

MODEL NRD-535

SERVICE MANUAL

JRC *Japan Radio Co., Ltd.*



HF RECEIVER

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PREFACE

This document describes required information for the acquisition of the basic principle of operation, the maintenance and the troubleshooting of the Model NRD-535 HF Receiver. For the operation and handling, refer to the Model NRD-535 Instruction Manual attached to the product.

The circuits of the NRD-535 are constituted on the plug-in type printed circuit boards and this facilitates the repair for defective circuit and the replacement of the circuitry. For the removal of the plug-in type printed circuit board, use the board pulling tool furnished to the extension card, NJZ-667 (available at option), for the service use.

To perform an appropriate service and troubleshooting, it is desirable to well know the basic principle of operation about the product. The circuits of the NRD-535 have been designed with taking account that those adjustable parts are possibly lessened, the secular change of which may go into question, so that they may operate stably. Accordingly, unless an abnormal condition is proved otherwise, there is no need for the adjustment.

Upon the order of any unit for the repair, refer to the Blocks and Units List in Table 6-1, always write the name and the type of the unit and then send the order. In addition, upon the order of any parts, refer to Section 10 Parts List, always write the parts number, the type and the code and then send the order.

■ CONTENTS

SECTION 1: SPECIFICATIONS	1
SECTION 2: FRONT PANEL AND REAR PANEL	2
SECTION 3: LAYOUT OF UNITS	3
SECTION 4: ASSEMBLY DRAWING	4
SECTION 5: BLOCK DIAGRAM	6
SECTION 6: DESCRIPTION OF CIRCUITS	7
6.1 Outline of Blocks	7
6.2 Description of Units	7
SECTION 7: ADJUSTMENT	14
7.1 Preparation	14
7.2 Adjustment of Units	15
7.3 Level diagrams	28
SECTION 8: TROUBLESHOOTING	29
8.1 Outline of Troubleshooting	29
SECTION 9: CONNECTION DIAGRAMS AND LAYOUT DRAWINGS OF PARTS ON PRINTED CIRCUIT BOARDS	31
SECTION 10: PARTS LIST	55

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SECTION 1: SPECIFICATIONS

Operating frequency	0.1 to 30 MHz
Modes of operation	AM, USB, LSB, CW, RTTY, FAX and Narrow FM
Frequency stability	±2 ppm or better after 5 to 50 minutes warm-up period (±0.5 ppm with optional CGD-135 High Stability crystal oscillator unit installed)
Tuning increments	Selectable .001, .01 and .1 kHz steps with main tuning dial; .01, .1 and 1 kHz steps with up/down buttons
Memory capacity	200 tunable memories
Receiving system	Triple superheterodyne (double superheterodyne for FM)
Intermediate frequencies	First IF: 70.455 MHz Second IF: 455 kHz Third IF: 97 kHz

Sensitivity:

BAND	RTTY/FAX/CW/SSB	AM	FM
0.1-0.5 MHz	14 dBμ (5 μV)	24 dBμ (15.8 μV)	—
0.5-1.6 MHz	6 dBμ (2 μV)	16 dBμ (6.3 μV)	—
1.6-30 MHz	-10 dBμ (0.32 μV)	6 dBμ (2 μV)	-6 dBμ (0.5 μV)

S/N: 10 dB; Bandwidth: INTER; Modulation: 400 Hz, 30 %, AM mode (12 dB SINAD FM)

Selectivity:

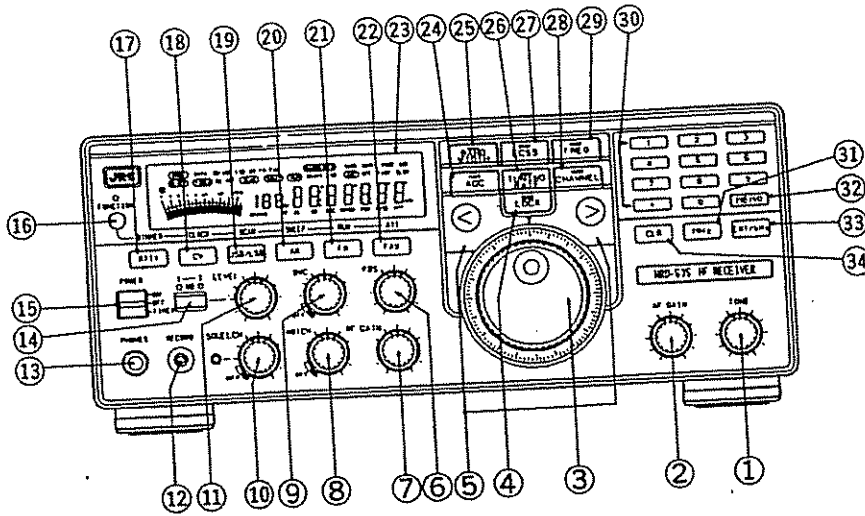
BANDWIDTH	6 dB	60 dB
AUX	12 kHz or more	—
WIDE	4 kHz or more	10 kHz or less
INTER	2 kHz or more	6 kHz or less
NARR	1 kHz or more	3 kHz or less
FM	12 kHz or more	—

NOTE: The NARR bandwidth characteristics measured with CFL-233 filter installed.

Dynamic range	106 dB (300 Hz bandwidth)
Image rejection	70 dB or better
IF rejection	70 dB or better
PBS variable range	±1 kHz
NOTCH attenuation	40 dB or more
Antenna impedance	50Ω at Lo-Z terminal 600Ω at Hi-Z terminal
Attenuator	Approx. 20 dB
AGC characteristics	10 dB or less AF output variation for antenna input signal change from 3 μV to 100 mV
AF output	Speaker output: 1 watt or more (at 4Ω load and 10% distortion) Line output: 1 mW or more (at 600Ω load and 10% distortion)
RS-232C interface	4800 baud, 8 data bits, 1 start bit, 1 stop bit, no parity
Power requirements	100/120/220/240 V AC, ±10%, 35 VA or less 12 to 16 V DC (13.8 V standard), 25 W max (approx. 2 A)
Dimensions	Width 330 mm × Height 130 (143) mm × 287 (324) mm. Values in parenthesis include projections
Weight	Approx. 9 kg

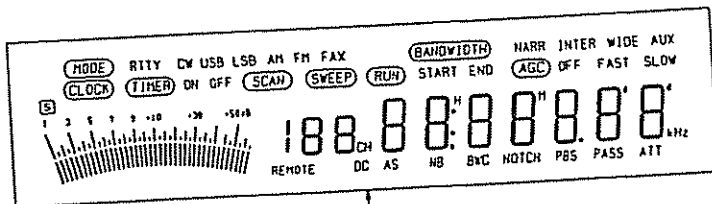
NOTE: The above ratings are based on standard JAIA measuring standards. All ratings are subject to change to increase performance without notice.

SECTION 2: FRONT PANEL AND REAR PANEL

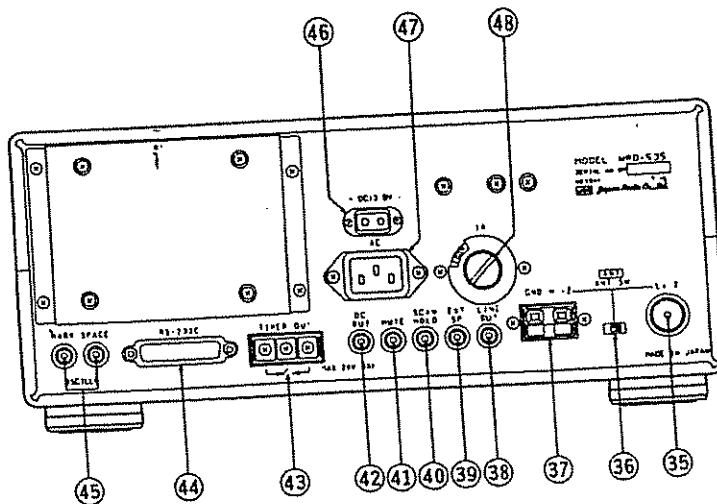


FRONT PANEL

- ① TONE CONTROL
- ② AF GAIN CONTROL
- ③ MAIN TUNING DIAL
- ④ LOCK BUTTON
- ⑤ UP/DOWN BUTTON
- ⑥ PBS (PASSBAND SHIFT) CONTROL
- ⑦ RF GAIN CONTROL
- ⑧ NOTCH CONTROL
- ⑨ BWC (BANDWIDTH CONTROL)
- ⑩ SQUELCH CONTROL
- ⑪ NB (NOISE BLANKER) LEVEL CONTROL
- ⑫ RECORD (OUTPUT) JACK
- ⑬ PHONES (HEADPHONE) JACK
- ⑭ NB (NOISE BLANKER) BUTTON
- ⑮ POWER/TIMER ON-OFF SWITCH
- ⑯ FUNCTION BUTTON
- ⑰ RTTY MODE (DIMMER) BUTTON
- ⑱ CW MODE (CLOCK) BUTTON
- ⑲ USB/LSB MODE (SCAN) BUTTON
- ⑳ AM MODE (SWEEP) BUTTON
- ㉑ FM MODE (RUN) BUTTON
- ㉒ FAX MODE (ATTENUATOR) BUTTON
- ㉓ FLUORESCENT DISPLAY
- ㉔ AGC (AUTOMATIC GAIN CONTROL) BUTTON
- ㉕ BANDWIDTH BUTTON
- ㉖ TUNING RATE BUTTON
- ㉗ ECSS (EXCITED CARRIER, SELECTABLE SIDEBAND) BUTTON
- ㉘ CHANNEL BUTTON
- ㉙ FREQ (FREQUENCY) BUTTON
- ㉚ NUMERICAL KEYPAD
- ㉛ MHz BUTTON
- ㉜ MEMO BUTTON
- ㉝ ENT/MHz BUTTON
- ㉞ CLR (CLEAR) BUTTON



23



REAR PANEL

- ③⑤ ANT Lo-Z (LOW IMPEDANCE ANTENNA) CONNECTOR
- ③⑥ ANT (ANTENNA) SWITCH
- ③⑦ ANT Hi-Z (HIGH IMPEDANCE ANTENNA) CONNECTOR
- ③⑧ LINE OUT JACK
- ③⑨ EXT SP (EXTERNAL SPEAKER) JACK
- ③⑩ SCAN HOLD JACK
- ③⑪ MUTE JACK
- ③⑫ DC OUTPUT JACK
- ③⑬ TIMER OUT TERMINAL
- ③⑭ RS-232C PORT
- ③⑮ RTTY MARK/SPACE INDICATOR JACKS
- ③⑯ DC13.8V (DC POWER) CONNECTOR
- ③⑰ AC POWER CONNECTOR
- ③⑱ AC FUSE AND VOLTAGE SELECTOR

SECTION 3: LAYOUT OF UNITS

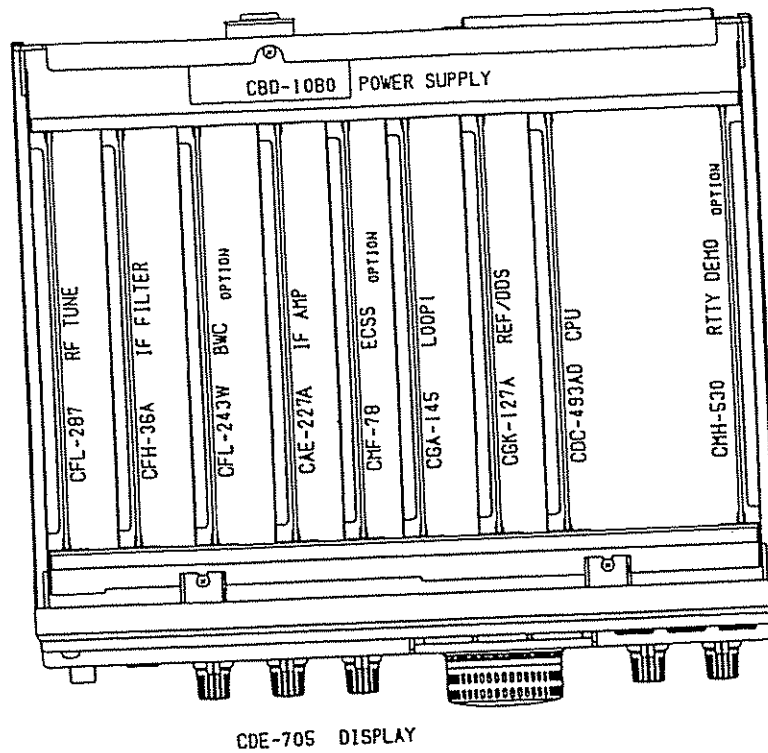


Fig. 3-1 LAYOUT OF UNITS

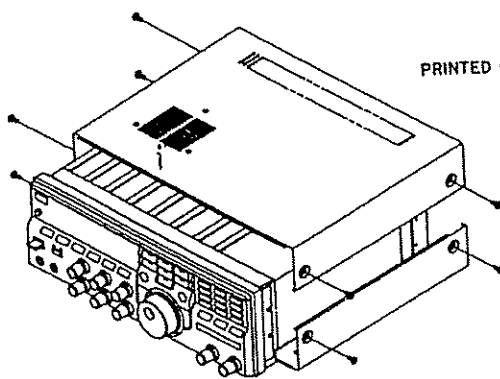


Fig. 3-2 REMOVING THE COVER

PRINTED CIRCUIT BOARD PULLER

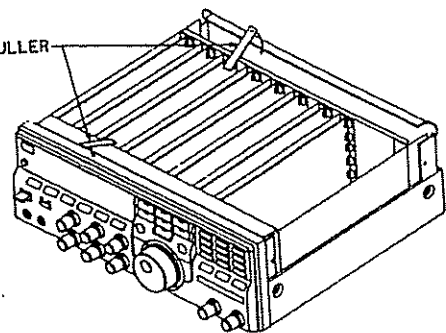
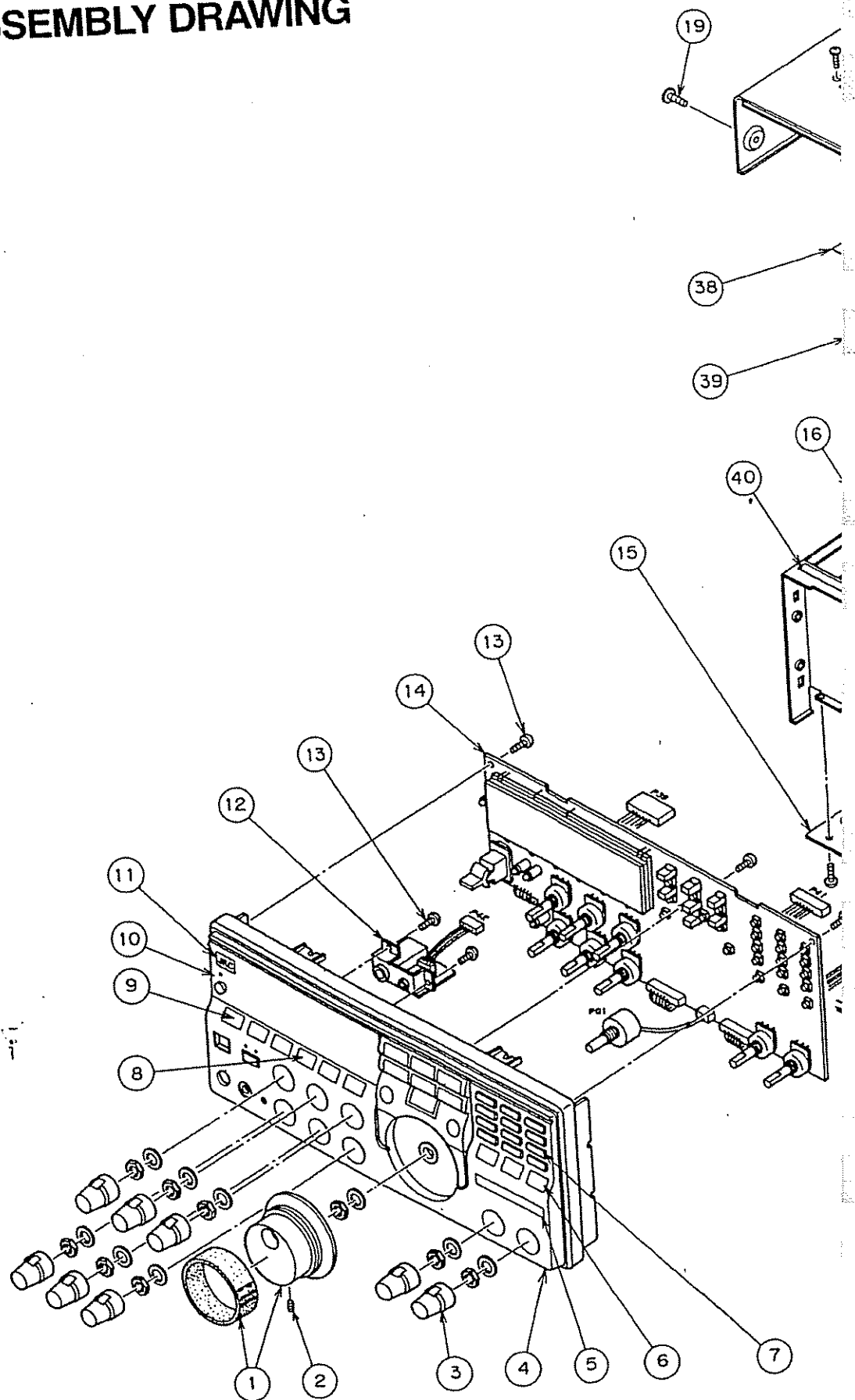
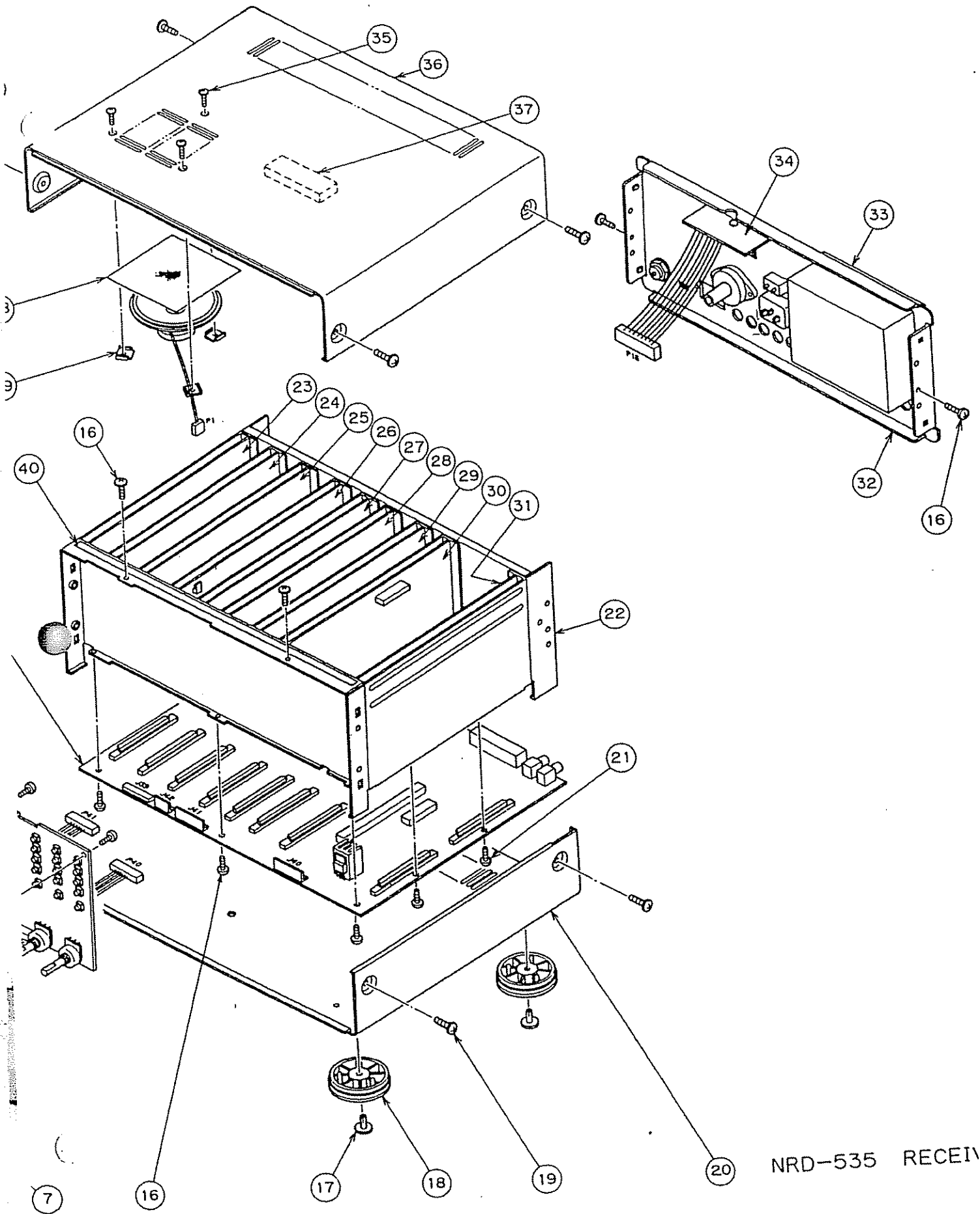


Fig. 3-3 REMOVING THE UNIT

SECTION 4: ASSEMBLY DRAWING



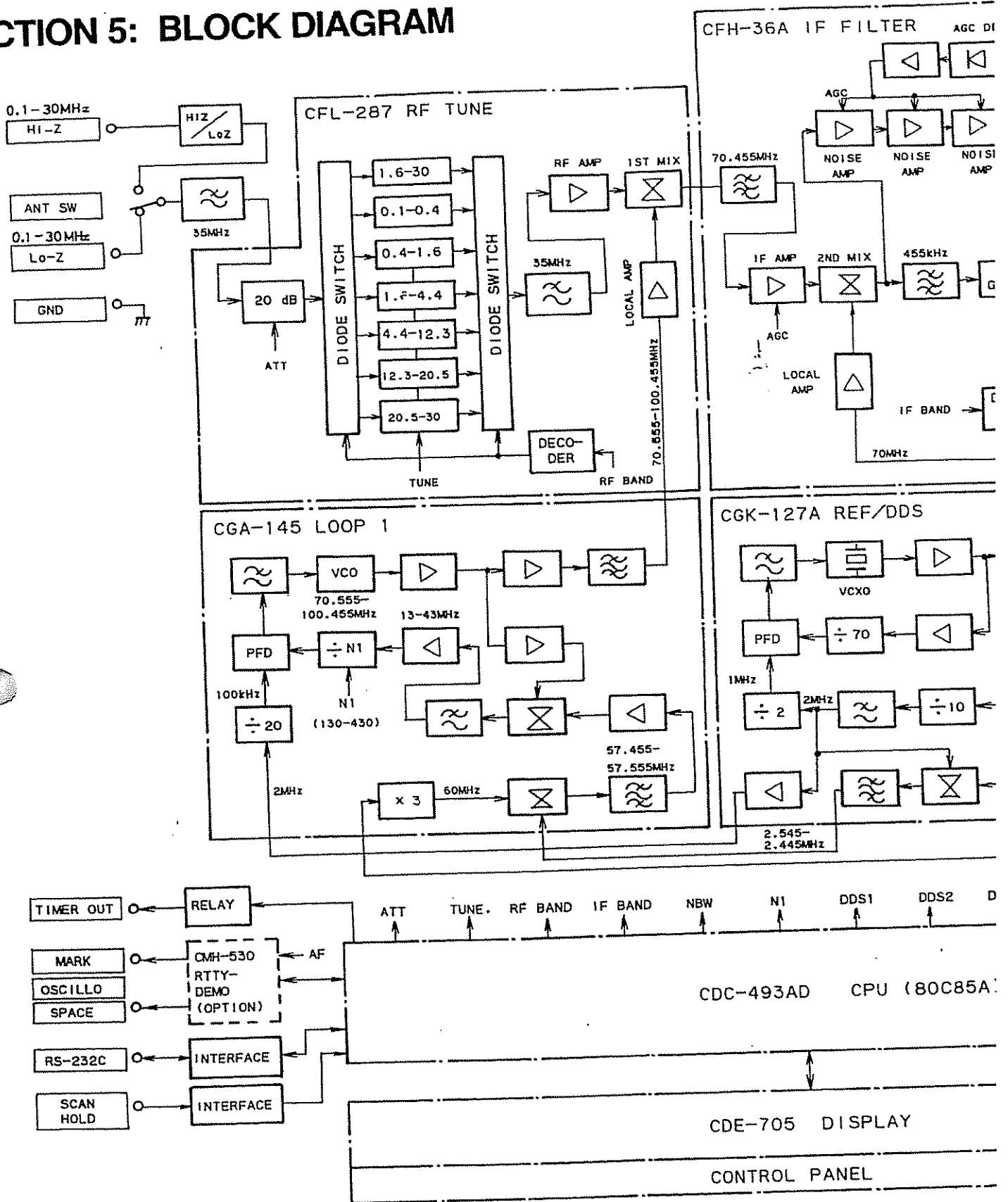


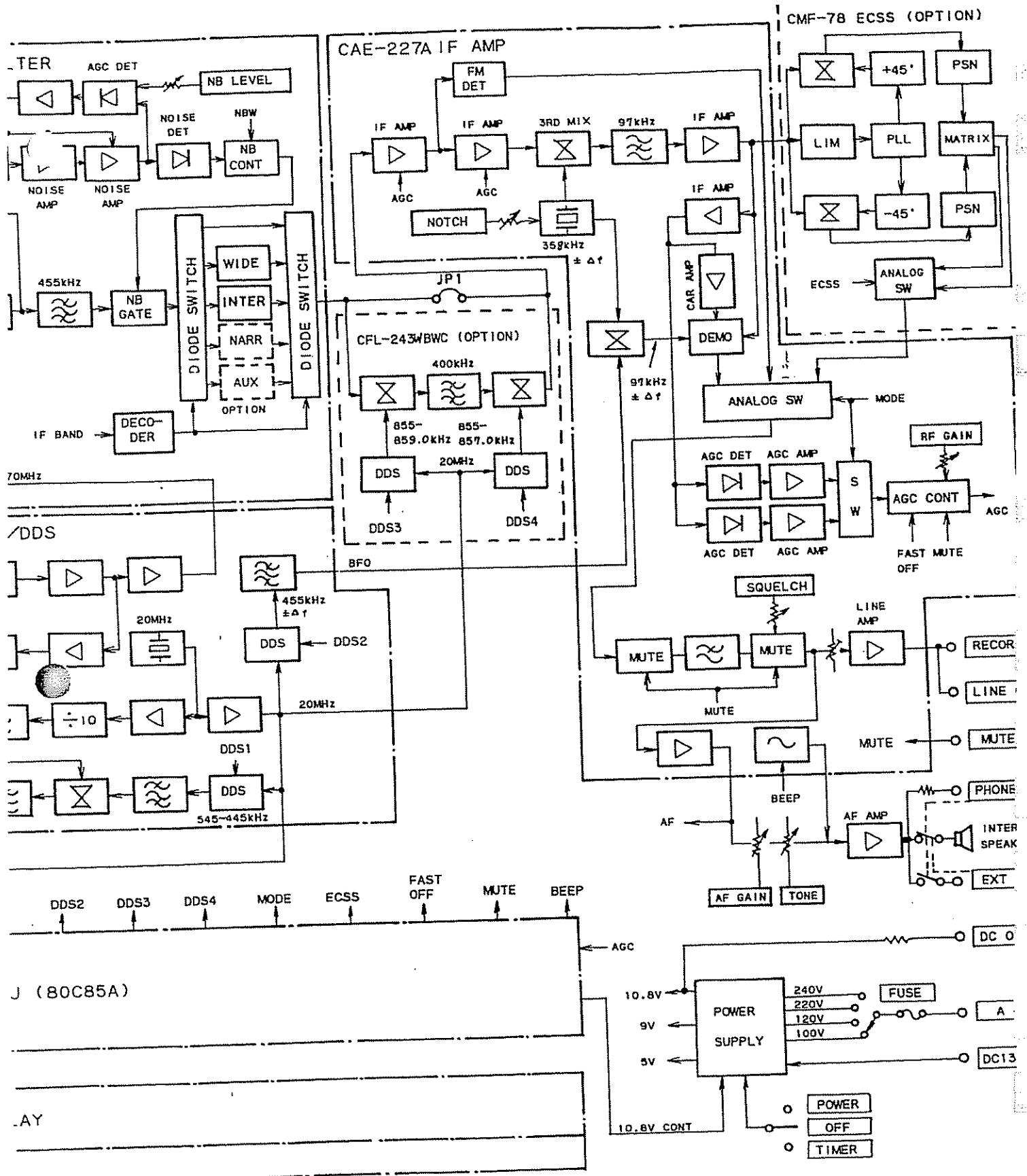
NRD-535 RECEIV

ASSEMBLY PARTS LIST

LOCATION	DESCRIPTION	PART NUMBER	Q' TY	REMARKS
1	DIAL	MPHD01477	1	
2	SET SCREW	BSHT03004S	(1)	3T3×4
3	KNOB	MPHD01478	8	
4	PANEL	MPBC09674	1	
5	NAME PLATE	MPNM15343	1	NRD-535
		MPNL21368	1	NRD-535D
6	KEYTOP	MTV004125	1	
7	KEYTOP	MTV004124	1	
8	KEYTOP	MTV004126	1	
9	KEYTOP	MTV004127	1	
10	FILTER	MPOL01126	1	
11	JRC BADGE	MPNL09514	1	
12	JACK UNIT	CQB-61	1	
13	SCREW	BRTG02970	8	3×8 ZMC
14	DISPLAY UNIT	CDE-705	1	
15	MOTHERBOARD	CFQ-3597	1	
16	SCREW	BRTG01225	17	3×6 ZMC
17	NYLON RIBET	BRTG01468	4	FNRP ϕ 4×7 BLK
18	LEG	MPKU00270	4	NRD-535
		MPKU00271	4	NRD-535D
19	SCREW	BRTG03311	8	M3×8BS BNM2
20	BOTTOM COVER	MTD004608	1	1
21	SCREW	BRTG00970	18	2. 6×6 ZMC
22	CHASSIS	MPBC09677	1	
23	RF TUNE UNIT	CFL-287	1	
24	IF FILTER UNIT	CFH-36A	1	
25	BWC UNIT	CFL-243W	1	
26	IF AMP UNIT	CAE-227A	1	
27	ECSS UNIT	CMF-78	1	
28	LOOP1 UNIT	CGA-145	1	
29	REF/DDS UNIT	CGK-127A	1	
30	CPU UNIT	CDC-493AD	1	
31	RTTY DEMO UNIT	CMH-530	1	
32	BACK BOARD	MTD004609A	1	
33	COVER	MTD004430	1	
34	AVR UNIT	CBD-1080	1	
35	SCREW	BRTG02145	3	M3×8BS BLK
36	TOP COVER	MTD004607	1	
37	RUBBER	MTT027856	1	
38	SPEAKER GRILL CLOTH	MTZ003307	1	
39	MOUNTING PLATE	MTB099587	3	
40	LABEL	MPNN25155A	1	

SECTION 5: BLOCK DIAGRAM





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SECTION 6: DESCRIPTION OF CIRCUITS

6.1 OUTLINE OF BLOCKS

The NRD-535 is roughly divided into six blocks: Receiver block, Synthesizer block, Control block, RTTY block, panel block and chassis block. The units involved in these six blocks are listed in Table 6-1, below.

TABLE 6-1 BLOCKS AND UNITS LIST

BLOCK	UNIT	TYPE
Receiver block	RF TUNE unit	CFL-287
	IF FILTER unit	CFH-36A
	BWC unit	CFL-243W
	IF AMP unit	CAE-227A
	ECSS unit	CMF-78
Synthesizer block	LOOP 1 unit	CGA-145
	REF/DDS unit	CGK-127A
Control block	CPU unit	CDC-493AD
RTTY demodulator block	RTTY DEMO unit	CMH-530
Panel block	DISPLAY unit	CDE-705
	JACK unit	CQB-61
Chassis block	Mother board	CFQ-3597
	AVR unit	CBD-1080
	Chassis	NRD-535

The circuit constitution and the frequency relationship of the entire receiver are shown in the block diagram; refer to them.

The receiver adopts a triple superheterodyne system, wherein the first IF is 70.455 MHz, the second IF is 455 kHz and the third IF is 97 kHz. The double tuning circuit at the front end section adopts a variable tuning system (an electronic tuning with use of capacitor diodes), whereby the receiver block is tuned continuously in accordance with the receiving frequency.

The RF amplifier and the first mixer employ each four junction type FETs, which have low noise and excellent cross modulation characteristics, thus widening the dynamic range and improving the sensitivity. In addition, the receiver block is provided with a BWC and an ECSS circuit as a function for the elimination of the RF interference. The BWC unit, CFL-243W, is inserted between the IF FILTER unit, CFH-36A, and the IF AMP unit, CAE-227A. Accordingly, the center fre-

quency for the input/output is 455 kHz. Upon installation of the BWC unit, the jumper wire JP1 on the mother board is cut off. The ECSS unit, CMF-78, receives the third IF signal of 97 kHz as an input signal and performs the synchronous detection of this input signal.

The synthesizer block generates required frequency signals of 70.555 MHz to 100.454999 MHz and 70 MHz for the receiver block as well as the BFO signal, based on a highly stabilized reference frequency of 20 MHz. Among them, the frequency signal of 70.555 MHz to 100.454999 MHz and the BFO signal are generated by the synthesizer and it employs a DDS (direct digital synthesizer), which was developed originally by JRC.

The control block employs CPU's for switching over associated circuits and control of them. Two CPU's are incorporated, a main CPU and sub-CPU's: The main CPU is located in the CPU unit at the main frame side. The main CPU mainly performs the switching-over of the circuits in the receiver block and the frequency control of the synthesizer. The sub-CPU is located in the DISPLAY unit and it performs the display on the fluorescent display tube and the processing of key inputs as well as sending the data of them to the main CPU at the main frame side.

The RTTY demodulator block demodulates the CCITT No. 2 codes at shift widths of 170, 425 and 850 Hz and a baud rate of 37 to 75 bauds. The demodulator output may be displayed on the CRT at the computer side after sending it by way of the RSC-232C line to the computer.

The panel block is provided with switches and controls for operating the receiver. Moreover, a large type custom fluorescent display tube is employed for the display the frequencies, modes, bands, meter readings and others.

The chassis block is constituted with the mother board as a key unit, for the interconnection of associated units. Owing to the use of the mother board, the wire harnesses in the chassis have been lessened as practicable and this improves the reliability and the maintainability as the result.

6.2 DESCRIPTION OF UNITS

6.2.1 CFL-287 RF TUNE UNIT

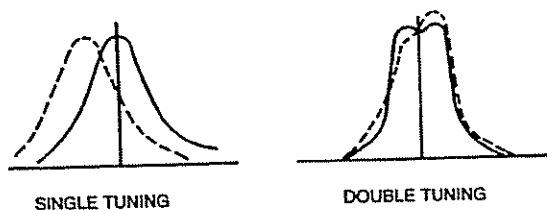
The RF TUNE unit is composed of a double tuning circuit, RF amplifier and first mixer. The received signal entering through the antenna terminal passes through a 20 dB-attenuator switching circuit with K1 to the double tuning circuit. In the double tuning circuit, the frequencies are grouped into six bands in the range from 100 kHz to 30 MHz (refer to Table 6-2, below) and the decoder of IC1 and the transistor TR1 are

operated to select desired band for the reception in response to the band switching signal fed from the CPU.

TABLE 6-2 DIVISION OF BAND FOR THE DOUBLE TUNED CIRCUIT

DIVISION	FREQUENCY	REMARKS
1	100 kHz-0.4 kHz	LPF
2	0.4 MHz-1.6 MHz	Double tuning circuit
3	1.6 MHz-4.4 MHz	
4	4.4 MHz-12.3 MHz	
5	12.3 MHz-20.5 MHz	
6	20.5 MHz-30 MHz	

The voltage applied to the variable capacitor in the double tuning circuit is generated in the CPU unit. This applied voltage is controlled every 10 kHz so as to obtain the best tuning characteristics in accordance with the receiving frequency. In addition, the double tuning circuit has such an advantageous point that a sharp resonance characteristic is obtained as well as the change of the impedance of the antenna has only a little influence on the detuning of the tuning circuit, that is, on the resonance characteristics of the circuit; refer to Fig. 6-1. This receiver effectively utilizes this advantageous point such that a high sensitivity will be obtainable with any antenna.



The solid line indicates the response with the impedance matched with the antenna.
The dashed line indicates the response with the impedance not matched with the antenna and the tuning circuit being detuned.

Fig. 6-1 TUNING CHARACTERISTICS

The received signal passed through the double tuning circuit is applied to the RF amplifier. The RF amplifier in this receiver employs a high power gain type amplifier composed of four low-noise junction type FET's TR2, TR3, TR4 and TR5 connected in parallel. Compared with an amplifier composed of one FET only, that RF amplifier provides a power gain as high as four times, 6 dB, and hence it realizes a high sensitivity of the receiver block. The received signal amplified in the RF amplifier is mixed with the first local signal in the first mixer composed of transistors TR7 through TR10 and converted into a first IF signal of 70.455 MHz.

The first mixer employs a double balanced type mixer composed of

four low-noise junction type FET. Since the double balanced type mixer suppresses the intermodulation components of the odd numbered orders, it is capable of greatly reducing the intermodulation product distortion (IMD), compared with a single balanced type mixer. Owing to this, the multiple signal characteristic is improved to thereby elevate the receiver performance.

6.2.2 CFH-36A IF FILTER UNIT

The IF FILTER unit is composed of a second mixer, a group of IF filters, which determine the pass bandwidth of the receiver, and a noise blanker circuit.

The first IF signal of 70.455 MHz from the RF TUNE unit is fed through a monolithic filter (MCF) FL1 to the first IF amplifier of TR1 and amplified therein. To operate the TR1 as an AGC amplifier, it employs a dual gate type MOS-FET. The signal amplified in the first IF amplifier is applied to the FET balanced mixer composed of TR2 and TR3 and mixed with a second local signal of 70 MHz fed from the synthesizer block, thus converting into a second IF signal of 455 kHz. By the way, the second local signal of 70 MHz is amplified in the transistor TR4 and then supplied to the second mixer.

The noise blanker circuit in the next stage is composed of a gate circuit and a noise amplifier, and the second IF signal of 455 kHz is fed to these two circuits. The signal fed to the gate circuit passes through the filter FL2 and then through a balanced type gate circuit composed of diodes CD1 and CD2. The signal fed to the noise amplifier, on the other hand, is amplified by the noise amplifier composed of TR5, TR6 and TR7. To this noise amplifier an AGC is applied from the AGC circuit composed of CD4, TR8 and TR9. The signal from the output of the noise amplifier is fed to the noise detector (gate control) circuit composed of CD5, CD6, TR10, TR12, and TR13, which detects the noise component only. It switches on and off the above described gate circuit to thereby blank the noise component contained in the second IF signal of 455 kHz. The signal from the output of the gate circuit is fed to be selected among a group of the IF filters FL3, FL4, FL5 and FL6, which provides required selectivity characteristics. Thereafter, it is sent to the BWC unit, if the BWC unit is incorporated. If the BWC unit is incorporated, the signal from the IF filter is sent to the IF AMP unit.

6.2.3 CFL-243W BWC UNIT

The BWC unit is composed of two mixers for the BWC (bandwidth control), two local oscillators and crystal filter having a center frequency of 400 kHz. The signal applied from the second IF stage of 455 kHz is converted into a signal of 400 kHz by the mixer of IC1 in the first stage. This signal passes through the crystal filter FL1 of 400 kHz to the mixer of IC2 in the latter stage, wherein it is converted again to an original signal of 455 kHz, which is then applied to the IF AMP unit. The local oscillation signals to be fed to both mixers of IC1 and IC2

obtained from the synthesizer of IC3 and IC4 in the DDS system.

When you operate the BWC knob on the panel face, the first local frequency and two local frequencies in the BWC unit change to cause the pass bandwidth to be continuously varied. This is due to the combination of filter characteristics of the filter FL3 or FL4 in the IF FILTER unit with the filter FL1 in the BWC unit.

6.2.4 CAE-227A IF AMP UNIT

The IF AMP unit is composed of a third local oscillator, third mixer, second IF amplifier, third IF amplifier, demodulator, AGC circuit, squelch circuit, line amplifier and others.

The third local oscillator is composed of a 358 kHz-oscillator of TR9 and a buffer amplifier of TR10. The 358 kHz-oscillator employs a ceramic oscillator X1. The diodes CD2 and CD28 are variable-capacitance diodes for fine adjustment of the ceramic oscillator X1 and they are controlled with the control voltage fed from TR11. The third local oscillation signal from TR9 passes through the buffer amplifier of TR10 to the gate of the third mixer of TR3 as well as the Pin 2 of IC4. The mixer of IC4 mixes the local oscillation signal of 358 kHz with the BFO signal to provide an output signal, which is used as a carrier signal for the product detection. For the carrier signal frequencies by the modes of operation, refer to Table 6-3, below.

TABLE 6-3 CARRIER FREQUENCIES FOR PRODUCT DETECTION

MODE	BFO FREQUENCY	CARRIER FREQUENCY
RTTY(N)	457.210 kHz	99.210 kHz
RTTY(M)	457.095 kHz	99.095 kHz
RTTY(W)	456.870 kHz	98.870 kHz
CW	455.800 kHz	97.800 kHz
USB	456.500 kHz	98.500 kHz
LSB	453.500 kHz	95.500 kHz
FAX	456.900 kHz	98.900 kHz

The IF amplifier is composed of a second IF amplifier of TR1 and TR2 (455 kHz) and third IF amplifier of TR3 (97 kHz). The second IF signal of 455 kHz is amplified by the TR1 and TR2 and then mixed in the third mixer with the third local oscillation signal of 358 kHz fed from TR10, whereby a third IF signal of 97 kHz is produced. The third IF signal is fed through the NOTCH circuit of TR4, TR5, TR6 and T4 to the third IF amplifier of TR7, which amplifies the IF signal. The TR4 and TR5 in the NOTCH circuit form a change-over switch of the NOTCH, wherein the TR4 turns ON to actuate the fixed T-NOTCH circuit of T4, when the NOTCH is ON, and the TR5 turns ON to allow the NOTCH circuit to pass the signal through, when the NOTCH is OFF. Since the notch frequency is fixed, the filtering frequency is con-

trolled by adjusting the 358 kHz local oscillator frequency.

The IC2 forms a demodulator. When the mode is AM, it operates as a synchronous detector, and when the mode is other than AM, it also operates as a product detector. The carrier for the synchronous detection is fed to the Pin 2 of IC2 from the limiter circuit of TR17. In addition, the carrier for the product detection is fed to the Pin 2 of the IC2 from the Pin 9 of IC4 through the resistor.

The FM signal is demodulated with IC8. This IC is a one-chip type IC, which incorporates a limiter circuit, quadrature detection circuit and others, and it is provided for the use of the FM demodulation only.

The AGC circuit is composed of rectifiers of CD5, CD6, TR19 and TR20, time constant circuit based on a time constant determined by C103 and R105, analog switch of IC5 and IC6, and DC amplifier of IC7. There are two rectifiers: one is a rectifier for the peak detection, which is composed of CD6 and TR19 and operates when the mode is CW or SSB, and the other is a rectifier for the mean value detection, which is composed of CD5, R98, C100 and TR20 and operates, when the mode is AM. Switching over these rectifier is performed by the analog switch of IC5. The IC6 is an analog switch for the switching-over of the time constant.

The AGC voltage is provided from the Pin 7 of IC7 and applied to control the gates 2 of TR1 and TR2. Moreover, the AGC voltage is also fed through R115 to the IF FILTER unit and used for the control of TR17 in this unit.

