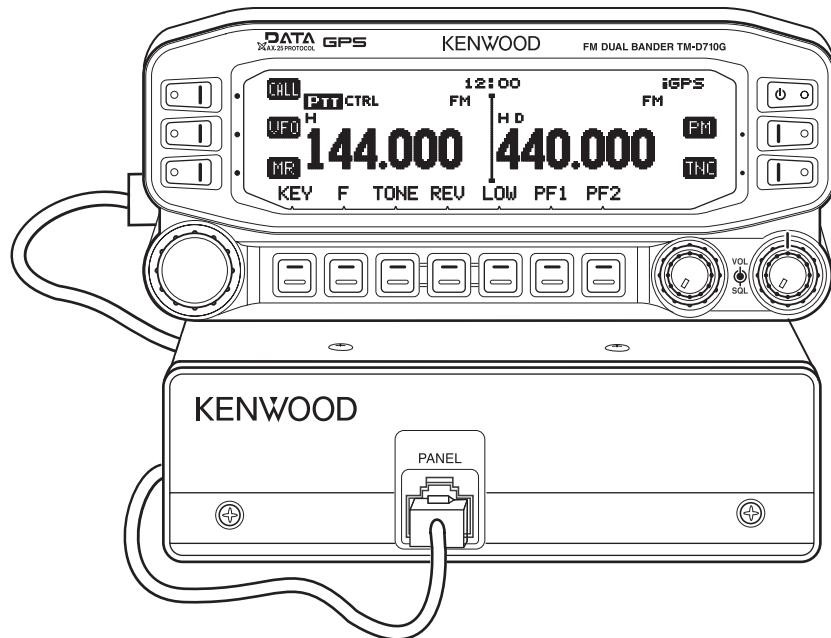


KENWOOD

SERVICE MANUAL

144/440 (430) MHz FM DUAL BANDER

TM-D710GA, TM-D710GE



Note :

- Lead free solder used in the board (material : Sn, Ag, In, Bi, melting point : 227 Centigrade)
- This service manual details the panel section.

Refer to the TM-V71A/V71E service manual (B51-8791-00) for any information which has not been covered in this TM-D710GA/D710GE service manual.

TABLE OF CONTENTS

1 PRECAUTION	1-4
2 SPECIFIC SERVICE INSTRUCTIONS	1-4
3 DISASSEMBLY	1-12
4 ADJUSTMENT	1-12
5 TROUBLESHOOTING	1-33



This product uses Lead Free solder.

This product complies with the RoHS directive for the European market.

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Disclaimer

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SPECIFICATION

GENERAL			TM-D710GA		TM-D710GE			
Guaranteed range	Band A & B	TX & RX	144 ~ 148 MHz		144 ~ 146 MHz			
			438 ~ 450 MHz		430 ~ 440 MHz			
Frequency range	Band A	RX	118 ~ 524 MHz			118 ~ 524 MHz 136 ~ 524 MHz 800 ~ 1300 MHz (TM-D710GA: excluding cellular band)		
	Band B		136 ~ 524 MHz					
			800 ~ 1300 MHz (TM-D710GA: excluding cellular band)					
Mode			F1D/ F2D/ F3E					
Antenna impedance			50Ω					
Operating temperature range			-20°C ~ +60°C (-4°F ~ +140°F)					
Power requirement			13.8 V DC ±15% (Negative ground)					
Frequency stability			Within ±5 ppm (-10°C ~ +50°C)					
Current	TX	VHF	Hi	Less than 13.0 A				
			Mid	Less than 5.5 A				
			Low	Less than 4.0 A				
		UHF	Hi	Less than 13.0 A				
			Mid	Less than 6.5 A				
			Low	Less than 5.0 A				
	RX		Less than 1.2 A (at 2W audio output)					
Dimensions (W x H x D)	Without projections			Operation panel: 155 x 70 x 38 mm (6.10 in x 2.76 in x 1.50 in) TX/ RX unit: 140 x 43 x 142 mm (5.51 in x 1.69 in x 5.59 in)				
	With projections			Operation panel: 156 x 71 x 56 mm (6.14 in x 2.80" x 2.20 in) TX/ RX unit: 140 x 44 x 158 mm (5.51 in x 1.73 in x 6.22 in)				
Weight (approx.)			Operation panel: 0.3 kg (0.7 lb) TX/ RX unit: 1.2 kg (2.6 lb)					

Transmitter		
RF power output	Hi	50W
	Mid	Approx. 10 W
	Low	Approx. 5 W
Modulation		Reactance modulation
Maximum frequency deviation		Within ±5 kHz
Spurious radiation		Less than -60 dB
Modulation distortion (300 Hz ~ 3 kHz)		Less than 3%
Microphone impedance		600Ω

Receiver		
Circuitry		Double super heterodyne
Intermediate frequency	1st (Band A/ Band B)	45.05 MHz/ 49.95 MHz
	2nd (Band A/ Band B)	455 kHz/ 450 kHz
Sensitivity (144, 430/440 MHz band)		Less than 0.16 μV (-16 dBμ)
Squelch sensitivity (144, 430/440 MHz band)		Less than 0.1 μV (-20 dBμ)
Selectivity	-6 dB	More than 11 kHz
	-50 dB	Less than 30 kHz
Low frequency output (8Ω)		More than 2 W (at 5% distortion)

Sensitivity (approx.) <excluding 144, 430/440 MHz band>

Frequency range	Band A		Band B
	FM: 12 dB SINAD	AM: 10 dB S/N	FM: 12 dB SINAD
118 ~ 135.995 MHz	0.32 μV (-10 dBμ)	0.40 μV (-8 dBμ)	---
136 ~ 173.995 MHz	0.32 μV (-10 dBμ)	0.40 μV (-8 dBμ)	0.32 μV (-10 dBμ)
174 ~ 229.995 MHz	0.40 μV (-8 dBμ)	0.50 μV (-6 dBμ)	0.40 μV (-8 dBμ)
230 ~ 299.995 MHz	5.6 μV (15 dBμ)	5.6 μV (15 dBμ)	5.6 μV (15 dBμ)
300 ~ 349.995 MHz	1.0 μV (0 dBμ)	1.0 μV (0 dBμ)	1.0 μV (0 dBμ)
350 ~ 399.995 MHz	0.56 μV (-5 dBμ)	0.56 μV (-5 dBμ)	0.56 μV (-5 dBμ)
400 ~ 499.995 MHz	0.28 μV (-11 dBμ)	0.36 μV (-9 dBμ)	0.28 μV (-11 dBμ)
500 ~ 523.995 MHz	0.56 μV (-5 dBμ)	0.71 μV (-3 dBμ)	0.56 μV (-5 dBμ)
800 ~ 1239.99 MHz	---	---	7.08 μV (17 dBμ)
1240 ~ 1299.99 MHz	---	---	2.24 μV (7 dBμ)

SECTION 1 PRECAUTION

This service manual does not describe PRECAUTION.

SECTION 2 SPECIFIC SERVICE INSTRUCTIONS

2.1 CIRCUIT DESCRIPTION

2.1.1 Outline

TM-D710GA/D710GE is the transceiver by which the GPS module was built in the panel.

Although the main unit of a transceiver of hardware of TM-D710G is common, the firmware of the main unit of a transceiver differs between TM-D710A/D710E and TM-V71A/D710E.

2.1.2 Frequency Configuration

The TM-D710GA/D710GE has an individual VCO and PLL unit for both band A and band B. Using these separate VCO and PLL circuits, it can receive 2 separate bands at the same time. You can also perform full-duplex operation.

- The band A VCO is used for the following functions:
 - (1) VHF/UHF transmission
 - (2) The first local oscillator for the band A (VHF) reception.
 - (3) The first local oscillator for the band A (UHF) reception.

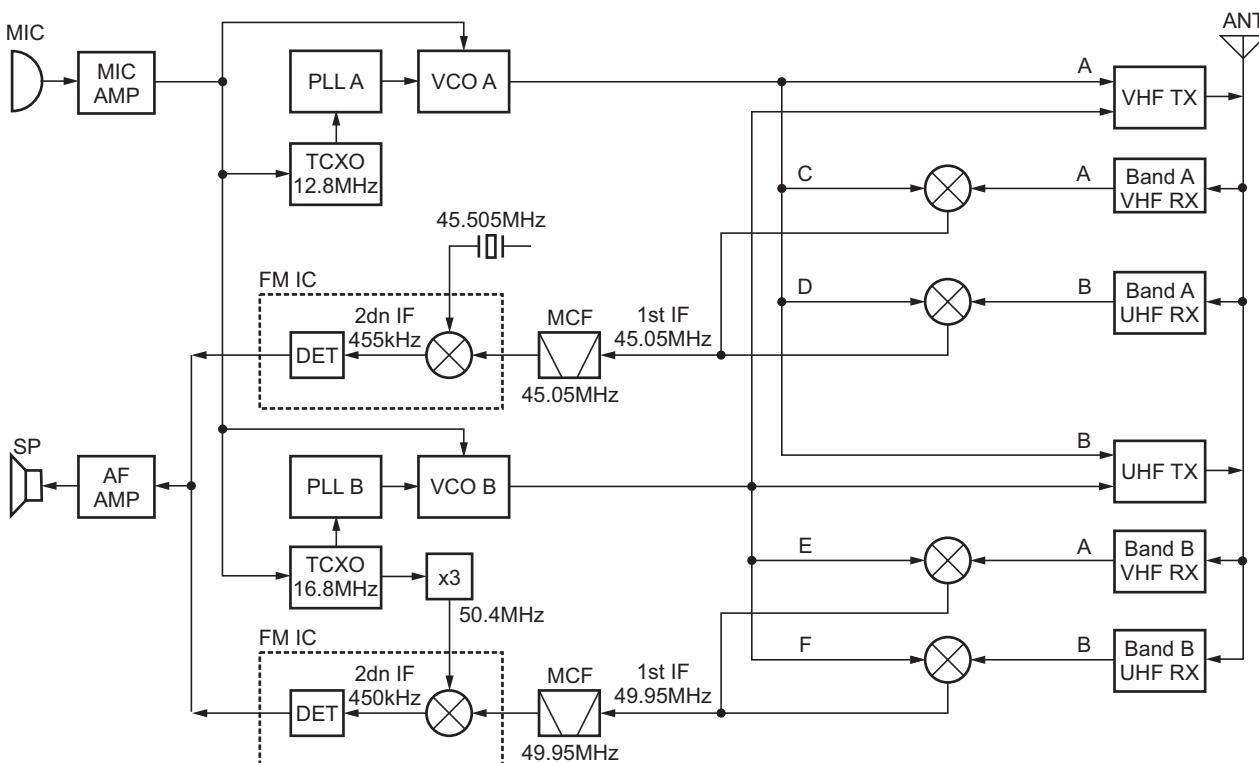
- The band B VCO is used for the following functions:

- (1) VHF/UHF transmission
- (2) The first local oscillator for the band B (VHF) reception.
- (3) The first local oscillator for the band B (UHF) reception.

The PLL reference frequency is generated by a 12.8MHz (band A) and a 16.8MHz (band B) crystal oscillator connected to the band A and band B PLL ICs. This reference frequency is used for both PLL circuits. The 45.505MHz second local oscillator for band A is generated by the FM IC crystal oscillator circuit. The second local oscillator for the band B uses the tripled 16.8MHz reference oscillator frequency.

Note:

The PCB layout and the mounting parts are the same for the band A VCO (X57-901 B/6) and band B VCO (X57-901 C/6), although the PCB silk print is different.



	K type	E type
A	144.000 ~ 147.995MHz	144.000 ~ 145.995MHz
B	438.000 ~ 449.995MHz	430.000 ~ 439.995MHz
C	189.050 ~ 193.045MHz	189.050 ~ 191.045MHz
D	392.950 ~ 404.945MHz	384.950 ~ 394.945MHz
E	193.950 ~ 197.945MHz	193.950 ~ 195.945MHz
F	388.050 ~ 400.045MHz	380.050 ~ 390.045MHz

Fig.1 Frequency configuration

Band A 1st IF: 45.05MHz, 2nd IF: 455kHz (Upper)

RX frequency range [MHz]		VCO oscillation frequency range [MHz]		Multiply	VCO V/U IC576 pin 7	VCO shift IC576 pin 12	1st Mix.	Local frequency range [MHz]	
118.000	129.995	163.050	175.045	1	H	L	Upper	163.050	175.045
130.000	185.995	175.050	231.045	1	H	H	Upper	175.050	231.045
186.000	224.995	140.950	179.945	1	H	L	Lower	140.950	179.945
225.000	279.995	179.950	234.945	1	H	H	Lower	179.950	234.945
280.000	359.995	325.050	405.045	1	L	L	Upper	325.050	405.045
360.000	399.995	405.050	445.045	1	L	H	Upper	405.050	445.045
400.000	429.995	354.950	384.945	1	L	L	Lower	354.950	384.945
430.000	523.995	384.950	478.945	1	L	H	Lower	384.950	478.945

Band B 1st IF: 49.95MHz, 2nd IF: 450kHz (Upper)

RX frequency range [MHz]		VCO oscillation frequency range [MHz]		Multiply	VCO V/U IC577 pin 7	VCO shift IC577 pin 12	1st Mix.	Local frequency range [MHz]	
136.000	185.995	185.950	235.945	1	H	H	Upper	185.950	235.945
186.000	224.995	136.050	175.045	1	H	L	Lower	136.050	175.045
225.000	279.995	175.050	230.045	1	H	H	Lower	175.050	230.045
280.000	359.995	329.950	409.945	1	L	L	Upper	329.950	409.945
360.000	399.995	409.950	449.945	1	L	H	Upper	409.950	449.945
400.000	429.995	350.050	380.045	1	L	L	Lower	350.050	380.045
430.000	523.995	380.050	474.045	1	L	H	Lower	380.050	474.045
800.000	823.990	375.0250	387.0200	2	L	L	Lower	750.050	774.040
824.000	909.990	436.9750	479.9700	2	L	H	Upper	873.950	959.940
910.000	1109.990	319.9833	386.6467	3	L	L	Upper	959.950	1159.940
1100.000	1209.990	350.0167	386.6800	3	L	L	Lower	1050.050	1160.040
1210.000	1299.990	314.9875	337.4850	4	L	L	Upper	1259.950	1349.940

RX BPF switching frequency

	VHF BPF	UHF BPF
Band A	118~279.995MHz (5RVA : ON)	280~523.995MHz (5RUA : ON)
Band B	136~279.995MHz (5RVB : ON)	280~523.995MHz (5RUB : ON)

VHF BPF shift frequency

BPF shift switch	RX frequency	
	~199.995MHz	200MHz~
IC576 pin 16	L	H
IC577 pin 17	L	H

2.1.3 Panel Section

The panel section consists of the control section, the TNC section and the full-dot LCD (235 x 65 dots) display section.

The flash-type panel MPU (IC1) is used in the panel section and the firmware can be rewritten. Also, the panel MPU has no program for controlling frequency, so it is common for all types.

2.1.3.1 Power Supply Circuit

10V is always supplied to the panel section even if the power of the main unit is turned off, as long as the main unit is connected to a power supply such as battery. Power is applied to the panel MPU through the 5V AVR (IC6) and the panel section is operating in standby mode.

When in standby state, the LCD power, the RS-232C circuit power and the TNC power are turned off with switches Q1, Q2, and Q3 respectively, in order to reduce power consumption.

The reset signal of the panel MPU (IC1) detects the rising edge of the voltage of the 5V line with the voltage detection IC (IC3). The voltage detection IC (IC24) detects the reduced voltage of the 10V power line and backs up the state immediately before the voltage becomes approximately 8V or less, to the EEPROM (IC2).

The backup battery circuit divides the 5V voltage always applied with R115 and R116 and floating-charges the internal rechargeable lithium battery through the reverse current prevention diode (D3). The voltage of the battery is approximately 3.1V when fully charged.

The internal rechargeable lithium battery backs up the data of the S-RAM (IC13), RTC (IC25) and logic IC (IC15). The backup current of approximately 5µA is consumed. So, the data can be saved for approximately four weeks on a full charge.

33GPS(IC31) provide the power to the GPS Module (A1).

The S-RAM is used for maintaining the status of the packet mode.

The call sign of the APRS and reception list are stored in the EEPROM.

2.1.3.2 Key, Encoder, Volume Input Circuit

The panel section key corresponds to the panel MPU port, one-to-one. The POWER key is pulled up and connected to the interrupt port of the panel MPU.

Other keys are also pulled up outside because the panel MPU is an 8 bit data bus mode. The scanning process reads out the status of the keys. So, if a key is in the "L" level, no other keys are accepted.

The encoder is connected to the panel MPU and the port is pulled up.

The volume (VOL/SQ) divides the 5V voltage, reads with the A/D port of the panel MPU and transfers the data to the main unit section MPU (IC918).

2.1.3.3 Display Circuit

The LCD is a COF (Chip On Flexible printed circuit board) type with the driver IC mounted on the FPC and controlled by the 8 bit data bus mode. The voltage "V3" is approximately 12V for the LCD, but due to the voltage booster function of this driver IC, it can operate with a single power of 5V.

The contrast can change this "V3" voltage by 16 steps, using the internal memory of the driver IC.

2.1.3.4 Brightness Circuit

The illumination color can be set to either amber or green.

The PWM signal output from the panel MPU passes through the LPF, is converted into DC voltage, and controls the current that flows to the LED with the transistor. The duty of the PWM changes the LED brightness to one of eight levels or OFF.

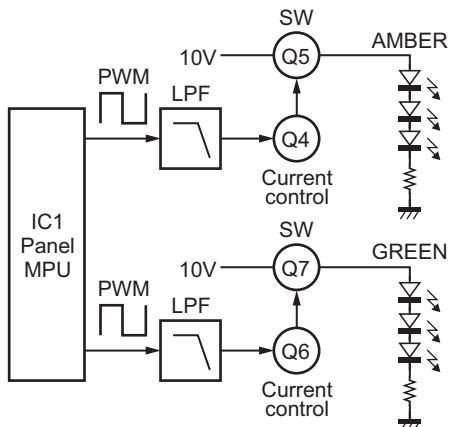


Fig.2 Brightness circuit

2.1.3.6 GPS Circuit

When the internal GPS information function is enabled, the AVR (IC31) for 33GPS (3.3V) is enabled by the GPSC, and is supplied to the GPS module.

The GPS signal of 1575.42MHz received with the antenna (A2) is passed by the BPF (L4) and is amplified by the LNA (IC1). The GPS signal is processed by the GPS module (A1) and input to the PANEL MPU (IC1) through the UART port.

33GPS(IC31) provide the power to the GPS Module (A1).

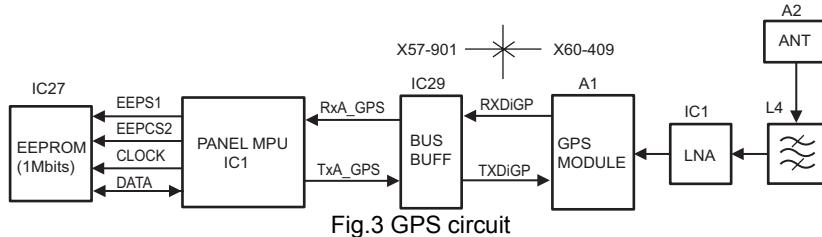


Fig.3 GPS circuit

2.2 SEMICONDUCTOR DATA

2.2.1 Panel MPU : 5F3651TDFC (Display unit IC1)

Pin No.	Port Name	I/O	Function
1	VREF	-	Referrence voltage
2	AVCC	-	Analog power supply
3	TNC_PSW	O	TNC power supply control output
4	SCL	O	RTC (R2223T) serial clock output
5	NC	-	Not used
6	32K_SW	O	Control of adjustment mode of RTC crystal
7	INTRA	I	RTC fixed-cycle interrupt terminal
8	CLOCK	O	Common serial clock output (EEPROM, DAC, serial-parallel)
9	DATA	O	Common serial data output (EEPROM, DAC, serial-parallel)
10	EEPCS2	O	EEPROM (1M bit) chip select output
11	EEPCS	O	EEPROM (512k bit) chip select output
12	EEPSI	I	EEPROM (512k bit) serial data input
13	BYTE	I	Not used (pull up)
14	CNVSS	I	Not used (pull down)
15	PKTSW	O	1200bps/ 9600bps switching
16	ENC_1	I	Encoder port B
17	RESET	I	System reset
18	XOUT	O	System clock output (11.0595MHz)
19	VSS	-	GND
20	XIN	I	System clock input (11.0595MHz)
21	VCC	-	5V power supply
22	NMI	I	Not used (pull up)
23	ENC_2	I	Encoder port A (INT)
24	RXD_INT	I	RXD detection interrupt from main unit UART terminal
25	INT	I	Power supply voltage fall detection interrupt
26	PKSOUT	O	PKS request output to transceiver main unit
27	RxA_iGPS	I	UART input from internal GPS terminal
28	SDA	I/O	RTC (R2223T) serial data
29	TxA_iGPS	O	UART output to internal GPS terminal
30	DA_EN	O	DAC (M62364) chip select output
31	AMBER	O	Brightness output PWM (Amber)
32	S5M_C	O	RS-232C driver power supply control
33	GREEN	O	Brightness output PWM (Green)
34	RXD(TNC)	I	UART input from internal TNC terminal
35	TXD(TNC)	O	UART output to internal TNC terminal
36	TXD	O	UART output to main unit MPU
37	VCC2	-	5V power supply
38	RXD	I	UART input from main unit MPU
39	VSS	-	GND

Pin No.	Port Name	I/O	Function
40	CLKFLS	I	Not used (GND)
41	FLS_SW	I	Not used (5V)
42	TXD(PC)	O	UART data output to PC terminal
43	RXD(PC)	I	UART data input from PC terminal
44	GPSC	O	GPS ON/OFF switch
45-47	NC	-	Not used
48	LCD_SW	O	LCD drive power supply switch (V3)
49	NC	-	Not used
50	RDY	I	Not used (pull up)
51	ALE	O	Not used
52	HOLD/EPM	I	Not used (pull up)
53	HLDA	O	Not used
54	Key 4	I	[MHz] key input
55	Key 3	I	[MR] key input
56	Key 2	I	[VFO] key input
57	Key 1	I	[CALL] key input
58	BCLK	O	Not used
59	RD	O	LCD driver RD terminal
60	BHE	O	Not used
61	WR	O	LCD driver WR terminal
62	Key 8	I	[REV] key input
63	Key 7	I	[TONE] key input
64	Key 6	I	[F] key input
65, 66	NC	-	Not used
67	LCD_RES	O	LCD driver reset terminal
68	CS0	O	LCD driver chip select
69	PCCTS	I	UART inhibiting signal input from PC
70	PCRTS	O	UART inhibiting signal output to PC
71	SQCIN	I	Squelch state input from transceiver main unit
72-79	NC	-	Not used
80	Key 5	I	[KEY] key input
81	NC	-	Not used
82	Key 11	I	[PF2] key input
83	Key 10	I	[PF1] key input
84	Key 9	I	[LOW] key input
85	VCC	-	5V power supply
86	A8	O	Not used
87	VSS	-	GND
88-94	A7-A1	O	Not used
95	A0	O	LCD driver (Address bus)
96	Power Key	I	Power key detection interrupt
97	Key 15	I	[PM] key input
98	Key 14	I	[TNC] key input
99	Key 13	I	[BAND SEL B] key input
100	Key 12	I	[BAND SEL A] key input

Pin No.	Port Name	I/O	Function
101	MBLED	I	Message board connection state input
102	MALED	I	Message board connection state input
103	TNC_RST	O	TNC MPU reset terminal
104-111	D7-D0	O	LCD driver data bus
112	NC	O	Not used
113	TNC_SEL	O	Switching between packet and APRS mode
114	S9600	I	Baud rate state input of TNC
115	TNCCTS	I	UART inhibiting signal input to TNC
116	TNCWR	O	TNC flash rewrite switching terminal
117	TNCRTS	O	UART inhibiting signal output from TNC
118	SQCOUP	O	Squelch status output to TNC
119	PKSIN	I	Packet standby (PKS) state input of TNC
120	CONLED	I	Connection state input
121	STALED	I	The transmission remaining packet state input
122	GPSLED	I	GPS measurement state input
123	TNC_CAR	O	Carrier sense output to TNC(carrier information of transmit band)
124	VOL_B	I	AF VOL(Band B) A/D input
125	VOL_A	I	AF VOL(BandA) A/D input
126	SQL_B	I	SQL(Band B) A/D input
127	AVSS	-	GND
128	SQL_A	I	SQL(Band A) A/D input

Pin No.	Port Name	I/O	Function
12	GPSTX	O	3 chip TNC → Serial communication host data line
13	HOSTTX	O	3 chip TNC → Serial communication GPS data line
14	GPSRX	I	Host → Serial communication data line of 3 chip TNC
15	HOSTRX	I	GPS → Serial communication data line of 3 chip TNC
16	NC	-	L: Packet mode
17	GPSLED	O	Outputs 1-sec interval pulse when position determination data from GPS are received.
18	ABAUD1	I	Determine the communication speed with host by combination among ABAUD1~3. Set L for 9600bps.
19	ABAUD2	I	Determine the communication speed with host by combination among ABAUD1~3. Set L for 9600bps.
20	ABAUD3	I	Determine the communication speed with host by combination among ABAUD1~3. Set H for 9600bps.
21	CARRIER (D3(NC))	I	Carrier sense. L: With carrier, H: No carrier
22	VSS	-	GND
23	NC	-	Not used
24	NC	-	Not used
25	B_SEL	O	Clock divider circuit control. L: 1/2, H: 1/1
26	NC	-	Not used
27~34	D8~D15	I/O	Data bus of S-RAM D0~D7
35	VCC	-	5V power supply
36~43	A0~A7	O	Address bus of S-RAM A0~A7
44	VSS	-	GND
45~53	A8~A16	O	Address bus of S-RAM A8~A16
54	A17(NC)	O	(Address bus of S-RAM A17)
55	A18(NC)	O	(Address bus of S-RAM A18)
56	A19	O	(Inverted to CS of S-RAM)
57	VSS	-	GND
58	WAIT	I	WAIT. H: Fixed
59	MBODLED	O	MBOD LED control. H: Light off, L: Light on
60	MAILLED	O	MAIL LED control. H: Light off, L: Light on
61	CLOUT(NC) (CARRIER)	O	Clock output (7.9872MHz). H:Sleep
62	STBY	I	Hardware standby terminal.L: Hardware standby status (Sleep action)
63	RESET	I	Reset terminal. L: Reset status

Pin No.	Port Name	I/O	Function
64	SLEEP	I	Sleep terminal. H: Fixed
65	VSS	-	GND
66	X2	I	System clock input (15.9744MHz)
67	X1	O	System clock output (15.9744MHz)
68	VCC	-	5V power supply
69	NC	-	Not used
70	RD(OE)	-	Connected to RD terminal of S-RAM
71	HWR	-	Connected to WR terminal of S-RAM
72	NC	-	Not used
73	MD0	I	MPU mode setting. Normally, H
74	MD1	I	MPU mode setting. Normally, L
75	MD2	I	MPU mode setting. Normally, H
76	VCC	-	5V power supply
77	VREF	-	5V power supply
78	TNC_SEL (VSS)	I	LOW
79	SPEC(VSS)	I	L: Fixed
80	GPS_SEL (VSS)	I	Selects GPS default. H: SONY(9600bps), L: NMEA(4800bps)
81	PLLOCK	I	Input from gate array
82	CLKEN (VSS)	I	MPU clock output selection. H: Output, L: No output
83	FLAG	I	Input from gate array
84	SIN	I	Inputs receive serial data from gate array
85	IODATA	I	Not used (GND)
86	VSS	-	Analog circuit GND
87	SCLKR	I	Clock input of receive data from gate array
88	SCLKT	I	Clock output of transmit data to gate array
89	IOCLK	I	Not used (GND)
90	IOEN	I	Extended output port data fixed control
91	NC	-	Not used
92	VSS	-	GND
93	SOUT	O	Serial data output to gate array
94	TXX	O	Transmit/receive switch output to gate array. H: Transmit, L: Receive
95	S9600	O	Output of gate array. H: 9600bps, L: 1200bps switch
96	WAY2	O	Output to gate array (Not used)
97	NC	-	Not used
98	LOOP	O	Output to gate array. (H: Loop back test in gate array)
99	PLLCNT	O	Output to gate array (PLL lock follow-up)
100	HOSTRTS	O	RTS signal of asynchronous serial communication with host

2.3 COMPONENTS DESCRIPTION

2.3.1 DISPLAY UNIT (X54-4120-00)

REF.NO	Use/Function	Operation/Condition/Compatibility
IC1	Panel MPU	
IC2	EEPROM	512k bits
IC3	Voltage detection	Reset voltage for panel MPU
IC4	Buffer	RXD to TX-RX unit
IC5	Buffer	TXD to TX-RX unit
IC6	5V AVR	5V
IC7	RS-232C driver	for COM port
IC10	OP amplifier	RX data buffer
IC11	TNC MPU	
IC12	TNC ASIC	
IC13	S-RAM	4M bits
IC15	Input NAND gate	TNC MPU reset control
IC16	Flip flop	1/2 Dividing frequency
IC17	Comparator	RX data
IC18	Comparator	RX 1200bps
IC19	Switching	TX1200bps/ TX9600bps
IC20	D/A converter	Port 1:TX data, Port 2:RX data
IC21	Buffer	SQC IN to TX-RX unit
IC22	OP amplifier	RX data LPF
IC23	RS-232C driver	for external GPS port
IC24	Voltage detection	INT voltage for panel MPU
IC25	RTC	Timer
IC27	EEPROM	1M bits for log data
IC29	Bus Buffer	UART swiching for Internal GPS
IC30	3.3V AVR	GPS_BU voltage
IC31	3.3V AVR	33GPS power supply
Q1	Switching	SW5V for LCD and Variable resistor volume
Q2	Switching	SW5V for RS-232C driver IC
Q3	Switching	SW5V for TNC ASIC and TNC MPU
Q4	Switching	Amber LED 10V control
Q5	Switching	10V for Amber LED
Q6	Switching	Green LED 10V control
Q7	Switching	10V for Green LED
Q9	Switching	SW5V for RTC IC
Q10	Switching	PKSOUT control
Q11	Switching	TNC MPU flash rewrite
Q12	Filter	RX 1200bps data
Q13	Filter	RX 9600bps data
Q14	Filter	RX 1200bps data
Q15	Filter	RX 1200bps data
Q16	Switching	PKTSW control

REF.NO	Use/Function	Operation/Condition/Compatibility
D1	Reverse current prevention	10V AVR input
D2	Reverse current prevention	for backup power supply control
D3	Reverse current prevention	for backup charge control
D4	Reverse current prevention	for backup battery
D8-29	Over voltage prevention	Prevent surge voltage
D30-32	LED	Amber
D33-35	LED	Green
D36,38	LED	Amber
D39,41	LED	Green
D42,43	LED	Amber
D44,45	LED	Green
D46-48	LED	Amber
D49-51	LED	Green
D52-54	LED	Amber
D55-57	LED	Green
D58-60	LED	Amber
D61-63	LED	Green
D64-66	LED	Amber
D67-69	LED	Green
D70-72	LED	Amber
D73-75	LED	Green
D76-78	LED	Amber
D79-81	LED	Green
D82-84	LED	Amber
D85-87	LED	Green
D88-90	LED	Amber
D91-93	LED	Green
D94-96	LED	Amber
D97-99	LED	Green
D100-102	LED	Amber
D103-105	LED	Green
D106-108	LED	Amber
D109-111	LED	Green
D112-114	LED	Amber
D115-117	LED	Green
D118-120	LED	Amber
D121-123	LED	Green
D124-126	LED	Amber
D127-129	LED	Green
D130-132	LED	Amber
D133-135	LED	Green
D136-138	LED	Amber

REF.NO	Use/Function	Operation/Condition/Compatibility
D139-141	LED	Green
D144	Discharge	10V detection
D145	Reverse current prevention	RXiGS signal line

2.4 TERMINAL FUNCTION

2.4.1 DISPLAY UNIT (X54-4120-00)

Pin No.	Name	I/O	Function
CN1 (for LCD)			
1	NC	-	No connection
2	VDI		VDD bypass
3	VDD		Switched 5V
4	VDIS		LCD multi-level power supply control
5	CS	I	Chip select
6	RES	I	Reset
7	A0	I	Address
8	WR	I	Write/ Read select
9	RD	I	Data bus select
10	D0	I/O	8bit MPU data bus
11	D1	I/O	8bit MPU data bus
12	D2	I/O	8bit MPU data bus
13	D3	I/O	8bit MPU data bus
14	D4	I/O	8bit MPU data bus
15	D5	I/O	8bit MPU data bus
16	D6	I/O	8bit MPU data bus
17	D7	I/O	8bit MPU data bus
18	VDI		VDD bypass
19	VDD		Switched 5V
20	NC	-	No connection
21	VSS		GND
22	NC	-	No connection
23	VDD		Switched 5V
24	NC	-	No connection
25	VDD2		Switched 5V
26	NC	-	No connection
27	VOUT	O	Output pin for step-up
28	NC	-	No connection
29	CAP1+	O	For step-up capacitor
30	CAP1-	O	For step-up capacitor
31	CAP2-	O	For step-up capacitor
32	CAP2+	O	For step-up capacitor
33	V3		LCD multi-level power supply
34	V2		LCD multi-level power supply

Pin No.	Name	I/O	Function
35	V1		LCD multi-level power supply
36	VC		LCD multi-level power supply
37	MV1		LCD multi-level power supply
38	MV2		LCD multi-level power supply
39	VSS	-	GND
40	SVD2	O	NC (Thermal sensor)
CN2			
1	GND	-	GND
2	SW5V	O	Switched 5V
3	KEY12	I	Volume key signal (Band A)
4	VOL_A	I	AF volume voltage (Band A)
5	SQL_A	I	SQL volume voltage (Band A)
CN3			
1	GND	-	GND
2	SW5V	O	Switched 5V
3	KEY13	I	Volume key signal (Band B)
4	VOL_B	I	AF volume voltage (Band B)
5	SQL_B	I	SQL volume voltage (Band B)
CN4			
1	PRI	I	TNC data input
2	10V	I	+10V
3	GND	-	GND
4	TXD	I	Serial data input
5	PKS	O	Data standby control signal output
6	PKD	O	TNC data output
7	RXD	O	Serial data output
8	SQC	I	Squelch control signal input
CN5 (for backup battery)			
1	+		Battery +
2	GND	-	GND
CN11			
1	GND	-	GND
2	SW5V	I	Switched 5V
3	KEY12	O	Volume key signal (Band A)
4	VOL_A	O	AF volume voltage (Band A)
5	SQL_A	O	SQL volume voltage (Band A)
CN12			
1	GND	-	GND
2	SW5V	I	Switched 5V
3	KEY13	O	Volume key signal (Band B)
4	VOL_B	O	AF volume voltage (Band B)
5	SQL_B	O	SQL volume voltage (Band B)
CN13			

Pin No.	Name	I/O	Function
1	PRI	O	TNC data output
2	10V	O	+10V
3	GND	-	GND
4	TXD	O	Serial data output
5	PKS	I	Data standby control signal input
6	PKD	I	TNC data input
7	RXD	I	Serial data input
8	SQC	O	Squelch control signal output
CN17			
1	GND	-	
2	GND	-	
3	33GPS	O	3.3V
4	GPS BU	O	Buck up 3.3V
5	GND	-	
6	TXiGP	O	Serial data output
7	GND	-	
8	RXiGP	I	Serial data input
9	GND	-	
10	NC	-	
J1 (to TX-RX (CONTROL) unit D/6)			
1	SQC	I	Squelch control signal input
2	RXD	O	Serial data output
3	PKD	O	TNC data output
4	PKS	O	Data standby control signal output
5	TXD	I	Serial data input
6	GND	-	GND
7	10V	I	+10V
8	PRI	I	TNC data input
J2 (COM terminal)			
1	RTS	O	Request to send
2	CTS	I	Clear to send
3	TXD	O	Transmit data
4	GND	-	GND
5	RXD	I	Receive data
6	NC	-	No connection
7	NC	-	No connection
8	NC	-	No connection
J3 (GPS jack)			
1	GND	-	GND
2	TXD	O	GPS receiver command output
3	RXD	I	GPS measurement data input

2.4.2 COMPOUND ASSY UNIT(GPS) (X60-4090-00)

Pin No.	Name	I/O	Function
1	NC	-	
2	GND	-	
3	RXiGP	O	Serial data output
4	GND	-	
5	TXiGP	I	Serial data input

Pin No.	Name	I/O	Function
6	GND	-	
7	GPS_BU	I	Buck up 3.3V
8	33GPS	I	3.3V
9	GND	-	
10	GND	-	

SECTION 3 DISASSEMBLY

This service manual does not describe DISASSEMBLY.

SECTION 4 ADJUSTMENT

4.1 Main MPU/Panel MPU/TNC MPU Version Check Method

4.1.1 Main MPU/Panel MPU version check method

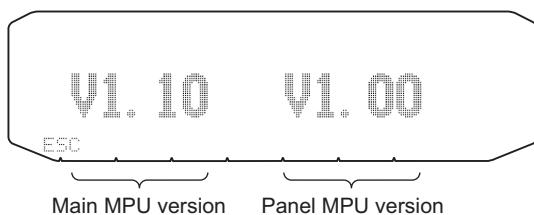
You can confirm the Main MPU and Panel MPU versions of the transceiver using its panel keys.

When confirming the version, use normal mode.

When confirming the version in APRS mode or packet mode and the beacon is transmitted, the version display is cancelled.

* Operation procedure

- (1) Turn the transceiver power OFF.
- (2) Turn the transceiver power ON while pressing the [PF1] key to enter the version display mode.
- (3) The Main MPU and Panel MPU versions are displayed when entering the version display mode.



- (4) To exit the version display mode, press the [ESC] key.

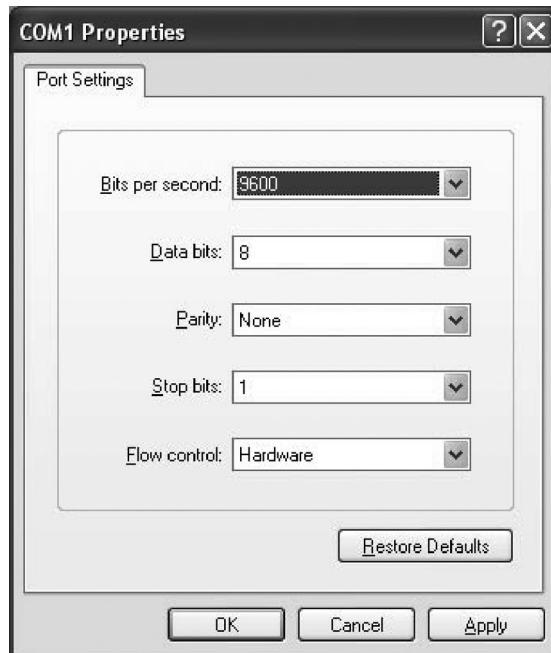
4.1.2 TNC MPU version check method

After connecting the transceiver to the PC via the PG-5G (programming cable), you can confirm the TNC MPU version by accessing the personal computer communication software.

* Operation procedure

- (1) Turn the transceiver power OFF.
- (2) Connect the RS-232C serial port of the PC to the COM terminal on the rear of the operation panel via the PG-5G (Programming cable).
- (3) Turn the transceiver power ON.
- (4) Run the personal computer communication software. The method of operating personal computer communication software "HyperTerminal" attached to Windows is described here as an example.
- (5) Click the "Start" button on the PC, and then select the software as follows: "Programs" → "Accessories" → "Communications" → "HyperTerminal"

- (6) The HyperTerminal starts, and the "Connection Description" window is displayed.
- (7) Input the name that you want to use, in the "Name" column, then click "OK".
- (8) Change the COM Port of the "Connect using" setting if necessary. (For example, select COM1.)
- (9) After selecting "OK" on the "Connect To" window, the "COM1 Properties" window is displayed.



- (10) Confirm the PC terminal baud rate speed set to the transceiver by following these steps:
 - a) Press the [F] key, then press the Tuning control.
 - b) Select "AUX" by turning the Tuning control.
 - c) Press the Tuning control to display the AUX menu.
 - d) Turn the Tuning control to select menu number 920 (PC PORT BAUDRATE). The baud rate is displayed.
 - e) Press the [ESC] key to exit menu mode.

- (11) Select the confirmed baud rate (from step 10, above) from the "Bits per second" pull-down menu on the "COM1 Properties" window.
 - (12) Click "OK" on the "COM1 Properties" window. The "HyperTerminal" window is displayed.
 - (13) Press the [TNC] key on the operation panel. "APRS 12 OPENING TNC" will appear on the display for approximately 1 second, followed by "APRS12".
 - Press the [TNC] key again to enter the packet mode. The TNC MPU version is displayed on the HyperTerminal window.
- Kenwood Radio Modem
AX.25 Level 2 Version 2.0
Release 23/Jun/07 3Chip ver 1.00 (TNC MPU version)
Checksum \$FD16
cmd:DA 070702113600
cmd:
- (14) To exit the packet mode, press the [TNC] key.

4.2 Measuring Equipment for Alignment

(1) Digital voltmeter (D.V.M)

Input impedance: High

(2) RF valve voltmeter (RF V.M.)

Input impedance: $1M\Omega$ or more, $2pF$ or less

Voltage range: Full scale=10mV to 300V

Measureable frequency range: Up to 450MHz

(3) Frequency counter (f.counter)

Input sensitivity: About 50mV

Measureable frequency: 450MHz or more

(4) DC power supply

Voltage: Variable in the range 10 to 17V
Current: 13A or more

(5) Power meter

Measurement power: 60W, 30W, 10W

Impedance: 50Ω

Measurable frequency: 450MHz

(6) AF valve voltmeter (AF V.M.)

Input impedance: $1M\Omega$ or more

Voltage range: Full scale=1mV to 30V

Measureable frequency range: 50Hz to 10kHz

(7) AF generator (AG)

Output frequency: 100Hz to 10kHz

Output voltage: 0.5mV to 1V

(8) Linear detector

Measurable frequency: 450MHz

(9) Spectrum analyzer

Measurable frequency: 450MHz

(10) Directional coupler

(11) Oscilloscope

High sensitivity with horizontal input terminal

(12) Standard signal generator (SSG)

The standard signal generator must be able to generate the 1.3GHz band frequencies and vary the amplitude and frequency.

Output: -133dBm to greater than -13dBm

(13) Dummy load (for AF)

8Ω , about 5W

(14) Noise generator

The noise generator must be able to generate noise similar to ignition noise containing high-frequency components of 450MHz or more.

(15) Sweep generator

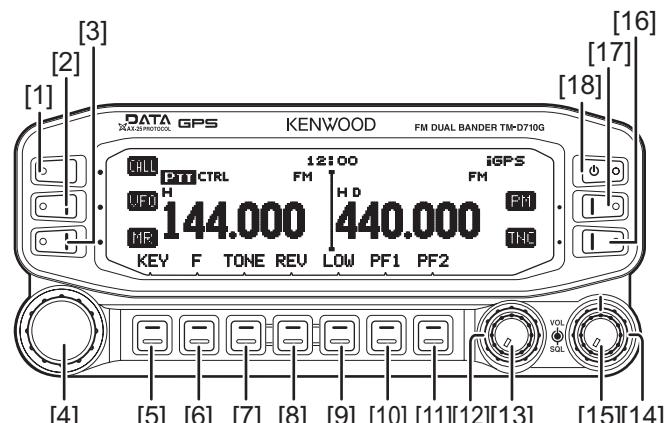
The sweep generator must be able to sweep the 144 and 430MHz bands.

