

NRD-525
GENERAL COVERAGE RECEIVER
SERVICE MANUAL

JRC *Japan Radio Co., Ltd.*

TABLE OF CONTENTS

	PAGE
Introduction	i
1. OPERATION	1-1
1-1 Units	1-1
1-2 Details of Blocks	1-3
1-3 Optional units	1-17
2. INSPECTION AND ADJUSTMENT	2-1
3. TROUBLE SHOOTING	3-1
3-1 Outline	3-1
3-2 Checking of Power Supply Circuit	3-1
3-3 Too Low Sensitivity in Receiving	3-2
3-3-1 Too Low Sensitivity in Particular Band ...	3-3
3-3-2 Too Low Sensitivity in All Bands	3-3
3-4 No Sound from Speaker	3-4
3-5 Operation Impossible	3-5
4. PARTS LIST	4-1
5. APPENDIX DRAWINGS	5-1
Level Diagram	
PCB Assembly Drawings	
Block Diagram	
Schematic Diagrams	

Introduction

This manual describes information necessary for maintenance of the NRD-525 Receiver. We hope the manual will be helpful to you in maintenance and repair.

For the details of operation of the NRD-525, please refer to the instruction manuals for NRD-525 and optional units.

The following units are available as options for the NRD-525 Receiver:

- # VHF/UHF converter CMK-165
- # RTTY demodulator CMH-530
- # RS-232C interface unit CMH-532

First, this manual describes standard information about the NRD-525 not equipped with optional units. Then, it proceeds to description of information about optional units.

1. OPERATION

1-1 Units

The NRD-525 is roughly classified into the five blocks: chassis, receiver, synthesizer, control, and panel.

The chassis block consists of the rear panel, power supply circuit and motherboard which mutually connects plug-in units.

The receiver block consists of the following three units:

1) HF Tuning Unit (CFL-205)

This unit consists of the electronic double tuning circuit, RF amplifier circuit and 1st mixer circuit.

2) IF filter unit (CFL-36)

This unit consists of 1st IF filter circuit, 2nd mixer circuit and noise blanker circuit.

3) IF AF amplifier unit (CAE-182)

This unit consists of the notch filter circuit, IF amplifier circuit, AF amplifier circuit, demodulator circuit, AGC amplifier circuit and squelch circuit.

The synthesizer block consists of the following two units:

1) Loop 1 unit (CAG-131)

This unit generates 1st local signal by synthesizer. 1st local signal covers 70.543MHz through 104.453MHz in 1kHz steps. (See Table 1-1)

2) Loop 2 unit (CGA-132)

This unit generates 2nd local signal and BF0 signal.

2nd local signal covers 69.99899MHz through

69.99800MHz in 10Hz steps. BF0 signal is de-

termined by the mode. (See Table 1-1 and 1-2).

The control block consists of the following two units:

1) CPU unit (CDC-353)

This unit includes the microcomputer and its peripheral circuit and control voltage generator circuit. The microcomputer controls the receiver, synthesizer and panel blocks. Voltage generated by the control voltage circuit is used to control the double tuning circuit.

2) Data I/O unit (CMH-632)

This unit includes the reference signal generator circuit (12.8MHz), counter circuit of synthesizer and peripheral circuit for the microcomputer.

The panel block consists of the following two units:

1) Display unit (CDE-418)

This unit includes the controls and switches used to operate NRD-525, large Vacuum fluorescent display and microcomputer. The vacuum fluorescent display indicate the frequency, mode, band, etc.

2) Jack unit (CQB-40)

This unit has the PHONE jack and RECORD jack.

1-2 Details of Blocks

1-2-1 Chassis Block

o Rear Panel:

The following connectors, terminals and jacks are located on the rear panel of NRD-525:

a. MF/HF ANT Lo-Z connector

An antenna with low impedance (inverted-L type, doublet, or Yagi antenna) can be connected to this connector. For connection to the antenna, a coaxial cable (50 Ω or 75 Ω) should be used.

b. MF/HF ANT Hi-Z terminal

An antenna with high impedance (5 or 6m long copper wire) can be connected to this terminal.

c. ANT switch

This switch is used to select an MF/HF antenna with low or high impedance.

d. GND terminal

A grounding wire is connected to it. Be sure to ground NRD-525 to prevent personal injury due to electric shock and trouble due to interference by other devices.

e. LINE OUT jack

This is a jack for received audio output. The output impedance and output level are respectively set at 600 Ω and 0dBm.

f. EXT SP jack

This jack is used to connect an external speaker. When an external speaker is connected, the built-in speaker is automatically turned off.

g. SIDE TONE jack

When signal from another device is entered into this jack, it can be monitored with the speaker for NRD-525.

h. MUTE jack

This jack is used to control on/off of AF output. When the line connected to this jack is grounded, the AF output is muted (OFF).

i. DC OUT jack

This jack is used for 10.8V DC output. Maximum 30mA can be output.

j. TIMER OUT terminal

The signal from the relay contacts used to control an external device with the aid of the timer is output from this jack. The contact capacity is 24V DC, 3A maximum. You should not connect the AC power to this terminal.

k. PRINTER connector

If an output is to be fed to the printer when the optional RTTY demodulator CMH-530 is used for reception of RTTY, the printer must be connected to this connector.

l. MARK/SPACE jack

Output for mark and space signal indicator in case the optional RTTY demodulator is used for reception of RTTY. It can be connected the X and Y axes inputs of an oscilloscope or CKJ-61 attached to the demodulator unit.

m. RS-232C connector

This connector is used when NRD-525 is controlled by another device through the optional RS-232C interface.

unit (CMH-532). This connector is attached to the CMH-532, not provided as a standard accessory.