The squelch circuit is composed of a comparator of IC9 and tuning circuit of TR35. The NRD-535 has been designed so that the squelch may function for all modes of operation. To the Pin 5 of IC9, the AGC voltage is fed from the Pin 7 of IC7. In addition, to the Pin 6 of IC7, the control voltage for the squelch is fed from the panel control. Both two voltages are compared in IC9; when the voltage on the Pin 5 of IC9 is higher than the voltage on the Pin 6 of IC9, that is, when the squelch is closed, this causes TR35 to turn on, whereby it cuts off the AF output.

The line amplifier is an AF amplifier for the external output, which is composed of 1/2 of IC12. This amplifier cuts off the output, when the squelch is closed.

Among other circuits, there is a BEEP tone oscillator of TR41. The BEEP tone oscillator oscillates at approximately 2 kHz, when the key operation on the panel is performed. The output of this oscillator is amplified with an AF amplifier, and beep tone sounds from the speaker.

6.2.5 CMF-78 ECSS UNIT

The ECSS unit is capable of receiving desired signal as an AM wave without suffering from any RF interference upon the receipt of the AM RF wave, when its one side band is suffering from the RF interference wherein the ECSS unit extracts the other side band, without using any narrow band filter.

The ECSS unit is composed of a limiter-amplifier, synchronous car-

rier generator, mixer, phase shifter, adder-subtractor circuit and demodulated signal switch-over circuit.

The IC1 forms a limiter-amplifier, which amplifies the third IF signal of 97 kHz. The amplified signal is fed to the PLL circuit of IC2, wherein a carrier synchronous with the carrier of the AM wave is reproduced. This PLL circuit employs a 90°-type phase comparator, wherein the capture range of the PLL has been set approximately for ± 1 kHz enough to ensure a good RF interference suppression effect. The reproduced carrier is fed to the phase shifters of $+45^\circ$ and -45° , the outputs of which are then fed to the mixers of IC3 and IC4, respectively.

In the mixers of IC3 and IC4, the carriers are mixed with the third IF signal of 97 kHz, and the outputs of these mixers are fed through the AF phase shifters to the adder-subtractor circuit of IC7. The adder circuit provides a USB component of the input signal while the subtractor circuit provides an LSB component of the signal. The circuits have been designed such that you may hear an AM voice, without suffering from the RF interference, owing to the change-over circuit of IC12, which selects either the USB component or the LSB component in accordance with the RF interference.

6.2.6 CGA-145 LOOP 1 UNIT

This LOOP 1 unit includes a PLL type synthesizer, which generates frequency signals in the steps of 1 Hz in a range between 70.555 MHz and 100.454999 MHz, and it is composed of a frequency converter, VCO and PLL IC.

The TR12 in the frequency converter forms a frequency tripler circuit, which converts a frequency of 20 MHz into a frequency of 60 MHz and feeds the output signal to the Pin 11 of IC6. The IC6 forms a mixer, which converts the signal of 2.545 MHz to 2.445 MHz fed from the DDS, into a signal of 57.455 MHz to 57.555 MHz. Thus converted signal is fed to the SAW filter FL3, which eliminates unwanted components, and then amplified by TR13. The amplified signal is fed to the Pin 11 of IC4.

The VCO shares the frequency signals in the range between 70.555 MHz and 100.454999 MHz with three VCO's, as described below.

TR1, VCO1: 70.555–80.454999 MHz

TR2, VCO2: 80.455–90.454999 MHz

TR3, VCO3: 90.455–100.454999 MHz

The TR9, TR10 and TR11 are transistors for switching over the VCO1, VCO2 and VCO3, and one of the transistors is set on according to the frequency under the control of the CPU. The output signal from each VCO is fed through the buffer amplifier of TR4 to the local oscillation amplifier of IC1 as well as the local oscillation amplifier of IC2. The output signal from IC1 is fed through the bandpass filter to the receiver block as a first local oscillation signal of 70.555–100.454999 MHz.

On the other hand, the output signal from IC2 is to be used for the PLL, and it is converted into a signal of 13 to 43 MHz by the mixer in the next stage and the converted signal is fed through the lowpass filter and the buffer amplifier of IC3 to the PLL IC of IC5. The internal constitution of the PLL IC of IC5 is illustrated in Fig. 6-2, below.

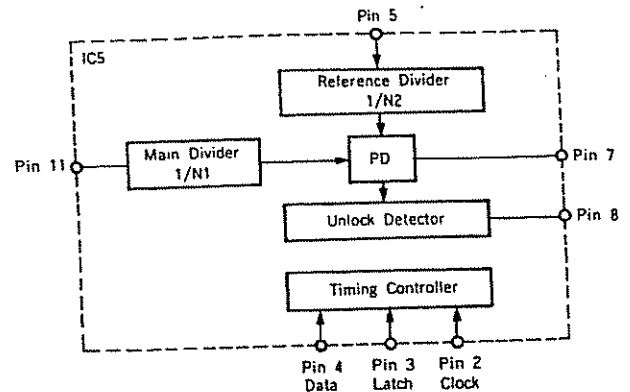


Fig. 6-2 INTERNAL CONSTITUTION OF IC5

The divider of IC5 is set to have frequency division ratios, as follows:

$$N_1 = 130 - 430$$

$$N_2 = 20$$

The setting of the frequency division ratios is performed, based on the serial data fed from the CPU. In addition, the reference frequency of the PLL has been set for 100 kHz. Accordingly, a frequency of 70.555 MHz has been fed to the Pin 5 of IC5.

The receiving frequency f_R , the VCO frequency f_{VCO} , the frequency f_{IF} on the Pin 11 of IC5, and the frequency division ratio N_1 of the main divider are related to one another, as described below.

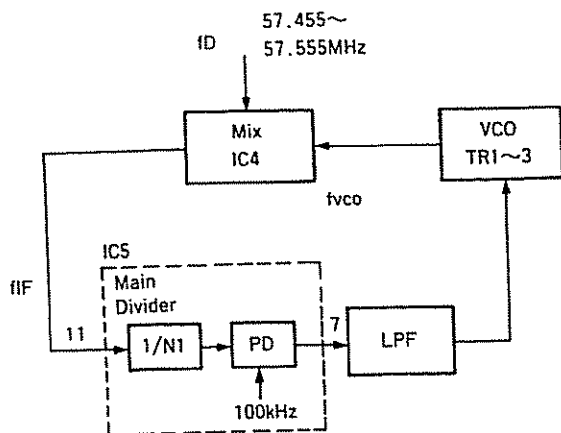


Fig. 6-3 CONSTITUTION OF LOOP 1

It is assumed that a fraction of the receiving frequency f_R at the 100 kHz-digit and higher-digits is F_1 and the remaining fraction of the receiving frequency at the 10 kHz-digit and lower-digits is F_2 .

In the case of a frequency of 2.154 MHz, for example, F_1 is 2.1 MHz and F_2 is 0.054 MHz.

$$f_{VCO} = 70.455 + f_R$$

$$f_{VCO} = f_{IF} + f_D$$

$$N_1 = 10 \times (13 + F_1)$$

$$f_{IF} = N_1 \times 0.1 \text{ MHz}$$

$$f_D = 57.455 \text{ MHz} + F_2$$

When $f_R = 12.354 \text{ MHz}$, for example, the parameters N_1 , f_{IF} , f_D , and f_{VCO} are related, as shown below.

$$f_R = \underbrace{12.3}_{F_1} \underbrace{54}_{F_2} \text{ MHz}$$

$$f_{VCO} = 70.455 \text{ MHz} + 12.354 \text{ MHz} \\ = 82.809 \text{ MHz}$$

$$N_1 = 10 \times (13 + 12.3) \\ = 253$$

$$f_{IF} = 253 \times 0.1 \text{ MHz} \\ = 25.3 \text{ MHz}$$

$$f_D = 57.455 \text{ MHz} + 0.054 \text{ MHz} \\ = 57.509 \text{ MHz}$$

6.2.7 CGK-127A REF/DDS UNIT

The REF/DDS unit includes an address decoder, 20 MHz-STD OSC part, DDS part, which forms a part of the synthesizer for generating local oscillation signals in the range between 70.555 MHz and

100.454999 MHz, synthesizer for generating the BFO signal and another synthesizer for generating the local oscillation signal of 70 MHz.

The address decoder is composed of a NAND of IC13, addressable latch of IC14, and 3-to-8 line decoder of IC15 and IC16, and it supplies the data from the CPU to the synthesizers.

The 20 MHz-STD OSC is composed of a 20 MHz-crystal oscillator of TR5, buffer amplifier of TR6, TR7 and TR8, and 1/10-frequency divider of IC19. The reference frequencies for the synthesizers are all fed from this oscillator. The output signal of 20 MHz from the TR5 is fed by way of the buffer amplifier of TR6 to the pin 14 of IC19 as well as the pins 16 of IC1 and IC2. The IC19 in the 1/10-frequency divider provides an output signal of 2 MHz. The waveform of this signal is shaped by the lowpass filter, the output of which is then fed to the pin 10 of IC12 and the pin 5 of IC17 as well as TR8. The signal amplified in TR8 is fed to the LOOP 1 unit.

The DDS is composed of a DDS of IC1, level converter of IC3 and IC4, D/A converters of RA1 and RA2, constant-current circuit of IC5 and TR1, comparator of IC7 and flip-flop of IC8. The frequency data is written into IC1 in the form of a serial data fed from the CPU. The data from the CPU is fed to the pin 18 of IC1, while the CLOCK signal is fed to the pin 19 of IC1. When the input data of 24 bits is applied to IC1, the latch signal from the CPU is applied to the pin 17 of IC1. Thus, one cycle of the write of the frequency data is completed. The IC1 converts the serial data into a parallel data and then directly synthesizes the frequency signals, based on the reference signal of 20 MHz being fed to the pin 16 of IC1 in accordance with this parallel data. The output signal from the pin 37 of IC1 has a frequency as high as twice that of the written frequency data. This output signal is a signal involving an error, which is then applied to drive TR2 and cause C11 to be discharged.

The error output data is provided on the pins 38 through 47 of IC1 and fed to the ladder circuit of RA1, which converts the digital data into an analog data. Then, the analog data is fed to the pin 10 of IC7. The operation waveforms of these circuits are illustrated in Fig. 6-3, below.

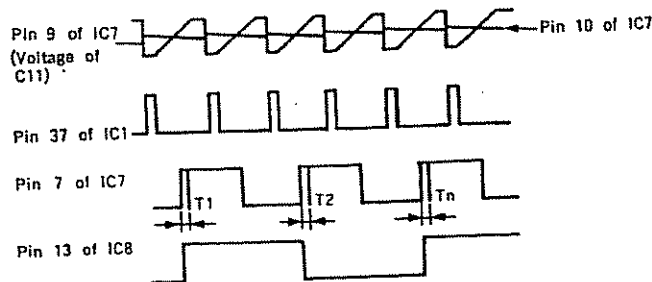


Fig. 6-3 OPERATION WAVEFORMS OF CIRCUITS IN DDS

The widths of T1 through Tn vary in a range of 0 to 50 ns in accordance with the magnitude of the error. In addition, the IC1 is provided with a frequency correction circuit for minimizing the error produced, depending on the frequency. The frequency output data is provided on the pins 26 through 35 of IC1 and digital-to-analog-converted with the ladder circuit of RA2, and resulting data is fed to IC5 in the constant-current circuit. Owing to this correction circuit, an output is obtained, the phase jitter of which is a little at any of the output frequencies in the range of 0.545 MHz to 0.445 MHz in the DDS.

The output signal (on the pin 12 of IC8) from the DDS is fed through the bandpass filter of 0.545 MHz to 0.445 MHz to the pin 1 of IC12 in the mixer. In this mixer, the signal is mixed with the signal of 2 MHz fed to the pin 10 of IC12 from the 20 MHz-STD OSC and converted into a signal in the range of 2.545 MHz to 2.445 MHz. Thus converted signal (on the pin 6 of IC12) is fed to the bandpass filter of 2.545 MHz to 2.455 MHz, which eliminates unwanted wave components, and the output signal from the filter is fed to the LOOP 1 unit, CGA-145.

The BFO signal synthesizer is composed of a DDS of IC2, D/A converter of RA3, constant-current circuit of TR3, comparator of IC6 and flip-flop of IC20. This synthesizer has the same circuit constitution as the DDS for generating the frequency signal of 0.545 MHz to 0.445 MHz. The output frequency covers the range between 453.5 kHz and 457.21 kHz in the steps of 1 Hz. The DDS is not corrected with the frequency, since the change width of the output frequency is a little. Accordingly, the pins 26 through 35 of IC2 are not used. The BFO signal (on the pin 13 of IC20) from the DDS is fed to the lowpass filter to shape the waveform of the signal and then it is fed as a BFO signal to the receiver block.

The 70 MHz PLL synthesizer is composed of a VCXO of TR9, buffer amplifier of TR10, TR11 and TR15, PLL IC of IC17, and active lowpass filter of TR12, TR13, and TR14. The output frequency of the VCXO of TR9 is 70 MHz. This signal is fed through the buffer amplifier of TR10 and TR11 to the pin 11 of IC17. The PLL IC of IC17 is the same as the IC5 used in the LOOP 1 unit, CGA-145. For the internal constitution, refer to Fig. 6-2. In this synthesizer the output frequency is fixed to 70 MHz and hence it is set for $N_1=70$ and $N_2=2$.

The reference frequency of the P/D (phase detector) is 1 MHz. To the pin 5 of IC17, a frequency signal of 2 MHz is fed from the 20 MHz-STD OSC and its frequency is divided 1/2 in the interior of IC17, wherein the resultant frequency is used for the reference frequency. For the setting of the N_1 of the main divider and the N_2 of the reference divider, the data, latch and CLOCK signals from the CPU are supplied to the pins 4, 3 and 2 of IC17, respectively, and the settings are performed in the form of serial data. In the phase detector, the phase-compared output signal (on the pin 7 of IC17) is converted into a DC signal by the active lowpass filter composed of TR12, TR13 and TR14, and the DC signal is applied to control the frequency of the VCXO. The

output signal on the pin 8 of IC17 goes to the "H"-level, when the PLL is not locked, whereby it drives the TR17 to thereby illuminate the "UNLOCK" indicator of CD7.

6.2.8 CDC-493AD CPU UNIT

The CPU unit is main part for the control of the NRD-535. It employs an 8-bit type CPU of IC1 for the control of associated circuits. The programs of the CPU have been stored in an EP-ROM of 32 kbytes (IC3) and data of the memory channels and others have been stored in a CMOS RAM of 8 kbytes (IC4). This RAM has been backed up with a lithium battery BT1 and owing to this, the CPU unit is capable of holding the once stored data for a long time, even with the power switch set off.

For the control of the analog circuits, the I/O controller of IC5 and IC6 is assigned in use, while for the control of the synthesizer circuit, the IC14 is assigned in use. The IC12 and IC13 are USART's; the IC12 is used for the RS-232C at 4800 bps and the IC13 is used for the data communication at 4800 bps with the CPU in the display unit, wherein each IC operates for the communication in the form of serial data. The IC7, IC17 and TR1 form a voltage generator, which generates a voltage to be applied to the variable capacitor in the double tuning circuit of the RF TUNE unit. It generates a voltage changed in a range of 5.47 V to 20 V in accordance with the receiving frequency.

6.2.9 CMH-530 RTTY DEMO UNIT

The RTTY DEMO unit is composed of an AGC circuit, mark filter circuit, space filter circuit, slide back detector circuit, code demodulator circuit, indicator driving circuit, printer dividing circuit and control circuit.

The AF signal fed from the IF AMP unit is fed through the AGC circuit of IC10 to both the mark filter circuit of IC11 and space filter circuit of IC12. The mark filter is an active bandpass filter having a center frequency of 2295 Hz and pass-band width of 30 Hz, approximately. The space filter is also an active bandpass filter having a center frequency selected among 2125 Hz, 1895 Hz and 1145 Hz and pass band width of 30 Hz, approximately. Upon the operation of the space filter, it is switched over the three center frequencies in accordance with the shift width. The output signals from the filters are sent to the slide back detector circuit of IC13 as well as the driving circuit of IC15 for illuminating the mark and space LED lamps on the furnished indicator, CKJ-61. The slide back detector circuit synthesizes the mark signal with the space signal and detects resultant signal. The detected signal is fed through the code-normal and -reverse inversion gate to the USART of IC2 through for the serial-to-parallel conversion of the signal. Thus converted signal is sent by way of the data line to the CPU unit, CDC-493AD. The parallel interface IC of IC3 is provided for driving the printer, however, the NRD-535 is not equipped with any printer

output terminal and hence the software does not process the output data of the printer. The clock provides pulses of 727 Hz, 800 Hz, and 900 Hz for the baud rate, such that the frequency of 12 MHz is divided by 10 in the IC5 and further divided by 1650 for the 45.45 bauds, by 1500 for the 50 bauds, or by 1333 for the 75 bauds. The parallel interface IC switches over the clock for the baud rate as well as the center frequency of the space filter (the change over the shift width).

6.2.10 CDE-705 DISPLAY UNIT

The display unit is composed of a CPU for the processing of the switch data on the display panel, driving of the fluorescent display tube, and data communication with the CPU in the main frame, oscillator for the clock, and controls interlocked with the control knobs on the display panel.

The CPU circuit is, the same as the CPU unit in the main frame, composed of an 8-bit type CPU of IC1, which is the center of this circuit, 32 kbyte type EP-ROM of IC3 and I/O controller of IC5, IC6 and IC8. The IC5 has roles for driving the fluorescent display tube for the display, and taking in the switch data. The IC6 drives the fluorescent display tube on one hand and processes the data sent through the IC7 from the rotary encoder for the tuning dial, on the other hand. The IC8 is a USART, which performs the data communication at 4800 bps with the CPU in the CPU unit, CDC-493AD.

The IC9 is an IC for the clock, which is working and has been backed up with a power voltage of 5 V directly fed from the power supply circuit, even when the power switch is set off. The IC10 is an A/D converter, which takes in the conditions of the controls as well as the data for the S-meter. The IC11 and IC18 are IC's for driving the LED lamps on the display panel. The IC17 is an analog switch, which changes over the AF signal and the FINE TUNE voltage of the RTTY DEMO unit, CMH-530.

6.2.11 CFQ-3597 MOTHER BOARD AND CHASSIS BLOCK

The mother board is composed of connectors for the interconnection of associated units, AF power amplifier circuit of IC4, IC6 for the RS-232C, and 12 MHz-oscillator of X1 and IC8. The 12 MHz-oscillator oscillates when the mode is set for the FSK, and the RTTY DEMO unit, CMH-530, is incorporated. In addition, the mother board incorporates diodes CD5, CD6, CD7 and CD8 for the rectification of the AC power source, diode CD4 for preventing the DC power current from reversely flowing, relay K1 for the TIMER OUT, input/output connectors for the signals from the rear panel, and connectors for the connection with the panel block.

The chassis block includes the CBD-1080 AVR unit, power connectors J21 and J22 and power transformer T1. The speaker is mounted on the upper cover.

SECTION 7: ADJUSTMENT

7.1 PREPARATION

For the adjustment of the NRD-535, the measuring instruments are required, which will be described in Paragraph 7.1.2. If the required measuring instruments are not prepared, do not adjust unreasonably.

7.1.1 PRELIMINARY SETTINGS

The switches and controls on the front panel should be set to avoid erroneously operating them, as listed below. In addition, return these switches and controls to the following positions, whenever adjusting them.

LOCK switch	OFF position
RF GAIN control	Fully clockwise
NOTCH control	Fully counterclockwise
SQUELCH control	Fully counterclockwise
PBS control	Mid position
TONE control	Mid position
BWC control	Fully counterclockwise
NB switch	OFF position
ATT switch	OFF position

7.1.2 REQUIRED MEASURING INSTRUMENTS FOR THE ADJUSTMENT

DC (AC) voltmeter	Digital voltmeter
Frequency counter	10 kHz to 100 MHz
High frequency voltmeter	455 kHz to 150 MHz,
(Vacuum tube voltmeter)	0.001-3, Vrms
Level meter	600 ohms, -50 dBm to 30 dBm
Distortion meter	600 ohms, 0.5 to 30%
AF oscillator	600 ohms, -70 to 20 dBm
Signal generator	50 ohms, -20 to 126 dBμV,
	90 kHz to 150 MHz,
	with AM and FM modulations
Tracking-scope	50 ohms, 400 kHz to 100 MHz
Spectrum analyzer	50 ohms, 400 kHz to 100 MHz
Auto keyer	Capable of switching on the RF signal
	for 20 mS and off for 100 mS
Oscilloscope	Dual display type, DC to 100 MHz
Conversion transformer	4 ohms: 600 ohms, 3 watts
Headphone	ST-3, etc.
Extension circuit board	NJZ-667

7.1.3 STANDARD MEASURING CIRCUITS

(I) SENSITIVITY MEASUREMENT

Connect the measuring instruments, as shown in Fig. 7-1 below.

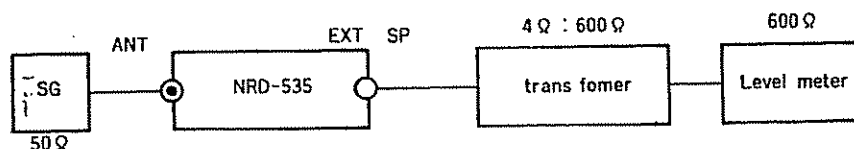


Fig. 7-1 MEASUREMENT OF SENSITIVITY

7.2 ADJUSTMENT OF UNITS

7.2.1 CBD-1080 AVR UNIT

NO.	ITEM	ADJUSTING PROCEDURE	RATING (REF. VALUE)
1	Power voltage check	① Check the voltages at test points, using the digital voltmeter (DC). ② Check the voltage between CBD-1080, P18, No. 1 and chassis (earth). ③ Check the voltage between CBD-1080, P18, No. 3 and chassis (earth). ④ Check the voltage between CBD-1080, P18, No. 6 and chassis (earth).	4.8–5.2 Vdc 8.7–9.4 Vdc 10.7–10.9 Vdc
2	10.8 Vdc adjustment	① Adjust the control RV1 of CBD-1080, if the voltage between CBD-1080, P18, No. 6 and chassis (earth) deviates in excess of the range between 10.7 and 10.9 Vdc in the above described power voltage check.	

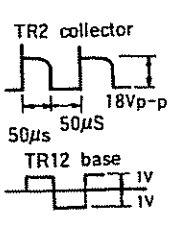
⊖ Screw-driver
(tip width of 1.5mm)

P18 CBD-1080 RV1
Hole for adjustment

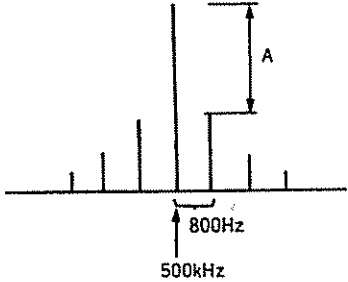
7.2.2 CDC-493AD CPU UNIT

NO.	ITEM	ADJUSTING PROCEDURE	RATING (REF. VALUE)
1	TUNE voltage adjustment	① Connect the digital voltage (DC) to TP1. ② Adjust RV2 for a voltage of 5.74 Vdc on TP1 with the receiving frequency set for 400 kHz. ③ Adjust RV1 for a voltage of 20 Vdc on TP1 with the receiving frequency set for 799.9 kHz. ④ Repeat steps ② and ③, until both conditions are satisfied.	5.72–5.76 Vdc 19.8–20.2 Vdc

7.2.3 CDE-705 DISPLAY UNIT

NO.	ITEM	ADJUSTING PROCEDURE	RATING (REF. VALUE)
1	Fluorescent display tube	<p>① Connect the oscilloscope to the collector of TR2 and check the waveform. In this check, there should be not any abnormal oscillation.</p>	 <p>TR2 collector 18Vp-p 50µs</p> <p>TR12 base 1V</p>

7.2.4 CGK-127A REF/DDS UNIT

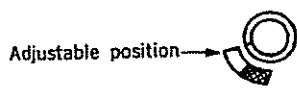
NO.	ITEM	ADJUSTING PROCEDURE	RATING (REF. VALUE)
1	DDS cancel adjustment	<p>① Connect the spectrum analyzer to TP1. Fcenter=500 kHz, Span=10 kHz and BW=100 Hz.</p> <p>② Settings: Fr=0.4501 MHz and MODE=AM.</p> <p>③ Adjust RV1 so that the side spurious response may be minimum (A may be maximum).</p> 	
2	2 MHz balance adjustment	<p>① Connect the spectrum analyzer to TP5. Fcenter=2.5 MHz, Span=5 MHz, BW=1 kHz.</p> <p>② Settings: Fr=0.4501 MHz, MODE=AM.</p> <p>③ Adjust RV3 so that the 2 MHz component may be minimum.</p>	
3	70 MHz PLL adjustment	<p>① Connect the digital voltmeter (DC) to TP8.</p> <p>② Check the voltage. In this time, the LED CD7 must be illuminating (indicating the locked state).</p> <p>③ Make sure the LED CD7 illuminates when grounding TP8 (unlocked state).</p> <p>④ Connect the vacuum tube voltmeter to TP9 and adjust T1 for a maximum output voltage.</p>	2-7 Vdc
4	Frequency measurement	<p>① Connect the frequency counter to TP9.</p> <p>② Measure the frequency of oscillation.</p>	70 MHz ± 50 Hz
5	BFO cancel adjustment	<p>① Connect the spectrum analyzer to TP6. Fcenter=455.8 kHz, Span=500 kHz, BW=1 kHz.</p> <p>② Set for MODE=CW and adjust RV2 for a minimum side spurious response.</p>	

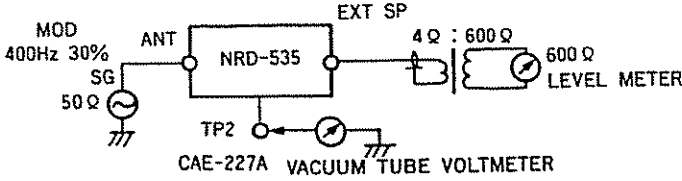
7.2.5 CGA-145 LOOP 1 UNIT

NO.	ITEM	ADJUSTING PROCEDURE	RATING (REF. VALUE)												
1	AVR adjustment	① Connect the digital voltmeter (DC) to TP4. ② Adjust RV1 for a voltage of 8.5 Vdc.	8.4-8.6 Vdc												
2	60 MHz tuning	① Connect the vacuum tube voltmeter to TP5. ② Adjust T1 for a maximum output.													
3	57 MHz tuning	① Connect the vacuum tube voltmeter to TP6. ② Adjust T2 for a maximum output.													
4	VCO adjustment	① Connect the digital voltmeter (DC) to TP1. ② Switching over the receiving frequency as tabulated below, and adjust the control voltage for VCO.													
		<table border="1"> <thead> <tr> <th data-bbox="555 824 882 880">Receiving frequency</th> <th data-bbox="882 824 1329 880">Adjusting trimmer</th> <th data-bbox="1329 824 1544 880">Control voltage</th> </tr> </thead> <tbody> <tr> <td data-bbox="555 880 882 947">9.999 MHz</td> <td data-bbox="882 880 1329 947">CV1</td> <td data-bbox="1329 880 1544 947">7.5±0.1 Vdc</td> </tr> <tr> <td data-bbox="555 947 882 1014">19.999 MHz</td> <td data-bbox="882 947 1329 1014">CV2</td> <td data-bbox="1329 947 1544 1014">7.5±0.1 Vdc</td> </tr> <tr> <td data-bbox="555 1014 882 1070">29.999 MHz</td> <td data-bbox="882 1014 1329 1070">CV3</td> <td data-bbox="1329 1014 1544 1070">7.5±0.1 Vdc</td> </tr> </tbody> </table>	Receiving frequency	Adjusting trimmer	Control voltage	9.999 MHz	CV1	7.5±0.1 Vdc	19.999 MHz	CV2	7.5±0.1 Vdc	29.999 MHz	CV3	7.5±0.1 Vdc	
Receiving frequency	Adjusting trimmer	Control voltage													
9.999 MHz	CV1	7.5±0.1 Vdc													
19.999 MHz	CV2	7.5±0.1 Vdc													
29.999 MHz	CV3	7.5±0.1 Vdc													
5	Operating levels check at check points	③ Make sure the lock out does not take place at the receiving frequency ranging from 100 kHz to 29.999 MHz. ④ Make sure the LED CD11 illuminates in the unlocked state such as the change-over of the frequency. However, it should turn off immediately. ① Check the operating levels, using the vacuum tube voltmeter.	LED CD11 turns off.												
		<table border="1"> <tbody> <tr> <td data-bbox="1098 1361 1337 1417">IC5, Pin 11</td> <td data-bbox="1337 1361 1544 1417">0.1 Vrms or more</td> </tr> <tr> <td data-bbox="1098 1417 1337 1485">TP3</td> <td data-bbox="1337 1417 1544 1485">0.12 Vrms or more</td> </tr> </tbody> </table>	IC5, Pin 11	0.1 Vrms or more	TP3	0.12 Vrms or more									
IC5, Pin 11	0.1 Vrms or more														
TP3	0.12 Vrms or more														

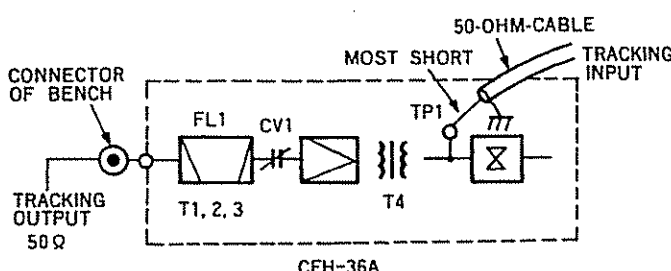
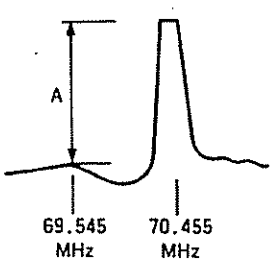
7.2.6 CAE-227A IF AMP UNIT

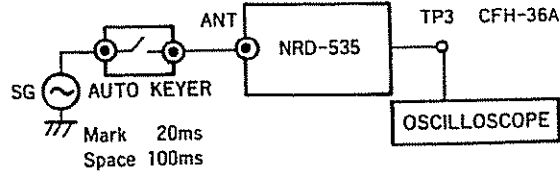
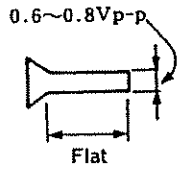
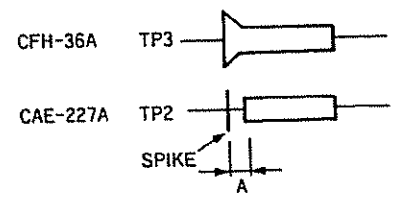
NO.	ITEM	ADJUSTING PROCEDURE	RATING (REF. VALUE)
1	NOTCH frequency adjustment	① Connect the frequency counter and vacuum tube voltmeter to TP4. ② Set the NOTCH control on the front panel to mid position. ③ Adjust RV2 for a frequency of 357 kHz.	
2	IF AMP tuning	① Control settings: RF GAIN: Fully clockwise NOTCH: Fully counterclockwise AGC: OFF MODE: AM NOTCH: OFF (LED CD4 turns off) BANDWIDTH: INTER ATT: OFF ② Connect the vacuum tube voltmeter to TP2. ③ Connect the signal generator (50 ohms, CW, 7.1 MHz, 5 dB μ) to the ANT connector on the rear panel. ④ Set the receiving frequency to 7.1 MHz. ⑤ Adjust T1, T2, T3 and T5 for a maximum output voltage.	
3	Notch ON-OFF adjustment	① Adjust RV3 so that the LED CD4 may be turns off when the NOTCH control is set to OFF position and illuminated when set to the ON position.	
4	Notch adjustment	① Connect the same measuring instruments as the above described IF AMP tuning and set in the same receiving conditions as in the IF AMP tuning. ② Set the signal generator for an output level of 40 dB μ . ③ Adjust the RF GAIN control for a reading of 10 mVrms on the vacuum tube voltmeter. ④ Adjust the AF GAIN control for a reading (of the AF output) of 20 dBm on the level meter. ⑤ Set the NOTCH control to the mid position. ⑥ Adjust T4 and RV1 for a minimum reading on the level meter.	



NO.	ITEM	ADJUSTING PROCEDURE	RATING (REF. VALUE)						
5	AGC adjustment	<p>① Control settings: Receiving frequency: 7.1 MHz MODE: AM BANDWIDTH: INTER AGC: ON NOTCH: OFF ATT: OFF</p> <p>② Connect the measuring instruments as shown below.</p>  <p>③ Set the signal generator for an output level of 100 dBμ. ④ Adjust RV4 for a reading of 10 mVrms on the vacuum tube voltmeter. ⑤ Set the MODE to LSB and in the same manner and measure the level on TP2.</p> <p>NOTE: Adjustable resistor: R95</p>	9-11 mVrms						
6	S-meter adjustment	<p>① Set for the condition to measure the sensitivity.</p> <p>② Control settings: Receiving frequency: 7.1 MHz AGC: ON ATT: OFF MODE: LSB BANDWIDTH: INTER</p> <p>③ Set the signal generator for a frequency of 7.1 MHz and a level of 40 dBμ, CW. ④ Adjust RV5 for a reading of S9 on the S-meter.</p>							
7	Detector circuit carrier level	<p>① Connect and set the measuring instruments in the same receiving conditions as in the AGC adjustment described above. Set the signal generator for a level of 40 dBμ.</p> <p>② When setting the MODE to AM and LSB, and check the voltage on TP3.</p> <p>NOTE: Adjustable resistors: AM: R90 LSB: R67</p> <table border="1" data-bbox="1093 1659 1549 1816"> <thead> <tr> <th>MODE</th> <th>VOLTAGE ON TP3</th> </tr> </thead> <tbody> <tr> <td>AM</td> <td>0.1-0.15 Vrms</td> </tr> <tr> <td>LSB</td> <td>0.04-0.06 Vrms</td> </tr> </tbody> </table>	MODE	VOLTAGE ON TP3	AM	0.1-0.15 Vrms	LSB	0.04-0.06 Vrms	
MODE	VOLTAGE ON TP3								
AM	0.1-0.15 Vrms								
LSB	0.04-0.06 Vrms								

7.2.7 CFH-36A IF FILTER UNIT

NO.	ITEM	ADJUSTING PROCEDURE	RATING (REF. VALUE)
1	70.455 MHz MCF adjustment (single unit adjustment)	<p>NOTE: This adjustment have need of an exclusive test bench (not for sale) and hence do not adjust unreasonably.</p> <p>① Connect the tracking-scope as shown below.</p>  <p>② Adjust CV1 and T4 for a maximum output at point of 70.455 MHz.</p> <p>③ Adjust T1, T2 and T3 so that the 6 dB-bandwidth may exceed a range of ± 7.5 kHz. Adjust T1 and T2 so that the response may be flat within the pass band. Adjust T3 for desired bandwidth.</p> <p>④ Adjust T1 and T2 for an attenuation of 70 dB or more at 69.545 MHz.</p>  <p>⑤ Repeat steps ②, ③ and ④ until the specifications are satisfied.</p>	A=70 dB or more
2	Second mixer injection level	<p>① Connect the vacuum tube voltmeter to TP2 and adjust T8 for a maximum reading on the voltmeter.</p>	

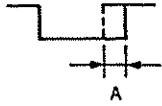
NO.	ITEM	ADJUSTING PROCEDURE	RATING (REF. VALUE)
3	Signal tuning	① Set for 7.1 MHz and SSB sensitivity measuring conditions: AGC: OFF ② Connect the vacuum tube voltmeter to TP2 of the CAE-227A IF AMP unit. ③ Set the signal generator for a level of 5 dB μ and adjust T4 through T7 for a maximum reading on the vacuum tube voltmeter.	
4	Noise blanker adjustment	① Set for 7.1 MHz and AF sensitivity measuring conditions: SG: 10 dB μ , CW. ② Connect the auto keyer and oscilloscope as shown below. <div style="text-align: center; margin: 10px 0;">  </div> ③ Set the NB-1 to ON and the NB control for a maximum level (fully clockwise position). ④ Set the auto keyer for mark hold. ⑤ Adjust T9, T10 and T11 for a maximum output on TP3. If difficult to take the maximum point, adjust the NB level or SG level. ⑥ Operate the auto keyer. ⑦ Varying the output level of SG from 10 to 100 dB μ and check the waveform on TP3. ⑧ Rotate RV1 fully clockwise (maximum position) <div style="text-align: right; margin-top: 20px;">  </div> ⑨ Set the oscilloscope for dual display mode and connect the channel 1 to TP3 of CFH-36A and the channel 2 to TP2 of CAE-227A. ⑩ Operate the auto keyer and adjust RV2 of CFH-36A so that the spike level of the waveform on TP2 of CAE-227A may be minimum. <div style="text-align: center; margin-top: 20px;">  </div> ⑪ Make sure the above described width A enlarges when the NB switch is set to the NB-2 position.	
	Noise AMP tuning		
	Noise AMP AGC		
	Sensitivity adjustment		
	Balance adjustment		
	NB-2		

7.2.8 CFL-287 RF TUNE UNIT

NO.	ITEM	ADJUSTING PROCEDURE			RATING (REF. VALUE)		
1	TUNE adjustment	① Connect the output of the tracking-scope to ANT and the input of the tracking-scope to TP1. ② Adjust the tuning controls as tabulated below.					
		TUNING	RECEIVING FREQUENCY	CONTROL	300 kHz std. attenuation 400 kHz 3 dB or less 600 kHz 30 dB or more		
		400 kHz LPF				0.4 MHz or less	
		0.4-1.6 MHz	SUB 0.8-1.599 MHz	0.8 MHz 1.599 MHz	T9, 10 —	TUNE deviation 3 dB or less	
			MAIN 0.4-0.799 MHz	0.799 MHz 0.4 MHz	CV5, 6 —		
		1.6-4.4 MHz	SUB 2.65-4.399 MHz	2.65 MHz 4.399 MHz	T7, 8 —		
			MAIN 1.6-2.649 MHz	2.649 MHz 1.6 MHz	CV3, 4 —		
		4.4-12.3 MHz	SUB 7.4-12.299 MHz	7.4 MHz 12.299 MHz	T5, 6 —		
			MAIN 4.4-7.399 MHz	7.399 MHz 4.4 MHz	CV1, 2 —		
		12.3-20.5 MHz		12.3 MHz 20.499 MHz	T3, 4 —		
		20.5-30 MHz		20.5 MHz 29.999 MHz	T1, 2 —		
		Example: SUB 0.8-1.599 MHz (1) Set for a receiving frequency of 0.8 MHz. (2) Adjust T9 and T10 for a tuning frequency of 0.8 MHz. (3) Check if the receiver is tuned at 1.599 MHz when setting for a receiving frequency of 1.599 MHz. In this step, if the TUNE deviation takes place, return to step ② to readjust for equalizing the TUNE deviation.					

NO.	ITEM	ADJUSTING PROCEDURE	RATING (REF. VALUE)
2	1st mixer injection level	① Set RV1 to mid position. ② Connect the vacuum tube voltmeter to TP2. ③ Switch the receiving frequency over the range from 100 kHz to 29.999 MHz in steps of 1 MHz and check the level.	0.5 Vrms or more
3	Signal tuning	① Set for 7.1 MHz and SSB sensitivity measuring condition: AGC: OFF ② Connect the vacuum tube voltmeter to TP2 of CAE-227A. ③ Set the SG for a level of 5 dB μ and adjust T12 for a maximum reading on the voltmeter.	
4	1st mixer balance	① Set for a receiving frequency of 100 kHz and the MODE to CW. ② Adjust RV1 for a minimum spurious beat.	

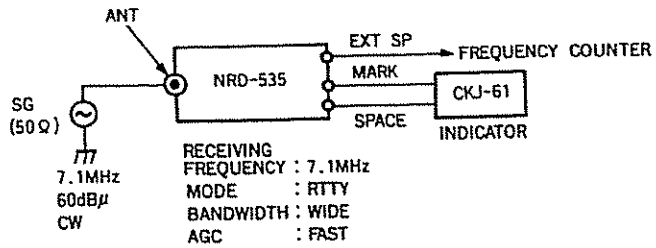
7.2.9 CFL-243W BWC UNIT

NO.	ITEM	ADJUSTING PROCEDURE	RATING (REF. VALUE)	
1	20 MHz level	<ol style="list-style-type: none"> ① Fully counterclockwise rotate the BWC control on the front panel of NRD-535. ② Check the level on TP5, using the oscilloscope. 	2 Vp-p or more	
2	DDS cancel	<ol style="list-style-type: none"> ① Connect the oscilloscope to TP6 and adjust RV1 so that the jitter A of the waveform shown in the right diagram may be minimum. <p>Connect the oscilloscope to TP7 and adjust RV2 in the same manner.</p>		
3	Local level and frequency	<ol style="list-style-type: none"> ① Check the levels on TP2 and TP3, using the vacuum tube voltmeter. ② Check the frequencies on TP2 and TP3, using the frequency counter. 	0.1 Vrms or more	
		BWC control fully counterclockwise		
		TP2		855 kHz
		TP3		855 kHz

7.2.10 CMF-78 ECSS UNIT

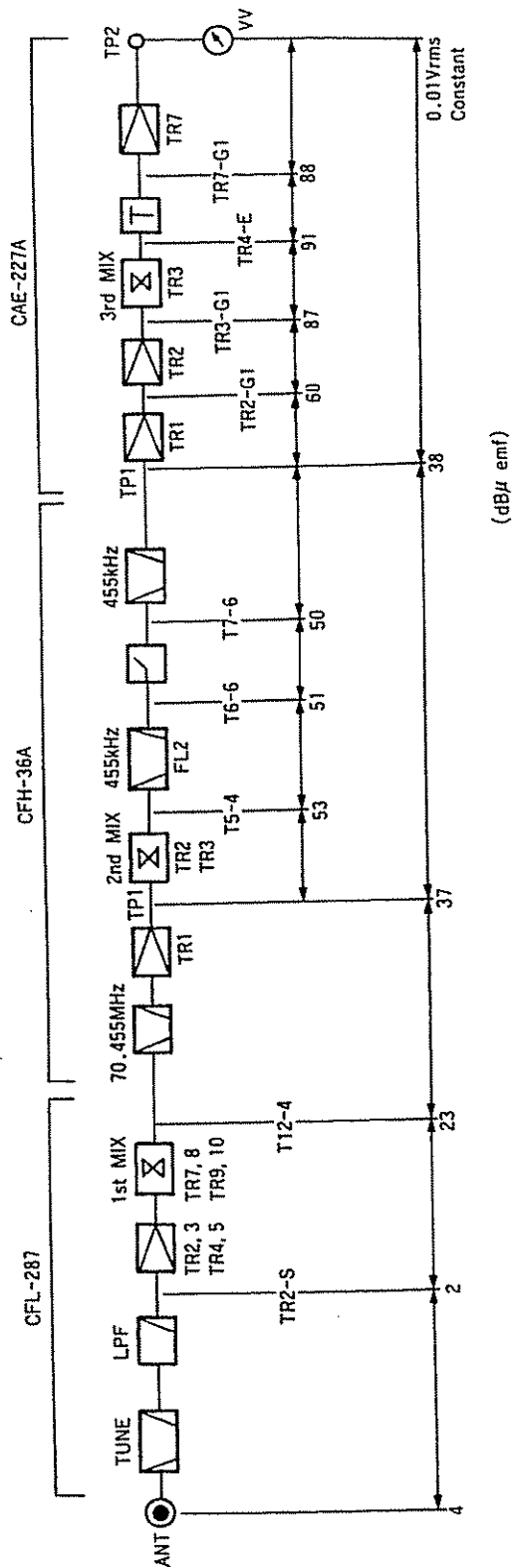
NO.	ITEM	ADJUSTING PROCEDURE	RATING (REF. VALUE)
1	VCO adjustment	<ol style="list-style-type: none"> ① Set the receiving frequency to 7.1 MHz and the mode to AM. ② Connect the signal generator to the antenna and set for a frequency of 7.1 MHz and output level of 40 dBμ. ③ Connect the digital voltmeter to TP4 of CMF-78. ④ Set the ECSS to ON and adjust RV1 for a voltage of 4.5 V on TP4. 	4.3-4.7 Vdc

7.2.11 CMH-530 RTTY DEMO UNIT

NO.	ITEM	ADJUSTING PROCEDURE	RATING (REF. VALUE)									
1	Filter adjustment	<p>① Connect the signal generator, frequency counter, and CKJ-61 indicator as shown below.</p>  <p>RECEIVING FREQUENCY: 7.1 MHz MODE: RTTY BANDWIDTH: WIDE AGC: FAST</p> <p>② Rotate RV2 and RV3 fully clockwise.</p> <p>③ Connect the channel 1 of the oscilloscope to TP4 and the channel 2 to TP5.</p> <p>④ Finely adjust the signal generator frequency or the receiving frequency so that the output frequency of the EXT SP may be 2295 Hz.</p> <p>⑤ Adjust RV4 for a maximum output level on TP4. In this time, the output level is saturated, and hence clockwise rotate RV1, until the output level is not saturated.</p> <p>⑥ Set for a shift width of 170 Hz (± 85 Hz).</p> <p>⑦ Finely adjust the signal generator frequency or the receiving frequency so that the output frequency of the EXT SP may be 2125 Hz.</p> <p>⑧ Adjust RV5 for a maximum output level on TP5.</p> <p>⑨ Adjust the space filters for 1895 Hz and 1445 Hz in the same manner as steps ⑥ through ⑧.</p> <table border="1" data-bbox="494 1478 1292 1646"> <thead> <tr> <th>SPACE FILTER</th> <th>SHIFT WIDTH</th> <th>CONTROL</th> </tr> </thead> <tbody> <tr> <td>1895 Hz</td> <td>400 Hz</td> <td>RV6</td> </tr> <tr> <td>1445 Hz</td> <td>850 Hz</td> <td>RV7</td> </tr> </tbody> </table>	SPACE FILTER	SHIFT WIDTH	CONTROL	1895 Hz	400 Hz	RV6	1445 Hz	850 Hz	RV7	
SPACE FILTER	SHIFT WIDTH	CONTROL										
1895 Hz	400 Hz	RV6										
1445 Hz	850 Hz	RV7										
2	Output level adjustment	<p>① Set for a shift width of 425 Hz (± 212.5 Hz).</p> <p>② Finely adjust the signal generator frequency or the receiving frequency so that the output frequency of the EXT SP may be 2295 Hz or 1895 Hz.</p> <p>③ Adjust RV2 or RV3 so that the output levels on TP4 and TP5 may be equal.</p> <p>④ Adjust RV1 so that the output levels on TP4 and TP5 may be equal to 8 Vp-p.</p>										

7.3 LEVEL DIAGRAM

Fr = 7.1MHz
 MODE : LSB
 AGC : OFF



SECTION 8: TROUBLESHOOTING

8.1 OUTLINE OF TROUBLESHOOTING

The trouble of the receiver includes only those caused by the failures of the receiver itself but also those caused by the misunderstandings in view of the operation as well as the causes originating from other than the receiver, which results may appear on the receiver. It is, hence, essential to calmly investigate which causes the trouble between a failure of the receiver itself and any external problem.