(16) Tracking generator

4.3 Preparation

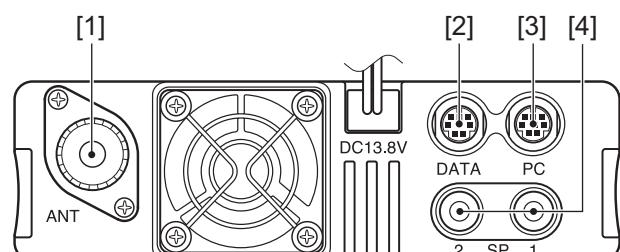
- To protect the signal generator, never connect the microphone to the microphone jack when the receiver section is adjusted.
- Without specification of SSG, standard modulation is applied (MOD: 1kHz, DEV: $\pm 3\text{kHz}$)

4.3.1 Operation panel (Front)



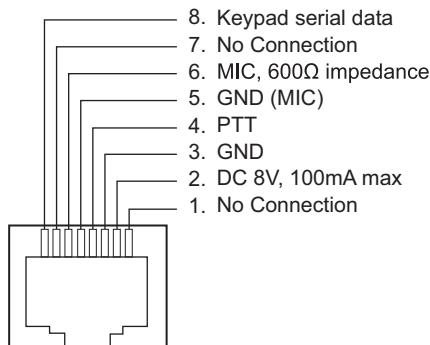
[1]	CALL	[10]	PF1
[2]	VFO	[11]	PF2
[3]	MR	[12]	SQL (Band A)
[4]	Tuning control	[13]	BAND SEL/ VOL (Band A)
[5]	KEY	[14]	SQL (Band B)
[6]	F	[15]	BAND SEL/ VOL (Band B)
[7]	TONE	[16]	TNC
[8]	REV	[17]	PM
[9]	LOW	[18]	Power switch

4.3.2 TX/RX unit (Rear)

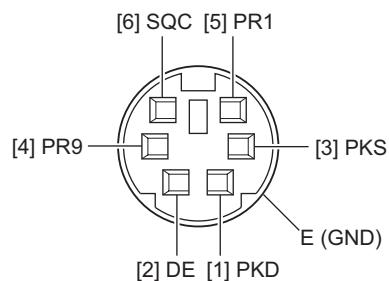


[1]	ANT	[3]	PC
[2]	DATA	[4]	SP (SP1/SP2)

4.3.3 Microphone jack (as viewed from the front of the transceiver)



* DATA connector pin assignment



Terminals [3] and [6] are short circuited.

[3] PKS (SEND switch for DATA terminal)

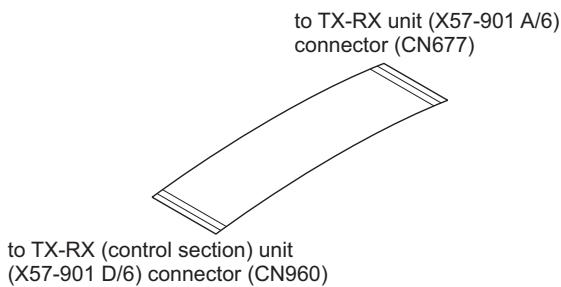
Connect PTT output. If PKS is set to "GND", data are sent and the microphone will be mute.

[6] SQC (Squelch control output)

This outputs squelch control output.

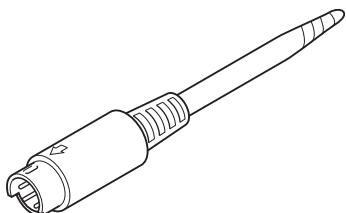
4.4 Service Jig

4.4.1 Extension flat cable (50-pin) (E37-1407-05), about 10cm

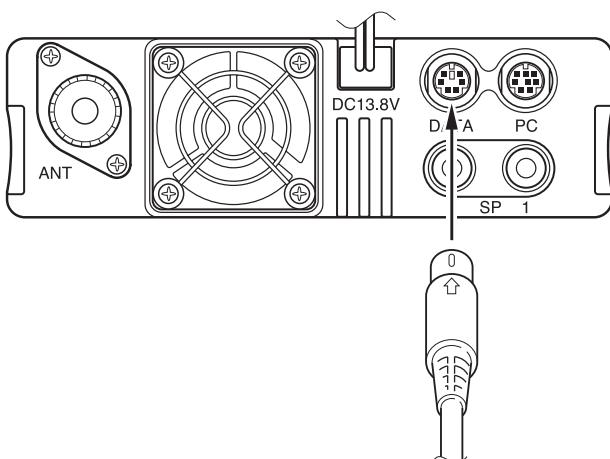


While servicing the unit, if you are checking the foil side of the TX-RX unit (X57-901 A/6), replace the original flat cable with extension cable (E37-1407-05).

4.4.2 Data terminal short plug (W05-0611-00)



Insert the adjustment jig (W05-0611-00) into the DATA connector located on the rear panel of the transceiver.



4.5 Adjustment Mode

The transceiver can be adjusted using its panel keys.

4.5.1 Adjustment Items

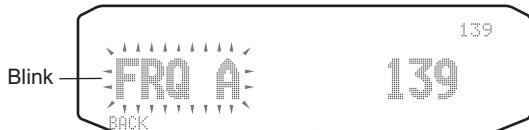
- (1) Frequency (Band A)
- (2) Frequency (Band B)
- (3) High power (144MHz band, 430MHz band)
- (4) Mid power (144MHz band, 430MHz band)
- (5) Low power (144MHz band, 430MHz band)
- (6) SWR protection (144MHz band, 430MHz band)
- (7) DCS balance (Band A) (144MHz band, 430MHz band)
- (8) DCS balance (Band B) (144MHz band, 430MHz band)
- (9) MAX deviation (Band A) (144MHz band, 430MHz band)
- (10) MAX deviation (Band B) (144MHz band, 430MHz band)
- (11) CTCSS deviation (Band A) (144MHz band, 430MHz band)
- (12) CTCSS deviation (Band B) (144MHz band, 430MHz band)
- (13) DCS deviation (Band A) (144MHz band, 430MHz band)
- (14) DCS deviation (Band B) (144MHz band, 430MHz band)
- (15) BPF RSSI (Band A) (144MHz band, 200MHz band, 430MHz band)*1
- (16) BPF RSSI (Band B) (144MHz band, 200MHz band, 430MHz band)*1
- (17) Squelch threshold (Band A) (144MHz band, 200MHz band, 300MHz band, 430MHz band)
- (18) Squelch threshold (Band B) (144MHz band, 200MHz band, 300MHz band, 430MHz band, 1.2GHz band)
- (19) Squelch tight (Band A) (144MHz band, 200MHz band, 300MHz band, 430MHz band)
- (20) Squelch tight (Band B) (144MHz band, 200MHz band, 300MHz band, 430MHz band, 1.2GHz band)
- (21) S-meter S1 (Band A) (144MHz band, 200MHz band, 300MHz band, 430MHz band)
- (22) S-meter S1 (Band B) (144MHz band, 200MHz band, 300MHz band, 430MHz band, 1.2GHz band)
- (23) S-meter full scale (Band A) (144MHz band, 200MHz band, 300MHz band, 430MHz band)
- (24) S-meter full scale (Band B) (144MHz band, 200MHz band, 300MHz band, 430MHz band, 1.2GHz band)

*1: Adjust 3 points (Low, Center, High) for the 144MHz band and the 200MHz band.

Adjust 5 points (Low, Low', Center, High', High) for the 430MHz band.

4.5.2 How to enter the adjustment mode

- (1) Turn the transceiver power OFF and insert the data terminal short plug (W05-0611-00) into the DATA terminal located on the rear panel of the transceiver.
- (2) Turn the transceiver power ON while pressing the [KEY] and [F] keys to enter adjustment mode.
- (3) The adjustment item "FRQ A" of the Band A frequency is displayed when entering the adjustment mode.

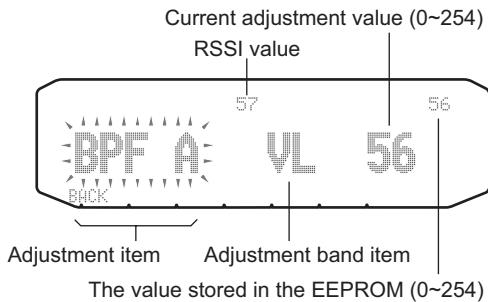


- (4) Remove the data terminal short plug from the DATA terminal of the transceiver.

Note:

- To exit the Adjustment Mode, turn the transceiver power OFF.
- When the adjustment mode is activated, the transceiver automatically sets the frequency as shown in "The frequency that is set to the transceiver" table, on section 4.5.6.

4.5.3 LCD display in the adjustment mode



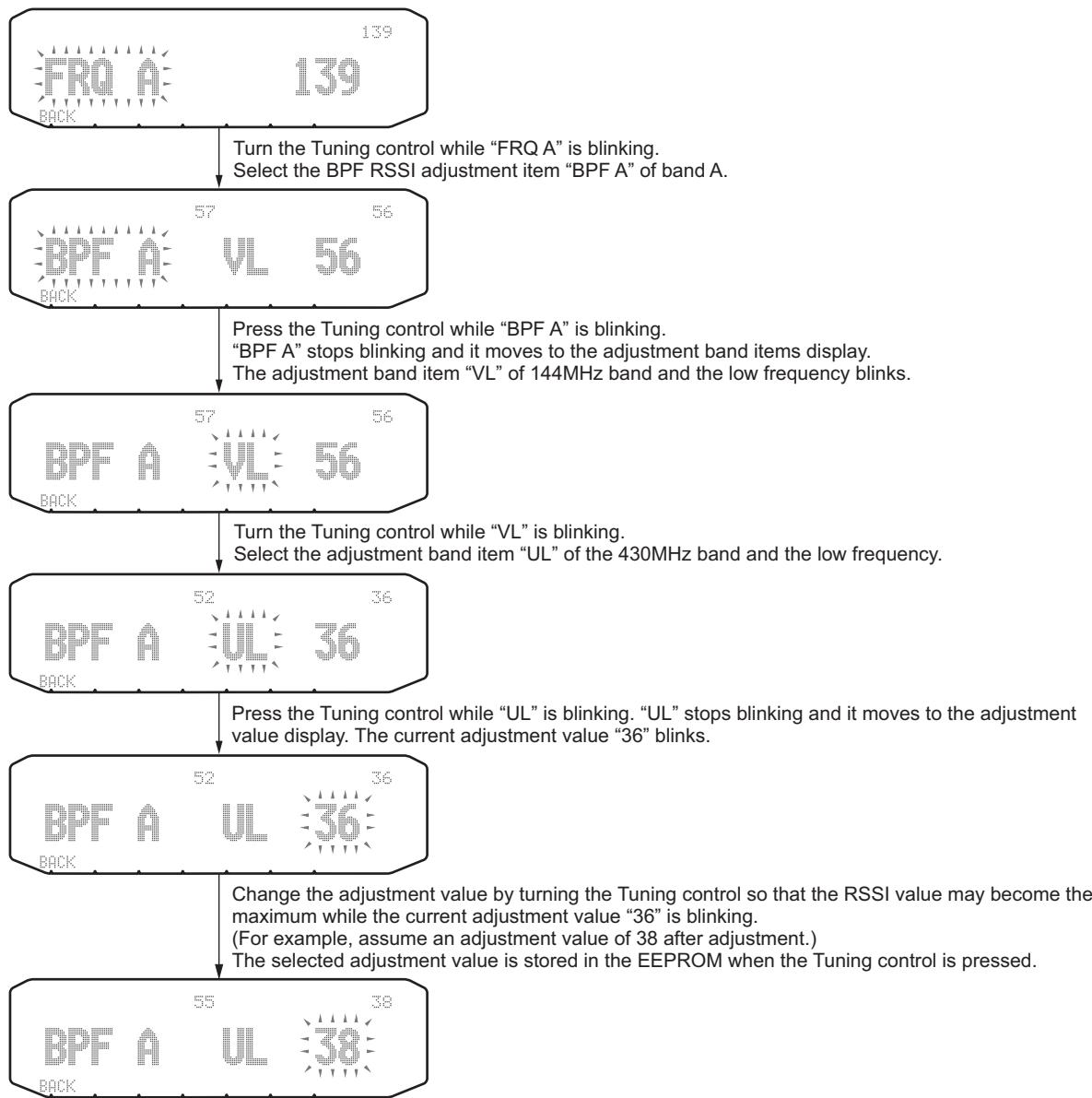
4.5.4 Panel key operation in the adjustment mode

Key name	Function
Tuning control	(Turn) • Changes the adjustment item or adjustment band item. • Increase or decrease the adjustment values (0~254).
	(Press) • Movement from the adjustment item display to the adjustment band item display or movement from the adjustment band item display to the adjustment value display. (Forward) • Write adjustment values.
[CALL], [BACK]	Movement from the adjustment value display to the adjustment band item display or movement from the adjustment band item display to the adjustment item display. (Back)
[VFO],[MR],[F], [TONE],[REV],[LOW], [PF1],[PF2], [TNC],[PM]	Unused
Microphone key	
[PTT]	Transmit. (Only the adjustment item of the transmitter section can be used.)

4.5.5 Example of the adjustment mode operation procedure

The operating procedure when the BPF RSSI of band A (430MHz band, low frequency) is adjusted is described as follows.

The adjustment item "FRQ A" of the band A frequency is displayed when entering the adjustment mode according to the operating procedure of "How to enter the adjustment mode" described on section 4.5.2.



4.5.6 Adjustment item, adjustment band item, display and the frequency that is set to the transceiver

*1: The DCS balance adjustment can adjust only the center frequency.

No.	Adjustment item	Adjustment band item	Display		The frequency that is set to the transceiver		Signaling
			Adjustment item	Adjustment band item	K type	E types	
1	Frequency(Band A)	-	FRQ A	-	444.100MHz	435.100MHz	
2	Frequency(Band B)	-	FRQ B	-	444.100MHz	435.100MHz	
3	High power	144MHz band	HPWR	V	146.100MHz	145.100MHz	
		430MHz band	HPWR	U	444.100MHz	435.100MHz	
4	Mid power	144MHz band	MPWR	V	146.100MHz	145.100MHz	
		430MHz band	MPWR	U	444.100MHz	435.100MHz	
5	Low power	144MHz band	LPWR	V	146.100MHz	145.100MHz	
		430MHz band	LPWR	U	444.100MHz	435.100MHz	
6	SWR protection	144MHz band	SWR	V	146.100MHz	145.100MHz	
		430MHz band	SWR	U	444.100MHz	435.100MHz	
7	DCS balance *1 (Band A)	144MHz band, Low frequency	BAL A	VL	136.100MHz	136.100MHz	
		144MHz band, Center frequency	BAL A	VC	146.100MHz	145.100MHz	
		144MHz band, High frequency	BAL A	VH	173.900MHz	173.900MHz	
		430MHz band, Low frequency	BAL A	UL	400.100MHz	400.100MHz	
		430MHz band, Center frequency	BAL A	UC	444.100MHz	435.100MHz	
		430MHz band, High frequency	BAL A	UH	469.900MHz	469.900MHz	
8	DCS balance *1 (Band B)	144MHz band, Low frequency	BAL B	VL	136.100MHz	136.100MHz	
		144MHz band, Center frequency	BAL B	VC	146.100MHz	145.100MHz	
		144MHz band, High frequency	BAL B	VH	173.900MHz	173.900MHz	
		430MHz band, Low frequency	BAL B	UL	400.100MHz	400.100MHz	
		430MHz band, Center frequency	BAL B	UC	444.100MHz	435.100MHz	
		430MHz band, High frequency	BAL B	UH	469.900MHz	469.900MHz	
9	MAX deviation (Band A)	144MHz band	DEV A	V	146.100MHz	145.100MHz	
		430MHz band	DEV A	U	444.100MHz	435.100MHz	
10	MAX deviation (Band B)	144MHz band	DEV B	V	146.100MHz	145.100MHz	
		430MHz band	DEV B	U	444.100MHz	435.100MHz	
11	CTCSS deviation (Band A)	144MHz band	CT A	V	146.100MHz	145.100MHz	CTCSS: 91.5Hz
		430MHz band	CT A	U	444.100MHz	435.100MHz	
12	CTCSS deviation (Band B)	144MHz band	CT B	V	146.100MHz	145.100MHz	CTCSS: 91.5Hz
		430MHz band	CT B	U	444.100MHz	435.100MHz	
13	DCS deviation (Band A)	144MHz band	DCS A	V	146.100MHz	145.100MHz	DCS: 023
		430MHz band	DCS A	U	444.100MHz	435.100MHz	
14	DCS deviation (Band B)	144MHz band	DCS B	V	146.100MHz	145.100MHz	DCS: 023
		430MHz band	DCS B	U	444.100MHz	435.100MHz	

No.	Adjustment item	Adjustment band item	Display		The frequency that is set to the transceiver		Signaling
			Adjustment item	Adjustment band item	K type	E types	
15	BPF RSSI (Band A)	144MHz band, Low frequency	BPF A	VL	118.050MHz	118.050MHz	
		144MHz band, Center frequency	BPF A	VC	145.050MHz	145.050MHz	
		144MHz band, High frequency	BPF A	VH	199.950MHz	199.950MHz	
		200MHz band, Low frequency	BPF A	2L	220.050MHz	220.050MHz	
		200MHz band, Center frequency	BPF A	2C	250.050MHz	250.050MHz	
		200MHz band, High frequency	BPF A	2H	279.950MHz	279.950MHz	
		430MHz band, Low frequency	BPF A	UL	300.050MHz	300.050MHz	
		430MHz band, Low' frequency	BPF A	ULD	350.050MHz	350.050MHz	
		430MHz band, Center frequency	BPF A	UC	400.050MHz	400.050MHz	
		430MHz band, High' frequency	BPF A	UHD	440.050MHz	440.050MHz	
16	BPF RSSI (Band B)	144MHz band, Low frequency	BPF B	VL	118.050MHz	118.050MHz	
		144MHz band, Center frequency	BPF B	VC	145.050MHz	145.050MHz	
		144MHz band, High frequency	BPF B	VH	199.950MHz	199.950MHz	
		200MHz band, Low frequency	BPF B	2L	220.050MHz	220.050MHz	
		200MHz band, Center frequency	BPF B	2C	250.050MHz	250.050MHz	
		200MHz band, High frequency	BPF B	2H	279.950MHz	279.950MHz	
		430MHz band, Low frequency	BPF B	UL	300.050MHz	300.050MHz	
		430MHz band, Low' frequency	BPF B	ULD	350.050MHz	350.050MHz	
		430MHz band, Center frequency	BPF B	UC	400.050MHz	400.050MHz	
		430MHz band, High' frequency	BPF B	UHD	440.050MHz	440.050MHz	
17	Squelch threshold (Band A)	144MHz band	SQ1 A	V	145.050MHz	145.050MHz	
		200MHz band	SQ1 A	2	220.050MHz	220.050MHz	
		300MHz band	SQ1 A	3	350.050MHz	350.050MHz	
		430MHz band	SQ1 A	U	440.050MHz	440.050MHz	
18	Squelch threshold (Band B)	144MHz band	SQ1 B	V	145.050MHz	145.050MHz	
		200MHz band	SQ1 B	2	220.050MHz	220.050MHz	
		300MHz band	SQ1 B	3	350.050MHz	350.050MHz	
		430MHz band	SQ1 B	U	440.050MHz	440.050MHz	
		1.2GHz band	SQ1 B	8	1270.050MHz	1270.050MHz	
19	Squelch tight (Band A)	144MHz band	SQT A	V	145.050MHz	145.050MHz	
		200MHz band	SQT A	2	220.050MHz	220.050MHz	
		300MHz band	SQT A	3	350.050MHz	350.050MHz	
		430MHz band	SQT A	U	440.050MHz	440.050MHz	
20	Squelch tight (Band B)	144MHz band	SQT B	V	145.050MHz	145.050MHz	
		200MHz band	SQT B	2	220.050MHz	220.050MHz	
		300MHz band	SQT B	3	350.050MHz	350.050MHz	
		430MHz band	SQT B	U	440.050MHz	440.050MHz	
		1.2GHz band	SQT B	8	1270.050MHz	1270.050MHz	
21	S-meter S1 (Band A)	144MHz band	SM1 A	V	145.050MHz	145.050MHz	
		200MHz band	SM1 A	2	220.050MHz	220.050MHz	
		300MHz band	SM1 A	3	350.050MHz	350.050MHz	
		430MHz band	SM1 A	U	440.050MHz	440.050MHz	

No.	Adjustment item	Adjustment band item	Display		The frequency that is set to the transceiver		Signaling
			Adjustment item	Adjustment band item	K type	E types	
22	S-meter S1 (Band B)	144MHz band	SM1 B	V	145.050MHz	145.050MHz	
		200MHz band	SM1 B	2	220.050MHz	220.050MHz	
		300MHz band	SM1 B	3	350.050MHz	350.050MHz	
		430MHz band	SM1 B	U	440.050MHz	440.050MHz	
		1.2GHz band	SM1 B	8	1270.050MHz	1270.050MHz	
23	S-meter full scale (Band A)	144MHz band	SM7 A	V	145.050MHz	145.050MHz	
		200MHz band	SM7 A	2	220.050MHz	220.050MHz	
		300MHz band	SM7 A	3	350.050MHz	350.050MHz	
		430MHz band	SM7 A	U	440.050MHz	440.050MHz	
24	S-meter full scale (Band B)	144MHz band	SM7 B	V	145.050MHz	145.050MHz	
		200MHz band	SM7 B	2	220.050MHz	220.050MHz	
		300MHz band	SM7 B	3	350.050MHz	350.050MHz	
		430MHz band	SM7 B	U	440.050MHz	440.050MHz	
		1.2GHz band	SM7 B	8	1270.050MHz	1270.050MHz	

4.6 Common Section

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
1. Setting	1)Power supply voltage DC power supply terminal : 13.8V							
2. Full reset	<p>1)Full reset Turn the transceiver power ON by pressing the power switch while [F] key is pressed. Release the [F] key. Select reset type "FULL RESET" by turning the Tuning control when the reset confirmation message appears. Press the Tuning control to set the reset type. Press the Tuning control again to perform the full reset.</p> <ul style="list-style-type: none"> This adjustment mode has an adjustment item to be used as is in the user mode setting contents (AIP, menu mode, etc). Therefore, if you do not perform the full reset, it may be adjusted unintentionally. <p>Note: When you do not want to remove data such as memory channel data, save the data using the MCP-6A (Memory control program) before performing the full reset, then write the data to the transceiver after performing the adjustment.</p>							

4.7 Transmitter Section: Adjustment Mode Setting Items

(Refer to the table on section 4.5.6 for the frequencies which will apply in the adjustment mode.)

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
1. Frequency (Band A) Adjust	1)Adj item: [FRQ A] Adjust: [***] 2)PTT: ON	f. counter	TX/RX unit (Rear)	ANT	Operation panel (Front)	Tuning control	Write	435.100MHz ±100Hz E 444.100MHz ±100Hz K
2. Frequency (Band B) Adjust	1)Adj item: [FRQ B] Adjust: [***] 2)PTT: ON	f. counter	TX/RX unit (Rear)	ANT	Operation panel (Front)	Tuning control	Write	435.100MHz ±100Hz E 444.100MHz ±100Hz K

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
3. High power Adjust	1)Adj item: [HPWR V] Adjust: [***] 2)PTT: ON	Power meter	TX/RX unit (Rear)	ANT	Operation panel (Front)	Tuning control	Write	50W±1W
• 144MHz band								48W±1W
• 430MHz band	3) Adj item: [HPWR U] Adjust: [***] 4) PTT: ON							
4. Mid power Adjust	1) Adj item: [MPWR V] Adjust: [***] 2) PTT: ON	Power meter	TX/RX unit (Rear)	ANT	Operation panel (Front)	Tuning control	Write	12W±1W K,E
• 144MHz band								
• 430MHz band	3) Adj item: [MPWR U] Adjust: [***] 4) PTT: ON							
5. Low power Adjust	1) Adj item: [LPWR V] Adjust: [***] 2) PTT: ON	Power meter	TX/RX unit (Rear)	ANT	Operation panel (Front)	Tuning control	Write	5W±1W
• 144MHz band								
• 430MHz band	3) Adj item: [LPWR U] Adjust: [***] 4) PTT: ON							
6. SWR protection Adjust	1) Adj item: [SWR V] Adjust: [***] 2) PTT: ON Note: Do not usually adjust the SWR protection adjustment; adjust it only when you replace the EEPROM.	Power meter	TX/RX unit (Rear)	ANT	Operation panel (Front)	Tuning control	Set the following adjustment values to the transceiver by turning the Tuning control. • When the transceiver is shipped, the SWR adjustment value is different from that which is stated in this manual, as SWR protection adjustment is performed at production. Although there is a difference in the numerical value, this does not pose a problem, as the adjustment value provided in this manual is the mean value. Adjustment value: 66	
• 144MHz band								
• 430MHz band	3) Adj item: [SWR U] Adjust: [***] 4) PTT: ON						Adjustment value:120	
7. DCS balance (Band A) Adjust	1) Adj item: [BAL A VC] Adjust: [***] Detector: +P HOLD LPF: 3kHz HPF: OFF De-emphasis: OFF 2) PTT: ON	Linear detector Oscilloscope	TX/RX unit (Rear)	ANT	Operation panel (Front)	Tuning control	By turning the Tuning control, adjust the modulation wave until it becomes the square wave.	
• 144MHz band								
• 430MHz band	3) Adj item: [BAL A UC] Adjust: [***] 4) PTT: ON							
8. DCS balance (Band B) Adjust	1) Adj item: [BAL B VC] Adjust: [***] Detector: +P HOLD LPF: 3kHz HPF: OFF De-emphasis: OFF 2) PTT: ON	Linear detector Oscilloscope	TX/RX unit (Rear)	ANT	Operation panel (Front)	Tuning control	By turning the Tuning control, adjust the modulation wave until it becomes the square wave.	
• 144MHz band								
• 430MHz band	3) Adj item: [BAL B UC] Adjust: [***] 4) PTT: ON							

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
9. MAX deviation (Band A) Adjust	1) Adj item: [DEV A V] Adjust: [***] AG: 1kHz/50mV K AG: 1kHz/20mV E Detector: +P,-P LPF: 15kHz HPF: OFF De-emphasis: OFF 2) PTT: ON	Linear detector Oscilloscope AG AF V.M	TX/RX unit (Rear)	ANT MIC	Operation panel (Front)	Tuning control	Write	4.2kHz±0.1kHz (According to the larger +P,-P)
• 144MHz band	3) Adj item: [DEV A U] Adjust: [***] 4) PTT: ON							
10. MAX deviation (Band B) Adjust	1) Adj item: [DEV B V] Adjust: [***] AG: 1kHz/50mV K AG: 1kHz/20mV E Detector: +P,-P LPF: 15kHz HPF: OFF De-emphasis: OFF 2) PTT: ON	Linear detector Oscilloscope AG AF V.M	TX/RX unit (Rear)	ANT MIC	Operation panel (Front)	Tuning control	Write	4.2kHz±0.1kHz (According to the larger +P,-P)
• 430MHz band	3) Adj item: [DEV B U] Adjust: [***] 4) PTT: ON							
11. CTCSS deviation (Band A) Adjust	1) Adj item: [CT A V] Adjust: [***] Detector: P-P/2 LPF: 3kHz HPF: OFF De-emphasis: OFF PTT:ON	Linear detector Oscilloscope	TX/RX unit (Rear)	ANT	Operation panel (Front)	Tuning control	Write	0.75kHz±0.05kHz
• 144MHz band	2) Adj item: [CT A U] Adjust: [***] PTT: ON							
12. CTCSS deviation (Band B) Adjust	1) Adj item: [CT B V] Adjust: [***] Detector: P-P/2 LPF: 3kHz HPF: OFF De-emphasis: OFF PTT: ON	Linear detector Oscilloscope	TX/RX unit (Rear)	ANT	Operation panel (Front)	Tuning control	Write	0.75kHz±0.05kHz
• 430MHz band	2) Adj item: [CT B U] Adjust: [***] PTT: ON							
13. DCS deviation (Band A) Adjust	1) Adj item: [DCS A V] Adjust: [***] Detector: +P HOLD LPF: 3kHz HPF: OFF De-emphasis: OFF PTT: ON	Linear detector Oscilloscope	TX/RX unit (Rear)	ANT	Operation panel (Front)	Tuning control	Write	0.75kHz±0.05kHz
• 144MHz band	2) Adj item: [DCS A V] Adjust: [***] PTT: ON							
• 430MHz band								

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
14. DCS deviation (Band B) Adjust	1) Adj item: [DCS B V] Adjust: [**] Detector: +P HOLD LPF: 3kHz HPF: OFF De-emphasis: OFF PTT: ON	Linear detector Oscilloscope	TX/RX unit (Rear)	ANT	Operation panel (Front)	Tuning control	Write	0.75kHz±0.05kHz
• 144MHz band	2) Adj item: [DCS B U] Adjust: [**] PTT: ON							
• 430MHz band								

4.8 Transmitter Section: User Mode Confirmation Items

(Do not insert the data terminal short plug to the DATA terminal of the transceiver when entering user mode.)

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
1. High power Check	1) Frequency: 144.000MHz 2) Frequency: 145.990MHz E Frequency: 147.990MHz K 3) PTT: ON	Power meter Ammeter	TX/RX unit (Rear)	ANT			Check	47~53W 12A or less
• Band A	4) Frequency: 430.000MHz E Frequency: 438.000MHz K 5) Frequency: 435.000MHz E Frequency: 444.000MHz K 6) Frequency: 439.990MHz E Frequency: 449.990MHz K 7) PTT: ON							45~51W 12A or less
• Band B	8) Frequency: 144.000MHz 9) Frequency: 145.000MHz E Frequency: 146.000MHz K 10) Frequency: 145.990MHz E Frequency: 147.990MHz K 11) PTT: ON	Power meter Ammeter	TX/RX unit (Rear)	ANT			Check	47~53W 12A or less
	12) Frequency: 430.000MHz E Frequency: 438.000MHz K 13) Frequency: 439.990MHz E Frequency: 449.990MHz K 14) PTT: ON							45~51W 12A or less
2. Mid power Check	1) Frequency: 144.000MHz 2) Frequency: 145.990MHz E Frequency: 147.990MHz K 3) PTT: ON	Power meter Ammeter	TX/RX unit (Rear)	ANT			Check	11~13W, 5A or less
• Band A	4) Frequency: 430.000MHz E Frequency: 438.000MHz K 5) Frequency: 435.000MHz E Frequency: 444.000MHz K 6) Frequency: 439.990MHz E Frequency: 449.990MHz K 7) PTT: ON							11~13W, 6A or less

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
• Band B	8) Frequency: 144.000MHz 9) Frequency: 145.000MHz E Frequency: 146.000MHz K 10) Frequency: 145.990MHz E Frequency: 147.990MHz K 11) PTT: ON	Power meter Ammeter	TX/RX unit (Rear)	ANT			Check	11~13W, 5A or less
	12) Frequency: 430.000MHz E Frequency: 438.000MHz K 13) Frequency: 439.990MHz E Frequency: 449.990MHz K 14) PTT: ON							11~13W, 6A or less
3. Low power Check	1) Frequency: 144.000MHz 2) Frequency: 145.990MHz E Frequency: 147.990MHz K 3) PTT: ON	Power meter Ammeter	TX/RX unit (Rear)	ANT			Check	4~6W 3.5A or less
• Band A	4) Frequency: 430.000MHz E Frequency: 438.000MHz K 5) Frequency: 435.000MHz E Frequency: 444.000MHz K 6) Frequency: 439.990MHz E Frequency: 449.990MHz K 7) PTT: ON							4~6W 4.5A or less
	8) Frequency: 144.000MHz 9) Frequency: 145.000MHz E Frequency: 146.000MHz K 10) Frequency: 145.990MHz E Frequency: 147.990MHz K 11) PTT: ON	Linear detector Oscilloscope	TX/RX unit (Rear)	ANT MIC			Check	4~6W 3.5A or less
• Band B	12) Frequency: 430.000MHz E Frequency: 438.000MHz K 13) Frequency: 439.990MHz E Frequency: 449.990MHz K 14) PTT: ON							4~6W 4.5A or less
4. MIC sensitivity Check	1) Frequency: 145.000MHz E Frequency: 146.000MHz K AG: 1kHz/5mV K AG: 1kHz/2mV E Detector: P-P/2 LPF: 15kHz HPF: OFF De-emphasis: OFF 2) PTT: ON	AG AF V.M	TX/RX unit (Rear)	ANT MIC			Check	±2.34~4.17kHz K ±2.38~4.05kHz E
• Band A	3) Frequency: 435.000MHz E Frequency: 444.000MHz K 4) PTT: ON							
	5) Frequency: 145.000MHz E Frequency: 146.000MHz K AG: 1kHz/5mV K AG: 1kHz/2mV E Detector: P-P/2 LPF: 15kHz HPF: OFF De-emphasis: OFF 6) PTT: ON						Check	±2.34~4.17kHz K ±2.38~4.05kHz E
• Band B	7) Frequency: 435.000MHz E Frequency: 444.000MHz K 8) PTT: ON							

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
5. CTCSS deviation Check	1) Frequency: 145.000MHz E Frequency: 146.000MHz K Detector: P-P/2 LPF: 3kHz HPF: OFF De-emphasis: OFF 2) PTT: ON	Linear detector Oscilloscope	TX/RX unit (Rear)	ANT			Check	0.65~0.85kHz
• Band A	3) Frequency: 435.000MHz E Frequency: 444.000MHz K 4) PTT: ON							
	5) Frequency: 145.000MHz E Frequency: 146.000MHz K Detector: P-P/2 LPF: 3kHz HPF: OFF De-emphasis: OFF 6) PTT: ON							
• Band B	7) Frequency: 435.000MHz E Frequency: 444.000MHz K 8) PTT: ON							
6. DCS deviation Check	1) Frequency: 145.000MHz E Frequency: 146.000MHz K Detector: +P HOLD LPF: 3kHz HPF: OFF De-emphasis: OFF 2) PTT: ON	Linear detector Oscilloscope	TX/RX unit (Rear)	ANT			Check	0.65~0.85kHz
• Band A	3) Frequency: 435.000MHz E Frequency: 444.000MHz K 4) PTT: ON							
	5) Frequency: 145.000MHz E Frequency: 146.000MHz K Detector: +P HOLD LPF: 3kHz HPF: OFF De-emphasis: OFF 6) PTT: ON							
• Band B	7) Frequency: 435.000MHz E Frequency: 444.000MHz K 8) PTT: ON							
7. Protection Check	TX Power: High ANT: Short circuit and Open	Ammeter	TX/RX unit (Rear)	ANT			Check	12A or less
• Band A	1) Frequency: 145.000MHz E Frequency: 146.000MHz K 2) PTT: ON							
	3) Frequency: 435.000MHz E Frequency: 444.000MHz K 4) PTT: ON							

4.9 Receiver Section: Adjustment Mode Setting Items

(Refer to the table on section 4.5.6 for the frequencies which will apply in the adjustment mode.)

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
1. BPF RSSI (Band A) Adjust	1) Adj item: [BPF A VL] → [BPF A VC] → [BPF A VH] Adjust: [***]	SSG Oscilloscope Distortion meter AF V.M Dummy load	TX/RX unit (Rear)	ANT EXT.SP	Operation panel (Front)	Tuning control	Turn the Tuning control until the maximum RSSI value will appear on the LCD. When the same RSSI value remains while it is being adjusted, set the adjustment value to the center value. For example, set the adjustment value to 38 for the values listed below.	
• 144MHz band	SSG output: -100dBm (2.24μV) SSG MOD: 1kHz SSG DEV: 3kHz							
• 200MHz band	2) Adj item: [BPF A 2L] Adjust: [***] SSG output: -100dBm (2.24μV) 3) Adj item: [BPF A 2C] Adjust: [***] SSG output: -90dBm (7.08μV) 4) Adj item: [BPF A 2H] Adjust: [***] SSG output: -80dBm (22.4μV)							
• 430MHz band	5) Adj item: [BPF A UL] Adjust: [***] SSG output: -90dBm (7.08μV) 6) Adj item: [BPF A ULD] →[BPF A UC] → [BPF A UHD] → [BPF A UH] Adjust: [***] SSG output: -100dBm (2.24μV)							
2. BPF RSSI (Band B) Adjust	1) Adj item: [BPF B VL] →[BPF B VC]→[BPF B VH] Adjust: [***] SSG output: -100dBm (2.24μV) SSG MOD: 1kHz SSG DEV: 3kHz	SSG Oscilloscope Distortion meter AF V.M Dummy load	TX/RX unit (Rear)	ANT EXT.SP	Operation panel (Front)	Tuning control	Turn the Tuning control until the maximum RSSI value will appear on the LCD. When the same RSSI value remains while it is being adjusted, set the adjustment value to the center value. For example, set the adjustment value to 38 for the values listed below.	
• 144MHz band	SSG output: -100dBm (2.24μV) SSG MOD: 1kHz SSG DEV: 3kHz							
• 200MHz band	2) Adj item: [BPF B 2L] Adjust: [***] SSG output: -100dBm (2.24μV) 3) Adj item: [BPF B 2C] Adjust: [***] SSG output: -90dBm (7.08μV) 4) Adj item: [BPF B 2H] Adjust: [***] SSG output: -80dBm (22.4μV)							
• 430MHz band	5) Adj item: [BPF B UL] Adjust: [***] SSG output: -90dBm (7.08μV) 6) Adj item: [BPF B ULD] →[BPF A UC]→[BPF A UHD] → [BPF A UH] Adjust: [***] SSG output: -100dBm (2.24μV)							

RSSI value	Adjustment value
54	35
55	36
55	37
55	38
55	39
55	40
54	41

RSSI value	Adjustment value
54	35
55	36
55	37
55	38
55	39
55	40
54	41

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
3. Squelch threshold (Band A) Writing	1) Adj item: [SQ1 A V] Adjust: [***] SSG output: -128dBm (0.089μV) SSG MOD: 1kHz SSG DEV: 3kHz	SSG	TX/RX unit (Rear)	ANT	Operation panel (Front)	Tuning control	Write	
• 144MHz band	2) Adj item: [SQ1 A 2] Adjust: [***] SSG output: -117dBm (0.32μV)							
• 200MHz band	3) Adj item: [SQ1 A 3] Adjust: [***] SSG output: -117dBm (0.32μV)							
• 300MHz band	4) Adj item: [SQ1 A U] Adjust: [***] SSG output: -128dBm (0.089μV)							
4. Squelch threshold (Band B) Writing	1) Adj item: [SQ1 B V] Adjust: [***] SSG output: -128dBm (0.089μV) SSG MOD: 1kHz SSG DEV: 3kHz	SSG	TX/RX unit (Rear)	ANT	Operation panel (Front)	Tuning control	Write	
• 144MHz band	2) Adj item: [SQ1 B 2] Adjust: [***] SSG output: -117dBm (0.32μV)							
• 200MHz band	3) Adj item: [SQ1 B 3] Adjust: [***] SSG output: -117dBm (0.32μV)							
• 300MHz band	4) Adj item: [SQ1 B U] Adjust: [***] SSG output: -128dBm (0.089μV)							
• 430MHz band	5) Adj item: [SQ1 B 8] Adjust: [***] SSG output: -108dBm (0.89μV)							
• 1.2GHz band								
5. Squelch tight (Band A) Writing	1) Adj item: [SQT A V] Adjust: [***] SSG output: -119dBm (0.25μV) SSG MOD: 1kHz SSG DEV: 3kHz	SSG	TX/RX unit (Rear)	ANT	Operation panel (Front)	Tuning control	Write	
• 144MHz band	2) Adj item: [SQT A 2] Adjust: [***] SSG output: -108dBm (0.89μV)							
• 200MHz band	3) Adj item: [SQT A 3] Adjust: [***] SSG output: -108dBm (0.89μV)							
• 300MHz band	4) Adj item: [SQT A U] Adjust: [***] SSG output: -119dBm (0.25μV)							
• 430MHz band								

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
6. Squelch tight (Band B) Writing	1) Adj item: [SQT B V] Adjust: [***] SSG output: -119dBm (0.25µV) SSG MOD: 1kHz SSG DEV: 3kHz	SSG	TX/RX unit (Rear)	ANT	Operation panel (Front)	Tuning control	Write	
• 144MHz band	2) Adj item: [SQT B 2] Adjust: [***] SSG output: -108dBm (0.89µV)							
• 200MHz band	3) Adj item: [SQT B 3] Adjust: [***] SSG output: -108dBm (0.89µV)							
• 300MHz band	4) Adj item: [SQT B U] Adjust: [***] SSG output: -119dBm (0.25µV)							
• 430MHz band	5) Adj item: [SQT B 8] Adjust: [***] SSG output: -98dBm (2.82µV)							
7. S-meter S1 (Band A)Writing	1) Adj item: [SM1 A V] Adjust: [***] SSG output: -118dBm (0.28µV) SSG MOD: 1kHz SSG DEV: 3kHz	SSG	TX/RX unit (Rear)	ANT	Operation panel (Front)	Tuning control	Write	
• 144MHz band	2) Adj item: [SM1 A 2] Adjust: [***] SSG output: -108dBm (0.89µV)							
• 200MHz band	3) Adj item: [SM1 A 3] Adjust: [***] SSG output: -108dBm (0.89µV)							
• 300MHz band	4) Adj item: [SM1 A U] Adjust: [***] SSG output: -118dBm (0.28µV)							
• 430MHz band								
8 .S-meter S1 (Band B) Writing	1) Adj item: [SM1 B V] Adjust: [***] SSG output: -118dBm (0.28µV) SSG MOD: 1kHz SSG DEV: 3kHz	SSG	TX/RX unit (Rear)	ANT	Operation panel (Front)	Tuning control	Write	
• 144MHz band	2) Adj item: [SM1 B 2] Adjust: [***] SSG output: -108dBm (0.89µV)							
• 200MHz band	3) Adj item: [SM1 B 3] Adjust: [***] SSG output: -108dBm (0.89µV)							
• 300MHz band	4) Adj item: [SM1 B U] Adjust: [***] SSG output: -118dBm (0.28µV)							
• 430MHz band	5) Adj item: [SM1 B 8] Adjust: [***] SSG output: -98dBm (2.82µV)							

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
9. S-meter full scale (Band A) Writing	1) Adj item: [SM7 A V] Adjust: [***] SSG output: -96dBm (3.54μV) SSG MOD: 1kHz SSG DEV: 3kHz	SSG	TX/RX unit (Rear)	ANT	Operation panel (Front)	Tuning control	Write	
• 144MHz band	2) Adj item: [SM7 A 2] Adjust: [***] SSG output: -86dBm (11μV)							
• 200MHz band	3) Adj item: [SM7 A 3] Adjust: [***] SSG output: -86dBm (11μV)							
• 300MHz band	4) Adj item: [SM7 A U] Adjust: [***] SSG output: -96dBm (3.54μV)							
10. S-meter full scale (Band B) Writing	1) Adj item: [SM7 B V] Adjust: [***] SSG output: -96dBm (3.54μV) SSG MOD: 1kHz SSG DEV: 3kHz	SSG	TX/RX unit (Rear)	ANT	Operation panel (Front)	Tuning control	Write	
• 144MHz band	2) Adj item: [SM7 B 2] Adjust: [***] SSG output: -86dBm (11μV)							
• 200MHz band	3) Adj item: [SM7 B 3] Adjust: [***] SSG output: -86dBm (11μV)							
• 300MHz band	4) Adj item: [SM7 B U] Adjust: [***] SSG output: -96dBm (3.54μV)							
• 430MHz band	5) Adj item: [SM7 B 8] Adjust: [***] SSG output: -76dBm (35.4μV)							
• 1.2GHz band								

4.10 Receiver Section: User Mode Configuration Items

(Check the signal band. Also, do not insert the data terminal short plug to the DATA terminal of the transceiver when entering user mode.)