It is covered with a cap.

n. DC power connector

This connector is used to supply DC power (standard 13.8V) to NRD-525.

o. AC power connector

This connector is used to supply AC power to NRD-525.

p. AC voltage selector with fuse

This voltage selector has a fuse for AC power source (1A). The source voltage is selected from 100, 120, 220 and 240V AC by this selector.

q. VHF/UHF ANT connector

This antenna connector (50Ω) is used to receive VHF band and UHF band with the aid of the optional VHF/UHF converter (CMK-165). This connector is attached to the CMK-165, not provided as a standard accessory. It is covered with a cap.

o Power Supply Unit

DC 10.8V, 9V and 5V are regulated from the AC power (100, 120, 220, or 240V) or 13.8V DC.

10.8V is supplied to the receiver and synthesizer blocks. 10.8V is turned on and off by the microcomputer when the power switch is put to the TIMER position.

With the aid of the regulator IC for the power source, 9V is supplied to the AF amplifier for the speaker and

to the drive voltage generator circuit for the vacuum fluorescent display on the panel. There are two 5V systems. Regulator ICs for power source is used for these two 5V systems. One is mainly supplied as power source for IC in the control block. The other one is used for backup to RAM IC and clock IC in the CPU unit. The 5V backup input to the regulator IC is taken from the line in front of the power switch. So RAM and CLOCK ICs are always powered even when the power switch is turned off as long as the AC or DC power is connected.

1-2-2 Receiver Block

Let us see the flow of signals in this block.

The 90kHz-33.9999MHz signal entered through the antenna is sent to the CFL-205 HF TUNE unit. Further, the signal is sent to the radio frequency input tuning circuit through the arrester diode used for protection of input circuit. The attenuator switch is on at this time, a 20dB attenuator is inserted in the signal route before the received signal is sent to the tuning circuit. The tuning circuit consists of the low-pass filter for 400kHz or less and five double tuning circuits using the variable capacitor diodes, and covers all receiving frequency range. Each tuning circuit covers the following frequency ranges:

RF Band No.	Frequency range (MHz)
Band 1	0.09 - 0.399 (LPF)
Band 2	0.40 - 0.799
Band 2 sub	0.80 - 1.599
Band 3	1.60 - 2.649
Band 3 sub	2.65 - 4.399
Band 4	4.40 - 7.399
Band 4 sub	7.40 - 12.299
Band 5	13.30 - 20.499
Band 6	20.50 - 33.999

Selection of these tuning circuits, and supply of bias voltage to the variable capacitor diodes are controlled by the microcomputer according to the receiving frequency.

The tuning circuit can be bypassed to receive very weak signal which may be affected by the loss in the tuning circuit. In this case, the 1.6MHz high pass filter is used (PASS).

The received signal passing through the tuning circuit is amplified by the wide band radio frequency amplifier through the 35MHz low-pass filter. 1st mixer circuit mixes the amplified signal with 70.543-104.453MHz 1st local signal sent by the synthesizer block, and converts it into the 1st IF signal of 70.45399-70.453MHz.

The 1st IF signal which has passed through the crystal filter with the center frequency of 70.455MHz and pass

bandwidth of 12kHz is fed to the 2nd mixer after it is amplified by the 1st IF amplifier.

This signal is mixed with the 2nd local signal of 69.99899 - 69.998MHz and converted into the 2nd IF signal of 455kHz.

The 455kHz signal is sent to the ceramic filter with the center frequency of 455kHz and pass bandwidth of 12kHz and to the noise blanker circuit. The noise blanker circuit consists of the noise amplifier, AGC detector, AGC amplifier and noise blanker gate control. The gain of the AGC amplifier can be adjusted with the NB level control on the panel. Thus, the sensitivity of the noise blanker circuit can be adjusted. If the NB level is pulled to the [W] position, the time constant for the noise blanker circuit becomes greater, and wide noise such as woodpecker noise can be removed. If the noise blanker circuit detects pulse noise according to the setting of the NB level control, the noise blanker gate works according to the pulse width, and temporarily shuts off the signal passage.

The signal which has passed the noise blanker gate is sent to the notch filter circuit through one of the intermediate frequency IF filters with the rated bandwidth of 6kHz (WIDE), 3kHz (INTER) and 12kHz (AUX) (or any other frequency if optional filter is employed).

If the NOTCH control on the panel is put to the central position, the notch filter circuit attenuates 455kHz

signal by more than 30dB. If the NOTCH control is rotated, the 455kHz signal can be changed by about ± 3 kHz.

The signal which has passed through the notch filter is supplied to the AGC circuit and demodulator circuit after it is amplified by the IF amplifier. The AGC circuit amplifies the signal and sends it to the AGC detector circuit. The AGC detector circuit consists of the portion operating in the AM mode and that operating in any other mode. The detector output controls the gains of 1st and 2nd IF amplifiers according to the time constant determined by AGC (FAST, SLOW, OFF) on the panel. At the same time, the detector output is also sent to the panel for indication with the S meter.

The demodulator circuit is divided into the FM mode detector and the other modes detector. Detection in the FM mode is performed by the IC with a built-in limiter and detector.

In case of AM detection, the demodulating circuit takes out the carrier component from the receiving signal and operates as a synchronous detector.

In case of other than AM or FM detection, the BFO signal for demodulating is supplied from the synthesizer section and the demodulating circuit operates as a product detector.

The squelch circuit compares the output from the detector IC with the level set with the SQUELCH control on the panel in the FM mode and controls on/off of the squelch gate. In any other mode, the squelch circuit compares the AGC voltage with the setting and controls on/off of the squelch gate. Part of the signal which has passed the squelch gate is supplied to the audio frequency power amplifier through the AF GAIN control on the panel and drives the built-in speaker, external speaker or headphone. The TONE control on the panel allows adjustment of the filter used to cut off the high tone. The other portion of the demodulator signal is sent to the line amplifier through the semi-fixed resistor and fed to the LINE OUT jack on the rear panel and RECORD jack on the front panel.