In this section, the procedure is given for finding possible troubles of the receiver itself. Once the trouble is located, replace associated unit involving the location of the trouble, or procure new parts according to the Section 10 Parts List and replace them.

8.1.1 CHECK OF POWER CIRCUIT

Upon the investigation of the trouble in the receiver, the voltages of the power supply should be checked at first.

The power supply unit CBD-1080 locates at the rear panel of the main frame. The power voltages of 10.8 V, 9 V and 5 Vdc of this unit should be checked. If any abnormal condition is found, pull off all the plug-in units. In addition, pull off all the connectors on the panel block, except the connector P39. If the abnormal condition still exists in the power supply unit this time, then it may conclude that the power supply unit is defective. If, however, the voltage of 10.8 V can be adjusted again, adjust it and verify the operation.

In the case of the 5 V being abnormal, make sure there is no failure in the panel block, since this power voltage is supplied to the panel block through the connector P37. If each power voltage is not abnormal, when the plug-in units are disconnected, then return the units to the original places one after another, whereby any defective unit is found. If the substitute units are presented at hand, replace them and make sure they operate normally. For any defective unit, if any, check at first whether or not any short circuit exists in the power supply and parts due to the solder bridge or impurities. In addition, for the C-MOS IC's or the like, check whether or not they have heated abnormally. This is the measure for the check.

If any defective parts is found, replace them with new parts and check the operation.

8.1.2 RECEIVER SENSITIVITY POOR

The case where the sensitivity lowers will be described below.

If there are the substitutive units at hand, then try to replace the RF TUNE unit, CFL-287, at first. Successively, try to replace the IF FILTER unit, CFH-36A, IF AMP unit, CAE-227A, and CPU unit, CDC-493AD in this order, and find any defective unit. If the sensitivity still

remains poor after replacing all these units, then check the mother board, CFQ-3597, which connects associated units to the antenna.

In the case of no substitutive unit, you must find which unit is defective. The procedure for finding this will be described below.

Check whether the sensitivity is poor in all the bands (for the bands, refer to the description of the operation in the receiver block) or in a specific band only. The checking method is as follows: If the signal generator or the like is present at your hand, measure the sensitivity at each band and compare the measured value with specified value. If the signal generator or the like is not obtainable, try to receive the broadcast wave in each band, then operate the controls to pass the received signal through the tuning circuit at one hand and take the pass operation to pass the signal through the bypass filter of 1.6 MHz on the other hand. Thus, determine in which band the sensitivity is poor, based on the difference of the sensitivity between both operations.

(1) Sensitivity poor at specified band

In the case where the sensitivity is poor at specific band, the following three points are considerable for a defective part.

a) Band change-over of the tuning circuit

Some parts may be defective. Check IC1 and CD5 through CD10 in the CFL-287 unit and IC6 in the CDC-493AD unit.

b) Tuning circuit

Some parts may be defective and poor adjustment is possible. At first adjust again according to the adjusting procedure. If this readjustment is not effective, some parts may be defective. Check the tuning transformers in the CFL-287 unit as well as the trimmer capacitors and SUB band change-over relay.

c) Tuning voltage generator circuit

Some parts may be defective and poor adjustment is possible. At first adjust again according to the adjusting procedure. If this readjustment is not effective, some parts may be defective. Check the tuning voltage generator circuit in the CDC-493AD unit.

(2) Sensitivity in all the bands

In the case where the sensitivity is poor over all bands, a defective circuit will be found by checking the levels at some points on the route of the received signal. To do the checks, the levels at the check points are measured, with referring to the level diagrams in Paragraph 7.3. Search the circuits for a point, where the measured value is greatly different from the standard value on the

level diagram. It is noted that the standard values on the level diagram are somewhat different from the measured values.

If the defective circuit involves some adjustable points, readjust them according to the adjusting procedure. If this readjustment is not effective, some parts may be defective. Check possible parts belonging to the defective circuit.

8.1.3 NO SOUND FROM SPEAKER

As for the case where no sound is produced at all from the speaker, the procedure for locating a defective circuit will be described below.

At first, check whether the connecting line of the speaker is broken or not and whether the MUTE terminal on the rear panel is used or not.

Next, make sure the PLL loop in the synthesizer block is not locked out. The lock out state can be checked with the UNLOCK LED of CD10 in the CGA-145 unit and the UNLOCK LED of CD8 in the CGK-127A unit.

If the synthesizer block is operation normally, then check the squelch circuit. Try to rotate the SQUELCH control on the front panel and see the SQUELCH LED on the front panel. If this LED remains illuminated, the squelch circuit may be defective. The squelch circuit actuates different circuits between when the FM mode is selected and when other mode is selected, as explained in the Description of Operation. If, accordingly, the squelch circuit is abnormal, irrespective of the mode, then check IC9, IC10 and IC11 in the CAE-227A unit as well as the SQUELCH control RV5 on the front panel. If abnormal with the FM mode only, then check the FM detector circuit, above all, IC8 in the CAE-227A. If abnormal with other mode than the FM mode, then check the AGC circuit in the CAE-227A.

8.1.4 THE OPERATION NOT POSSIBLE

In the case where a failure exists in the control system, i.e., the control block and the panel block, the NRD-535 may be no more operable. The control block and the panel block in the NRD-535 incorporates their respective microcomputers. If the microcomputer faults or its peripheral IC is defective, the operation of the receiver may be also not possible. By the way, to search the control system for either defective microcomputer or any defective IC, you must be familiar with the basic performance of each IC and as well as in what way the IC is used from the viewpoint of the constitution of the circuit, and then check the IC's one after another.

In this paragraph, for occurred troubles, only clearly considerable causes will be described below.

a) No display with power-on

Is the power circuit for the fluorescent display tube normally operating? Check the choke coil L1, transformer T1 and transistors TR1 and TR2 with respect to the damage or the like. Is the

heater for the fluorescent display tube not broken? Visually check the heater.

b) No operation with the switch pressed; the display satisfactory

If one switch does not operate, check the switch itself. If several switches become defective at once, check IC5 and IC6 in the CDE-705 unit.

c) The receiving frequency not changeable by rotating the tuning dial; the key switches satisfactory

Check PG1 and IC7 in the CDE-705 unit.

d) PBS or BWC not operative

If the PBS or BWC is not operative, check the PBS control RV1 or the BWC control RV2 in the CDE-705 unit, respectively.

e) The internal clock deviating

If the time deviation of the internal clock is great, then connect the frequency counter to TP1 of the CDE-705 DISPLAY unit and adjust the trimmer capacitor CV1 so that the frequency of oscillation may be 64 Hz.

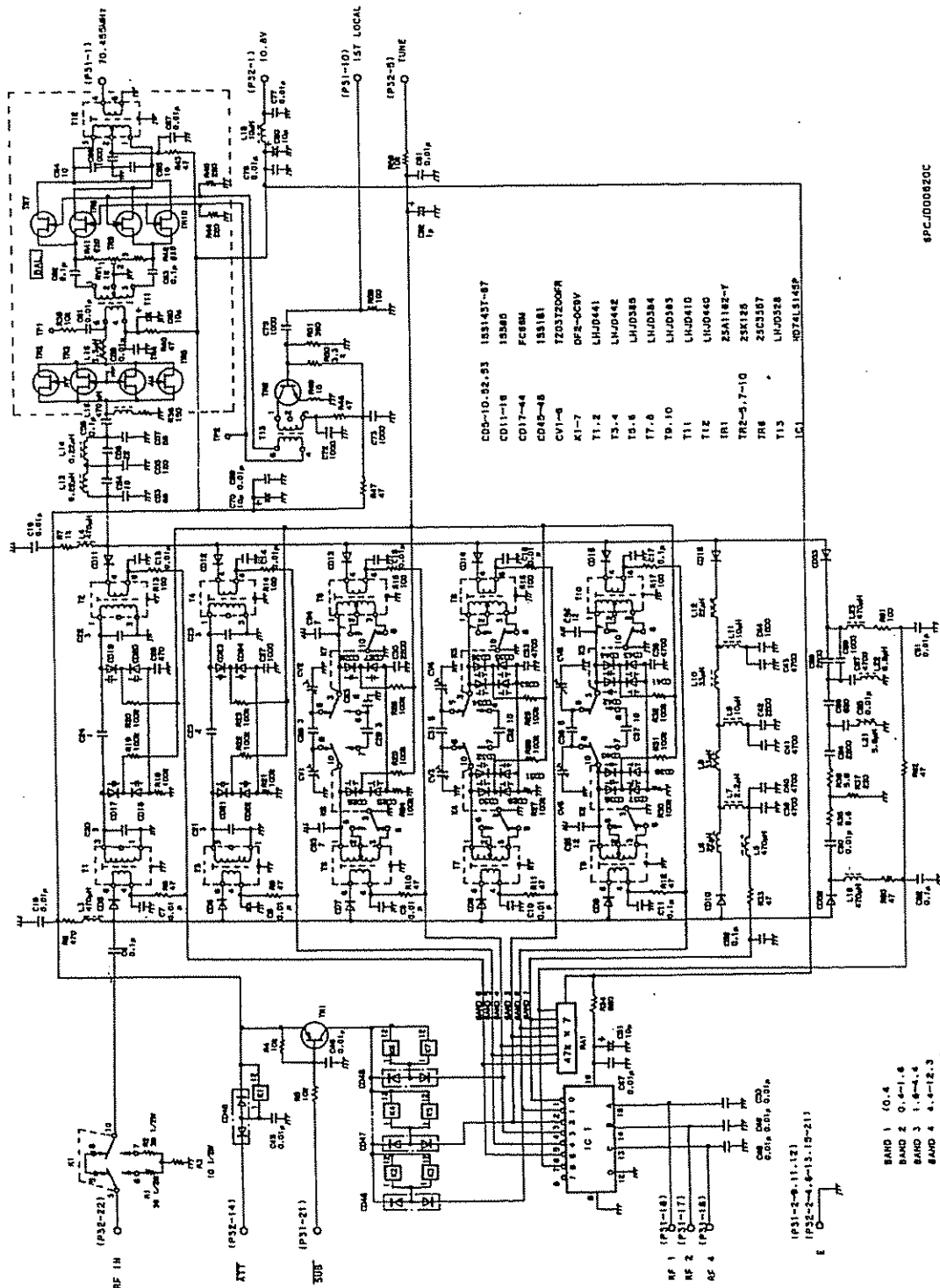
8.1.5 NOTCH NOT TURNING OFF

In the case where the NOTCH circuit remains operating even when the NOTCH control is set to OFF, readjust according to No. 3 for the CAE-227A IF AMP unit in Paragraph 7.2.6.

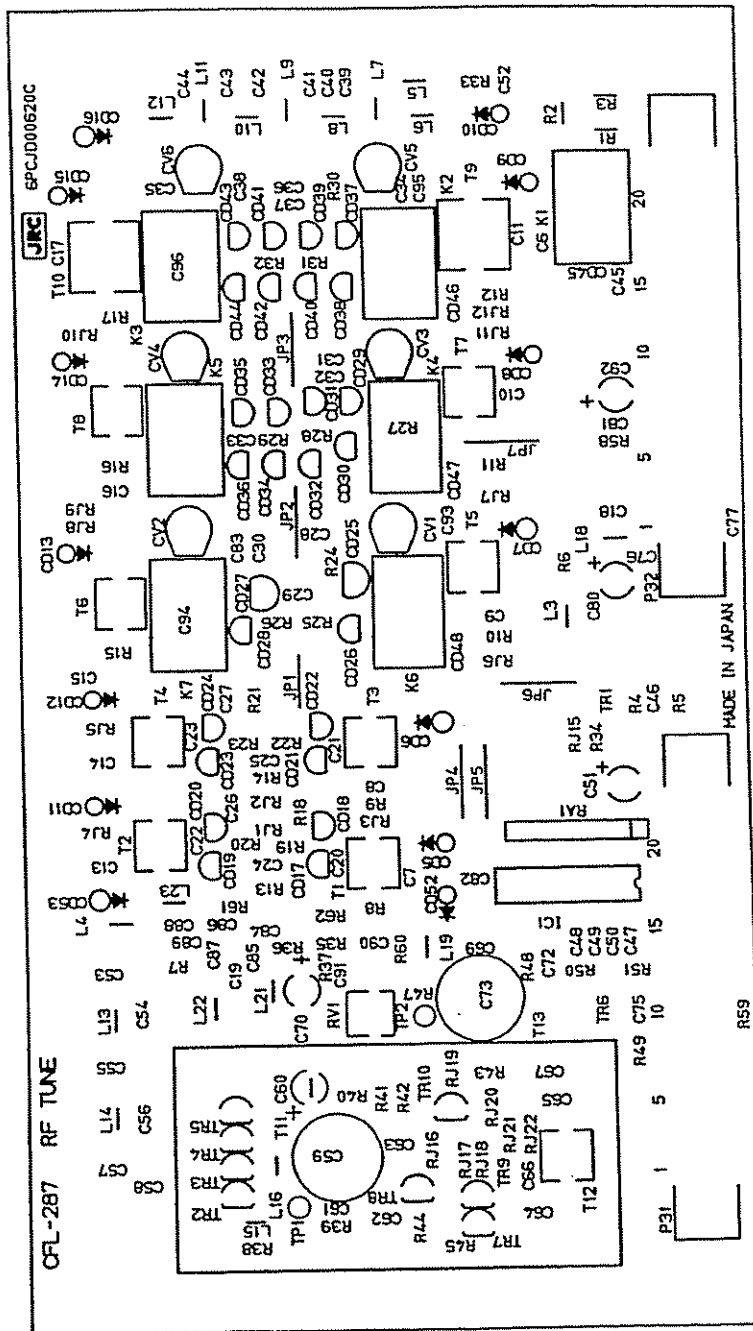
SECTION 9: CIRCUIT DIAGRAM AND COMPONENT LAYOUT

1. CFL-287	RF TUNE UNIT	32
2. CFH-36A	IF FILTER UNIT	34
3. CFL-243W	BWC UNIT	36
4. CAE-227A	IF AMP UNIT	38
5. CMF-78	ECSS UNIT	40
6. CGA-145	LOOP1 UNIT	42
7. CGK-127A	REF/DDS UNIT	44
8. CDC-493AD	CPU UNIT	46
9. CMH-530	RTTY DEMO UNIT	48
10. CDE-705	DISPLAY UNIT	50
11. NRD-535	CHASSIS	52

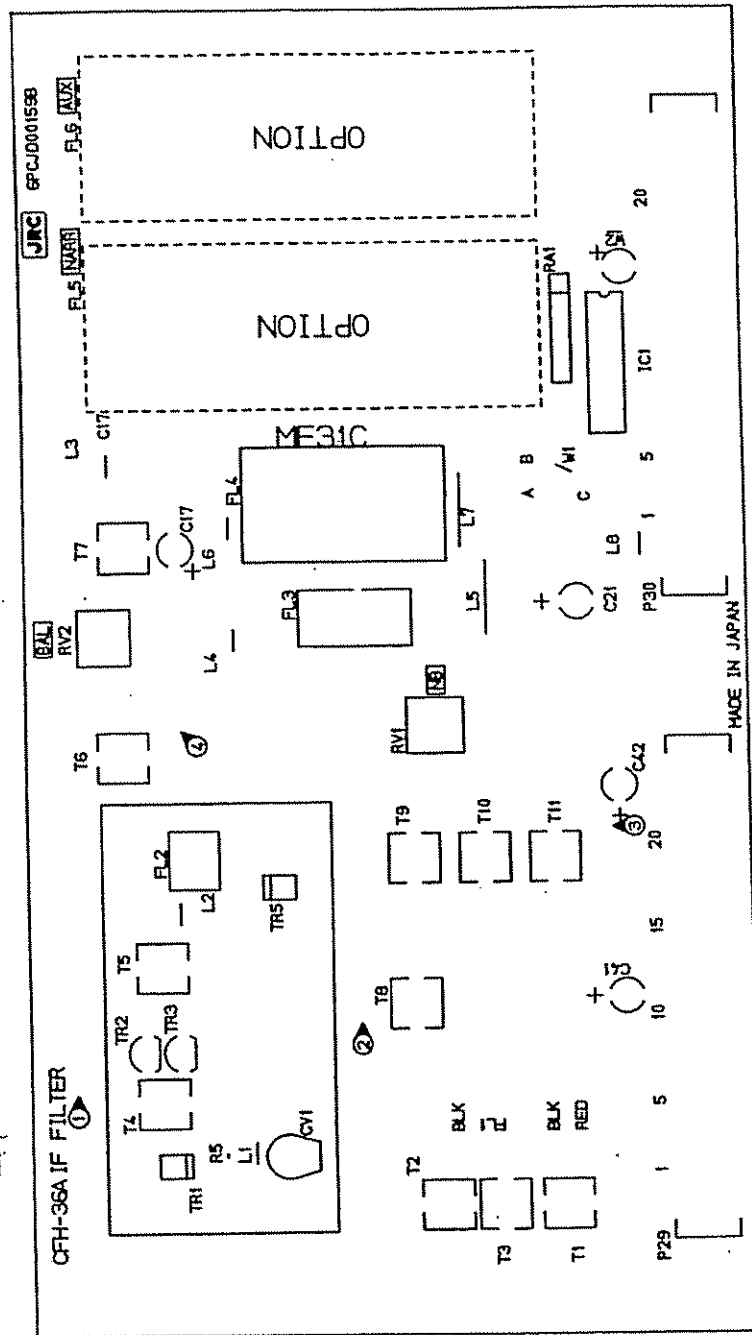
CFL-287 RF TUNE UNIT

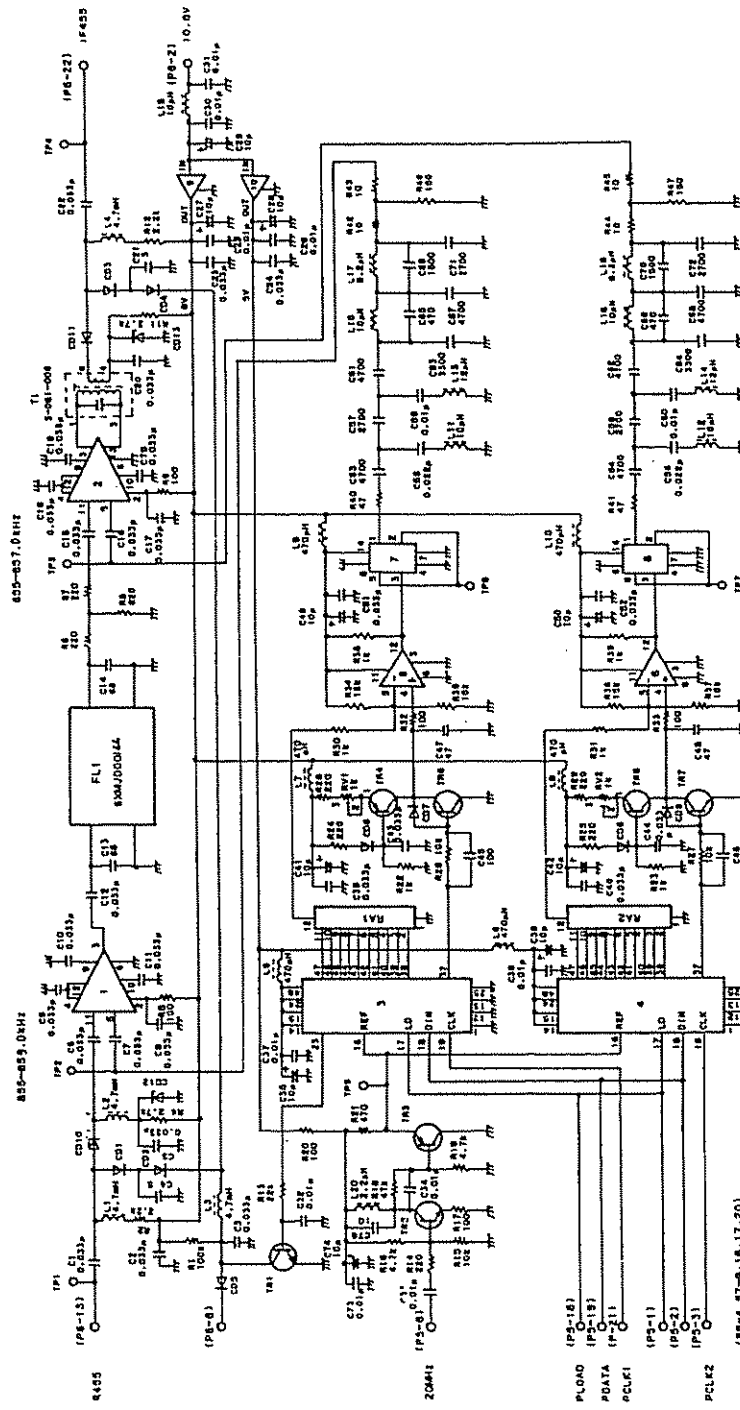


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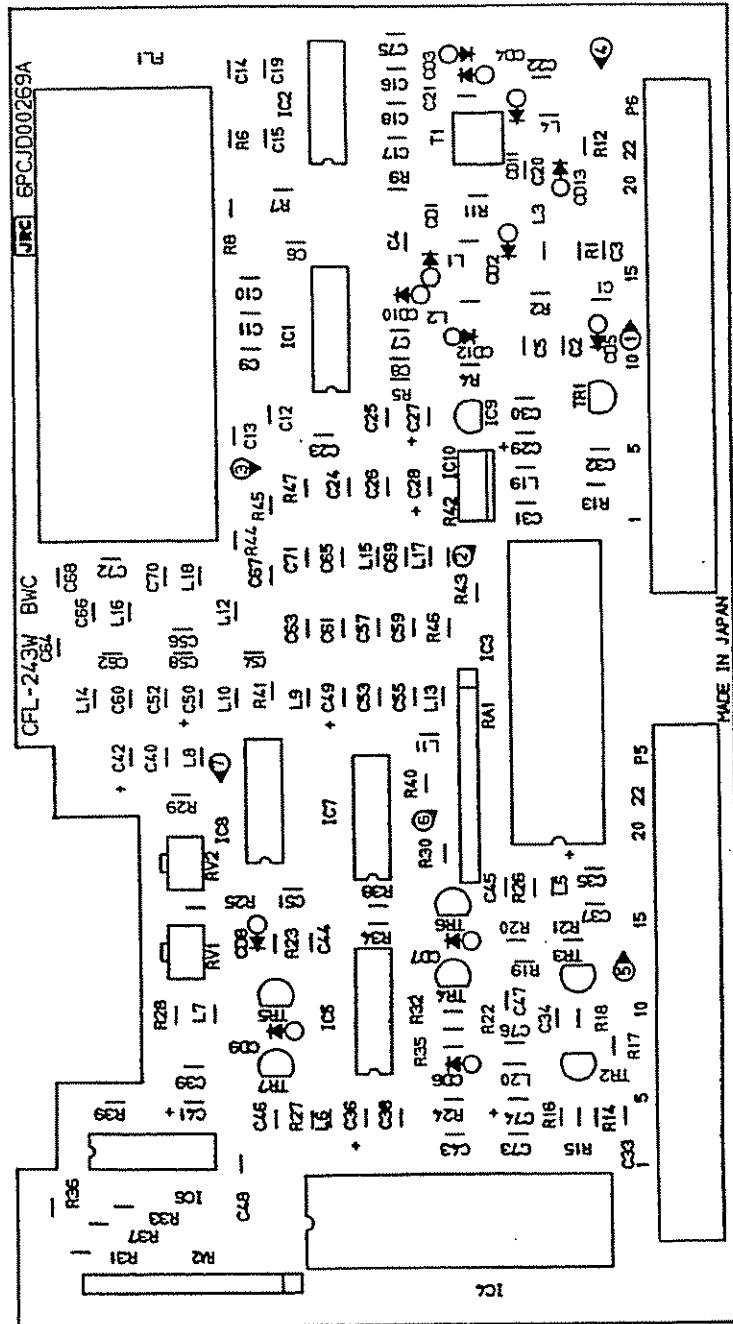
CFH-36A IF FILTER UNIT



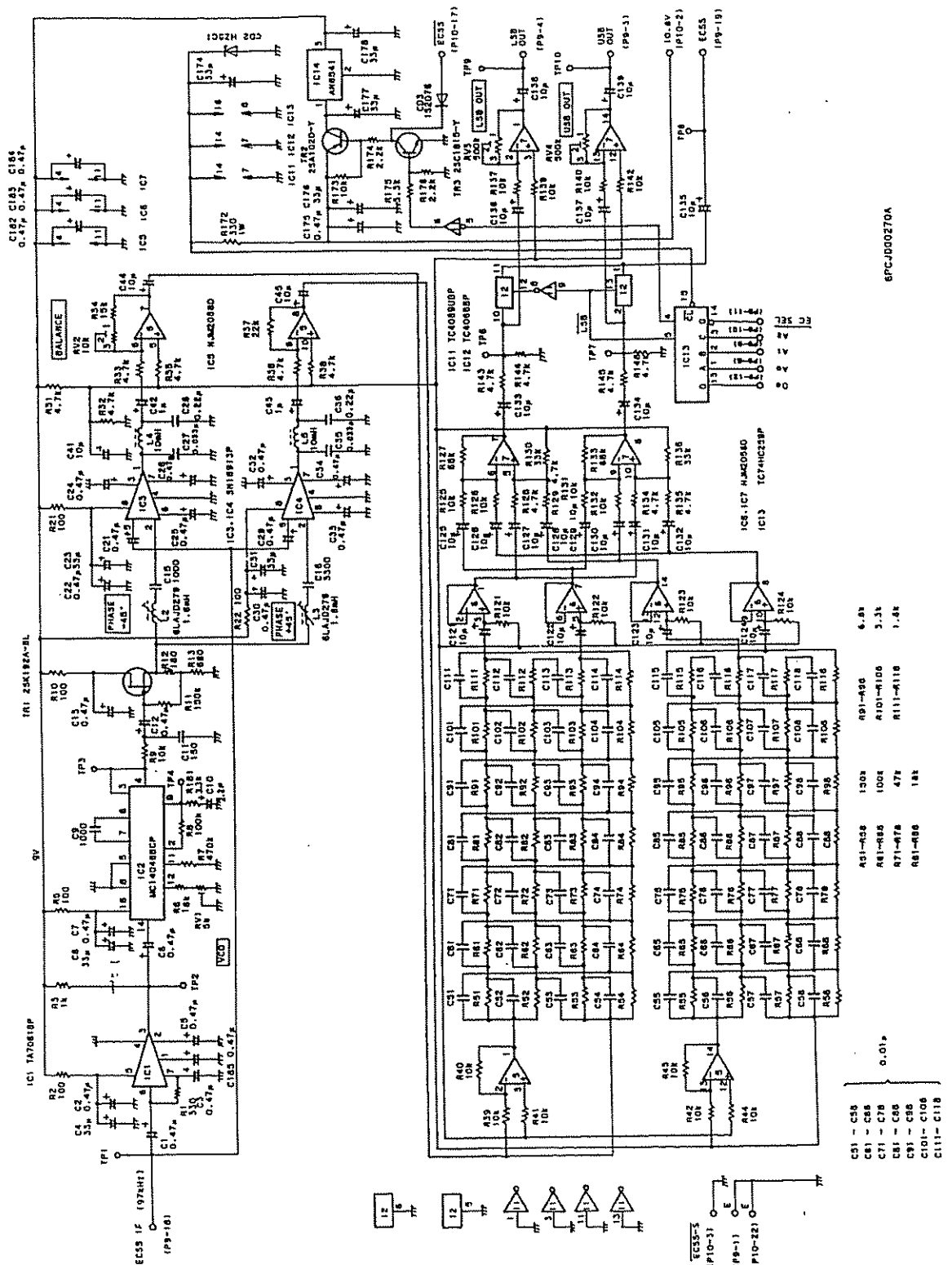


- IC1-2 SN74914N
- IC3-4 MC5718GP
- IC5-6 NJM4518D
- IC7-8 TC40139AP
- IC9 H4JFALORA
- IC10 TAT8005AP
- IC1-11 152078
- IC12-13 NE5C1
- TR1 25C1812Y
- TR2-6,7 25C1823Y
- TR3-5 25A1012Y
- RA1-2 208-12Z-MES

8PCJ00289A



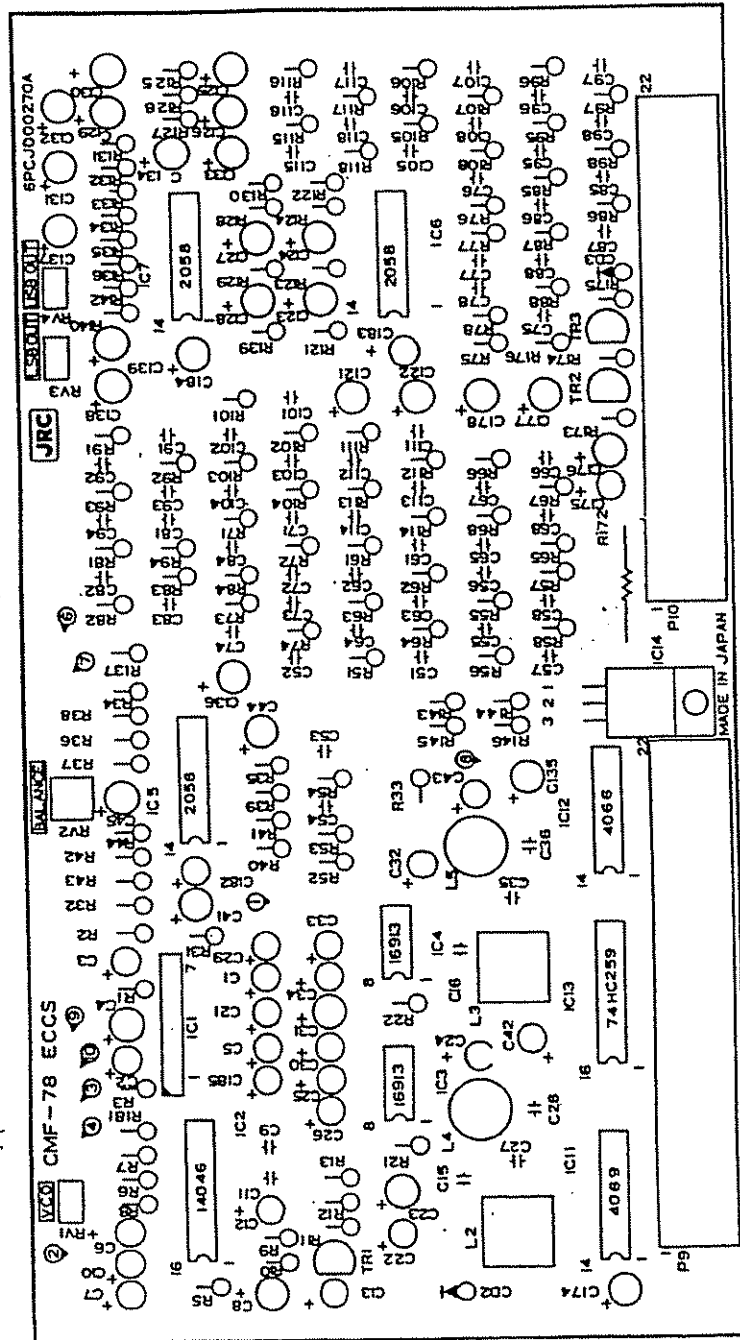
CMF-78 ECSS UNIT (OPTION)

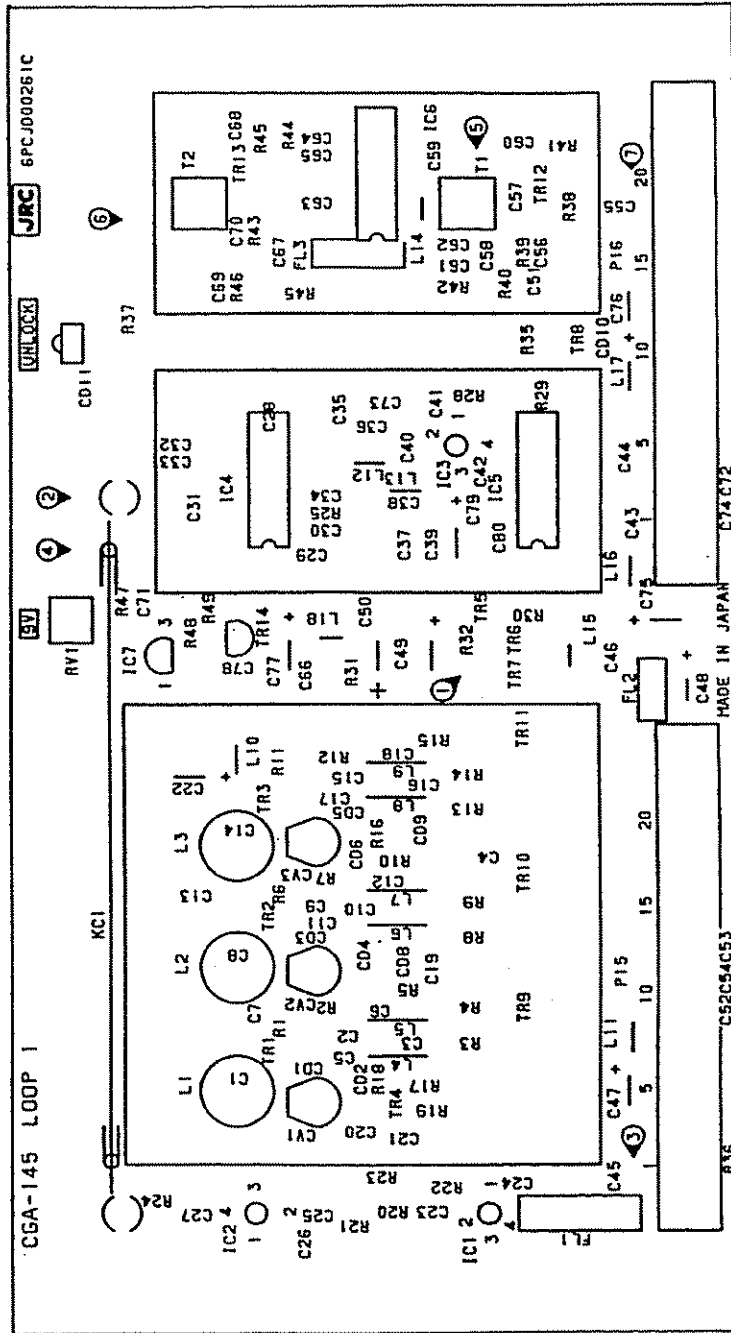


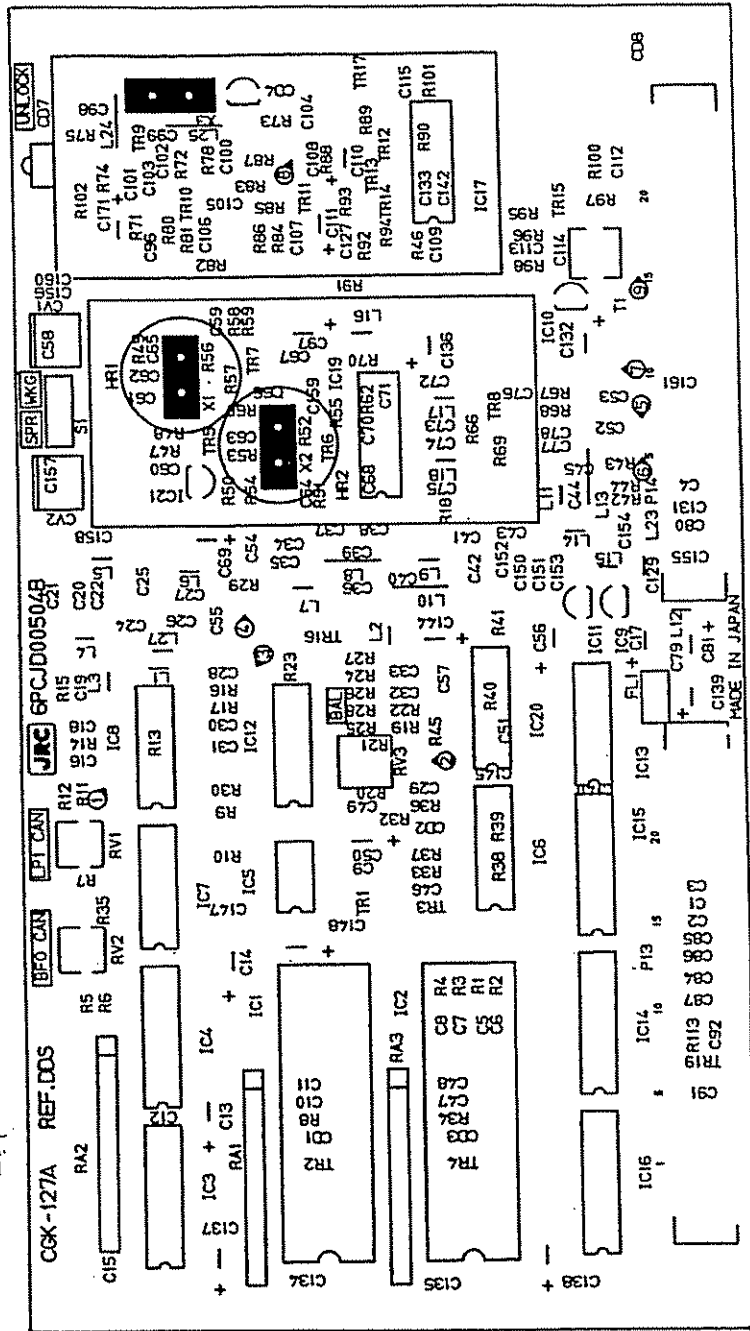
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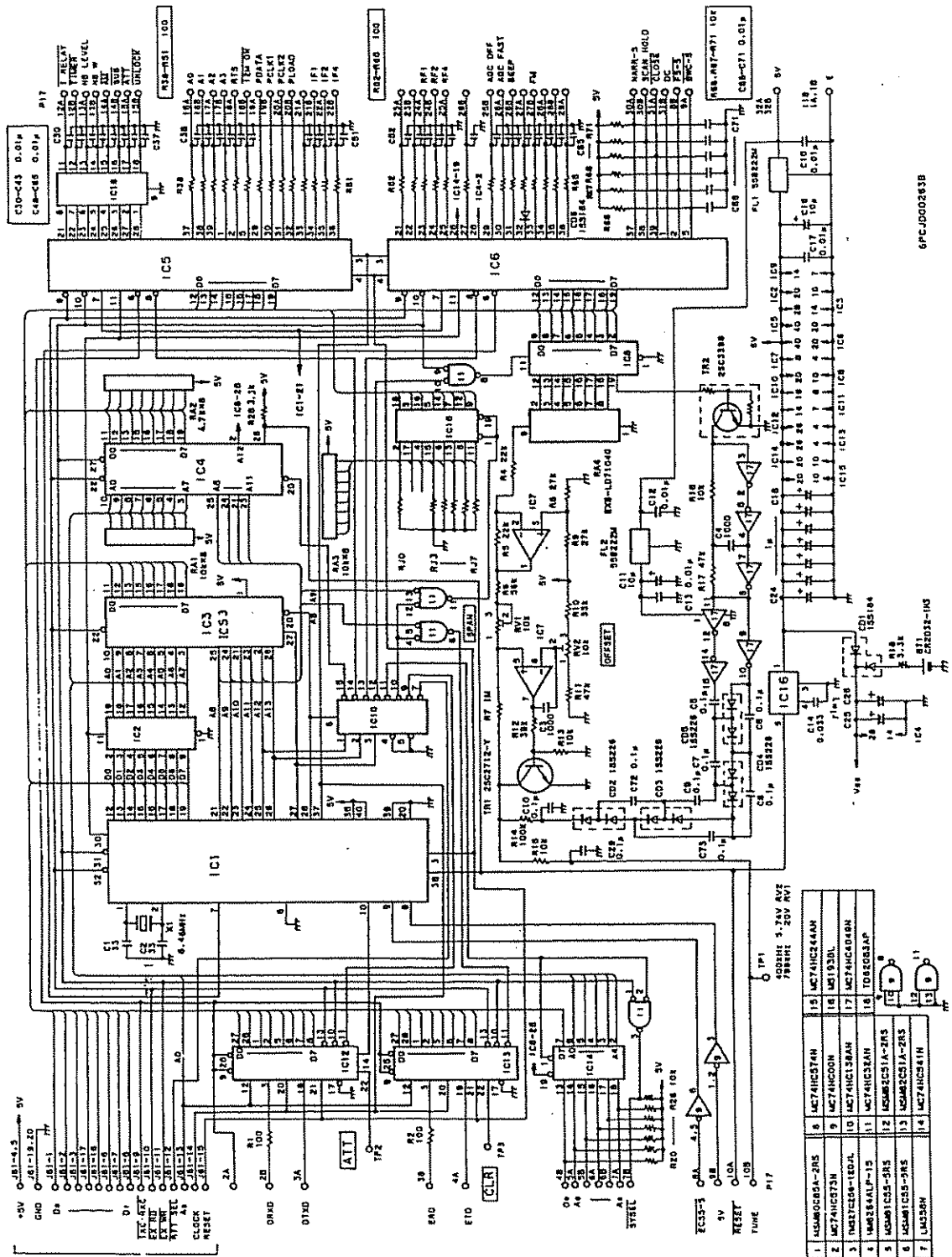
- C81 - C85 6.8K
- C86 - C88 100K
- C71 - C78 100K
- C81 - C88 47K
- C91 - C98 18K
- C101 - C106 0.01K
- C111 - C118 0.01K
- R51-R56 100K
- R61-R65 100K
- R71-R74 47K
- R81-R86 18K
- R91-R96 6.8K
- R101-R106 3.3K
- R111-R118 1.4K