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
1. AF distortion Check	1) Frequency: 145.250MHz E Frequency: 146.250MHz K SSG output: -53dBm (501μV) SSG MOD: 1kHz SSG DEV: 3kHz AF output: 1V/8Ω	SSG Oscilloscope Distortion meter AF V.M Dummy load	TX/RX unit (Rear)	ANT EXT.SP			Check	4% or less
• Band A	2) Frequency: 145.250MHz E Frequency: 146.250MHz K SSG output: -53dBm (501μV) AF output: 1V/8Ω							
• Band B								
2. Sensitivity Check	1) Frequency: 145.250MHz E Frequency: 146.250MHz K SSG output: -122dBm (0.178μV) SSG MOD: 1kHz SSG DEV: 3kHz AF output: 0.63V/8Ω 2) Frequency: 144.250MHz SSG output: -122dBm (0.178μV) 3) Frequency: 145.750MHz E Frequency: 147.750MHz K SSG output: -122dBm (0.178μV) 4) Frequency: 430.250MHz E Frequency: 438.250MHz K SSG output: -122dBm (0.178μV) 5) Frequency: 435.250MHz E Frequency: 444.250MHz K SSG output: -122dBm (0.178μV) 6) Frequency: 439.750MHz E Frequency: 449.750MHz K SSG output: -122dBm (0.178μV) 7) Frequency: 136.050MHz K,E SSG output: -115dBm (0.4μV) 8) Frequency: 160.050MHz K,E SSG output: -115dBm (0.4μV) 9) Frequency: 225.050MHz K,E SSG output: -110dBm (0.707μV) 10) Frequency: 382.050MHz K,E SSG output: -110dBm (0.707μV) 11) Frequency: 400.050MHz K,E SSG output: -118dBm (0.28μV) 12) Frequency: 460.050MHz K,E SSG output: -100dBm (2.24μV) 13) Frequency: 520.050MHz K,E SSG output: -100dBm (2.24μV)	SSG Oscilloscope Distortion meter AF V.M Dummy load	TX/RX unit (Rear)	ANT EXT.SP			Check	12dB SINAD or more
• Band A (Wide)								
• Band A (Narrow)	14) Frequency: 145.250MHz E Frequency: 146.250MHz K SSG output: -120dBm (0.22μV) SSG MOD: 1kHz SSG DEV: 1.5kHz AF output: 0.63V/8Ω 15) Frequency: 435.250MHz E Frequency: 444.250MHz K SSG output: -120dBm (0.22μV)							

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
• Band B (Wide)	16) Frequency: 145.250MHz E Frequency: 146.250MHz K SSG output: -122dBm (0.178μV) SSG MOD: 1kHz SSG DEV: 3kHz AF output: 0.63V/8Ω 17) Frequency: 144.250MHz SSG output: -122dBm (0.178μV) 18) Frequency: 145.750MHz E Frequency: 147.750MHz K SSG output: -122dBm (0.178μV) 19) Frequency: 430.250MHz E Frequency: 438.250MHz K SSG output: -122dBm (0.178μV) 20) Frequency: 435.250MHz E Frequency: 444.250MHz K SSG output: -122dBm (0.178μV) 21) Frequency: 439.750MHz E Frequency: 449.750MHz K SSG output: -122dBm (0.178μV) 22) Frequency: 136.050MHz K,E SSG output: -115dBm (0.4μV) 23) Frequency: 160.050MHz K,E SSG output: -115dBm (0.4μV) 24) Frequency: 225.050MHz K,E SSG output: -110dBm (0.707μV) 25) Frequency: 382.050MHz K,E SSG output: -110dBm (0.707μV) 26) Frequency: 400.050MHz K,E SSG output: -118dBm (0.28μV) 27) Frequency: 460.050MHz K,E SSG output: -100dBm (2.24μV) 28) Frequency: 520.050MHz K,E SSG output: -100dBm (2.24μV) 29) Frequency: 859.900MHz K,E SSG output: -90dBm (7.08μV) 30) Frequency: 1270.050MHz K,E SSG output: -100dBm (2.24μV)	SSG DVM Oscilloscope AF V.M	TX/RX unit (Rear)	ANT EXT.SP			Check	12dB SINAD or more
• Band B (Narrow)	31) Frequency: 145.250MHz E Frequency: 146.250MHz K SSG output: -120dBm (0.22μV) SSG MOD: 1kHz SSG DEV: 1.5kHz AF output: 0.63V/8Ω 32) Frequency: 435.250MHz E Frequency: 444.250MHz K SSG output: -120dBm (0.22μV)							
3. Hum and Noise Check	1) Frequency: 145.250MHz E Frequency: 146.250MHz K SSG output: -53dBm (501μV) SSG MOD: 1kHz SSG DEV: 3kHz AF output: 1V/8Ω AF V.M: 0dB	SSG Oscilloscope Distortion meter AF V.M Dummy load	TX/RX unit (Rear)	ANT EXT.SP				
• Band A	2) SSG DEV: OFF						Check	-43dB or less
	3) Frequency: 435.000MHz E Frequency: 444.000MHz K SSG output: -53dBm (501μV) AF V.M: 0dB							
	4) SSG DEV: OFF						Check	-43dB or less

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
• Band B	5) Frequency: 145.250MHz E Frequency: 146.250MHz K SSG output: -53dBm (501μV) AF V.M: 0dB	SSG Oscilloscope Distortion meter AF V.M Dummy load	TX/RX unit (Rear)	ANT EXT.SP				
	6) SSG DEV: OFF						Check	-43dB or less
	7) Frequency: 435.000MHz E Frequency: 444.000MHz K SSG output: -53dBm (501μV) AF V.M: 0dB							
	8) SSG DEV: OFF						Check	-43dB or less
4. Squelch Check	1) Frequency: 145.250MHz E Frequency: 146.250MHz K SSG output: OFF Set to the point where noise will be muted by turning the SQL knob (Band A).	SSG Oscilloscope	TX/RX unit (Rear)	ANT EXT.SP			Check	SQL knob (Band A) position: 8:00~11:00 BUSY icon disappear. SQL knob (Band A) 11:00 8:00 7:00 (MIN)
Band A • 144MHz band	2) SSG output: -126dBm (0.11μV) SSG MOD: 1kHz SSG DEV: 3kHz AF output: 0.63V/8Ω							
• 430MHz band	3) Frequency: 435.250MHz E Frequency: 444.250MHz K SSG output: OFF Set to the point where noise will be muted by turning the SQL knob (Band A).						Check	SQL knob (Band A) position: 8:00~11:00 BUSY icon disappear. SQL knob (Band A) 11:00 8:00 7:00 (MIN)
	4) SSG output: -126dBm (0.11μV) SSG MOD: 1kHz SSG DEV: 3kHz AF output: 0.63V/8Ω							
Band B • 144MHz band	5) Frequency: 145.250MHz E Frequency: 146.250MHz K SSG output: OFF Set to the point where noise will be muted by turning the SQL knob (Band B).						Check	SQL knob (Band B) position: 8:00~11:00 BUSY icon disappear. SQL knob (Band B) 11:00 8:00 7:00 (MIN)
	6) SSG output: -126dBm (0.11μV) SSG MOD: 1kHz SSG DEV: 3kHz AF output: 0.63V/8Ω							

SECTION 5

TROUBLESHOOTING

5.1 EchoLink Operation Check Method

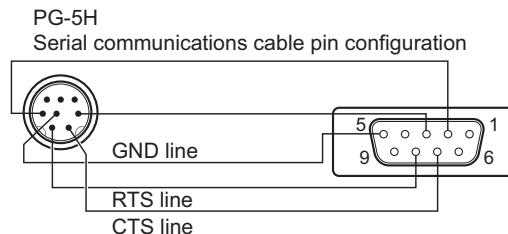
You can confirm whether the terminal for EchoLink operates normally by performing the following three operation checks.

- (1) Squelch signal operation check
- (2) PTT signal operation check
- (3) Voice operation check

5.1.1 Operation procedure

- (1) Connect the serial communications cable (8-pin mini DIN terminal and D-SUB terminal) of the PG-5H (PC interface cable kit) to the PC terminal on the rear of the transceiver.
- (2) Turn the transceiver power ON while pressing the [PF2] key, to enter the EchoLink Sysop mode.
- (3) Check the squelch signal operation.
 - a) The squelch signal is output from pin 1 of the transceiver PC terminal or pin 8 of the PG-5H D-SUB terminal (RTS). Check the voltage of the RTS line with a digital voltmeter.

Terminal name	PC terminal of the transceiver	D-SUB terminal of PG-5H
RTS	pin 1	pin 8
CTS	pin 2	pin 7



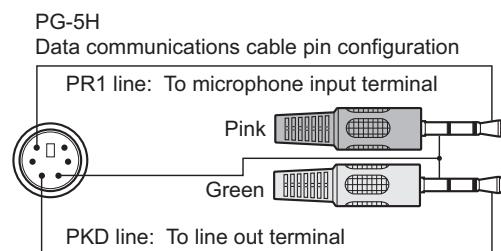
- b) When you open and close the transceiver squelch, check that the voltage of the RTS line increases and decreases.
(Reference voltage value of RTS line)
Voltage when squelch is closed: 10 V
Voltage when squelch is opened: -10 V

- (4) Check the PTT signal operation.

- a) Input 5 to 10 V to pin 2 of the transceiver PC terminal or pin 7 of the PG-5H D-SUB terminal (CTS).
- b) Ensure that the transceiver becomes the transmission state.

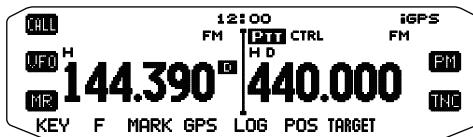
- (5) Check the voice operation.

- a) Connect the data communications cable (6-pin mini DIN terminal and pink/ green pin) of the PG-5H (Interface cable kit) to the DATA terminal on the rear of the transceiver.
- b) Input a 1kHz/ 150 mV AF signal from AG to the green pin of the data communication cable (PKD line).
Confirm the modulation of 2 to 4 kHz deviation hangs when transmitting by PTT operation as stated in step 4), above.
- c) Input a standard modulation signal of -47dBm (MOD: 1 kHz, DEV: 3 kHz) from SSG to the transceiver.
Check that a 1 kHz tone of 3 to 15 mV is output from the pink pin (PR1 line) of the data communication cable.



5.2 Built-in GPS Operation Check Method

- (1) The transceiver power ON and OFF.

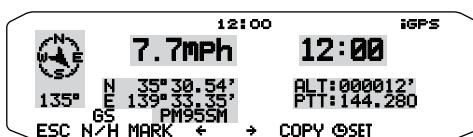


- (2) Press [KEY] , and press [GPS] to turn the Internal GPS receiver ON.

When the Internal GPS receiver is ON, the "iGPS" indicator appears on the display.

- (3) When the Internal GPS receiver is On, pressing [POS] will display "Latitude longitude, Time, Altitude, Travel direction, Speed, Grid square locator, PTT frequency".

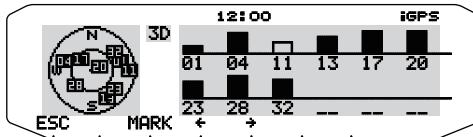
<Latitude longitude, Time, Speed information>



- (4) Press [→] to cycle the display between "Target point name, Target point distance, Target direction" → "Log memory" → "GPS satellite information".

- Press [←] to return to the previous display.

<GPS satellite information>



5.3 Service Unit Information

X57-9010-61 : VCO A/VCO B unit for service.

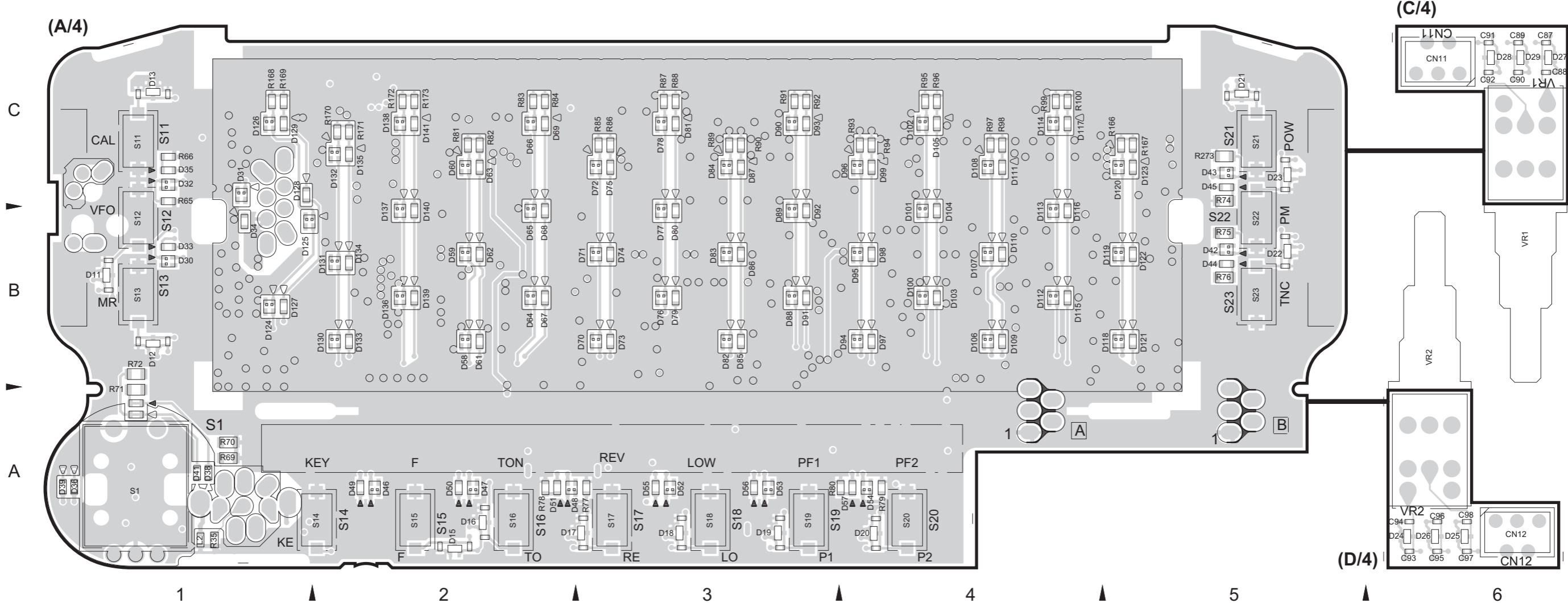
Note

The update program of firmware should use what the model name matched.

PRINTED CIRCUIT BOARD

■ DISPLAY UNIT (X54-4120-00) (A/4, B/4, C/4, D/4)

--- Component side view (J79-0426-09) ---



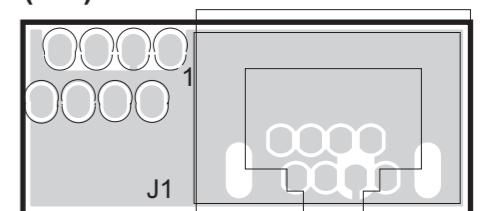
● ADDRESS TABLE OF BOARD PARTS

Each address may have an address error by one interval.

A-1C
Side Y axis
X axis

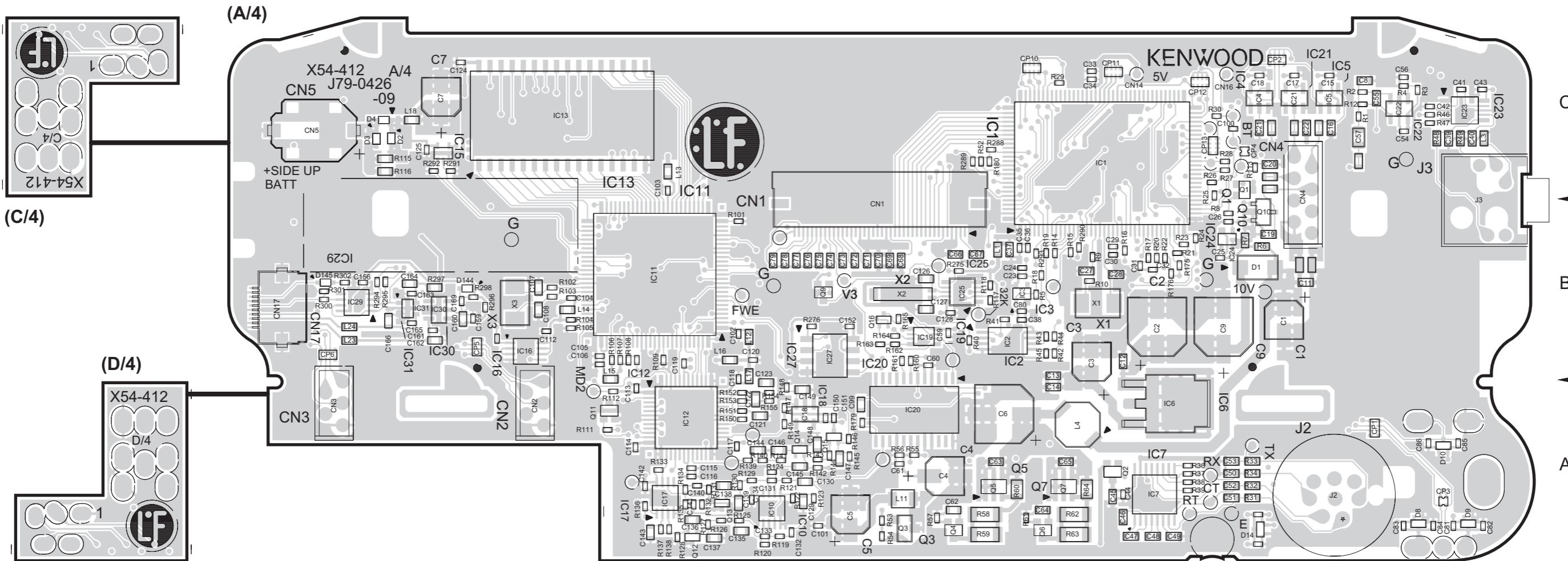
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DIODE		D32	A- 1C	D55	A- 3A	D76	A- 3B	D97	A- 4B	D118	A- 2C	R83	A- 2C	R169	A- 1C	C98	A- 6A		
D11	A- 1B	D33	A- 1B	D56	A- 3A	D77	A- 3B	D98	A- 4B	D119	A- 5B	R84	A- 2C	R170	A- 2C				
D12	A- 1B	D34	A- 1B	D57	A- 4A	D78	A- 3C	D99	A- 4C	D120	A- 5C	D140	A- 2B	R85	A- 3C	R171	A- 2C		
D13	A- 1C	D35	A- 1C	D58	A- 2B	D79	A- 3B	D100	A- 4B	D121	A- 5B	R86	A- 3C	R172	A- 2C	CN11	A- 6C		
D15	A- 2A	D36	A- 1A	D59	A- 2B	D80	A- 3B	D101	A- 4B	D122	A- 5B	R87	A- 3C	R173	A- 2C	CN12	A- 6A		
D16	A- 2A	D38	A- 1A	D60	A- 2C	D81	A- 3C	D102	A- 4C	D123	A- 5C	R88	A- 3C	R273	A- 5C	S1	A- 1A		
D17	A- 3A	D39	A- 1A	D61	A- 2B	D82	A- 3B	D103	A- 4B	D124	A- 1B	R89	A- 3C	VR1	A- 6B	S11	A- 1C		
D18	A- 3A	D41	A- 1A	D62	A- 2B	D83	A- 3B	D104	A- 4B	D125	A- 1B	R90	A- 3C	VR2	A- 6B	S12	A- 1B		
D19	A- 3A	D42	A- 5B	D63	A- 2C	D84	A- 3C	D105	A- 4C	D126	A- 1C	R91	A- 1A	R91	A- 3C	S13	A- 1B		
D20	A- 4A	D43	A- 5C	D64	A- 2B	D85	A- 3B	D106	A- 4B	D127	A- 1B	R92	A- 1A	R92	A- 3C	CAPACITOR	S14	A- 2A	
D21	A- 5C	D44	A- 5B	D65	A- 2B	D86	A- 3B	D107	A- 4B	D128	A- 1C	R71	A- 1A	R93	A- 4C	C87	A- 6C	S15	A- 2A
D22	A- 5B	D45	A- 5C	D66	A- 2C	D87	A- 3C	D108	A- 4C	D129	A- 1C	R72	A- 1B	R94	A- 4C	C88	A- 6C	S16	A- 2A
D23	A- 5C	D46	A- 2A	D67	A- 2B	D88	A- 3B	D109	A- 4B	D130	A- 2B	R74	A- 5C	R95	A- 4C	C89	A- 6C	S17	A- 3A
D24	A- 6A	D47	A- 2A	D68	A- 2B	D89	A- 3B	D110	A- 4B	D131	A- 2B	R75	A- 5B	R96	A- 4C	C90	A- 6C	S18	A- 3A
D25	A- 6A	D48	A- 2A	D69	A- 2C	D90	A- 3C	D111	A- 4C	D132	A- 2C	R76	A- 5B	R97	A- 4C	C91	A- 6C	S19	A- 3A
D26	A- 6A	D49	A- 2A	D70	A- 3B	D91	A- 3B	D112	A- 4B	D133	A- 2B	R77	A- 3A	R98	A- 4C	C92	A- 6C	S20	A- 4A
D27	A- 6C	D50	A- 2A	D71	A- 3B	D92	A- 3B	D113	A- 4B	D134	A- 2B	R78	A- 2A	R99	A- 4C	C93	A- 6A	S21	A- 5C
D28	A- 6C	D51	A- 2A	D72	A- 3C	D93	A- 3C	D114	A- 4C	D135	A- 2C	R79	A- 4A	R100	A- 4C	C94	A- 6A	S22	A- 5B
D29	A- 6C	D52	A- 3A	D73	A- 3B	D94	A- 4B	D115	A- 4B	D136	A- 2B	R80	A- 4A	R166	A- 5C	C95	A- 6A	S23	A- 5B
D30	A- 1B	D53	A- 3A	D74	A- 3B	D95	A- 4B	D116	A- 4B	D137	A- 2B	R81	A- 2C	R167	A- 5C	C96	A- 6A	L2	A- 1A
D31	A- 1C	D54	A- 4A	D75	A- 3C	D96	A- 4C	D117	A- 4C	D138	A- 2C	R82	A- 2C	R168	A- 1C	C97	A- 6A		

(B/4)



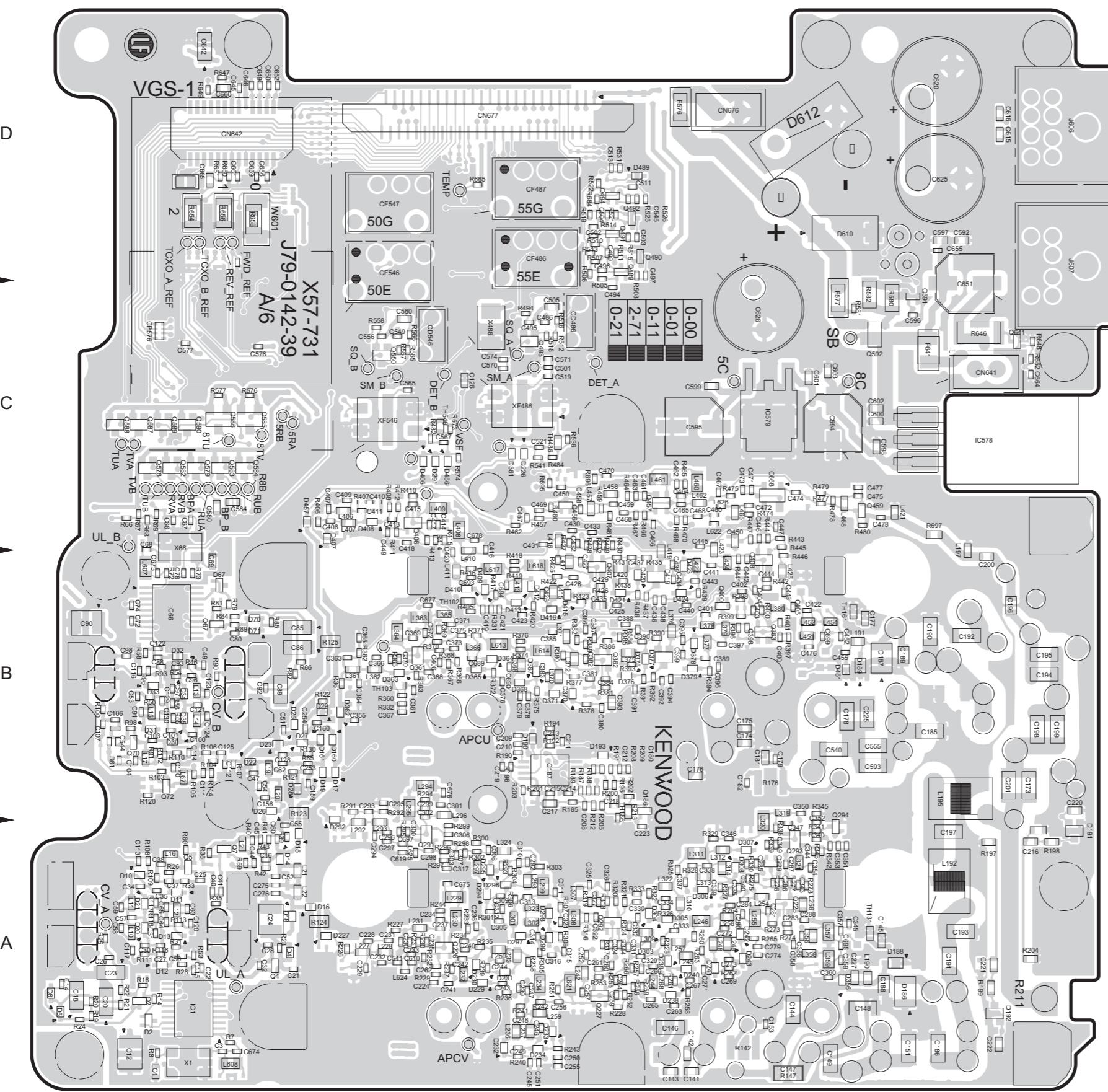
■ DISPLAY UNIT (X54-4120-00) (A/4, B/4, C/4, D/4)

--- Foil side view (J79-0426-09) ---



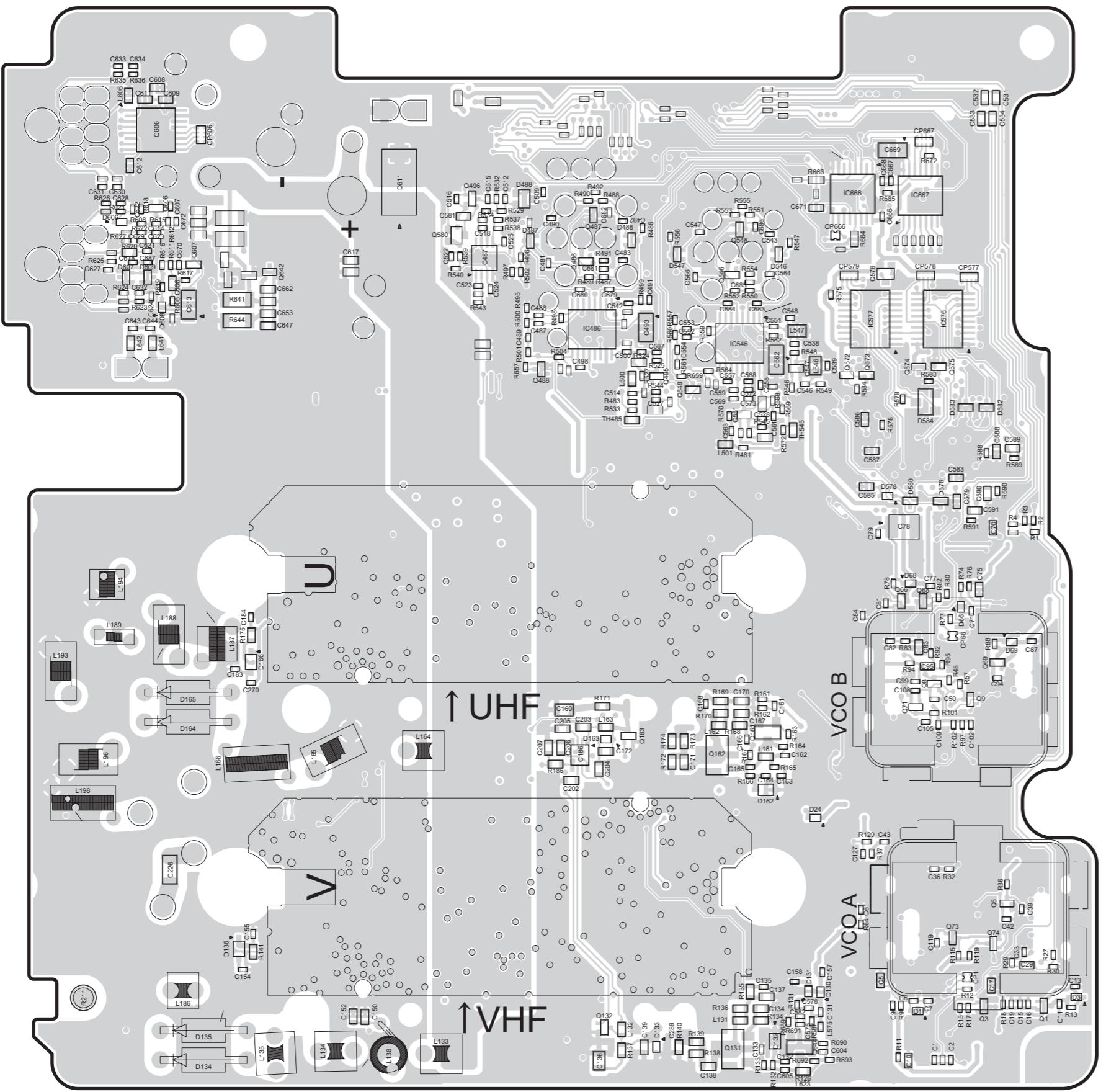
■ TX-RX UNIT (X57-9010-12:K, X57-9012-72:E) (A/6)

--- Component side view (J79-0142-39) ---



■ TX-RX UNIT (X57-9010-12:K, X57-9012-72:E) (A/6)

--- Foil side view (J79-0142-39) ---



● ADDRESS TABLE OF BOARD PARTS

A-1C
Side Y axis
X axis

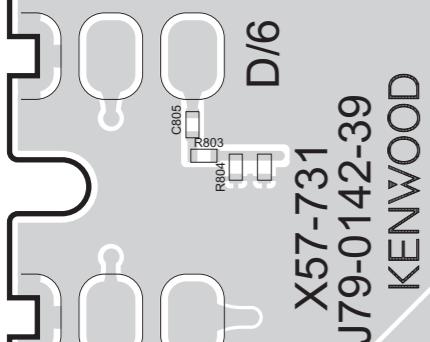
Each address may have an address error by one interval.

REF.NO. LOCATION	REF.NO. LOCATION	REF.NO. LOCATION	REF.NO. LOCATION	REF.NO. LOCATION	REF.NO. LOCATION	REF.NO. LOCATION	REF.NO. LOCATION	REF.NO. LOCATION	REF.NO. LOCATION	REF.NO. LOCATION	REF.NO. LOCATION	REF.NO. LOCATION	REF.NO. LOCATION	REF.NO. LOCATION	REF.NO. LOCATION	REF.NO. LOCATION	REF.NO. LOCATION	REF.NO. LOCATION	REF.NO. LOCATION
IC	Q583 A- 1C	D240 A- 3A	R20 A- 1A	R120 A- 1B	R257 A- 3A	R393 A- 3B	R510 A- 3D	R626 B- 4D	C56 A- 1A	C146 A- 3A	C234 A- 2A	C334 A- 3A	C430 A- 2C	C533 B- 1D	C624 B- 4C	CD546 A- 2C	L312 A- 3A		
IC1 A- 1A	Q584 A- 1C	D241 A- 3A	R21 A- 1A	R121 A- 1B	R258 A- 3A	R394 A- 3B	R511 A- 3D	R627 B- 4D	C57 A- 1A	C147 A- 3A	C235 A- 2A	C335 A- 3A	C431 A- 2C	C534 B- 1D	C625 A- 4D	CF486 A- 2D	L313 A- 3A		
IC66 A- 1B	Q585 A- 1C	D242 A- 3A	R22 A- 1A	R122 A- 2B	R259 A- 3A	R396 A- 3B	R512 A- 2C	R635 B- 4D	C58 A- 1A	C148 A- 4A	C236 A- 2A	C337 A- 3A	C432 A- 2C	C538 B- 2C	C626 A- 3C	CF487 A- 2D	L314 A- 3A		
IC186 B- 2B	Q586 A- 1C	D243 A- 3A	R23 A- 1A	R123 A- 1B	R260 A- 3A	R397 A- 3B	R513 A- 3D	R636 B- 4D	C59 A- 1A	C149 A- 3A	C237 A- 2A	C338 A- 3A	C433 A- 3C	C539 B- 1C	C627 B- 4D	CF546 A- 2D	L319 A- 3B		
IC187 A- 2B	Q587 A- 1C	D291 A- 2C	R24 A- 1A	R124 A- 2A	R261 A- 3A	R398 A- 3B	R514 A- 3D	R641 B- 4C	C60 A- 1A	C150 B- 3A	C239 A- 2A	C339 A- 3A	C434 A- 3B	C540 A- 3B	C628 B- 4D	CF547 A- 2D	L320 A- 3A		
IC486 B- 2C	Q588 A- 1C	D292 A- 2B	R25 A- 1A	R125 A- 2B	R262 A- 3A	R399 A- 3B	R515 A- 3D	R644 B- 4C	C61 B- 1A	C151 A- 4A	C240 A- 2A	C340 A- 3A	C435 A- 3B	C541 A- 2A	C629 B- 4D	F576 A- 3D	L321 A- 3A		
IC487 B- 3D	Q589 A- 1C	D294 A- 2A	R26 A- 1A	R126 B- 2A	R263 A- 3A	R400 A- 3B	R516 A- 2C	R646 A- 4C	C62 B- 1A	C152 B- 3A	C241 A- 2A	C343 A- 3A	C436 A- 3B	C542 B- 2C	C630 B- 4D	F577 A- 3C	L322 A- 3A		
IC546 B- 2C	Q590 A- 1C	D295 A- 2A	R27 B- 1A	R127 A- 2A	R264 A- 3A	R401 A- 3B	R518 A- 2C	R647 A- 1D	C63 A- 1A	C153 A- 3A	C242 A- 2A	C344 A- 3A	C437 A- 3B	C543 B- 2D	C631 B- 4D	F641 A- 4C	L323 A- 2A		
IC576 B- 1C	Q591 A- 4C	D296 A- 2A	R28 A- 1A	R130 A- 2B	R265 A- 3A	R405 A- 2B	R519 A- 3D	R648 A- 4C	C64 A- 1A	C154 B- 4A	C243 A- 2A	C345 A- 3A	C438 A- 3B	C544 A- 1B	C632 B- 4C	J606 A- 4D	L324 A- 2A		
IC577 B- 1C	Q592 A- 4C	D297 A- 2A	R29 B- 1A	R131 A- 2B	R266 A- 3A	R406 A- 2C	R521 A- 3D	R649 A- 1D	C65 A- 1A	C155 B- 4A	C244 A- 2A	C346 A- 3A	C439 A- 3B	C545 A- 3D	C633 B- 4D	J607 A- 4D	L356 A- 3A		
IC578 A- 4C	Q606 B- 4D	D298 A- 2A	R30 B- 1A	R132 A- 2B	R273 A- 3A	R407 A- 2C	R522 A- 3D	R650 A- 1D	C66 A- 1C	C156 B- 2A	C245 A- 2A	C347 A- 3A	C440 A- 3B	C546 B- 2C	C634 B- 4D	L2 A- 1A	L357 A- 3A		
IC579 A- 3C	Q607 B- 4D	D299 A- 2A	R31 A- 1A	R133 B- 2A	R274 A- 3A	R408 A- 2C	R523 A- 3D	R651 A- 1D	C67 A- 1C	C157 B- 2A	C246 A- 2A	C349 A- 3A	C441 A- 3B	C547 B- 2D	C642 A- 1D	L10 A- 1A	L358 A- 3A		
IC606 B- 4D	Q641 A- 4C	D303 A- 3A	R32 B- 1A	R134 B- 2A	R275 A- 3A	R410 A- 2C	R524 B- 2C	R652 A- 4C	C68 A- 1C	C158 B- 2A	C247 A- 2A	C350 A- 3B	C442 A- 3B	C548 B- 2C	C643 B- 4C	L11 A- 1A	L359 A- 3A		
IC666 B- 1D	Q642 B- 4D	D304 A- 3A	R33 A- 1A	R135 B- 2A	R276 A- 3A	R411 A- 2C	R525 B- 2C	R654 A- 1D	C69 A- 1B	C159 B- 2A	C248 A- 2A	C351 A- 3A	C443 A- 3B	C549 A- 2C	C644 B- 4C	L12 A- 1A	L361 A- 2B		
IC667 B- 1D	Q644 B- 2A	D305 A- 3A	R35 A- 1A	R136 B- 2A	R277 A- 3A	R412 A- 2C	R526 A- 3D	R656 A- 1D	C70 B- 1C	C160 A- 2B	C249 A- 2A	C352 A- 3A	C444 A- 3B	C551 B- 2C	C645 A- 1D	L13 A- 1B	L362 A- 2B		
IC668 A- 3C	DIODE	D306 A- 3A	R36 B- 1A	R137 B- 2A	R278 A- 3A	R413 A- 2C	R527 B- 2C	R657 B- 3C	C71 B- 1B	C161 B- 2B	C250 A- 2A	C353 A- 3A	C445 A- 3C	C552 B- 2C	C646 A- 1D	L14 A- 1B	L363 A- 2B		
TRANSISTOR	D1 B- 1A	D308 A- 3A	R38 A- 1A	R139 B- 2A	R292 A- 2B	R415 A- 2C	R531 A- 3D	R659 B- 2C	C74 A- 1B	C163 B- 2B	C252 A- 3A	C355 A- 2B	C447 A- 3C	C554 B- 2C	C649 A- 1D	L16 A- 1A	L365 A- 2B		
Q1 B- 1A	D2 D- 1A	R356 A- 3A	R39 A- 1A	R140 B- 2A	R293 A- 2A	R416 A- 2B	R532 B- 3D	R663 B- 2D	C75 B- 1B	C164 B- 2B	C253 A- 2B	C356 A- 3A	C448 A- 3B	C555 A- 4B	C650 A- 1D	L17 A- 1B	L366 A- 2B		
Q2 A- 1A	D3 B- 1A	R361 A- 2C	R40 A- 1A	R141 B- 4A	R294 A- 2B	R417 R533 B- 2C	R664 B- 1D	C76 A- 1B	C165 B- 2B	C254 A- 2B	C357 A- 3A	C449 A- 2C	C556 A- 2C	C651 A- 4C	L19 A- 1B	L368 A- 2B			
Q3 B- 1A	D4 A- 1A	R362 A- 2B	R41 A- 1A	R142 A- 3A	R295 A- 2A	R418 A- 2B	R534 B- 3D	R665 A- 2D	C77 B- 1B	C166 B- 2B	C255 A- 2A	C358 A- 3A	C450 A- 2C	C557 B- 2C	C652 A- 1D	L20 A- 1B	L370 A- 2B		
Q4 A- 1A	D5 A- 1A	R363 A- 2B	R42 A- 1A	R147 A- 3A	R296 A- 2A	R419 A- 2B	R536 A- 2C	R672 B- 1D	C78 B- 1C	C167 B- 2B	C256 A- 2A	C359 A- 3A	C452 A- 3B	C558 B- 2C	C653 B- 4C	L21 A- 1A	L371 A- 2B		
Q5 A- 1A	D6 A- 1A	R364 A- 2B	R43 A- 1A	R161 A- 2B	R297 A- 2A	R420 A- 2B	R537 B- 3D	R684 B- 1A	C79 B- 1C	C168 B- 2B	C257 A- 3A	C360 A- 3A	C455 A- 3B	C559 B- 2C	C655 A- 4D	L22 A- 1A	L372 A- 2B		
Q6 B- 1A	D10 A- 1A	R365 A- 2B	R46 A- 1B	R162 B- 2B	R298 A- 2A	R422 A- 2B	R538 B- 3D	R685 B- 1D	C80 A- 1B	C169 B- 2B	C259 A- 3A	C361 A- 2B	C457 A- 2C	C560 A- 2C	C656 A- 1D	L67 A- 1B	L375 A- 3B		
Q7 A- 1A	D11 A- 1A	R367 A- 2B	R48 B- 1B	R163 B- 2B	R299 A- 2A	R423 A- 2B	R539 B- 3D	R689 B- 2A	C81 B- 1B	C170 B- 2B	C260 A- 3A	C363 A- 2B	C458 A- 3C	C561 B- 2C	C659 A- 1D	L17 A- 1B	L376 A- 3B		
Q8 B- 1B	D12 A- 1A	R368 A- 2B	R50 A- 1B	R164 B- 2B	R300 A- 2A	R425 A- 2B	R540 B- 3D	R690 B- 2A	C82 B- 1B	C171 B- 2B	C261 A- 3A	C364 A- 2B	C459 A- 3C	C562 B- 2C	C660 A- 1D	L132 B- 2A	L377 A- 3B		
Q9 B- 1B	D13 A- 1A	R370 A- 2B	R53 A- 1A	R165 B- 2B	R301 A- 2A	R426 A- 2B	R541 A- 2C	R691 B- 2A	C83 B- 1B	C172 B- 2B	C262 A- 2A	C365 A- 2B	C460 A- 3C	C563 B- 2C	C661 A- 1D	L133 B- 3A	L378 A- 3B		
Q66 B- 1B	D14 A- 1A	R371 A- 2B	R54 A- 1B	R166 B- 2B	R302 A- 2A	R427 A- 2C	R543 B- 3C	R692 B- 1A	C84 B- 1B	C173 B- 2B	C263 A- 3A	C366 A- 2B	C461 A- 3C	C564 B- 2D	C662 B- 4C	L134 B- 3A	L379 A- 3B		
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Q68 B- 1B	D16 A- 2A	R376 A- 3B	R56 A- 1B	R168 B- 2B	R304 A- 2A	R429 A- 3C	R545 B- 2C	R695 A- 2C	C86 A- 1B	C175 B- 3A	C265 A- 3A	C368 A- 2B	C463 A- 3C	C566 B- 2D	C665 A- 1D	L136 B- 3A	L406 A- 2C		
Q69 B- 1B	D17 A- 2B	R377 A- 3B	R57 A- 1B	R169 B- 2B	R305 A- 2A	R430 A- 3C	R546 B- 2C	R696 A- 3C	C87 B- 1B	C176 B- 3A	C266 A- 3A	C369 A- 2B	C464 A- 3C	C567 B- 2C	C666 A-				

■ TX-RX UNIT (X57-9010-12:K, X57-9012-72:E) (B/6, C/6, D/6)

--- Component side view (J79-0142-39) ---

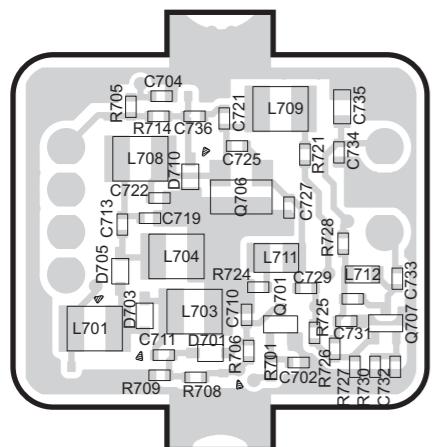
(D/6)



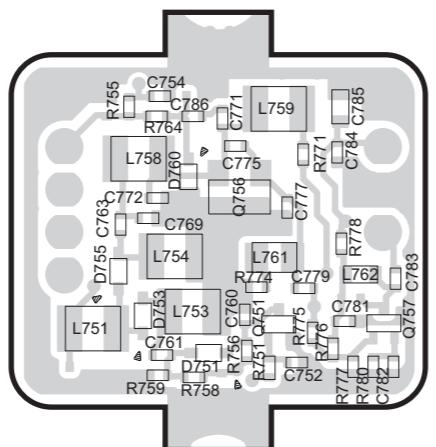
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(B/6)



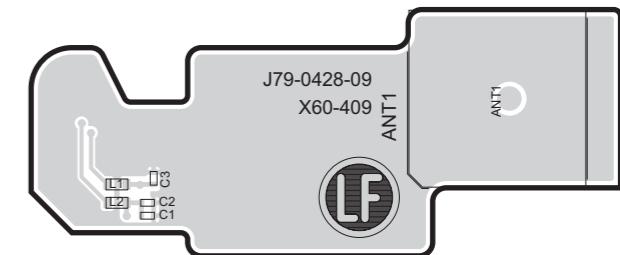
(C/6)



■ COMPOUND ASSY UNIT (GPS)

(X60-4090-00)

--- Component side view (J79-0428-09) ---



● ADDRESS TABLE OF BOARD PARTS

Each address may have an address error by one interval.