1-2-3 Synthesizer Block

Refer to Fig. 1-1 Block Diagram.

The synthesizer block of NRD-525 generates 70.543 - 104.453MHz 1st local signal and 69.99899MHz - 69.99800MHz 2nd local signal meeting the 90kHz - 33.9999MHz received signal, and BFO signal for demodulation in the 455kHz band, and supplies them to the receiver block. The synthesizer block uses 100kHz, which is obtained by dividing the 12.8MHz standard signal from the temperature compensating crystal oscillator (TCXO) by 128, as the reference signal. 1st local signal supplied to 1st

mixer circuit in the receiver block is generated in the range of 70.543MHz - 104.453MHz in minimum 1kHz steps according to the set receiving frequency by the phase lock loop (PLL) using 100kHz as reference frequency. The oscillation frequency from the voltage control oscillator (VCO) in the LOOP1 unit is controlled by the set value given to the pulse-swallow counter, consisting of the variable dividers N and A, and accumulator B. Like 1st local signal, 2nd local signal supplied to 2nd mixer circuit is generated in the range of 69.99899MHz - 69.99800MHz in 10Hz steps by the PLL. The oscillation frequency of the VCO in the LOOP2 unit is controlled by the set value given to the accumulator C. The BFO loop which generates the BFO signal sent to the demodulator consists of ICs including the VCO and double balance mixer, and ICs including variable divider and phase frequency detector. The oscillation frequency from VCO is divided by 100 and supplied to the demodulator circuit. The set values given to the pulse-swallow counters and accumulators in loop 1 and loop 2 are set by the microcomputer based on the receiving frequency. According to the receiving mode and setting of the BFO control, the computer determines the set value given to the variable divider in the BFO loop.

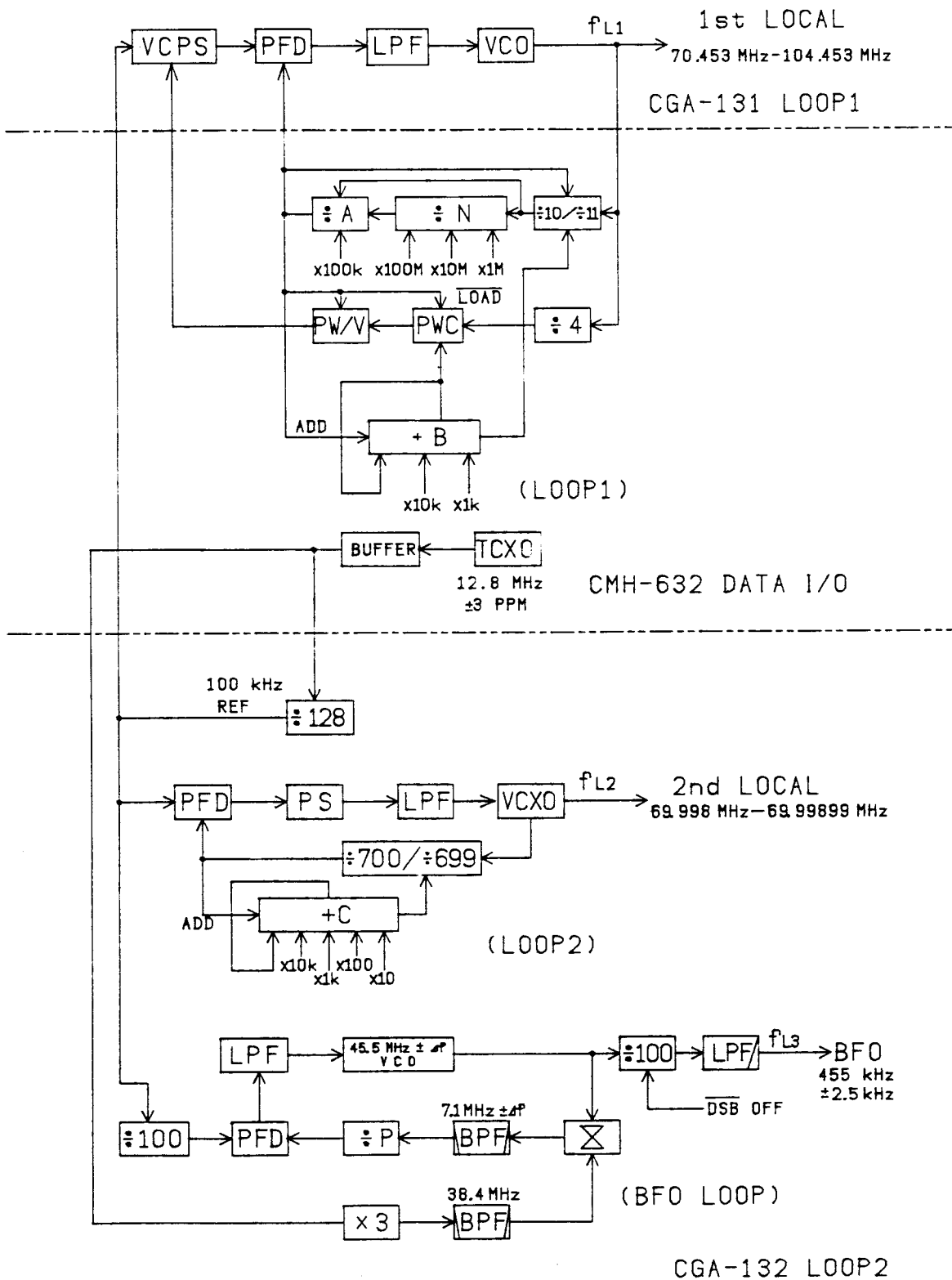
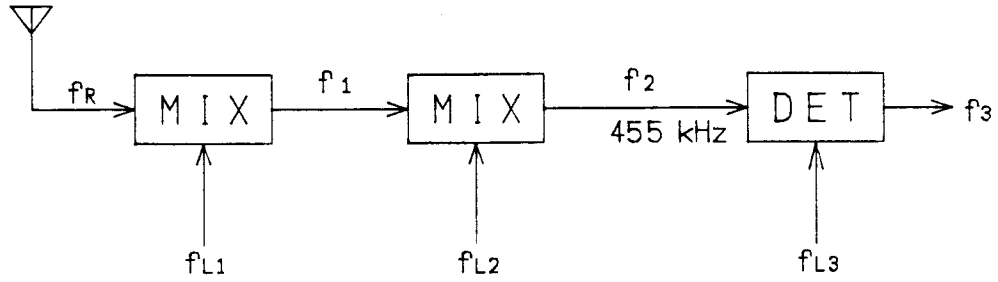