CMF-78 ECSS UNIT (OPTION)

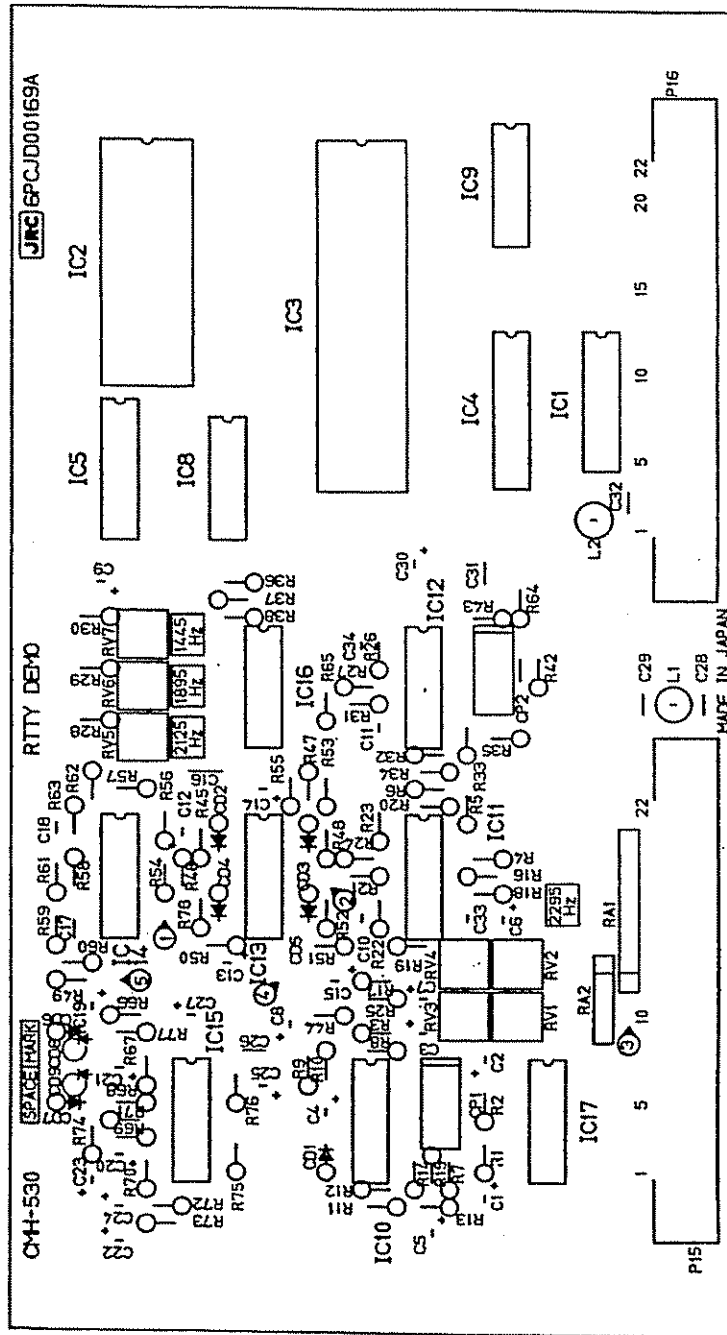


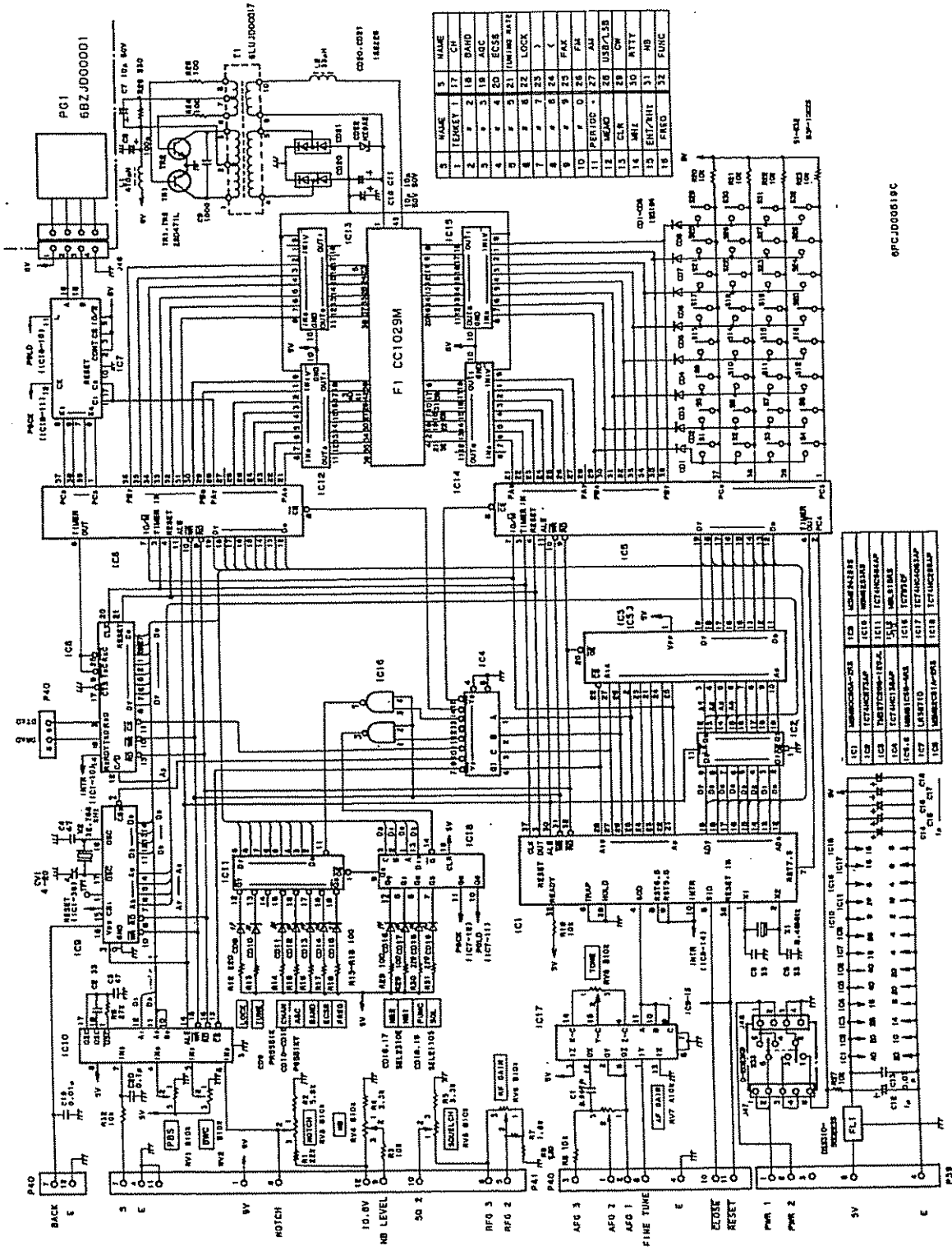




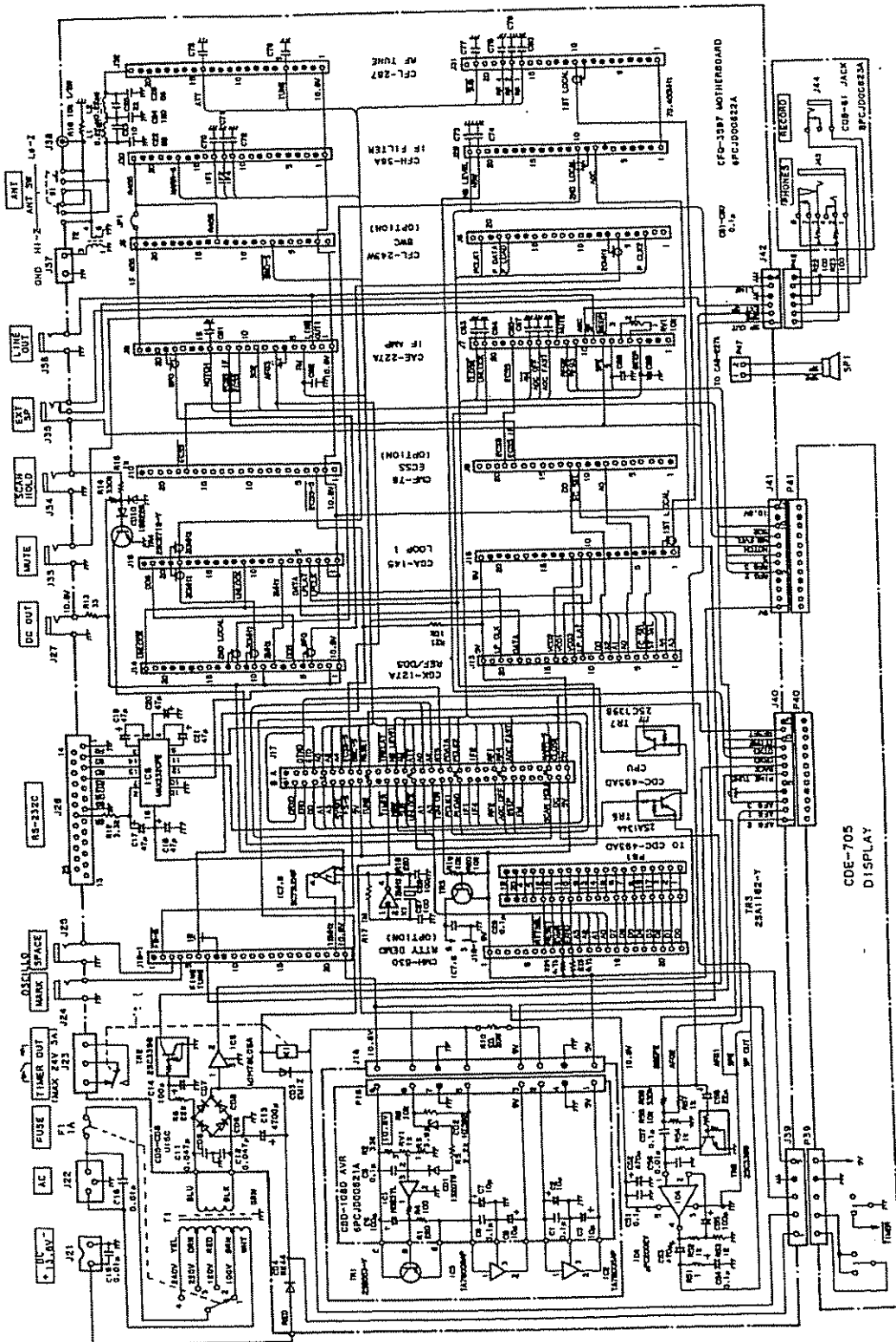


6PCJ000263B



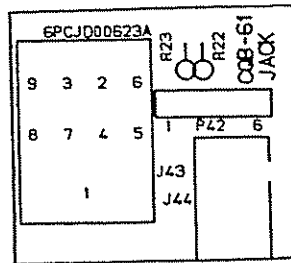


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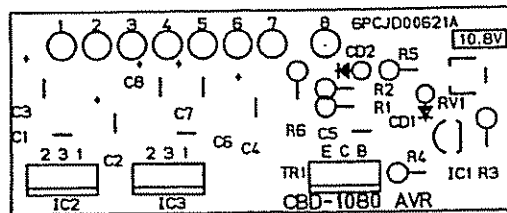


CHASSIS

CQB-61 JACK UNIT



CBD-1080 AVR UNIT



SECTION 10: PARTS LIST

1. RF TUNE	CFL-287	56
2. IF FILTER	CFH-36A	60
3. BWC	CFL-243W	64
4. IF AMP	CAE-227A	67
5. ECSS	CMF-78	75
6. LOOP1	CGA-145	79
7. REF/DDS	CGK-127A	82
8. CPU	CDC-493AD	87
9. RTTY DEMO	CMH-530	90
10. DISPLAY	CDE-705	93
11. CHASSIS	NRD-535	96
12. JACK	CQB-61	98
13. AVR	CBD-1080	98
14. ACCESSORY	NRD-535FUZOKU	99

PARTS LIST

TITLE CFL-287

RF TUNE

SHEET NO. 1

PART NO	PART NAME	TYPE	DESCRIPTION	CODE
C6	CAP,FXD C CER	C3216JF1H104Z-E-TP	50V 0.1UF	5CAAD01268
C7	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789
C8	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789
C9	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789
C10	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789
C11	CAP,FXD C CER	C3216JF1H104Z-E-TP	50V 0.1UF	5CAAD01268
C13	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789
C14	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789
C15	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789
C16	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789
C17	CAP,FXD C CER	C3216JF1H104Z-E-TP	50V 0.1UF	5CAAD01268
C18	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789
C19	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789
C20	CAP,FXD C CER	C3216CH1H030C-E-TP	50V 3PF	5CAAD00796
C21	CAP,FXD C CER	C3216CH1H030C-E-TP	50V 3PF	5CAAD00796
C22	CAP,FXD C CER	C3216CH1H030C-E-TP	50V 3PF	5CAAD00796
C23	CAP,FXD C CER	C3216CH1H030C-E-TP	50V 3PF	5CAAD00796
C24	CAP,FXD C CER	C3216CH1H010C-E-TP	50V 1PF	5CAAD00795
C25	CAP,FXD C CER	C3216CH1H020C-E-TP	50V 2PF	5CAAD00798
C26	CAP,FXD C CER	C3216CH1H471J-E-TP	470PF	5CAAD00797
C27	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782
C28	CAP,FXD C CER	C3216CH1H030C-E-TP	50V 3PF	5CAAD00796
C29	CAP,FXD C CER	C3216CH1H030C-E-TP	50V 3PF	5CAAD00796
C30	CAP,FXD CER	C3216SL1H222J-E-TP	2200PF	5CAAD00792
C31	CAP,FXD C CER	C3216CH1H050C-E-TP	50V 5PF	5CAAD00800
C32	CAP,FXD CER	C3216CH1H100D-E-TP	10PF	5CAAD00785
C33	CAP,FXD CER	C3216JB1H472K-E-TP	4700PF	5CAAD01138
C36	CAP,FXD C CER	C3216CH1H050C-E-TP	50V 5PF	5CAAD00800
C37	CAP,FXD CER	C3216CH1H100D-E-TP	10PF	5CAAD00785
C38	CAP,FXD CER	C3216JB1H472K-E-TP	4700PF	5CAAD01138
C39	CAP,FXD CER	C3216JB1H472K-E-TP	4700PF	5CAAD01138
C40	CAP,FXD CER	C3216JB1H472K-E-TP	4700PF	5CAAD01138
C41	CAP,FXD CER	C3216JB1H472K-E-TP	4700PF	5CAAD01138
C42	CAP,FXD CER	C3216SL1H222J-E-TP	2200PF	5CAAD00792
C43	CAP,FXD CER	C3216JB1H472K-E-TP	4700PF	5CAAD01138

PARTS LIST

TITLE CFL-287

RF TUNE

SHEET NO. 2

PART NO	PART NAME	TYPE	DESCRIPTION	CODE
C44	CAP,FXD CER	C3216SL1H152J-E-TP	1500PF	5CAAD00791
C45	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789
C46	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789
C47	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789
C48	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789
C49	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789
C50	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789
C51	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864
C52	CAP,FXD C CER	C3216JF1H104Z-E-TP	50V 0.1UF	5CAAD01268
C53	CAP,FXD CER	C3216CH1H680J-E-TP	68PF	5CAAD00929
C54	CAP,FXD CER	C3216CH1H100D-E-TP	10PF	5CAAD00785
C55	CAP,FXD CER	C3216CH1H121J-E-TP	120PF	5CAAD00931
C56	CAP,FXD CER	C3216CH1H220J-E-TP	22PF	5CAAD00869
C57	CAP,FXD CER	C3216CH1H560J-E-TP		5CAAD00863
C58	CAP,FXD C CER	C3216JF1H104Z-E-TP	50V 0.1UF	5CAAD01268
C59	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789
C60	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864
C61	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789
C62	CAP,FXD C CER	C3216JF1H104Z-E-TP	50V 0.1UF	5CAAD01268
C63	CAP,FXD C CER	C3216JF1H104Z-E-TP	50V 0.1UF	5CAAD01268
C64	CAP,FXD CER	C3216CH1H100D-E-TP	10PF	5CAAD00785
C65	CAP,FXD CER	C3216CH1H100D-E-TP	10PF	5CAAD00785
C66	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782
C67	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789
C69	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789
C70	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864
C72	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782
C73	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782
C75	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782
C76	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789
C77	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789
C80	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864
C81	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789
C82	CAP,FXD C CER	C3216JF1H104Z-E-TP	50V 0.1UF	5CAAD01268
C83	CAP,FXD C CER	C3216CH1H050C-E-TP	50V 5PF	5CAAD00800

PARTS LIST

PARTS LIST		TITLE	SHEET NO.
RF TUNE		CFL-287	4

PART NO	PART NAME	TYPE	DESCRIPTION	CODE
CD27	DIODE	FC66M-010		STXAB00035
CD28	DIODE	FC66M-010		STXAB00035
CD29	DIODE	FC66M-010		STXAB00035
CD30	DIODE	FC66M-010		STXAB00035
CD31	DIODE	FC66M-010		STXAB00035
CD32	DIODE	FC66M-010		STXAB00035
CD33	DIODE	FC66M-010		STXAB00035
CD34	DIODE	FC66M-010		STXAB00035
CD35	DIODE	FC66M-010		STXAB00035
CD36	DIODE	FC66M-010		STXAB00035
CD37	DIODE	FC66M-010		STXAB00035
CD38	DIODE	FC66M-010		STXAB00035
CD39	DIODE	FC66M-010		STXAB00035
CD40	DIODE	FC66M-010		STXAB00035
CD41	DIODE	FC66M-010		STXAB00035
CD42	DIODE	FC66M-010		STXAB00035
CD43	DIODE	FC66M-010		STXAB00035
CD44	DIODE	FC66M-010		STXAB00035
CD45	DIODE	1SS181 TE85L		STXAD00356
CD46	DIODE	1SS181 TE85L		STXAD00356
CD47	DIODE	1SS181 TE85L		STXAD00356
CD48	DIODE	1SS181 TE85L		STXAD00356
CD52	DIODE	1SS143T-87		STXCH00021
CD53	DIODE	1SS143T-87		STXCH00021
CV1	CAPACITOR VAR	TZ03T200FR		SCVAA00166
CV2	CAPACITOR VAR	TZ03T200FR		SCVAA00166
CV3	CAPACITOR VAR	TZ03T200FR		SCVAA00166
CV4	CAPACITOR VAR	TZ03T200FR		SCVAA00166
CV5	CAPACITOR VAR	TZ03T200FR		SCVAA00166
CV6	CAPACITOR VAR	TZ03T200FR		SCVAA00166
IC1	IC	SN74LS145N		500AS00138
JP1	TIN COATED WIRE	TA-0.6P		2717100001
JP2	TIN COATED WIRE	TA-0.6P		2717100001
JP3	TIN COATED WIRE	TA-0.6P		2717100001
JP4	TIN COATED WIRE	TA-0.6P		2717100001

PARTS LIST

PARTS LIST		TITLE	SHEET NO.
RF TUNE		CFL-287	3

PART NO	PART NAME	TYPE	DESCRIPTION	CODE
C84	CAP, FXD	CER	C3216SL1H22J-E-TP	5CAAD00792
C85	CAP, FXD	CER	C3216JB1H103K-E-TP	5CAAD00789
C86	CAP, FXD	CER	C3216SL1H821J-E-TP	5CAAD01068
C87	CAP, FXD	CER	C3216JB1H472K-E-TP	5CAAD01138
C88	CAP, FXD	CER	C3216SL1H22J-E-TP	5CAAD00792
C89	CAP, FXD	CER	C3216SL1H102J-E-TP	5CAAD00782
C90	CAP, FXD	CER	C3216JB1H103K-E-TP	5CAAD00789
C91	CAP, FXD	CER	C3216JB1H103K-E-TP	5CAAD00789
C92	CAP, FXD	TANTAL	202L3502 105KB	5CSAC00982
C93	CAP, FXD	CER	C3216CH1H070D-E-TP	5CAAD00977
C94	CAP, FXD	CER	C3216CH1H070D-E-TP	5CAAD00977
C95	CAP, FXD	CER	C3216CH1H120J-E-TP	5CAAD00784
C96	CAP, FXD	CER	C3216CH1H120J-E-TP	5CAAD00784
C95	DIODE	1SS143T-87		STXCH00021
CD6	DIODE	1SS143T-87		STXCH00021
CD7	DIODE	1SS143T-87		STXCH00021
CD8	DIODE	1SS143T-87		STXCH00021
CD9	DIODE	1SS143T-87		STXCH00021
CD10	DIODE	1SS143T-87		STXCH00021
CD11	DIODE	1SS85RE		STXAE00590
CD12	DIODE	1SS85RE		STXAE00590
CD13	DIODE	1SS85RE		STXAE00590
CD14	DIODE	1SS85RE		STXAE00590
CD15	DIODE	1SS85RE		STXAE00590
CD16	DIODE	1SS85RE		STXAE00590
CD17	DIODE	FC66M-010		STXAB00035
CD18	DIODE	FC66M-010		STXAB00035
CD19	DIODE	FC66M-010		STXAB00035
CD20	DIODE	FC66M-010		STXAB00035
CD21	DIODE	FC66M-010		STXAB00035
CD22	DIODE	FC66M-010		STXAB00035
CD23	DIODE	FC66M-010		STXAB00035
CD24	DIODE	FC66M-010		STXAB00035
CD25	DIODE	FC66M-010		STXAB00035
CD26	DIODE	FC66M-010		STXAB00035

PARTS LIST

RF TUNE				TITLE CFL-287		SHEET NO. 5	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE			
JP5	TIN COATED WIRE TA-0.6P			2717100001			
JP6	TIN COATED WIRE TA-0.6P			2717100001			
JP7	TIN COATED WIRE TA-0.6P			2717100001			
K1	RELAY DF2-DC9V			SKLAD00578			
K2	RELAY DF2-DC9V			SKLAD00578			
K3	RELAY DF2-DC9V			SKLAD00578			
K4	RELAY DF2-DC9V			SKLAD00578			
K5	RELAY DF2-DC9V			SKLAD00578			
K6	RELAY DF2-DC9V			SKLAD00578			
K7	RELAY DF2-DC9V			SKLAD00578			
L3	COIL LAL03VB471K		470UH	5LCAA00270			
L4	COIL LAL03VB471K		470UH	5LCAA00270			
L5	COIL LAL03VB471K		470UH	5LCAA00270			
L6	COIL LAL03VB220K		22UH	5LCAA00277			
L7	COIL LAL03VB220K		2.2UH	5LCAA00278			
L8	COIL LAL03VB330K		33UH	5LCAA00279			
L9	COIL LAL03VB100K		10UH	5LCAA00273			
L10	COIL LAL03VB330K		33UH	5LCAA00279			
L11	COIL LAL03VB100K		10UH	5LCAA00273			
L12	COIL LAL03VB220K		22UH	5LCAA00277			
L13	COIL LAL03VB22M		0.22UH	5LCAA00280			
L14	COIL LAL03VB22M		0.22UH	5LCAA00280			
L15	COIL LAL03VB471K		470UH	5LCAA00270			
L16	COIL LAL03VB3R3K		3.3UH	5LCAA00281			
L18	COIL LAL03VB100K		10UH	5LCAA00273			
L19	COIL LAL03VB471K		470UH	5LCAA00270			
L21	COIL LAL03VB5R6K		5.6UH	5LCAA00275			
L22	COIL LAL03VB6R8K		6.8UH	5LCAA00276			
L23	COIL LAL03VB471K		470UH	5LCAA00270			
P31	CONNECTOR EC1C-22P-2.5DSA		22P	5JWBS00070			
P32	CONNECTOR EC1C-22P-2.5DSA		22P	5JWBS00070			
PC1	PCB H-6PCJD00620B			6PCJD00620			
R1	RESISTOR FXD ERD-S1VJ390T			5RDA00590			
R2	RESISTOR FXD ERD-S1VJ390T			5RDA00590			
R3	RESISTOR FXD ERD-S1VJ100T			5RDA01712			

PARTS LIST

RF TUNE				TITLE CFL-287		SHEET NO. 6	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE			
R4	RESISTOR FXD ERJ-8GEYJ103V		1/8W 10K OHM	5REAG01750			
R5	RESISTOR FXD ERJ-8GEYJ103V		1/8W 10K OHM	5REAG01750			
R6	RESISTOR FXD ERJ-8GEYJ471V		1/8W 470 OHM	5REAG01734			
R7	RESISTOR FXD ERJ-8GEYJ102V		1/8W 1K OHM	5REAG01738			
R8	RESISTOR FXD ERJ-8GEYJ470V		1/8W 47 OHM	5REAG01722			
R9	RESISTOR FXD ERJ-8GEYJ470V		1/8W 47 OHM	5REAG01722			
R10	RESISTOR FXD ERJ-8GEYJ470V		1/8W 47 OHM	5REAG01722			
R11	RESISTOR FXD ERJ-8GEYJ470V		1/8W 47 OHM	5REAG01722			
R12	RESISTOR FXD ERJ-8GEYJ470V		1/8W 47 OHM	5REAG01722			
R13	RESISTOR CFXD ERJ-8GEYJ101V		1/8W 100 OHM	5REAG01726			
R14	RESISTOR CFXD ERJ-8GEYJ101V		1/8W 100 OHM	5REAG01726			
R15	RESISTOR CFXD ERJ-8GEYJ101V		1/8W 100 OHM	5REAG01726			
R16	RESISTOR CFXD ERJ-8GEYJ101V		1/8W 100 OHM	5REAG01726			
R17	RESISTOR CFXD ERJ-8GEYJ101V		1/8W 100 OHM	5REAG01726			
R18	RESISTOR CFXD ERJ-8GEYJ104V		1/8W 100K OHM	5REAG01762			
R19	RESISTOR CFXD ERJ-8GEYJ104V		1/8W 100K OHM	5REAG01762			
R20	RESISTOR CFXD ERJ-8GEYJ104V		1/8W 100K OHM	5REAG01762			
R21	RESISTOR CFXD ERJ-8GEYJ104V		1/8W 100K OHM	5REAG01762			
R22	RESISTOR CFXD ERJ-8GEYJ104V		1/8W 100K OHM	5REAG01762			
R23	RESISTOR CFXD ERJ-8GEYJ104V		1/8W 100K OHM	5REAG01762			
R24	RESISTOR CFXD ERJ-8GEYJ104V		1/8W 100K OHM	5REAG01762			
R25	RESISTOR CFXD ERJ-8GEYJ104V		1/8W 100K OHM	5REAG01762			
R26	RESISTOR CFXD ERJ-8GEYJ104V		1/8W 100K OHM	5REAG01762			
R27	RESISTOR CFXD ERJ-8GEYJ104V		1/8W 100K OHM	5REAG01762			
R28	RESISTOR CFXD ERJ-8GEYJ104V		1/8W 100K OHM	5REAG01762			
R29	RESISTOR CFXD ERJ-8GEYJ104V		1/8W 100K OHM	5REAG01762			
R30	RESISTOR CFXD ERJ-8GEYJ104V		1/8W 100K OHM	5REAG01762			
R31	RESISTOR CFXD ERJ-8GEYJ104V		1/8W 100K OHM	5REAG01762			
R32	RESISTOR CFXD ERJ-8GEYJ104V		1/8W 100K OHM	5REAG01762			
R33	RESISTOR FXD ERJ-8GEYJ470V		1/8W 47 OHM	5REAG01722			
R34	RESISTOR FXD ERJ-8GEYJ821V		1/8W 820 OHM	5REAG01737			
R35	RESISTOR FXD ERJ-8GEYK5R6V			5REAG02207			
R36	RESISTOR FXD ERJ-8GEYK5R6V			5REAG02207			
R37	RESISTOR FXD ERJ-8GEYJ221V		1/8W 220 OHM	5REAG01730			
R38	RESISTOR CFXD ERJ-8GEYJ151V		1/8W 150 OHM	5REAG01728			

PARTS LIST

SHEET NO 8

TITLE CFL-287

PART NO	PART NAME	TYPE	DESCRIPTION	CODE
RJ20	RESISTOR FXD	ERJ-8GEYD00V	0 OHM	5REAG01775
RJ21	RESISTOR FXD	ERJ-8GEYD00V	0 OHM	5REAG01775
RJ22	RESISTOR FXD	ERJ-8GEYD00V	0 OHM	5REAG01775
RV1	RESISTOR VAR	EVN-D2AA03813		5RVAB00422
T1	RF XFMR	H-6LHJD00441		6LHJD00441
T2	RF XFMR	H-6LHJD00441		6LHJD00441
T3	RF XFMR	H-6LHJD00442		6LHJD00442
T4	RF XFMR	H-6LHJD00442		6LHJD00442
T5	RF XFMR	H-6LHJD00385		6LHJD00385
T6	RF XFMR	H-6LHJD00385		6LHJD00385
T7	RF XFMR	H-6LHJD00384		6LHJD00384
T8	RF XFMR	H-6LHJD00384		6LHJD00384
T9	RF XFMR	H-6LHJD00383		6LHJD00383
T10	RF XFMR	H-6LHJD00383		6LHJD00383
T11	RF XFMR	H-6LHJD00410		6LHJD00410
T12	RF XFMR	H-6LHJD00440		6LHJD00440
T13	RF XFMR	H-6LHJD00328		6LHJD00328
TP1	TEST TERMINAL	PCN6-PEA		5JDAAD00364
TP2	TEST TERMINAL	PCN6-PEA		5JDAAD00364
TR1	TRANSISTOR	2SA1162-YTE05L		5TAAG00182
TR2	TRANSISTOR	2SK125		5TKAH00002
TR3	TRANSISTOR	2SK125		5TKAH00002
TR4	TRANSISTOR	2SK125		5TKAH00002
TR5	TRANSISTOR	2SK125		5TKAH00002
TR6	TRANSISTOR	2SC3357-T1		5TCAB00287
TR7	TRANSISTOR	2SK125		5TKAH00002
TR8	TRANSISTOR	2SK125		5TKAH00002
TR9	TRANSISTOR	2SK125		5TKAH00002
TR10	TRANSISTOR	2SK125		5TKAH00002

PARTS LIST

SHEET NO 7

TITLE CFL-287

PART NO	PART NAME	TYPE	DESCRIPTION	CODE
R39	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750
R40	RESISTOR FXD	ERJ-8GEYJ470V	1/8W 47 OHM	5REAG01722
R41	RESISTOR FXD	ERJ-8GEYJ821V	1/8W 820 OHM	5REAG01737
R42	RESISTOR FXD	ERJ-8GEYJ821V	1/8W 820 OHM	5REAG01737
R43	RESISTOR FXD	ERJ-8GEYJ470V	1/8W 47 OHM	5REAG01722
R44	RESISTOR FXD	ERJ-8GEYJ221V	1/8W 220 OHM	5REAG01730
R45	RESISTOR FXD	ERJ-8GEYJ221V	1/8W 220 OHM	5REAG01730
R47	RESISTOR FXD	ERJ-8GEYJ470V	1/8W 47 OHM	5REAG01722
R48	RESISTOR FXD	ERJ-8GEYJ470V	1/8W 47 OHM	5REAG01722
R49	RESISTOR FXD	ERJ-8GEYJ150V	1/8W 15 OHM	5REAG01716
R50	RESISTOR FXD	ERJ-8GEYJ332V	1/8W 3.3K OHM	5REAG01744
R51	RESISTOR FXD	ERJ-8GEYJ391V	1/8W 390 OHM	5REAG01733
R58	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750
R59	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726
R60	RESISTOR FXD	ERJ-8GEYJ470V	1/8W 47 OHM	5REAG01722
R61	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726
R62	RESISTOR FXD	ERJ-8GEYJ470V	1/8W 47 OHM	5REAG01722
RA1	RESISTOR	EXB-F8E-473J	47K OHM XB	5RZAS00181
RJ1	RESISTOR FXD	ERJ-8GEYD00V	0 OHM	5REAG01775
RJ2	RESISTOR FXD	ERJ-8GEYD00V	0 OHM	5REAG01775
RJ3	RESISTOR FXD	ERJ-8GEYD00V	0 OHM	5REAG01775
RJ4	RESISTOR FXD	ERJ-8GEYD00V	0 OHM	5REAG01775
RJ5	RESISTOR FXD	ERJ-8GEYD00V	0 OHM	5REAG01775
RJ6	RESISTOR FXD	ERJ-8GEYD00V	0 OHM	5REAG01775
RJ7	RESISTOR FXD	ERJ-8GEYD00V	0 OHM	5REAG01775
RJ8	RESISTOR FXD	ERJ-8GEYD00V	0 OHM	5REAG01775
RJ9	RESISTOR FXD	ERJ-8GEYD00V	0 OHM	5REAG01775
RJ10	RESISTOR FXD	ERJ-8GEYD00V	0 OHM	5REAG01775
RJ11	RESISTOR FXD	ERJ-8GEYD00V	0 OHM	5REAG01775
RJ12	RESISTOR FXD	ERJ-8GEYD00V	0 OHM	5REAG01775
RJ15	RESISTOR FXD	ERJ-8GEYD00V	0 OHM	5REAG01775
RJ16	RESISTOR FXD	ERJ-8GEYD00V	0 OHM	5REAG01775
RJ17	RESISTOR FXD	ERJ-8GEYD00V	0 OHM	5REAG01775
RJ18	RESISTOR FXD	ERJ-8GEYD00V	0 OHM	5REAG01775
RJ19	RESISTOR FXD	ERJ-8GEYD00V	0 OHM	5REAG01775

REC

REC

PARTS LIST

PART NO		PART NAME		TYPE	DESCRIPTION	CODE
C1	CAP,FXD	CER	C3216SL1H102J-E-TP		1000PF	5CAAD00782
C2	CAP,FXD	CER	C3216JF1H104Z-E-TP		50V 0.1UF	5CAAD01268
C3	CAP,FXD	CER	C3216SL1H102J-E-TP		1000PF	5CAAD00782
C4	CAP,FXD	CER	C3216CH1H02J-E-TP		50V 2PF	5CAAD00798
C5	CAP,FXD	CER	C3216SL1H102J-E-TP		1000PF	5CAAD00782
C6	CAP,FXD	CER	C3216SL1H102J-E-TP		1000PF	5CAAD00782
C7	CAP,FXD	CER	C3216SL1H102J-E-TP		1000PF	5CAAD00782
C8	CAP,FXD	CER	C3216CH1H20J-E-TP		22PF	5CAAD00869
C9	CAP,FXD	CER	C3216SL1H102J-E-TP		1000PF	5CAAD00782
C10	CAP,FXD	CER	C3216SL1H102J-E-TP		1000PF	5CAAD00782
C11	CAP,FXD	CER	C3216SL1H102J-E-TP		1000PF	5CAAD00782
C12	CAP,FXD	CER	C3216JF1H104Z-E-TP		50V 0.1UF	5CAAD01268
C13	CAP,FXD	CER	C3216CH1H70J-E-TP		47PF	5CAAD00864
C14	CAP,FXD	CER	C3216CH1H470J-E-TP		47PF	5CAAD00864
C15	CAP,FXD	CER	C3216CH1H680J-E-TP		68PF	5CAAD00929
C16	CAP,FXD	CER	C3216JF1H104Z-E-TP		50V 0.1UF	5CAAD01268
C17	CAP,FXD	ELCTL	ECE-A1EU1008			5CEAA01864
C18	CAP,FXD	CER	C3216JF1H104Z-E-TP		50V 0.1UF	5CAAD01268
C19	CAP,FXD	CER	C3216CH1H51J-E-TP		150PF	5CAAD00870
C20	CAP,FXD	CER	C3216JB1H103K-E-TP		50V 0.01UF	5CAAD00789
C21	CAP,FXD	ELCTL	ECE-A1EU1008			5CEAA01864
C22	CAP,FXD	CER	C3216JF1H104Z-E-TP		50V 0.1UF	5CAAD01268
C23	CAP,FXD	CER	C3216SL1H102J-E-TP		1000PF	5CAAD00782
C24	CAP,FXD	CER	C3216SL1H102J-E-TP		1000PF	5CAAD00782
C25	CAP,FXD	CER	C3216CH1H20J-E-TP		22PF	5CAAD00869
C26	CAP,FXD	CER	C3216SL1H102J-E-TP		1000PF	5CAAD00782
C27	CAP,FXD	CER	C3216CH1H101J-E-TP		50V 100PF	5CAAD00780
C28	CAP,FXD	CER	C3216JB1H103K-E-TP		50V 0.01UF	5CAAD00789
C29	CAP,FXD	CER	C3216JF1H104Z-E-TP		50V 0.1UF	5CAAD01268
C30	CAP,FXD	CER	C3216JF1H104Z-E-TP		50V 0.1UF	5CAAD01268
C31	CAP,FXD	CER	C3216JB1H103K-E-TP		50V 0.01UF	5CAAD00789
C32	CAP,FXD	CER	C3216JF1H104Z-E-TP		50V 0.1UF	5CAAD01268
C33	CAP,FXD	CER	C3216JF1H104Z-E-TP		50V 0.1UF	5CAAD01268
C34	CAP,FXD	CER	C3216JB1H103K-E-TP		50V 0.01UF	5CAAD00789
C35	CAP,FXD	CER	C3216JF1H104Z-E-TP		50V 0.1UF	5CAAD01268

PARTS LIST

PART NO		PART NAME		TYPE	DESCRIPTION	CODE
C36	CAP,FXD	CER	C3216JF1H104Z-E-TP		50V 0.1UF	5CAAD01268
C37	CAP,FXD	CER	C3216JF1H104Z-E-TP		50V 0.1UF	5CAAD01268
C38	CAP,FXD	CER	C3216JF1H104Z-E-TP		50V 0.1UF	5CAAD01268
C39	CAP,FXD	CER	C3216JF1H104Z-E-TP		50V 0.1UF	5CAAD01268
C40	CAP,FXD	CER	C3216JB1H103K-E-TP		50V 0.01UF	5CAAD00789
C41	CAP,FXD	TANTAL	202LJ502 105KB		35V 1UF	5CSAC00982
C42	CAP,FXD	ELCTL	ECE-A1EU1008			5CEAA01864
C43	CAP,FXD	CER	C3216SL1H102J-E-TP		1000PF	5CAAD00782
C44	CAP,FXD	CER	C3216JB1H103K-E-TP		50V 0.01UF	5CAAD00789
C45	CAP,FXD	CER	C3216JF1H104Z-E-TP		50V 0.1UF	5CAAD01268
C46	CAP,FXD	CER	C3216JB1H103K-E-TP		50V 0.01UF	5CAAD00789
C47	CAP,FXD	CER	C3216CH1H271J-E-TP		50V 270PF	5CAAD00883
C48	CAP,FXD	CER	C3216CH1H271J-E-TP		50V 270PF	5CAAD00883
C49	CAP,FXD	CER	C3216JF1H104Z-E-TP		50V 0.1UF	5CAAD01268
C50	CAP,FXD	CER	C3216CH1H271J-E-TP		50V 270PF	5CAAD00883
C51	CAP,FXD	CER	C3216CH1H271J-E-TP		50V 270PF	5CAAD00883
C52	CAP,FXD	CER	C3216JF1H104Z-E-TP		50V 0.1UF	5CAAD01268
C53	CAP,FXD	CER	C3216JF1H104Z-E-TP		50V 0.1UF	5CAAD01268
C54	CAP,FXD	CER	C3216JF1H104Z-E-TP		50V 0.1UF	5CAAD01268
C55	CAP,FXD	CER	C3216CH1H680J-E-TP		68PF	5CAAD00929
C56	CAP,FXD	CER	C3216CH1H680J-E-TP		68PF	5CAAD00929
C57	CAP,FXD	CER	C3216JF1H104Z-E-TP		50V 0.1UF	5CAAD01268
C58	CAP,FXD	CER	C3216JF1H104Z-E-TP		50V 0.1UF	5CAAD01268
C59	CAP,FXD	CER	C3216JF1H104Z-E-TP		50V 0.1UF	5CAAD01268
C60	CAP,FXD	CER	C3216CH1H680J-E-TP		68PF	5CAAD00929
C61	CAP,FXD	CER	C3216CH1H680J-E-TP		68PF	5CAAD00929
C62	CAP,FXD	CER	C3216JF1H104Z-E-TP		50V 0.1UF	5CAAD01268
C63	CAP,FXD	CER	C3216CH1H050C-E-TP		50V 5PF	5CAAD00800
C64	CAP,FXD	CER	C3216JF1H104Z-E-TP		50V 0.1UF	5CAAD01268
C65	CAP,FXD	CER	C3216JF1H104Z-E-TP		50V 0.1UF	5CAAD01268
C66	CAP,FXD	CER	C3216JF1H104Z-E-TP		50V 0.1UF	5CAAD01268
C67	CAP,FXD	ELCTL	ECE-A1EU1008			5CEAA01864
C68	CAP,FXD	CER	C3216JB1H103K-E-TP		50V 0.01UF	5CAAD00789
C69	CAP,FXD	CER	C3216JB1H103K-E-TP		50V 0.01UF	5CAAD00789
C70	CAP,FXD	CER	C3216JB1H103K-E-TP		50V 0.01UF	5CAAD00789