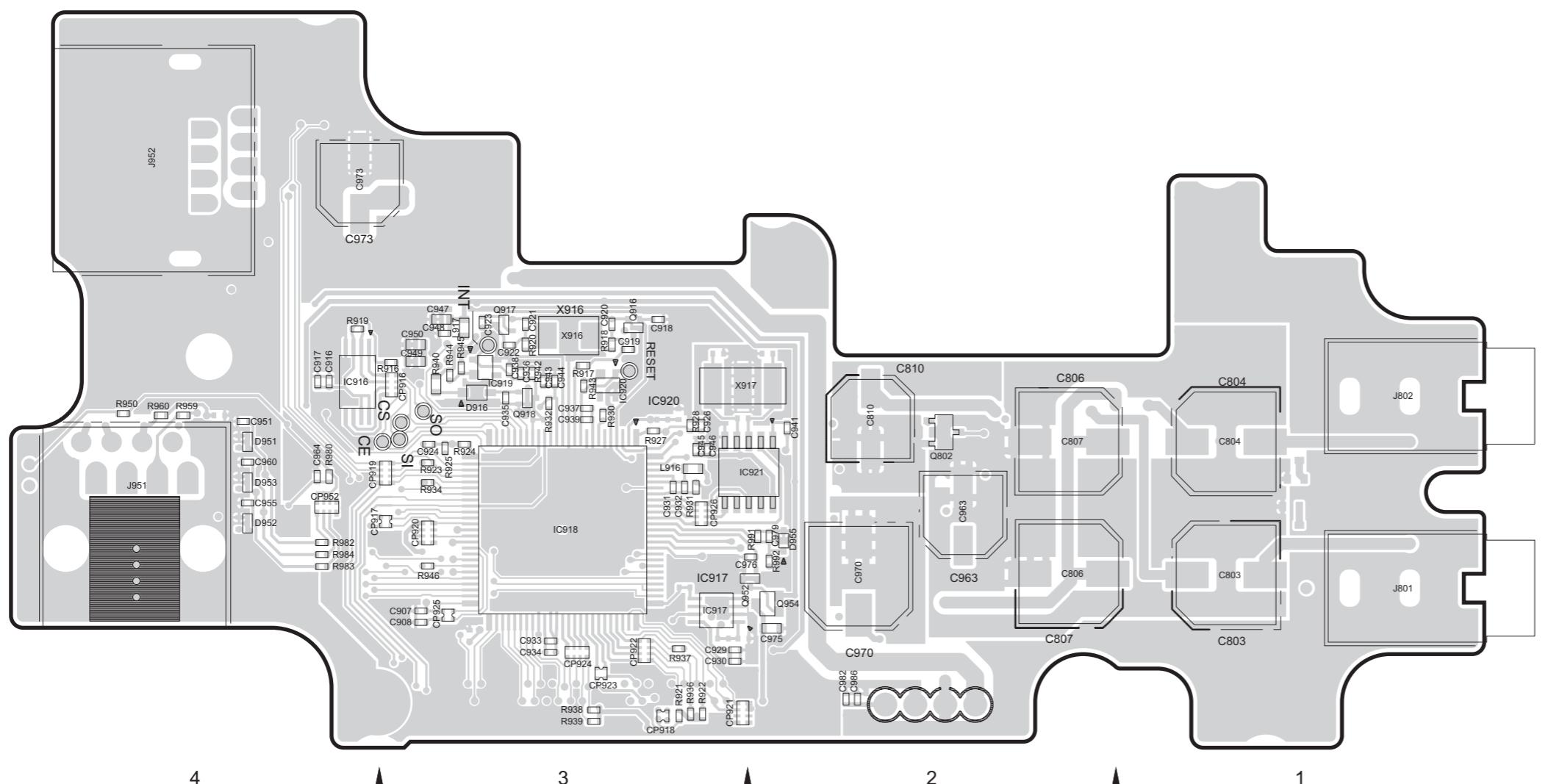
A-1C
Side Y a
X a

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION		
IC	DIODE	R827	A- 4C	R859	A- 3B	R906	A- 3A	R994	A- 2A	C830	A- 4C	C860	A- 4B	C894	A- 3B		
IC801	A- 2B	D801	A- 3A	R828	A- 4B	R860	A- 3B	R908	A- 3A	R995	A- 3B	C831	A- 4B	C861	A- 4B		
IC802	A- 4A	D802	A- 4A	R829	A- 4B	R861	A- 2B	R909	A- 3A	R996	A- 2B	C832	A- 4C	C862	A- 4B		
IC803	A- 4B	D954	A- 4B	R830	A- 4B	R862	A- 3B	R910	A- 3A	R997	A- 2B	C833	A- 4B	C863	A- 2B		
IC804	A- 3A	D956	A- 3B	R831	A- 4B	R863	A- 4B	R911	A- 4A	R998	A- 2B	C834	A- 2B	C864	A- 3B		
IC805	A- 2A	D957	A- 2A	R832	A- 2B	R866	A- 4B	R912	A- 3B	R999	A- 3B	C835	A- 3B	C865	A- 4B		
IC806	A- 3B			R833	A- 3B	R867	A- 4B	R913	A- 2B			C836	A- 2B	C866	A- 2B		
IC807	A- 3A	RESISTOR	R836	A- 2B	R868	A- 4B	R935	A- 4A	CAPACITOR	C837	A- 3B	C867	A- 3B	C901	A- 3B		
IC951	A- 4C	R803	A- 1B	R837	A- 3B	R869	A- 4B	R951	A- 4C	C805	A- 1B	C838	A- 4C	C868	A- 4B		
IC952	A- 3C	R804	A- 1B	R838	A- 4C	R870	A- 3B	R952	A- 4C	C808	A- 3B	C839	A- 4B	C869	A- 4B		
IC953	A- 2A	R805	A- 2B	R839	A- 4B	R871	A- 3B	R953	A- 4C	C809	A- 2B	C840	A- 2B	C870	A- 3B		
		R806	A- 3A	R840	A- 4B	R872	A- 3B	R954	A- 4C	C811	A- 2B	C841	A- 3B	C872	A- 3A		
TRANSISTOR	R807	A- 2B	R841	A- 2B	R874	A- 3A	R955	A- 4C	C812	A- 3B	C842	A- 4B	C873	A- 3B	OTHER		
Q801	A- 3A	R809	A- 3A	R842	A- 3B	R875	A- 3A	R956	A- 4C	C813	A- 4A	C843	A- 4C	C874	A- 3A	CN960	A- 3A
Q803	A- 2B	R810	A- 3B	R843	A- 3B	R876	A- 3A	R957	A- 4C	C814	A- 3B	C844	A- 4B	C875	A- 3A	CN961	A- 2A
Q804	A- 2B	R811	A- 3A	R844	A- 3B	R877	A- 3A	R958	A- 4B	C815	A- 3A	C845	A- 2B	C876	A- 3A	C913	A- 2B
Q805	A- 4B	R812	A- 2B	R845	A- 2B	R878	A- 3A	R961	A- 4A	C816	A- 4A	C846	A- 3B	C877	A- 3A	C914	A- 2B
Q806	A- 2B	R813	A- 2B	R846	A- 3B	R879	A- 3A	R962	A- 4B	C817	A- 2B	C847	A- 4B	C878	A- 3A	C915	A- 2B
Q807	A- 3B	R814	A- 2B	R847	A- 4C	R880	A- 3B	R963	A- 4A	C818	A- 4B	C848	A- 4B	C879	A- 3A	C928	A- 3B
Q808	A- 4B	R815	A- 2B	R848	A- 4B	R882	A- 2A	R967	A- 4A	C819	A- 4B	C849	A- 2B	C880	A- 3A	C952	A- 4C
Q809	A- 4B	R816	A- 3B	R849	A- 2B	R883	A- 2A	R968	A- 4B	C820	A- 4A	C850	A- 3B	C881	A- 3A	C953	A- 4C
Q810	A- 2B	R817	A- 2B	R850	A- 3B	R884	A- 2A	R969	A- 2A	C821	A- 2B	C851	A- 2B	C882	A- 2A	C954	A- 4B
Q811	A- 3B	R818	A- 2B	R851	A- 4B	R885	A- 2A	R971	A- 4A	C822	A- 2B	C852	A- 2B	C883	A- 2A	C957	A- 4C
Q812	A- 3B	R819	A- 4A	R852	A- 4B	R886	A- 2A	R979	A- 3B	C823	A- 2A	C853	A- 3B	C884	A- 2A	C958	A- 4C
Q816	A- 2B	R820	A- 2B	R853	A- 4B	R887	A- 2A	R981	A- 4B	C824	A- 2B	C854	A- 3B	C885	A- 2A	C962	A- 3B
Q817	A- 3A	R821	A- 2B	R854	A- 2B	R888	A- 2A	R985	A- 4B	C825	A- 4A	C855	A- 4B	C887	A- 2B	C966	A- 4B
Q951	A- 2A	R822	A- 4A	R855	A- 3B	R889	A- 2A	R986	A- 2A	C826	A- 4A	C856	A- 4B	C889	A- 3B	C967	A- 4B
Q953	A- 2A	R823	A- 3A	R856	A- 4B	R890	A- 2A	R987	A- 3C	C827	A- 4A	C857	A- 3B	C891	A- 2A	C968	A- 4B
Q955	A- 3B	R825	A- 4C	R857	A- 2B	R891	A- 3B	R990	A- 2A	C828	A- 2B	C858	A- 4B	C892	A- 3B	C969	A- 3C
		R826	A- 4B	R858	A- 3B	R892	A- 3B	R993	A- 2A	C829	A- 2B	C859	A- 4B	C893	A- 3B	C971	A- 3C

■ TX-RX UNIT (X57-9010-12:K, X57-9012-72:E) (B/6, C/6, D/6)

--- Foil side view (J79-0142-39) ---

(D/6)



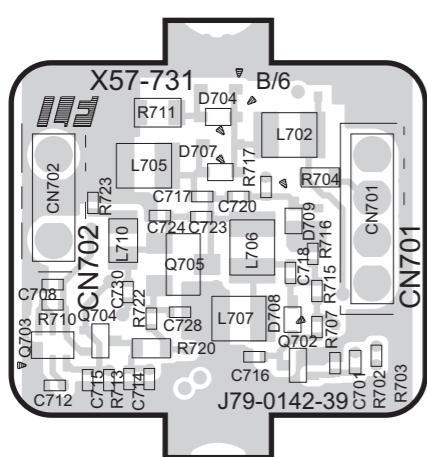
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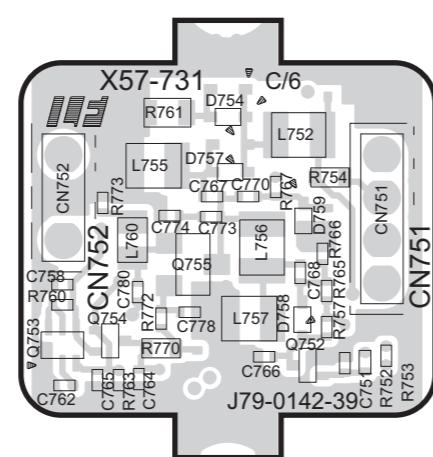
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1

(B/6)



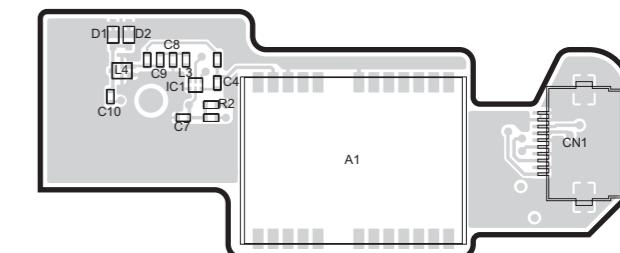
(C/6)



■ COMPOUND ASSY UNIT (GPS)

(X60-4090-00)

--- Foil side view (J79-0428-09) ---



1

1

● ADDRESS TABLE OF BOARD PARTS

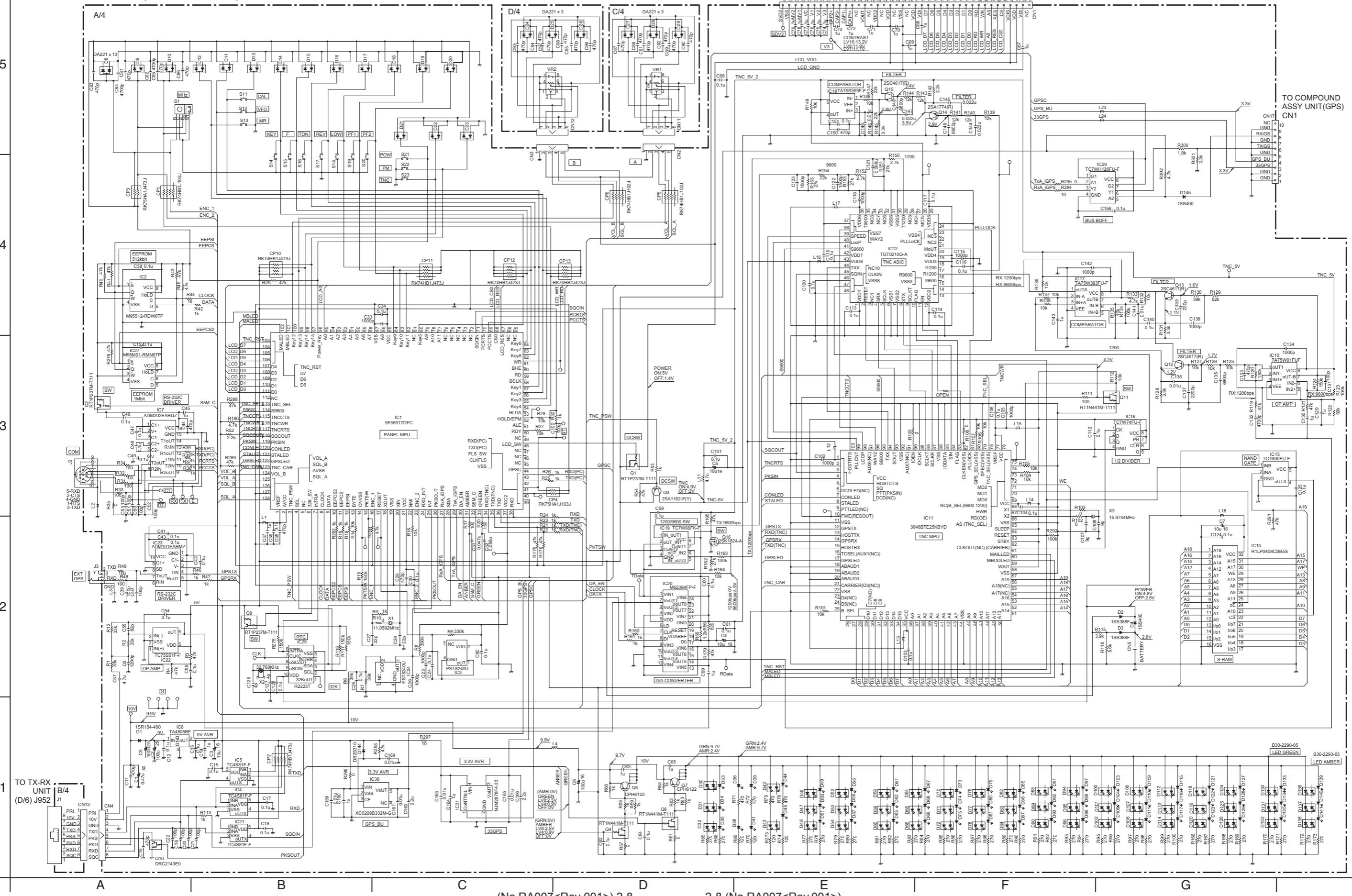
Each address may have an address error by one interval

A-1C
le Y axis
X axis

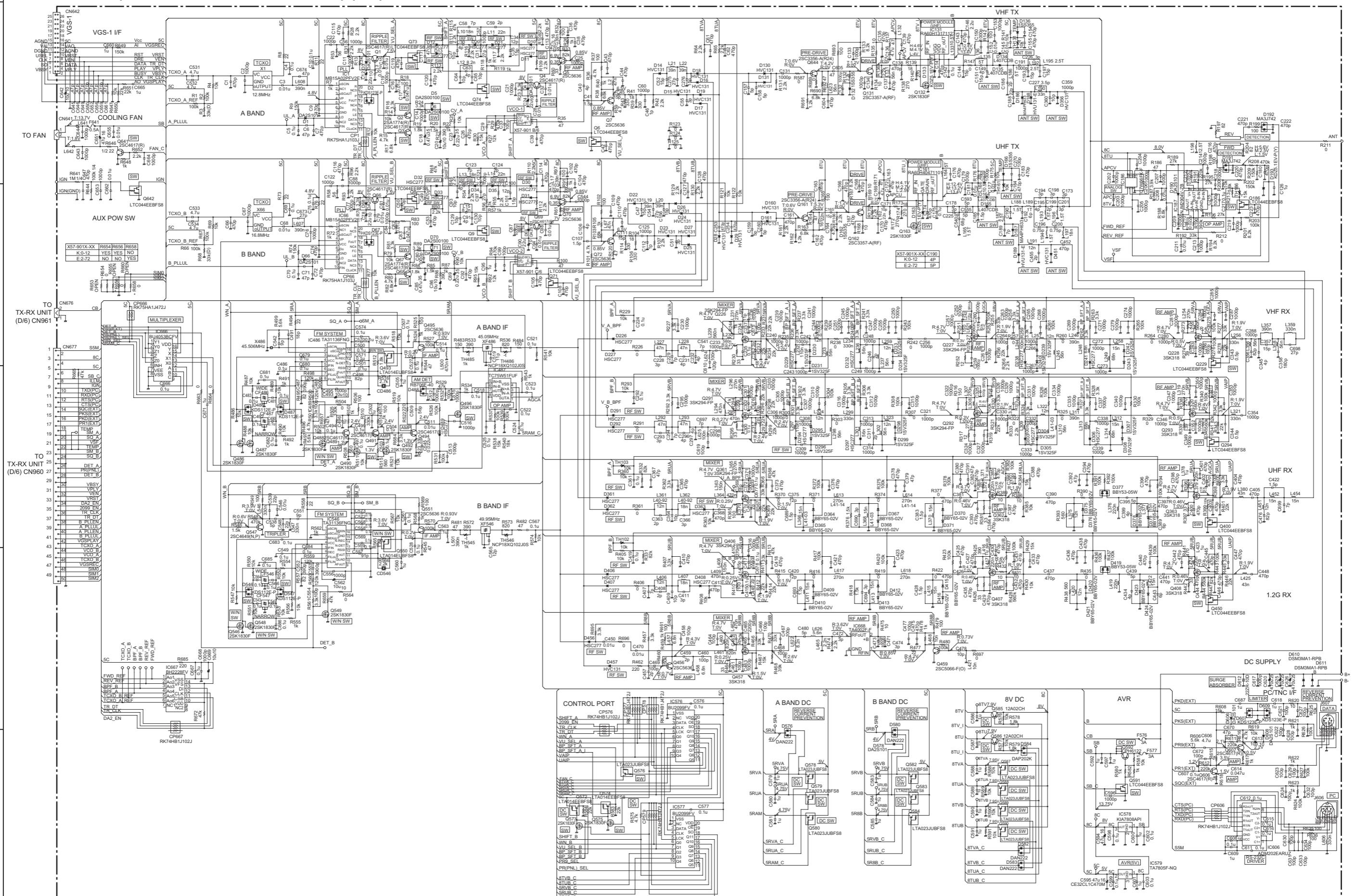
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IC	D955	B- 2A	R938	B- 3A	C806	B- 2A	C935	B- 3B	C975	B- 2A	J801	B- 1A	
IC916	B- 4B		R939	B- 3A	C807	B- 2B	C936	B- 3B	C976	B- 2A	J802	B- 1E	
IC917	B- 3A	RESISTOR	R940	B- 3B	C810	B- 2B	C937	B- 3B	C979	B- 2A	J951	B- 4A	
IC918	B- 3A	R916	B- 3B	R942	B- 3B	C907	B- 3A	C938	B- 3B	C982	B- 2A	J952	B- 4C
IC919	B- 3B	R917	B- 3B	R943	B- 3B	C908	B- 3A	C939	B- 3B	C986	B- 2A	L916	B- 3B
IC920	B- 3B	R918	B- 3B	R944	B- 3B	C916	B- 4B	C941	B- 2B			L917	B- 3B
IC921	B- 2B	R919	B- 4B	R945	B- 3B	C917	B- 4B	C943	B- 3B	OTHER			
		R920	B- 3B	R946	B- 3A	C918	B- 3B	C944	B- 3B	X916	B- 3B		
		R921	B- 3A	R950	B- 4B	C919	B- 3B	C945	B- 3B	X917	B- 3B		
TRANSISTOR						C920	B- 3B	C946	B- 3B	CP916	B- 3B		
Q802	B- 2B	R922	B- 3A	R959	B- 4B	C921	B- 3B	C947	B- 3B	CP917	B- 3A		
Q916	B- 3B	R923	B- 3B	R960	B- 4B	C922	B- 3B	C948	B- 3B	CP918	B- 3A		
Q917	B- 3B	R924	B- 3B	R980	B- 4B	C923	B- 3B	C949	B- 3B	CP919	B- 3B		
Q918	B- 3B	R925	B- 3B	R982	B- 4A	C924	B- 3B	C950	B- 3B	CP920	B- 3A		
Q952	B- 2A	R927	B- 3B	R983	B- 4A	C926	B- 3B	C951	B- 4B	CP921	B- 3A		
Q954	B- 2A	R928	B- 3B	R984	B- 4A	C929	B- 3A	C955	B- 4A	CP922	B- 3A		
DIODE		R930	B- 3B	R991	B- 2A	C930	B- 3A	C960	B- 4B	CP923	B- 3A		
D916	B- 3B	R931	B- 3B	R992	B- 2A	C931	B- 3B	C963	B- 2A	CP924	B- 3A		
D951	B- 4B	R932	B- 3B			C932	B- 3B	C964	B- 4B	CP925	B- 3A		
D952	B- 4A	R934	B- 3B	CAPACITOR		C933	B- 3A	C970	B- 2A	CP926	B- 3A		
D953	B- 4B	R936	B- 3A	C803	B- 1A	C934	B- 3A	C973	B- 4C	CP952	B- 4A		

SCHEMATIC DIAGRAM

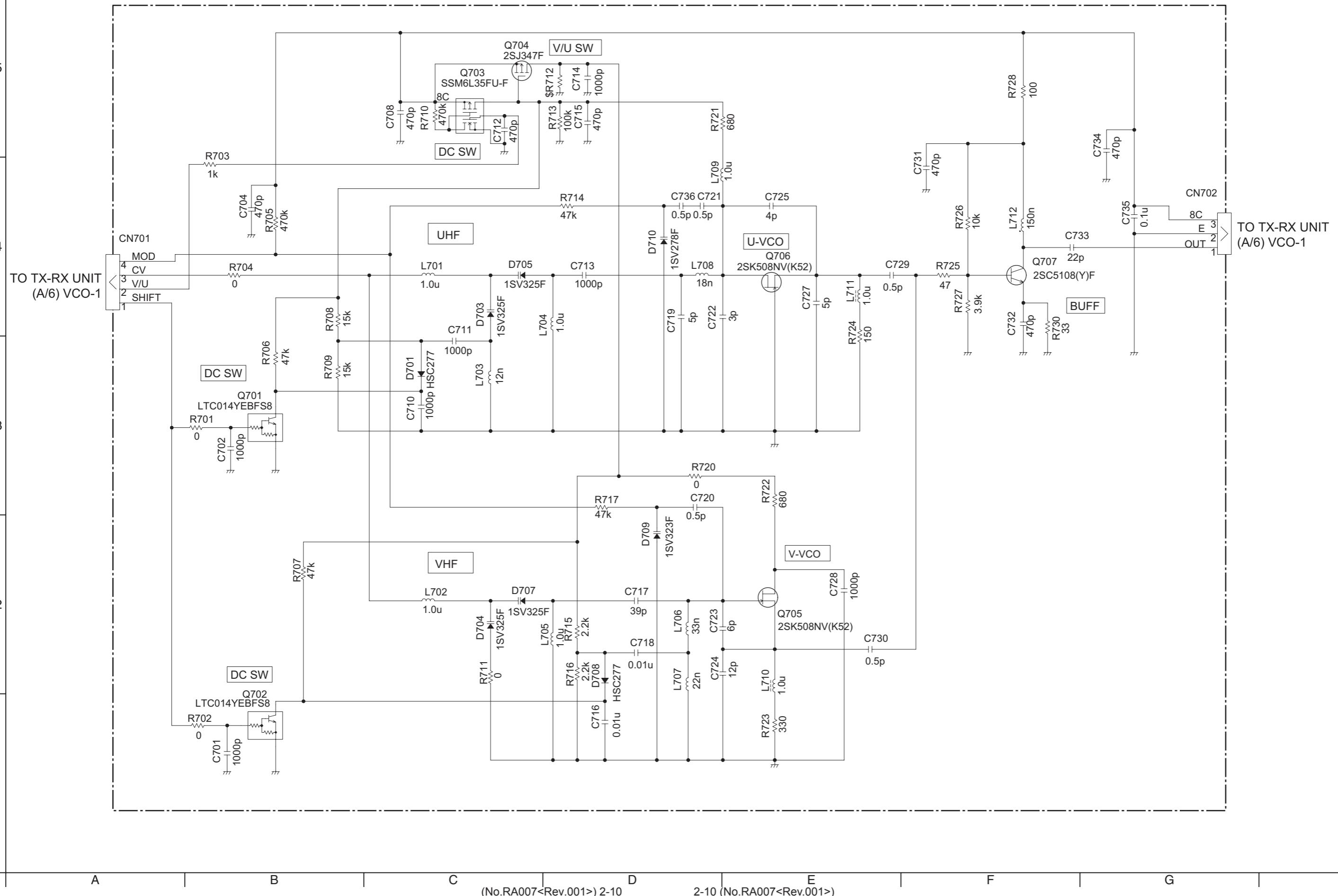
■ DISPLAY UNIT (X54-4120-00)



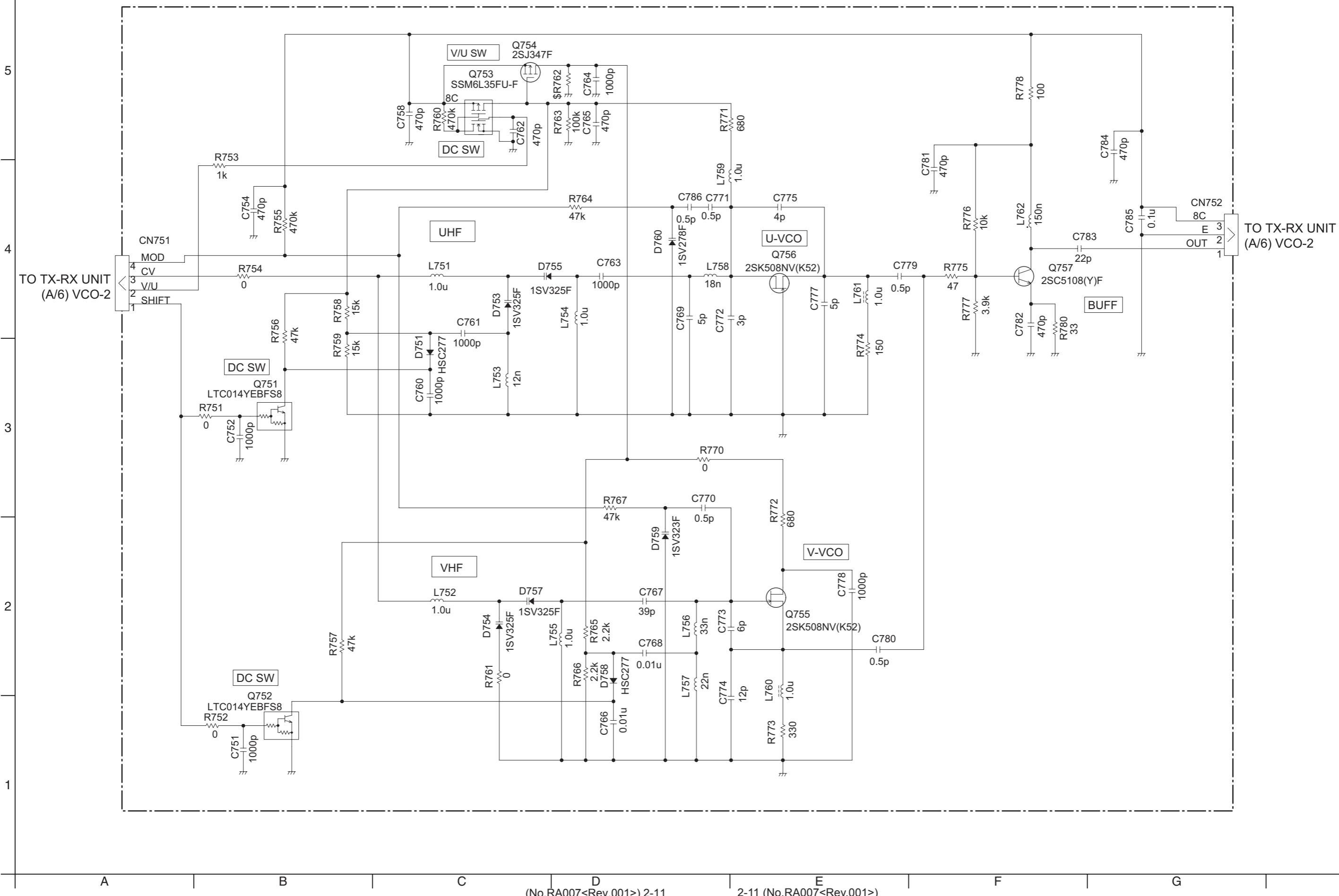
■ TX-RX UNIT (X57-9010-12:K, X57-9012-72:E) (A/6)



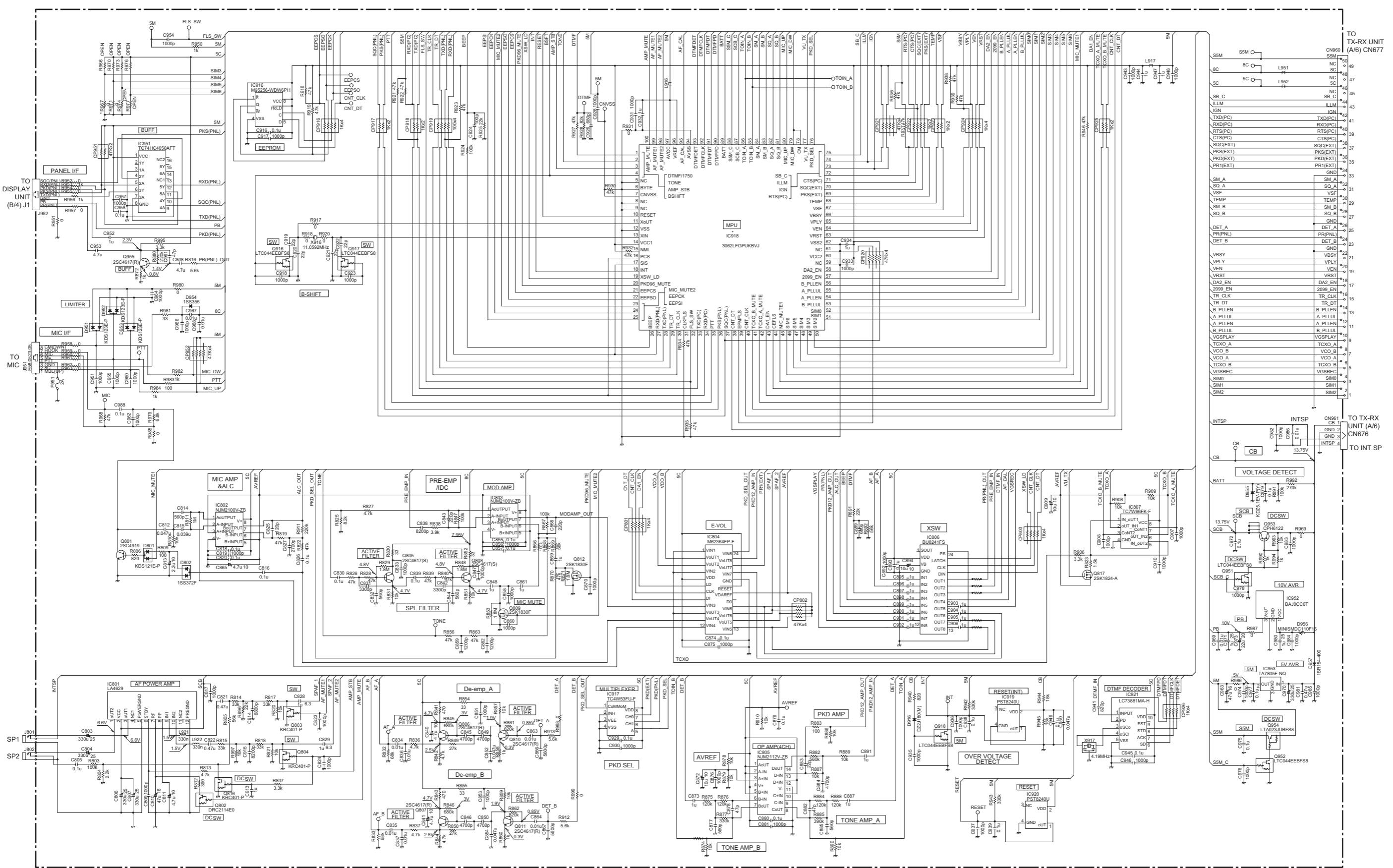
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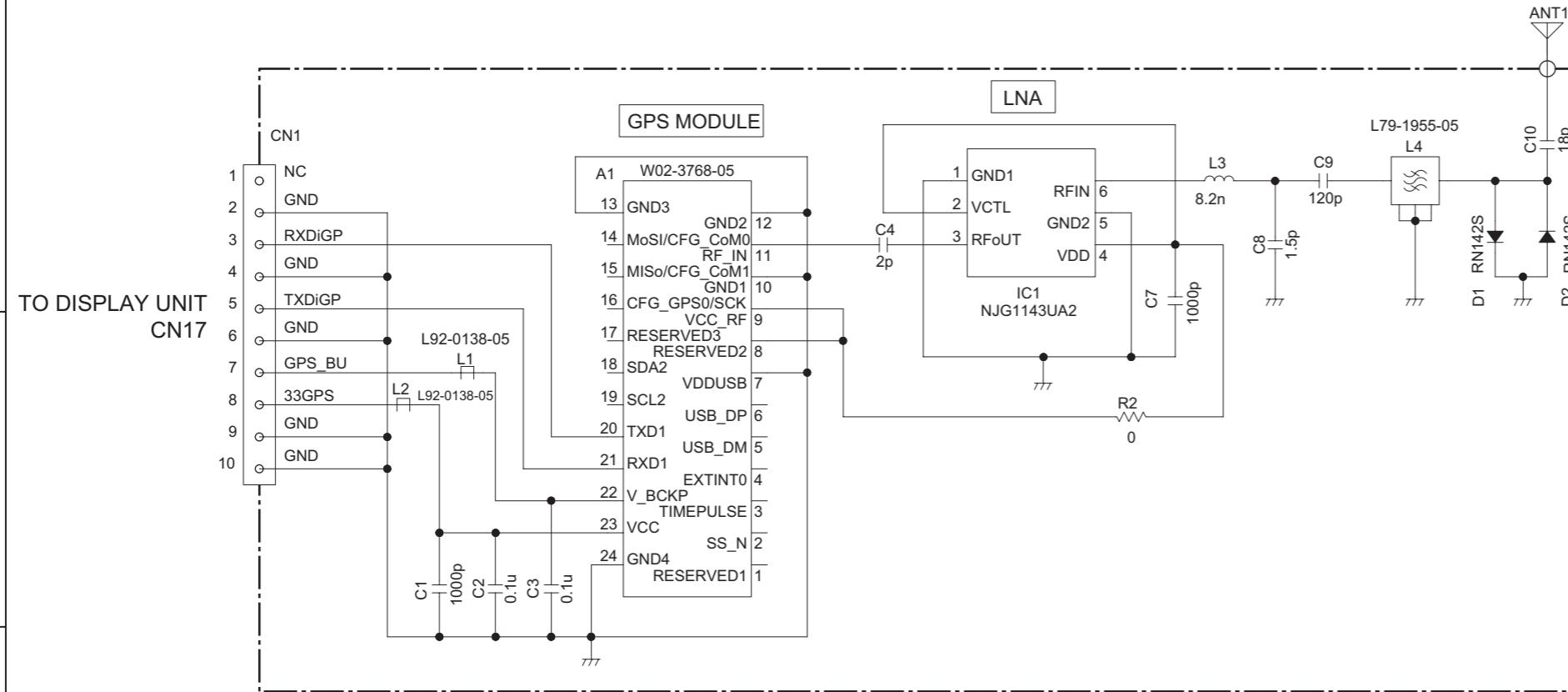
■ TX-RX UNIT (X57-9010-12:K, X57-9012-72:E) (C/6)



■ TX-RX UNIT (X57-9010-12:K, X57-9012-72:E) (D/6)

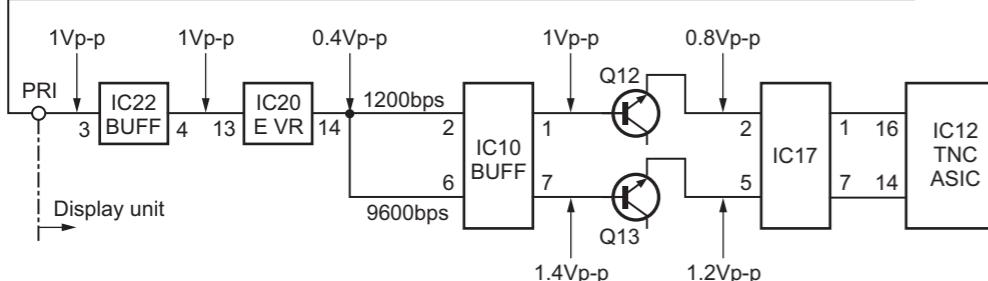
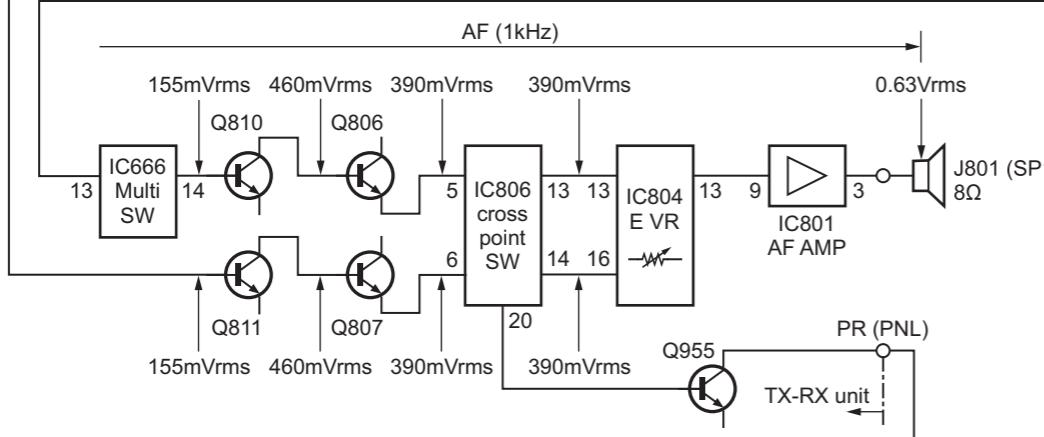
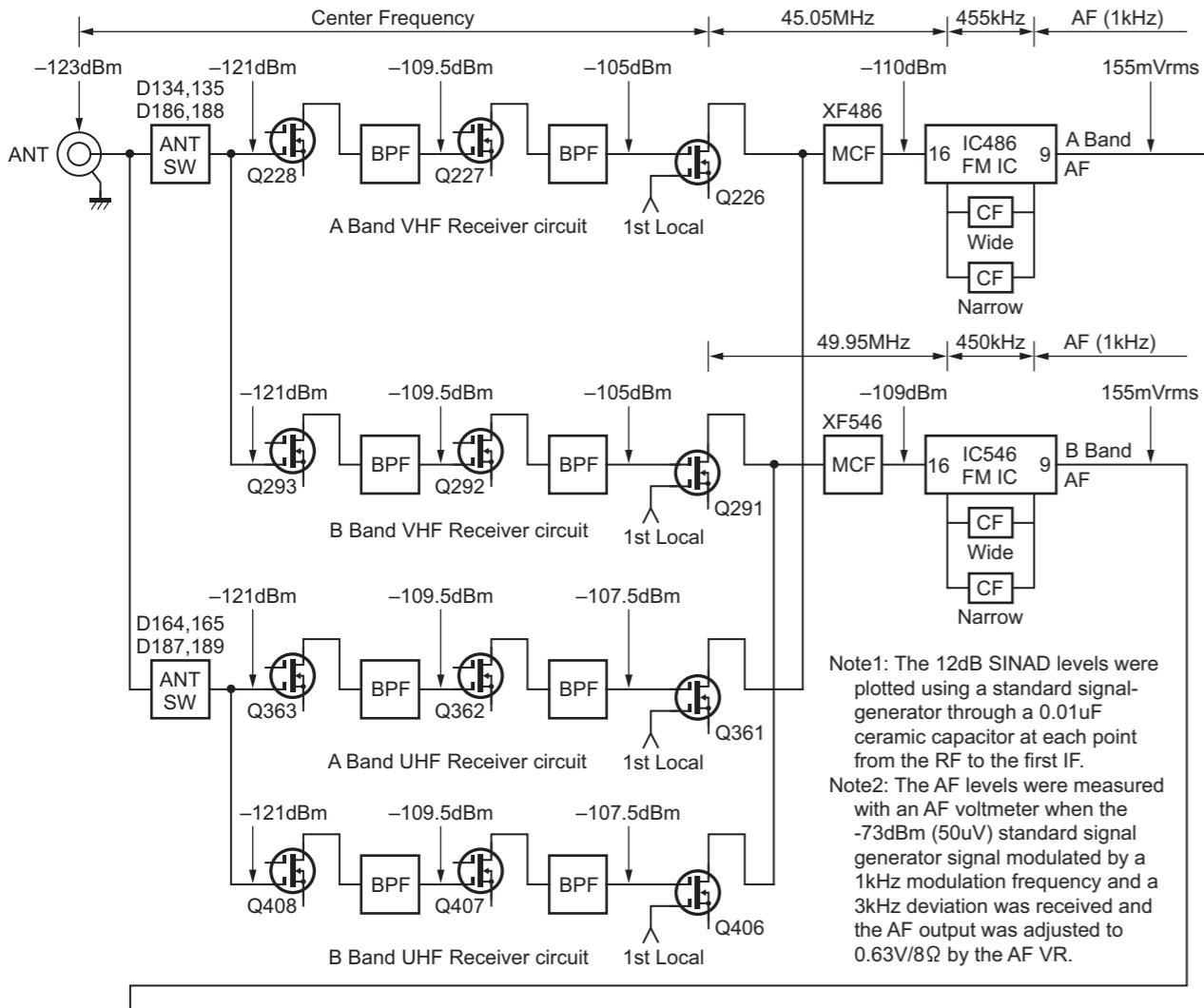


■ COMPOUND ASSY UNIT (GPS) (X60-4090-00)

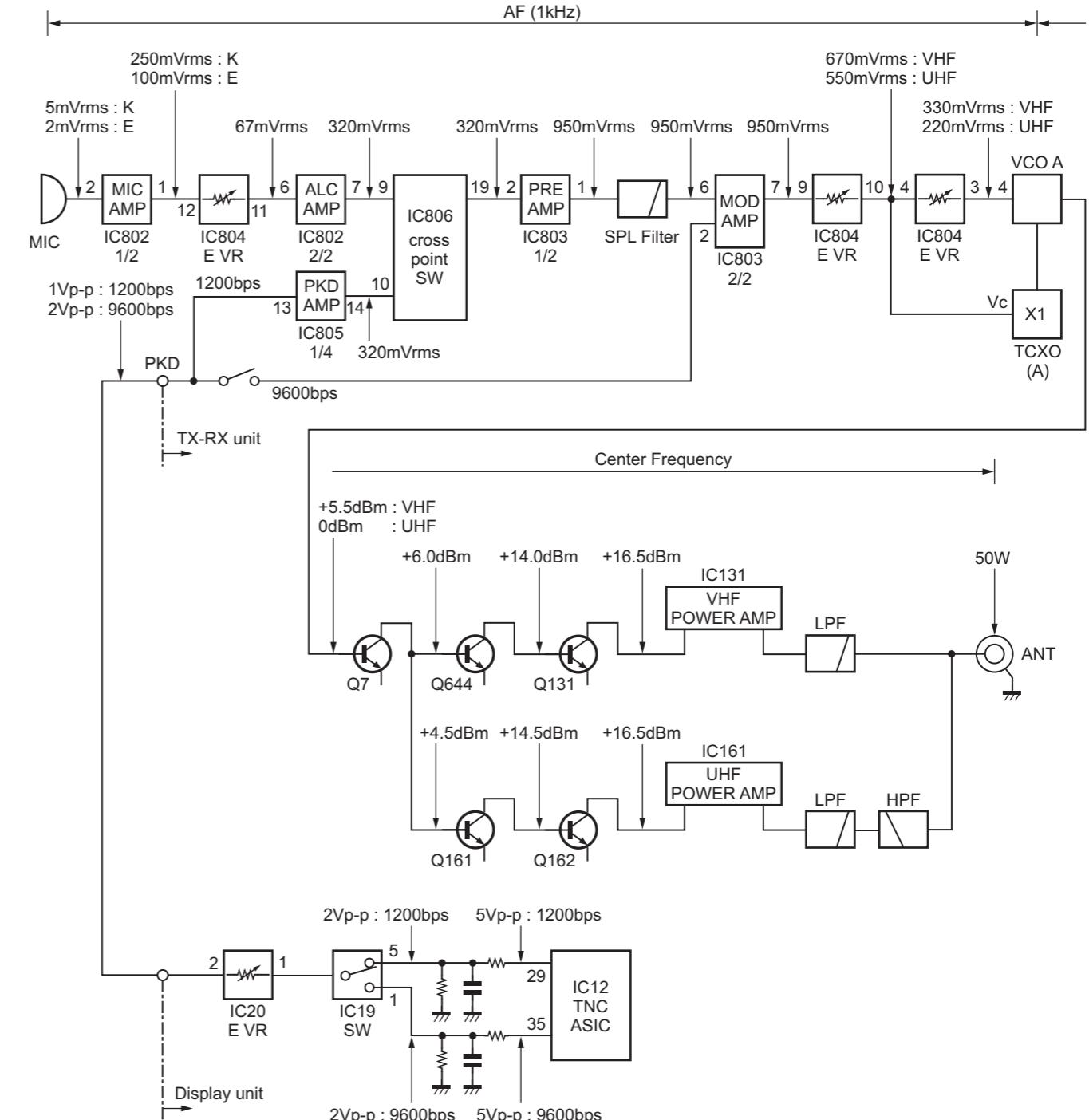


LEVEL DIAGRAM

■ Receiver Section



■ Transmitter Section



Note 1: Set the AG so that the microphone socket input is 3kHz deviation at 1kHz modulation.