FIG. 1-1 SYNTHESIZER SECTION BLOCK DIAGRAM



BAND	f_R (kHz)	f_{L1} (MHz)	f_1 (MHz)	f_{L2} (MHz)
A	0.09 - 34	70.543 - 104.453	70.45399 - 70.453	69.99899 - 69.998
B	34 - 60	104.453 - 130.453	70.45399 - 70.453	69.99899 - 69.998
C	114 - 141	184.453 - 211.453	70.45399 - 70.453	69.99899 - 69.998
D	141 - 174	211.453 - 244.453	70.45399 - 70.453	69.99899 - 69.998
E	422.5 - 456.4	439.953 - 526.853	70.45399 - 70.453	69.99899 - 69.998

TABLE 1-1 NRD-525 FREQUENCY TABLE

MODE	f_{L3} (kHz)	f_3 (Hz)	REMARKS
RTTY	457.21	2210 ± 85	PBS:Center,FS: ± 85 Hz
RTTY	457.10	2100 ± 200	PBS:Center,FS: ± 200 Hz
RTTY	456.87	1870 ± 425	PBS:Center,FS: ± 425 Hz
CW	455.00	0	PBS:Center,BFO:Center
USB	456.50	0	PBS:Center,No-Modulation
LSB	453.50	0	PBS:Center,No-Modulation
AM	—	—	
FM	—	—	
FAX	456.90	1900 ± 400	PBS:Center,FS: ± 400 Hz

TABLE 1-2 FREQUENCY TABLE OF THE BEAT FREQUENCY OSCILATER

1-2-4 Control Block

The control block generates signals necessary for control of the receiver block and synthesizer block according to operation from the panel, exchanges information with the panel, and controls the optional units (VHF/UHF converter, RTTY demodulator, RS-232C interface, etc.). The control block mainly consists of the microcomputer and its peripheral circuits.

When the microcomputer receives frequency data from the panel (entry with numerical keys, tune control, up/down, etc.), it gives frequency data to the loop 1, loop 2, and BFO loop in the synthesizer block, based on the data on the receiving frequency and receiving mode, and controls the PLL. At the same time, the microcomputer generates the band change data (RF BAND) meeting the receiving frequency, and generates the tuning voltage with the aid of the D/A converter to control the tuning circuit in the receiver block. The microcomputer prepares data necessary for indication and sends it to the panel block. It receives data (RTTY demodulation sign, receiving signal for RS-232C, etc.) and performs control accordingly. The control block has IC for the clock. This IC is operated by the 32.768kHz clock signal and it provides the clock data necessary for the microcomputer. This IC works independently of the on-off of the power switch if AC or DC power is connected to NRD-525.

However, the clock IC is not backed up by a battery. The memory IC is backed up by a battery so as to protect the data on the preset channel and recovery of previous conditions in case of power interruption.

1-2-5 Panel Block

The panel block consists of the key switches used to set various receiving data; vacuum fluorescent display and their drive circuit; controls associated with setting of the receiving frequency including tuning control, BFO control, and PBS control; microcomputer; and controls directly affecting the receiver block including RF gain control, AF gain control, tone control, squelch control, and notch filter control. The microcomputer in the panel block sends data to the microcomputer in the control block whenever switches and controls under its control are manipulated. The microcomputer in the control block prepares data and sends back data necessary for indication. The vacuum fluorescent display is dynamically lit and their cycle is synchronous with the clock signal (CLK) sent by the microcomputer in the control block. Dimmer is operated by changing the time of illumination in each clock signal. As the power source for vacuum fluorescent display, 9V is converted into about 35V by the DC/DC converter.

The BFO, PBS and AGC (S-A/D) signals are converted

into digital values by the A/D converter and processed by the microcomputer.

1-3 Operation of Optional Units

1-3-1 CMK-165 VHF/UHF Converter

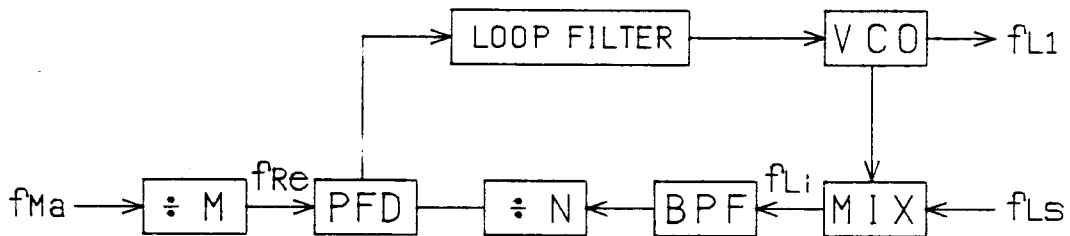
The CMK-165 VHF/UHF converter consists of the two PCBs: the RF unit CHE-85 and LOCAL OSC unit CGA-118.