PARTS LIST		IF FILTER		TITLE CFH-36A		SHEET NO. 4	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	PART NO	PART NAME	TYPE
L5	COIL	LAL04NA331K		5LCAA00136	L5	COIL	LAL04NA331K
L6	COIL	LAL03VB221K	220UH	5LCAA00272	L6	COIL	LAL03VB221K
L7	COIL	LAL04NA221K		5LCAA00206	L7	COIL	LAL04NA221K
L8	COIL	LAL03VB471K	470UH	5LCAA00270	L8	COIL	LAL03VB471K
P29	CONNECTOR	EC1C-22P-2.5DSA	22P	5JWB500070	P29	CONNECTOR	EC1C-22P-2.5DSA
P30	CONNECTOR	EC1C-22P-2.5DSA	22P	5JWB500070	P30	CONNECTOR	EC1C-22P-2.5DSA
PC1	PCB	H-6PCJD00159B		6PCJD00159	PC1	PCB	H-6PCJD00159B
R1	RESISTOR FXD	ERJ-8GEYJ102V	1/8W 1K OHM	5REAG01738	R1	RESISTOR FXD	ERJ-8GEYJ102V
R2	RESISTOR FXD	ERJ-8GEYJ102V	1/8W 1K OHM	5REAG01738	R2	RESISTOR FXD	ERJ-8GEYJ102V
R3	RESISTOR FXD	ERJ-8GEYJ330V	1/8W 33 OHM	5REAG01720	R3	RESISTOR FXD	ERJ-8GEYJ330V
R4	RESISTOR FXD	ERJ-8GEYJ330V	1/8W 33 OHM	5REAG01720	R4	RESISTOR FXD	ERJ-8GEYJ330V
R5	RESISTOR FXD	ERD-25UJ221	1/4W 220 OHM	5RDAAD01329	R5	RESISTOR FXD	ERD-25UJ221
R6	RESISTOR CFXD	ERJ-8GEYJ681V	1/8W 680 OHM	5REAG01736	R6	RESISTOR CFXD	ERJ-8GEYJ681V
R7	RESISTOR FXD	ERJ-8GEYJ332V	1/8W 3.3K OHM	5REAG01744	R7	RESISTOR FXD	ERJ-8GEYJ332V
R8	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	R8	RESISTOR CFXD	ERJ-8GEYJ101V
R9	RESISTOR FXD	ERJ-8GEYJ222V	1/8W 2.2K OHM	5REAG01742	R9	RESISTOR FXD	ERJ-8GEYJ222V
R10	RESISTOR FXD	ERJ-8GEYJ222V	1/8W 2.2K OHM	5REAG01742	R10	RESISTOR FXD	ERJ-8GEYJ222V
R11	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	R11	RESISTOR CFXD	ERJ-8GEYJ101V
R12	RESISTOR FXD	ERJ-8GCSJ123T	1/8W 12K OHM	5REAG00681	R12	RESISTOR FXD	ERJ-8GCSJ123T
R13	RESISTOR FXD	ERJ-8GCSJ123T	1/8W 12K OHM	5REAG00681	R13	RESISTOR FXD	ERJ-8GCSJ123T
R14	RESISTOR CFXD	ERJ-8GEYJ681V	1/8W 680 OHM	5REAG01736	R14	RESISTOR CFXD	ERJ-8GEYJ681V
R15	RESISTOR FXD	ERJ-8GEYJ470V	1/8W 47 OHM	5REAG01722	R15	RESISTOR FXD	ERJ-8GEYJ470V
R16	RESISTOR FXD	ERJ-8GEYJ222V	1/8W 2.2K OHM	5REAG01742	R16	RESISTOR FXD	ERJ-8GEYJ222V
R17	RESISTOR FXD	ERJ-8GEYJ122V	1/8W 1.2K OHM	5REAG01739	R17	RESISTOR FXD	ERJ-8GEYJ122V
R18	RESISTOR FXD	ERJ-8GEYJ471V	1/8W 470 OHM	5REAG01734	R18	RESISTOR FXD	ERJ-8GEYJ471V
R19	RESISTOR FXD	ERJ-8GEYJ470V	1/8W 47 OHM	5REAG01722	R19	RESISTOR FXD	ERJ-8GEYJ470V
R20	RESISTOR FXD	ERJ-8GEYJ102V	1/8W 1K OHM	5REAG01738	R20	RESISTOR FXD	ERJ-8GEYJ102V
R21	RESISTOR FXD	ERJ-8GEYJ472V	1/8W 4.7K OHM	5REAG01746	R21	RESISTOR FXD	ERJ-8GEYJ472V
R22	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	R22	RESISTOR CFXD	ERJ-8GEYJ101V
R23	RESISTOR FXD	ERJ-8GEYJ332V	1/8W 3.3K OHM	5REAG01744	R23	RESISTOR FXD	ERJ-8GEYJ332V
R24	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	R24	RESISTOR CFXD	ERJ-8GEYJ101V
R25	RESISTOR CFXD	ERJ-8GEYJ104V	1/8W 100K OHM	5REAG01762	R25	RESISTOR CFXD	ERJ-8GEYJ104V
R26	RESISTOR FXD	ERJ-8GEYJ221V	1/8W 220 OHM	5REAG01730	R26	RESISTOR FXD	ERJ-8GEYJ221V
R27	RESISTOR FXD	ERJ-8GEYJ333V	1/8W 33K OHM	5REAG01756	R27	RESISTOR FXD	ERJ-8GEYJ333V
R28	RESISTOR FXD	ERJ-8GEYJ122V	1/8W 1.2K OHM	5REAG01739	R28	RESISTOR FXD	ERJ-8GEYJ122V

PARTS LIST		IF FILTER		TITLE CFH-36A		SHEET NO. 3	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	PART NO	PART NAME	TYPE
C71	CAP.FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782	C71	CAP.FXD CER	C3216SL1H102J-E-TP
C72	CAP.FXD C CER	C3216JF1H104Z-E-TP	50V 0.1UF	5CAAD01268	C72	CAP.FXD C CER	C3216JF1H104Z-E-TP
C73	CAP.FXD C CER	C3216CH1H050C-E-TP	50V 5PF	5CAAD00800	C73	CAP.FXD C CER	C3216CH1H050C-E-TP
C74	CAP.FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789	C74	CAP.FXD C CER	C3216JB1H103K-E-TP
C75	CAP.FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789	C75	CAP.FXD C CER	C3216JB1H103K-E-TP
C76	CAP.FXD C CER	C3216JF1H104Z-E-TP	50V 0.1UF	5CAAD01268	C76	CAP.FXD C CER	C3216JF1H104Z-E-TP
C77	CAP.FXD C CER	C3216JF1H104Z-E-TP	50V 0.1UF	5CAAD01268	C77	CAP.FXD C CER	C3216JF1H104Z-E-TP
C78	CAP.FXD C CER	C3216JF1H104Z-E-TP	50V 0.1UF	5CAAD01268	C78	CAP.FXD C CER	C3216JF1H104Z-E-TP
C79	CAP.FXD C CER	C3216JF1H104Z-E-TP	50V 0.1UF	5CAAD01268	C79	CAP.FXD C CER	C3216JF1H104Z-E-TP
C80	CAP.FXD CER	C3216CH1H100D-E-TP	10PF	5CAAD00785	C80	CAP.FXD CER	C3216CH1H100D-E-TP
C81	CAP.FXD CER	C3216CH1H100D-E-TP	10PF	5CAAD00785	C81	CAP.FXD CER	C3216CH1H100D-E-TP
C82	DIODE	1SS226 TE85L		5TXAD00320	C82	DIODE	1SS226 TE85L
C83	DIODE	1SS226 TE85L		5TXAD00320	C83	DIODE	1SS226 TE85L
C84	DIODE	RD5-1M-T18-B1		5TXAA00632	C84	DIODE	RD5-1M-T18-B1
C85	DIODE	1SS226 TE85L		5TXAD00320	C85	DIODE	1SS226 TE85L
C86	DIODE	1SS181 TE85L		5TXAD00356	C86	DIODE	1SS181 TE85L
C87	DIODE	1SS181 TE85L		5TXAD00356	C87	DIODE	1SS181 TE85L
C88	DIODE	1SS181 TE85L		5TXAD00356	C88	DIODE	1SS181 TE85L
C89	DIODE	1SS226 TE85L		5TXAD00320	C89	DIODE	1SS226 TE85L
C90	DIODE	1SS181 TE85L		5TXAD00356	C90	DIODE	1SS181 TE85L
C91	DIODE	1SS181 TE85L		5TXAD00356	C91	DIODE	1SS181 TE85L
C92	DIODE	1SS226 TE85L		5TXAD00320	C92	DIODE	1SS226 TE85L
C93	DIODE	1SS181 TE85L		5TXAD00356	C93	DIODE	1SS181 TE85L
C94	DIODE	1SS184 TE85L		5TXAD00290	C94	DIODE	1SS184 TE85L
CV1	CAPACITOR VAR	TZ03T200FR		5CVAAD0166	CV1	CAPACITOR VAR	TZ03T200FR
FL1	CRYSTAL CKT	H-6XHD000114	70.455MHZ	6XMD00114	FL1	CRYSTAL CKT	H-6XHD000114
FL2	COIL	LF-B12		5LFAE00009	FL2	COIL	LF-B12
FL3	FILTER	CLF-D6S	8W=6KHZ	5NRAD00001	FL3	FILTER	CLF-D6S
FL4	FILTER	MF-31C		5NMAA00019	FL4	FILTER	MF-31C
IC1	IC	SN74LS145N		5DDA00138	IC1	IC	SN74LS145N
L1	COIL	LAL03VBR33M	0.33UH	5LCAA00274	L1	COIL	LAL03VBR33M
L2	COIL	LAL03VB471K	470UH	5LCAA00270	L2	COIL	LAL03VB471K
L3	COIL	LAL03VB471K	470UH	5LCAA00270	L3	COIL	LAL03VB471K
L4	COIL	LAL03VB331K	330UH	5LCAA00271	L4	COIL	LAL03VB331K

PARTS LIST

PARTS LIST		TITLE		SHEET NO.	
IF FILTER		CFH-36A		5	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	
R29	RESISTOR FXD	ERJ-8GEYJ332V	1/8W 3.3K OHM	5REAG01744	
R30	RESISTOR FXD	ERJ-8GEYJ102V	1/8W 1K OHM	5REAG01738	
R31	RESISTOR FXD	ERJ-8GEYJ472V	1/8W 4.7K OHM	5REAG01746	
R32	RESISTOR FXD	ERJ-8GEYJ332V	1/8W 3.3K OHM	5REAG01744	
R33	RESISTOR CFXD	ERJ-8GEYJ151V	1/8W 150 OHM	5REAG01728	
R34	RESISTOR FXD	ERJ-8GEYJ222V	1/8W 2.2K OHM	5REAG01742	
R35	RESISTOR FXD	ERJ-8GEYJ333V	1/8W 33K OHM	5REAG01756	
R36	RESISTOR FXD	ERJ-8GEYJ102V	1/8W 1K OHM	5REAG01738	
R37	RESISTOR FXD	ERJ-8GEYJ472V	1/8W 4.7K OHM	5REAG01746	
R38	RESISTOR FXD	ERJ-8GEYJ332V	1/8W 3.3K OHM	5REAG01744	
R39	RESISTOR CFXD	ERJ-8GEYJ151V	1/8W 150 OHM	5REAG01728	
R40	RESISTOR FXD	ERJ-8GEYJ222V	1/8W 2.2K OHM	5REAG01742	
R41	RESISTOR FXD	ERJ-8GEYJ333V	1/8W 33K OHM	5REAG01756	
R42	RESISTOR FXD	ERJ-8GEYJ102V	1/8W 1K OHM	5REAG01738	
R43	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R44	RESISTOR FXD	ERJ-8GEYJ102V	1/8W 1K OHM	5REAG01738	
R45	RESISTOR FXD	ERJ-8GEYJ153V	1/8W 15K OHM	5REAG01752	
R46	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R47	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R48	RESISTOR FXD	ERJ-8GEYJ332V	1/8W 3.3K OHM	5REAG01744	
R49	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R51	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R52	RESISTOR FXD	ERJ-8GEYJ334V	1/8W 330K OHM	5REAG01748	
R53	RESISTOR FXD	ERJ-8GCSJ223T	1/8W 22K OHM	5REAG00581	
R54	RESISTOR FXD	ERJ-8GEYJ472V	1/8W 4.7K OHM	5REAG01746	
R55	RESISTOR FXD	ERJ-8GEYJ472V	1/8W 4.7K OHM	5REAG01746	
R56	RESISTOR FXD	ERJ-8GEYJ222V	1/8W 2.2K OHM	5REAG01742	
R57	RESISTOR FXD	ERJ-8GCSJ223T	1/8W 22K OHM	5REAG00581	
R58	RESISTOR FXD	ERJ-8GCSJ223T	1/8W 22K OHM	5REAG00581	
R59	RESISTOR FXD	ERJ-8GEYJ122V	1/8W 1.2K OHM	5REAG01739	
R60	RESISTOR FXD	ERJ-8GEYJ122V	1/8W 1.2K OHM	5REAG01739	
R61	RESISTOR FXD	ERJ-8GEYJ122V	1/8W 1.2K OHM	5REAG01739	
R62	RESISTOR FXD	ERJ-8GEYJ122V	1/8W 1.2K OHM	5REAG01739	
R63	RESISTOR FXD	ERJ-8GEYJ122V	1/8W 1.2K OHM	5REAG01739	
R64	RESISTOR FXD	ERJ-8GEYJ122V	1/8W 1.2K OHM	5REAG01739	

PARTS LIST

PARTS LIST		TITLE		SHEET NO.	
IF FILTER		CFH-36A		6	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	
R65	RESISTOR FXD	ERJ-8GEYJ122V	1/8W 1.2K OHM	5REAG01739	
R66	RESISTOR FXD	ERJ-8GEYJ122V	1/8W 1.2K OHM	5REAG01739	
R67	RESISTOR FXD	ERJ-8GEYJ122V	1/8W 1.2K OHM	5REAG01739	
R68	RESISTOR FXD	ERJ-8GEYJ122V	1/8W 1.2K OHM	5REAG01739	
R69	RESISTOR CFXD	ERJ-8GEYJ681V	1/8W 680 OHM	5REAG01736	
R70	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R71	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R72	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R73	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R74	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R75	RESISTOR FXD	ERJ-8GEYJ680V	1/8W 68 OHM	5REAG01724	
RA1	RESISTOR FXD	EXP-F6E473J	0 OHM	5RDAAO1920	
RJ1	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	5REAG01775	
RJ2	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	5REAG01775	
RJ3	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	5REAG01775	
RJ5	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	5REAG01775	
RJ6	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	5REAG01775	
RJ7	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	5REAG01775	
RJ8	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	5REAG01775	
RJ9	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	5REAG01775	
RJ10	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	5REAG01775	
RJ11	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	5REAG01775	
RJ12	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	5REAG01775	
RJ13	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	5REAG01775	
RJ14	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	5REAG01775	
RJ15	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	5REAG01775	
RJ16	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	5REAG01775	
RJ17	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	5REAG01775	
RJ18	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	5REAG01775	
RJ19	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	5REAG01775	
RJ20	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	5REAG01775	
RJ21	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	5REAG01775	
RJ22	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	5REAG01775	
RJ23	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	5REAG01775	
RJ24	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	5REAG01775	

PARTS LIST

PART NO	PART NAME	TYPE	DESCRIPTION	CODE	DRAWING NO.	
					TITLE	SHEET NO.
	IF FILTER		CFH-36A		7	
RJ25	RESISTOR FXD	ERJ-8GEY0R00V	0 OHM	5REAG01775		
RV1	RESISTOR VAR	EVH-DBAA03B54		5RVAB00419		
RV2	RESISTOR VAR	EVN-02AA03B22		5RVAB00414		
T1	RF XFMR	H-6LHJ000415	70.455MHZ	6LHJ000415		
T2	RF XFMR	H-6LHJ000415-1	70.455MHZ	6LHJ000415		
T3	RF XFMR	H-6LHJ000416	0.95UH	6LHJ000416		
T4	RF XFMR	H-6LHJ000456		6LHJ000456		
T5	RF XFMR	H-6LHJ000389		6LHJ000389		
T6	RF XFMR	H-6LHJ000390A		6LHJ000390		
T7	RF XFMR	H-6LHJ000390A		6LHJ000390		
T8	RF XFMR	H-6LHJ000297		6LHJ000297		
T9	RF XFMR	S-061-006		5LJAA00006		
T10	RF XFMR	S-061-006		5LJAA00006		
T11	RF XFMR	H-6LJJD00037A	455KHZ	6LJJD00037		
TP1	TEST TERMINAL	PCN6-PEA		5JDA000364		
TP2	TEST TERMINAL	PCN6-PEA		5JDA000364		
TP3	TEST TERMINAL	PCN6-PEA		5JDA000364		
TP4	TEST TERMINAL	PCN6-PEA		5JDA000364		
TR1	TRANSISTOR	3SK73-GR-2		5TKA000204		
TR2	TRANSISTOR	2SK125		5TKA000002		
TR3	TRANSISTOR	2SK125		5TKA000002		
TR4	TRANSISTOR	2SC2714-YTE85L		5YCAF00436		
TR5	TRANSISTOR	3SK73-GR-2		5TKA000204		
TR6	TRANSISTOR	2SC2712Y TE85L		5TAA000186		
TR7	TRANSISTOR	2SC2712Y TE85L		5TAA000186		
TR8	TRANSISTOR	2SC2712Y TE85L		5TAA000186		
TR9	TRANSISTOR	2SC2712Y TE85L		5TAA000186		
TR10	TRANSISTOR	2SC2712Y TE85L		5TAA000186		
TR11	TRANSISTOR	2SC2712Y TE85L		5TAA000186		
TR12	TRANSISTOR	2SC2712Y TE85L		5TAA000186		
TR13	TRANSISTOR	2SA1162-YTE85L		5TAA000182		
W1	TIN COATED WIRE	TA-0.8P		2717100002		
W2	TIN COATED WIRE	TA-0.8P		2717100002		

PARTS LIST		TITLE		SHEET NO.	
BWC		CFL-243M		1	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	
C1	CAP,FXD	PLSTC	ECQ-V1H333JZ3	SCRAA00804	
C2	CAP,FXD	PLSTC	ECQ-V1H333JZ3	SCRAA00804	
C3	CAP,FXD	PLSTC	ECQ-V1H333JZ3	SCRAA00804	
C4	CAP,FXD	CER	DD104-979CH050C50	5CAA002688	
C5	CAP,FXD	PLSTC	ECQ-V1H333JZ3	SCRAA00804	
C6	CAP,FXD	PLSTC	ECQ-V1H333JZ3	SCRAA00804	
C7	CAP,FXD	PLSTC	ECQ-V1H333JZ3	SCRAA00804	
C8	CAP,FXD	PLSTC	ECQ-V1H333JZ3	SCRAA00804	
C9	CAP,FXD	PLSTC	ECQ-V1H333JZ3	SCRAA00804	
C10	CAP,FXD	PLSTC	ECQ-V1H333JZ3	SCRAA00804	
C11	CAP,FXD	PLSTC	ECQ-V1H333JZ3	SCRAA00804	
C12	CAP,FXD	PLSTC	ECQ-V1H333JZ3	SCRAA00804	
C13	CAP,FXD	CER	DD107-979CH080J50	68PF	
C14	CAP,FXD	CER	DD107-979CH080J50	68PF	
C15	CAP,FXD	PLSTC	ECQ-V1H333JZ3	SCRAA00804	
C16	CAP,FXD	PLSTC	ECQ-V1H333JZ3	SCRAA00804	
C17	CAP,FXD	PLSTC	ECQ-V1H333JZ3	SCRAA00804	
C18	CAP,FXD	PLSTC	ECQ-V1H333JZ3	SCRAA00804	
C19	CAP,FXD	PLSTC	ECQ-V1H333JZ3	SCRAA00804	
C20	CAP,FXD	PLSTC	ECQ-V1H333JZ3	SCRAA00804	
C21	CAP,FXD	CER	DD104-979CH050C50	SCRAA02688	
C22	CAP,FXD	PLSTC	ECQ-V1H333JZ3	SCRAA00804	
C23	CAP,FXD	PLSTC	ECQ-V1H333JZ3	SCRAA00804	
C24	CAP,FXD	PLSTC	ECQ-V1H333JZ3	SCRAA00804	
C25	CAP,FXD	CER	DD806-979F103Z50	5CAA002929	
C26	CAP,FXD	CER	DD806-979F103Z50	5CAA002929	
C27	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	
C28	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	
C29	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	
C30	CAP,FXD	CER	DD806-979F103Z50	5CAA002929	
C31	CAP,FXD	CER	DD806-979F103Z50	5CAA002929	
C32	CAP,FXD	CER	DD806-979F103Z50	5CAA002929	
C33	CAP,FXD	CER	DD806-979F103Z50	5CAA002929	
C34	CAP,FXD	CER	DD806-979F103Z50	5CAA002929	
C35	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	

PARTS LIST		TITLE		SHEET NO.	
BWC		CFL-243M		2	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	
C36	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	
C37	CAP,FXD	CER	DD806-979F103Z50	5CAA002929	
C38	CAP,FXD	CER	DD806-979F103Z50	5CAA002929	
C39	CAP,FXD	PLSTC	ECQ-V1H333JZ3	5CAA00804	
C40	CAP,FXD	PLSTC	ECQ-V1H333JZ3	5CAA00804	
C41	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	
C42	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	
C43	CAP,FXD	PLSTC	ECQ-V1H333JZ3	5CAA00804	
C44	CAP,FXD	PLSTC	ECQ-V1H333JZ3	5CAA00804	
C45	CAP,FXD	CER	DD107-979CH101J50	5CAAA02783	
C46	CAP,FXD	CER	DD107-979CH101J50	5CAAA02783	
C47	CAP,FXD	CER	DD106-979CH470J50	5CAAA02754	
C48	CAP,FXD	CER	DD106-979CH470J50	5CAAA02754	
C49	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	
C50	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	
C51	CAP,FXD	PLSTC	ECQ-V1H333JZ3	5CAA00804	
C52	CAP,FXD	PLSTC	ECQ-V1H333JZ3	5CAA00804	
C53	CAP,FXD	PLSTC	ECQ-B1H472JZ3	5CAA00833	
C54	CAP,FXD	PLSTC	ECQ-B1H472JZ3	5CAA00833	
C55	CAP,FXD	PLSTC	ECQ-B1H223JZ3	5CAA00834	
C56	CAP,FXD	PLSTC	ECQ-B1H223JZ3	5CAA00834	
C57	CAP,FXD	PLSTC	ECQ-B1H272JZ3	5CAA00835	
C58	CAP,FXD	PLSTC	ECQ-B1H272JZ3	5CAA00835	
C59	CAP,FXD	PLSTC	ECQ-B1H103JZ3	5CAA00587	
C60	CAP,FXD	PLSTC	ECQ-B1H103JZ3	5CAA00587	
C61	CAP,FXD	PLSTC	ECQ-B1H472JZ3	5CAA00833	
C62	CAP,FXD	PLSTC	ECQ-B1H472JZ3	5CAA00833	
C63	CAP,FXD	PLSTC	ECQ-B1H332JZ3	5CAA00586	
C64	CAP,FXD	PLSTC	ECQ-B1H332JZ3	5CAA00586	
C65	CAP,FXD	CER	DD109-979SL471J50	5CAA002755	
C66	CAP,FXD	CER	DD109-979SL471J50	5CAA002755	
C67	CAP,FXD	PLSTC	ECQ-B1H472JZ3	5CAA00833	
C68	CAP,FXD	PLSTC	ECQ-B1H472JZ3	5CAA00833	
C69	CAP,FXD	PLSTC	ECQ-B1H152JZ3	5CAA00727	
C70	CAP,FXD	PLSTC	ECQ-B1H152JZ3	5CAA00727	

PARTS LIST

PARTS LIST		TITLE CFL-243W		SUBJECT NO. 4	
BMC		BMC		BMC	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	CODE
L6	LAL03VB471K	COIL	470UH	5LCAA00270	5LCAA00270
L7	LAL03VB471K	COIL	470UH	5LCAA00270	5LCAA00270
L8	LAL03VB471K	COIL	470UH	5LCAA00270	5LCAA00270
L9	LAL03VB471K	COIL	470UH	5LCAA00270	5LCAA00270
L10	LAL03VB471K	COIL	470UH	5LCAA00270	5LCAA00270
L11	LAL03VB100K	COIL	100H	5LCAA00273	5LCAA00273
L12	LAL03VB100K	COIL	100H	5LCAA00273	5LCAA00273
L13	LAL03VB120K	COIL		5LCAA00386	5LCAA00386
L14	LAL03VB120K	COIL		5LCAA00386	5LCAA00386
L15	LAL03VB100K	COIL	100H	5LCAA00273	5LCAA00273
L16	LAL03VB100K	COIL	100H	5LCAA00273	5LCAA00273
L17	LAL03VBR2K	COIL		5LCAA00335	5LCAA00335
L18	LAL03VBR2K	COIL		5LCAA00335	5LCAA00335
L19	LAL03VB100K	COIL	100H	5LCAA00273	5LCAA00273
L20	LAL03VB2R2M	COIL	2.2UH	5LCAA00278	5LCAA00278
P5	CONNECTOR	CONNECTOR	22P	5JWBS00070	5JWBS00070
P6	CONNECTOR	CONNECTOR	22P	5JWBS00070	5JWBS00070
PC1	H-6PCJDD00269A	PCB		6PCJDD00269	6PCJDD00269
R1	ERD-25UJ104T	RESISTOR FXD	100K OHM 1/4W	5RDAAD1623	5RDAAD1623
R2	ERD-25UJ222T	RESISTOR FXD	2.2K OHM 1/4W	5RDAAD1548	5RDAAD1548
R4	ERD-25UJ272T	RESISTOR FXD	2.7K OHM 1/4W	5RDAAD1546	5RDAAD1546
R5	ERD-25UJ101T	RESISTOR FXD	1/4W 100 OHM	5RDAAD1599	5RDAAD1599
R6	ERD-25UJ221T	RESISTOR FXD	220 OHM 1/4	5RDAAD1543	5RDAAD1543
R7	ERD-25UJ221T	RESISTOR FXD	220 OHM 1/4	5RDAAD1543	5RDAAD1543
R8	ERD-25UJ821T	RESISTOR FXD	820 OHM 1/4W	5RDAAD1604	5RDAAD1604
R9	ERD-25UJ101T	RESISTOR FXD	1/4W 100 OHM	5RDAAD1599	5RDAAD1599
R11	ERD-25UJ272T	RESISTOR FXD	2.7K OHM 1/4W	5RDAAD1546	5RDAAD1546
R12	ERD-25UJ222T	RESISTOR FXD	2.2K OHM 1/4W	5RDAAD1548	5RDAAD1548
R13	ERD-25UJ223T	RESISTOR FXD	22K OHM 1/4W	5RDAAD1545	5RDAAD1545
R14	ERD-25UJ221T	RESISTOR FXD	220 OHM 1/4	5RDAAD1543	5RDAAD1543
R15	ERD-25UJ103T	RESISTOR FXD	10K OHM 1/4W	5RDAAD1547	5RDAAD1547
R16	ERD-25UJ472T	RESISTOR FXD	4.7K OHM 1/4W	5RDAAD1549	5RDAAD1549
R17	ERD-25UJ101T	RESISTOR FXD	1/4W 100 OHM	5RDAAD1599	5RDAAD1599
R18	ERD-25UJ473T	RESISTOR FXD	1/4W 47K OHM	5RDAAD1618	5RDAAD1618
R19	ERD-25UJ472T	RESISTOR FXD	4.7K OHM 1/4W	5RDAAD1549	5RDAAD1549

PARTS LIST

PARTS LIST		TITLE CFL-243W		SUBJECT NO. 3	
BMC		BMC		BMC	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	CODE
C71	CAP,FXD	PLSTC	EQ-B1H272JZ3	5CRAA00835	5CRAA00835
C72	CAP,FXD	PLSTC	EQ-B1H272JZ3	5CRAA00835	5CRAA00835
C73	CAP,FXD	CER	DD806-979F103Z50	5CAA02929	5CAA02929
C74	CAP,FXD	ELECTL	ECC-A1EU100B	5CEAA01864	5CEAA01864
C75	CAP,FXD	PLSTC	EQ-V1H333JZ3	5CRAA00804	5CRAA00804
C76	CAP,FXD	CER	DD104-979CH100D50	5CAA02689	5CAA02689
CD1	DIODE		1S2076RE	5TXAE00588	5TXAE00588
CD2	DIODE		1S2076RE	5TXAE00588	5TXAE00588
CD3	DIODE		1S2076RE	5TXAE00588	5TXAE00588
CD4	DIODE		1S2076RE	5TXAE00588	5TXAE00588
CD5	DIODE		1S2076RE	5TXAE00588	5TXAE00588
CD6	DIODE		1S2076RE	5TXAE00588	5TXAE00588
CD7	DIODE		1S2076RE	5TXAE00588	5TXAE00588
CD8	DIODE		1S2076RE	5TXAE00588	5TXAE00588
CD9	DIODE		1S2076RE	5TXAE00588	5TXAE00588
CD10	DIODE		1S2076RE	5TXAE00588	5TXAE00588
CD11	DIODE		1S2076RE	5TXAE00588	5TXAE00588
CD12	DIODE		HZ5C1	5TXAE00130	5TXAE00130
CD13	DIODE		HZ5C1	5TXAE00130	5TXAE00130
FL1	CRYSTAL	CKT	H-6XHUJ00144	6XHUJ00144	6XHUJ00144
IC1	IC		SN76514N	5DDAL00251	5DDAL00251
IC2	IC		SN76514N	5DDAL00251	5DDAL00251
IC3	IC		H-6DDJDD00018 MB67116	6DDJDD00018	6DDJDD00018
IC4	IC		H-6DDJDD00018 MB67116	6DDJDD00018	6DDJDD00018
IC5	IC		HUM319D	5DAAN00206	5DAAN00206
IC6	IC		NJM319D	5DAAN00206	5DAAN00206
IC7	IC		TC40138AP	5DDAE00817	5DDAE00817
IC8	IC		TC40138AP	5DDAE00817	5DDAE00817
IC9	IC		NJM78L08A	5DAAN00079	5DAAN00079
IC10	IC		TA78005AP	5DAAD00082	5DAAD00082
L1	COIL		FL-7H472J-H	5LCAA00635	5LCAA00635
L2	COIL		FL-7H472J-H	5LCAA00635	5LCAA00635
L3	COIL		FL-7H472J-H	5LCAA00635	5LCAA00635
L4	COIL		FL-7H472J-H	5LCAA00635	5LCAA00635
L5	COIL		LAL03VB471K	5LCAA00270	5LCAA00270

PARTS LIST

PART NO		PART NAME		TYPE		DESCRIPTION		CODE	
BMC									
TITLE CPL-243W									
SHEET NO. 6									
TP3	TEST TERMINAL	PCN6-PEA							5JDAAD00364
TP4	TEST TERMINAL	PCN6-PEA							5JDAAD00364
TP5	TEST TERMINAL	PCN6-PEA							5JDAAD00364
TP6	TEST TERMINAL	PCN6-PEA							5JDAAD00364
TP7	TEST TERMINAL	PCN6-PEA							5JDAAD00364
TR1	TRANSISTOR	2SC1815-Y							5TCAF00219
TR2	TRANSISTOR	2SC1923Y							5TCAF00386
TR3	TRANSISTOR	2SA1015-Y							5TAAAG00070
TR4	TRANSISTOR	2SA1015-Y							5TAAAG00070
TR5	TRANSISTOR	2SA1015-Y							5TAAAG00070
TR6	TRANSISTOR	2SC1923Y							5TCAF00386
TR7	TRANSISTOR	2SC1923Y							5TCAF00386

PARTS LIST

PART NO		PART NAME		TYPE		DESCRIPTION		CODE	
BMC									
TITLE CPL-243W									
SHEET NO. 5									
R20	RESISTOR	FXD	ERD-25UJ101T			1/4W 100 OHM			SRDAA01599
R21	RESISTOR	FXD	ERD-25UJ471T			470 OHM 1/4W			SRDAA01541
R22	RESISTOR	FXD	ERD-25UJ102T			1K OHM 1/4			SRDAA01542
R23	RESISTOR	FXD	ERD-25UJ102T			1K OHM 1/4			SRDAA01542
R24	RESISTOR	FXD	ERD-25UJ221T			220 OHM 1/4			SRDAA01543
R25	RESISTOR	FXD	ERD-25UJ221T			220 OHM 1/4			SRDAA01543
R26	RESISTOR	FXD	ERD-25UJ103T			10K OHM 1/4W			SRDAA01547
R27	RESISTOR	FXD	ERD-25UJ103T			10K OHM 1/4W			SRDAA01547
R28	RESISTOR	FXD	ERD-25UJ221T			220 OHM 1/4			SRDAA01543
R29	RESISTOR	FXD	ERD-25UJ221T			220 OHM 1/4			SRDAA01543
R30	RESISTOR	FXD	ERD-25UJ102T			1K OHM 1/4			SRDAA01542
R31	RESISTOR	FXD	ERD-25UJ102T			1K OHM 1/4			SRDAA01542
R32	RESISTOR	FXD	ERD-25UJ101T			1/4W 100 OHM			SRDAA01599
R33	RESISTOR	FXD	ERD-25UJ101T			1/4W 100 OHM			SRDAA01599
R34	RESISTOR	FXD	ERD-25UJ153T			1/4W 15K OHM			SRDAA01594
R35	RESISTOR	FXD	ERD-25UJ153T			1/4W 15K OHM			SRDAA01594
R36	RESISTOR	FXD	ERD-25UJ153T			1/4W 15K OHM			SRDAA01594
R37	RESISTOR	FXD	ERD-25UJ153T			1/4W 15K OHM			SRDAA01594
R38	RESISTOR	FXD	ERD-25UJ102T			1K OHM 1/4			SRDAA01542
R39	RESISTOR	FXD	ERD-25UJ102T			1K OHM 1/4			SRDAA01542
R40	RESISTOR	FXD	ERD-25UJ470T						SRDAA01551
R41	RESISTOR	FXD	ERD-25UJ470T						SRDAA01551
R42	RESISTOR	FXD	ERD-25UJ100T			1/4W 10 OHM			SRDAA01576
R43	RESISTOR	FXD	ERD-25UJ100T			1/4W 10 OHM			SRDAA01576
R44	RESISTOR	FXD	ERD-25UJ100T			1/4W 10 OHM			SRDAA01576
R45	RESISTOR	FXD	ERD-25UJ100T			1/4W 10 OHM			SRDAA01576
R46	RESISTOR	FXD	ERD-25UJ151T			150 OHM 1/4W			SRDAA01601
R47	RESISTOR	FXD	ERD-25UJ151T			150 OHM 1/4W			SRDAA01601
RA1	RESISTOR	FXD	20B-12Z-MES						SREA000836
RA2	RESISTOR	FXD	20B-12Z-MES						SREA000836
RV1	RESISTOR	VAR	EVN-D2AA03B13						SRVAB00422
RV2	RESISTOR	VAR	EVN-D2AA03B13						SRVAB00422
T1	RF XFMR		S-061-006						5LJAA00006
TP1	TEST TERMINAL	PCN6-PEA							5JDAAD00364
TP2	TEST TERMINAL	PCN6-PEA							5JDAAD00364

PARTS LIST

SHEET NO. 2

PARTS LIST		TITLE CAE-227A			
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	
C47	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C48	CAP,FXD	CER	C3216SL1H102K-E-TP		SCAAD00878
C49	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C51	CAP,FXD	CER	C3216SL1H102J-E-TP	1000PF	SCAAD00782
C52	CAP,FXD	CER	C3216JB1H472K-E-TP	4700PF	SCAAD01138
C53	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C54	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C55	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C56	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C59	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C60	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C61	CAP,FXD	CER	C3216SL1H102J-E-TP	1000PF	SCAAD00782
C62	CAP,FXD	CER	C3216SL1H182J-E-TP		SCAAD01070
C63	CAP,FXD	CER	C3216SL1H102J-E-TP	1000PF	SCAAD00782
C64	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C66	CAP,FXD	CER	C3216X7R1E333K-E-TP	0.033U	SCAAD01203
C71	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C72	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C73	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C74	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C75	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C76	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C77	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C78	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C79	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C80	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C81	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C82	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C83	CAP,FXD	ELCTLT	ECE-A1EU100B		SCERA01864
C86	CAP,FXD	CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C87	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C88	CAP,FXD	TANTAL	202L3502 474KB		SCSAC01065
C89	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C90	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C91	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237

PARTS LIST

SHEET NO. 1

PARTS LIST		TITLE CAE-227A			
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	
C1	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C2	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C3	CAP,FXD	ELCTLT	ECE-A1EU100B		SCERA01864
C4	CAP,FXD	CER	C3216X7R1E333K-E-TP	0.033U	SCAAD01203
C5	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C6	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C7	CAP,FXD	CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C8	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C9	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C10	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C11	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C12	CAP,FXD	TANTAL	202L3502 474KB		SCSAC01065
C13	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C14	CAP,FXD	TANTAL	202L3502 474KB		SCSAC01065
C16	CAP,FXD	TANTAL	202L3502 474KB		SCSAC01065
C17	CAP,FXD	TANTAL	202L3502 474KB		SCSAC01065
C18	CAP,FXD	PLSTC	EC8-B1H182JZ3		SCRAAD00875
C19	CAP,FXD	PLSTC	EC8-B1H182JZ3		SCRAAD00875
C20	CAP,FXD	CER	C3216CH1H151J-E-TP	150PF	SCAAD00870
C21	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C22	CAP,FXD	TANTAL	202L3502 474KB		SCSAC01065
C23	CAP,FXD	TANTAL	202L3502 474KB		SCSAC01065
C24	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C25	CAP,FXD	TANTAL	202L3502 474KB		SCSAC01065
C26	CAP,FXD	TANTAL	202L3502 474KB		SCSAC01065
C27	CAP,FXD	CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C30	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C31	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C32	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C33	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C34	CAP,FXD	ELCTLT	ECE-A1EU101B		SCERA01813
C35	CAP,FXD	CER	C3216SL1H222J-E-TP	2200PF	SCAAD00792
C36	CAP,FXD	CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C37	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C46	CAP,FXD	CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237

PARTS LIST

PARTS LIST		IF AMP		TITLE CAE-227A		SHEET NO. 3	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE			
C92	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237			
C94	CAP,FXD CER	C3216X7R1E333K-E-TP	0.033U	5CAAD01203			
C95	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237			
C96	CAP,FXD CER	C3216J81H472K-E-TP	4700PF	5CAAD01138			
C97	CAP,FXD CER	C3216X7R1E333K-E-TP	0.033U	5CAAD01203			
C98	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864			
C99	CAP,FXD CER	C3216X7R1E333K-E-TP	0.033U	5CAAD01203			
C100	CAP,FXD TANTAL	202L3502 105KB	35V 1UF	5CSAC00982			
C101	CAP,FXD CER	C3216CH1H471J-E-TP	470PF	5CAAD00797			
C102	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782			
C103	CAP,FXD TANTAL	202L3502 105KB	35V 1UF	5CSAC00982			
C104	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864			
C105	CAP,FXD TANTAL	202L3502 224KB	0.22UF 35V	5CSAC00988			
C106	CAP,FXD CER	C3216X7R1E333K-E-TP	0.033U	5CAAD01203			
C107	CAP,FXD TANTAL	202L2502 475KB		5CSAC00934			
C108	CAP,FXD TANTAL	202L3502 105KB	35V 1UF	5CSAC00982			
C109	CAP,FXD CER	C3216X7R1E333K-E-TP	0.033U	5CAAD01203			
C110	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864			
C111	CAP,FXD CER	C3216X7R1E333K-E-TP	0.033U	5CAAD01203			
C112	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237			
C113	CAP,FXD C CER	C3216J81H103K-E-TP	50V 0.01UF	5CAAD00789			
C114	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237			
C115	CAP,FXD C CER	C3216J81H103K-E-TP	50V 0.01UF	5CAAD00789			
C116	CAP,FXD CER	C3216X7R1E333K-E-TP	0.033U	5CAAD01203			
C121	CAP,FXD CER	C3216X7R1E333K-E-TP	0.033U	5CAAD01203			
C122	CAP,FXD CER	C3216X7R1E333K-E-TP	0.033U	5CAAD01203			
C123	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864			
C124	CAP,FXD CER	C3216J81H223K-E-TP		5CAAD01645			
C125	CAP,FXD CER	C3216J81H223K-E-TP		5CAAD01645			
C126	CAP,FXD CER	C3216J81H223K-E-TP		5CAAD01645			
C127	CAP,FXD C CER	C3216J81H103K-E-TP	50V 0.01UF	5CAAD00789			
C128	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782			
C129	CAP,FXD TANTAL	202L3502 105KB	35V 1UF	5CSAC00982			
C130	CAP,FXD C CER	C3216J81H103K-E-TP	50V 0.01UF	5CAAD00789			
C131	CAP,FXD C CER	C3216J81H103K-E-TP	50V 0.01UF	5CAAD00789			

PARTS LIST

PARTS LIST		IF AMP		TITLE CAE-227A		SHEET NO. 4	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE			
C132	CAP,FXD C CER	C3216J81H103K-E-TP	50V 0.01UF	5CAAD00789			
C135	CAP,FXD ELCTLT	ECE-A1EU330B		5CEAA01822			
C136	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237			
C137	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237			
C138	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237			
C139	CAP,FXD CER	C3216CH1H680J-E-TP	68PF	5CAAD00929			
C140	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864			
C141	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864			
C142	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237			
C143	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237			
C144	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237			
C145	CAP,FXD TANTAL	202L2502 225KB	2.2UF 25V	5CSAC01129			
C146	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782			
C147	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782			
C148	CAP,FXD TANTAL	202L3502 225KB		5CSAC01069			
C149	CAP,FXD CER	C3216X7R1E333K-E-TP	0.033U	5CAAD01203			
C150	CAP,FXD C CER	C3216J81H103K-E-TP	50V 0.01UF	5CAAD00789			
C151	CAP,FXD C CER	C3216J81H103K-E-TP	50V 0.01UF	5CAAD00789			
C152	CAP,FXD C CER	C3216J81H103K-E-TP	50V 0.01UF	5CAAD00789			
C153	CAP,FXD CER	C3216J81E473K-E-TP		5CAAD01131			
C154	CAP,FXD TANTAL	202L3502 224KB	0.22UF 35V	5CSAC00988			
C155	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864			
C157	CAP,FXD TANTAL	202L3502 105KB	35V 1UF	5CSAC00982			
C159	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237			
C166	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237			
C167	CAP,FXD TANTAL	202L3502 224KB	0.22UF 35V	5CSAC00988			
C168	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864			
C169	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237			
C170	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237			
C171	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237			
C172	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864			
C173	CAP,FXD TANTAL	202L3502 224KB	0.22UF 35V	5CSAC00988			
C175	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864			
C176	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864			
C177	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237			

PART NO	PART NAME	TYPE	DESCRIPTION	CODE
CD11	DIODE	HSM2836CTL		STXAE00765
CD13	DIODE	1SS184 TE85L		STXAD00290
CD14	DIODE	HSM2836CTL		STXAE00765
CD21	DIODE	1SS184 TE85L		STXAD00290
CD22	DIODE	R06.2M-11B B2		STXAA00674
CD23	DIODE	1SS226 TE85L		STXAD00320
CD24	DIODE	HSM2836CTL		STXAE00765
CD25	DIODE	1SS184 TE85L		STXAD00290
CD26	DIODE	1SS184 TE85L		STXAD00290
CD27	DIODE	1SS184 TE85L		STXAD00290
CD28	DIODE	1SV149B		STXAD00332
CD29	DIODE	1SS184 TE85L		STXAD00290
CD30	DIODE	1SS97		STXAA00326
CD31	DIODE	1SS97		STXAA00326
IC2	IC	SH16913P		S0DAL00301
IC3	IC	M5223L		S0DAB00164
IC4	IC	TA7310P		S0DAD00091
IC5	IC	MC14066BCP		S0DAAJ00359
IC6	IC	MC14066BCP		S0DAAJ00359
IC7	IC	M5223L		S0DAB00164
IC8	IC	MC33618P		S0DAS00206
IC9	IC	M5223L		S0DAB00164
IC10	IC	TC40528P		S0DAE00208
IC11	IC	M5218L		S0DAB00158
IC12	IC	M5218L		S0DAB00158
J1	CONNECTOR	1L-G-2P-S3L2-E		SJWAD00094
L2	COIL	FL-7H472J-H	4.7MH	SLCAA00635
L3	COIL	FL-7H472J-H	4.7MH	SLCAA00635
L4	COIL	LAL03VB681K		SLCAA00642
L5	COIL	FL-7H222J-H	2.2MH WITH TUBE	SLCAA00631
L6	COIL	FL-7H222J-H	2.2MH WITH TUBE	SLCAA00631
L7	COIL	LAL03VB100K	10UH	SLCAA00273
L8	COIL	LAL03VB101K		SLCAA00333
L9	COIL	LAL03VB820K		SLCAA00388
P7	CONNECTOR	EC1C-22P-2.5DSA	22P	SJWBS00070