The data communication connector input level is 3kHz deviation at 1kHz modulation for 1200bps and 2kHz deviation at 1kHz modulation for 9600bps.

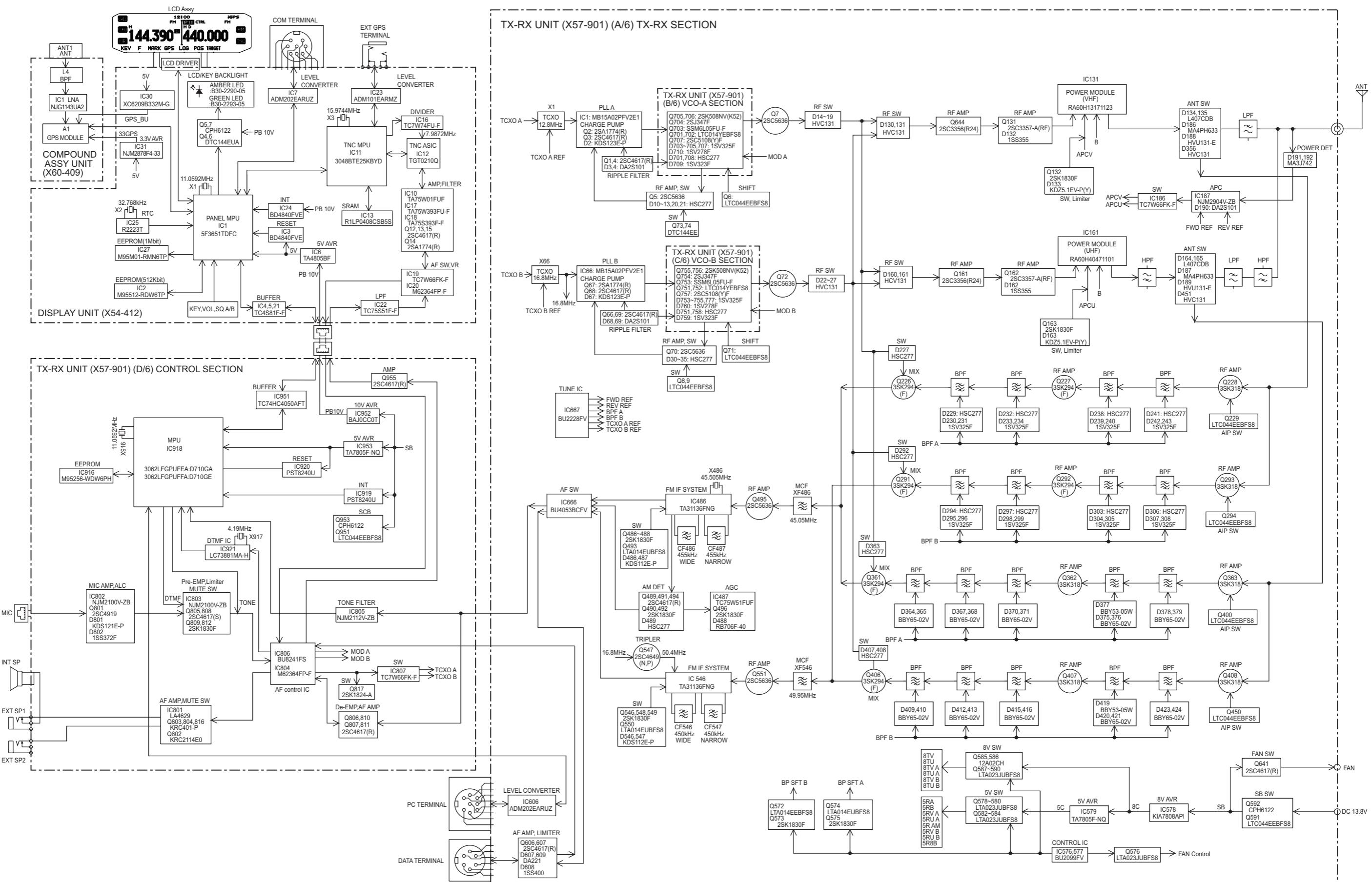
Note 2: Set the transmit power to HI (K,E types).

Note 3: The measurements with the power meter, except for the ANT connector, are the values with the APC off.

Note 4: When measuring the data level as 1200 or 9600 bps, perform the following settings in menu mode:

- BEACON TYPE: APRS (Menu mode: 600)
- DATA SPEED: 1200 bps or 9600 bps (Menu mode: 601)

BLOCK DIAGRAM



PARTS LIST

[TM-D710GA,TM-D710GE]

* SAFETY PRECAUTION

Parts identified by the Δ symbol are critical for safety. Replace only with specified part numbers.

* BEWARE OF BOGUS PARTS

Parts that do not meet specifications may cause trouble in regard to safety and performance. We recommend that genuine parts be used.

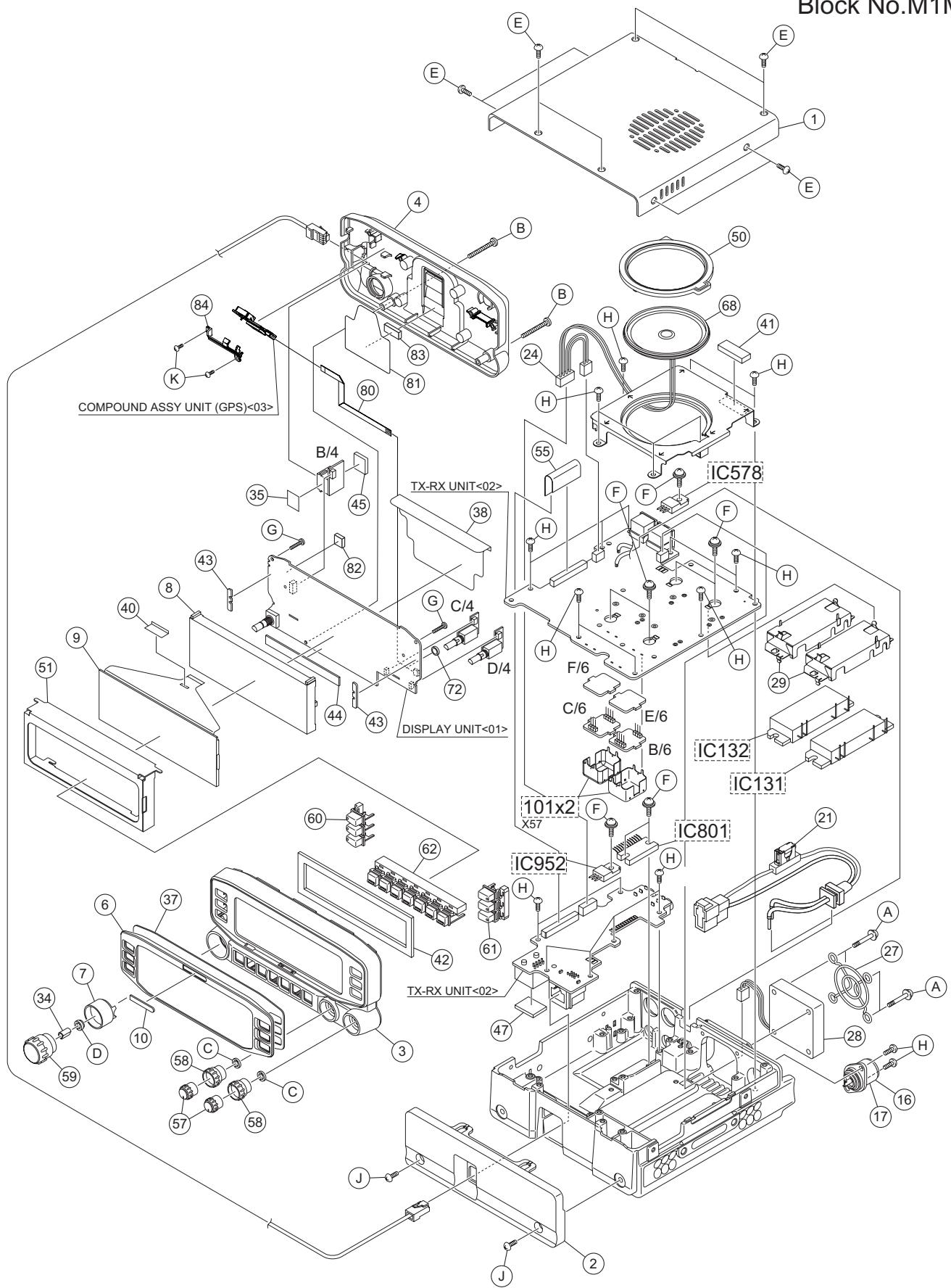
* (x_) in a description column shows the number of the used part.

- Contents -

Exploded view of general assembly and parts list	3-2
Electrical parts list	3-4
Packing materials and accessories parts list	3-22

Exploded view of general assembly and parts list

Block No.M1MM



General assembly

Block No. [M][1][M][M]

△ Symbol No.	Part No.	Part Name	Description	Local
1	A01-2206-12	METALLIC CABINET		
2	A62-1157-11	PANEL		
3	A62-1159-01	PANEL		
4	A82-0072-21	REAR PANEL		
6	B10-6019-02	FRONT GLASS		
7	B11-1856-03	ILLUMINATION GUIDE		
8	B11-1858-03	ILLUMINATION GUIDE		
9	B38-0926-25	LCD		
10	B43-1611-04	BADGE		
16	E04-0167-15	RF COAXIAL RECEPTACLE(M)		K
17	E04-0170-25	RF COAXIAL RECEPTACLE(N)		E
21	E30-3453-05	DC CORD(MAIN UNIT)		
24	E37-1291-05	LEAD WIRE WITH CONNECTOR(SP)		
27	F07-1916-05	COVER(FAN)		
28	F09-0489-05	FANMOTOR		
29	F10-3072-03	SHIELDING COVER(POWER MODULE)	(x2)	
34	G09-0405-05	KNOB SPRING(ENC)		
35	G10-1374-04	FIBROUS SHEET(MODULAR JACK)		
37	G11-4460-03	SHEET(FRONT GLASS)		
38	G11-4431-04	SHEET(DISPLAY)		
40	G11-4445-04	SHEET(DISPLAY)		
41	G13-2153-04	CONDUCTIVE CUSHION(SP COVER)		
42	G13-2221-04	CUSHION(DISPLAY)		
43	G13-2222-04	CUSHION(3KEY)	(x2)	
44	G13-2229-04	CUSHION(7KEY)		
45	G13-2230-14	CUSHION(MODULAR JACK)		
47	G13-2239-04	CUSHION(MIC MODULAR)		
50	J19-5500-04	HOLDER(SP)		
51	J21-8580-13	MOUNTING HARDWARE		
55	J82-0113-05	FPC(TRX-CONT)		
57	K29-9377-03	KNOB(VOL)	(x2)	
58	K29-9380-03	KNOB(SQL)	(x2)	
59	K29-9409-03	KNOB(ENC)		
60	K29-9410-02	BUTTON KNOB(3KEY-L)		
61	K29-9411-02	BUTTON KNOB(3KEY-R)		
62	K29-9412-02	BUTTON KNOB(7KEY)		
68	T07-0368-25	SPEAKER		
72	W09-0971-05	LITHIUM CELL(X54)		
80	E37-1709-05	FLAT CABLE		
81	G11-4657-04	SHEET(X54-REAR PANEL)		
82	G13-2458-04	CUSHION(X54)		
83	G13-2459-04	CUSHION(REAR PANEL)		
84	J19-5599-03	HOLDER(X60)		
A	N09-6548-05	SEMS SCREW(FUNMOTER)	(x4)	
B	N09-6555-05	TAPTITE SCREW(REAR PANEL)	(x2)	
C	N14-0830-24	CIRCULAR NUT(VOL)	(x2)	
D	N14-0845-04	CIRCULAR NUT(EMC)		
E	N33-2606-43	OVAL HEAD MACHINE SCREW(CASE)	(x8)	
F	N67-3008-48	PAN HEAD SEMS SCREW(PM/AMP/AVR)	(x8)	
G	N80-2008-48	PAN HEAD TAPTITE SCREW(X54PCB)	(x2)	
H	N87-2606-48	BRAZIER HEAD TAPTITE SCREW(X57PCB/ANT)	(x22)	
J	N89-2606-43	BINDING HEAD TAPTITE SCREW(SUB PANEL)	(x2)	
K	N80-2006-43	PAN HEAD TAPTITE SCREW(X60PCB)	(x2)	

Electrical parts list

DISPLAY UNIT

X54-4120-00

Block No. [0][1]

△ Symbol No.	Part No.	Part Name	Description	Local
IC1	5F3651TDFC	MCU IC		
IC2	M95512-RDW6TP	ROM IC		
IC3	PST8240U	MOS-IC		
IC4	TC4S81F-F	MOS-IC		
IC5	TC4S81F-F	MOS-IC		
IC6	TA4805BF	MOS-IC		
IC7	ADM202EARUZ	MOS-IC		
IC10	TA75W01FUF	MOS-IC		
IC11	3048BTE25KBYD	MCU	(TNC)	
IC12	TGT0210Q-A	MOS-IC		
IC13	R1LP0408CSB5S	SRAM IC		
IC15	TC7S00FU-F	MOS-IC		
IC16	TC7W74FU-F	MOS-IC		
IC17	TA75W393FU-F	MOS-IC		
IC18	TA75S393F-F	MOS-IC		
IC19	TC7W66FK-F	MOS-IC		
IC20	M62364FP-F	MOS-IC		
IC21	TC4S81F-F	MOS-IC		
IC22	TC75S51F-F	MOS-IC		
IC23	ADM101EARMZ	MOS-IC		
IC24	PST8240U	MOS-IC		
IC25	R2223T	RTC		
IC27	M95M01-RMN6TP	ROM IC		
IC29	TC7WH126FU-F	MOS-IC		
IC30	XC6209B332M-G	MOS-IC		
IC31	NJM2878F4-33	BI-POLAR IC		
Q1	RT1P237M-T111	TRANSISTOR		
Q2	RT1P237M-T111	TRANSISTOR		
Q3	2SA1162-F(Y)	TRANSISTOR		
Q4	RT1N441M-T111	TRANSISTOR		
Q5	CPH6122	TRANSISTOR		
Q6	RT1N441M-T111	TRANSISTOR		
Q7	CPH6122	TRANSISTOR		
Q9	RT1P237M-T111	TRANSISTOR		
Q10	DRC2143E0	TRANSISTOR		
Q11	RT1N441M-T111	TRANSISTOR		
Q12	2SC4617(R)	TRANSISTOR		
Q13	2SC4617(R)	TRANSISTOR		
Q14	2SA1774(R)	TRANSISTOR		
Q15	2SC4617(R)	TRANSISTOR		
Q16	2SK1824-A	TRANSISTOR		
D1	1SR154-400	DIODE		
D2	1SS388F	DIODE		
D3	1SS388F	DIODE		
D4	1SS400	DIODE		
D8	DA221	DIODE		
D9	DA221	DIODE		
D10	DA221	DIODE		
D11	DA221	DIODE		
D12	DA221	DIODE		
D13	DA221	DIODE		
D14	DA221	DIODE		
D15	DA221	DIODE		
D16	DA221	DIODE		
D17	DA221	DIODE		
D18	DA221	DIODE		
D19	DA221	DIODE		
D20	DA221	DIODE		
D21	DA221	DIODE		
D22	DA221	DIODE		
D23	DA221	DIODE		
D24	DA221	DIODE		
D25	DA221	DIODE		
D26	DA221	DIODE		
D27	DA221	DIODE		
D28	DA221	DIODE		
D29	DA221	DIODE		
D30	B30-2290-05	LED	(G/Y)	

△ Symbol No.	Part No.	Part Name	Description	Local
D31	B30-2290-05	LED	(G/Y)	
D32	B30-2290-05	LED	(G/Y)	
D33	B30-2293-05	LED	(YG)	
D34	B30-2293-05	LED	(YG)	
D35	B30-2293-05	LED	(YG)	
D36	B30-2281-05	LED	(Y)	
D38	B30-2281-05	LED	(Y)	
D39	B30-2293-05	LED	(YG)	
D41	B30-2293-05	LED	(YG)	
D42	B30-2290-05	LED	(G/Y)	
D43	B30-2290-05	LED	(G/Y)	
D44	B30-2293-05	LED	(YG)	
D45	B30-2293-05	LED	(YG)	
D46	B30-2290-05	LED	(G/Y)	
D47	B30-2290-05	LED	(G/Y)	
D48	B30-2290-05	LED	(G/Y)	
D49	B30-2293-05	LED	(YG)	
D50	B30-2293-05	LED	(YG)	
D51	B30-2293-05	LED	(YG)	
D52	B30-2290-05	LED	(G/Y)	
D53	B30-2290-05	LED	(G/Y)	
D54	B30-2290-05	LED	(G/Y)	
D55	B30-2293-05	LED	(YG)	
D56	B30-2293-05	LED	(YG)	
D57	B30-2293-05	LED	(YG)	
D58	B30-2290-05	LED	(G/Y)	
D59	B30-2290-05	LED	(G/Y)	
D60	B30-2290-05	LED	(G/Y)	
D61	B30-2293-05	LED	(YG)	
D62	B30-2293-05	LED	(YG)	
D63	B30-2293-05	LED	(YG)	
D64	B30-2290-05	LED	(G/Y)	
D65	B30-2290-05	LED	(G/Y)	
D66	B30-2290-05	LED	(G/Y)	
D67	B30-2293-05	LED	(YG)	
D68	B30-2293-05	LED	(YG)	
D69	B30-2293-05	LED	(YG)	
D70	B30-2290-05	LED	(G/Y)	
D71	B30-2290-05	LED	(G/Y)	
D72	B30-2290-05	LED	(G/Y)	
D73	B30-2293-05	LED	(YG)	
D74	B30-2293-05	LED	(YG)	
D75	B30-2293-05	LED	(YG)	
D76	B30-2290-05	LED	(G/Y)	
D77	B30-2290-05	LED	(G/Y)	
D78	B30-2290-05	LED	(G/Y)	
D79	B30-2293-05	LED	(YG)	
D80	B30-2293-05	LED	(YG)	
D81	B30-2293-05	LED	(YG)	
D82	B30-2290-05	LED	(G/Y)	
D83	B30-2290-05	LED	(G/Y)	
D84	B30-2290-05	LED	(G/Y)	
D85	B30-2293-05	LED	(YG)	
D86	B30-2293-05	LED	(YG)	
D87	B30-2293-05	LED	(YG)	
D88	B30-2290-05	LED	(G/Y)	
D89	B30-2290-05	LED	(G/Y)	
D90	B30-2290-05	LED	(G/Y)	
D91	B30-2293-05	LED	(YG)	
D92	B30-2293-05	LED	(YG)	
D93	B30-2293-05	LED	(YG)	
D94	B30-2290-05	LED	(G/Y)	
D95	B30-2290-05	LED	(G/Y)	
D96	B30-2290-05	LED	(G/Y)	
D97	B30-2293-05	LED	(YG)	
D98	B30-2293-05	LED	(YG)	
D99	B30-2293-05	LED	(YG)	
D100	B30-2290-05	LED	(G/Y)	
D101	B30-2290-05	LED	(G/Y)	
D102	B30-2290-05	LED	(G/Y)	
D103	B30-2293-05	LED	(YG)	
D104	B30-2293-05	LED	(YG)	
D105	B30-2293-05	LED	(YG)	
D106	B30-2290-05	LED	(G/Y)	
D107	B30-2290-05	LED	(G/Y)	
D108	B30-2290-05	LED	(G/Y)	

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
D109	B30-2293-05	LED	(YG)		C44	CK73HB1H471K	C CAPACITOR	470PF K	
D110	B30-2293-05	LED	(YG)		C45	CK73GB1A105K	C CAPACITOR	1.0UF K	
D111	B30-2293-05	LED	(YG)		C46	CK73GB1C104K	C CAPACITOR	0.10UF K	
D112	B30-2290-05	LED	(G/Y)		C47	CK73GB1C104K	C CAPACITOR	0.10UF K	
D113	B30-2290-05	LED	(G/Y)		C48	CK73GB1C104K	C CAPACITOR	0.10UF K	
D114	B30-2290-05	LED	(G/Y)		C49	CK73GB1C104K	C CAPACITOR	0.10UF K	
D115	B30-2293-05	LED	(YG)		C50	CC73GCH1H101J	C CAPACITOR	100PF J	
D116	B30-2293-05	LED	(YG)		C51	CC73GCH1H101J	C CAPACITOR	100PF J	
D117	B30-2293-05	LED	(YG)		C52	CC73GCH1H101J	C CAPACITOR	100PF J	
D118	B30-2290-05	LED	(G/Y)		C53	CC73GCH1H101J	C CAPACITOR	100PF J	
D119	B30-2290-05	LED	(G/Y)		C54	CK73HB1A104K	C CAPACITOR	0.10UF K	
D120	B30-2290-05	LED	(G/Y)		C55	CC73GCH1H820J	C CAPACITOR	82PF J	
D121	B30-2293-05	LED	(YG)		C56	CK73HB1A104K	C CAPACITOR	0.10UF K	
D122	B30-2293-05	LED	(YG)		C57	CK73FB1A475K	C CAPACITOR	4.7UF K	
D123	B30-2293-05	LED	(YG)		C59	CK73HB1A104K	C CAPACITOR	0.10UF K	
D124	B30-2290-05	LED	(G/Y)		C60	CK73HB1A104K	C CAPACITOR	0.10UF K	
D125	B30-2290-05	LED	(G/Y)		C61	CK73HB1A104K	C CAPACITOR	0.10UF K	
D126	B30-2290-05	LED	(G/Y)		C62	CK73GB1H104K	C CAPACITOR	0.10UF K	
D127	B30-2293-05	LED	(YG)		C63	CK73GB1E105K	C CAPACITOR	1.0UF K	
D128	B30-2293-05	LED	(YG)		C64	CK73GB1H104K	C CAPACITOR	0.10UF K	
D129	B30-2293-05	LED	(YG)		C65	CK73GB1E105K	C CAPACITOR	1.0UF K	
D130	B30-2290-05	LED	(G/Y)		C66	CK73GB1H104K	C CAPACITOR	0.10UF K	
D131	B30-2290-05	LED	(G/Y)		C67	CK73GB1E105K	C CAPACITOR	1.0UF K	
D132	B30-2290-05	LED	(G/Y)		C68	CK73GB1E105K	C CAPACITOR	1.0UF K	
D133	B30-2293-05	LED	(YG)		C69	CK73GB1E105K	C CAPACITOR	1.0UF K	
D134	B30-2293-05	LED	(YG)		C70	CK73GB1E105K	C CAPACITOR	1.0UF K	
D135	B30-2293-05	LED	(YG)		C71	CK73GB1E105K	C CAPACITOR	1.0UF K	
D136	B30-2290-05	LED	(G/Y)		C72	CK73GB1E105K	C CAPACITOR	1.0UF K	
D137	B30-2290-05	LED	(G/Y)		C73	CK73GB1E105K	C CAPACITOR	1.0UF K	
D138	B30-2290-05	LED	(G/Y)		C74	CK73GB1E105K	C CAPACITOR	1.0UF K	
D139	B30-2293-05	LED	(YG)		C75	CK73GB1E105K	C CAPACITOR	1.0UF K	
D140	B30-2293-05	LED	(YG)		C76	CK73GB1E105K	C CAPACITOR	1.0UF K	
D141	B30-2293-05	LED	(YG)		C77	CK73GB1E105K	C CAPACITOR	1.0UF K	
D144	DB2S310	DIODE			C78	CK73GB1E105K	C CAPACITOR	1.0UF K	
D145	1SS400	DIODE			C79	CK73GB1E105K	C CAPACITOR	1.0UF K	
C1	CE32CL1HR47M	E CAPACITOR	0.47UF 50WV		C80	CK73HB1A104K	C CAPACITOR	0.10UF K	
C2	CE32BF1E101M	E CAPACITOR	100UF 25WV		C81	CK73HB1H471K	C CAPACITOR	470PF K	
C3	CE32CL1C100M	E CAPACITOR	10UF 16WV		C82	CK73HB1E472K	C CAPACITOR	4700PF K	
C4	CE32CL1C100M	E CAPACITOR	10UF 16WV		C83	CK73HB1H471K	C CAPACITOR	470PF K	
C5	CE32CL1C100M	E CAPACITOR	10UF 16WV		C84	CK73HB1E472K	C CAPACITOR	4700PF K	
C6	CE32BM1C101M	E CAPACITOR	100UF 16WV		C85	CK73HB1H471K	C CAPACITOR	470PF K	
C7	CE32CL1C100M	E CAPACITOR	10UF 16WV		C86	CK73HB1H471K	C CAPACITOR	470PF K	
C8	CK73GB1H122K	C CAPACITOR	1200PF K		C87	CK73HB1H471K	C CAPACITOR	470PF K	
C9	CE32BF1E101M	E CAPACITOR	100UF 25WV		C88	CK73HB1H471K	C CAPACITOR	470PF K	
C11	CK73GB1H471K	C CAPACITOR	470PF K		C89	CK73HB1H471K	C CAPACITOR	470PF K	
C12	CK73GB1E104K	C CAPACITOR	0.10UF K		C90	CK73HB1H471K	C CAPACITOR	470PF K	
C13	CK73GB1E104K	C CAPACITOR	0.10UF K		C91	CK73HB1H471K	C CAPACITOR	470PF K	
C14	CK73GB1E105K	C CAPACITOR	1.0UF K		C92	CK73HB1H471K	C CAPACITOR	470PF K	
C15	CK73HB1A104K	C CAPACITOR	0.10UF K		C93	CK73HB1H471K	C CAPACITOR	470PF K	
C16	CC73GCH1H101J	C CAPACITOR	100PF J		C94	CK73HB1H471K	C CAPACITOR	470PF K	
C17	CK73HB1A104K	C CAPACITOR	0.10UF K		C95	CK73HB1H471K	C CAPACITOR	470PF K	
C18	CK73HB1A104K	C CAPACITOR	0.10UF K		C96	CK73HB1H471K	C CAPACITOR	470PF K	
C19	CK73GB1H471K	C CAPACITOR	470PF K		C97	CK73HB1H471K	C CAPACITOR	470PF K	
C20	CC73GCH1H101J	C CAPACITOR	100PF J		C98	CK73HB1H471K	C CAPACITOR	470PF K	
C21	CC73GCH1H101J	C CAPACITOR	100PF J		C99	CK73GB1E105K	C CAPACITOR	1.0UF K	
C22	CC73GCH1H101J	C CAPACITOR	100PF J		C100	CC73HCH1H101J	C CAPACITOR	100PF J	
C23	CK73HB1H102K	C CAPACITOR	1000PF K		C101	CK73HB1A104K	C CAPACITOR	0.10UF K	
C24	CK73HB1A104K	C CAPACITOR	0.10UF K		C102	CK73HB1H102K	C CAPACITOR	1000PF K	
C25	CK73HB1A104K	C CAPACITOR	0.10UF K		C103	CK73HB1A104K	C CAPACITOR	0.10UF K	
C26	CK73HB1H102K	C CAPACITOR	1000PF K		C104	CK73HB1A104K	C CAPACITOR	0.10UF K	
C27	CC73GCH1H220J	C CAPACITOR	22PF J		C105	CK73HB1H102K	C CAPACITOR	1000PF K	
C28	CC73GCH1H220J	C CAPACITOR	22PF J		C106	CK73HB1A104K	C CAPACITOR	0.10UF K	
C29	CK73HB1H471K	C CAPACITOR	470PF K		C107	CC73GCH1H090B	C CAPACITOR	9.0PF B	
C30	CK73HB1A104K	C CAPACITOR	0.10UF K		C108	CC73GCH1H090B	C CAPACITOR	9.0PF B	
C31	CK73HB1A104K	C CAPACITOR	0.10UF K		C112	CK73HB1A104K	C CAPACITOR	0.10UF K	
C32	CK73HB1A104K	C CAPACITOR	0.10UF K		C113	CK73HB1A104K	C CAPACITOR	0.10UF K	
C33	CK73HB1H102K	C CAPACITOR	1000PF K		C114	CK73HB1A104K	C CAPACITOR	0.10UF K	
C34	CK73HB1A104K	C CAPACITOR	0.10UF K		C115	CK73HB1H102K	C CAPACITOR	1000PF K	
C35	CK73HB1H471K	C CAPACITOR	470PF K		C116	CK73HB1A104K	C CAPACITOR	0.10UF K	
C36	CK73HB1A104K	C CAPACITOR	0.10UF K		C117	CK73HB1A104K	C CAPACITOR	0.10UF K	
C37	CK73GB1A105K	C CAPACITOR	1.0UF K		C118	CK73HB1H102K	C CAPACITOR	1000PF K	
C38	CK73HB1A104K	C CAPACITOR	0.10UF K		C119	CK73HB1A104K	C CAPACITOR	0.10UF K	
C39	CC73GCH1H101J	C CAPACITOR	100PF J		C120	CK73HB1A104K	C CAPACITOR	0.10UF K	
C40	CC73GCH1H101J	C CAPACITOR	100PF J		C121	CK73GB1C683K	C CAPACITOR	0.068UF K	
C41	CK73HB1A104K	C CAPACITOR	0.10UF K		C122	CK73GB1H152K	C CAPACITOR	1500PF K	
C42	CK73HB1A104K	C CAPACITOR	0.10UF K		C123	CK73GB1H152K	C CAPACITOR	1500PF K	
C43	CK73HB1A104K	C CAPACITOR	0.10UF K		C124	CK73HB1A104K	C CAPACITOR	0.10UF K	
					C125	CK73HB1A104K	C CAPACITOR	0.10UF K	

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
C126	CC73GCH1H040C	C CAPACITOR	4.0PF C		R43	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
C127	CC73GCH1H040C	C CAPACITOR	4.0PF C		R44	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
C128	CK73HB1A104K	C CAPACITOR	0.10UF K		R45	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
C129	CK73GB1E105K	C CAPACITOR	1.0UF K		R46	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
C130	CK73GB1E105K	C CAPACITOR	1.0UF K		R47	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
C131	CC73HCH1H101J	C CAPACITOR	100PF J		R48	RK73GB2A101J	MG RESISTOR	100 J 1/10W	
C132	CK73HB1E472K	C CAPACITOR	4700PF K		R49	RK73GB2A101J	MG RESISTOR	100 J 1/10W	
C133	CK73HB1H471K	C CAPACITOR	470PF K		R52	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
C134	CK73HB1H102K	C CAPACITOR	1000PF K		R53	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
C135	CK73GB1H682K	C CAPACITOR	6800PF K		R54	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
C136	CK73GB1H103K	C CAPACITOR	0.010UF K		R55	RK73HB1J122J	MG RESISTOR	1.2K J 1/16W	
C137	CK73GB1H222K	C CAPACITOR	2200PF K		R56	RK73HB1J821J	MG RESISTOR	820 J 1/10W	
C138	CK73GB1H102K	C CAPACITOR	1000PF K		R57	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
C139	CK73GB1H221K	C CAPACITOR	220PF K		R58	RK73EB2E102J	MG RESISTOR	1.0K J 1/4W	
C140	CK73HB1A104K	C CAPACITOR	0.10UF K		R59	RK73EB2E102J	MG RESISTOR	1.0K J 1/4W	
C141	CK73HB1E103K	C CAPACITOR	0.010UF K		R60	RK73FB2B102J	MG RESISTOR	1.0K J 1/8W	
C142	CK73HB1H102K	C CAPACITOR	1000PF K		R61	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
C143	CK73GB1E105K	C CAPACITOR	1.0UF K		R62	RK73EB2E102J	MG RESISTOR	1.0K J 1/4W	
C144	CK73GB1C223K	C CAPACITOR	0.022UF K		R63	RK73EB2E102J	MG RESISTOR	1.0K J 1/4W	
C145	CK73GB1C223K	C CAPACITOR	0.022UF K		R64	RK73FB2B102J	MG RESISTOR	1.0K J 1/8W	
C146	CK73GB1H682K	C CAPACITOR	6800PF K		R65	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
C147	CK73GB1C223K	C CAPACITOR	0.022UF K		R66	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
C148	CK73GB1H682K	C CAPACITOR	6800PF K		R69	RK73FB2B121J	MG RESISTOR	1.0K J 1/8W	
C149	CK73GB1E103K	C CAPACITOR	0.010UF K		R70	RK73FB2B121J	MG RESISTOR	1.0K J 1/8W	
C150	CK73HB1H471K	C CAPACITOR	470PF K		R71	RK73FB2B471J	MG RESISTOR	470 J 1/8W	
C151	CK73HB1A104K	C CAPACITOR	0.10UF K		R72	RK73FB2B471J	MG RESISTOR	470 J 1/8W	
C152	CK73HB1A104K	C CAPACITOR	0.10UF K		R74	RK73FB2B121J	MG RESISTOR	1.0K J 1/8W	
C156	CK73HB1A104K	C CAPACITOR	0.10UF K		R75	RK73FB2B471J	MG RESISTOR	470 J 1/8W	
C159	CK73HB1H103K	C CAPACITOR	0.010UF K		R76	RK73FB2B471J	MG RESISTOR	470 J 1/8W	
C160	CK73GB1E105K	C CAPACITOR	1.0UF K		R77	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
C161	CK73HB1H103K	C CAPACITOR	0.010UF K		R78	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
C162	CK73GB1C225K	C CAPACITOR	2.2UF K		R79	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
C163	CK73HB1H103K	C CAPACITOR	0.010UF K		R80	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
C164	CK73GB1E105K	C CAPACITOR	1.0UF K		R81	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
C165	CK73HB1H103K	C CAPACITOR	0.010UF K		R82	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
C166	CK73GB1C225K	C CAPACITOR	2.2UF K		R83	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
C169	CK73HB1H103K	C CAPACITOR	0.010UF K		R84	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
R1	RK73HB1J333J	MG RESISTOR	33K J 1/16W		R85	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
R2	RK73HB1J333J	MG RESISTOR	33K J 1/16W		R86	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
R3	RK73HB1J473J	MG RESISTOR	47K J 1/16W		R87	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
R4	RK73HB1J473J	MG RESISTOR	47K J 1/16W		R88	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
R5	RK73HB1J334J	MG RESISTOR	330K J 1/16W		R89	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
R6	RK73GH2A393D	MG RESISTOR	39K D 1/10W		R90	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
R7	RK73GH2A393D	MG RESISTOR	39K D 1/10W		R91	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
R8	RK73HB1J394J	MG RESISTOR	390K J 1/16W		R92	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
R9	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R93	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
R10	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W		R94	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
R12	RK73HB1J333J	MG RESISTOR	33K J 1/16W		R95	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
R14	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R96	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
R15	RK73HB1J154J	MG RESISTOR	150K J 1/16W		R97	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
R16	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R98	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
R17	RK73HB1J101J	MG RESISTOR	100 J 1/16W		R99	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
R18	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R100	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
R19	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R101	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R20	RK73HB1J101J	MG RESISTOR	100 J 1/16W		R102	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R21	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R103	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R22	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R104	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R23	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R105	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R24	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R106	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R25	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R107	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R26	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R108	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R27	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R109	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R28	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R111	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R29	RK73HB1J473J	MG RESISTOR	47K J 1/16W		R112	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R30	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R113	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R31	RK73GB2A101J	MG RESISTOR	100 J 1/10W		R115	RK73GH2A392D	MG RESISTOR	3.9K D 1/10W	
R32	RK73GB2A101J	MG RESISTOR	100 J 1/10W		R116	RK73GB2A562J	MG RESISTOR	5.6K J 1/10W	
R33	RK73GB2A101J	MG RESISTOR	100 J 1/10W		R117	RK73HB1J154J	MG RESISTOR	150K J 1/16W	
R34	RK73GB2A101J	MG RESISTOR	100 J 1/10W		R118	RK73HB1J154J	MG RESISTOR	150K J 1/16W	
R35	RK73GB2A000J	MG RESISTOR	0.0 J 1/10W		R119	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R36	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R120	RK73HB1J154J	MG RESISTOR	150K J 1/16W	
R37	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R121	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R38	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R122	RK73HB1J563J	MG RESISTOR	56K J 1/16W	
R39	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R123	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R40	RK73HB1J473J	MG RESISTOR	47K J 1/16W		R124	RK73HB1J154J	MG RESISTOR	150K J 1/16W	
R41	RK73HB1J473J	MG RESISTOR	47K J 1/16W		R125	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R42	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R126	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
					R127	RK73HB1J103J	MG RESISTOR	10K J 1/16W	

△ Symbol No.	Part No.	Part Name	Description	Local
R128	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R129	RK73HB1J823J	MG RESISTOR	82K J 1/16W	
R130	RK73HB1J393J	MG RESISTOR	39K J 1/16W	
R131	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R132	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R133	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W	
R134	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R135	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R136	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R137	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R138	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R139	RK73HB1J23J	MG RESISTOR	12K J 1/16W	
R140	RK73HB1J123J	MG RESISTOR	12K J 1/16W	
R141	RK73HB1J123J	MG RESISTOR	12K J 1/16W	
R142	RK73HB1J22J	MG RESISTOR	2.2K J 1/16W	
R143	RK73HB1J123J	MG RESISTOR	12K J 1/16W	
R144	RK73HB1J123J	MG RESISTOR	12K J 1/16W	
R145	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R146	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R147	RK73HB1J22J	MG RESISTOR	22K J 1/16W	
R148	RK73HB1J22J	MG RESISTOR	22K J 1/16W	
R149	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R150	RK73HB1J272J	MG RESISTOR	2.7K J 1/16W	
R151	RK73HB1J273J	MG RESISTOR	27K J 1/16W	
R152	RK73HB1J272J	MG RESISTOR	2.7K J 1/16W	
R153	RK73HB1J273J	MG RESISTOR	27K J 1/16W	
R154	RK73HB1J22J	MG RESISTOR	22K J 1/16W	
R155	RK73HB1J273J	MG RESISTOR	27K J 1/16W	
R160	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R161	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R162	RK73HB1J273J	MG RESISTOR	27K J 1/16W	
R163	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R164	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R165	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R166	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
R167	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
R168	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
R169	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
R170	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
R171	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
R172	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
R173	RK73GB2A271J	MG RESISTOR	270 J 1/10W	
R175	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R176	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R179	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R180	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W	
R273	RK73FB2B121J	MG RESISTOR	1.0K J 1/8W	
R275	RK73HB1J154J	MG RESISTOR	150K J 1/16W	
R276	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R288	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R289	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R290	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R291	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R292	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R293	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R294	RK73HB1J100J	MG RESISTOR	10 J 1/16W	
R295	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R296	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R297	RK73GB2A100J	MG RESISTOR	10 J 1/10W	
R298	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R300	RK73HB1J182J	MG RESISTOR	1.8K J 1/16W	
R301	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R302	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W	
VR1	R31-0629-15	VARIABLE RESISTOR		
VR2	R31-0629-15	VARIABLE RESISTOR		
L1	L92-0138-05	CHIP FERRITE		
L2	L92-0138-05	CHIP FERRITE		
L3	L92-0138-05	CHIP FERRITE		
L4	L33-1990-05	CHOKE COIL		
L11	L41-4795-33	SMALL FIXED INDUCTOR		
L12	L92-0140-05	CHIP FERRITE		
L13	L92-0140-05	CHIP FERRITE		
L14	L92-0140-05	CHIP FERRITE		
L15	L92-0140-05	CHIP FERRITE		
L16	L92-0140-05	CHIP FERRITE		
L17	L92-0140-05	CHIP FERRITE		
L18	L92-0140-05	CHIP FERRITE		

△ Symbol No.	Part No.	Part Name	Description	Local
L23	L92-0138-05	CHIP FERRITE		
L24	L92-0138-05	CHIP FERRITE		
CN1	E40-6759-05	FLAT CABLE CONNECTOR (40P)		
CN2	E40-6708-05	PIN ASSY (5P)		
CN3	E40-6708-05	PIN ASSY (5P)		
CN4	E40-6765-05	PIN ASSY (8P)		
CN5	J19-5386-05	HOLDER (BATTERY)		
CN11	E40-6710-05	PIN ASSY (5P)		
CN12	E40-6710-05	PIN ASSY (5P)		
CN13	E40-6766-05	PIN ASSY (8P)		
CN17	E41-3397-05	FLAT CABLE CONNECTOR (10P)		
CP1	RK74HB1J102J	CHIP-COM	1.0K J 1/16W	
CP2	RK74HB1J473J	CHIP-COM	47K J 1/16W	
CP3	RK75HA1J473J	CHIP-COM	47K J 1/16W	
CP4	RK75HA1J103J	CHIP-COM	10K J 1/16W	
CP5	RK74HB1J102J	CHIP-COM	1.0K J 1/16W	
CP6	RK74HB1J102J	CHIP-COM	1.0K J 1/16W	
CP10	RK74HB1J473J	CHIP-COM	47K J 1/16W	
CP11	RK74HB1J473J	CHIP-COM	47K J 1/16W	
CP12	RK74HB1J473J	CHIP-COM	47K J 1/16W	
CP13	RK74HB1J473J	CHIP-COM	47K J 1/16W	
J1	E58-0558-05	MODULAR JACK (8P)		
J2	E56-0419-05	DIN SOCKET (COM)		
J3	E11-0709-05	2.5D PHONE JACK		
S1	W02-1978-05	ENCODER		
S11	S70-0439-15	TACT SWITCH		
S12	S70-0439-15	TACT SWITCH		
S13	S70-0439-15	TACT SWITCH		
S14	S70-0439-15	TACT SWITCH		
S15	S70-0439-15	TACT SWITCH		
S16	S70-0439-15	TACT SWITCH		
S17	S70-0439-15	TACT SWITCH		
S18	S70-0439-15	TACT SWITCH		
S19	S70-0439-15	TACT SWITCH		
S20	S70-0439-15	TACT SWITCH		
S21	S70-0439-15	TACT SWITCH		
S22	S70-0439-15	TACT SWITCH		
S23	S70-0439-15	TACT SWITCH		
X1	L77-1950-05	CRYSTAL RESONATOR (11.0592MHZ)		
X2	L77-1802-05	CRYSTAL RESONATOR (32.768KHZ)		
X3	L77-3031-05	CRYSTAL RESONATOR (15.9744MHZ)		

TX-RX UNIT

X57-9010-12(TM-D710GA:K)

X57-9012-72(TM-D710GE:E)

*Note:The part of IC131,IC132,IC578,IC801 and IC952 dose not come with the service unit.