The RF unit consists of the VHF and UHF sections. The 34MHz-60MHz and 114MHz-174MHz received signals are sent to the radio frequency input tuning circuit in the VHF section. This tuning circuit utilizes

the variable capacitor diode similar to that used in the HF band, and covers five bands. Selection of the band and bias voltage given to the variable capacitor diode are controlled by the microcomputer according to the receiving frequency. The signal which has passed through the tuning circuit is amplified by the radio frequency amplifier. It is mixed with the local signal supplied by the LOCAL OSC unit (CGA-118), converted into 70.45399-70.45300MHz 1st IF signal, and sent to the IF filter unit (CFH-36).

In the UHF section, the 423MHz-456MHz received signal passes through the band pass filter and amplified by the radio frequency amplifier. It is mixed with the local signal supplied by the LOCAL OSC unit (CGA-118), converted into 1st IF signal, and sent to the IF filter unit.

The LOCAL OSC unit (CGA-118) generates the local signal given to the mixer circuit in the RF unit (CHE-85), using the 70.543MHz-104.453MHz 1st local signal generated by the LOOP1 unit. The LOCAL OSC unit also generates desired local signal with the aid of the PLL. The VCO is so controlled that the division of the mixture of 1st local signal and VHF/UHF local signal may be identical with the standard signal obtained by dividing 12.8MHz. (See Table 1-3.)



BAND	f_{Ma} (MHz)	M	f_{re} (MHz)	N	f_{Li} (MHz)	f_{Ls} (MHz)
A	12.8	—	—	—	—	70.543 - 104.453
B	12.8	8	1.6	20	32	72.453 - 104.453
C	12.8	8	1.6	70	112	72.453 - 98.453
D	12.8	2	6.4	22	140.8	70.653 - 103.453
E	12.8	4	3.2	132	422.4	70.553 - 104.453

TABLE 1-3 FREQUENCY TABLE OF THE V/UHF LOCAL SYNTHESIZER

1-3-2 CMH-530 RTTY Demodulator Unit

The RTTY demodulator unit consists of the AGC circuit, mark filter circuit, space filter circuit, slide-back detector circuit, code demodulator circuit, mark/space indicator drive circuit, printer drive circuit and control circuit. The audio signal sent by the IF AF AMP circuit unit (CAE-182) is supplied to the mark filter and space filter circuits through the AGC circuit. The mark filter is an active band pass filter with the center frequency of 2295Hz and pass bandwidth of about 30Hz. The space filters are active band pass filters with the center frequencies of 2125Hz, 1895Hz, and 1145Hz. Their pass bandwidth is about 30Hz. One of the three space filters are selected according to the shift width. The filter output is sent to the slide-back detector circuit and the drive circuit which illuminates the mark/space LEDs on the attached indicator (CKJ-61). The slide-back detector circuit synthesizes and detects the mark signal and space signal. The detected signal passes through the code normal/reverse inversion gate. It undergoes serial/parallel conversion (IC2) and is supplied to the microcomputer. The 5-digit code (CCITT No.2 code) entered by the microcomputer is converted into 8-digit ASCII code, and it drives the printer through the parallel interface (IC3). As the clock signal for the baud rate, 800Hz and 727Hz are generated by dividing

12.8MHz by 10, and further dividing it by 1600 for 50 bauds, and by 1760 for 45.45 bauds. The parallel interface outputs data to the printer, selects the clock for baud rate, and selects the space filter with the suitable center frequency (selects the shift width).

1-3-3 CMH-532 RS-232C Interface Unit

The interface unit consists of the serial/parallel converter circuit, baud rate clock generator circuit, signal level converter circuit and $\pm 12V$ DC/DC converter circuit.

The serial/parallel converter utilizes a special IC to convert the parallel data identified by the micro-computer in the control block and the serial data on the RS-232C transmission line. The baud rate clock generator circuit utilizes a 3.6864MHz crystal oscillator. It generates 19.2kHz for 1200 bauds and 14.8kHz for 300 bauds by dividing the frequency by 192 and 768, respectively. The signal level converter circuit converts the interface unit signal levels of +5V and 0V, and the RS-232C standard signal levels of $\pm 12V$. For connection, photo-couplers are used. The $\pm 12V$ DC/DC converter circuit generates the power necessary for generation of the RS-232C signal level, using 10.8V. $\pm 12V$ and common are supplied to an external device through the RS-232C connector.

2. INSPECTION AND ADJUSTMENT

This chapter describes procedures of inspection and adjustment to be practiced when NRD-525 fails to operate normally due to some cause.

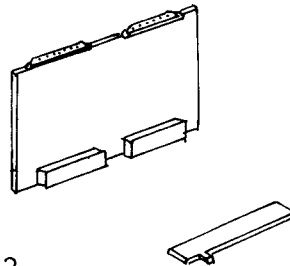
Inspection and adjustment of NRD-525 require advanced measuring techniques. If you are certain, necessary measuring instruments are unavailable or NRD-525 is operating normally, never touch the transformers, variable capacitors, and variable controls in each unit.

2-1 Preparations

2-1-1 Measuring Instruments

Get the following measuring instruments and tools:

- ① Extension board CMH-365: 1



- ② PCB pulling tool MTD000776: 2

- ③ Measuring instrument

Get a necessary measuring instrument described in the applicable item of inspection or adjustment.

2-1-2 Removing cover

As shown in Fig. 2-1, remove the upper cover or lower cover by loosening four screws.