PART NO	PART NAME	TYPE	DESCRIPTION	CODE
C178	CAP,FXD ELCTL	ECE-A1EU100B		5CEAA01864
C179	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237
C180	CAP,FXD TANTAL	202L3502 334KB	35V 0.33U	5CSAC01151
C181	CAP,FXD ELCTL	ECE-A1EU100B		5CEAA01864
C182	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789
C183	CAP,FXD ELCTL	ECE-A1EU100B		5CEAA01864
C184	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789
C191	CAP,FXD CER	C3216X7R1E333K-E-TP	0.033U	5CAAD01203
C192	CAP,FXD ELCTL	ECE-A1EU100B		5CEAA01864
C193	CAP,FXD CER	C3216JB1H332K-E-TP	50V 3300PF	5CAAD01599
C194	CAP,FXD CER	C3216JB1H682K-E-TP		5CAAD01137
C195	CAP,FXD CER	C3216JB1H682K-E-TP		5CAAD01137
C196	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237
C197	CAP,FXD TANTAL	202L3502 105KB	35V 1UF	5CSAC00982
C198	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789
C199	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789
C200	CAP,FXD CER	C3216X7R1E333K-E-TP	0.033U	5CAAD01203
C201	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782
C202	CAP,FXD CER	C3216X7R1E333K-E-TP	0.033U	5CAAD01203
C203	CAP,FXD CER	C3216JB1H223K-E-TP		5CAAD01645
C204	CAP,FXD CER	C3216JB1H332K-E-TP	50V 3300PF	5CAAD01599
C205	CAP,FXD CER	C3216X7R1E333K-E-TP	0.033U	5CAAD01203
C206	CAP,FXD CER	C3216JB1H682K-E-TP		5CAAD01137
C207	CAP,FXD CER	C3216SL1H222J-E-TP	2200PF	5CAAD00792
C208	CAP,FXD CER	C3216JB1H223K-E-TP		5CAAD01645
C210	CAP,FXD CER	C3216CH1H471J-E-TP	470PF	5CAAD00797
CD1	DIODE	1SS226 TE85L		STXAD00320
CD2	DIODE	1SV149B		STXAD00332
CD3	DIODE	1SS184 TE85L		STXAD00290
CD4	DIODE	MPR4371F		STXBG00037
CD5	DIODE	1SS226 TE85L		STXAD00320
CD6	DIODE	1SS226 TE85L		STXAD00320
CD8	DIODE	HSM2836CTL		STXAE00765
CD9	DIODE	1SS184 TE85L		STXAD00290
CD10	DIODE	RD5.1M-11B B1		STXAA00632

PARTS LIST

PARTS LIST		TITLE		SHEET NO.	
IF AMP		CAE-227A		7	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	
P8	CONNECTOR		22P	5J4BS00070	
PC1	H-6PCJDD002600			6PCJDD00260	
R1	RESISTOR CFXD		1/8W 100 OHM	SREAG01726	
R2	RESISTOR FXD		1/8W 10K OHM	SREAG01750	
R3	RESISTOR CFXD		1/8W 100 OHM	SREAG01726	
R4	RESISTOR FXD		1/8W 22 OHM	SREAG01718	
R5	RESISTOR FXD		1/8W,18K OHM	SREAG01753	
R6	RESISTOR CFXD		1/8W 100 OHM	SREAG01726	
R7	RESISTOR CFXD		1/8W 100 OHM	SREAG01726	
R8	RESISTOR CFXD		1/8W 100 OHM	SREAG01726	
R9	RESISTOR FXD		1/8W 56 OHM	SREAG01723	
R10	RESISTOR FXD		1/8W 68 OHM	SREAG01724	
R11	RESISTOR FXD		1/8W 3.3K OHM	SREAG01744	
R12	RESISTOR FXD		1/8W,18K OHM	SREAG01753	
R13	RESISTOR CFXD		1/8W 100 OHM	SREAG01726	
R14	RESISTOR CFXD		1/8W 100 OHM	SREAG01726	
R15	RESISTOR FXD		1/8W 22K OHM	SREAG01754	
R16	RESISTOR FXD		1/8W 6.8K OHM	SREAG01748	
R17	RESISTOR CFXD		1/8W 100K OHM	SREAG01762	
R18	RESISTOR CFXD		1/8W 100K OHM	SREAG01762	
R19	RESISTOR FXD		1/8W 150K OHM	SREAG01764	
R20	RESISTOR FXD		1/8W 1K OHM	SREAG01738	
R21	RESISTOR CFXD		1/8W 1.8K OHM	SREAG01741	
R22	RESISTOR FXD		1/8W 1K OHM	SREAG01738	
R23	RESISTOR FXD		1/8W 10K OHM	SREAG01750	
R24	RESISTOR FXD		1/8W 1K OHM	SREAG01738	
R25	RESISTOR CFXD		1/8W 150 OHM	SREAG01728	
R26	RESISTOR FXD		1/8W 10K OHM	SREAG01750	
R27	RESISTOR CFXD		1/8W 100K OHM	SREAG01762	
R28	RESISTOR FXD		1/8W 10K OHM	SREAG01750	
R29	RESISTOR CFXD		1/8W 100K OHM	SREAG01762	
R31	RESISTOR FXD		1/8W 10K OHM	SREAG01750	
R32	RESISTOR FXD		1/8W 10K OHM	SREAG01750	
R33	RESISTOR FXD		1/8W 1M OHM	SREAG01774	
R34	RESISTOR CFXD		1/8W 100 OHM	SREAG01726	

PARTS LIST

PARTS LIST		TITLE		SHEET NO.	
IF AMP		CAE-227A		8	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	
R35	RESISTOR FXD		330 OHM 1/8W	SREAG01732	
R36	RESISTOR FXD		1/8W 1K OHM	SREAG01738	
R37	RESISTOR CFXD		1/8W 100 OHM	SREAG01726	
R38	RESISTOR CFXD		1/8W 100K OHM	SREAG01762	
R39	RESISTOR CFXD		1/8W 100 OHM	SREAG01726	
R40	RESISTOR FXD		1/8W 220 OHM	SREAG01730	
R41	RESISTOR FXD		1/8W 470 OHM	SREAG01734	
R42	RESISTOR FXD		1/8W 10K OHM	SREAG01750	
R43	RESISTOR FXD		1/8W 10K OHM	SREAG01750	
R44	RESISTOR FXD		1/8W 220 OHM	SREAG01730	
R45	RESISTOR FXD		1/8W 10K OHM	SREAG01750	
R46	RESISTOR FXD		1/8W 5.6K OHM	SREAG01747	
R51	RESISTOR FXD		1/8W 15K OHM	SREAG01752	
R52	RESISTOR CFXD		1/8W 100K OHM	SREAG01762	
R53	RESISTOR CFXD		1/8W 100K OHM	SREAG01762	
R54	RESISTOR FXD		1/8W 47K OHM	SREAG01758	
R55	RESISTOR FXD		1/8W 47K OHM	SREAG01758	
R56	RESISTOR FXD		1/8W 2.2K OHM	SREAG01742	
R57	RESISTOR FXD		1/8W 10K OHM	SREAG01750	
R58	RESISTOR FXD		1/8W 10K OHM	SREAG01750	
R59	RESISTOR FXD		1/8W 47K OHM	SREAG01758	
R60	RESISTOR FXD		1/8W 1K OHM	SREAG01738	
R61	RESISTOR FXD		1/8W 47K OHM	SREAG01758	
R62	RESISTOR FXD		1/8W 1K OHM	SREAG01738	
R63	RESISTOR CFXD		1/8W 100 OHM	SREAG01726	
R64	RESISTOR FXD		330 OHM 1/8W	SREAG01732	
R65	RESISTOR FXD		1/8W 560 OHM	SREAG01735	
R66	RESISTOR FXD		1/8W 560 OHM	SREAG01735	
R67	RESISTOR FXD		1/8W 15K OHM	SREAG01752	
R68	RESISTOR FXD		1/8W 10K OHM	SREAG01750	
R69	RESISTOR FXD		1/8W 3.3K OHM	SREAG01744	
R70	RESISTOR FXD		1/8W 1K OHM	SREAG01774	
R71	RESISTOR FXD		1/8W,18K OHM	SREAG01753	
R72	RESISTOR FXD		1/8W 3.3K OHM	SREAG01744	
R73	RESISTOR FXD		1/8W 1K OHM	SREAG01738	

PART NO	PART NAME	TYPE	DESCRIPTION	CODE
R112	RESISTOR FXD	ERJ-8GEYJ473V	1/8W 47K OHM	SREAG01758
R113	RESISTOR FXD	ERJ-8GEYJ472V	1/8W 4.7K OHM	SREAG01746
R114	RESISTOR FXD	ERJ-8GEYJ472V	1/8W 4.7K OHM	SREAG01746
R115	RESISTOR FXD	ERJ-8GEYJ105V	1/8W 1K OHM	SREAG01774
R116	RESISTOR FXD	ERJ-8GEYJ102V	1/8W 1K OHM	SREAG01738
R117	RESISTOR CFXD	ERJ-8GEYJ104V	1/8W 100K OHM	SREAG01762
R121	RESISTOR FXD	ERJ-8GEYJ222V	1/8W 2.2K OHM	SREAG01742
R122	RESISTOR FXD	ERJ-8GEYJ102V	1/8W 1K OHM	SREAG01738
R123	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	SREAG01726
R124	RESISTOR FXD	ERJ-8GEYJ472V	1/8W 4.7K OHM	SREAG01746
R125	RESISTOR FXD	ERJ-8GEYJ272V	1/8W 2.7K OHM	SREAG01743
R126	RESISTOR FXD	ERJ-8GEYJ272V	1/8W 2.7K OHM	SREAG01743
R127	RESISTOR FXD	ERJ-8GEYJ334V	1/8W 330K OHM	SREAG01768
R128	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750
R129	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750
R130	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750
R131	RESISTOR FXD	ERJ-8GEYD000V	0 OHM	SREAG01775
R140	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750
R141	RESISTOR FXD	ERJ-8GEYJ223V	1/8W 22K OHM	SREAG01754
R142	RESISTOR FXD	ERJ-8GEYJ474V	1/8W 470K OHM	SREAG01770
R143	RESISTOR FXD	ERJ-8GEYJ682V	1/8W 6.8K OHM	SREAG01748
R144	RESISTOR FXD	ERJ-8GEYJ332V	1/8W 3.3K OHM	SREAG01744
R145	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750
R146	RESISTOR FXD	ERJ-8GEYJ473V	1/8W 47K OHM	SREAG01758
R147	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750
R148	RESISTOR FXD	ERJ-8GEYJ473V	1/8W 47K OHM	SREAG01758
R149	RESISTOR CFXD	ERJ-8GEYJ104V	1/8W 100K OHM	SREAG01762
R150	RESISTOR CFXD	ERJ-8GEYJ104V	1/8W 100K OHM	SREAG01762
R151	RESISTOR FXD	ERJ-8GEYJ682V	1/8W 6.8K OHM	SREAG01748
R152	RESISTOR FXD	ERJ-8GEYJ473V	1/8W 47K OHM	SREAG01758
R153	RESISTOR CFXD	ERJ-8GEYJ104V	1/8W 100K OHM	SREAG01762
R154	RESISTOR FXD	ERJ-8GEYJ222V	1/8W 2.2K OHM	SREAG01742
R155	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750
R156	RESISTOR FXD	ERJ-8GEYJ331V	330 OHM 1/8W	SREAG01732
R157	RESISTOR FXD	ERJ-8GEYJ822V		SREAG01749

PART NO	PART NAME	TYPE	DESCRIPTION	CODE
R74	RESISTOR FXD	ERJ-8GEYJ105V	1/8W 1K OHM	SREAG01774
R75	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750
R76	RESISTOR FXD	ERJ-8GEYK2R2V		SREAG02210
R81	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750
R82	RESISTOR FXD	ERJ-8GEYJ473V	1/8W 47K OHM	SREAG01758
R83	RESISTOR FXD	ERJ-8GEYD000V	0 OHM	SREAG01775
R84	RESISTOR FXD	ERJ-8GEYJ102V	1/8W 1K OHM	SREAG01738
R85	RESISTOR FXD	ERJ-8GEYJ472V	1/8W 4.7K OHM	SREAG01746
R86	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	SREAG01726
R87	RESISTOR FXD	ERJ-8GEYJ393V	1/8W 39K OHM	SREAG01757
R88	RESISTOR FXD	ERJ-8GEYJ472V	1/8W 4.7K OHM	SREAG01746
R89	RESISTOR FXD	ERJ-8GEYJ102V	1/8W 1K OHM	SREAG01738
R90	RESISTOR FXD	ERJ-8GEYJ102V	1/8W 1K OHM	SREAG01738
R91	RESISTOR FXD	ERJ-8GEYJ682V	1/8W 6.8K OHM	SREAG01748
R92	RESISTOR FXD	ERJ-8GEYJ472V	1/8W 4.7K OHM	SREAG01746
R93	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750
R94	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750
R95	RESISTOR FXD	ERJ-8GEYJ393V	1/8W 39K OHM	SREAG01757
R96	RESISTOR FXD	ERJ-8GEYJ223V	1/8W 22K OHM	SREAG01754
R97	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750
R98	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750
R99	RESISTOR FXD	ERJ-8GEYJ332V	1/8W 3.3K OHM	SREAG01744
R100	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750
R101	RESISTOR FXD	ERJ-8GEYJ473V	1/8W 47K OHM	SREAG01758
R102	RESISTOR FXD	ERJ-8GEYJ473V	1/8W 47K OHM	SREAG01758
R103	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	SREAG01726
R104	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750
R105-1	RESISTOR FXD	ERJ-8GEYJ105V	1/8W 1K OHM	SREAG01774
R105-2	RESISTOR FXD	ERJ-8GEYJ105V	1/8W 1K OHM	SREAG01774
R106	RESISTOR FXD	ERJ-8GEYJ473V	1/8W 47K OHM	SREAG01758
R107	RESISTOR FXD	ERJ-8GEYJ223V	1/8W 22K OHM	SREAG01754
R108	RESISTOR FXD	ERJ-8GEYJ561V	1/8W 560 OHM	SREAG01735
R109	RESISTOR FXD	ERJ-8GEYJ473V	1/8W 47K OHM	SREAG01758
R110	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750
R111	RESISTOR FXD	ERJ-8GEYJ473V	1/8W 47K OHM	SREAG01758

PARTS LIST		TITLE		SHEET NO.	
IF AMP		CAE-227A		12	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	
R196	RESISTOR FXD	ERJ-8GEYJ683V	1/8W 68K OHM	SREAG01760	
R197	RESISTOR FXD	ERJ-8GEYJ334V	1/8W 330K OHM	SREAG01768	
R198	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775	
R199	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775	
R200	RESISTOR CFXD	ERJ-8GEYJ681V	1/8W 680 OHM	SREAG01736	
R211	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	SREAG01726	
R212	RESISTOR FXD	ERJ-8GEYJ472V	1/8W 4.7K OHM	SREAG01746	
R213	RESISTOR FXD	ERJ-8GEYJ562V	1/8W 5.6K OHM	SREAG01747	
R214	RESISTOR FXD	ERJ-8GEYJ562V	1/8W 5.6K OHM	SREAG01747	
R215	RESISTOR FXD	ERJ-8GEYJ334V	1/8W 330K OHM	SREAG01768	
R216	RESISTOR FXD	ERJ-8GEYJ102V	1/8W 1K OHM	SREAG01738	
R217	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750	
R218	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750	
R219	RESISTOR FXD	ERJ-8GEYJ224V	1/8W 220K OHM	SREAG01766	
R220	RESISTOR FXD	ERJ-8GEYJ224V	1/8W 220K OHM	SREAG01766	
R221	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750	
R231	THERMISTOR	P8N-42H-52		SRXAD00007	
RJ1	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775	
RJ2	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775	
RJ3	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775	
RJ5	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775	
RJ6	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775	
RJ7	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775	
RJ8	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775	
RJ9	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775	
RJ10	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775	
RJ11	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775	
RJ12	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775	
RJ13	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775	
RJ14	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775	
RJ15	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775	
RJ16	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775	
RJ19	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775	
RJ20	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775	
RJ21	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775	

PARTS LIST		TITLE		SHEET NO.	
IF AMP		CAE-227A		11	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	
R158	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750	
R159	RESISTOR FXD	ERJ-8GEYJ473V	1/8W 47K OHM	SREAG01738	
R160	RESISTOR FXD	ERJ-8GEYJ221V	1/8W 220 OHM	SREAG01730	
R161	RESISTOR FXD	ERJ-8GEYJ152V	1/8W 1.5K OHM	SREAG01740	
R162	RESISTOR FXD	ERJ-8GEYJ222V	1/8W 2.2K OHM	SREAG01742	
R163	RESISTOR FXD	ERJ-8GEYJ102V	1/8W 1K OHM	SREAG01738	
R166	RESISTOR CFXD	ERJ-8GEYJ104V	1/8W 100K OHM	SREAG01762	
R167	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750	
R168	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750	
R169	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750	
R170	RESISTOR FXD	ERJ-8GEYJ102V	1/8W 1K OHM	SREAG01738	
R171	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750	
R172	RESISTOR FXD	ERJ-8GEYJ222V	1/8W 2.2K OHM	SREAG01742	
R173	RESISTOR FXD	ERJ-8GEYJ222V	1/8W 2.2K OHM	SREAG01742	
R174	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750	
R175	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750	
R176	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750	
R177	RESISTOR FXD	ERJ-8GEYJ102V	1/8W 1K OHM	SREAG01738	
R178	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750	
R179	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750	
R180	RESISTOR FXD	ERJ-8GEYJ822V		SREAG01749	
R182	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750	
R183	RESISTOR FXD	ERJ-8GEYJ105V	1/8W 1M OHM	SREAG01774	
R184	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750	
R185	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750	
R186	RESISTOR CFXD	ERJ-8GEYJ104V	1/8W 100K OHM	SREAG01762	
R187	RESISTOR FXD	ERJ-8GEYJ102V	1/8W 1K OHM	SREAG01738	
R189-1	RESISTOR FXD	ERJ-8GEYJ105V	1/8W 1M OHM	SREAG01774	
R189-2	RESISTOR FXD	ERJ-8GEYJ105V	1/8W 1M OHM	SREAG01774	
R189-3	RESISTOR FXD	ERJ-8GEYJ105V	1/8W 1M OHM	SREAG01774	
R190	RESISTOR FXD	ERJ-8GEYJ102V	1/8W 1K OHM	SREAG01738	
R191	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750	
R192	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750	
R193	RESISTOR FXD	ERJ-8GEYJ472V	1/8W 4.7K OHM	SREAG01746	
R195	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	SREAG01750	

PARTS LIST

SHEET NO. 13

TITLE CAE-227A

IF AMP

PART NO	PART NAME	TYPE	DESCRIPTION	CODE
RJ23	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ24	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ25	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ27	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ28	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ29	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ30	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ31	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ32	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ33	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ34	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ35	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ36	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ37	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ38	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ39	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ40	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ41	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ42	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ43	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ44	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ45	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ46	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ47	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ48	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ49	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ50	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ51	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ52	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ53	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ54	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ55	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ56	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ57	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ58	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775

PARTS LIST

SHEET NO. 14

TITLE CAE-227A

IF AMP

PART NO	PART NAME	TYPE	DESCRIPTION	CODE
RJ59	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ60	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ61	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ62	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ63	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ64	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ65	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ66	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ67	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ68	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ69	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ70	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ71	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ72	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ74	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ76	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ77	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ78	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ79	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ80	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ81	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ82	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ83	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ85	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ86	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RJ87	RESISTOR FXD	ERJ-8GEYOR00V	0 OHM	SREAG01775
RV1	RESISTOR VAR	EYN-D2AA03B54	10K OHM	SRVAB00428
RV2	RESISTOR VAR	EYN-D8AA03B14	10K OHM	SRVAB00428
RV3	RESISTOR VAR	EYN-D8AA03B14	10K OHM	SRVAB00428
RV4	RESISTOR VAR	EYN-D2AA03B23		SRVAB00429
RV5	RESISTOR VAR	EYN-D2AA03B14	10K OHM	SRVAB00430
RV6	RESISTOR VAR	EYN-D8AA03B14	10K OHM	SRVAB00428
RV7	RESISTOR VAR	EYN-D8AA03B54		SRVAB00419
RV8	RESISTOR VAR	EYN-D2AA03B55		SRVAB00440
RV9	RESISTOR VAR	EYN-D2AA03B55		SRVAB00440

PART NO	PART NAME	TYPE	DESCRIPTION	CODE
TR31	TRANSISTOR	2SC2712Y	TE85L	STAAG00186
TR32	TRANSISTOR	2SA1162-YTE85L		STAAG00182
TR33	TRANSISTOR	2SA1162-YTE85L		STAAG00182
TR34	TRANSISTOR	2SC3398-TB		STCAZ00011
TR35	TRANSISTOR	2SC3398-TB		STCAZ00011
TR36	TRANSISTOR	2SC3398-TB		STCAZ00011
TR37	TRANSISTOR	2SC3398-TB		STCAZ00011
TR38	TRANSISTOR	2SA1162-YTE85L		STAAG00182
TR39	TRANSISTOR	2SC3398-TB		STCAZ00011
TR40	TRANSISTOR	2SC2712Y	TE85L	STAAG00186
TR41	TRANSISTOR	2SC2712Y	TE85L	STAAG00186
X1	RESONATOR	CSB360D		SNRA00198

PART NO	PART NAME	TYPE	DESCRIPTION	CODE
S1	TERMINAL	A2-3PA-2.540SA(01)		SJTBX00010
S1P	CONNECTOR	HIF3GA-2.54SP		SJFAAD1151
T1	RF XFMR	S-061-006		5LJAA00006
T2	RF XFMR	S-061-006		5LJAA00006
T3	RF XFMR	H-6LHJ000489	100KHZ	6LHJ000489
T4	RF XFMR	H-6LHJ000490	100KHZ	6LHJ000490
T5	RF XFMR	H-6LHJ000489	100KHZ	6LHJ000489
T6	COIL	5D-ELD19A-41		6LAFD00018
TP	TEST TERMINAL	PCN6-PEA		5JDAAD00364
TR1	TRANSISTOR	3SK73-GR-2		5TKAAD00204
TR2	TRANSISTOR	3SK73-GR-2		5TKAAD00204
TR3	TRANSISTOR	3SK73-GR-2		5TKAAD00204
TR4	TRANSISTOR	2SC2712Y	TE85L	5TAAG00186
TR5	TRANSISTOR	2SC2712Y	TE85L	5TAAG00186
TR6	TRANSISTOR	2SA1162-YTE85L		5TAAG00182
TR7	TRANSISTOR	3SK73-GR-2		5TKAAD00204
TR8	TRANSISTOR	2SC2712Y	TE85L	5TAAG00186
TR9	TRANSISTOR	2SC2712Y	TE85L	5TAAG00186
TR10	TRANSISTOR	2SC2712Y	TE85L	5TAAG00186
TR11	TRANSISTOR	2SC2712Y	TE85L	5TAAG00186
TR12	TRANSISTOR	2SC2712Y	TE85L	5TAAG00186
TR13	TRANSISTOR	2SC3398-TB		5TCAZ00011
TR15	TRANSISTOR	2SC2712Y	TE85L	5TAAG00186
TR16	TRANSISTOR	2SC2712Y	TE85L	5TAAG00186
TR17	TRANSISTOR	2SC2712Y	TE85L	5TAAG00186
TR18	TRANSISTOR	2SA1162-YTE85L		5TAAG00182
TR19	TRANSISTOR	2SC2712Y	TE85L	5TAAG00186
TR20	TRANSISTOR	2SC2712Y	TE85L	5TAAG00186
TR21	TRANSISTOR	2SC3398-TB		5TCAZ00011
TR22	TRANSISTOR	2SA1162-YTE85L		5TAAG00182
TR23	TRANSISTOR	2SC3398-TB		5TCAZ00011
TR24	TRANSISTOR	2SC3398-TB		5TCAZ00011
TR26	TRANSISTOR	2SC2712Y	TE85L	5TAAG00186
TR27	TRANSISTOR	2SC2712Y	TE85L	5TAAG00186
TR30	TRANSISTOR	2SC3398-TB		5TCAZ00011

PARTS LIST

TITLE CHF-78

ECSS

SUBJECT NO. 1

PART NO

PART NAME

TYPE

DESCRIPTION

CODE

C1	CAP,FXD TANTAL	202L3502 474KB	SCSAC01065
C2	CAP,FXD TANTAL	202L3502 474KB	SCSAC01065
C3	CAP,FXD TANTAL	202L3502 474KB	SCSAC01065
C4	CAP,FXD ELCTLY	ECE-A1EU330B	SCEAA01822
C5	CAP,FXD TANTAL	202L3502 474KB	SCSAC01065
C6	CAP,FXD TANTAL	202L3502 474KB	SCSAC01065
C7	CAP,FXD TANTAL	202L3502 474KB	SCSAC01065
C8	CAP,FXD ELCTLY	ECE-A1EU330B	SCEAA01822
C9	CAP,FXD CER	C3216SH1H102J-E-TP 50V 1000PF	SCAAD01479
C10	CAP,FXD TANTAL	202L3502 225KB	SCSAC01069
C11	CAP,FXD CER	DD109-979CH151J50	SCAAA03148
C12	CAP,FXD TANTAL	202L3502 474KB	SCSAC01065
C13	CAP,FXD TANTAL	202L3502 474KB	SCSAC01065
C14	CAP,FXD PLSTC	ECQ-B1H102K23	SCSAC00811
C15	CAP,FXD PLSTC	ECQ-B1H332K23	SCRAA00815
C16	CAP,FXD TANTAL	202L3502 474KB	SCSAC01065
C17	CAP,FXD TANTAL	202L3502 474KB	SCSAC01065
C18	CAP,FXD PLSTC	ECQ-V1H333J23	SCRAA00804
C19	CAP,FXD PLSTC	ECQ-V1H224J23	SCRAA00482
C20	CAP,FXD TANTAL	202L3502 474KB	SCSAC01065
C21	CAP,FXD TANTAL	202L3502 474KB	SCSAC01065
C22	CAP,FXD TANTAL	202L3502 474KB	SCSAC01065
C23	CAP,FXD ELCTLY	ECE-A1EU330B	SCEAA01822
C24	CAP,FXD TANTAL	202L3502 474KB	SCSAC01065
C25	CAP,FXD TANTAL	202L3502 474KB	SCSAC01065
C26	CAP,FXD TANTAL	202L3502 474KB	SCSAC01065
C27	CAP,FXD PLSTC	ECQ-V1H333J23	SCRAA00804
C28	CAP,FXD PLSTC	ECQ-V1H224J23	0.22UF 50V
C29	CAP,FXD TANTAL	202L3502 474KB	SCSAC01065
C30	CAP,FXD TANTAL	202L3502 474KB	SCSAC01065
C31	CAP,FXD ELCTLY	ECE-A1EU330B	SCEAA01822
C32	CAP,FXD TANTAL	202L3502 474KB	SCSAC01065
C33	CAP,FXD TANTAL	202L3502 474KB	SCSAC01065
C34	CAP,FXD TANTAL	202L3502 474KB	SCSAC01065
C35	CAP,FXD PLSTC	ECQ-V1H333J23	SCRAA00804
C36	CAP,FXD PLSTC	ECQ-V1H224J23	0.22UF 50V
C41	CAP,FXD ELCTLY	ECE-A1EU100B	SCEAA01864
C42	CAP,FXD TANTAL	202L3502 105KB	SCSAC00982
C43	CAP,FXD TANTAL	202L3502 105KB	SCSAC00982
C44	CAP,FXD ELCTLY	ECE-A1EU100B	SCEAA01864

PARTS LIST

TITLE CHF-78

ECSS

SUBJECT NO. 2

PART NO	PART NAME	TYPE	DESCRIPTION	CODE
C45	CAP,FXD ELCTLY	ECE-A1EU100B	SCSAC01065	
C51	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C52	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C53	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C54	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C55	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C56	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C57	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C58	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C61	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C62	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C63	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C64	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C65	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C66	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C67	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C68	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C71	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C72	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C73	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C74	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C75	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C76	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C77	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C78	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C81	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C82	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C83	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C84	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C85	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C86	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C87	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C88	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C91	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	
C92	CAP,FXD PLSTC	ECQ-B1H103J23	SCRAA00587	

PARTS LIST		TITLE CNF-78		SHEET NO. 4	
ECSS		ECSS		ECSS	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	
C134	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	
C135	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	
C136	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	
C137	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	
C138	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	
C139	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	
C174	CAP,FXD	ELCTLT	ECE-A1EU330B	5CEAA01822	
C175	CAP,FXD	TANTAL	202L3502 474KB	5CSAC01065	
C176	CAP,FXD	ELCTLT	ECE-A1EU330B	5CEAA01822	
C177	CAP,FXD	ELCTLT	ECE-A1EU330B	5CEAA01822	
C178	CAP,FXD	ELCTLT	ECE-A1EU330B	5CEAA01822	
C182	CAP,FXD	TANTAL	202L3502 474KB	5CSAC01065	
C183	CAP,FXD	TANTAL	202L3502 474KB	5CSAC01065	
C184	CAP,FXD	TANTAL	202L3502 474KB	5CSAC01065	
C185	CAP,FXD	TANTAL	202L3502 474KB	5CSAC01065	
C02	DIODE		HZ5C1RE	5TXAE00568	1/2W 5V
C03	DIODE		1S2076RE	5TXAE00588	
IC1	IC		TA7061BP	5DAAD00536	
IC2	IC		MC14046BCP	5DDAS00038	
IC3	IC		SH16913P	5DDAL00301	
IC4	IC		SH16913P	5DDAL00301	
IC5	IC		NJM2058D	5DAAN00240	
IC6	IC		NJM2058D	5DAAN00240	
IC7	IC		NJM2058D	5DAAN00240	
IC11	IC		TC4069UBP	5DDAE00045	MOS
IC12	IC		TC40668P	5DDAE00078	
IC13	IC		MC74HC259AP	5DAAJ00975	
IC14	IC		AN6541	5DAAR00021	
L2	COIL		H-6LAJD00279	6LAJD00279	1.6MH
L3	COIL		H-6LAJD00279	6LAJD00279	1.6MH
L4	COIL		FL-9H103J-H	5LCAA00657	10MH
L5	COIL		FL-9H103J-H	5LCAA00657	10MH
P9	CONNECTOR		EC1C-22P-2.5DSA	5JWB500070	22P
P10	CONNECTOR		EC1C-22P-2.5DSA	5JWB500070	22P
PC1	PCB		H-6PCJ00270A	6PCJ00270	

PARTS LIST		TITLE CNF-78		SHEET NO. 3	
ECSS		ECSS		ECSS	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	
C93	CAP,FXD	PLSTC	ECQ-B1H103JZ3	5CRAA00587	
C94	CAP,FXD	PLSTC	ECQ-B1H103JZ3	5CRAA00587	
C95	CAP,FXD	PLSTC	ECQ-B1H103JZ3	5CRAA00587	
C96	CAP,FXD	PLSTC	ECQ-B1H103JZ3	5CRAA00587	
C97	CAP,FXD	PLSTC	ECQ-B1H103JZ3	5CRAA00587	
C98	CAP,FXD	PLSTC	ECQ-B1H103JZ3	5CRAA00587	
C101	CAP,FXD	PLSTC	ECQ-B1H103JZ3	5CRAA00587	
C102	CAP,FXD	PLSTC	ECQ-B1H103JZ3	5CRAA00587	
C103	CAP,FXD	PLSTC	ECQ-B1H103JZ3	5CRAA00587	
C104	CAP,FXD	PLSTC	ECQ-B1H103JZ3	5CRAA00587	
C105	CAP,FXD	PLSTC	ECQ-B1H103JZ3	5CRAA00587	
C106	CAP,FXD	PLSTC	ECQ-B1H103JZ3	5CRAA00587	
C107	CAP,FXD	PLSTC	ECQ-B1H103JZ3	5CRAA00587	
C108	CAP,FXD	PLSTC	ECQ-B1H103JZ3	5CRAA00587	
C111	CAP,FXD	PLSTC	ECQ-B1H103JZ3	5CRAA00587	
C112	CAP,FXD	PLSTC	ECQ-B1H103JZ3	5CRAA00587	
C113	CAP,FXD	PLSTC	ECQ-B1H103JZ3	5CRAA00587	
C114	CAP,FXD	PLSTC	ECQ-B1H103JZ3	5CRAA00587	
C115	CAP,FXD	PLSTC	ECQ-B1H103JZ3	5CRAA00587	
C116	CAP,FXD	PLSTC	ECQ-B1H103JZ3	5CRAA00587	
C117	CAP,FXD	PLSTC	ECQ-B1H103JZ3	5CRAA00587	
C118	CAP,FXD	PLSTC	ECQ-B1H103JZ3	5CRAA00587	
C121	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	
C122	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	
C123	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	
C124	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	
C125	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	
C126	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	
C127	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	
C128	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	
C129	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	
C130	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	
C131	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	
C132	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	
C133	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864	

PART NO	PART	NAME	TYPE	DESCRIPTION	CODE
R58	RESISTOR	FXD	ERD-25UJ154T	1/4W 150K	SRDAA01807
R61	RESISTOR	FXD	ERD-25UJ104T	100K OHM 1/4W	SRDAA01623
R62	RESISTOR	FXD	ERD-25UJ104T	100K OHM 1/4W	SRDAA01623
R63	RESISTOR	FXD	ERD-25UJ104T	100K OHM 1/4W	SRDAA01623
R64	RESISTOR	FXD	ERD-25UJ104T	100K OHM 1/4W	SRDAA01623
R65	RESISTOR	FXD	ERD-25UJ104T	100K OHM 1/4W	SRDAA01623
R66	RESISTOR	FXD	ERD-25UJ104T	100K OHM 1/4W	SRDAA01623
R67	RESISTOR	FXD	ERD-25UJ104T	100K OHM 1/4W	SRDAA01623
R68	RESISTOR	FXD	ERD-25UJ104T	100K OHM 1/4W	SRDAA01623
R71	RESISTOR	FXD	ERD-25UJ473T	1/4W 47K OHM	SRDAA01618
R72	RESISTOR	FXD	ERD-25UJ473T	1/4W 47K OHM	SRDAA01618
R73	RESISTOR	FXD	ERD-25UJ473T	1/4W 47K OHM	SRDAA01618
R74	RESISTOR	FXD	ERD-25UJ473T	1/4W 47K OHM	SRDAA01618
R75	RESISTOR	FXD	ERD-25UJ473T	1/4W 47K OHM	SRDAA01618
R76	RESISTOR	FXD	ERD-25UJ473T	1/4W 47K OHM	SRDAA01618
R77	RESISTOR	FXD	ERD-25UJ473T	1/4W 47K OHM	SRDAA01618
R78	RESISTOR	FXD	ERD-25UJ473T	1/4W 47K OHM	SRDAA01618
R81	RESISTOR	FXD	ERD-25UJ183T	18K OHM 1/4W	SRDAA01605
R82	RESISTOR	FXD	ERD-25UJ183T	18K OHM 1/4W	SRDAA01605
R83	RESISTOR	FXD	ERD-25UJ183T	18K OHM 1/4W	SRDAA01605
R84	RESISTOR	FXD	ERD-25UJ183T	18K OHM 1/4W	SRDAA01605
R85	RESISTOR	FXD	ERD-25UJ183T	18K OHM 1/4W	SRDAA01605
R86	RESISTOR	FXD	ERD-25UJ183T	18K OHM 1/4W	SRDAA01605
R87	RESISTOR	FXD	ERD-25UJ183T	18K OHM 1/4W	SRDAA01605
R88	RESISTOR	FXD	ERD-25UJ183T	18K OHM 1/4W	SRDAA01605
R91	RESISTOR	FXD	ERD-25UJ682T	18K OHM 1/4W	SRDAA01713
R92	RESISTOR	FXD	ERD-25UJ682T	18K OHM 1/4W	SRDAA01713
R93	RESISTOR	FXD	ERD-25UJ682T	18K OHM 1/4W	SRDAA01713
R94	RESISTOR	FXD	ERD-25UJ682T	18K OHM 1/4W	SRDAA01713
R95	RESISTOR	FXD	ERD-25UJ682T	18K OHM 1/4W	SRDAA01713
R96	RESISTOR	FXD	ERD-25UJ682T	18K OHM 1/4W	SRDAA01713
R97	RESISTOR	FXD	ERD-25UJ682T	18K OHM 1/4W	SRDAA01713
R98	RESISTOR	FXD	ERD-25UJ682T	18K OHM 1/4W	SRDAA01713
R101	RESISTOR	FXD	ERD-25UJ332T	3.3K OHM 1/4W	SRDAA01544
R102	RESISTOR	FXD	ERD-25UJ332T	3.3K OHM 1/4W	SRDAA01544

PART NO	PART	NAME	TYPE	DESCRIPTION	CODE
R1	RESISTOR	FXD	ERD-25UJ331T	1/4W 330 OHM	SRDAA01480
R2	RESISTOR	FXD	ERD-25UJ101T	1/4W 100 OHM	SRDAA01599
R3	RESISTOR	FXD	ERD-25UJ102T	1K OHM 1/4	SRDAA01542
R5	RESISTOR	FXD	ERD-25UJ101T	1/4W 100 OHM	SRDAA01599
R6	RESISTOR	FXD	ERD-25UJ183T	18K OHM 1/4W	SRDAA01605
R7	RESISTOR	FXD	ERD-25UJ474T	1/4W 470K OHM	SRDAA01634
R8	RESISTOR	FXD	ERD-25UJ104T	100K OHM 1/4W	SRDAA01623
R9	RESISTOR	FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAA01547
R10	RESISTOR	FXD	ERD-25UJ101T	1/4W 100 OHM	SRDAA01599
R11	RESISTOR	FXD	ERD-25UJ154T	1/4W 150K	SRDAA01807
R12	RESISTOR	FXD	ERD-25UJ181T	180 OHM	SRDAA01628
R13	RESISTOR	FXD	ERD-25UJ681T	1/4W 680 OHM	SRDAA01627
R21	RESISTOR	FXD	ERD-25UJ101T	1/4W 100 OHM	SRDAA01599
R22	RESISTOR	FXD	ERD-25UJ101T	1/4W 100 OHM	SRDAA01599
R31	RESISTOR	FXD	ERD-25UJ472T	4.7K OHM 1/4W	SRDAA01549
R32	RESISTOR	FXD	ERD-25UJ472T	4.7K OHM 1/4W	SRDAA01549
R33	RESISTOR	FXD	ERD-25UJ472T	4.7K OHM 1/4W	SRDAA01549
R34	RESISTOR	FXD	ERD-25UJ153T	1/4W 15K OHM	SRDAA01594
R35	RESISTOR	FXD	ERD-25UJ472T	4.7K OHM 1/4W	SRDAA01549
R36	RESISTOR	FXD	ERD-25UJ472T	4.7K OHM 1/4W	SRDAA01549
R37	RESISTOR	FXD	ERD-25UJ223T	22K OHM 1/4W	SRDAA01545
R38	RESISTOR	FXD	ERD-25UJ472T	4.7K OHM 1/4W	SRDAA01549
R39	RESISTOR	FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAA01547
R40	RESISTOR	FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAA01547
R41	RESISTOR	FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAA01547
R42	RESISTOR	FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAA01547
R43	RESISTOR	FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAA01547
R44	RESISTOR	FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAA01547
R51	RESISTOR	FXD	ERD-25UJ154T	1/4W 150K	SRDAA01807
R52	RESISTOR	FXD	ERD-25UJ154T	1/4W 150K	SRDAA01807
R53	RESISTOR	FXD	ERD-25UJ154T	1/4W 150K	SRDAA01807
R54	RESISTOR	FXD	ERD-25UJ154T	1/4W 150K	SRDAA01807
R55	RESISTOR	FXD	ERD-25UJ154T	1/4W 150K	SRDAA01807
R56	RESISTOR	FXD	ERD-25UJ154T	1/4W 150K	SRDAA01807
R57	RESISTOR	FXD	ERD-25UJ154T	1/4W 150K	SRDAA01807

PART NO	PART NAME	TYPE	DESCRIPTION	CODE
R103	RESISTOR FXD	ERD-25UJ332T	3.3K OHM 1/4W	SRDAAD1544
R104	RESISTOR FXD	ERD-25UJ332T	3.3K OHM 1/4W	SRDAAD1544
R105	RESISTOR FXD	ERD-25UJ332T	3.3K OHM 1/4W	SRDAAD1544
R106	RESISTOR FXD	ERD-25UJ332T	3.3K OHM 1/4W	SRDAAD1544
R107	RESISTOR FXD	ERD-25UJ332T	3.3K OHM 1/4W	SRDAAD1544
R108	RESISTOR FXD	ERD-25UJ332T	3.3K OHM 1/4W	SRDAAD1544
R111	RESISTOR FXD	ERD-25UJ182T	1/4W 1.8K OHM	SRDAAD1617
R112	RESISTOR FXD	ERD-25UJ182T	1/4W 1.8K OHM	SRDAAD1617
R113	RESISTOR FXD	ERD-25UJ182T	1/4W 1.8K OHM	SRDAAD1617
R114	RESISTOR FXD	ERD-25UJ182T	1/4W 1.8K OHM	SRDAAD1617
R115	RESISTOR FXD	ERD-25UJ182T	1/4W 1.8K OHM	SRDAAD1617
R116	RESISTOR FXD	ERD-25UJ182T	1/4W 1.8K OHM	SRDAAD1617
R117	RESISTOR FXD	ERD-25UJ182T	1/4W 1.8K OHM	SRDAAD1617
R118	RESISTOR FXD	ERD-25UJ182T	1/4W 1.8K OHM	SRDAAD1617
R121	RESISTOR FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAAD1547
R122	RESISTOR FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAAD1547
R123	RESISTOR FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAAD1547
R124	RESISTOR FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAAD1547
R125	RESISTOR FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAAD1547
R126	RESISTOR FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAAD1547
R127	RESISTOR FXD	ERD-25UJ683T	68K OHM 1/4W	SRDAAD1705
R128	RESISTOR FXD	ERD-25UJ472T	4.7K OHM 1/4W	SRDAAD1549
R129	RESISTOR FXD	ERD-25UJ472T	4.7K OHM 1/4W	SRDAAD1549
R130	RESISTOR FXD	ERD-25UJ333T	1/4W 33K OHM	SRDAAD1591
R131	RESISTOR FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAAD1547
R132	RESISTOR FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAAD1547
R133	RESISTOR FXD	ERD-25UJ683T	68K OHM 1/4W	SRDAAD1705
R134	RESISTOR FXD	ERD-25UJ472T	4.7K OHM 1/4W	SRDAAD1549
R135	RESISTOR FXD	ERD-25UJ472T	4.7K OHM 1/4W	SRDAAD1549
R136	RESISTOR FXD	ERD-25UJ333T	1/4W 33K OHM	SRDAAD1591
R137	RESISTOR FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAAD1547
R139	RESISTOR FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAAD1547
R140	RESISTOR FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAAD1547
R142	RESISTOR FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAAD1547
R143	RESISTOR FXD	ERD-25UJ472T	4.7K OHM 1/4W	SRDAAD1549