Block No. [0][2]

△ Symbol No.	Part No.	Part Name	Description	Local
IC1	MB15A02PFV2E1	MOS-IC		
IC66	MB15A02PFV2E1	MOS-IC		
IC131	-----	POWER MODULE	(*Note)	
IC132	-----	POWER MODULE	(*Note)	
IC186	TC7W66FK-F	MOS-IC		
IC187	NJM2904V-ZB	MOS-IC		
IC486	TA31136FNG	MOS-IC		
IC487	TC75W51FUF	MOS-IC		
IC546	TA31136FNG	MOS-IC		
IC576	BU2099FV	MOS-IC		
IC577	BU2099FV	MOS-IC		
IC578	-----	IC	(*Note)	
IC579	TA7805F-NQ	MOS-IC		
IC606	ADM202EARUZ	MOS-IC		
IC666	BU4053BCFV	MOS-IC		
IC667	BH2228FV	MOS-IC		
IC668	TA4002F-F	BI-POLAR IC		
IC801	-----	MOS-IC	(*Note)	
IC802	NJM2100V-ZB	MOS-IC		

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
IC803	NJM2100V-ZB	MOS-IC			Q575	2SK1830F	FET		
IC804	M62364FP-F	MOS-IC			Q576	LTA023JUBFS8	TRANSISTOR		
IC805	NJM2112V-ZB	MOS-IC			Q578	LTA023JUBFS8	TRANSISTOR		
IC806	BU8241FS	MOS-IC			Q579	LTA023JUBFS8	TRANSISTOR		
IC807	TC7W66FK-F	MOS-IC			Q580	LTA023JUBFS8	TRANSISTOR		
IC916	M95256-WDW6PH ROM IC				Q582	LTA023JUBFS8	TRANSISTOR		
IC917	TC4W53FU-F	MOS-IC			Q583	LTA023JUBFS8	TRANSISTOR		
IC918	3062LFGPUKFEA	MCU			Q584	LTA023JUBFS8	TRANSISTOR		
IC919	PST8240U	MOS-IC			Q585	12A02CH	TRANSISTOR		
IC920	PST8240U	MOS-IC			Q586	12A02CH	TRANSISTOR		
IC921	LC73881MA-H	MOS-IC			Q587	LTA023JUBFS8	TRANSISTOR		
IC951	TC74HC4050AFT	MOS-IC			Q588	LTA023JUBFS8	TRANSISTOR		
IC952	-----	BI-POLAR IC	(*Note)		Q589	LTA023JUBFS8	TRANSISTOR		
IC953	TA7805F-NQ	MOS-IC			Q590	LTA023JUBFS8	TRANSISTOR		
Q1	2SC4617(R)	TRANSISTOR			Q591	LTC044EEBFS8	TRANSISTOR		
Q2	2SA1774(R)	TRANSISTOR			Q592	CPH6122	TRANSISTOR		
Q3	2SC4617(R)	TRANSISTOR			Q606	2SC4617(R)	TRANSISTOR		
Q4	2SC4617(R)	TRANSISTOR			Q607	2SC4617(R)	TRANSISTOR		
Q5	2SC5636	TRANSISTOR			Q641	2SC4617(R)	TRANSISTOR		
Q6	LTC044EEBFS8	TRANSISTOR			Q642	LTC044EEBFS8	TRANSISTOR		
Q7	2SC5636	TRANSISTOR			Q644	2SC3356-A(R24)	TRANSISTOR		
Q8	LTC044EEBFS8	TRANSISTOR			Q701	LTC014YEBFS8	TRANSISTOR		
Q9	LTC044EEBFS8	TRANSISTOR			Q702	LTC014YEBFS8	TRANSISTOR		
Q66	2SC4617(R)	TRANSISTOR			Q703	SSM6L35FU-F	FET		
Q67	2SA1774(R)	TRANSISTOR			Q704	2SJ347F	FET		
Q68	2SC4617(R)	TRANSISTOR			Q705	2SK508NV(K52)	FET		
Q69	2SC4617(R)	TRANSISTOR			Q706	2SK508NV(K52)	FET		
Q70	2SC5636	TRANSISTOR			Q707	2SC5108(Y)F	TRANSISTOR		
Q71	LTC044EEBFS8	TRANSISTOR			Q751	LTC014YEBFS8	TRANSISTOR		
Q72	2SC5636	TRANSISTOR			Q752	LTC014YEBFS8	TRANSISTOR		
Q73	LTC044EEBFS8	TRANSISTOR			Q753	SSM6L35FU-F	FET		
Q74	LTC044EEBFS8	TRANSISTOR			Q754	2SJ347F	FET		
Q131	2SC3357-A(RF)	TRANSISTOR			Q755	2SK508NV(K52)	FET		
Q132	2SK1830F	FET			Q756	2SK508NV(K52)	FET		
Q161	2SC3356-A(R24)	TRANSISTOR			Q757	2SC5108(Y)F	TRANSISTOR		
Q162	2SC3357-A(RF)	TRANSISTOR			Q801	2SC4919	TRANSISTOR		
Q163	2SK1830F	FET			Q802	DRC2114E0	TRANSISTOR		
Q186	LTC044EEBFS8	TRANSISTOR			Q803	KRC401-P	TRANSISTOR		
Q226	3SK294-FP	FET			Q804	KRC401-P	TRANSISTOR		
Q227	3SK294-FP	FET			Q805	2SC4617(S)	TRANSISTOR		
Q228	3SK318	FET			Q806	2SC4617(R)	TRANSISTOR		
Q229	LTC044EEBFS8	TRANSISTOR			Q807	2SC4617(R)	TRANSISTOR		
Q291	3SK294-FP	FET			Q808	2SC4617(S)	TRANSISTOR		
Q292	3SK294-FP	FET			Q809	2SK1830F	TRANSISTOR		
Q293	3SK318	FET			Q810	2SC4617(R)	TRANSISTOR		
Q294	LTC044EEBFS8	TRANSISTOR			Q811	2SC4617(R)	TRANSISTOR		
Q361	3SK294-FP	FET			Q812	2SK1830F	FET		
Q362	3SK318	FET			Q816	KRC401-P	TRANSISTOR		
Q363	3SK318	FET			Q817	2SK1824-A	FET		
Q400	LTC044EEBFS8	TRANSISTOR			Q916	LTC044EEBFS8	TRANSISTOR		
Q406	3SK294-FP	FET			Q917	LTC044EEBFS8	TRANSISTOR		
Q407	3SK318	FET			Q918	LTC044EEBFS8	TRANSISTOR		
Q408	3SK318	FET			Q951	LTC044EEBFS8	TRANSISTOR		
Q450	LTC044EEBFS8	TRANSISTOR			Q952	LTC044EEBFS8	TRANSISTOR		
Q456	2SC5636	TRANSISTOR			Q953	CPH6122	TRANSISTOR		
Q457	3SK318	FET			Q954	LTA023JUBFS8	TRANSISTOR		
Q459	2SC5066-F(O)	TRANSISTOR			Q955	2SC4617(R)	TRANSISTOR		
Q486	2SK1830F	FET			D1	DA2S101	DIODE		
Q487	2SK1830F	FET			D2	KDS123E-P	DIODE		
Q488	2SK1830F	FET			D3	DA2S101	DIODE		
Q489	2SC4617(R)	TRANSISTOR			D4	DA2S101	DIODE		
Q490	2SK1830F	FET			D5	DA2S00100	DIODE		
Q491	2SC4617(R)	TRANSISTOR			D6	DA2S00100	DIODE		
Q492	2SK1830F	FET			D10	HSC277	DIODE		
Q493	LTA014EUBFS8	TRANSISTOR			D11	HSC277	DIODE		
Q494	2SC4617(R)	TRANSISTOR			D12	HSC277	DIODE		
Q495	2SC5636	TRANSISTOR			D13	HSC277	DIODE		
Q496	2SK1830F	FET			D14	HVC131	DIODE		
Q546	2SK1830F	FET			D15	HVC131	DIODE		
Q547	2SC4649(N,P)	TRANSISTOR			D16	HVC131	DIODE		
Q548	2SK1830F	FET			D17	HVC131	DIODE		
Q549	2SK1830F	FET			D18	HVC131	DIODE		
Q550	LTA014EUBFS8	TRANSISTOR			D19	HVC131	DIODE		
Q551	2SC5636	TRANSISTOR			D20	HSC277	DIODE		
Q572	LTA014EEBFS8	TRANSISTOR			D21	HSC277	DIODE		
Q573	2SK1830F	FET			D22	HVC131	DIODE		
Q574	LTA014EEBFS8	TRANSISTOR			D23	HVC131	DIODE		

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
D24	HVC131	DIODE			D375	BBY65-02V	VARIABLE CAPACITANCE DIODE		
D25	HVC131	DIODE			D376	BBY65-02V	VARIABLE CAPACITANCE DIODE		
D26	HVC131	DIODE			D377	BBY53-05W	VARIABLE CAPACITANCE DIODE		
D27	HVC131	DIODE			D378	BBY65-02V	VARIABLE CAPACITANCE DIODE		
D28	HVC131	DIODE			D379	BBY65-02V	VARIABLE CAPACITANCE DIODE		
D29	HVC131	DIODE			D406	HSC277	DIODE		
D30	HSC277	DIODE			D407	HSC277	DIODE		
D31	HSC277	DIODE			D408	HSC277	DIODE		
D32	HSC277	DIODE			D409	BBY65-02V	VARIABLE CAPACITANCE DIODE		
D33	HSC277	DIODE			D410	BBY65-02V	VARIABLE CAPACITANCE DIODE		
D34	HSC277	DIODE			D412	BBY65-02V	VARIABLE CAPACITANCE DIODE		
D35	HSC277	DIODE			D413	BBY65-02V	VARIABLE CAPACITANCE DIODE		
D66	DA2S101	DIODE			D415	BBY65-02V	VARIABLE CAPACITANCE DIODE		
D67	KDS123E-P	DIODE			D416	BBY65-02V	VARIABLE CAPACITANCE DIODE		
D68	DA2S101	DIODE			D419	BBY53-05W	VARIABLE CAPACITANCE DIODE		
D69	DA2S101	DIODE			D420	BBY65-02V	VARIABLE CAPACITANCE DIODE		
D70	DA2S00100	DIODE			D421	BBY65-02V	VARIABLE CAPACITANCE DIODE		
D71	DA2S00100	DIODE			D423	BBY65-02V	VARIABLE CAPACITANCE DIODE		
D130	HVC131	DIODE			D424	BBY65-02V	VARIABLE CAPACITANCE DIODE		
D131	HVC131	DIODE			D451	HVC131	DIODE		
D132	1SS355	DIODE			D456	HSC277	DIODE		
D133	KDZ5.1EV-P(Y)	ZENER DIODE			D457	HVC131	DIODE		
D134	L407CDB	DIODE			D486	KDS112E-P	DIODE		
D135	L407CDB	DIODE			D487	KDS112E-P	DIODE		
D136	1SS355	DIODE			D488	KDR731	DIODE		
D160	HVC131	DIODE			D488	RB706F-40	DIODE		
D161	HVC131	DIODE			D489	HSC277	DIODE		
D162	1SS355	DIODE			D546	KDS112E-P	DIODE		
D163	KDZ5.1EV-P(Y)	ZENER DIODE			D547	KDS112E-P	DIODE		
D164	L407CDB	DIODE			D576	KDS121E-P	DIODE		
D165	L407CDB	DIODE			D578	DA2S101	DIODE		
D166	1SS355	DIODE			D580	KDS121E-P	DIODE		
D186	MA4PH633	DIODE			D582	KDS121E-P	DIODE		
D187	MA4PH633	DIODE			D583	KDS121E-P	DIODE		
D188	HVU131-E	DIODE			D584	DAP202K	DIODE		
D189	HVU131-E	DIODE			D606	DA2S101	DIODE		
D190	DA2S101	DIODE			D607	KDS123E-P	DIODE		
D191	MA3J742	DIODE			D608	DA2S101	DIODE		
D192	MA3J742	DIODE			D609	KDS123E-P	DIODE		
D193	KDZ5.1EV-P(Y)	ZENER DIODE			D610	DSM3MA1-RPB	DIODE		
D226	HSC277	DIODE			D611	DSM3MA1-RPB	DIODE		
D227	HSC277	DIODE			D612	22ZR-10D	SURGE ABSORBER		
D229	HSC277	DIODE			D701	HSC277	DIODE		
D230	1SV325F	VARIABLE CAPACITANCE DIODE			D703	1SV325F	VARIABLE CAPACITANCE DIODE		
D231	1SV325F	VARIABLE CAPACITANCE DIODE			D704	1SV325F	VARIABLE CAPACITANCE DIODE		
D232	HSC277	DIODE			D705	1SV325F	VARIABLE CAPACITANCE DIODE		
D233	1SV325F	VARIABLE CAPACITANCE DIODE			D707	1SV325F	VARIABLE CAPACITANCE DIODE		
D234	1SV325F	VARIABLE CAPACITANCE DIODE			D708	HSC277	DIODE		
D238	HSC277	DIODE			D709	1SV323F	VARIABLE CAPACITANCE DIODE		
D239	1SV325F	VARIABLE CAPACITANCE DIODE			D710	1SV278F	VARIABLE CAPACITANCE DIODE		
D240	1SV325F	VARIABLE CAPACITANCE DIODE			D751	HSC277	DIODE		
D241	HSC277	DIODE			D753	1SV325F	VARIABLE CAPACITANCE DIODE		
D242	1SV325F	VARIABLE CAPACITANCE DIODE			D754	1SV325F	VARIABLE CAPACITANCE DIODE		
D243	1SV325F	VARIABLE CAPACITANCE DIODE			D755	1SV325F	VARIABLE CAPACITANCE DIODE		
D291	HSC277	DIODE			D757	1SV325F	VARIABLE CAPACITANCE DIODE		
D292	HSC277	DIODE			D758	HSC277	DIODE		
D294	HSC277	DIODE			D759	1SV323F	VARIABLE CAPACITANCE DIODE		
D295	1SV325F	VARIABLE CAPACITANCE DIODE			D760	1SV278F	VARIABLE CAPACITANCE DIODE		
D296	1SV325F	VARIABLE CAPACITANCE DIODE			D801	KDS121E-P	DIODE		
D297	HSC277	DIODE			D802	1SS372F	DIODE		
D298	1SV325F	VARIABLE CAPACITANCE DIODE			D916	DZZJ180(M)	ZENER DIODE		
D299	1SV325F	VARIABLE CAPACITANCE DIODE			D951	KDS123E-P	DIODE		
D303	HSC277	DIODE			D952	KDS123E-P	DIODE		
D304	1SV325F	VARIABLE CAPACITANCE DIODE			D953	KDS123E-P	DIODE		
D305	1SV325F	VARIABLE CAPACITANCE DIODE			D954	1SS355	DIODE		
D306	HSC277	DIODE			D955	KDZ5.1EV-P(Y)	ZENER DIODE		
D307	1SV325F	VARIABLE CAPACITANCE DIODE			D956	MINISMDC110F16	VARISTOR		
D308	1SV325F	VARIABLE CAPACITANCE DIODE			D957	1SR154-400	DIODE		
D356	HVC131	DIODE			C1	CK73HB1H471K	C CAPACITOR	470PF K	
D361	HSC277	DIODE			C2	CK73HB1H102K	C CAPACITOR	1000PF K	
D362	HSC277	DIODE			C3	CK73HB1E103K	C CAPACITOR	0.010UF K	
D363	HSC277	DIODE			C4	CK73GB1H104K	C CAPACITOR	0.10UF K	
D364	BBY65-02V	VARIABLE CAPACITANCE DIODE			C5	CK73GB1H104K	C CAPACITOR	0.10UF K	
D365	BBY65-02V	VARIABLE CAPACITANCE DIODE			C6	CC73HCH1H470J	C CAPACITOR	47PF J	
D367	BBY65-02V	VARIABLE CAPACITANCE DIODE			C7	CK73HB1H471K	C CAPACITOR	470PF K	
D368	BBY65-02V	VARIABLE CAPACITANCE DIODE			C9	CK73HB1H471K	C CAPACITOR	470PF K	
D370	BBY65-02V	VARIABLE CAPACITANCE DIODE			C10	CK73GB1H104K	C CAPACITOR	0.10UF K	
D371	BBY65-02V	VARIABLE CAPACITANCE DIODE							

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
C11	CK73HB1H102K	C CAPACITOR	1000PF K		C91	CC73HCH1H040B	C CAPACITOR	4.0PF B	
C12	CS77BB21A220M	TA E CAPACITOR	22UF 10WV		C92	CK73HB1H471K	C CAPACITOR	470PF K	
C13	CK73HB1E103K	C CAPACITOR	0.010UF K		C93	CC73HCH1H100B	C CAPACITOR	10PF B	
C14	CK73HB1H102K	C CAPACITOR	1000PF K		C94	CK73HB1E103K	C CAPACITOR	0.010UF K	
C15	CK73HB1E103K	C CAPACITOR	0.010UF K		C95	CK73GB1A105K	C CAPACITOR	1.0UF K	
C16	CK73HB1E103K	C CAPACITOR	0.010UF K		C96	CC73HCH1H040B	C CAPACITOR	4.0PF B	
C17	CK73GB1C473K	C CAPACITOR	0.047UF K		C97	CC73HCH1H270G	C CAPACITOR	27PF G	
C18	CS77MA1VR47M	TA E CAPACITOR	0.47UF 35WV		C98	CK73HB1E103K	C CAPACITOR	0.010UF K	
C19	CK73HB1H102K	C CAPACITOR	1000PF K		C99	CC73HCH1H101J	C CAPACITOR	100PF J	
C20	CS77BA1A100M	TA E CAPACITOR	10UF 10WV		C100	CC73HCH1H120G	C CAPACITOR	12PF G	
C21	CK73HB1H102K	C CAPACITOR	1000PF K		C101	CC73HCH1H150G	C CAPACITOR	15PF G	
C22	CK73HB1H102K	C CAPACITOR	1000PF K		C102	CK73HB1H471K	C CAPACITOR	470PF K	
C23	CS77MA1VR22M	TA E CAPACITOR	0.22UF 35WV		C103	CK73HB1H471K	C CAPACITOR	470PF K	
C24	CS77BB21A220M	TA E CAPACITOR	22UF 10WV		C104	CK73HB1H471K	C CAPACITOR	470PF K	
C25	CK73HB1H102K	C CAPACITOR	1000PF K		C105	CK73HB1H471K	C CAPACITOR	470PF K	
C26	CK73HB1H471K	C CAPACITOR	470PF K		C106	CC73HCH1H040B	C CAPACITOR	4.0PF B	
C27	CC73HCH1H100B	C CAPACITOR	10PF B		C107	CC73HCH1H1R5B	C CAPACITOR	1.5PF B	
C28	CK73HB1E103K	C CAPACITOR	0.010UF K		C108	CK73HB1H471K	C CAPACITOR	470PF K	
C29	CK73GB1A105K	C CAPACITOR	1.0UF K		C109	CK73HB1H471K	C CAPACITOR	470PF K	
C30	CC73HCH1H040B	C CAPACITOR	4.0PF B		C110	CK73HB1H471K	C CAPACITOR	470PF K	
C31	CC73HCH1H270G	C CAPACITOR	27PF G		C111	CC73HCH1H150G	C CAPACITOR	15PF G	
C32	CK73HB1E103K	C CAPACITOR	0.010UF K		C112	CC73HCH1H010B	C CAPACITOR	1.0PF B	
C33	CC73HCH1H101J	C CAPACITOR	100PF J		C113	CK73HB1H471K	C CAPACITOR	470PF K	
C34	CC73HCH1H120G	C CAPACITOR	12PF G		C114	CK73HB1H471K	C CAPACITOR	470PF K	
C35	CC73HCH1H150G	C CAPACITOR	15PF G		C115	CK73HB1H471K	C CAPACITOR	470PF K	
C36	CK73HB1H471K	C CAPACITOR	470PF K		C116	CK73HB1H471K	C CAPACITOR	470PF K	
C37	CK73HB1H471K	C CAPACITOR	470PF K		C117	CK73HB1H471K	C CAPACITOR	470PF K	
C38	CK73HB1H471K	C CAPACITOR	470PF K		C119	CK73HB1H471K	C CAPACITOR	470PF K	
C39	CK73HB1H471K	C CAPACITOR	470PF K		C120	CK73HB1H471K	C CAPACITOR	470PF K	
C40	CC73HCH1H040B	C CAPACITOR	4.0PF B		C121	CK73HB1H102K	C CAPACITOR	1000PF K	
C41	CC73HCH1H1R5B	C CAPACITOR	1.5PF B		C122	CK73HB1H102K	C CAPACITOR	1000PF K	
C42	CK73HB1H471K	C CAPACITOR	470PF K		C123	CC73HCH1H070B	C CAPACITOR	7.0PF B	
C43	CK73HB1H471K	C CAPACITOR	470PF K		C124	CC73HCH1H020B	C CAPACITOR	2.0PF B	
C44	CK73HB1H471K	C CAPACITOR	470PF K		C125	CK73HB1H102K	C CAPACITOR	1000PF K	
C45	CC73HCH1H150G	C CAPACITOR	15PF G		C126	CK73GB1E105K	C CAPACITOR	1.0UF K	
C46	CC73HCH1H010B	C CAPACITOR	1.0PF B		C127	CK73HB1H471K	C CAPACITOR	470PF K	
C47	CC73HCH1H150G	C CAPACITOR	15PF G		C128	CK73HB1H471K	C CAPACITOR	470PF K	
C49	CK73HB1H471K	C CAPACITOR	470PF K		C129	CC73HCH1H100B	C CAPACITOR	10PF B	
C50	CK73HB1H471K	C CAPACITOR	470PF K		C130	CC73HCH1H100B	C CAPACITOR	10PF B	
C51	CC73HCH1H030B	C CAPACITOR	3.0PF B		C131	CK73HB1H102K	C CAPACITOR	1000PF K	
C52	CC73HCH1H150G	C CAPACITOR	15PF G		C132	CK73HB1H102K	C CAPACITOR	1000PF K	
C53	CK73HB1H471K	C CAPACITOR	470PF K		C133	CK73HB1H102K	C CAPACITOR	1000PF K	
C54	CC73HCH1H270G	C CAPACITOR	27PF G		C134	CK73GB1H102K	C CAPACITOR	1000PF K	
C55	CC73HCH1H030B	C CAPACITOR	3.0PF B		C135	CK73HB1H471K	C CAPACITOR	470PF K	
C56	CK73HB1H102K	C CAPACITOR	1000PF K		C136	CK73FB1A475K	C CAPACITOR	4.7UF K	
C57	CK73HB1H102K	C CAPACITOR	1000PF K		C137	CK73GB1H471K	C CAPACITOR	470PF K	
C58	CC73HCH1H070B	C CAPACITOR	7.0PF B		C138	CK73GB1H471K	C CAPACITOR	470PF K	
C59	CC73HCH1H020B	C CAPACITOR	2.0PF B		C139	CK73GB1H471K	C CAPACITOR	470PF K	
C60	CK73HB1H102K	C CAPACITOR	1000PF K		C141	CK73GB1H471K	C CAPACITOR	470PF K	
C61	CK73HB1H471K	C CAPACITOR	470PF K		C142	CK73GB1H104K	C CAPACITOR	0.10UF K	
C62	CK73HB1H471K	C CAPACITOR	470PF K		C143	CK73GB1H471K	C CAPACITOR	470PF K	
C63	CC73HCH1H040B	C CAPACITOR	4.0PF B		C144	C93-0562-05	C CAPACITOR	15PF 500WV	
C64	CC73HCH1H100B	C CAPACITOR	10PF B		C145	CK73GB1H103K	C CAPACITOR	0.010UF K	
C65	CC73HCH1H100B	C CAPACITOR	10PF B		C146	CK73EB1E225K	C CAPACITOR	2.2UF K	
C66	CK73HB1H471K	C CAPACITOR	470PF K		C149	C93-0554-05	C CAPACITOR	4.0PF 500WV	
C67	CK73HB1H102K	C CAPACITOR	1000PF K		C150	CK73GB1H102K	C CAPACITOR	1000PF K	
C68	CK73HB1E103K	C CAPACITOR	0.010UF K		C151	C93-0562-05	C CAPACITOR	15PF 500WV	
C69	CK73GB1H104K	C CAPACITOR	0.10UF K		C152	CK73GB1H103K	C CAPACITOR	0.010UF K	
C70	CK73GB1H104K	C CAPACITOR	0.10UF K		C153	CK73HB1H102K	C CAPACITOR	1000PF K	
C71	CC73HCH1H470J	C CAPACITOR	47PF J		C154	CK73HB1H471K	C CAPACITOR	470PF K	
C72	CK73HB1H471K	C CAPACITOR	470PF K		C155	CK73HB1H471K	C CAPACITOR	470PF K	
C74	CK73HB1H471K	C CAPACITOR	470PF K		C156	CC73HCH1H150G	C CAPACITOR	15PF G	
C75	CK73GB1H104K	C CAPACITOR	0.10UF K		C157	CC73HCH1H050B	C CAPACITOR	5.0PF B	
C76	CK73HB1H102K	C CAPACITOR	1000PF K		C158	CC73HCH1H050B	C CAPACITOR	5.0PF B	
C77	CK73HB1H102K	C CAPACITOR	1000PF K		C159	CC73HCH1H050B	C CAPACITOR	5.0PF B	
C78	CS77BB21A220M	TA E CAPACITOR	22UF 10WV		C160	CC73HCH1H050B	C CAPACITOR	5.0PF B	
C79	CK73HB1E103K	C CAPACITOR	0.010UF K		C161	CK73HB1H471K	C CAPACITOR	470PF K	
C80	CK73HB1H102K	C CAPACITOR	1000PF K		C162	CK73HB1H471K	C CAPACITOR	470PF K	
C81	CK73HB1E103K	C CAPACITOR	0.010UF K		C163	CK73HB1H102K	C CAPACITOR	1000PF K	
C82	CK73HB1E103K	C CAPACITOR	0.010UF K		C164	CK73HB1H471K	C CAPACITOR	470PF K	
C83	CK73GB1C473K	C CAPACITOR	0.047UF K		C165	CC73HCH1H150G	C CAPACITOR	15PF G	
C84	CK73HB1H102K	C CAPACITOR	1000PF K		C166	CK73HB1H471K	C CAPACITOR	470PF K	
C85	CS77MA1VR47M	TA E CAPACITOR	0.47UF 35WV		C167	CK73GB1H471K	C CAPACITOR	470PF K	
C86	CS77BA1A100M	TA E CAPACITOR	10UF 10WV		C168	CK73HB1H471K	C CAPACITOR	470PF K	
C87	CK73HB1H102K	C CAPACITOR	1000PF K		C169	CK73FB1A475K	C CAPACITOR	4.7UF K	
C88	CK73HB1H102K	C CAPACITOR	1000PF K		C170	CK73GB1H471K	C CAPACITOR	470PF K	
C89	CS77MA1VR22M	TA E CAPACITOR	0.22UF 35WV		C171	CC73GCH1H100D	C CAPACITOR	10PF D	
C90	CS77BB21A220M	TA E CAPACITOR	22UF 10WV		C172	CK73GB1H471K	C CAPACITOR	470PF K	

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
C173	C93-0553-05	C CAPACITOR	3.0PF 500WV		C252	CK73HB1H102K	C CAPACITOR	1000PF K	
C174	CK73GB1H471K	C CAPACITOR	470PF K		C253	CK73HB1H471K	C CAPACITOR	470PF K	
C175	CK73GB1H104K	C CAPACITOR	0.10UF K		C254	CK73HB1H471K	C CAPACITOR	470PF K	
C176	CK73GB1H471K	C CAPACITOR	470PF K		C255	CK73HB1H102K	C CAPACITOR	1000PF K	
C177	CK73GB1H103K	C CAPACITOR	0.010UF K		C256	CK73HB1H102K	C CAPACITOR	1000PF K	
C178	C93-0553-05	C CAPACITOR	3.0PF 500WV		C257	CK73HB1H102K	C CAPACITOR	1000PF K	
C179	CK73HB1H102K	C CAPACITOR	1000PF K		C259	CK73HB1H102K	C CAPACITOR	1000PF K	
C180	CK73HB1H471K	C CAPACITOR	470PF K		C260	CK73HB1H102K	C CAPACITOR	1000PF K	
C181	CK73GB1H103K	C CAPACITOR	0.010UF K		C261	CK73HB1H102K	C CAPACITOR	1000PF K	
C182	CK73HB1H102K	C CAPACITOR	1000PF K		C262	CC73HCH1H020B	C CAPACITOR	2.0PF B	
C183	CK73HB1H471K	C CAPACITOR	470PF K	K	C263	CK73HB1H102K	C CAPACITOR	1000PF K	
C184	CK73HB1H471K	C CAPACITOR	470PF K	E	C264	CK73HB1H102K	C CAPACITOR	1000PF K	
C185	C93-0551-05	C CAPACITOR	1.5PF 500WV		C265	CK73HB1H102K	C CAPACITOR	1000PF K	
C186	C93-0552-05	C CAPACITOR	2.0PF 500WV		C266	CK73HB1H102K	C CAPACITOR	1000PF K	
C188	CC73FCH1H220J	C CAPACITOR	22PF J		C267	CK73HB1H102K	C CAPACITOR	1000PF K	
C189	CC73FC1H070B	C CAPACITOR	7.0PF B		C268	CK73HB1H102K	C CAPACITOR	1000PF K	
C190	C93-0554-05	C CAPACITOR	4.0PF 500WV		C269	CK73HB1H102K	C CAPACITOR	1000PF K	
C190	C93-0555-05	C CAPACITOR	5.0PF 500WV		C270	CC73HCH1H101J	C CAPACITOR	100PF J	
C191	C93-0603-05	C CAPACITOR	1000PF 500WV		C271	CK73HB1H102K	C CAPACITOR	1000PF K	
C192	C93-0556-05	C CAPACITOR	6.0PF 500WV		C272	CK73HB1H102K	C CAPACITOR	1000PF K	
C193	C93-0562-05	C CAPACITOR	15PF 500WV		C273	CK73HB1H102K	C CAPACITOR	1000PF K	
C194	C93-0553-05	C CAPACITOR	3.0PF 500WV		C274	CK73HB1H102K	C CAPACITOR	1000PF K	
C195	C93-0554-05	C CAPACITOR	4.0PF 500WV		C275	CC73HCH1H270G	C CAPACITOR	27PF G	
C196	CC73FCH1HR75B	C CAPACITOR	0.75PF B		C276	CC73HCH1H150G	C CAPACITOR	15PF G	
C197	C93-0562-05	C CAPACITOR	15PF 500WV		C279	CK73HB1H102K	C CAPACITOR	1000PF K	
C198	C93-0553-05	C CAPACITOR	3.0PF 500WV		C280	CK73HB1H102K	C CAPACITOR	1000PF K	
C199	C93-0552-05	C CAPACITOR	2.0PF 500WV		C281	CK73HB1H102K	C CAPACITOR	1000PF K	
C200	CC73GCH1HR75B	C CAPACITOR	0.75PF B		C283	CK73HB1H102K	C CAPACITOR	1000PF K	
C201	C93-0553-05	C CAPACITOR	3.0PF 500WV		C284	CK73HB1H102K	C CAPACITOR	1000PF K	
C202	CK73GB1H102K	C CAPACITOR	1000PF K		C285	CK73HB1H102K	C CAPACITOR	1000PF K	
C203	CK73GB1H102K	C CAPACITOR	1000PF K		C286	CK73HB1H102K	C CAPACITOR	1000PF K	
C204	CK73GB1H102K	C CAPACITOR	1000PF K		C287	CK73HB1H102K	C CAPACITOR	1000PF K	
C205	CK73GB1H102K	C CAPACITOR	1000PF K		C288	CK73HB1H102K	C CAPACITOR	1000PF K	
C206	CK73GB1H102K	C CAPACITOR	1000PF K		C292	CK73HB1A104K	C CAPACITOR	0.10UF K	
C207	CK73GB1H102K	C CAPACITOR	1000PF K		C293	CC73HCH1H030B	C CAPACITOR	3.0PF B	
C208	CK73HB1E103K	C CAPACITOR	0.01UF K		C294	CC73HCH1H070B	C CAPACITOR	7.0PF B	
C209	CK73HB1H102K	C CAPACITOR	1000PF K		C295	CK73HB1H102K	C CAPACITOR	1000PF K	
C210	CK73HB1C223K	C CAPACITOR	0.022UF K		C296	CC73HCH1H040B	C CAPACITOR	4.0PF B	
C211	CK73HB1E103K	C CAPACITOR	0.010UF K		C297	CC73HCH1H040B	C CAPACITOR	4.0PF B	
C212	CK73HB1C223K	C CAPACITOR	0.022UF K		C298	CK73HB1H102K	C CAPACITOR	1000PF K	
C213	CK73HB1H102K	C CAPACITOR	1000PF K		C299	CC73HCH1H110G	C CAPACITOR	11PF G	
C214	CK73HB1H102K	C CAPACITOR	1000PF K		C300	CK73HB1A104K	C CAPACITOR	0.10UF K	
C215	CK73HB1H102K	C CAPACITOR	1000PF K		C301	CK73HB1H102K	C CAPACITOR	1000PF K	
C216	CK73GB1H471K	C CAPACITOR	470PF K		C302	CK73HB1A104K	C CAPACITOR	0.10UF K	
C217	CK73GB1H104K	C CAPACITOR	0.10UF K		C303	CK73HB1H102K	C CAPACITOR	1000PF K	
C218	CK73HB1H102K	C CAPACITOR	1000PF K		C305	CK73HB1H102K	C CAPACITOR	1000PF K	
C219	CK73HB1H102K	C CAPACITOR	1000PF K		C306	CK73HB1H102K	C CAPACITOR	1000PF K	
C220	CK73GB1H471K	C CAPACITOR	470PF K		C307	CK73HB1H102K	C CAPACITOR	1000PF K	
C221	CK73GB1H471K	C CAPACITOR	470PF K		C308	CK73HB1H102K	C CAPACITOR	1000PF K	
C222	CK73GB1H471K	C CAPACITOR	470PF K		C309	CK73HB1H102K	C CAPACITOR	1000PF K	
C223	CK73HB1H471K	C CAPACITOR	470PF K		C310	CK73HB1H102K	C CAPACITOR	1000PF K	
C224	CK73HB1A104K	C CAPACITOR	0.10UF K		C311	CC73HCH1H020B	C CAPACITOR	2.0PF B	
C225	C93-0555-05	C CAPACITOR	5.0PF 500WV		C312	CK73HB1H102K	C CAPACITOR	1000PF K	
C226	C93-0553-05	C CAPACITOR	3.0PF 500WV		C313	CK73HB1H102K	C CAPACITOR	1000PF K	
C227	CC73GCH1H3R5B	C CAPACITOR	3.5PF B		C314	CK73HB1H102K	C CAPACITOR	1000PF K	
C228	CC73HCH1H030B	C CAPACITOR	3.0PF B		C315	CK73HB1H102K	C CAPACITOR	1000PF K	
C229	CC73HCH1H070B	C CAPACITOR	7.0PF B		C316	CK73HB1H102K	C CAPACITOR	1000PF K	
C230	CK73HB1H102K	C CAPACITOR	1000PF K		C317	CC73HCH1H020B	C CAPACITOR	2.0PF B	
C231	CC73HCH1H040B	C CAPACITOR	4.0PF B		C321	CK73HB1H102K	C CAPACITOR	1000PF K	
C232	CC73HCH1H040B	C CAPACITOR	4.0PF B		C322	CK73HB1H102K	C CAPACITOR	1000PF K	
C233	CK73HB1H102K	C CAPACITOR	1000PF K		C324	CK73HB1H102K	C CAPACITOR	1000PF K	
C234	CC73HCH1H110G	C CAPACITOR	11PF G		C325	CK73HB1H102K	C CAPACITOR	1000PF K	
C235	CK73HB1A104K	C CAPACITOR	0.10UF K		C326	CK73HB1H102K	C CAPACITOR	1000PF K	
C236	CK73HB1H102K	C CAPACITOR	1000PF K		C327	CK73HB1H102K	C CAPACITOR	1000PF K	
C237	CK73HB1A104K	C CAPACITOR	0.10UF K		C329	CK73HB1H102K	C CAPACITOR	1000PF K	
C238	CK73HB1H102K	C CAPACITOR	1000PF K		C330	CK73HB1H102K	C CAPACITOR	1000PF K	
C240	CK73HB1H102K	C CAPACITOR	1000PF K		C331	CK73HB1H102K	C CAPACITOR	1000PF K	
C241	CK73HB1H102K	C CAPACITOR	1000PF K		C332	CK73HB1H102K	C CAPACITOR	1000PF K	
C242	CK73HB1H102K	C CAPACITOR	1000PF K		C333	CK73HB1H102K	C CAPACITOR	1000PF K	
C243	CK73HB1H102K	C CAPACITOR	1000PF K		C334	CK73HB1H102K	C CAPACITOR	1000PF K	
C244	CK73HB1H102K	C CAPACITOR	1000PF K		C335	CK73HB1H102K	C CAPACITOR	1000PF K	
C245	CK73HB1H102K	C CAPACITOR	1000PF K		C337	CK73HB1H102K	C CAPACITOR	1000PF K	
C246	CC73HCH1H020B	C CAPACITOR	2.0PF B		C338	CK73HB1H102K	C CAPACITOR	1000PF K	
C247	CK73HB1H102K	C CAPACITOR	1000PF K		C339	CK73HB1H102K	C CAPACITOR	1000PF K	
C248	CK73HB1H102K	C CAPACITOR	1000PF K		C340	CK73HB1H102K	C CAPACITOR	1000PF K	
C249	CK73HB1H102K	C CAPACITOR	1000PF K		C343	CC73HCH1H0R5B	C CAPACITOR	0.5PF B	
C250	CK73HB1H102K	C CAPACITOR	1000PF K		C344	CC73HCH1H0R5B	C CAPACITOR	0.5PF B	
C251	CK73HB1H102K	C CAPACITOR	1000PF K		C345	CC73HCH1H040B	C CAPACITOR	4.0PF B	

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
C346	CK73HB1H102K	C CAPACITOR	1000PF K		C430	CK73HB1H471K	C CAPACITOR	470PF K	
C347	CK73HB1H102K	C CAPACITOR	1000PF K		C431	CK73HB1H471K	C CAPACITOR	470PF K	
C349	CK73HB1H102K	C CAPACITOR	1000PF K		C432	CK73HB1H471K	C CAPACITOR	470PF K	
C350	CK73HB1H102K	C CAPACITOR	1000PF K		C433	CK73HB1H471K	C CAPACITOR	470PF K	
C351	CK73HB1H102K	C CAPACITOR	1000PF K		C434	CC73HCH1H040B	C CAPACITOR	4.0PF B	
C352	CK73HB1H102K	C CAPACITOR	1000PF K		C435	CK73GB1H471K	C CAPACITOR	470PF K	
C353	CK73HB1H102K	C CAPACITOR	1000PF K		C436	CK73HB1H471K	C CAPACITOR	470PF K	
C354	CK73HB1H102K	C CAPACITOR	1000PF K		C437	CK73HB1H471K	C CAPACITOR	470PF K	
C355	CC73HCH1H070B	C CAPACITOR	7.0PF B		C438	CK73HB1H471K	C CAPACITOR	470PF K	
C356	CC73HCH1H820J	C CAPACITOR	82PF J		C439	CC73HCH1H050B	C CAPACITOR	5.0PF B	
C357	CC73HCH1H150G	C CAPACITOR	15PF G		C440	CK73HB1H471K	C CAPACITOR	470PF K	
C358	CC73HCH1H181J	C CAPACITOR	180PF J		C441	CK73HB1H471K	C CAPACITOR	470PF K	
C359	CK73HB1H102K	C CAPACITOR	1000PF K		C442	CK73HB1H471K	C CAPACITOR	470PF K	
C360	CC73HCH1H100B	C CAPACITOR	10PF B		C443	CC73HCH1H060B	C CAPACITOR	6.0PF B	
C361	CK73HB1A104K	C CAPACITOR	0.10UF K		C444	CK73HB1H471K	C CAPACITOR	470PF K	
C363	CC73HCH1H020B	C CAPACITOR	2.0PF B		C445	CK73HB1H471K	C CAPACITOR	470PF K	
C364	CC73HCH1H100B	C CAPACITOR	10PF B		C446	CK73HB1H471K	C CAPACITOR	470PF K	
C365	CK73HB1H471K	C CAPACITOR	470PF K		C447	CK73HB1H471K	C CAPACITOR	470PF K	
C366	CC73HCH1H030B	C CAPACITOR	3.0PF B		C448	CK73HB1H471K	C CAPACITOR	470PF K	
C367	CC73HCH1H470J	C CAPACITOR	47PF J		C449	CC73HCH1H020B	C CAPACITOR	2.0PF B	
C368	CK73HB1H471K	C CAPACITOR	470PF K		C450	CK73HB1E103K	C CAPACITOR	0.010UF K	
C369	CC73HCH1H180G	C CAPACITOR	18PF G		C452	CK73HB1H471K	C CAPACITOR	470PF K	
C370	CK73HB1A104K	C CAPACITOR	0.10UF K		C455	CC73HCH1H020B	C CAPACITOR	2.0PF B	
C371	CK73HB1H102K	C CAPACITOR	1000PF K		C457	CC73HCH1H020B	C CAPACITOR	2.0PF B	
C372	CK73HB1H102K	C CAPACITOR	1000PF K		C458	CC73HCH1H101J	C CAPACITOR	100PF J	
C373	CK73HB1H471K	C CAPACITOR	470PF K		C459	CC73HCH1H020B	C CAPACITOR	2.0PF B	
C375	CC73HCH1H120G	C CAPACITOR	12PF G		C460	CC73HCH1H101J	C CAPACITOR	100PF J	
C376	CK73HB1H471K	C CAPACITOR	470PF K		C461	CC73HCH1H101J	C CAPACITOR	100PF J	
C378	CK73HB1H471K	C CAPACITOR	470PF K		C462	CC73HCH1H020B	C CAPACITOR	2.0PF B	
C379	CC73HCH1H470J	C CAPACITOR	47PF J		C463	CK73HB1H102K	C CAPACITOR	1000PF K	
C380	CK73HB1H471K	C CAPACITOR	470PF K		C464	CC73HCH1H101J	C CAPACITOR	100PF J	
C381	CK73HB1H471K	C CAPACITOR	470PF K		C465	CK73HB1H222K	C CAPACITOR	2200PF K	
C382	CK73HB1H471K	C CAPACITOR	470PF K		C466	CC73HCH1H101J	C CAPACITOR	100PF J	
C383	CC73HCH1H1R5B	C CAPACITOR	1.5PF B		C467	CC73HCH1H101J	C CAPACITOR	100PF J	
C384	CK73HB1H471K	C CAPACITOR	470PF K		C468	CC73HCH1H101J	C CAPACITOR	100PF J	
C385	CK73HB1H471K	C CAPACITOR	470PF K		C469	CC73HCH1H101J	C CAPACITOR	100PF J	
C386	CK73HB1H471K	C CAPACITOR	470PF K		C470	CK73HB1E103K	C CAPACITOR	0.010UF K	
C387	CK73HB1H471K	C CAPACITOR	470PF K		C471	CK73HB1H102K	C CAPACITOR	1000PF K	
C388	CK73HB1H471K	C CAPACITOR	470PF K		C472	CC73HCH1H030B	C CAPACITOR	3.0PF B	
C389	CC73HCH1H060B	C CAPACITOR	6.0PF B		C473	CC73HCH1H101J	C CAPACITOR	100PF J	
C390	CK73HB1H471K	C CAPACITOR	470PF K		C474	CC73HCH1H030B	C CAPACITOR	3.0PF B	
C391	CC73HCH1H470J	C CAPACITOR	47PF J		C475	CK73HB1H471K	C CAPACITOR	470PF K	
C392	CC73HCH1H470J	C CAPACITOR	47PF J		C476	CC73HCH1H820J	C CAPACITOR	82PF J	
C393	CK73GB1H471K	C CAPACITOR	470PF K		C477	CC73HCH1H101J	C CAPACITOR	100PF J	
C394	CK73HB1H471K	C CAPACITOR	470PF K		C478	CC73HCH1H100B	C CAPACITOR	10PF B	
C395	CC73HCH1H050B	C CAPACITOR	5.0PF B		C479	CC73HCH1H050B	C CAPACITOR	5.0PF B	
C396	CK73HB1H471K	C CAPACITOR	470PF K		C481	CK73HB1A104K	C CAPACITOR	0.10UF K	
C397	CK73HB1H471K	C CAPACITOR	470PF K		C483	CK73HB1A104K	C CAPACITOR	0.10UF K	
C398	CK73HB1H471K	C CAPACITOR	470PF K		C486	CK73HB1A104K	C CAPACITOR	0.10UF K	
C399	CC73HCH1H040B	C CAPACITOR	4.0PF B		C487	CK73HB1H391K	C CAPACITOR	390PF K	
C400	CK73HB1H471K	C CAPACITOR	470PF K		C488	CK73HB1H392K	C CAPACITOR	3900PF K	
C401	CK73HB1H471K	C CAPACITOR	470PF K		C489	CC73HCH1H101J	C CAPACITOR	100PF J	
C402	CK73HB1H471K	C CAPACITOR	470PF K		C490	CK73HB1A104K	C CAPACITOR	0.10UF K	
C403	CK73HB1H471K	C CAPACITOR	470PF K		C491	CC73HCH1H180G	C CAPACITOR	18PF G	
C404	CK73HB1H471K	C CAPACITOR	470PF K		C492	CK73HB1A104K	C CAPACITOR	0.10UF K	
C405	CK73HB1H471K	C CAPACITOR	470PF K		C493	CS77BA1A100M	TA E CAPACITOR	10UF 10WV	
C406	CC73HCH1H020B	C CAPACITOR	2.0PF B		C494	CK73HB1A104K	C CAPACITOR	0.10UF K	
C407	CC73HCH1H070B	C CAPACITOR	7.0PF B		C495	CK73HB1H102K	C CAPACITOR	1000PF K	
C408	CC73HCH1H020B	C CAPACITOR	2.0PF B		C496	CK73HB0J105K	C CAPACITOR	1.0UF K	
C409	CC73HCH1H100B	C CAPACITOR	10PF B		C497	CK73HB1A104K	C CAPACITOR	0.10UF K	
C410	CK73HB1H471K	C CAPACITOR	470PF K		C498	CC73HCH1H820J	C CAPACITOR	82PF J	
C411	CC73HCH1H030B	C CAPACITOR	3.0PF B		C499	CK73HB1A104K	C CAPACITOR	0.10UF K	
C413	CK73HB1H471K	C CAPACITOR	470PF K		C500	CK73HB1A104K	C CAPACITOR	0.10UF K	
C414	CC73HCH1H150G	C CAPACITOR	15PF G		C501	CK73HB1A104K	C CAPACITOR	0.10UF K	
C415	CK73HB1A104K	C CAPACITOR	0.10UF K		C502	CK73HB0J105K	C CAPACITOR	1.0UF K	
C416	CK73HB1H102K	C CAPACITOR	1000PF K		C503	CK73HB1A104K	C CAPACITOR	0.10UF K	
C417	CK73HB1H102K	C CAPACITOR	1000PF K		C504	CK73HB1A104K	C CAPACITOR	0.10UF K	
C418	CK73HB1H471K	C CAPACITOR	470PF K		C505	CK73GB1A105K	C CAPACITOR	1.0UF K	
C419	CK73HB1A104K	C CAPACITOR	0.10UF K		C507	CK73HB1A104K	C CAPACITOR	0.10UF K	
C420	CC73HCH1H120G	C CAPACITOR	12PF G		C509	CC73HCH1H560J	C CAPACITOR	56PF J	
C421	CK73HB1H471K	C CAPACITOR	470PF K		C511	CK73HB1E103K	C CAPACITOR	0.010UF K	
C422	CC73HCH1H1R5B	C CAPACITOR	1.5PF B		C512	CK73HB1H102K	C CAPACITOR	1000PF K	
C423	CK73HB1H471K	C CAPACITOR	470PF K		C513	CK73HB1H102K	C CAPACITOR	1000PF K	
C425	CK73HB1H471K	C CAPACITOR	470PF K		C514	CK73HB1A104K	C CAPACITOR	0.10UF K	
C426	CK73HB1H471K	C CAPACITOR	470PF K		C515	CK73HB1H102K	C CAPACITOR	1000PF K	
C427	CK73HB1H471K	C CAPACITOR	470PF K		C516	CK73HB1H102K	C CAPACITOR	1000PF K	
C428	CC73HCH1H1R5B	C CAPACITOR	1.5PF B		C518	CK73HB1A104K	C CAPACITOR	0.10UF K	
C429	CK73HB1H471K	C CAPACITOR	470PF K		C519	CC73HCH1H110G	C CAPACITOR	11PF G	