The speaker is mounted on the upper cover. Remove the upper cover slowly, taking care not to break the speaker cables. Remove the connector at the end of the cable from the internal unit if necessary.

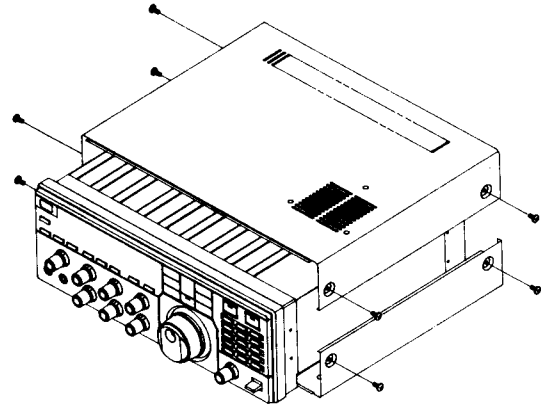


Fig.2-1 Removal of Cover

2-1-3 Removing internal units

(1) Each unit is located as shown in Fig. 2-3.

- ① From the parts mounted side, insert the removal levers supplied with each option into the holes at both corners of the PCB.
- ② Lower the removal lever carefully so as to lift up the PCB.
- ③ When the PCB has been removed from the connector, lift it slowly to remove it.

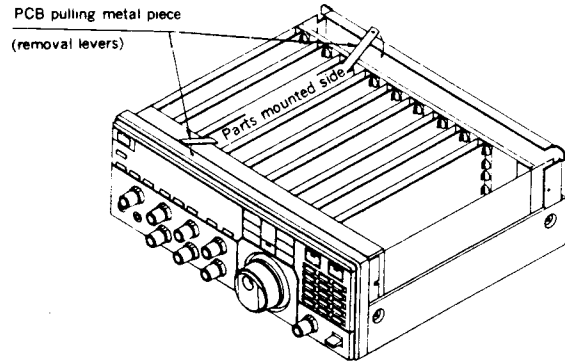


Fig. 2-2 Removal of Units

2-1-4 Use of Extension Board CMH-365

- ① According to 2-1-3, take out the unit to be inspected or adjusted.
- ② Insert the extension board CMH-365 in the place of the removed unit by pushing it along the rail.
- ③ Insert the removed unit into the connector on top of the extension board.

2-1-5 Removing Front and Rear Panels

Remove the front or rear panel as shown in Fig. 2-4.

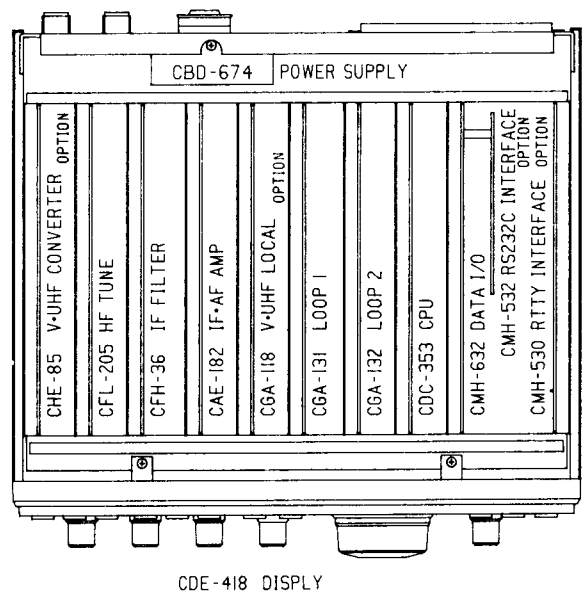
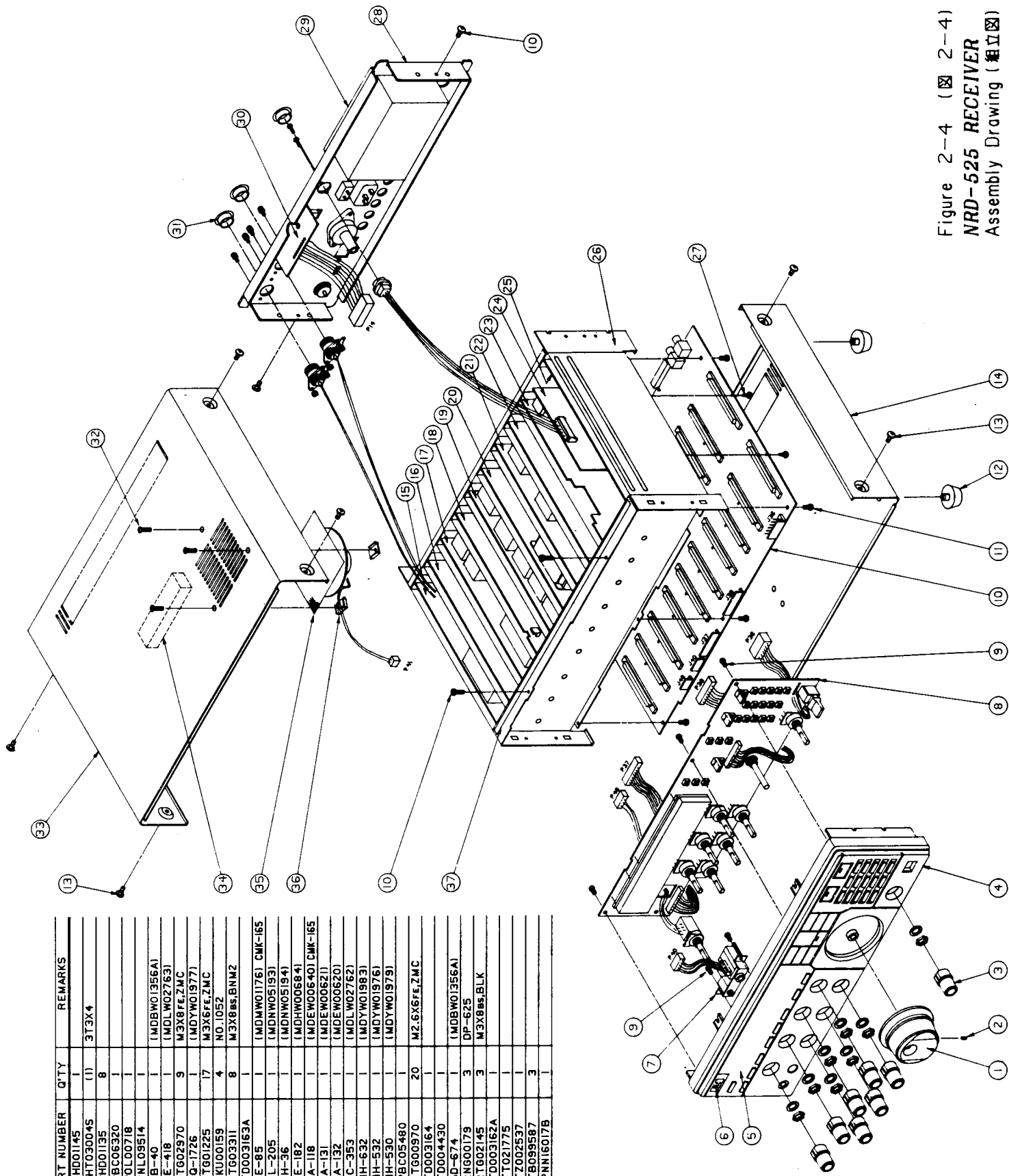


