11F
IC12	6O	Q7	11I	Q18	13F	Q29	7L	D3	13Q	D18	12C	D31	9B		



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TK-868HG PC板视图

TX-RX UNIT (X57-596X-XX) (B/2) 3-05 : C 3-07 : C3 Component side view + Foil side



Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC501	4P	IC510	3M	Q503	3J	D502	4O	D511	2R	D525	5C
IC502	4Q	IC511	5E	Q504	3C	D503	5O	D512	2E	D526	5D
IC503	4L	IC512	4L	Q505	3B	D504	4O	D513	5E	D527	4B
IC505	3O	IC513	4J	Q506	3B	D506	5L	D514	5I	D528	6D
IC507	3H	IC514	4J	Q508	4C	D508	5G	D521	3C	D529	3I
IC508	4G	Q501	5S	Q509	4B	D509	5N	D523	4B		
IC509	3J	Q502	4I	D501	4O	D510	5R	D524	5B		

Component side

Pattern 1

Pattern 2

Pattern 3

Pattern 4

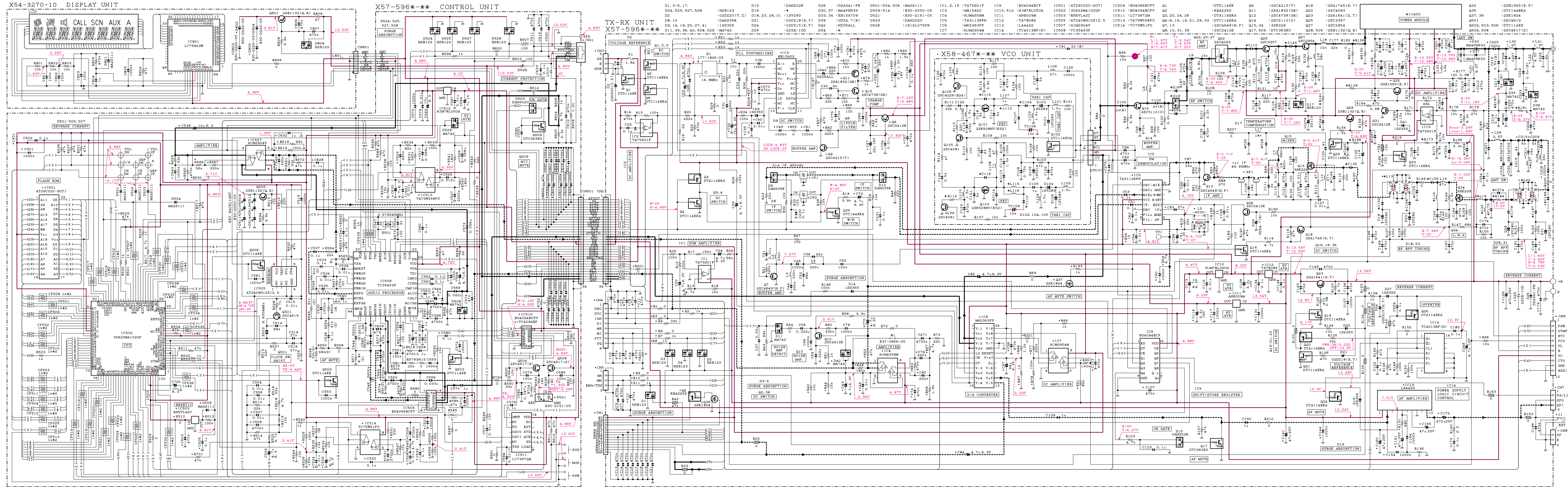
Foil side

● Connect 1 and 4

2SB1565 	DTC114EE DTD114EK 2SA1745 2SA1832 2SC2412K 2SC4215 2SC4226 2SC4617	2SC4619 2SC4738 2SC5110 	2SB1132 2SC2954 2SC3357 	2SA1641 	2SC4081 	DTC363EU OUT GND 	DTA114EKA DTC114EKA DTC114EUA DTC144EKA KRA225S OUT GND 	2SC4649 C E 	LA4422 	NJM2904M NJM4558M TA75W558FU 	DAN202K DAN202U DAN235K A1 A2 K 	MA742 1 2 3 	2SK508NV S G 	
2sc4093 	3SK228 	2SK1824 D S G 	BU4094BCF 	TC4013BF 	BU4066BCFV 	M62363FP 	LC75823W 	AN8009M 	AT29C020-90TI 	AT2408N10SI2.5 	TC35453F 			
M68769H-22 M68769L 	MB15A02 	NJM78L05UA RH5VL42C 	BU4094BCFV 	TA7808S 	NJM2094V 	TA75S01F 	TA31136FN 	LC73872M 	30622M4102GP 	TC75W51FU 				