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
C521	CK73HB1A104K	C CAPACITOR	0.10UF K		C609	CK73GB1A105K	C CAPACITOR	1.0UF K	
C522	CK73HB1A104K	C CAPACITOR	0.10UF K		C610	CC73HCH1H121J	C CAPACITOR	120PF J	
C523	CK73HB1A104K	C CAPACITOR	0.10UF K		C611	CK73GB1H104K	C CAPACITOR	0.10UF K	
C524	CK73HB1A104K	C CAPACITOR	0.10UF K		C612	CK73GB1H104K	C CAPACITOR	0.10UF K	
C525	CK73HB1A104K	C CAPACITOR	0.10UF K		C613	CS77BA1A100M	TA E CAPACITOR	10UF 10WV	
C527	CK73HB1A104K	C CAPACITOR	0.10UF K		C614	CK73HB1A473K	C CAPACITOR	0.047UF K	
C528	CK73HB1A104K	C CAPACITOR	0.10UF K		C615	CK73GB1H104K	C CAPACITOR	0.10UF K	
C531	CK73GB0J475K	C CAPACITOR	4.7UF K		C616	CK73GB1H104K	C CAPACITOR	0.10UF K	
C532	CK73GB0J475K	C CAPACITOR	4.7UF K		C617	CK73GB1H102K	C CAPACITOR	1000PF K	
C533	CK73GB0J475K	C CAPACITOR	4.7UF K		C618	CK73HB0J105K	C CAPACITOR	1.0UF K	
C534	CK73GB0J475K	C CAPACITOR	4.7UF K		C619	CC73HCH1H101J	C CAPACITOR	100PF J	
C538	CC73HCH1H050B	C CAPACITOR	5.0PF B		C620	CD04AZ1E471M	E CAPACITOR	470UF 25WV	
C539	CC73HCH1H220G	C CAPACITOR	22PF G		C621	CC73HCH1H101J	C CAPACITOR	100PF J	
C540	C93-0570-05	C CAPACITOR	68PF 500WV		C622	CC73HCH1H101J	C CAPACITOR	100PF J	
C541	CC73HCH1H070B	C CAPACITOR	7.0PF B		C623	CC73HCH1H101J	C CAPACITOR	100PF J	
C542	CC73HCH1H090B	C CAPACITOR	9.0PF B		C624	CC73HCH1H101J	C CAPACITOR	100PF J	
C543	CK73HB1A104K	C CAPACITOR	0.10UF K		C625	CD04AZ1E471M	E CAPACITOR	470UF 25WV	
C544	CK73HB1H102K	C CAPACITOR	1000PF K		C626	CD04AZ1E471M	E CAPACITOR	470UF 25WV	
C545	CK73HB1C223K	C CAPACITOR	0.022UF K		C627	CC73HCH1H101J	C CAPACITOR	100PF J	
C546	CK73HB1E103K	C CAPACITOR	0.010UF K		C628	CC73HCH1H101J	C CAPACITOR	100PF J	
C547	CK73HB1A104K	C CAPACITOR	0.10UF K		C629	CC73HCH1H101J	C CAPACITOR	100PF J	
C548	CC73HCH1H220G	C CAPACITOR	22PF G		C630	CC73HCH1H101J	C CAPACITOR	100PF J	
C549	CK73HB1A104K	C CAPACITOR	0.10UF K		C631	CC73HCH1H101J	C CAPACITOR	100PF J	
C551	CC73HCH1H090B	C CAPACITOR	9.0PF B		C632	CC73HCH1H101J	C CAPACITOR	100PF J	
C552	CK73HB1H391K	C CAPACITOR	390PF K		C633	CC73HCH1H101J	C CAPACITOR	100PF J	
C553	CK73HB1H392K	C CAPACITOR	3900PF K		C634	CC73HCH1H101J	C CAPACITOR	100PF J	
C554	CC73HCH1H101J	C CAPACITOR	100PF J		C642	CS77BA1A100M	TA E CAPACITOR	10UF 10WV	
C555	C93-0555-05	C CAPACITOR	5.0PF 500WV		C643	CK73HB1H102K	C CAPACITOR	1000PF K	
C556	CK73HB1H102K	C CAPACITOR	1000PF K		C644	CK73HB1H102K	C CAPACITOR	1000PF K	
C557	CC73HCH1H910J	C CAPACITOR	91PF J		C645	CC73HCH1H470J	C CAPACITOR	47PF J	
C558	CK73HB1A104K	C CAPACITOR	0.10UF K		C646	CC73HCH1H470J	C CAPACITOR	47PF J	
C559	CK73HB1A104K	C CAPACITOR	0.10UF K		C647	CK73GB1H471K	C CAPACITOR	470PF K	
C560	CK73GB1A105K	C CAPACITOR	1.0UF K		C649	CC73HCH1H470J	C CAPACITOR	47PF J	
C561	CK73HB1A104K	C CAPACITOR	0.10UF K		C650	CK73HB1H471K	C CAPACITOR	470PF K	
C562	CS77BA1A100M	TA E CAPACITOR	10UF 10WV		C651	CE32CL1C470M	E CAPACITOR	47UF 16WV	
C563	CK73HB1A104K	C CAPACITOR	0.10UF K		C652	CC73HCH1H470J	C CAPACITOR	47PF J	
C564	CK73HB1A104K	C CAPACITOR	0.10UF K		C653	CK73GB1H102K	C CAPACITOR	1000PF K	
C565	CC73HCH1H2120G	C CAPACITOR	12PF G		C655	CK73HB1E103K	C CAPACITOR	0.010UF K	
C566	CK73HB1A104K	C CAPACITOR	0.10UF K		C656	CC73HCH1H470J	C CAPACITOR	47PF J	
C567	CK73HB1A104K	C CAPACITOR	0.10UF K		C659	CK73HB1H471K	C CAPACITOR	470PF K	
C568	CK73HB1A104K	C CAPACITOR	0.10UF K		C660	CK73GB1A105K	C CAPACITOR	1.0UF K	
C569	CK73HB1A104K	C CAPACITOR	0.10UF K		C661	CC73HCH1H470J	C CAPACITOR	47PF J	
C570	CK73HB1A104K	C CAPACITOR	0.10UF K		C662	CK73GB1H103K	C CAPACITOR	0.010UF K	
C571	CK73HB1A104K	C CAPACITOR	0.10UF K		C664	CK73HB1H102K	C CAPACITOR	1000PF K	
C572	CK73HB1A104K	C CAPACITOR	0.10UF K		C665	CK73GB1A105K	C CAPACITOR	1.0UF K	
C573	CK73HB1A104K	C CAPACITOR	0.10UF K		C666	CK73HB1A104K	C CAPACITOR	0.10UF K	
C574	CK73HB1A104K	C CAPACITOR	0.10UF K		C667	CK73HB1A104K	C CAPACITOR	0.10UF K	
C576	CK73HB1A104K	C CAPACITOR	0.10UF K		C668	CK73HB1H102K	C CAPACITOR	1000PF K	
C577	CK73HB1A104K	C CAPACITOR	0.10UF K		C669	CS77BA1A100M	TA E CAPACITOR	10UF 10WV	
C579	CK73GB1E105K	C CAPACITOR	1.0UF K		C670	CC73HCH1H470J	C CAPACITOR	47PF J	
C580	CK73GB1E105K	C CAPACITOR	1.0UF K		C671	CK73GB1A105K	C CAPACITOR	1.0UF K	
C581	CK73GB1E105K	C CAPACITOR	1.0UF K		C672	CC73HCH1H101J	C CAPACITOR	100PF J	
C583	CK73GB1E105K	C CAPACITOR	1.0UF K		C673	CC73HCH1H270G	C CAPACITOR	27PF G	
C584	CK73GB1E105K	C CAPACITOR	1.0UF K		C674	CC73HCH1H470J	C CAPACITOR	47PF J	
C585	CK73GB1E105K	C CAPACITOR	1.0UF K		C675	CC73HCH1H101J	C CAPACITOR	100PF J	
C586	CK73GB1E105K	C CAPACITOR	1.0UF K		C676	CC73HCH1H101J	C CAPACITOR	100PF J	
C587	CK73GB1E105K	C CAPACITOR	1.0UF K		C677	CK73HB1A104K	C CAPACITOR	0.10UF K	
C588	CK73GB1E105K	C CAPACITOR	1.0UF K		C678	CK73HB1A104K	C CAPACITOR	0.10UF K	
C589	CK73GB1E105K	C CAPACITOR	1.0UF K		C679	CK73HB1A104K	C CAPACITOR	0.10UF K	
C590	CK73GB1E105K	C CAPACITOR	1.0UF K		C680	CK73HB1A104K	C CAPACITOR	0.10UF K	
C591	CK73GB1E105K	C CAPACITOR	1.0UF K		C681	CK73HB1A104K	C CAPACITOR	0.10UF K	
C592	CK73GB1E105K	C CAPACITOR	1.0UF K		C682	CK73HB1A104K	C CAPACITOR	0.10UF K	
C593	C93-0555-05	C CAPACITOR	5.0PF 500WV		C683	CK73HB1A104K	C CAPACITOR	0.10UF K	
C594	CE32CL1C470M	E CAPACITOR	47UF 16WV		C684	CK73HB1A104K	C CAPACITOR	0.10UF K	
C595	CE32CL1C470M	E CAPACITOR	47UF 16WV		C685	CK73HB1A104K	C CAPACITOR	0.10UF K	
C596	CK73HB1H102K	C CAPACITOR	1000PF K		C686	CK73HB1A104K	C CAPACITOR	0.10UF K	
C597	CK73GB1E105K	C CAPACITOR	1.0UF K		C687	CK73HB0J105K	C CAPACITOR	1.0UF K	
C598	CK73HB1H104K	C CAPACITOR	0.10UF K		C689	CC73HCH1H1R5B	C CAPACITOR	1.5PF B	
C599	CK73GB1H104K	C CAPACITOR	0.10UF K		C690	CC73HCH1H03B	C CAPACITOR	3.0PF B	
C600	CK73GB1E105K	C CAPACITOR	1.0UF K		C693	CC73HCH1H1R5B	C CAPACITOR	1.5PF B	
C601	CK73GB1A105K	C CAPACITOR	1.0UF K		C694	CC73HCH1H03B	C CAPACITOR	3.0PF B	
C602	CK73GB1H104K	C CAPACITOR	0.10UF K		C697	CC73HCH1H07B	C CAPACITOR	7.0PF B	
C603	CK73GB1H104K	C CAPACITOR	0.10UF K		C698	CC73HCH1H270G	C CAPACITOR	27PF G	
C604	CK73HB1H471K	C CAPACITOR	470PF K		C699	CC73HCH1H07B	C CAPACITOR	7.0PF B	
C605	CC73HCH1H470J	C CAPACITOR	47PF J		C701	CK73HB1H102K	C CAPACITOR	1000PF K	
C606	CK73GB0J475K	C CAPACITOR	4.7UF K		C702	CK73HB1H102K	C CAPACITOR	1000PF K	
C607	CK73HB1A104K	C CAPACITOR	0.10UF K		C704	CK73HB1H471K	C CAPACITOR	470PF K	
C608	CK73GB1H104K	C CAPACITOR	0.10UF K		C708	CK73HB1H471K	C CAPACITOR	470PF K	

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
C710	CK73HB1H102K	C CAPACITOR	1000PF K		C825	CC73HCH1H121J	C CAPACITOR	120PF J	
C711	CK73HB1H102K	C CAPACITOR	1000PF K		C826	CK73HB1A104K	C CAPACITOR	0.10UF K	
C712	CK73HB1H471K	C CAPACITOR	470PF K		C827	CK73HB1H272K	C CAPACITOR	2700PF K	
C713	CK73HB1H102K	C CAPACITOR	1000PF K		C828	CK73HB0J105K	C CAPACITOR	1.0UF K	
C714	CK73HB1H102K	C CAPACITOR	1000PF K		C829	CK73HB0J105K	C CAPACITOR	1.0UF K	
C715	CK73HB1H471K	C CAPACITOR	470PF K		C830	CK73HB1A104K	C CAPACITOR	0.10UF K	
C716	CK73HB1E103K	C CAPACITOR	0.010UF K		C831	CK73HB1H332K	C CAPACITOR	3300PF K	
C717	CC73HCH1H390J	C CAPACITOR	39PF J		C832	CK73HB1H561K	C CAPACITOR	560PF K	
C718	CK73HB1E103K	C CAPACITOR	0.010UF K		C833	CK73HB1H102K	C CAPACITOR	1000PF K	
C719	CC73HCH1H050B	C CAPACITOR	5.0PF B		C834	CK73HB1E103K	C CAPACITOR	0.010UF K	
C720	CC73HCH1H0R5B C	CAPACITOR	0.5PF B		C835	CK73HB1E103K	C CAPACITOR	0.010UF K	
C721	CC73HCH1H0R5B C	CAPACITOR	0.5PF B		C836	CK73HB1E103K	C CAPACITOR	0.010UF K	
C722	CC73HCH1H030B	C CAPACITOR	3.0PF B		C837	CK73HB1E103K	C CAPACITOR	0.010UF K	
C723	CC73HCH1H060B	C CAPACITOR	6.0PF B		C838	CK73HB1C822K	C CAPACITOR	8200PF K	
C724	CC73HCH1H120G	C CAPACITOR	12PF G		C839	CK73HB1A104K	C CAPACITOR	0.10UF K	
C725	CC73HCH1H040B	C CAPACITOR	4.0PF B		C840	CS77MA1A4R7M	TA E CAPACITOR	4.7UF 10WV	
C727	CC73HCH1H050B	C CAPACITOR	5.0PF K		C841	CS77MA1A4R7M	TA E CAPACITOR	4.7UF 10WV	
C728	CK73HB1H102K	C CAPACITOR	1000PF K		C842	CK73HB1H332K	C CAPACITOR	3300PF K	
C729	CC73HCH1H0R5B C	CAPACITOR	0.5PF B		C843	CC73HCH1H221J	C CAPACITOR	220PF J	
C730	CC73HCH1H0R5B C	CAPACITOR	0.5PF B		C844	CK73HB1H561K	C CAPACITOR	560PF K	
C731	CK73HB1H471K	C CAPACITOR	470PF K		C845	CK73HB1H472K	C CAPACITOR	4700PF K	
C732	CK73HB1H471K	C CAPACITOR	470PF K		C846	CK73HB1H472K	C CAPACITOR	4700PF K	
C733	CC73HCH1H220G	C CAPACITOR	22PF G		C847	CK73HB1H102K	C CAPACITOR	1000PF K	
C734	CK73HB1H471K	C CAPACITOR	470PF K		C848	CK73HB0J105K	C CAPACITOR	1.0UF K	
C735	CK73GB1H104K	C CAPACITOR	0.10UF K		C849	CK73HB1H472K	C CAPACITOR	4700PF K	
C736	CC73HCH1H0R5B C	CAPACITOR	0.5PF B		C850	CK73HB1H472K	C CAPACITOR	4700PF K	
C751	CK73HB1H102K	C CAPACITOR	1000PF K		C851	CK73HB1H102K	C CAPACITOR	1000PF K	
C752	CK73HB1H102K	C CAPACITOR	1000PF K		C852	CK73HB1A473K	C CAPACITOR	0.047UF K	
C754	CK73HB1H471K	C CAPACITOR	470PF K		C853	CK73HB1H102K	C CAPACITOR	1000PF K	
C758	CK73HB1H471K	C CAPACITOR	470PF K		C854	CK73HB1A473K	C CAPACITOR	0.047UF K	
C760	CK73HB1H102K	C CAPACITOR	1000PF K		C855	CK73HB1A104K	C CAPACITOR	0.10UF K	
C761	CK73HB1H102K	C CAPACITOR	1000PF K		C856	CK73HB1H102K	C CAPACITOR	1000PF K	
C762	CK73HB1H471K	C CAPACITOR	470PF K		C857	CK73HB1A104K	C CAPACITOR	0.10UF K	
C763	CK73HB1H102K	C CAPACITOR	1000PF K		C858	CK73HB1H102K	C CAPACITOR	1000PF K	
C764	CK73HB1H102K	C CAPACITOR	1000PF K		C859	CK73HB1H122K	C CAPACITOR	1200PF K	
C765	CK73HB1H471K	C CAPACITOR	470PF K		C860	CK73HB1H102K	C CAPACITOR	1000PF K	
C766	CK73HB1E103K	C CAPACITOR	0.010UF K		C861	CK73HB0J105K	C CAPACITOR	1.0UF K	
C767	CC73HCH1H390J	C CAPACITOR	39PF J		C862	CK73HB1H122K	C CAPACITOR	1200PF K	
C768	CK73HB1E103K	C CAPACITOR	0.010UF K		C863	CK73HB1E103K	C CAPACITOR	0.010UF K	
C769	CC73HCH1H050B	C CAPACITOR	5.0PF B		C864	CK73HB1E103K	C CAPACITOR	0.010UF K	
C770	CC73HCH1H0R5B C	CAPACITOR	0.5PF B		C865	CS77MA1A4R7M	TA E CAPACITOR	4.7UF 10WV	
C771	CC73HCH1H0R5B C	CAPACITOR	0.5PF B		C866	CK73HB1E562K	C CAPACITOR	5600PF K	
C772	CC73HCH1H030B	C CAPACITOR	3.0PF B		C867	CK73HB1E562K	C CAPACITOR	5600PF K	
C773	CC73HCH1H060B	C CAPACITOR	6.0PF B		C868	CC73HCH1H221J	C CAPACITOR	220PF J	
C774	CC73HCH1H120G	C CAPACITOR	12PF G		C869	CK73HB0J105K	C CAPACITOR	1.0UF K	
C775	CC73HCH1H040B	C CAPACITOR	4.0PF B		C870	CK73HB1H102K	C CAPACITOR	1000PF K	
C777	CC73HCH1H050B	C CAPACITOR	5.0PF B		C872	CS77BA1A100M	TA E CAPACITOR	10UF 10WV	
C778	CK73HB1H102K	C CAPACITOR	1000PF K		C873	CK73HB0J105K	C CAPACITOR	1.0UF K	
C779	CC73HCH1H0R5B C	CAPACITOR	0.5PF B		C874	CK73HB1A104K	C CAPACITOR	0.10UF K	
C780	CC73HCH1H0R5B C	CAPACITOR	0.5PF B		C875	CK73HB1H102K	C CAPACITOR	1000PF K	
C781	CK73HB1H471K	C CAPACITOR	470PF K		C876	CK73HB1H102K	C CAPACITOR	1000PF K	
C782	CK73HB1H471K	C CAPACITOR	470PF K		C877	CK73HB1H561K	C CAPACITOR	560PF K	
C783	CC73HCH1H220G	C CAPACITOR	22PF G		C878	CC73HCH1H470J	C CAPACITOR	47PF J	
C784	CK73HB1H471K	C CAPACITOR	470PF K		C879	CK73HB1A104K	C CAPACITOR	0.10UF K	
C785	CK73GB1H104K	C CAPACITOR	0.10UF K		C880	CK73HB1A104K	C CAPACITOR	0.10UF K	
C786	CC73HCH1H0R5B C	CAPACITOR	0.5PF B		C881	CK73HB1H102K	C CAPACITOR	1000PF K	
C803	CE32BF1E331M	E CAPACITOR	330UF 25WV		C882	CC73HCH1H470J	C CAPACITOR	47PF J	
C804	CE32BF1E331M	E CAPACITOR	330UF 25WV		C883	CC73HCH1H220G	C CAPACITOR	22PF G	
C805	CK73GB1H104K	C CAPACITOR	0.10UF K		C884	CK73HB1H472K	C CAPACITOR	4700PF K	
C806	CE32BF1E331M	E CAPACITOR	330UF 25WV		C885	CK73HB1H561K	C CAPACITOR	560PF K	
C807	CE32BF1E331M	E CAPACITOR	330UF 25WV		C887	CK73HB0J105K	C CAPACITOR	1.0UF K	
C808	CK73GB0J475K	C CAPACITOR	4.7UF K		C889	CK73HB1H681K	C CAPACITOR	680PF K	
C809	CK73HB1H102K	C CAPACITOR	1000PF K		C891	CK73HB0J105K	C CAPACITOR	1.0UF K	
C810	CE32CL1C470M	E CAPACITOR	47UF 16WV		C892	CK73HB1H102K	C CAPACITOR	1000PF K	
C811	CS77MA1A4R7M	TA E CAPACITOR	4.7UF 10WV		C893	CK73HB1A104K	C CAPACITOR	0.10UF K	
C812	CK73HB1A473K	C CAPACITOR	0.047UF K		C894	CS77BA1A100M	TA E CAPACITOR	10UF 10WV	
C813	C92-0969-05	TA E CAPACITOR	2.2UF 10WV		C895	CK73HB0J105K	C CAPACITOR	1.0UF K	
C814	CK73HB1H561K	C CAPACITOR	560PF K		C896	CK73HB0J105K	C CAPACITOR	1.0UF K	
C815	CK73HB1A393K	C CAPACITOR	0.039UF K		C897	CK73HB0J105K	C CAPACITOR	1.0UF K	
C816	CK73HB1A104K	C CAPACITOR	0.10UF K		C898	CK73HB0J105K	C CAPACITOR	1.0UF K	
C817	CK73HB1H102K	C CAPACITOR	1000PF K		C899	CK73HB0J105K	C CAPACITOR	1.0UF K	
C818	CK73HB1A104K	C CAPACITOR	0.10UF K		C900	CK73HB0J105K	C CAPACITOR	1.0UF K	
C819	CK73HB1H102K	C CAPACITOR	1000PF K		C901	CK73HB0J105K	C CAPACITOR	1.0UF K	
C820	CK73HB1A104K	C CAPACITOR	0.10UF K		C902	CK73HB0J105K	C CAPACITOR	1.0UF K	
C821	CK73GB1C474K	C CAPACITOR	0.47UF K		C903	CK73HB0J105K	C CAPACITOR	1.0UF K	
C822	CK73GB1C474K	C CAPACITOR	0.47UF K		C904	CK73HB0J105K	C CAPACITOR	1.0UF K	
C823	CK73HB1H102K	C CAPACITOR	1000PF K		C905	CK73HB0J105K	C CAPACITOR	1.0UF K	
C824	CK73HB1H102K	C CAPACITOR	1000PF K		C906	CK73HB0J105K	C CAPACITOR	1.0UF K	

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
C907	CK73HB1H102K	C CAPACITOR	1000PF K		R8	RK73HB1J220J	MG RESISTOR	22 J 1/16W	
C908	CK73HB1H102K	C CAPACITOR	1000PF K		R9	RK73HB1J154J	MG RESISTOR	150K J 1/16W	
C909	CS77BA1A100M	TA E CAPACITOR	10UF 10WV		R11	RK73HB1J220J	MG RESISTOR	22 J 1/16W	
C910	CK73HB1H102K	C CAPACITOR	1000PF K		R12	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
C913	CK73GB1E105K	C CAPACITOR	1.0UF K		R13	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
C914	CK73HB1E682K	C CAPACITOR	6800PF K		R14	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
C915	CK73HB1C822K	C CAPACITOR	8200PF K		R15	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W	
C916	CK73HB1A104K	C CAPACITOR	0.10UF K		R16	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
C917	CK73HB1H102K	C CAPACITOR	1000PF K		R17	RK73HB1J682J	MG RESISTOR	6.8K J 1/16W	
C918	CK73HB1H102K	C CAPACITOR	1000PF K		R18	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
C919	CC73CHC1H220G	C CAPACITOR	22PF G		R19	RK73HB1J182J	MG RESISTOR	1.8K J 1/16W	
C920	CC73CHC1H220G	C CAPACITOR	22PF G		R20	RK73HB1J152J	MG RESISTOR	1.5K J 1/16W	
C921	CC73CHC1H220G	C CAPACITOR	22PF G		R21	RK73HB1J391J	MG RESISTOR	390 J 1/16W	
C922	CC73CHC1H220G	C CAPACITOR	22PF G		R22	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
C923	CK73HB1H102K	C CAPACITOR	1000PF K		R23	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
C924	CC73CHC1H101J	C CAPACITOR	100PF J		R24	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
C926	CK73HB1H681K	C CAPACITOR	680PF K		R25	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
C928	CK73GB1H102K	C CAPACITOR	1000PF K		R26	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
C929	CK73HB1A104K	C CAPACITOR	0.10UF K		R27	RK73HB1J123J	MG RESISTOR	12K J 1/16W	
C930	CK73HB1H102K	C CAPACITOR	1000PF K		R28	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
C931	CK73HB1H102K	C CAPACITOR	1000PF K		R29	RK73HB1J474J	MG RESISTOR	470K J 1/16W	
C932	CK73HB0J105K	C CAPACITOR	1.0UF K		R30	RK73HB1J153J	MG RESISTOR	15K J 1/16W	
C933	CK73HB1H102K	C CAPACITOR	1000PF K		R31	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
C934	CK73HB0J105K	C CAPACITOR	1.0UF K		R32	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
C935	CK73HB1H102K	C CAPACITOR	1000PF K		R33	RK73HB1J823J	MG RESISTOR	82K J 1/16W	
C936	CK73HB1H102K	C CAPACITOR	1000PF K		R35	RK73HB1J470J	MG RESISTOR	47 J 1/16W	
C937	CK73HB1H102K	C CAPACITOR	1000PF K		R36	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W	
C938	CK73HB1A104K	C CAPACITOR	0.10UF K		R37	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
C939	CK73HB1A104K	C CAPACITOR	0.10UF K		R38	RK73HB1J683J	MG RESISTOR	68K J 1/16W	
C941	CK73HB1H821K	C CAPACITOR	820PF K		R39	RK73HB1J331J	MG RESISTOR	330 J 1/16W	
C943	CK73HB1H102K	C CAPACITOR	1000PF K		R40	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
C944	CK73HB0J105K	C CAPACITOR	1.0UF K		R41	RK73HB1J180J	MG RESISTOR	18 J 1/16W	
C945	CK73HB1A104K	C CAPACITOR	0.10UF K		R42	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
C946	CK73HB1H102K	C CAPACITOR	1000PF K		R43	RK73HB1J331J	MG RESISTOR	330 J 1/16W	
C947	CK73GB1A105K	C CAPACITOR	1.0UF K		R46	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
C948	CK73HB1H102K	C CAPACITOR	1000PF K		R48	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
C949	CK73HB1H104K	C CAPACITOR	0.10UF K		R50	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
C950	CK73GB1C473K	C CAPACITOR	0.047UF K		R53	RK73HB1J560J	MG RESISTOR	56 J 1/16W	
C951	CK73HB1H102K	C CAPACITOR	1000PF K		R54	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
C952	CK73GB1A105K	C CAPACITOR	1.0UF K		R55	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
C953	CK73GB0J475K	C CAPACITOR	4.7UF K		R56	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
C954	CK73HB1H102K	C CAPACITOR	1000PF K		R57	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
C955	CK73HB1H102K	C CAPACITOR	1000PF K		R58	RK73HB1J560J	MG RESISTOR	56 J 1/16W	
C957	CK73HB1H102K	C CAPACITOR	1000PF K		R59	RK73HB1J4R7J	MG RESISTOR	4.7 J 1/16W	
C958	CK73HB1A104K	C CAPACITOR	0.10UF K		R60	RK73HB1J330J	MG RESISTOR	33 J 1/16W	
C960	CK73HB1H102K	C CAPACITOR	1000PF K		R61	RK73HB1J330J	MG RESISTOR	33 J 1/16W	
C962	CK73HB1H102K	C CAPACITOR	1000PF K		R64	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
C963	CE32CL1C470M	E CAPACITOR	47UF 16WV		R65	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
C964	CK73HB1H102K	C CAPACITOR	1000PF K		R66	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
C966	CK73HB1H102K	C CAPACITOR	1000PF K		R67	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
C967	CK73HB1E103K	C CAPACITOR	0.010UF K		R68	RK73HH1J333D	MG RESISTOR	33K D 1/16W	
C968	CK73HB1E103K	C CAPACITOR	0.010UF K		R69	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
C969	CK73HB1E103K	C CAPACITOR	0.010UF K		R72	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
C970	CE32BF1E331M	E CAPACITOR	330UF 25WV		R73	RK73HB1J220J	MG RESISTOR	22 J 1/16W	
C971	CK73GB1E105K	C CAPACITOR	1.0UF K		R74	RK73HB1J154J	MG RESISTOR	150K J 1/16W	
C972	CK73GB1H104K	C CAPACITOR	0.10UF K		R76	RK73HB1J220J	MG RESISTOR	22 J 1/16W	
C973	CE32BC1D220M	E CAPACITOR	22UF 20WV		R77	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
C974	CK73HB1H102K	C CAPACITOR	1000PF K		R78	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
C975	CK73GB1H104K	C CAPACITOR	0.10UF K		R79	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
C976	CK73HB1H102K	C CAPACITOR	1000PF K		R80	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W	
C977	CK73HB1A104K	C CAPACITOR	0.10UF K		R81	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
C978	CK73HB1H102K	C CAPACITOR	1000PF K		R82	RK73HB1J682J	MG RESISTOR	6.8K J 1/16W	
C979	CK73HB1A104K	C CAPACITOR	0.10UF K		R83	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
C980	CK73GB1E105K	C CAPACITOR	1.0UF K		R84	RK73HB1J182J	MG RESISTOR	1.8K J 1/16W	
C981	CK73GB1C474K	C CAPACITOR	0.47UF K		R85	RK73HB1J152J	MG RESISTOR	1.5K J 1/16W	
C982	CK73HB1H102K	C CAPACITOR	1000PF K		R86	RK73HB1J391J	MG RESISTOR	390 J 1/16W	
C983	CK73GB1H102K	C CAPACITOR	1000PF K		R87	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
C984	CK73HB1H102K	C CAPACITOR	1000PF K		R88	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
C985	CK73HB1H102K	C CAPACITOR	1000PF K		R89	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
C986	CK73HB1E103K	C CAPACITOR	0.010UF K		R90	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
C988	CK73HB1A104K	C CAPACITOR	0.10UF K		R91	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
C991	CC73CHC1H470J	C CAPACITOR	47PF J		R92	RK73HB1J123J	MG RESISTOR	12K J 1/16W	
					R93	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
R1	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R94	RK73HB1J474J	MG RESISTOR	470K J 1/16W	
R2	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R95	RK73HB1J153J	MG RESISTOR	15K J 1/16W	
R3	RK73HH1J333D	MG RESISTOR	33K D 1/16W		R96	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
R4	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R97	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R7	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R98	RK73HB1J823J	MG RESISTOR	82K J 1/16W	

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
R100	RK73HB1J470J	MG RESISTOR	47 J 1/16W		R212	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R101	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W		R213	RK73GB2A562J	MG RESISTOR	5.6K J 1/10W	
R102	RK73HB1J101J	MG RESISTOR	100 J 1/16W		R226	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R103	RK73HB1J683J	MG RESISTOR	68K J 1/16W		R227	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R104	RK73HB1J180J	MG RESISTOR	18 J 1/16W		R228	RK73HB1J270J	MG RESISTOR	27 J 1/16W	
R105	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R229	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R106	RK73HB1J331J	MG RESISTOR	330 J 1/16W		R230	RK73HB1J330J	MG RESISTOR	33 J 1/16W	
R107	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W		R231	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R108	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W		R232	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R109	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W		R233	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R110	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W		R234	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R111	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W		R235	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R112	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W		R236	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R113	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W		R237	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R114	RK73HB1J331J	MG RESISTOR	330 J 1/16W		R238	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R115	RK73HB1J473J	MG RESISTOR	47K J 1/16W		R239	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R116	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W		R240	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R117	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W		R241	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R118	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R242	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R119	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R243	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R120	RK73HB1J4R7J	MG RESISTOR	4.7 J 1/16W		R244	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R121	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R251	RK73HB1J151J	MG RESISTOR	150 J 1/16W	
R122	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R252	RK73HB1J120J	MG RESISTOR	12 J 1/16W	
R123	RK73FB2B000J	MG RESISTOR	0.0 J 1/8W		R253	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R124	RK73FB2B000J	MG RESISTOR	0.0 J 1/8W		R255	RK73HB1J333J	MG RESISTOR	33K J 1/16W	
R125	RK73FB2B000J	MG RESISTOR	0.0 J 1/8W		R256	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R129	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W		R257	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R130	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W		R258	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R131	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W		R259	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R132	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W		R260	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R133	RK73HB1J822J	MG RESISTOR	8.2K J 1/16W		R261	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R134	RK73GB2A100J	MG RESISTOR	10 J 1/10W		R262	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R135	RK73GB2A100J	MG RESISTOR	10 J 1/10W		R263	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R136	RK73GB2A222J	MG RESISTOR	2.2K J 1/10W		R264	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R137	RK73GB2A470J	MG RESISTOR	47 J 1/10W		R265	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R138	RK73GB2A271J	MG RESISTOR	270 J 1/10W		R266	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
R139	RK73GB2A180J	MG RESISTOR	18 J 1/10W		R273	RK73HB1J271J	MG RESISTOR	270 J 1/16W	
R140	RK73GB2A271J	MG RESISTOR	270 J 1/10W		R274	RK73HB1J390J	MG RESISTOR	390 J 1/16W	
R141	RN73GH1J103D	MG RESISTOR	10K D 1/16W		R275	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R142	RK73PB2H101J	MG RESISTOR	100 J 1/2W		R276	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R147	RK73EB2E000J	MG RESISTOR	0.0 J 1/4W		R277	RK73HB1J333J	MG RESISTOR	33K J 1/16W	
R161	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W		R278	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R162	RK73HB1J122J	MG RESISTOR	1.2K J 1/16W		R291	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R163	RK73HB1J682J	MG RESISTOR	6.8K J 1/16W		R292	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R164	RK73HB1J470J	MG RESISTOR	47 J 1/16W		R293	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R165	RK73HB1J101J	MG RESISTOR	100 J 1/16W		R294	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R166	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W		R295	RK73HB1J330J	MG RESISTOR	33 J 1/16W	
R167	RK73HB1J822J	MG RESISTOR	8.2K J 1/16W		R296	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R168	RK73GB2A100J	MG RESISTOR	10 J 1/10W		R297	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R169	RK73GB2A100J	MG RESISTOR	10 J 1/10W		R298	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R170	RK73GB2A222J	MG RESISTOR	2.2K J 1/10W		R299	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R171	RK73GB2A470J	MG RESISTOR	47 J 1/10W		R300	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R172	RK73GB2A271J	MG RESISTOR	270 J 1/10W		R301	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R173	RK73GB2A180J	MG RESISTOR	18 J 1/10W		R302	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R174	RK73GB2A271J	MG RESISTOR	270 J 1/10W		R303	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R175	RN73GH1J103D	MG RESISTOR	10K D 1/16W		R304	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R176	RK73PB2H101J	MG RESISTOR	100 J 1/2W		R305	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R186	RK73GB2A470J	MG RESISTOR	47 J 1/10W		R306	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R187	RK73HB1J392J	MG RESISTOR	3.9K J 1/16W		R307	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R188	RK73HB1J682J	MG RESISTOR	6.8K J 1/16W		R308	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R189	RK73HB1J273J	MG RESISTOR	27K J 1/16W		R316	RK73HB1J151J	MG RESISTOR	150 J 1/16W	
R190	RK73HB1J394J	MG RESISTOR	390K J 1/16W		R317	RK73HB1J120J	MG RESISTOR	12 J 1/16W	
R191	RK73HB1J224J	MG RESISTOR	220K J 1/16W		R318	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R192	RK73HB1J333J	MG RESISTOR	33K J 1/16W		R319	RK73HB1J564J	MG RESISTOR	560K J 1/16W	
R194	RK73HB1J822J	MG RESISTOR	8.2K J 1/16W		R320	RK73HB1J333J	MG RESISTOR	33K J 1/16W	
R195	RK73HB1J273J	MG RESISTOR	27K J 1/16W		R321	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R196	RK73HB1J273J	MG RESISTOR	27K J 1/16W		R322	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R197	RK73GB2A820J	MG RESISTOR	82 J 1/10W		R323	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R198	RK73GB2A101J	MG RESISTOR	100 J 1/10W		R324	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R199	RK73GB2A101J	MG RESISTOR	100 J 1/10W		R325	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R200	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R326	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R201	RK73HB1J822J	MG RESISTOR	8.2K J 1/16W		R327	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R202	RK73HB1J154J	MG RESISTOR	150K J 1/16W		R328	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R203	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R329	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R204	RK73GB2A820J	MG RESISTOR	82 J 1/10W		R330	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R208	RK73HB1J474J	MG RESISTOR	470K J 1/16W		R331	RK73HB1J823J	MG RESISTOR	82K J 1/16W	
R209	RK73HB1J154J	MG RESISTOR	150K J 1/16W		R332	RK73HB1J823J	MG RESISTOR	82K J 1/16W	
R211	R92-3616-05	CARBON RESISTOR	(0 OHM)		R333	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
R338	RK73HB1J271J	MG RESISTOR	270 J 1/16W		R446	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R339	RK73HB1J390J	MG RESISTOR	390 J 1/16W		R447	RK73HB1J823J	MG RESISTOR	82K J 1/16W	
R340	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R457	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R341	RK73HB1J823J	MG RESISTOR	82K J 1/16W		R459	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R342	RK73HB1J333J	MG RESISTOR	33K J 1/16W		R460	RK73HB1J154J	MG RESISTOR	150K J 1/16W	
R343	RK73HB1J223J	MG RESISTOR	22K J 1/16W		R461	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R344	RK73HB1J270J	MG RESISTOR	270 J 1/16W		R462	RK73HB1J221J	MG RESISTOR	220 J 1/16W	
R345	RK73HB1J564J	MG RESISTOR	560K J 1/16W		R464	RK73HB1J330J	MG RESISTOR	33 J 1/16W	
R360	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R465	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R361	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W		R466	RK73HB1J333J	MG RESISTOR	33K J 1/16W	
R362	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W		R467	RK73HB1J153J	MG RESISTOR	15K J 1/16W	
R363	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R468	RK73HB1J393J	MG RESISTOR	39K J 1/16W	
R365	RK73HB1J101J	MG RESISTOR	100 J 1/16W		R470	RK73HB1J333J	MG RESISTOR	33K J 1/16W	
R366	RK73HB1J333J	MG RESISTOR	33K J 1/16W		R474	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
R367	RK73HB1J223J	MG RESISTOR	22K J 1/16W		R475	RK73HB1J100J	MG RESISTOR	10 J 1/16W	
R368	RK73HB1J473J	MG RESISTOR	47K J 1/16W		R477	RK73HB1J220J	MG RESISTOR	22 J 1/16W	
R369	RK73HB1J223J	MG RESISTOR	22K J 1/16W		R478	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R370	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W		R479	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R371	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W		R480	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R372	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R481	RK73HB1J470J	MG RESISTOR	47 J 1/16W	
R374	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W		R482	RK73HB1J470J	MG RESISTOR	47 J 1/16W	
R375	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R483	RK73HB1J151J	MG RESISTOR	150 J 1/16W	
R376	RK73HB1J152J	MG RESISTOR	1.5K J 1/16W		R484	RK73HB1J151J	MG RESISTOR	150 J 1/16W	
R377	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W		R486	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R378	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R487	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R380	RK73HB1J391J	MG RESISTOR	390 J 1/16W		R488	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R381	RK73HB1J330J	MG RESISTOR	33 J 1/16W		R489	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R382	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R490	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R384	RK73HB1J153J	MG RESISTOR	15K J 1/16W		R491	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R385	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R492	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R386	RK73HB1J100J	MG RESISTOR	10 J 1/16W		R494	RK73HB1J220J	MG RESISTOR	22 J 1/16W	
R389	RK73HB1J100J	MG RESISTOR	10 J 1/16W		R495	RK73HB1J820J	MG RESISTOR	82 J 1/16W	
R390	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W		R496	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W	
R391	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R497	RK73HB1J562J	MG RESISTOR	5.6K J 1/16W	
R392	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R498	RK73HB1J124J	MG RESISTOR	120K J 1/16W	
R393	RK73HB1J561J	MG RESISTOR	560 J 1/16W		R499	RK73HB1J562J	MG RESISTOR	5.6K J 1/16W	
R394	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R500	RK73HB1J124J	MG RESISTOR	120K J 1/16W	
R396	RK73HB1J471J	MG RESISTOR	470 J 1/16W		R501	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R397	RK73HB1J330J	MG RESISTOR	33 J 1/16W		R502	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R398	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R504	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R399	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R505	RK73HB1J334J	MG RESISTOR	330K J 1/16W	
R400	RK73HB1J333J	MG RESISTOR	33K J 1/16W		R506	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R401	RK73HB1J223J	MG RESISTOR	22K J 1/16W		R507	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R405	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R508	RK73HB1J561J	MG RESISTOR	560 J 1/16W	
R406	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W		R510	RK73HB1J334J	MG RESISTOR	330K J 1/16W	
R407	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W		R511	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R408	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R512	RK73HB1J182J	MG RESISTOR	1.8K J 1/16W	
R410	RK73HB1J101J	MG RESISTOR	100 J 1/16W		R513	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R411	RK73HB1J333J	MG RESISTOR	33K J 1/16W		R514	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R412	RK73HB1J223J	MG RESISTOR	22K J 1/16W		R515	RK73HB1J561J	MG RESISTOR	560 J 1/16W	
R413	RK73HB1J473J	MG RESISTOR	47K J 1/16W		R516	RK73HB1J272J	MG RESISTOR	2.7K J 1/16W	
R414	RK73HB1J223J	MG RESISTOR	22K J 1/16W		R518	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R415	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W		R519	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R416	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W		R521	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R417	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R522	RK73HB1J221J	MG RESISTOR	220 J 1/16W	
R418	RK73HB1J152J	MG RESISTOR	1.5K J 1/16W		R523	RK73HB1J330J	MG RESISTOR	33 J 1/16W	
R419	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W		R524	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R420	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R525	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R422	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W		R526	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R423	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R527	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R425	RK73HB1J391J	MG RESISTOR	390 J 1/16W		R529	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R426	RK73HB1J330J	MG RESISTOR	33 J 1/16W		R531	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R427	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R532	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R428	RK73HB1J564J	MG RESISTOR	560K J 1/16W		R533	RK73HB1J391J	MG RESISTOR	390 J 1/16W	
R429	RK73HB1J153J	MG RESISTOR	15K J 1/16W		R534	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R430	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R536	RK73HB1J821J	MG RESISTOR	820 J 1/16W	
R431	RK73HB1J100J	MG RESISTOR	10 J 1/16W		R537	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R432	RK73HB1J100J	MG RESISTOR	10 J 1/16W		R538	RK73HB1J153J	MG RESISTOR	15K J 1/16W	
R435	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W		R539	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R436	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R540	RK73HB1J183J	MG RESISTOR	18K J 1/16W	
R437	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R541	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R438	RK73HB1J561J	MG RESISTOR	560 J 1/16W		R543	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R439	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R544	RK73HB1J470J	MG RESISTOR	47 J 1/16W	
R441	RK73HB1J471J	MG RESISTOR	470 J 1/16W		R545	RK73HB1J470J	MG RESISTOR	47 J 1/16W	
R442	RK73HB1J330J	MG RESISTOR	33 J 1/16W		R546	RK73HB1J152J	MG RESISTOR	1.5K J 1/16W	
R443	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R547	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R444	RK73HB1J564J	MG RESISTOR	560K J 1/16W		R548	RK73HB1J474J	MG RESISTOR	470K J 1/16W	
R445	RK73HB1J333J	MG RESISTOR	33K J 1/16W		R549	RK73HB1J101J	MG RESISTOR	100 J 1/16W	