Fig. 2-3 Location of Units

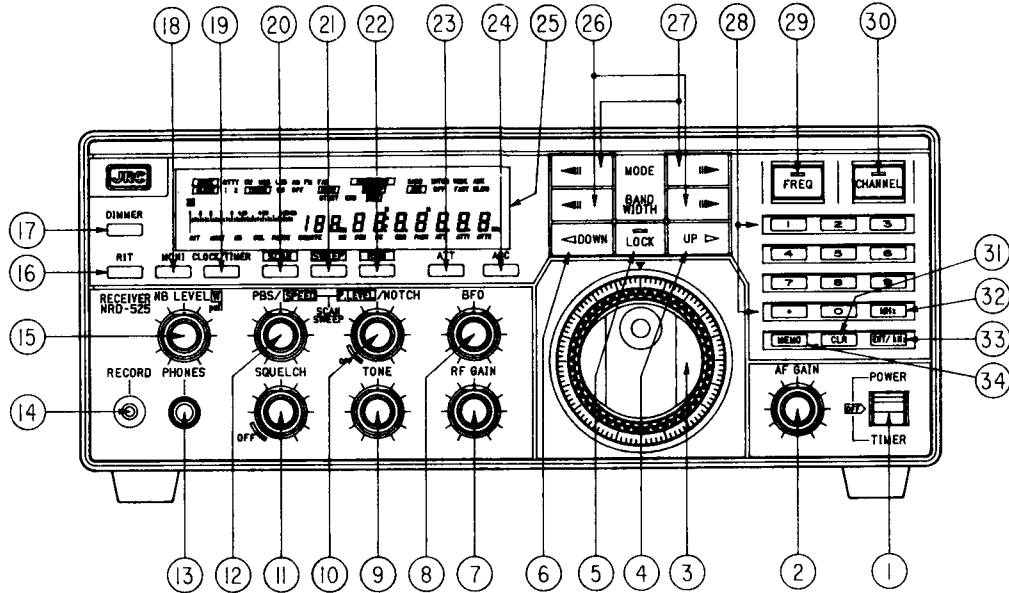
Figure 2-4 (图 2-4)
 NRD-525 RECEIVER
 Assembly Drawing (组立图)



LOCATION	DESCRIPTION	PART NUMBER	Q'TY	REMARKS
1	Dial	MPHD01145	1	
2	Screw	BSHT030045	(1)	3T3X4
3	Knob	MPHD01135	8	
4	Panel	MPBC06320	1	
5	Filter	MPLO00718	1	
6	JRC badge	MPNL09514	1	(MDBW01356A)
7	Jack unit	COB-40	1	(MDLW02763I)
8	Display unit	CDE-418	1	
9	Screw	BRTG02970	9	M3X8Fe,ZMC
10	Motherboard	CFG-1726	1	(MDYW01977I)
11	Screw	BRTG01225	17	M3X6Fe,ZMC
12	Leg	BRKU00159	4	NO.1052
13	Screw	BRTG03311	8	M3X8bs,BNM2
14	Cover, bottom	MTD003163A	1	
15	V/UHF Converter unit	CHE-85	1	(MDMW01176) CNK-165
16	HF Tune unit	CFL-205	1	(MDNW05193)
17	IF Filter unit	CFH-36	1	(MDNW05194)
18	IF-AMP unit	CAE-182	1	(MDHW00684)
19	V/UHF Level asc. unit	CGA-118	1	(MDEW00640) CNK-165
20	Loop 1 unit	CGA-131	1	(MDEW00621)
21	Loop 2 unit	CGA-132	1	(MDEW00620)
22	CPU unit	CDC-353	1	(MDLW02762)
23	Data I/O unit	CMH-632	1	(MDYW01983)
24	RS-232C Interface unit	CMH-532	1	(MDYW01976)
25	RTTY Interface unit	CMH-530	1	(MDYW01979)
26	Chassis assy	MPBC05480	1	
27	Screw	BRTG00970	20	M2.6X6Fe,ZMC
28	Back board	MTD003164	1	
29	Cover	MTD004430	1	
30	Power unit	CBD-674	1	(MDBW01356A)
31	Hole plug	BRNG00179	3	DP-625
32	Screw	BRTG02145	3	M3X8bs,BLK
33	Cover, top	MTD003162A	1	
34	Rubber	MTT021775	1	
35	Speaker grill cloth	MTZ002537	1	
36	Mounting plate	MTB09587	3	
37	Label	MPNN16017B	1	

2-1-6 Preliminary Setting

Switch on the power, and set the controls and switches as follows:



AF GAIN control (2) : Turn it fully counterclockwise.