PART NO	PART NAME	TYPE	DESCRIPTION	CODE
R144	RESISTOR FXD	ERD-25UJ472T	4.7K OHM 1/4W	SRDAAD1549
R145	RESISTOR FXD	ERD-25UJ472T	4.7K OHM 1/4W	SRDAAD1549
R146	RESISTOR FXD	ERD-25UJ472T	4.7K OHM 1/4W	SRDAAD1549
R172	RESISTOR FXD	ERG-1ANJ331	330 OHM 1W	5REAG00031
R173	RESISTOR FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAAD1547
R174	RESISTOR FXD	ERD-25UJ222T	2.2K OHM 1/4W	SRDAAD1548
R175	RESISTOR FXD	ERD-25UJ332T	3.3K OHM 1/4W	SRDAAD1544
R176	RESISTOR FXD	ERD-25UJ222T	2.2K OHM 1/4W	SRDAAD1548
R181	RESISTOR FXD	ERD-25UJ332T	3.3K OHM 1/4W	SRDAAD1544
RV1	RESISTOR VAR	EVN-D2AAD3B53		SRVAB00435
RV2	RESISTOR VAR	EVN-D8AAD3B14	10K OHM	SRVAB00428
RV3	RESISTOR VAR	EVN-D2AAD3B55		SRVAB00440
RV4	RESISTOR VAR	EVN-D2AAD3B55		SRVAB00440
TP1	TEST TERMINAL	PCN6-PEA		5JDAAA00364
TP2	TEST TERMINAL	PCN6-PEA		5JDAAA00364
TP3	TEST TERMINAL	PCN6-PEA		5JDAAA00364
TP4	TEST TERMINAL	PCN6-PEA		5JDAAA00364
TP6	TEST TERMINAL	PCN6-PEA		5JDAAA00364
TP7	TEST TERMINAL	PCN6-PEA		5JDAAA00364
TP8	TEST TERMINAL	PCN6-PEA		5JDAAA00364
TP9	TEST TERMINAL	PCN6-PEA		5JDAAA00364
TP10	TEST TERMINAL	PCN6-PEA		5JDAAA00364
TR1	TRANSISTOR	2SK192A-BL		5TKAAD0080
TR2	TRANSISTOR	2SA1020-Y		5TAAG00093
TR3	TRANSISTOR	2SC1815-Y		5TCAF00219

PART NO		PART NAME		TYPE		DESCRIPTION		CODE	
C36	CAP, FXD	CER	C3216CH1H100D-E-TP	10PF				SCAAD00785	
C37	CAP, FXD	C CER	C3216CH1H101J-E-TP	50V 100PF				SCAAD00780	
C38	CAP, FXD	CER	C3216CH1H220J-E-TP	22PF				SCAAD00869	
C39	CAP, FXD	CER	C3216CH1H560J-E-TP					SCAAD00863	
C40	CAP, FXD	C CER	C3216JB1H103K-E-TP	50V 0.01UF				SCAAD00789	
C41	CAP, FXD	C CER	C3216JB1H103K-E-TP	50V 0.01UF				SCAAD00789	
C42	CAP, FXD	C CER	C3216JB1H103K-E-TP	50V 0.01UF				SCAAD00789	
C43	CAP, FXD	C CER	C3216JB1H103K-E-TP	50V 0.01UF				SCAAD00789	
C44	CAP, FXD	C CER	C3216JB1H103K-E-TP	50V 0.01UF				SCAAD00789	
C45	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				SCAAD00782	
C46	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				SCAAD00782	
C47	CAP, FXD	ELCTLT	ECE-A1EU101B					5CEAA01813	
C48	CAP, FXD	ELCTLT	ECE-A1EU100B					5CEAA01864	
C49	CAP, FXD	ELCTLT	ECE-A1EU101B					5CEAA01813	
C50	CAP, FXD	TANTAL	202L3502 474KB					5CSAC01065	
C51	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				5CAAD00782	
C52	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				5CAAD00782	
C53	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				5CAAD00782	
C54	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				5CAAD00782	
C55	CAP, FXD	C CER	C3216JB1H103K-E-TP	50V 0.01UF				5CAAD00789	
C56	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				5CAAD00782	
C57	CAP, FXD	CER	C3216CH1H330J-E-TP	33PF				5CAAD00794	
C58	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				5CAAD00782	
C59	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				5CAAD00782	
C60	CAP, FXD	C CER	C3216JB1H103K-E-TP	50V 0.01UF				5CAAD00789	
C61	CAP, FXD	C CER	C3216JB1H103K-E-TP	50V 0.01UF				5CAAD00789	
C62	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				5CAAD00782	
C63	CAP, FXD	C CER	C3216JB1H103K-E-TP	50V 0.01UF				5CAAD00789	
C64	CAP, FXD	C CER	C3216JB1H103K-E-TP	50V 0.01UF				5CAAD00789	
C65	CAP, FXD	C CER	C3216JB1H103K-E-TP	50V 0.01UF				5CAAD00789	
C66	CAP, FXD	CER	C3216XR1E333K-E-TP	0.033U				5CAAD01203	
C67	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				5CAAD00782	
C68	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				5CAAD00782	
C69	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				5CAAD00782	
C70	CAP, FXD	CER	C3216CH1H330J-E-TP	33PF				5CAAD00794	

QES

PART NO		PART NAME		TYPE		DESCRIPTION		CODE	
C1	CAP, FXD	CER	C3216CH1H150J-E-TP	15PF				SCAAD00787	
C2	CAP, FXD	C CER	C3216CH1H030C-E-TP	50V 3PF				SCAAD00796	
C3	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				SCAAD00782	
C4	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				SCAAD00782	
C5	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				SCAAD00782	
C6	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				SCAAD00782	
C7	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				SCAAD00782	
C8	CAP, FXD	CER	C3216CH1H100D-E-TP	10PF				SCAAD00785	
C9	CAP, FXD	C CER	C3216CH1H050C-E-TP	50V 5PF				SCAAD00800	
C10	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				SCAAD00782	
C11	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				SCAAD00782	
C12	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				SCAAD00782	
C13	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				SCAAD00782	
C14	CAP, FXD	CER	C3216CH1H20J-E-TP	12P				SCAAD00784	
C15	CAP, FXD	CER	C3216CH1H100D-E-TP	10PF				SCAAD00785	
C16	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				5CAAD00782	
C17	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				5CAAD00782	
C18	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				5CAAD00782	
C19	CAP, FXD	CER	C3216CH1H100D-E-TP	10PF				5CAAD00785	
C20	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				5CAAD00782	
C21	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				5CAAD00782	
C22	CAP, FXD	ELCTLT	ECE-A1EU101B					5CEAA01813	
C23	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				5CAAD00782	
C24	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				5CAAD00782	
C25	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				5CAAD00782	
C26	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				5CAAD00782	
C27	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				5CAAD00782	
C28	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				5CAAD00782	
C29	CAP, FXD	CER	C3216SL1H102J-E-TP	1000PF				5CAAD00782	
C30	CAP, FXD	C CER	C3216JB1H103K-E-TP	50V 0.01UF				5CAAD00789	
C31	CAP, FXD	C CER	C3216JB1H103K-E-TP	50V 0.01UF				5CAAD00789	
C32	CAP, FXD	C CER	C3216JB1H103K-E-TP	50V 0.01UF				5CAAD00789	
C33	CAP, FXD	C CER	C3216JB1H103K-E-TP	50V 0.01UF				5CAAD00789	
C34	CAP, FXD	C CER	C3216JB1H103K-E-TP	50V 0.01UF				5CAAD00789	
C35	CAP, FXD	CER	C3216CH1H680J-E-TP	68PF				5CAAD00929	

QES

PARTS LIST					SHEET NO. 3	
LOOP1			TITLE CGA-145			
PART NO	PART NAME	TYPE	DESCRIPTION	CODE		
C71	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAA000782		
C72	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAA000782		
C73	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAA000782		
C74	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAA000782		
C75	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAAD1864		
C76	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAAD1864		
C77	CAP,FXD TANTAL	202L1602 106KB		5CSAC00932		
C78	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAA000782		
C79	CAP,FXD ELCTLT	ECE-A1EU101B		5CEAAD1813		
C80	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAA000789		
C90	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAA000789		
CD1	DIODE	1SV203-7TLC		5TXAE00678		
CD2	DIODE	1SV203-7TLC		5TXAE00678		
CD3	DIODE	1SV203-7TLC		5TXAE00678		
CD4	DIODE	1SV203-7TLC		5TXAE00678		
CD5	DIODE	1SV203-7TLC		5TXAE00678		
CD6	DIODE	1SV203-7TLC		5TXAE00678		
CD8	DIODE	HSR2694TLC		5TXAE00627		
CD9	DIODE	HSR2694TLC		5TXAE00627		
CD10	DIODE	1SS226 TE85L		5TXAD00320		
CD11	DIODE	MPR4371F		5TXBG00037		
CV1	CAPACITOR VAR	TZ03Z100FR	10PF	5CVA00190		
CV2	CAPACITOR VAR	TZ03Z100FR	10PF	5CVA00190		
CV3	CAPACITOR VAR	TZ03Z100FR	10PF	5CVA00190		
FL1	FILTER	BPED1		5NBA600011		
FL2	FILTER	DS310-55B222M	100V 0.0022UF	5NKA00002		
FL3	FILTER	SAF58MR70Z		5NRA00191		
IC1	IC	UPC1651G		5DAAA00171		
IC2	IC	UPC1651G		5DAAA00171		
IC3	IC	UPC1651G		5DAAA00171		
IC4	IC	SN76514N		5DDAL00251		
IC5	IC	CX7925B		5DZCJ00008		
IC6	IC	SN76514N		5DDAL00251		
IC7	IC	H5237L		5DDAB00346		
KC1	CABLE	H-61CJD35003		61CJD35003		

PARTS LIST					SHEET NO. 4	
LOOP1			TITLE CGA-145			
PART NO	PART NAME	TYPE	DESCRIPTION	CODE		
L1	COIL	SC2-55T		5LZNL00001		
L2	COIL	SC2-45T		5LZNL00002		
L3	COIL	SC2-35T		5LZNL00003		
L4	COIL	LAL03KH6R8K		5LCAA00437		
L5	COIL	LAL03KH2R2M	2.2UH	5LCAA00326		
L6	COIL	LAL03KH6R8K		5LCAA00437		
L7	COIL	LAL03KH2R2M	2.2UH	5LCAA00326		
L8	COIL	LAL03KH6R8K		5LCAA00437		
L9	COIL	LAL03KH2R2M	2.2UH	5LCAA00326		
L10	COIL	LAL03VB471K	470UH	5LCAA00270		
L11	COIL	LAL03VB471K	470UH	5LCAA00270		
L12	COIL	LAL03VBR22M	D.22UH	5LCAR00280		
L13	COIL	LAL03VBR22M	D.22UH	5LCAR00280		
L14	COIL	LAL03VB1R2M		5LCAA00334		
L15	COIL	LAL03VB471K	470UH	5LCAA00270		
L16	COIL	LAL03VB100K	100UH	5LCAA00273		
L17	COIL	LAL03VB100K	100UH	5LCAA00273		
L18	COIL	LAL03VB471K	470UH	5LCAA00270		
P15	CONNECTOR	EC1C-22P-2.5DSA	22P	5JWBS00070		
P16	CONNECTOR	EC1C-22P-2.5DSA	22P	5JWBS00070		
PC1	PCB	H-6PCJD00261C		6PCJD00261		
R1	RESISTOR FXD	ERJ-8GEYJ471V	1/8W 470 OHM	5REAG01734		
R2	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726		
R3	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726		
R4	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726		
R5	RESISTOR FXD	ERJ-8GEYJ473V	1/8W 47K OHM	5REAG01758		
R6	RESISTOR FXD	ERJ-8GEYJ471V	1/8W 470 OHM	5REAG01734		
R7	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726		
R8	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726		
R9	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726		
R10	RESISTOR FXD	ERJ-8GEYJ473V	1/8W 47K OHM	5REAG01758		
R11	RESISTOR FXD	ERJ-8GEYJ471V	1/8W 470 OHM	5REAG01734		
R12	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726		
R13	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726		
R14	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726		

PARTS LIST

PART NO		PART NAME		TYPE		DESCRIPTION		CODE	
R15		RESISTOR	FXD	ERJ-86EYJ473V		1/8W 47K OHM	SREAG01758		
R16		RESISTOR	FXD	ERJ-86EYJ473V		1/8W 47K OHM	SREAG01758		
R17		RESISTOR	CFXD	ERJ-86EYJ104V		1/8W 100K OHM	SREAG01762		
R18		RESISTOR	CFXD	ERJ-86EYJ101V		1/8W 100 OHM	SREAG01726		
R19		RESISTOR	CFXD	ERJ-86EYJ101V		1/8W 100 OHM	SREAG01726		
R20		RESISTOR	FXD	ERJ-86EYJ330V		1/8W 33 OHM	SREAG01720		
R21		RESISTOR	FXD	ERJ-86EYJ330V		1/8W 33 OHM	SREAG01720		
R22		RESISTOR	CFXD	ERJ-86EYJ101V		1/8W 100 OHM	SREAG01726		
R23		RESISTOR	CFXD	ERJ-86EYJ101V		1/8W 100 OHM	SREAG01726		
R24		RESISTOR	CFXD	ERJ-86EYJ101V		1/8W 100 OHM	SREAG01726		
R25		RESISTOR	CFXD	ERJ-86EYJ101V		1/8W 100 OHM	SREAG01726		
R28		RESISTOR	CFXD	ERJ-86EYJ101V		1/8W 100 OHM	SREAG01726		
R29		RESISTOR	FXD	ERJ-86EYJ152V		1/8W 1.5K OHM	SREAG01740		
R30		RESISTOR	FXD	ERJ-86EYJ473V		1/8W 47K OHM	SREAG01758		
R31		RESISTOR	FXD	ERJ-86EYJ331V		330 OHM 1/8W	SREAG01732		
R32		RESISTOR	FXD	ERJ-86EYJ102V		1/8W 1K OHM	SREAG01738		
R35		RESISTOR	FXD	ERJ-86EYJ102V		1/8W 1K OHM	SREAG01738		
R36		RESISTOR	CFXD	ERJ-86EYJ101V		1/8W 100 OHM	SREAG01726		
R37		RESISTOR	FXD	ERJ-86EYJ471V		1/8W 470 OHM	SREAG01734		
R38		RESISTOR	FXD	ERJ-86EYJ224V		1/8W 220K OHM	SREAG01766		
R39		RESISTOR	FXD	ERJ-86EYJ102V		1/8W 1K OHM	SREAG01738		
R40		RESISTOR	FXD	ERJ-86EYJ102V		1/8W 1K OHM	SREAG01738		
R41		RESISTOR	CFXD	ERJ-86EYJ101V		1/8W 100 OHM	SREAG01726		
R42		RESISTOR	CFXD	ERJ-86EYJ101V		1/8W 100 OHM	SREAG01726		
R43		RESISTOR	FXD	ERJ-86EYJ223V		1/8W 22K OHM	SREAG01754		
R44		RESISTOR	FXD	ERJ-86EYJ472V		1/8W 4.7K OHM	SREAG01746		
R45		RESISTOR	FXD	ERJ-86EYJ102V		1/8W 1K OHM	SREAG01738		
R46		RESISTOR	CFXD	ERJ-86EYJ101V		1/8W 100 OHM	SREAG01726		
R47		RESISTOR	FXD	ERJ-86EYJ302V		1/8W 3K OHM	SREAG02211		
R48		RESISTOR	FXD	ERJ-86EYJ471V		1/8W 470 OHM	SREAG01734		
R49		RESISTOR	FXD	ERJ-86EYJ221V		1/8W 220 OHM	SREAG01730		
R50		RESISTOR	FXD	ERJ-86EYJ103V		1/8W 10K OHM	SREAG01750		
R51		RESISTOR	FXD	ERJ-86EYJ103V		1/8W 10K OHM	SREAG01750		
R52		RESISTOR	FXD	ERJ-86EYJ331V		330 OHM 1/8W	SREAG01732		
RV1		RESISTOR	VAR	EVN-D2AA03B13			SRVAB00422		

485

81

PARTS LIST

PART NO		PART NAME		TYPE		DESCRIPTION		CODE	
T1		RF XFMR		H-6LHJDD00297			6LHJDD00297		
T2		RF XFMR		H-6LHJDD00297			6LHJDD00297		
TP1		TEST TERMINAL		PCN6-PEA			5JDAAD00364		
TP2		TEST TERMINAL		PCN6-PEA			5JDAAD00364		
TP3		TEST TERMINAL		PCN6-PEA			5JDAAD00364		
TP4		TEST TERMINAL		PCN6-PEA			5JDAAD00364		
TP5		TEST TERMINAL		PCN6-PEA			5JDAAD00364		
TP6		TEST TERMINAL		PCN6-PEA			5JDAAD00364		
TP7		TEST TERMINAL		PCN6-PEA			5JDAAD00364		
TR1		TRANSISTOR		2SK210-BLTE85L			5TKAAD0189		
TR2		TRANSISTOR		2SK210-BLTE85L			5TKAAD0189		
TR3		TRANSISTOR		2SK210-BLTE85L			5TKAAD0189		
TR4		TRANSISTOR		2SK210-BLTE85L			5TKAAD0189		
TR5		TRANSISTOR		2SC3324GR TE85L			5TCAF00711		
TR6		TRANSISTOR		2SC3324GR TE85L			5TCAF00711		
TR7		TRANSISTOR		2SC3324GR TE85L			5TCAF00711		
TR8		TRANSISTOR		2SC3398-TB			5TCAZ00011		
TR9		TRANSISTOR		2SC3398-TB			5TCAZ00011		
TR10		TRANSISTOR		2SC3398-TB			5TCAZ00011		
TR11		TRANSISTOR		2SC3398-TB			5TCAZ00011		
TR12		TRANSISTOR		2SC2714-YTE85L			5TCAF00436		
TR13		TRANSISTOR		2SC2714-YTE85L			5TCAF00436		
TR14		TRANSISTOR		2SA1015-Y			5TAAAG00070		
TR15		TRANSISTOR		2SC2714-YTE85L			5TCAF00436		

486

PARTS LIST				REF/DOS		TITLE CGK-127A		SHEET NO. 1	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE					
C1	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237					
C2	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237					
C3	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237					
C4	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	SCAAD00782					
C5	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789					
C6	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	SCAAD00782					
C7	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	SCAAD00782					
C8	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	SCAAD00782					
C9	CAP,FXD CER	C3216X7R1E333K-E-TP	0.033U	SCAAD01203					
C10	CAP,FXD C CER	C3216CH1H101J-E-TP	50V 100PF	SCAAD00780					
C11	CAP,FXD CER	C3216CH1H670J-E-TP	47PF	SCAAD00864					
C12	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789					
C13	CAP,FXD ELCTLT	ECE-A1EU101B		SCAAD01813					
C14	CAP,FXD ELCTLT	ECE-A1EU101B		SCAAD01813					
C15	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789					
C16	CAP,FXD CER	C3216X7R1E333K-E-TP	0.033U	SCAAD01203					
C17	CAP,FXD ELCTLT	ECE-A1EU100B		SCAAD01864					
C18	CAP,FXD CER	C3216SL1H821J-E-TP		SCAAD01068					
C19	CAP,FXD CER	C3216CH1H121J-E-TP	120PF	SCAAD00931					
C20	CAP,FXD CER	C3216SL1H152J-E-TP	1500PF	SCAAD00791					
C21	CAP,FXD CER	C3216CH1H331J-E-TP	330PF	SCAAD01066					
C22	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	SCAAD00782					
C24	CAP,FXD CER	C3216CH1H471J-E-TP	470PF	SCAAD00797					
C25	CAP,FXD CER	C3216JB1H332K-E-TP	50V 3300PF	SCAAD01599					
C26	CAP,FXD CER	C3216CH1H331J-E-TP	330PF	SCAAD01066					
C27	CAP,FXD CER	C3216SL1H122J-E-TP		SCAAD01069					
C28	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	SCAAD00782					
C29	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789					
C30	CAP,FXD CER	C3216X7R1E333K-E-TP	0.033U	SCAAD01203					
C31	CAP,FXD CER	C3216X7R1E333K-E-TP	0.033U	SCAAD01203					
C32	CAP,FXD CER	C3216X7R1E333K-E-TP	0.033U	SCAAD01203					
C33	CAP,FXD CER	C3216X7R1E333K-E-TP	0.033U	SCAAD01203					
C34	CAP,FXD CER	C3216SL1H152J-E-TP	1500PF	SCAAD00791					
C35	CAP,FXD CER	C3216CH1H121J-E-TP	120PF	SCAAD00931					
C36	CAP,FXD CER	C3216SL1H222J-E-TP	2200PF	SCAAD00792					

PARTS LIST				REF/DOS		TITLE CGK-127A		SHEET NO. 2	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE					
C37	CAP,FXD CER	C3216SL1H821J-E-TP		SCAAD01068					
C38	CAP,FXD CER	C3216SL1H222J-E-TP	2200PF	SCAAD00792					
C39	CAP,FXD CER	C3216CH1H561J-E-TP		SCAAD01067					
C40	CAP,FXD CER	C3216SL1H152J-E-TP	1500PF	SCAAD00791					
C41	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	SCAAD00782					
C42	CAP,FXD CER	C3216JB1H153K-E-TP		SCAAD01600					
C43	CAP,FXD CER	C3216CH1H681J-E-TP	680P	SCAAD00788					
C44	CAP,FXD CER	C3216JB1H682K-E-TP		SCAAD01137					
C45	CAP,FXD CER	C3216CH1H681J-E-TP	680P	SCAAD00788					
C46	CAP,FXD CER	C3216X7R1E333K-E-TP	0.033U	SCAAD01203					
C47	CAP,FXD C CER	C3216CH1H101J-E-TP	50V 100PF	SCAAD00780					
C48	CAP,FXD CER	C3216CH1H470J-E-TP	47PF	SCAAD00864					
C49	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789					
C50	CAP,FXD ELCTLT	ECE-A1EU101B		SCAAD01813					
C51	CAP,FXD CER	C3216X7R1E333K-E-TP	0.033U	SCAAD01203					
C52	CAP,FXD CER	C3216JB1H682K-E-TP		SCAAD01137					
C53	CAP,FXD CER	C3216SL1H122J-E-TP		SCAAD01869					
C54	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789					
C55	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789					
C56	CAP,FXD ELCTLT	ECE-A1EU100B		SCAAD01864					
C57	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789					
C58	CAP,FXD CER	C3216UJ1H150J-E-TP	15PF	SCAAD01299					
C59	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789					
C60	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237					
C61	CAP,FXD CER	C3216CH1H221J-E-TP	220PF	SCAAD00790					
C62	CAP,FXD CER	C3216CH1H151J-E-TP	150PF	SCAAD00870					
C63	CAP,FXD CER	C3216CH1H220J-E-TP	22PF	SCAAD00869					
C64	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789					
C65	CAP,FXD CER	C3216CH1H220J-E-TP	22PF	SCAAD00869					
C66	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789					
C67	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789					
C68	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789					
C69	CAP,FXD ELCTLT	ECE-A1EU100B		SCAAD01864					
C70	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789					
C71	CAP,FXD CER	C3216SL1H222J-E-TP	2200PF	SCAAD00792					

PART NO	PART NAME	TYPE	DESCRIPTION	CODE
C115	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782
C127	CAP,FXD CER	C3216CH1H22J-E-TP	2200PF	5CAAD00790
C129	CAP,FXD C CER	C3216J81H103K-E-TP	50V 0.01UF	5CAAD00789
C131	CAP,FXD C CER	C3216J81H103K-E-TP	50V 0.01UF	5CAAD00789
C132	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAAD1864
C133	CAP,FXD C CER	C3216J81H103K-E-TP	50V 0.01UF	5CAAD00789
C134	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237
C135	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237
C136	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAAD1864
C137	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAAD1864
C138	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAAD1864
C139	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAAD1864
C140	CAP,FXD C CER	C3216J81H103K-E-TP	50V 0.01UF	5CAAD00789
C142	CAP,FXD C CER	C3216J81H103K-E-TP	50V 0.01UF	5CAAD00789
C144	CAP,FXD ELCTLT	ECE-A1EU101B		5CEAAD1813
C145	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237
C147	CAP,FXD C CER	C3216J81H103K-E-TP	50V 0.01UF	5CAAD00789
C148	CAP,FXD ELCTLT	ECE-A1EU101B		5CEAAD1813
C150	CAP,FXD CER	C3216J81H682K-E-TP		5CAAD01137
C151	CAP,FXD CER	C3216SL1H821J-E-TP		5CAAD01068
C152	CAP,FXD C CER	C3216J81H103K-E-TP	50V 0.01UF	5CAAD00789
C153	CAP,FXD CER	C3216J81H332K-E-TP	50V 3300PF	5CAAD01599
C154	CAP,FXD CER	C3216J81H472K-E-TP	4700PF	5CAAD01138
C155	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782
C156	CAP,FXD CER	C3216CH1H180J-E-TP	18PF	5CAAD00868
C157	CAP,FXD CER	C3216CH1H180J-E-TP	18PF	5CAAD00868
C158	CAP,FXD CER	C3216J81H150J-E-TP	15PF	5CAAD01299
C159	CAP,FXD C CER	C3216J81H103K-E-TP	50V 0.01UF	5CAAD00789
C160	CAP,FXD CER	C3216CH1H010C-E-TP	50V 1PF	5CAAD00795
C161	CAP,FXD C CER	C3216J81H103K-E-TP	50V 0.01UF	5CAAD00789
C171	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAAD1864
CD1	DIODE	1S5184 TE85L		5TXADD0290
CD2	DIODE	1S5181 TE85L		5TXADD0356
CD3	DIODE	1S5184 TE85L		5TXADD0290
CD4	DIODE	FC53M		5TXAB00022

PART NO	PART NAME	TYPE	DESCRIPTION	CODE
C72	CAP,FXD CER	C3216CH1H21J-E-TP	120PF	5CAAD00931
C73	CAP,FXD CER	C3216SL1H22J-E-TP	2200PF	5CAAD00792
C74	CAP,FXD CER	C3216CH1H27J-E-TP	50V 270PF	5CAAD00803
C75	CAP,FXD CER	C3216SL1H22J-E-TP	2200PF	5CAAD00792
C76	CAP,FXD C CER	C3216J81H103K-E-TP	50V 0.01UF	5CAAD00789
C77	CAP,FXD C CER	C3216J81H103K-E-TP	50V 0.01UF	5CAAD00789
C78	CAP,FXD C CER	C3216J81H103K-E-TP	50V 0.01UF	5CAAD00789
C79	CAP,FXD C CER	C3216J81H103K-E-TP	50V 0.01UF	5CAAD00789
C80	CAP,FXD C CER	C3216J81H103K-E-TP	50V 0.01UF	5CAAD00789
C81	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAAD1864
C84	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782
C85	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782
C86	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782
C87	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237
C91	CAP,FXD C CER	C3216J81H103K-E-TP	50V 0.01UF	5CAAD00789
C92	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782
C96	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782
C97	CAP,FXD ELCTLT	ECE-A1EU101B		5CEAAD1813
C98	CAP,FXD CER	C3216CH1H150J-E-TP	15PF	5CAAD00787
C99	CAP,FXD CER	C3216CH1H150J-E-TP	15PF	5CAAD00787
C100	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782
C101	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782
C102	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782
C103	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782
C104	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782
C105	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782
C106	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782
C107	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782
C108	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782
C109	CAP,FXD C CER	C3216J81H103K-E-TP	50V 0.01UF	5CAAD00789
C110	CAP,FXD TANTAL	202L3502 104KB		5CSAC01068
C111	CAP,FXD ELCTLT	ECE-A1EU101B		5CEAAD1813
C112	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782
C113	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	5CAAD00782
C114	CAP,FXD CER	C3216CH1H220J-E-TP	22PF	5CAAD00869

PARTS LIST

REF/DOS		TITLE CGK-127A		SHEET NO. 5	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	
C07	MPR4371F			5TR8600037	
C08	1SS184 TE85L			5TRAD00290	
CV1	ECR-HB010A11			5CVAC00134	
CV2	ECR-HB010A11			5CVAC00134	
FL1	DS310-55822M		100V 0.0022UF	5NXAA00002	
IC1	H-6DDJ000018		MB67116	6DDJ000018	
IC2	H-6DDJ000018		MB67116	6DDJ000018	
IC3	TC5020BP			5DDAE00235	
IC4	TC5020BP			5DDAE00235	
IC5	NJM3404D			5DAAN00161	
IC6	NJM319D			5DAAN00206	
IC7	NJM319D			5DAAN00206	
IC8	HC14013BCP			5DDAS00142	
IC9	NJM78L08A		8V 100MA	5DAAN00079	
IC10	NJM78L08A		8V 100MA	5DAAN00079	
IC11	NJM78L05A		5V 0.1A	5DAAN00046	
IC12	MC1496P			5DARJ00083	
IC13	MC74HC00N			5DARJ00142	
IC14	MC74HC259N			5DARJ000207	
IC15	TC74HC138AP			5DDAE01239	
IC16	TC74HC138AP			5DDAE01239	
IC17	CX7925B			5DZCJ00008	
IC19	SR74LS90H			5DDAS00160	
IC20	HC14013BCP			5DDAS00142	
IC21	NJM78L05A		5V 0.1A	5DAAN00046	
L1	LAL03VB471K		470UH	5LCAA00270	
L2	LAL03VB471K		470UH	5LCAA00270	
L3	LAL03VB121K			5LCAAD0440	
L4	LAL03VB101K			5LCAAD0333	
L5	LAL03VB221K		220UH	5LCAA00272	
L6	LAL03VB271K			5LCAA00438	
L7	LAL03VB3R9K			5LCAA00338	
L8	LAL03KH2R7M			5LCAAD0439	
L9	LAL03VB2R7M			5LCAAD0329	
L10	LAL03KH2R7M			5LCAAD0439	

PARTS LIST

REF/DOS		TITLE CGK-127A		SHEET NO. 6	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	
L11	LAL03VB2R7M			5LCAA00329	
L12	LAL03VB100K		10UH	5LCAA00273	
L13	LAL03KH2R7M			5LCAA00439	
L14	LAL03VB150K			5LCAA00324	
L15	LAL03VB120K			5LCAA00386	
L16	LAL03VB100K		10UH	5LCAA00273	
L17	LAL03VB3R9K			5LCAA00338	
L18	LAL03VB3R9K			5LCAA00338	
L23	LAL03VB100K		10UH	5LCAA00273	
L24	LAL03VB1R0M		1UH	5LCAA00282	
L25	LAL03VBR68M			5LCAA00339	
L27	LAL03VB471K		470UH	5LCAA00270	
P13	CONNECTOR		22P	5JWBS00070	
P14	CONNECTOR		22P	5JWBS00070	
PC1	H-6PCJ000504B			6PCJ000504	
R1	RESISTOR CFXD		1/8W 100 OHM	5REAG01726	
R2	RESISTOR CFXD		1/8W 100 OHM	5REAG01726	
R3	RESISTOR CFXD		1/8W 100 OHM	5REAG01726	
R4	RESISTOR CFXD		1/8W 100 OHM	5REAG01726	
R5	RESISTOR FXD		1/8W 12K OHM	5REAG01751	
R6	RESISTOR FXD		1/8W 1.2K OHM	5REAG01749	
R7	RESISTOR FXD		1/8W 10K OHM	5REAG01739	
R8	RESISTOR FXD		1/8W 12K OHM	5REAG01750	
R9	RESISTOR FXD		1/8W 12K OHM	5REAG01751	
R10	RESISTOR CFXD		1/8W 100 OHM	5REAG01726	
R11	RESISTOR FXD		1/8W 15K OHM	5REAG01752	
R12	RESISTOR FXD		1/8W 15K OHM	5REAG01752	
R13	RESISTOR FXD		1/8W 4.7K OHM	5REAG01746	
R14	RESISTOR FXD		1/8W 470 OHM	5REAG01734	
R15	RESISTOR FXD		1/8W 470 OHM	5REAG01734	
R16	RESISTOR FXD		1/8W 220 OHM	5REAG01730	
R17	RESISTOR FXD		1/8W 470 OHM	5REAG01734	
R18	RESISTOR FXD		1/8W 220 OHM	5REAG01730	
R19	RESISTOR FXD		1/8W 1K OHM	5REAG01738	
R20	RESISTOR CFXD		1/8W 100 OHM	5REAG01726	

PART NO	PART NAME	TYPE	DESCRIPTION	CODE
R57	RESISTOR FXD	ERJ-86EYJ223V	1/8W 22K OHM	SREAG01754
R58	RESISTOR FXD	ERJ-86EYJ223V	1/8W 22K OHM	SREAG01754
R59	RESISTOR FXD	ERJ-86EYJ331V	330 OHM 1/8W	SREAG01732
R60	RESISTOR FXD	ERJ-86EYJ221V	1/8W 220 OHM	SREAG01730
R62	RESISTOR FXD	ERJ-86EYJ470V	1/8W 47 OHM	SREAG01722
R66	RESISTOR FXD	ERJ-86EYJ223V	1/8W 22K OHM	SREAG01754
R67	RESISTOR FXD	ERJ-86EYJ223V	1/8W 22K OHM	SREAG01754
R68	RESISTOR FXD	ERJ-86EYJ222V	1/8W 2.2K OHM	SREAG01742
R69	RESISTOR FXD	ERJ-86EYJ221V	1/8W 220 OHM	SREAG01730
R70	RESISTOR FXD	ERJ-86EYD000V	0 OHM	SREAG01775
R71	RESISTOR FXD	ERJ-86EYJ102V	1/8W 1K OHM	SREAG01738
R72	RESISTOR CFXD	ERJ-86EYJ104V	1/8W 100K OHM	SREAG01762
R73	RESISTOR CFXD	ERJ-86EYJ104V	1/8W 100K OHM	SREAG01762
R74	RESISTOR FXD	ERJ-86EYJ223V	1/8W 22K OHM	SREAG01754
R75	RESISTOR FXD	ERJ-86EYJ103V	1/8W 10K OHM	SREAG01750
R78	RESISTOR FXD	ERJ-86EYJ221V	1/8W 220 OHM	SREAG01730
R80	RESISTOR CFXD	ERJ-86EYJ101V	1/8W 100 OHM	SREAG01726
R81	RESISTOR FXD	ERJ-86EYJ221V	1/8W 220 OHM	SREAG01730
R82	RESISTOR FXD	ERJ-86EYJ102V	1/8W 1K OHM	SREAG01738
R83	RESISTOR FXD	ERJ-86EYJ102V	1/8W 1K OHM	SREAG01738
R84	RESISTOR CFXD	ERJ-86EYJ101V	1/8W 100 OHM	SREAG01726
R85	RESISTOR FXD	ERJ-86EYJ223V	1/8W 22K OHM	SREAG01754
R86	RESISTOR FXD	ERJ-86EYJ223V	1/8W 22K OHM	SREAG01754
R87	RESISTOR FXD	ERJ-86EYJ222V	1/8W 2.2K OHM	SREAG01742
R88	RESISTOR FXD	ERJ-86EYJ102V	1/8W 1K OHM	SREAG01738
R89	RESISTOR CFXD	ERJ-86EYJ151V	1/8W 150 OHM	SREAG01728
R90	RESISTOR FXD	ERJ-86EYJ473V	1/8W 47K OHM	SREAG01758
R91	RESISTOR CFXD	ERJ-86EYJ101V	1/8W 100 OHM	SREAG01726
R92	RESISTOR FXD	ERJ-86EYJ102V	1/8W 1K OHM	SREAG01738
R93	RESISTOR FXD	ERJ-86EYJ333V	1/8W 33K OHM	SREAG01756
R94	RESISTOR CFXD	ERJ-86EYJ151V	1/8W 150 OHM	SREAG01728
R95	RESISTOR FXD	ERJ-86EYJ103V	1/8W 10K OHM	SREAG01750
R96	RESISTOR FXD	ERJ-86EYJ223V	1/8W 22K OHM	SREAG01754
R97	RESISTOR FXD	ERJ-86EYJ470V	1/8W 47 OHM	SREAG01722
R98	RESISTOR CFXD	ERJ-86EYJ101V	1/8W 100 OHM	SREAG01726

PART NO	PART NAME	TYPE	DESCRIPTION	CODE
R21	RESISTOR CFXD	ERJ-86EYJ101V	1/8W 100 OHM	SREAG01726
R22	RESISTOR FXD	ERJ-86EYJ821V	1/8W 820 OHM	SREAG01757
R23	RESISTOR CFXD	ERJ-86EYJ101V	1/8W 100 OHM	SREAG01726
R24	RESISTOR FXD	ERJ-86EYJ122V	1/8W 1.2K OHM	SREAG01739
R25	RESISTOR FXD	ERJ-86EYJ103V	1/8W 10K OHM	SREAG01750
R26	RESISTOR FXD	ERJ-86EYJ332V	1/8W 3.3K OHM	SREAG01744
R27	RESISTOR CFXD	ERJ-86EYJ101V	1/8W 100 OHM	SREAG01726
R28	RESISTOR FXD	ERJ-86EYJ332V	1/8W 3.3K OHM	SREAG01744
R29	RESISTOR FXD	ERJ-86EYJ102V	1/8W 1K OHM	SREAG01738
R30	RESISTOR FXD	ERJ-86EYJ102V	1/8W 1K OHM	SREAG01738
R32	RESISTOR FXD	ERJ-86EYJ221V	1/8W 220 OHM	SREAG01730
R33	RESISTOR FXD	ERJ-86EYJ102V	1/8W 1K OHM	SREAG01738
R34	RESISTOR FXD	ERJ-86EYJ103V	1/8W 10K OHM	SREAG01750
R35	RESISTOR FXD	ERJ-86EYJ122V	1/8W 1.2K OHM	SREAG01739
R36	RESISTOR FXD	ERJ-86EYJ123V	1/8W 12K OHM	SREAG01751
R37	RESISTOR CFXD	ERJ-86EYJ101V	1/8W 100 OHM	SREAG01726
R38	RESISTOR FXD	ERJ-86EYJ153V	1/8W 15K OHM	SREAG01752
R39	RESISTOR FXD	ERJ-86EYJ153V	1/8W 15K OHM	SREAG01752
R40	RESISTOR FXD	ERJ-86EYJ472V	1/8W 4.7K OHM	SREAG01746
R41	RESISTOR FXD	ERJ-86EYJ470V	1/8W 47 OHM	SREAG01722
R42	RESISTOR FXD	ERJ-86EYJ100V	1/8W 10 OHM	SREAG01714
R43	RESISTOR FXD	ERJ-86EYJ100V	1/8W 10 OHM	SREAG01714
R44	RESISTOR CFXD	ERJ-86EYJ151V	1/8W 150 OHM	SREAG01728
R45	RESISTOR CFXD	ERJ-86EYJ101V	1/8W 100 OHM	SREAG01726
R46	RESISTOR FXD	ERJ-86EYJ221V	1/8W 220 OHM	SREAG01730
R47	RESISTOR FXD	ERJ-86EYJ183V	1/8W 18K OHM	SREAG01753
R48	RESISTOR FXD	ERJ-86EYJ103V	1/8W 10K OHM	SREAG01750
R49	RESISTOR FXD	ERJ-86EYJ471V	1/8W 470 OHM	SREAG01734
R50	RESISTOR FXD	ERJ-86EYJ102V	1/8W 1K OHM	SREAG01738
R51	RESISTOR FXD	ERJ-86EYJ221V	1/8W 220 OHM	SREAG01730
R52	RESISTOR FXD	ERJ-86EYJ103V	1/8W 10K OHM	SREAG01750
R53	RESISTOR FXD	ERJ-86EYD000V	0 OHM	SREAG01775
R54	RESISTOR FXD	ERJ-86EYJ103V	1/8W 10K OHM	SREAG01750
R55	RESISTOR FXD	ERJ-86EYJ221V	1/8W 220 OHM	SREAG01730
R56	RESISTOR FXD	ERJ-86EYJ153V	1/8W 15K OHM	SREAG01752

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PARTS LIST		TITLE CGR-127A		SHEET NO. 10	
REF/DOS		REF/DOS		REF/DOS	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	
10	R100 RESISTOR FXD ERJ-8GEYJ102V	1/8W 1K OHM	SREAG01738	5TCAF00711	
	R101 RESISTOR FXD ERJ-8GEYJ102V	1/8W 1K OHM	SREAG01738	5TCAF00436	
	R102 RESISTOR FXD ERJ-8GEYJ471V	1/8W 470 OHM	SREAG01734	5TAAG00186	
	R113 RESISTOR CFXD ERJ-8GEYJ101V	1/8W 100 OHM	SREAG01726	5TCAZ00011	
	RA1 RESISTOR FXD 208-12Z-MES		5READ00836	5TCAZ00011	
	RA2 RESISTOR FXD 208-12Z-MES		5READ00836	6XHJD00199	
	RA3 RESISTOR FXD 208-12Z-MES		5READ00836	6XHJD00230A	
	RV1 RESISTOR VAR EVN-D2A03013		SRVAB00422		
	RV2 RESISTOR VAR EVN-D2A03013		SRVAB00422		
	RV3 RESISTOR VAR EVN-DBA03054		SRVAB00419		
15	S1 TERMINAL A2-3PA-2.54DSA(01)		5JTBX00010		
	S1P CONNECTOR HIF36A-2.54SP		5JFAA01151		
	T1 RF XFHR H-6LHJD00297		6LHJD00297		
	TP1 TEST TERMINAL PCN6-PEA		5JDA000364		
	TP2 TEST TERMINAL PCN6-PEA		5JDA000364		
	TP3 TEST TERMINAL PCN6-PEA		5JDA000364		
	TP4 TEST TERMINAL PCN6-PEA		5JDA000364		
	TP5 TEST TERMINAL PCN6-PEA		5JDA000364		
	TP6 TEST TERMINAL PCN6-PEA		5JDA000364		
	TP7 TEST TERMINAL PCN6-PEA		5JDA000364		
20	TP8 TEST TERMINAL PCN6-PEA		5JDA000364		
	TP9 TEST TERMINAL PCN6-PEA		5JDA000364		
	TR1 TRANSISTOR 2SA1162-YTE85L		5TAG00182		
	TR2 TRANSISTOR 2SC2714-YTE85L		5TCAF00436		
	TR3 TRANSISTOR 2SA1162-YTE85L		5TAG00182		
25	TR4 TRANSISTOR 2SC2714-YTE85L		5TCAF00436		
	TR5 TRANSISTOR 2SC2714-YTE85L		5TCAF00436		
	TR6 TRANSISTOR 2SC2714-YTE85L		5TCAF00436		
	TR7 TRANSISTOR 2SC2714-YTE85L		5TCAF00436		
	TR8 TRANSISTOR 2SC2714-YTE85L		5TCAF00436		
30	TR9 TRANSISTOR 2SC2714-YTE85L		5TCAF00436		
	TR10 TRANSISTOR 2SK210-BL TE85L		5TKA00189		
	TR11 TRANSISTOR 2SC2714-YTE85L		5TCAF00436		
	TR12 TRANSISTOR 2SC3324GR TE85L		5TCAF00711		
	TR13 TRANSISTOR 2SC3324GR TE85L		5TCAF00711		

PARTS LIST		TITLE CGR-127A		SHEET NO. 9	
REF/DOS		REF/DOS		REF/DOS	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	
10	TR14 TRANSISTOR 2SC3324GR TE85L		5TCAF00711		
	TR15 TRANSISTOR 2SC2714-YTE85L		5TCAF00436		
	TR16 TRANSISTOR 2SC2712Y TE85L		5TAAG00186		
	TR17 TRANSISTOR 2SC3398-TB		5TCAZ00011		
	TR19 TRANSISTOR 2SC3398-TB		5TCAZ00011		
	X1 CRYSTAL H-6XHJD000199		6XHJD000199		
	X3 CRYSTAL H-6XHJD00230A		6XHJD00230A		