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
R550	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R690	RK73HB1J682J	MG RESISTOR	6.8K J 1/16W	
R551	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R691	RK73HB1J122J	MG RESISTOR	1.2K J 1/16W	
R552	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R692	RK73HB1J470J	MG RESISTOR	47 J 1/16W	
R553	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R693	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R554	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R695	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R555	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R696	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R556	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R697	RK73GB2A000J	MG RESISTOR	0.0 J 1/10W	
R557	RK73HB1J820J	MG RESISTOR	82 J 1/16W		R701	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R558	RK73HB1J220J	MG RESISTOR	22 J 1/16W		R702	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R559	RK73HB1J124J	MG RESISTOR	220K J 1/16W		R703	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R560	RK73HB1J124J	MG RESISTOR	220K J 1/16W		R704	RK73GB2A000J	MG RESISTOR	0.0 J 1/10W	
R561	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W		R705	RK73HB1J474J	MG RESISTOR	470K J 1/16W	
R562	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R706	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R564	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W		R707	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R565	RK73HB1J182J	MG RESISTOR	1.8K J 1/16W		R708	RN73HH1J153D	MG RESISTOR	15K D 1/16W	
R566	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W		R709	RN73HH1J153D	MG RESISTOR	15K D 1/16W	
R567	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R710	RK73HB1J474J	MG RESISTOR	470K J 1/16W	
R568	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R711	RK73FB2B000J	MG RESISTOR	0.0 J 1/8W	
R569	RK73HB1J101J	MG RESISTOR	100 J 1/16W		R713	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R570	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R714	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R572	RK73HB1J391J	MG RESISTOR	390 J 1/16W		R715	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
R573	RK73HB1J821J	MG RESISTOR	820 J 1/16W		R716	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
R574	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R717	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R575	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W		R720	RK73GB2A000J	MG RESISTOR	0.0 J 1/10W	
R576	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R721	RN73HH1J681D	MG RESISTOR	680 D 1/16W	
R577	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R722	RK73HB1J681J	MG RESISTOR	680 J 1/16W	
R578	RK73HB1J182J	MG RESISTOR	1.8K J 1/16W		R723	RK73HB1J331J	MG RESISTOR	330 J 1/16W	
R579	RK73HB1J182J	MG RESISTOR	1.8K J 1/16W		R724	RN73HH1J151D	MG RESISTOR	150 D 1/16W	
R580	RK73EB2E102J	MG RESISTOR	1.0K J 1/4W		R725	RK73HB1J470J	MG RESISTOR	47 J 1/16W	
R581	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R726	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R582	RK73EB2E102J	MG RESISTOR	1.0K J 1/4W		R727	RK73HB1J392J	MG RESISTOR	3.9K J 1/16W	
R583	RK73HB1J223J	MG RESISTOR	22K J 1/16W		R728	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R584	RK73HB1J223J	MG RESISTOR	22K J 1/16W		R730	RK73HB1J330J	MG RESISTOR	33 J 1/16W	
R587	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W		R751	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R588	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R752	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R589	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R753	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R590	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R754	RK73GB2A000J	MG RESISTOR	0.0 J 1/10W	
R591	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R755	RK73HB1J474J	MG RESISTOR	470K J 1/16W	
R606	RK73HB1J562J	MG RESISTOR	5.6K J 1/16W		R756	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R608	RK73HB1J153J	MG RESISTOR	15K J 1/16W		R757	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R611	RK73HB1J224J	MG RESISTOR	220K J 1/16W		R758	RN73HH1J153D	MG RESISTOR	15K D 1/16W	
R612	RK73HB1J224J	MG RESISTOR	220K J 1/16W		R759	RN73HH1J153D	MG RESISTOR	15K D 1/16W	
R615	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R760	RK73HB1J474J	MG RESISTOR	470K J 1/16W	
R616	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W		R761	RK73FB2B000J	MG RESISTOR	0.0 J 1/8W	
R617	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R763	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R618	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R764	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R619	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R765	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
R620	RK73GB2A100J	MG RESISTOR	10 J 1/10W		R766	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W	
R621	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R767	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R622	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R770	RK73GB2A000J	MG RESISTOR	0.0 J 1/10W	
R623	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R771	RN73HH1J681D	MG RESISTOR	680 D 1/16W	
R624	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R772	RK73HB1J681J	MG RESISTOR	680 J 1/16W	
R625	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R773	RK73HB1J331J	MG RESISTOR	330 J 1/16W	
R626	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R774	RN73HH1J151D	MG RESISTOR	150 D 1/16W	
R627	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R775	RK73HB1J470J	MG RESISTOR	47 J 1/16W	
R635	RK73HB1J101J	MG RESISTOR	100 J 1/16W		R776	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R636	RK73HB1J101J	MG RESISTOR	100 J 1/16W		R777	RK73HB1J392J	MG RESISTOR	3.9K J 1/16W	
R641	RK73EB2E105J	MG RESISTOR	1M J 1/4W		R778	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R644	RK73EB2E104J	MG RESISTOR	100K J 1/4W		R780	RK73HB1J330J	MG RESISTOR	33 J 1/16W	
R646	RK73RB2H220J	MG RESISTOR	22 J 1/2W		R803	RK73GB2A104J	MG RESISTOR	104K J 1/10W	
R647	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R804	RK73GB2A222J	MG RESISTOR	2.2K J 1/10W	
R648	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R805	RK73HB1J563J	MG RESISTOR	56K J 1/16W	
R649	RK73HB1J154J	MG RESISTOR	150K J 1/16W		R806	RK73HB1J821J	MG RESISTOR	820 J 1/16W	
R650	RK73HB1J223J	MG RESISTOR	22K J 1/16W	K	R807	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R651	RK73HB1J223J	MG RESISTOR	22K J 1/16W	K	R809	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R652	RK73HB1J222J	MG RESISTOR	2.2K J 1/16W		R810	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R654	RK73GB2A000J	MG RESISTOR	0.0 J 1/10W		R811	RK73HB1J105J	MG RESISTOR	1M J 1/16W	
R656	RK73GB2A000J	MG RESISTOR	0.0 J 1/10W	K	R812	RK73GB2A391J	MG RESISTOR	390 J 1/10W	
R657	RK73HB1J473J	MG RESISTOR	47K J 1/16W	E	R813	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W	
R658	RK73GB2A000J	MG RESISTOR	0.0 J 1/10W	E	R814	RK73HB1J333J	MG RESISTOR	33K J 1/16W	
R659	RK73HB1J473J	MG RESISTOR	47K J 1/16W		R815	RK73HB1J333J	MG RESISTOR	33K J 1/16W	
R663	RK73GB2A000J	MG RESISTOR	0.0 J 1/10W		R816	RK73HB1J562J	MG RESISTOR	5.6K J 1/16W	
R664	RK73GB2A000J	MG RESISTOR	0.0 J 1/10W		R817	RK73HB1J333J	MG RESISTOR	33K J 1/16W	
R665	RK73HB1J473J	MG RESISTOR	47K J 1/16W		R818	RK73HB1J333J	MG RESISTOR	33K J 1/16W	
R672	RK73HB1J473J	MG RESISTOR	47K J 1/16W		R819	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R684	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W		R820	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R685	RK73HB1J221J	MG RESISTOR	220 J 1/16W		R821	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R689	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W		R822	RK73HB1J473J	MG RESISTOR	47K J 1/16W	

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
R823	RK73HB1J152J	MG RESISTOR	1.5K J 1/16W		R924	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R825	RK73HB1J822J	MG RESISTOR	8.2K J 1/16W		R925	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R826	RK73HB1J473J	MG RESISTOR	47K J 1/16W		R927	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R827	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W		R928	RK73HB1J823J	MG RESISTOR	82K J 1/16W	
R828	RK73HB1J473J	MG RESISTOR	47K J 1/16W		R930	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R829	RK73GB2A185J	MG RESISTOR	1.8M J 1/10W		R931	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R830	RK73HB1J330J	MG RESISTOR	33 J 1/16W		R932	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R831	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R934	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R832	RK73HB1J683J	MG RESISTOR	68K J 1/16W		R935	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R833	RK73HB1J683J	MG RESISTOR	68K J 1/16W		R936	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R836	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W		R937	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R837	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W		R938	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R838	RK73HB1J392J	MG RESISTOR	3.9K J 1/16W		R939	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R839	RK73HB1J473J	MG RESISTOR	47K J 1/16W		R940	RK73GB2A821J	MG RESISTOR	820 J 1/10W	
R840	RK73HB1J473J	MG RESISTOR	47K J 1/16W		R942	RK73HB1J334J	MG RESISTOR	330K J 1/16W	
R841	RK73HB1J471J	MG RESISTOR	470 J 1/16W		R943	RK73HB1J334J	MG RESISTOR	330K J 1/16W	
R842	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W		R944	RK73HB1J183J	MG RESISTOR	18K J 1/16W	
R843	RK73HB1J471J	MG RESISTOR	470 J 1/16W		R945	RK73HB1J153J	MG RESISTOR	15K J 1/16W	
R844	RK73HB1J472J	MG RESISTOR	4.7K J 1/16W		R946	RK73HB1J473J	MG RESISTOR	47K J 1/16W	
R845	RK73HB1J684J	MG RESISTOR	680K J 1/16W		R950	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R846	RK73HB1J684J	MG RESISTOR	680K J 1/16W		R951	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R847	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R952	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R848	RK73GB2A185J	MG RESISTOR	1.8M J 1/10W		R953	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R849	RK73HB1J273J	MG RESISTOR	27K J 1/16W		R954	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R850	RK73HB1J273J	MG RESISTOR	27K J 1/16W		R955	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R851	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R956	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R852	RK73HB1J330J	MG RESISTOR	33 J 1/16W		R957	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	E
R853	RK73GB2A185J	MG RESISTOR	1.8M J 1/10W		R958	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R854	RK73HB1J330J	MG RESISTOR	33 J 1/16W		R959	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R855	RK73HB1J330J	MG RESISTOR	33 J 1/16W		R960	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R856	RK73HB1J473J	MG RESISTOR	47K J 1/16W		R961	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R857	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R962	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R858	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R963	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R859	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R968	RK73FB2B473J	MG RESISTOR	47K J 1/8W	
R860	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R969	RK73EB2E000J	MG RESISTOR	0.0 J 1/4W	
R861	RK73HB1J824J	MG RESISTOR	820K J 1/16W		R971	RK73GB2A000J	MG RESISTOR	0.0 J 1/10W	
R862	RK73HB1J824J	MG RESISTOR	820K J 1/16W		R979	RK73HB1J682J	MG RESISTOR	6.8K J 1/16W	
R863	RK73HB1J473J	MG RESISTOR	47K J 1/16W		R980	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R866	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R981	RK73FB2B330J	MG RESISTOR	33 J 1/8W	
R867	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R982	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R868	RK73HB1J104J	MG RESISTOR	100K J 1/16W		R983	RK73HB1J101J	MG RESISTOR	100 J 1/16W	
R869	RK73HB1J563J	MG RESISTOR	56K J 1/16W		R984	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W	
R870	RK73HB1J473J	MG RESISTOR	47K J 1/16W		R985	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R871	RK73GB2A185J	MG RESISTOR	1.8M J 1/10W		R986	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R872	RK73HB1J102J	MG RESISTOR	1.0K J 1/16W		R987	RK73EB2E000J	MG RESISTOR	0.0 J 1/4W	
R874	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R990	RK73EB2E102J	MG RESISTOR	1.0K J 1/4W	
R875	RK73HB1J124J	MG RESISTOR	120K J 1/16W		R991	RK73HB1J104J	MG RESISTOR	100K J 1/16W	
R876	RK73HB1J124J	MG RESISTOR	120K J 1/16W		R992	RK73HB1J274J	MG RESISTOR	270K J 1/16W	
R877	RK73HB1J334J	MG RESISTOR	330K J 1/16W		R993	RK73HB1J103J	MG RESISTOR	10K J 1/16W	
R878	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R994	RK73EB2E102J	MG RESISTOR	1.0K J 1/4W	
R879	RK73HB1J103J	MG RESISTOR	10K J 1/16W		R995	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W	
R880	RK73HB1J224J	MG RESISTOR	220K J 1/16W		R996	RK73HB1J223J	MG RESISTOR	22K J 1/16W	
R882	RK73HB1J564J	MG RESISTOR	560K J 1/16W		R997	RK73HB1J183J	MG RESISTOR	18K J 1/16W	
R883	RK73HB1J101J	MG RESISTOR	100 J 1/16W		R998	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R884	RK73HB1J124J	MG RESISTOR	120K J 1/16W		R999	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W	
R885	RK73HB1J394J	MG RESISTOR	390K J 1/16W		L2	L40-4775-92	SMALL FIXED INDUCTOR (47NH)		
R886	RK73HB1J103J	MG RESISTOR	10K J 1/16W		L10	L40-1875-92	SMALL FIXED INDUCTOR (18NH)		
R887	RK73HB1J103J	MG RESISTOR	10K J 1/16W		L11	L40-2275-92	SMALL FIXED INDUCTOR (22NH)		
R888	RK73HB1J124J	MG RESISTOR	120K J 1/16W		L12	L40-8265-92	SMALL FIXED INDUCTOR (8.2NH)		
R889	RK73HB1J103J	MG RESISTOR	10K J 1/16W		L13	L40-1875-92	SMALL FIXED INDUCTOR (18NH)		
R890	RK73HB1J103J	MG RESISTOR	10K J 1/16W		L14	L40-2275-92	SMALL FIXED INDUCTOR (22NH)		
R891	RK73HB1J223J	MG RESISTOR	22K J 1/16W		L15	L40-8265-92	SMALL FIXED INDUCTOR (8.2NH)		
R892	RK73HB1J563J	MG RESISTOR	56K J 1/16W		L16	L40-3975-92	SMALL FIXED INDUCTOR (39NH)		
R906	RK73HB1J332J	MG RESISTOR	3.3K J 1/16W		L17	L40-3975-92	SMALL FIXED INDUCTOR (39NH)		
R908	RK73HB1J103J	MG RESISTOR	10K J 1/16W		L19	L40-3975-92	SMALL FIXED INDUCTOR (39NH)		
R909	RK73HB1J103J	MG RESISTOR	10K J 1/16W		L20	L40-3975-92	SMALL FIXED INDUCTOR (39NH)		
R910	RK73HB1J103J	MG RESISTOR	10K J 1/16W		L21	L40-3975-92	SMALL FIXED INDUCTOR (39NH)		
R911	RK73HB1J224J	MG RESISTOR	220K J 1/16W		L22	L40-3975-92	SMALL FIXED INDUCTOR (39NH)		
R912	RK73HB1J562J	MG RESISTOR	5.6K J 1/16W		L67	L40-4775-92	SMALL FIXED INDUCTOR (47NH)		
R913	RK73HB1J562J	MG RESISTOR	5.6K J 1/16W		L131	L40-5675-92	SMALL FIXED INDUCTOR (56NH)		
R916	RK73HB1J473J	MG RESISTOR	47K J 1/16W		L132	L92-0443-05	CHIP FERRITE		
R917	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W		L133	L34-4908-05	AIR-CORE COIL (5T)		
R918	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W		L135	L34-4908-05	AIR-CORE COIL (5T)		
R919	RK73HB1J473J	MG RESISTOR	47K J 1/16W		L136	L34-4865-05	AIR-CORE COIL (10.5T)		
R920	RK73HB1J000J	MG RESISTOR	0.0 J 1/16W		L161	L40-2275-92	SMALL FIXED INDUCTOR (22NH)		
R921	RK73HB1J473J	MG RESISTOR	47K J 1/16W		L162	L40-2275-92	SMALL FIXED INDUCTOR (22NH)		
R922	RK73HB1J473J	MG RESISTOR	47K J 1/16W		L163	L92-0443-05	CHIP FERRITE		
R923	RK73HB1J473J	MG RESISTOR	47K J 1/16W						

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
L164	L34-4908-05	AIR-CORE COIL	(5T)		L376	L41-2288-03	SMALL FIXED INDUCTOR (220NH)		
L165	L34-4811-05	AIR-CORE COIL	(1.5T)		L377	L41-1578-03	SMALL FIXED INDUCTOR (15NH)		
L166	L34-4913-05	AIR-CORE COIL	(10.5T)		L378	L40-1091-86	SMALL FIXED INDUCTOR (1.0UH)		
L186	L34-4909-05	AIR-CORE COIL	(5T)		L379	L41-2288-03	SMALL FIXED INDUCTOR (220NH)		
L187	L34-4911-05	AIR-CORE COIL	(2.5T)		L380	L41-4378-03	SMALL FIXED INDUCTOR (43NH)		
L188	L34-4811-05	AIR-CORE COIL	(1.5T)		L406	L40-1275-92	SMALL FIXED INDUCTOR (12NH)		
L189	L34-4912-05	AIR-CORE COIL	(1T)		L407	L40-1875-92	SMALL FIXED INDUCTOR (18NH)		
L190	L41-3378-03	SMALL FIXED INDUCTOR	(33NH)		L408	L41-1585-14	SMALL FIXED INDUCTOR (150NH)		
L191	L41-1278-03	SMALL FIXED INDUCTOR	(12NH)		L409	L41-4785-14	SMALL FIXED INDUCTOR (470NH)		
L192	L34-4810-05	AIR-CORE COIL	(2.5T)		L410	L40-2785-92	SMALL FIXED INDUCTOR (270NH)		
L193	L34-4811-05	AIR-CORE COIL	(1.5T)		L411	L41-1578-03	SMALL FIXED INDUCTOR (15NH)		
L194	L34-4910-05	AIR-CORE COIL	(1.5T)		L413	L41-1578-03	SMALL FIXED INDUCTOR (15NH)		
L195	L34-4864-05	AIR-CORE COIL	(2.5T)		L415	L41-1578-03	SMALL FIXED INDUCTOR (15NH)		
L196	L34-4811-05	AIR-CORE COIL	(1.5T)		L416	L40-1091-86	SMALL FIXED INDUCTOR (1.0UH)		
L197	L40-1875-92	SMALL FIXED INDUCTOR	(18NH)		L417	L41-2288-03	SMALL FIXED INDUCTOR (220NH)		
L198	L34-4915-05	AIR-CORE COIL	(12.5T)		L419	L41-2288-03	SMALL FIXED INDUCTOR (220NH)		
L227	L40-4775-92	SMALL FIXED INDUCTOR	(47NH)		L420	L41-1278-03	SMALL FIXED INDUCTOR (12NH)		
L228	L40-4775-92	SMALL FIXED INDUCTOR	(47NH)		L421	L40-1075-92	SMALL FIXED INDUCTOR (10NH)		
L229	L41-5685-14	SMALL FIXED INDUCTOR	(560NH)		L422	L41-1578-03	SMALL FIXED INDUCTOR (15NH)		
L230	L41-5685-14	SMALL FIXED INDUCTOR	(560NH)		L423	L40-1091-86	SMALL FIXED INDUCTOR (1.0UH)		
L231	L40-2785-92	SMALL FIXED INDUCTOR	(270NH)		L424	L41-2288-03	SMALL FIXED INDUCTOR (220NH)		
L232	L41-1188-03	SMALL FIXED INDUCTOR	(110NH)		L425	L41-4378-03	SMALL FIXED INDUCTOR (43NH)		
L233	L41-5678-03	SMALL FIXED INDUCTOR	(56NH)		L451	L41-1278-03	SMALL FIXED INDUCTOR (12NH)		
L234	L41-3385-14	SMALL FIXED INDUCTOR	(330NH)		L452	L41-1578-03	SMALL FIXED INDUCTOR (15NH)		
L236	L41-5678-03	SMALL FIXED INDUCTOR	(56NH)		L454	L41-1578-03	SMALL FIXED INDUCTOR (15NH)		
L237	L41-5678-03	SMALL FIXED INDUCTOR	(56NH)		L457	L40-6865-92	SMALL FIXED INDUCTOR (6.8NH)		
L242	L40-2785-92	SMALL FIXED INDUCTOR	(270NH)		L458	L40-6865-92	SMALL FIXED INDUCTOR (6.8NH)		
L244	L41-1088-03	SMALL FIXED INDUCTOR	(100NH)		L460	L41-8285-14	SMALL FIXED INDUCTOR (820NH)		
L245	L41-5678-03	SMALL FIXED INDUCTOR	(56NH)		L461	L41-8285-14	SMALL FIXED INDUCTOR (820NH)		
L246	L41-3988-14	SMALL FIXED INDUCTOR	(390NH)		L462	L40-4781-86	SMALL FIXED INDUCTOR (0.47UH)		
L248	L41-6878-03	SMALL FIXED INDUCTOR	(68NH)		L465	L40-2263-92	SMALL FIXED INDUCTOR (2.2NH)		
L249	L41-6878-03	SMALL FIXED INDUCTOR	(68NH)		L468	L40-1075-92	SMALL FIXED INDUCTOR (10NH)		
L254	L40-2785-92	SMALL FIXED INDUCTOR	(270NH)		L500	L40-4781-86	SMALL FIXED INDUCTOR (0.47UH)		
L255	L41-5685-14	SMALL FIXED INDUCTOR	(560NH)		L501	L40-3981-86	SMALL FIXED INDUCTOR (0.39UH)		
L256	L41-3388-03	SMALL FIXED INDUCTOR	(330NH)		L546	L41-3385-14	SMALL FIXED INDUCTOR (330NH)		
L257	L41-1278-03	SMALL FIXED INDUCTOR	(12NH)		L547	L41-3385-14	SMALL FIXED INDUCTOR (330NH)		
L258	L41-1578-03	SMALL FIXED INDUCTOR	(15NH)		L606	L40-3381-86	SMALL FIXED INDUCTOR (0.33UH)		
L259	L41-1278-03	SMALL FIXED INDUCTOR	(12NH)		L607	L41-3988-14	SMALL FIXED INDUCTOR (390NH)		
L260	L41-1278-03	SMALL FIXED INDUCTOR	(12NH)		L608	L41-3988-14	SMALL FIXED INDUCTOR (390NH)		
L292	L40-4775-92	SMALL FIXED INDUCTOR	(47NH)		L613	L41-2785-14	SMALL FIXED INDUCTOR (270NH)		
L293	L40-4775-92	SMALL FIXED INDUCTOR	(47NH)		L614	L41-2785-14	SMALL FIXED INDUCTOR (270NH)		
L294	L41-4785-14	SMALL FIXED INDUCTOR	(470NH)		L617	L41-2785-14	SMALL FIXED INDUCTOR (270NH)		
L295	L41-4785-14	SMALL FIXED INDUCTOR	(470NH)		L618	L41-2785-14	SMALL FIXED INDUCTOR (270NH)		
L296	L40-2785-92	SMALL FIXED INDUCTOR	(270NH)		L621	L41-5685-14	SMALL FIXED INDUCTOR (560NH)		
L297	L41-1188-03	SMALL FIXED INDUCTOR	(110NH)		L622	L40-8265-57	SMALL FIXED INDUCTOR (8.2NH)		
L298	L41-5678-03	SMALL FIXED INDUCTOR	(56NH)		L623	L40-5675-92	SMALL FIXED INDUCTOR (56NH)		
L299	L41-3385-14	SMALL FIXED INDUCTOR	(330NH)		L624	L40-1085-57	SMALL FIXED INDUCTOR (100NH)		
L301	L41-5678-03	SMALL FIXED INDUCTOR	(56NH)		L625	L40-1085-57	SMALL FIXED INDUCTOR (100NH)		
L302	L41-5678-03	SMALL FIXED INDUCTOR	(56NH)		L626	L40-5663-57	SMALL FIXED INDUCTOR (5.6NH)		
L307	L40-2785-92	SMALL FIXED INDUCTOR	(270NH)		L641	L92-0443-05	CHIP FERRITE		
L308	L41-5685-14	SMALL FIXED INDUCTOR	(560NH)		L642	L92-0443-05	CHIP FERRITE		
L309	L41-1088-03	SMALL FIXED INDUCTOR	(100NH)		L701	L41-1098-08	SMALL FIXED INDUCTOR (1.0UH)		
L310	L41-5678-03	SMALL FIXED INDUCTOR	(56NH)		L702	L41-1098-08	SMALL FIXED INDUCTOR (1.0UH)		
L311	L41-3988-14	SMALL FIXED INDUCTOR	(390NH)		L703	L41-1278-08	SMALL FIXED INDUCTOR (12NH)		
L312	L41-1578-03	SMALL FIXED INDUCTOR	(15NH)		L704	L41-1098-08	SMALL FIXED INDUCTOR (1.0UH)		
L313	L41-6878-03	SMALL FIXED INDUCTOR	(68NH)		L705	L41-1098-08	SMALL FIXED INDUCTOR (1.0UH)		
L314	L41-6878-03	SMALL FIXED INDUCTOR	(68NH)		L706	L41-3378-08	SMALL FIXED INDUCTOR (33NH)		
L319	L40-2785-92	SMALL FIXED INDUCTOR	(270NH)		L707	L41-2278-08	SMALL FIXED INDUCTOR (22NH)		
L320	L41-5685-14	SMALL FIXED INDUCTOR	(560NH)		L708	L41-1878-08	SMALL FIXED INDUCTOR (18NH)		
L321	L41-3388-03	SMALL FIXED INDUCTOR	(330NH)		L709	L41-1098-08	SMALL FIXED INDUCTOR (1.0UH)		
L322	L41-1278-03	SMALL FIXED INDUCTOR	(12NH)		L710	L41-1095-14	SMALL FIXED INDUCTOR (1.0UH)		
L323	L41-1278-03	SMALL FIXED INDUCTOR	(12NH)		L711	L41-1095-14	SMALL FIXED INDUCTOR (1.0UH)		
L324	L41-1278-03	SMALL FIXED INDUCTOR	(12NH)		L712	L40-1585-92	SMALL FIXED INDUCTOR (150NH)		
L356	L41-5678-03	SMALL FIXED INDUCTOR	(56NH)		L751	L41-1098-08	SMALL FIXED INDUCTOR (1.0UH)		
L357	L41-3988-14	SMALL FIXED INDUCTOR	(390NH)		L752	L41-1098-08	SMALL FIXED INDUCTOR (1.0UH)		
L358	L41-5678-03	SMALL FIXED INDUCTOR	(56NH)		L753	L41-1278-08	SMALL FIXED INDUCTOR (12NH)		
L359	L41-3385-14	SMALL FIXED INDUCTOR	(330NH)		L754	L41-1098-08	SMALL FIXED INDUCTOR (1.0UH)		
L361	L40-1275-92	SMALL FIXED INDUCTOR	(12NH)		L755	L41-1098-08	SMALL FIXED INDUCTOR (1.0UH)		
L362	L40-1875-92	SMALL FIXED INDUCTOR	(18NH)		L756	L41-3378-08	SMALL FIXED INDUCTOR (33NH)		
L363	L41-1585-14	SMALL FIXED INDUCTOR	(150NH)		L757	L41-2278-08	SMALL FIXED INDUCTOR (22NH)		
L364	L41-4785-14	SMALL FIXED INDUCTOR	(470NH)		L758	L41-1878-08	SMALL FIXED INDUCTOR (18NH)		
L365	L40-2785-92	SMALL FIXED INDUCTOR	(270NH)		L759	L41-1098-08	SMALL FIXED INDUCTOR (1.0UH)		
L366	L41-1578-03	SMALL FIXED INDUCTOR	(15NH)		L760	L41-1095-14	SMALL FIXED INDUCTOR (1.0UH)		
L368	L41-1578-03	SMALL FIXED INDUCTOR	(15NH)		L761	L41-1095-14	SMALL FIXED INDUCTOR (1.0UH)		
L370	L41-1578-03	SMALL FIXED INDUCTOR	(15NH)		L762	L40-1585-92	SMALL FIXED INDUCTOR (150NH)		
L371	L40-1091-86	SMALL FIXED INDUCTOR	(1.0UH)		L916	L92-0443-05	CHIP FERRITE		
L372	L41-2288-03	SMALL FIXED INDUCTOR	(220NH)		L917	L92-0443-05	CHIP FERRITE		
L375	L41-1278-03	SMALL FIXED INDUCTOR	(12NH)		L921	L41-3385-14	SMALL FIXED INDUCTOR (330NH)		

△ Symbol No.	Part No.	Part Name	Description	Local
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L922	L41-3385-14	SMALL FIXED INDUCTOR	(330NH)	
L951	L92-0443-05	CHIP FERRITE		
L952	L92-0443-05	CHIP FERRITE		
CD486	L79-1701-05	TUNING COIL	(455KHZ)	
CD546	L79-1582-05	TUNING COIL	(450KHZ)	
CF486	L72-1035-05	CERAMIC FILTER	(455KHZ/WID)	
CF487	L72-1036-05	CERAMIC FILTER	(455KHZ/NAR)	
CF546	L72-1034-05	CERAMIC FILTER	(450KHZ/WID)	
CF547	L72-0999-05	CERAMIC FILTER	(450KHZ/NAR)	
CN641	E40-6525-05	PIN ASSY	(2P)	
CN642	E40-6389-05	PIN ASSY	(26P)	
CN676	E40-6525-05	PIN ASSY	(2P)	
CN677	E40-6745-05	FLAT CABLE CONNECTOR	(50P)	
CN701	E40-6771-05	PIN ASSY	(4P)	
CN702	E40-6770-05	PIN ASSY	(3P)	
CN751	E40-6771-05	PIN ASSY	(4P)	
CN752	E40-6770-05	PIN ASSY	(3P)	
CN960	E40-6745-05	FLAT CABLE CONNECTOR	(50P)	
CN961	E40-6527-05	PIN ASSY	(4P)	
CP1	RK75HA1J103J	CHIP-COM	10K J 1/16W	
CP66	RK75HA1J103J	CHIP-COM	10K J 1/16W	
CP576	RK74HB1J102J	CHIP-COM	1.0K J 1/16W	
CP577	RK74HB1J472J	CHIP-COM	4.7K J 1/16W	
CP578	RK74HB1J472J	CHIP-COM	4.7K J 1/16W	
CP579	RK74HB1J472J	CHIP-COM	4.7K J 1/16W	
CP606	RK74HB1J102J	CHIP-COM	1.0K J 1/16W	
CP666	RK75HA1J472J	CHIP-COM	4.7K J 1/16W	
CP667	RK74HB1J102J	CHIP-COM	1.0K J 1/16W	
CP801	RK74HB1J102J	CHIP-COM	1.0K J 1/16W	
CP802	RK74HB1J473J	CHIP-COM	47K J 1/16W	
CP803	RK74HB1J102J	CHIP-COM	1.0K J 1/16W	
CP916	RK74HB1J102J	CHIP-COM	1.0K J 1/16W	
CP917	RK75HA1J102J	CHIP-COM	1.0K J 1/16W	
CP918	RK75HA1J102J	CHIP-COM	1.0K J 1/16W	
CP919	RK74HB1J101J	CHIP-COM	100 J 1/16W	
CP920	RK74HB1J473J	CHIP-COM	47K J 1/16W	
CP921	RK74HB1J473J	CHIP-COM	47K J 1/16W	
CP922	RK74HB1J102J	CHIP-COM	1.0K J 1/16W	
CP923	RK75HA1J102J	CHIP-COM	1.0K J 1/16W	
CP924	RK74HB1J102J	CHIP-COM	1.0K J 1/16W	
CP925	RK75HA1J102J	CHIP-COM	1.0K J 1/16W	
CP926	RK74HB1J102J	CHIP-COM	1.0K J 1/16W	
CP951	RK75HA1J473J	CHIP-COM	47K J 1/16W	
CP952	RK74HB1J473J	CHIP-COM	47K J 1/16W	
F576	F53-0392-05	FUSE	(3A)	
F577	F53-0392-05	FUSE	(3A)	
F641	F53-0128-05	FUSE	(0.5A)	
F951	F53-0323-15	FUSE	(2A)	
J606	E56-0411-05	DIN SOCKET	(8P/PC)	
J607	E56-0405-05	DIN SOCKET	(6P/DATA)	
J801	E11-0425-05	3.5D PHONE JACK	(3P)	
J802	E11-0425-05	3.5D PHONE JACK	(3P)	
J951	E58-0523-05	MODULAR JACK	(MIC)	
J952	E58-0559-05	MODULAR JACK	(PANEL)	
TH102	NCP18XH103J0S	THERMISTOR	(10K)	
TH103	NCP18XH103J0S	THERMISTOR	(1K)	
TH131	NCP18XH103F0S	THERMISTOR	(10K)	
TH161	NCP18XH103F0S	THERMISTOR	(10K)	
TH485	NCP18XQ102J0S	THERMISTOR	(1K)	
TH486	NCP18XQ102J0S	THERMISTOR	(1K)	
TH545	NCP18XQ102J0S	THERMISTOR	(1K)	
TH546	NCP18XQ102J0S	THERMISTOR	(1K)	
W601	E37-1403-05	PROCESSED LEAD WIRE		K
X1	L77-3018-05	TCXO	(12.8MHZ)	
X66	L77-3017-05	TCXO	(16.8MHZ)	
X486	L77-3021-05	CRYSTAL RESONATOR	(45.506MHZ)	
X916	L77-3022-05	CRYSTAL RESONATOR	(11.0592MHZ)	
X917	L78-0459-05	RESONATOR	(4.19MHZ)	
XF486	L71-0642-15	MCF	(45.05MHZ)	
XF546	L71-0641-15	MCF	(49.95MHZ)	

COMPOUND ASSY UNIT(GPS)

X60-4090-00

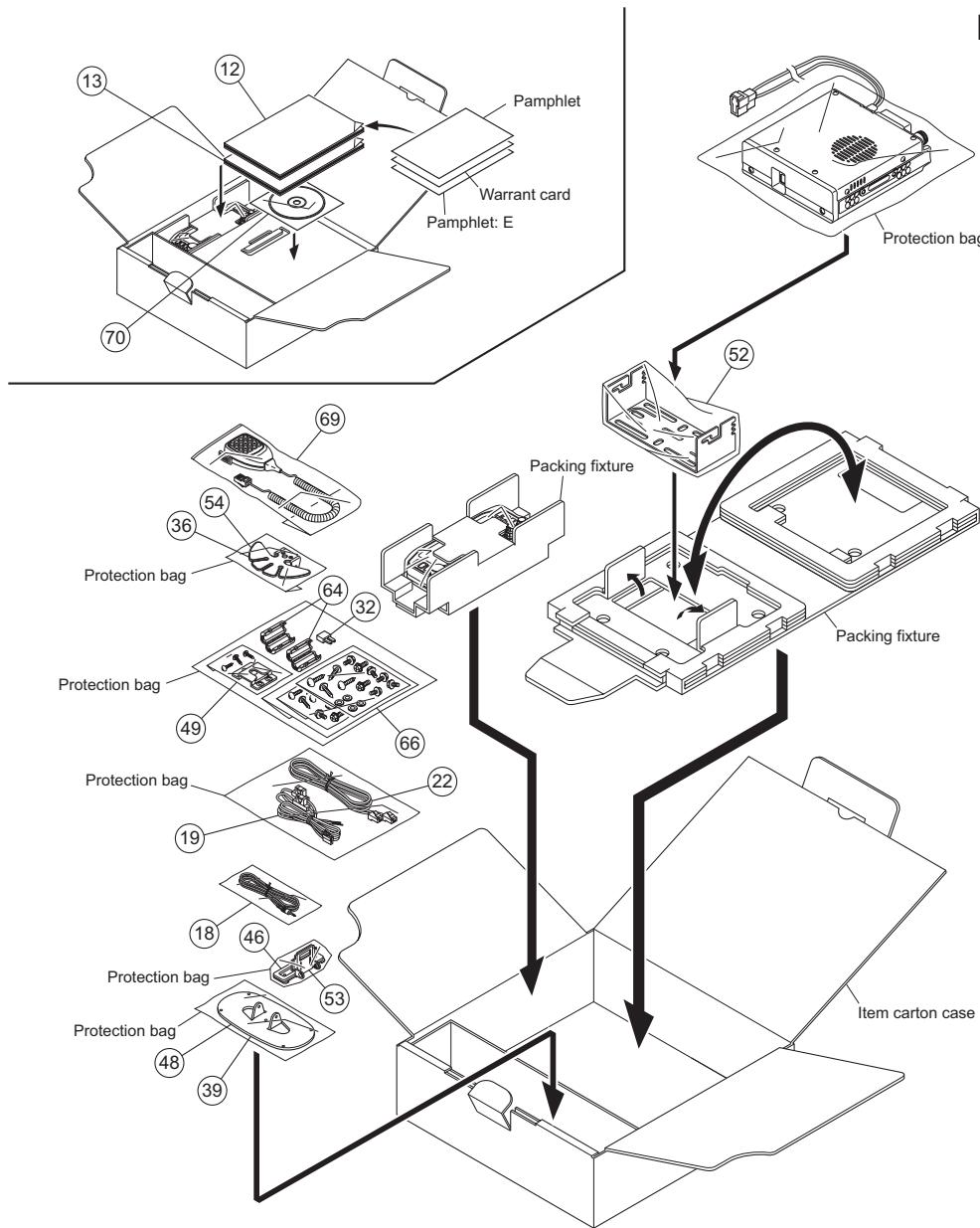
Block No. [0][3]

△ Symbol No.	Part No.	Part Name	Description	Local
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IC1	-----	MOS-IC		
D1	-----	DIODE		
D2	-----	DIODE		
C1	-----	C CAPACITOR	100PF K	
C2	-----	C CAPACITOR	0.10UF K	
C3	-----	C CAPACITOR	0.10UF K	
C4	-----	C CAPACITOR	2.0PF C	
C7	-----	C CAPACITOR	1000PF K	
C8	-----	C CAPACITOR	1.5PF C	
C9	-----	C CAPACITOR	120PF J	
C10	-----	C CAPACITOR	18PF J	
R2	-----	MG RESISTOR	0.0 J 1/16W	
L1	-----	CHIP FERRITE		
L2	-----	CHIP FERRITE		
L3	-----	SMALL FIXED INDUCTOR (8.2NH)		
L4	-----	FILTER		
A1	-----	ELECTRIC CIRCUIT MODULE (GPS)		
ANT 1	-----	ANTENNA ELEMENT		
CN1	E41-3397-05	FLAT CABLE CONNECTOR (10P)		

Packing materials and accessories parts list

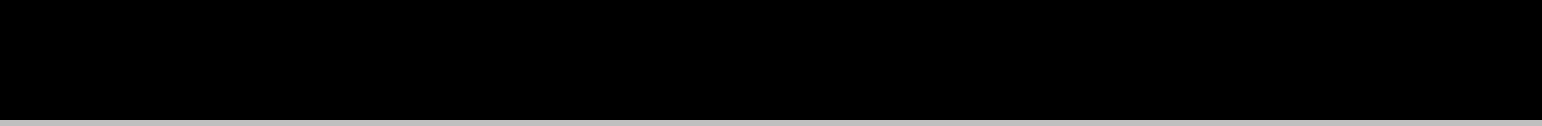
Block No.M2MM



Packing and accessories

Block No. [M][2][M][M]
Local

△ Symbol No.	Part No.	Part Name	Description	Local
12	B62-2562-00	INSTRUCTION MANUAL(ENG/SPA/FRA)		
13	B62-2563-00	INSTRUCTION MANUAL(ITA/GER/DUT)		E
18	E30-3400-15	CORD WITH PLUG(EXT GPS)		
19	E30-7762-05	DC CORD		
22	E30-7639-25	TRUNK CABLE(4m)		
32	F52-0024-05	FUSE(BLADE/15A)	(x2)	
36	G11-4228-14	SHEET(BRACKET)		
39	G11-4438-04	SHEET(STAND)	(x4)	
46	G13-2233-04	CUSHION(BRACKET)		
48	J09-0409-03	STAND		
49	J19-1584-15	HOLDER(MIC)		
52	J29-0628-33	BRACKET(MAIN UNIT)		
53	J29-0663-23	BRACKET(DISPLAY)		
54	J29-0707-03	BRACKET(DISPLAY)		
64	L79-1417-05	LINE FILTER	(x2)	
66	N99-2055-05	SCREW SET		
69	T91-0657-55	MICROPHONE		
70	T93-0163-05	CD-ROM		



KENWOOD

JVC KENWOOD Corporation
Communications Equipment Div

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