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

SCHEMATIC DIAGRAM / 原理图 TK-868HG



X58-467*** (VCO UNIT)

C104	C107	C110	C113	C114	C115	C116	R112	L112	L115	L116
0-12	C	6P	3P	6P	1P	4P	6P	220	4.7K	NO
0-14	C3	8P	4P	4P	2P	5P	7P	6P	180	NO

X57-596***

IC400	D16	D54	C25	C28	C10	C124	C135	C145	C152	C153	C155	C168	C175	C178	C187	C188	C204	C209	C214	C221	C226	C231	C243	C245	C258	C267	C274	C290	C139	R141	R151	R156	R160	R173	R180	R181	R184	R186	L13	L22	L14	L19	L20	L27	L35				
3-05	C	M68769H-22	HVC131	HVC131	6P	6P	9P	NO	18P	9P	8P	4P	6P	8P	2P	8P	4P	1.5u10V	7P	NO	4P	6P	8P	NO	0.1u16V	NO	1000P	NO	1000P	NO	5P	NO	NO	22	0.5W	330	18	330	4.7K	2.7K	10K	NO	0	1.79-1585-05	18P	56P	18P	15P	NO
3-07	C3	M68769L	DAN235K	NO	8P	8P	7P	3P	12P	7P	6P	NO	4P	6P	NO	6P	NO	1u	16V	6P	3P	2P	8P	10P	1000P	1000P	NO	1000P	NO	5P	NO	NO	22	0.5W	330	18	330	4.7K	2.7K	10K	NO	0	1.79-1591-05	27P	100P	27P	18P	27P	

SPECIFICATIONS

GENERAL

Frequency Range	C : 450 to 490MHz	C3 : 400 to 430MHz
Number of Channels	Maximum 128 channels	
Number of Groups	Maximum 128 channels	
Channel Spacing	Wide : 25kHz	Narrow : 12.5kHz
PLL Channel Stepping	5, 6.25kHz	
Operating Voltage	13.6V DC \pm 15%	
Current Drain	Less than 0.4A on standby Less than 1.0A on receive Less than 12.0A on transmit	
Operating Temperature Range	-30°C to +60°C (-22°F to +140°F)	
Dimensions & Weight	140 (5-33/64) W x 40 (1-37/64) H x 173 (6-52/64) D mm (inch), 1050g (2.31 lbs)	
Channel Frequency Spread	C : 40MHz	C3 : 30MHz

RECEIVER (Measurements made per EIA standard EIA/TIA-204-D)

Sensitivity (12dB SINAD)	Wide : 0.28 μ V	Narrow : 0.35 μ V
Selectivity	Wide : 80dB	Narrow : 65dB
Intermodulation	Wide : 75dB	Narrow : 63dB
Spurious Responce	85dB	
Audio Power Output	4.0W	
Frequency Stability	\pm 2.5ppm	

TRANSMITTER (Measurements made per EIA standard EIA-152-C)

RF Power Output	40W	
Spurious and Harmonics	65dB	
Modulation	Wide : 16K0F3E	Narrow : 11K0F3E
FM Noise	Wide : 50dB	Narrow : 45dB
Audio Distortion	Less than 3%	
Frequency Stability	\pm 2.5ppm	

规 格

概 述

频率范围	C : 450~490MHz	C3 : 400~430MHz
信道数量	最多128个	
组数量	最多128个	
信道间隔	宽 : 25kHz	窄 : 12.5kHz
锁相环电路步进频率	5, 6.25kHz	
工作电压	13.6V直流±15%	
电流消耗	待机时 : 低于0.4A	
	接收时 : 低于1.0A	
	发送时 : 低于12.0A	
工作温度范围	-30°C到+60°C (-22°F到+144°F)	
体积和重量	140(5-33/64)宽×40(1-37/64)高×173(6-52/64)长 毫米(英寸), 1050g(2.311bs)	
信道频率扩展	C : 40MHz	C3 : 30MHz

接收部(按照EIA标准EIA/TIA-204-D测定)

灵敏度(12dB SINAD)	宽 : 0.28 μ V	窄 : 0.35 μ V
选择性	宽 : 80dB	窄 : 65dB
互调抑制	宽 : 75dB	窄 : 63dB
假信号响应	85dB	
音频功率输出	4.0W	
频率稳定性	±2.5ppm	

发射部(按照EIA标准EIA-152-C测定)

射频功率输出	40W	
寄生谐波	65dB	
调制	宽 : 16K0F3E	窄 : 11K0F3E
FM噪声	宽 : 50dB	窄 : 45dB
音频失真	低于3%	
频率稳定性	±2.5ppm	

如需使用此机二次开发, 请联络建伍公司或建伍经销商,
商讨提供专用插头及电缆事宜
零件号码 : E37-0852-05, E37-0853-05,
E37-0854-05, E37-0855-05

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