TITLE CDC-493AD CPU

PART NO	PART NAME	TYPE	DESCRIPTION	CODE
C37	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C38	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C39	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C40	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C41	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C42	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C43	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C48	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C49	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C50	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C51	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C52	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C53	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C54	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C55	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C56	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C57	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C58	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C59	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C60	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C61	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C62	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C63	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C64	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C65	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C66	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C67	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C68	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C69	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C70	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C71	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C72	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C73	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
CD1	DIODE	1SS184 TE85L		5TXAD00290
CD2	DIODE	1SS226 TE85L		5TXAD00320

CPS

TITLE CDC-493AD CPU

PART NO	PART NAME	TYPE	DESCRIPTION	CODE
BT1	BATTERY	CR2032-1HS		5ZBAB00047
C1	CAP,FXD CER	C3216CH1H330J-E-TP	33PF	SCAAD00794
C2	CAP,FXD CER	C3216CH1H330J-E-TP	33PF	SCAAD00794
C3	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	SCAAD00782
C4	CAP,FXD CER	C3216SL1H102J-E-TP	1000PF	SCAAD00782
C5	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C6	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C7	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C8	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C9	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C10	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C11	CAP,FXD TANTAL	202L1602 106KB		5CSAC00932
C12	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C13	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C14	CAP,FXD CER	C3216X7R1E33K-E-TP	0.033U	SCAAD01203
C15	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C16	CAP,FXD TANTAL	202L1602 106KB		5CSAC00932
C17	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C18	CAP,FXD TANTAL	202L3502 105KB	35V 1UF	5CSAC00982
C19	CAP,FXD TANTAL	202L3502 105KB	35V 1UF	5CSAC00982
C20	CAP,FXD TANTAL	202L3502 105KB	35V 1UF	5CSAC00982
C21	CAP,FXD TANTAL	202L3502 105KB	35V 1UF	5CSAC00982
C22	CAP,FXD TANTAL	202L3502 105KB	35V 1UF	5CSAC00982
C23	CAP,FXD TANTAL	202L3502 105KB	35V 1UF	5CSAC00982
C24	CAP,FXD TANTAL	202L3502 105KB	35V 1UF	5CSAC00982
C25	CAP,FXD TANTAL	202L3502 105KB	35V 1UF	5CSAC00982
C26	CAP,FXD TANTAL	202L3502 105KB	35V 1UF	5CSAC00982
C29	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	SCAAD01237
C30	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C31	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C32	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C33	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C34	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C35	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789
C36	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	SCAAD00789

CPS

PARTS LIST

PARTS LIST		TITLE CDC-493AD		SHEET NO. 3	
CPU		DESCRIPTION		CODE	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	
C03	DIODE	1S5226 TE85L		5TXAD00320	
C04	DIODE	1S5226 TE85L		5TXAD00320	
C05	DIODE	1S5226 TE85L		5TXAD00320	
C06	DIODE	1S5184 TE85L		5TXAD00290	
FL1	FILTER	DS310-558222M	100V D-.0022UF	5HXAA00002	
FL2	FILTER	DS310-558222M	100V O-.0022UF	5HXAA00002	
IC1	IC	MSM80C85A-2RS		5DDAG00176	
IC2	IC	MC74HC573N		5DAAA00229	
IC3	IC	H-7DEJDD182B		70EJDD182B	
IC4	IC	HM6264ALP-15		5DAAAG00380	
IC5	IC	MSM81C55-5RS		5DDAG00206	
IC6	IC	MSM81C55-5RS		5DDAG00206	
IC7	IC	LM338N		5DAAK00205	
IC8	IC	MC74HC574AN		5DAAJ00912	
IC9	IC	MC74HC00N		5DAAJ00142	
IC10	IC	MC74HC138AN		5DAAJ00755	
IC11	IC	MC74HC32AN		5DAAJ00751	
IC12	IC	MSM82C51A-2RS		5DDAG00184	
IC13	IC	MSM82C51A-2RS		5DDAG00184	
IC14	IC	MC74HC541AN		5DAAJ00933	
IC15	IC	MC74HC244AN		5DAAJ00761	
IC16	IC	M51933BL		5DAAAB00150	
IC17	IC	MC74HC4049N		5DAAJ00247	
IC18	IC	TD62083AP		5DDAE00507	
IC53	SOCKET	1CC05-028-360TP		5ZJCK00056	
J61	CONNECTOR	HKP-20M1		5JJAA00118	
P17	CONNECTOR	XC5A-6482-1		5JWCF00043	
PC1	PCB	H-6PCJDD0263B		6PCJDD0263	
R1	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R2	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R4	RESISTOR FXD	ERJ-8GEYJ223V	1/8W 22K OHM	5REAG01754	
R5	RESISTOR FXD	ERJ-8GEYJ223V	1/8W 22K OHM	5REAG01754	
R6	RESISTOR FXD	ERJ-8GEYJ563V		5REAG01759	
R7	RESISTOR FXD	ERJ-8GEYJ105V	1/8W 1M OHM	5REAG01774	
R8	RESISTOR FXD	ERJ-8GEYJ273V	1/8W 27K OHM	5REAG01755	

PARTS LIST

PARTS LIST		TITLE CDC-493AD		SHEET NO. 4	
CPU		DESCRIPTION		CODE	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	
R9	RESISTOR FXD	ERJ-8GEYJ273V	1/8W 27K OHM	5REAG01755	
R10	RESISTOR FXD	ERJ-8GEYJ333V	1/8W 33K OHM	5REAG01756	
R11	RESISTOR FXD	ERJ-8GEYJ473V	1/8W 47K OHM	5REAG01758	
R12	RESISTOR FXD	ERJ-8GEYJ393V	1/8W 39K OHM	5REAG01757	
R13	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R14	RESISTOR CFXD	ERJ-8GEYJ104V	1/8W 100K OHM	5REAG01762	
R15	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R16	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R17	RESISTOR FXD	ERJ-8GEYJ473V	1/8W 47K OHM	5REAG01758	
R18	RESISTOR FXD	ERJ-8GEYJ332V	1/8W 3.3K OHM	5REAG01744	
R20	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R21	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R22	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R23	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R24	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R25	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R26	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R28	RESISTOR FXD	ERJ-8GEYJ332V	1/8W 3.3K OHM	5REAG01744	
R38	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R39	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R40	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R41	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R42	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R43	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R44	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R45	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R46	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R47	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R48	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R49	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R50	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R51	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R52	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R53	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R54	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	

PARTS LIST				SHEET NO. 6	
CPU		TITLE CDC-493AL		DESCRIPTION	
PART NO.	PART NAME	TYPE	DESCRIPTION	CODE	
Z1	ROM LABEL	MPNN25138B			MPNN25138B

PARTS LIST				SHEET NO. 5	
CPU		TITLE CDC-493AD		DESCRIPTION	
PART NO.	PART NAME	TYPE	DESCRIPTION	CODE	
R55	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R56	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R57	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R58	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R59	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R60	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R61	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R62	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R63	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R64	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R65	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R66	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R67	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R68	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R69	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R70	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R71	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
RA1	RESISTOR	EXB-F9E103JY	4.7K OHM	SRZAS00499	
RA2	RESISTOR	EXB-F9E472J		SRZAS00260	
RA3	RESISTOR	EXB-F9E103JY		SRZAS00499	
RA4	RESISTOR	EXB-LD7104G		SRZAS00180	
RJ0	RESISTOR FXD	ERD-25UJ1R0T	1 OHM	SRDAA01733	
RJ3	RESISTOR FXD	ERD-25UJ1R0T	1 OHM	SRDAA01733	
RJ4	RESISTOR FXD	ERD-25UJ1R0T	1 OHM	SRDAA01733	
RJ5	RESISTOR FXD	ERD-25UJ1R0T	1 OHM	SRDAA01733	
RJ6	RESISTOR FXD	ERD-25UJ1R0T	1 OHM	SRDAA01733	
RJ7	RESISTOR FXD	ERD-25UJ1R0T	1 OHM	SRDAA01733	
RV1	RESISTOR VAR	EVN-D2AA03B14		SRVAB00430	
RV2	RESISTOR VAR	EVN-D2AA03B14		SRVAB00430	
TP1	TEST TERMINAL	PCN6-PEA		5JDAAD00364	
TP2	TEST TERMINAL	PCN6-PEA		5JDAAD00364	
TP3	TEST TERMINAL	PCN6-PEA		5JDAAD00364	
TR1	TRANSISTOR	2SC2712Y TEB5L		5TAAG00186	
TR2	TRANSISTOR	2SC3398-TB		5TCAZ00011	
X1	TRANSDUCER	CSAB-46MT		5UNAB00033	

PARTS LIST

RTTY DEMO TITLE CHR-530 SHEET NO. 1

PART NO	PART NAME	TYPE	DESCRIPTION	CORE
C1	CAP,FXD TANTAL	202L3502 105K5471	35V 1UF	5CSAC00796
C2	CAP,FXD TANTAL	202L3502 105K5471	35V 1UF	5CSAC00796
C3	CAP,FXD TANTAL	202L3502 105K5471	35V 1UF	5CSAC00796
C4	CAP,FXD TANTAL	202L3502 105K5471	35V 1UF	5CSAC00796
C5	CAP,FXD TANTAL	202L2502 106K4	25V 10UF	5CSAC00324
C6	CAP,FXD TANTAL	202L3502 105K5471	35V 1UF	5CSAC00796
C7	CAP,FXD TANTAL	202L3502 105K5471	35V 1UF	5CSAC00796
C8	CAP,FXD TANTAL	202L3502 105K5471	35V 1UF	5CSAC00796
C9	CAP,FXD TANTAL	202L3502 105K5471	35V 1UF	5CSAC00796
C10	CAP,FXD PLSTC	501N5002 103K1	50V 0.01UF	5CRAC00009
C11	CAP,FXD PLSTC	501N5002 103K1	50V 0.01UF	5CRAC00009
C12	CAP,FXD TANTAL	202L3502 474K5 471	35V 0.47UF	5CSAC00825
C13	CAP,FXD TANTAL	202L3502 474K5 471	35V 0.47UF	5CSAC00825
C14	CAP,FXD TANTAL	202L2502 106K4	25V 10UF	5CSAC00324
C15	CAP,FXD TANTAL	202L2502 106K4	25V 10UF	5CSAC00324
C16	CAP,FXD PLSTC	501N5002 224K1	50V 0.22UF	5CRAC00017
C17	CAP,FXD PLSTC	501N5002 473K1	50V 0.047UF	5CRAC00013
C18	CAP,FXD PLSTC	501N5002 103K1	50V 0.01UF	5CRAC00009
C19	CAP,FXD TANTAL	202L3502 105K5471	35V 1UF	5CSAC00796
C20	CAP,FXD TANTAL	202L3502 105K5471	35V 1UF	5CSAC00796
C21	CAP,FXD ELCTLT	ECE-A1ES100	25V10UF	5CERA01348
C22	CAP,FXD ELCTLT	ECE-A1ES100	25V10UF	5CERA01348
C23	CAP,FXD ELCTLT	ECE-A1ES100	25V10UF	5CERA01348
C24	CAP,FXD ELCTLT	ECE-A1ES100	25V10UF	5CERA01348
C25	CAP,FXD ELCTLT	ECE-A1ES100	25V10UF	5CERA01348
C26	CAP,FXD CER	00106F103Z50	50V 10000PF	5CBAB00400
C27	CAP,FXD ELCTLT	ECE-A1ES100	25V10UF	5CERA01348
C28	CAP,FXD CER	00106F103Z50	50V 10000PF	5CBAB00400
C29	CAP,FXD CER	00106F103Z50	50V 10000PF	5CBAB00400
C30	CAP,FXD ELCTLT	ECE-A1ES100	25V10UF	5CERA01348
C31	CAP,FXD CER	00106F103Z50	50V 10000PF	5CBAB00400
C32	CAP,FXD CER	00106F103Z50	50V 10000PF	5CBAB00400
C33	CAP,FXD PLSTC	501N5002 103K1	50V 0.01UF	5CRAC00009
C34	CAP,FXD PLSTC	501N5002 103K1	50V 0.01UF	5CRAC00009
CD1	DIODE	1S2076S7		51XAE00355

PARTS LIST

RTTY DEMO TITLE CHR-530 SHEET NO. 2

PART NO	PART NAME	TYPE	DESCRIPTION	CORE
CD2	DIODE	1S2076S7		51XAE00355
CD3	DIODE	1S2076S7		51XAE00355
CD4	DIODE	1S2076S7		51XAE00355
CD5	DIODE	1S2076S7		51XAE00355
CD6	DIODE	1S2076S7		51XAE00355
CD7	DIODE	1S2076S7		51XAE00355
CD8	LED	TLR102A		51ZAD00020
CD9	LED	TLR102A		51ZAD00020
CP1	PHOTO COUPLER	HXD-421C		51ZBC00003
CP2	PHOTO COUPLER	HXD-421C		51ZBC00003
IC1	IC	TC74HC138AP		5DDAE01239
IC2	IC	MSM82C51A-2RS		5DDAG00184
IC3	IC	MSM82C55A-2RS		5DDAG00182
IC4	IC	TC9122P		5DDAE00281
IC5	IC	MC74HC160N		5DAAJ00182
IC8	IC	HD7406P		5DDAF00113
IC9	IC	HD74LS05P		5DDAF00291
IC10	IC	NJM3403AD		5DAAN00085
IC11	IC	NJM3403AD		5DAAN00085
IC12	IC	NJM3403AD		5DAAN00085
IC13	IC	NJM3403AD		5DAAN00085
IC14	IC	NJM3403AD		5DAAN00085
IC15	IC	NJM3403AD		5DAAN00085
IC16	IC	TC4066BP		5DDAE00078
IC17	IC	TC4030BP		5DDAE00050
L1	COIL	FL-5H101K	100UH	5LCAA00013
L2	COIL	FL-5H101K	100UH	5LCAA00013
P15	CONNECTOR	EC1C-22P-2.50SA	22P	5JWB500070
P16	CONNECTOR	EC1C-22P-2.50SA	22P	5JWB500070
PC1	PCB	H-6PCJ000169A		6PCJ000169
R1	RESISTOR FXD	ERD-25UJ104	1/4W 100K OHM	5RDA01393
R2	RESISTOR FXD	ERD-25UJ105	1/4W 1M OHM	5RDA01417
R3	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	5RDA01369
R4	RESISTOR FXD	ERD-25UJ473	1/4W 47K OHM	5RDA01385
R5	RESISTOR FXD	ERD-25UJ101	1/4W 100 OHM	5RDA01321

PART NO	PART NAME	TYPE	DESCRIPTION	CODE
R44	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R45	RESISTOR FXD	ERD-25UJ472	1/4W 4.7K OHM	SRDAA01361
R46	RESISTOR FXD	ERD-25UJ104	1/4W 100K OHM	SRDAA01393
R47	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R48	RESISTOR FXD	ERD-25UJ104	1/4W 100K OHM	SRDAA01393
R49	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R50	RESISTOR FXD	ERD-25UJ472	1/4W 4.7K OHM	SRDAA01361
R51	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R52	RESISTOR FXD	ERD-25UJ104	1/4W 100K OHM	SRDAA01393
R53	RESISTOR FXD	ERD-25UJ104	1/4W 100K OHM	SRDAA01393
R54	RESISTOR FXD	ERD-25UJ104	1/4W 100K OHM	SRDAA01393
R55	RESISTOR FXD	ERD-25UJ104	1/4W 100K OHM	SRDAA01393
R56	RESISTOR FXD	ERD-25UJ474	1/4W 470K OHM	SRDAA01409
R57	RESISTOR FXD	ERD-25UJ183	1/4W 18K OHM	SRDAA01375
R58	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R59	RESISTOR FXD	ERD-25UJ333	1/4W 33K OHM	SRDAA01381
R60	RESISTOR FXD	ERD-25UJ333	1/4W 33K OHM	SRDAA01381
R61	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R62	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R63	RESISTOR FXD	ERD-25UJ105	1/4W 1K OHM	SRDAA01417
R64	RESISTOR FXD	ERD-25UJ153	1/4W 15K OHM	SRDAA01373
R65	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R66	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R67	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R68	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R69	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R70	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R71	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R72	RESISTOR FXD	ERD-25UJ221	1/4W 220 OHM	SRDAA01325
R73	RESISTOR FXD	ERD-25UJ221	1/4W 220 OHM	SRDAA01325
R74	RESISTOR FXD	ERD-25UJ221	1/4W 220 OHM	SRDAA01327
R75	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01361
R76	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01361
R77	RESISTOR FXD	ERD-25UJ221	1/4W 220 OHM	SRDAA01327
R78	RESISTOR FXD	ERD-25UJ104	1/4W 100K OHM	SRDAA0139

PART NO	PART NAME	TYPE	DESCRIPTION	CODE
R6	RESISTOR FXD	ERD-25UJ473	1/4W 47K OHM	SRDAA01385
R7	RESISTOR FXD	ERD-25UJ102	1/4W 1K OHM	SRDAA01345
R8	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R9	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R10	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R11	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R12	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R13	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R14	RESISTOR FXD	ERD-25UJ333	1/4W 33K OHM	SRDAA01381
R15	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R16	RESISTOR FXD	ERD-25UJ104	1/4W 100K OHM	SRDAA01393
R17	RESISTOR FXD	ERD-25UJ224	1/4W 220K OHM	SRDAA01401
R18	RESISTOR FXD	ERD-25UJ224	1/4W 220K OHM	SRDAA01401
R19	RESISTOR FXD	ERD-25UJ222	1/4W 2.2K OHM	SRDAA01353
R20	RESISTOR FXD	ERD-25UJ682	1/4W 6.8K OHM	SRDAA01365
R21	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R22	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R23	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R24	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R25	RESISTOR FXD	ERD-25UJ104	1/4W 100K OHM	SRDAA01393
R26	RESISTOR FXD	ERD-25UJ224	1/4W 220K OHM	SRDAA01401
R27	RESISTOR FXD	ERD-25UJ224	1/4W 220K OHM	SRDAA01401
R28	RESISTOR FXD	ERD-25UJ222	1/4W 2.2K OHM	SRDAA01353
R29	RESISTOR FXD	ERD-25UJ332	1/4W 3.3K OHM	SRDAA01357
R30	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R31	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R32	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R33	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R34	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R35	RESISTOR FXD	ERD-25UJ682	1/4W 6.8K OHM	SRDAA01365
R36	RESISTOR FXD	ERD-25UJ223	1/4W 22K OHM	SRDAA01377
R37	RESISTOR FXD	ERD-25UJ223	1/4W 22K OHM	SRDAA01377
R38	RESISTOR FXD	ERD-25UJ223	1/4W 22K OHM	SRDAA01377
R42	RESISTOR FXD	ERD-25UJ182	1/4W 1.8K OHM	SRDAA01351
R43	RESISTOR FXD	ERD-25UJ102	1/4W 1K OHM	SRDAA01345

PARTS LIST				
R11Y DEMO		TITLE CMH-530		SHEET NO. 5
PART NO	PART NAME	TYPE	DESCRIPTION	CODE
RA1	RESISTOR	IHR-8-103JA(2.54)	10K OHM X8	SRZAB00136
RA2	RESISTOR	IHR-4-103JA	10K OHM X4	SRZAB00043
RV1	RESISTOR VAR	GFD6P-10K OHM	10K OHM	SRMAB00053
RV2	RESISTOR VAR	GFD6P-10K OHM	10K OHM	SRMAB00053
RV3	RESISTOR VAR	GFD6P-10K OHM	10K OHM	SRMAB00053
RV4	RESISTOR VAR	GFD6P-10K OHM	10K OHM	SRMAB00053
RV5	RESISTOR VAR	GFD6P-10K OHM	10K OHM	SRMAB00053
RV6	RESISTOR VAR	GFD6P-10K OHM	10K OHM	SRMAB00053
RV7	RESISTOR VAR	GFD6P-10K OHM	10K OHM	SRMAB00053
TP1	TEST TERMINAL	PCN6-PEA		5JDA00364
TP2	TEST TERMINAL	PCN6-PEA		5JDA00364
TP3	TEST TERMINAL	PCN6-PEA		5JDA00364
TP4	TEST TERMINAL	PCN6-PEA		5JDA00364
TP5	TEST TERMINAL	PCN6-PEA		5JDA00364

PARTS LIST

PARTS LIST		TITLE		SHEET NO.	
DISPLAY		CDE-705		1	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	
C1	CAP,FXD CER	C3216J81H473K-E-TP	0.047UF 50V	5CAAD01202	
C2	CAP,FXD CER	C3216CH1H330J-E-TP	33PF	5CAAD00794	
C3	CAP,FXD CER	C3216CH1H470J-E-TP	47PF	5CAAD00864	
C4	CAP,FXD CER	C3216CH1H470J-E-TP	47PF	5CAAD00864	
C5	CAP,FXD CER	C3216CH1H330J-E-TP	33PF	5CAAD00794	
C6	CAP,FXD CER	C3216CH1H330J-E-TP	33PF	5CAAD00794	
C7	CAP,FXD ELCTLT	ECE-A1HU100B	50V 10UF	5CEAA02184	
C8	CAP,FXD ELCTLT	ECE-A1EU101B		5CEAA01813	
C9	CAP,FXD CER	C3216JB1H102K-E-TP	1000PF 50V	5CAAD01267	
C10	CAP,FXD ELCTLT	ECE-A1HU100B	50V 10UF	5CEAA02184	
C11	CAP,FXD ELCTLT	ECE-A1HU100B	50V 10UF	5CEAA02184	
C12	CAP,FXD TANTAL	267M1602 105ML	16V 1UF	5CSAC01050	
C13	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789	
C14	CAP,FXD TANTAL	267M1602 105ML	16V 1UF	5CSAC01050	
C15	CAP,FXD TANTAL	267M1602 105ML	16V 1UF	5CSAC01050	
C16	CAP,FXD TANTAL	267M1602 105ML	16V 1UF	5CSAC01050	
C17	CAP,FXD TANTAL	267M1602 105ML	16V 1UF	5CSAC01050	
C18	CAP,FXD TANTAL	267M1602 105ML	16V 1UF	5CSAC01050	
C19	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789	
C20	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237	
C01	DIODE	1S5184 TE85L		5TXAD00290	
C02	DIODE	1S5184 TE85L		5TXAD00290	
C03	DIODE	1S5184 TE85L		5TXAD00290	
C04	DIODE	1S5184 TE85L		5TXAD00290	
C05	DIODE	1S5184 TE85L		5TXAD00290	
C06	DIODE	1S5184 TE85L		5TXAD00290	
C07	DIODE	1S5184 TE85L		5TXAD00290	
C08	DIODE	1S5184 TE85L		5TXAD00290	
C09	LED	PG5551K		5TZAW00035	
C010	LED	PG5551KY		5TZAW00055	
C011	LED	PG5551KY		5TZAW00055	
C012	LED	PG5551KY		5TZAW00055	
C013	LED	PG5551KY		5TZAW00055	
C014	LED	PG5551KY		5TZAW00055	
C015	LED	PG5551KY		5TZAW00055	

PARTS LIST

PARTS LIST		TITLE		SHEET NO.	
DISPLAY		CDE-705		2	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	
CD16	LED	SEL2310E		5TZAA00165	
CD17	LED	SEL2310E		5TZAA00165	
CD18	DIODE	SEL2110S		5TXAN00205	
CD19	DIODE	SEL2110S		5TXAN00205	
CD20	DIODE	1S5226 TE85L		5TXAD00320	
CD21	DIODE	1S5226 TE85L		5TXAD00320	
CD22	DIODE	HZ9A2RE		5TXAE00592	
CV1	CAPACITOR VAR	ECV-11W20X60		5CVAC00034	
F1	VFD	CC1029H		5NZBE00004	
FL1	FILTER	DSS310-55D223S	50V 0.022UF	5NXAA00006	
IC1	IC	MSM80C85A-2RS		5DDAG00176	
IC2	IC	TC74HC573AP		5DDAE01345	
IC3	IC	H-7DEJ00183B		7DEJ00183B	
IC4	IC	TC74HC138AP		500AE01239	
IC5	IC	MSM81C55-5RS		5DDAG00206	
IC6	IC	MSM81C55-5RS		5DDAG00206	
IC7	IC	LR3671D		50DBH00037	
IC8	IC	MSM82C51A-2RS		5DDAG00184	
IC9	IC	MSM62428RS		5DDAG00226	
IC10	IC	MSM6253RS		5DDAG00305	
IC11	IC	MC74HC564N		5DAAJ00228	
IC12	IC	MSL915RS		5DDAG00052	
IC13	IC	MSL915RS		5DDAG00052	
IC14	IC	MSL915RS		5DDAG00052	
IC15	IC	MSL915RS		5DDAG00052	
IC16	IC	TC7W32F TE12L		5DDAE01894	
IC17	IC	MC74HC4053N		5DAAJ00251	
IC18	IC	MC74HC259N		5DAAJ00207	
ICS3	SOCKET	ICCS5-028-360TP		5ZJCK00056	
J46	CONNECTOR	B4B-EH-A		5JWAP00226	
J47	TERMINAL	FFC-5CM1		5JTCAD00238	
J48	TERMINAL	FFC-4CM1		5JTCAD00218	
L1	COIL	FL-9H471J-H		5LCAA00700	
L2	COIL	LAL04NA330K		5LCAA00196	
P39	CABLE	H-6ZCJ000348A		6ZCJ000348	

PARTS LIST

DISPLAY		TITLE		SHEET NO.	
PART NO		PART NAME		TYPE	
DESCRIPTION		CODE			
P40	CABLE	H-6ZCJD00124	6ZCJD00124		
P41	CABLE	H-6ZCJD00125	6ZCJD00125		
PC1	PCB	H-6PCJD00619C	6PCJD00619		
PG1	ENCODER	H-6BZJD00001	6BZJD00001		
R1	RESISTOR FXD	ERJ-8GEYJ223V	1/8W 22K OHM	5REAG01754	
R2	RESISTOR FXD	ERJ-8GEYJ562V	1/8W 5.6K OHM	5REAG01747	
R3	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R4	RESISTOR FXD	ERJ-8GEYJ332V	1/8W 3.3K OHM	5REAG01744	
R5	RESISTOR FXD	ERJ-8GEYJ332V	1/8W 3.3K OHM	5REAG01744	
R6	RESISTOR FXD	ERJ-8GEYJ561V	1/8W 560 OHM	5REAG01735	
R7	RESISTOR CFXD	ERJ-8GEYJ182V	1/8W 1.8K OHM	5REAG01741	
R8	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R9	RESISTOR FXD	ERJ-8GEYJ273V	1/8W 27K OHM	5REAG01755	
R12	RESISTOR FXD	ERJ-8GEYJ221V	1/8W 220 OHM	5REAG01730	
R13	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R14	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R15	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R16	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R17	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R18	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R19	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R20	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R21	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R22	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R23	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R24	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R25	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R26	RESISTOR FXD	ERJ-8GEYJ331V	330 OHM 1/8W	5REAG01732	
R27	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
R28	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R29	RESISTOR CFXD	ERJ-8GEYJ101V	1/8W 100 OHM	5REAG01726	
R30	RESISTOR FXD	ERJ-8GEYJ221V	1/8W 220 OHM	5REAG01730	
R31	RESISTOR FXD	ERJ-8GEYJ221V	1/8W 220 OHM	5REAG01730	
R32	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750	
RV1	RESISTOR VAR	EVH-0XA009B14		5RVAB00262	

PARTS LIST

DISPLAY		TITLE		SHEET NO.	
PART NO		PART NAME		TYPE	
DESCRIPTION		CODE			
RV2	RESISTOR VAR	EVH-0XA009B14		5RVAB00262	
RV3	RESISTOR VAR	EVH-0XA009B14		5RVAB00262	
RV4	RESISTOR VAR	EVH-0XA009B14		5RVAB00262	
RV5	RESISTOR VAR	EVH-0XA009B14		5RVAB00262	
RV6	RESISTOR VAR	EVH-0XA009B14		5RVAB00262	
RV7	RESISTOR VAR	EVH-0XA009A14		5RVAB00261	
RV8	RESISTOR VAR	EVH-0XA009B14		5RVAB00262	
S1	SWITCH	SKHHR		5SCAF00194	
S2	SWITCH	SKHHR		5SCAF00194	
S3	SWITCH	SKHHR		5SCAF00194	
S4	SWITCH	SKHHR		5SCAF00194	
S5	SWITCH	SKHHR		5SCAF00194	
S6	SWITCH	SKHHR		5SCAF00194	
S7	SWITCH	SKHHR		5SCAF00194	
S8	SWITCH	SKHHR		5SCAF00194	
S9	SWITCH	SKHHR		5SCAF00194	
S10	SWITCH	SKHHR		5SCAF00194	
S11	SWITCH	SKHHR		5SCAF00194	
S12	SWITCH	SKHHR		5SCAF00194	
S13	SWITCH	SKHHR		5SCAF00194	
S14	SWITCH	SKHHR		5SCAF00194	
S15	SWITCH	SKHHR		5SCAF00194	
S16	SWITCH	SKHHR		5SCAF00194	
S17	SWITCH	SKHHR		5SCAF00194	
S18	SWITCH	SKHHR		5SCAF00194	
S19	SWITCH	SKHHR		5SCAF00194	
S20	SWITCH	SKHHR		5SCAF00194	
S21	SWITCH	SKHHR		5SCAF00194	
S22	SWITCH	SKHHR		5SCAF00194	
S23	SWITCH	SKHHR		5SCAF00194	
S24	SWITCH	SKHHR		5SCAF00194	
S25	SWITCH	SKHHR		5SCAF00194	
S26	SWITCH	SKHHR		5SCAF00194	
S27	SWITCH	SKHHR		5SCAF00194	
S28	SWITCH	SKHHR		5SCAF00194	

PARTS LIST

DISPLAY		TITLE		SHEET NO.	
DISPLAY		CDE-705		5	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	
S29	SWITCH	SKHHR		SSCAF00194	
S30	SWITCH	SKHHR		SSCAF00194	
S31	SWITCH	SKHHR		SSCAF00194	
S32	SWITCH	SKHHR		SSCAF00194	
S33	SWITCH	D-2023KB-J3D AT-451		5SAAB00737	
T1	TRANSFORMER	H-6LUJDD00017		6LUJDD00017	
TP1	TEST TERMINAL	PCN6-PEA		5JDAA00364	
TR1	TRANSISTOR	2SD471 LA	HFE135-270	5TDAB00020	
TR2	TRANSISTOR	2SD471 LA	HFE135-270	5TDAB00020	
X1	TRANSUDCER	CSAB-46MT		SUNAB00033	
X2	CRYSTAL	MX-38T 32.768KHZ		5XHAA00509	
Z1	ROM LABEL	MPN25139B		MPN25139B	

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PARTS LIST

CHASSIS		TITLE		SHEET NO.	
CHASSIS		NRD-535		1	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	
C11	CAP,FXD CER	C3216JB1H473K-E-TP	0.047UF 50V	5CAAD01282	
C12	CAP,FXD CER	C3216JB1H473K-E-TP	0.047UF 50V	5CAAD01282	
C13	CAP,FXD ELCTLT	ECES1VU472G	35WV 4700UF	5CEAA01681	
C14	CAP,FXD ELCTLT	ECE-A1EU101	25V 100UF	5CEAA01839	
C15	CAP,FXD CER	D0106F103Z50	50V 10000PF	5CBAB00400	
C16	CAP,FXD CER	DE7150FZ103PVA1		5CBAB01618	
C17	CAP,FXD ELCTLT	ECE-A1EU470	47UF 25V	5CEAA01820	
C18	CAP,FXD ELCTLT	ECE-A1EU470	47UF 25V	5CEAA01820	
C19	CAP,FXD ELCTLT	ECE-A1EU470	47UF 25V	5CEAA01820	
C20	CAP,FXD ELCTLT	ECE-A1EU470	47UF 25V	5CEAA01820	
C21	CAP,FXD ELCTLT	ECE-A1EU470	47UF 25V	5CEAA01820	
C22	CAP,FXD CER	C3216CH1H680J-E-TP	68PF	5CAAB00929	
C23	CAP,FXD CER	C3216CH1H100D-E-TP	10PF	5CAAD00785	
C24	CAP,FXD CER	C3216CH1H121J-E-TP	120PF	5CAAD00931	
C25	CAP,FXD CER	C3216CH1H220J-E-TP	22PF	5CAAB00869	
C26	CAP,FXD CER	C3216CH1H560J-E-TP		5CAAB00863	
C27	CAP,FXD C CER	C3216CH1H101J-E-TP	50V 100PF	5CAAB00780	
C28	CAP,FXD C CER	C3216CH1H101J-E-TP	50V 100PF	5CAAB00780	
C29	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237	
C30	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237	
C32	CAP,FXD ELCTLT	ECEA1EU471	25V 470UF	5CEAA01756	
C33	CAP,FXD ELCTLT	ECEA1EU471	25V 470UF	5CEAA01756	
C34	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237	
C35	CAP,FXD ELCTLT	ECE-A1EU101	25V 100UF	5CEAA01839	
C36	CAP,FXD C CER	C3216JB1H103K-E-TP	50V 0.01UF	5CAAD00789	
C37	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237	
C38	CAP,FXD ELCTLT	ECE-A1EU220	16V 22UF	5CEAA01908	
C61	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237	
C62	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237	
C63	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237	
C64	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237	
C65	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237	
C66	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237	
C67	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237	
C68	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237	

PARTS LIST

CHASSIS		TITLE		SHEET NO.	
CHASSIS		NRD-535		2	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	
C69	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237	
C70	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237	
C71	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237	
C72	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237	
C73	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237	
C74	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237	
C75	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237	
C76	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237	
C77	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237	
C78	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237	
C79	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237	
C80	CAP,FXD CER	C3216X7R1E104K-E-TP	0.1UF	5CAAD01237	
C03	DIODE	EM1Z	200V 1A	5TXAN00061	
C04	DIODE	RK44		5TXAN00114	
C05	DIODE	U15C TYPE 1		5TXAE00851	
C06	DIODE	U15C TYPE 1		5TXAE00851	
C07	DIODE	U15C TYPE 1		5TXAE00851	
C08	DIODE	U15C TYPE 1		5TXAE00851	
C010	DIODE	1SS226 TE85L		5TXAD00320	
C02	FUSE	MF61NR1	1A	5ZFA000403	
F51	VTG CHANGER	S-1721#9	100,120,22	5ZEG00002	
IC4	IC	0450		5DAAA00299	
IC4-1	HEAT SINK	IC-1625-ST		5ZKAE00042	
IC5	IC	NJM78L05A	5V 0.1A	5DAAH00046	
IC6	IC	MAX232CPE		5DDE000001	
IC7	IC	SC7SU04FEL		5D0AS00176	
IC8	IC	SC7SU04FEL		5D0AS00176	
J5	CONNECTOR	PCN6-22S-2.5DS		5JDAK00082	
J6	CONNECTOR	PCN6-22S-2.5DS		5JDAK00082	
J7	CONNECTOR	PCN6-22S-2.5DS		5JDAK00082	
J8	CONNECTOR	PCN6-22S-2.5DS		5JDAK00082	
J9	CONNECTOR	PCN6-22S-2.5DS		5JDAK00082	
J10	CONNECTOR	PCN6-22S-2.5DS		5JDAK00082	
J13	CONNECTOR	PCN6-22S-2.5DS		5JDAK00082	
J14	CONNECTOR	PCN6-22S-2.5DS		5JDAK00082	

PARTS LIST

SHEET NO. 3

TITLE NRD-535

CHASSIS

PART NO	PART NAME	TYPE	DESCRIPTION	CODE
J15	CONNECTOR	PCN6-22S-2.5DS		5JDA00082
J15-1	CONNECTOR	PCN6-22S-2.5DS		5JDA00082
J16	CONNECTOR	PCN6-22S-2.5DS		5JDA00082
J16-1	CONNECTOR	PCN6-22S-2.5DS		5JDA00082
J17	CONNECTOR	X65B-6431-0	64P	5JWC00012
J18	CONNECTOR	B8P9-VB-2		5JWAF00458
J21	JACK	S-10814#01		5ZEG00003
J22	CONNECTOR	AC-PO1CF01	UL	5JWEZ00005
J23	TERMINAL	M-110C-3		5JTB00369
J24	PIN JACK	S-Q3097#03		5JJAL00055
J25	PIN JACK	S-Q3097#03		5JJAL00055
J26	CONNECTOR	XK3B-2532-112	25P	5JWCF00013
J27	PIN JACK	S-Q3097#03		5JJAL00055
J29	CONNECTOR	PCN6-22S-2.5DS		5JDA00082
J30	CONNECTOR	PCN6-22S-2.5DS		5JDA00082
J31	CONNECTOR	PCN6-22S-2.5DS		5JDA00082
J32	CONNECTOR	PCN6-22S-2.5DS		5JDA00082
J33	PIN JACK	S-Q3097#03		5JJAL00055
J34	PIN JACK	S-Q3097#03		5JJAL00055
J35	PIN JACK	S-Q3096#03		5JJAL00056
J36	PIN JACK	S-Q3097#03		5JJAL00055
J37	TERMINAL	PI-C02P01		5JJAK00003
J38	CONNECTOR	FM-WR-M(FM-205)		5JWBK00004
J39	CONNECTOR	BSP6-VB-2		5JWAF00459
J40	CONNECTOR	IL-G-12P-S3T2-E		5JWAB00082
J41	CONNECTOR	IL-G-12P-S3T2-E		5JWAB00082
J42	CONNECTOR	IL-G-6P-S3T2-E		5JWAD00099
K1	RELAY	LZ12H		SKLAC00033
L1	COIL	LAL03VSR22H		SLCAR00284
L2	COIL	LAL03VSR22H		SLCAR00284
P47	CONNECTOR	H-6ZCJ000100		6ZCJ000100
P61	CABLE	H1F2B(A)3BA-20D-9C-1		5ZCAG00117
PC1	PCB	H-6PCJ000622A		6PCJ000622
R8	RESISTOR FXD	ERJ-8GEYJ23V	1/8W 22K OHM	5REAG01754
R10	RESISTOR FXD	CRH2065 OHM J		5RHA01300

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PARTS LIST

SHEET NO. 4

TITLE HRD-535

CHASSIS

PART NO	PART NAME	TYPE	DESCRIPTION	CODE
R10-1		0 20W		5ZJAP00003
R12	RESISTOR FXD	ERJ-8GEYJ332V	1/8W 3.3K OHM	5REAG01744
R13	RESISTOR FXD	ERJ-8GEYJ330V	1/8W 33 OHM	5REAG01720
R14	RESISTOR FXD	ERJ-8GEYJ334V	1/8W 330K OHM	5REAG01768
R15	RESISTOR FXD	ERJ-8GEYJ102V	1/8W 1K OHM	5REAG01738
R16	RESISTOR FXD	ERD-50TJ103	1/2W 10K OHM	5RDA000859
R17	RESISTOR FXD	ERJ-8GEYJ105V	1/8W 1M OHM	5REAG01774
R18	RESISTOR FXD	ERJ-8GEYJ221V	1/8W 220 OHM	5REAG01730
R19	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750
R20	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750
R21	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750
R24	RESISTOR FXD	ERJ-8GEYJ472V	1/8W 4.7K OHM	5REAG01746
R25	RESISTOR FXD	ERJ-8GEYJ472V	1/8W 4.7K OHM	5REAG01746
R51	RESISTOR FXD	ERJ-8GEYK1R0V		5REAG02208
R52	RESISTOR FXD	ERJ-8GEYJ102V	1/8W 1K OHM	5REAG01738
R53	RESISTOR FXD	ERJ-8GEYJ120V	1/8W 12 OHM	5REAG01715
R54	RESISTOR FXD	ERJ-8GEYJ102V	1/8W 1K OHM	5REAG01738
R55	RESISTOR FXD	ERJ-8GEYJ103V	1/8W 10K OHM	5REAG01750
R56	RESISTOR FXD	ERJ-8GEYJ334V	1/8W 330K OHM	5REAG01768
R57	RESISTOR FXD	ERJ-8GEYJ102V	1/8W 1K OHM	5REAG01738
RV1	RESISTOR VAR	EVH-DBAA03B14	10K OHM	5RVAB00428
S1	SWITCH	SSP322		5SBAB00206
SP1	SPEAKER	EAS-8P29		5USAE00047
T1	TRANSFORMER	H-6LTJ000015		6LTJ000015
T2	RF XFMR	H-6LHJ000380		6LHJ000380
TR2	TRANSISTOR	2SC3398-TB		5TCAZ00011
TR3	TRANSISTOR	2SA1162-YTE85L		5TAAG00182
TR4	TRANSISTOR	2SC2712Y TE85L		5TAAG00186
TR5	TRANSISTOR	2SC3398-TB		5TCAZ00011
TR6	TRANSISTOR	2SA1344-TB		5TAAL00004
TR7	TRANSISTOR	2SC3398-TB		5TCAZ00011
X1	TRANSUCER	CSA12:0MT040		5UNAB00035

475

PARTS LIST

PART NO		JACK		TITLE CQB-61		SHEET NO. 1	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE			
J43	JACK	HLJ4305-01-3070		5JJAM00061			
J44	JACK	HSJ0786-01-010		5JJAM00022			
P42	CONNECTOR	H-6ZCJD00104		6ZCJD00104			
PC1	PCB	H-6PCJD00023A		6PCJD00023			
R22	RESISTOR FXD	ERD-S1VJ101T	0.5W	SRDAA01711			
R23	RESISTOR FXD	ERD-S1VJ101T	0.5W	SRDAA01711			

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PARTS LIST

PART NO		AVR		TITLE CQB-T080		SHEET NO. 1	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE			
C1	CAP,FXD	PLSTC	ECQ-V1H104JZ3	5CRAA00617			
C2	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864			
C3	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864			
C4	CAP,FXD	ELCTLT	ECE-A1EU101B	5CEAA01813			
C5	CAP,FXD	PLSTC	ECQ-V1H104JZ3	5CRAA00617			
C6	CAP,FXD	PLSTC	ECQ-V1H104JZ3	5CRAA00617			
C7	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864			
C8	CAP,FXD	ELCTLT	ECE-A1EU100B	5CEAA01864			
CD1	DIODE		1S2076RE	5TXAE00588			
CD2	DIODE		HZ3B-2RE	5TXAE00566			
IC1	IC		M5237L	5DDAB00346			
IC2	IC		TA78005AP	5DAAD00082			
IC3	IC		TA78009AP	5DAAD00124			
P18	CABLE		H-6ICJD00349A	6ZCJD00349			
PC1	PCB		H-6PCJD000621A	6PCJD000621			
R1	RESISTOR FXD	ERD-25UJ221T	220 OHM 1/4	5RDAAD1543			
R2	RESISTOR FXD	ERD-25UJ333T	1/4W 33K OHM	5RDAAD1591			
R3	RESISTOR FXD	ERD-25UJ392T	1/4W 3.9K OHM	5RDAAD1608			
R4	RESISTOR FXD	ERD-25UJ101T	1/4W 100 OHM	5RDAAD1599			
R5	RESISTOR FXD	ERD-25UJ222T	2.2K OHM 1/4W	5RDAAD1548			
R6	RESISTOR FXD	ERD-25UJ103T	10K OHM 1/4W	5RDAAD1547			
RV1	RESISTOR VAR	EVN-DBAAD3B13	1K OHM	5RVAB00433			
TR1	TRANSISTOR		2SB553-Y	5TBAE00036			
TR1-2	ACCESSORY		AC229	5ZKAK00020			
TR1-3	BUSING		YC-40B	5ZZDY00005			

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PARTS LIST

ACCESSORY		TITLE		SHEET NO.	
PART NO	PART NAME	TYPE	DESCRIPTION	CODE	
AC1	CONNECTOR	M-P-3		5JAN00010	1
AC2	PIN PLUG	AR-568M		5JWGC00004	
AC3	2P PLUG	PJ-2272		5JJAJ00167	
AC4	PLUG	AP314		5JJBR00006	
ACS	FUSE	MF61NR1	1A	5ZFA000403	
AC6	DC POWER CABLE	H-6ZCJD00127		6ZCJD00127	

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