RF GAIN control (7) : Turn it fully clockwise.

TONE control (9) : Center position

NOTCH control (10) : Turn it fully counterclockwise.

SQUELCH control (11) : Turn it fully counterclockwise.

PBS (pass band shift) control: Center position

NB LEVEL (noise blanker) control (15) :

Turn it fully counterclockwise.

RIT switch (16) : OFF

ATT (attenuator) switch (23) : OFF

LOCK switch (5) : OFF

2-2 Procedures of Inspection and Adjustment

(1) CBD-674 Power Supply Unit

a. Checking of supply voltages

Between T1 BLU and BLK on chassis : 13~15V AC

Between CBD-674 P14-1 and chassis(GND): 4.8~5.2V DC

Between CBD-674 P14-3 and chassis(GND): 8.7~9.4V DC

Between CBD-674 P14-5 and chassis(GND):

15-17V DC (when AC power is used)

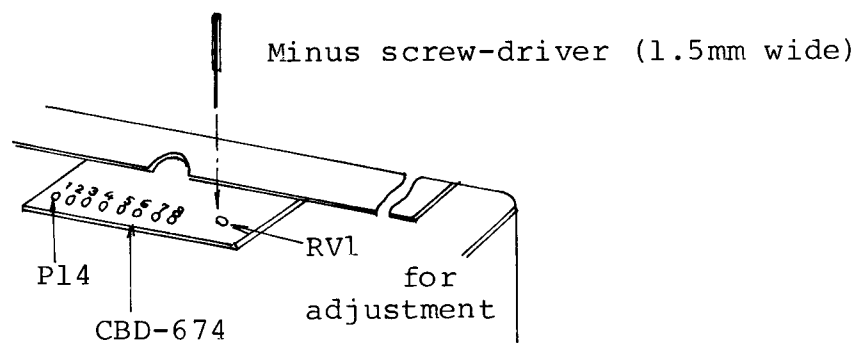
13-13.8V DC (when 13.8V DC is used)

Between CBD-674 P14-6 and chassis(GND): 10.7~10.9V DC

Measure voltages with a DC or AC voltmeter. If voltage is found to be abnormal, remove the power cable immediately, and check the power supply unit and adjacent parts.

b. Adjustment of 10.8V DC

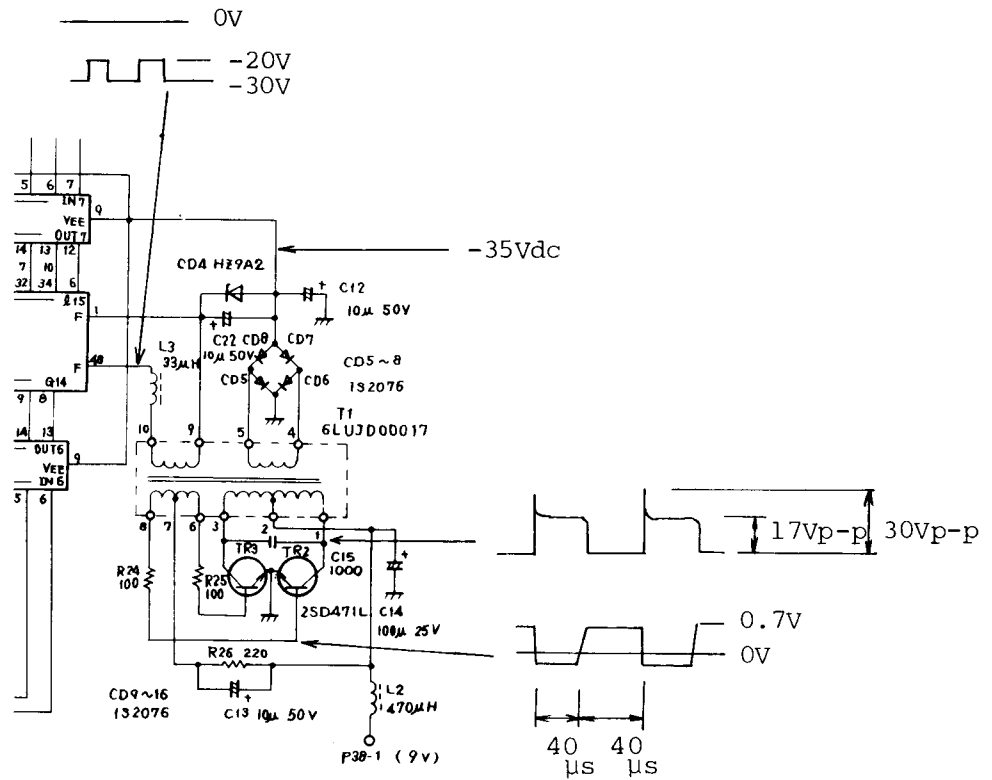
If the voltage between P14-6 on CBD-674 and chassis is not within 10.7 and 10.9V DC, adjust RV1 on CBD-674.



(2) CDE-418 Display Unit

a. Checking of vacuum fluorescent display drive DC-DC converter.

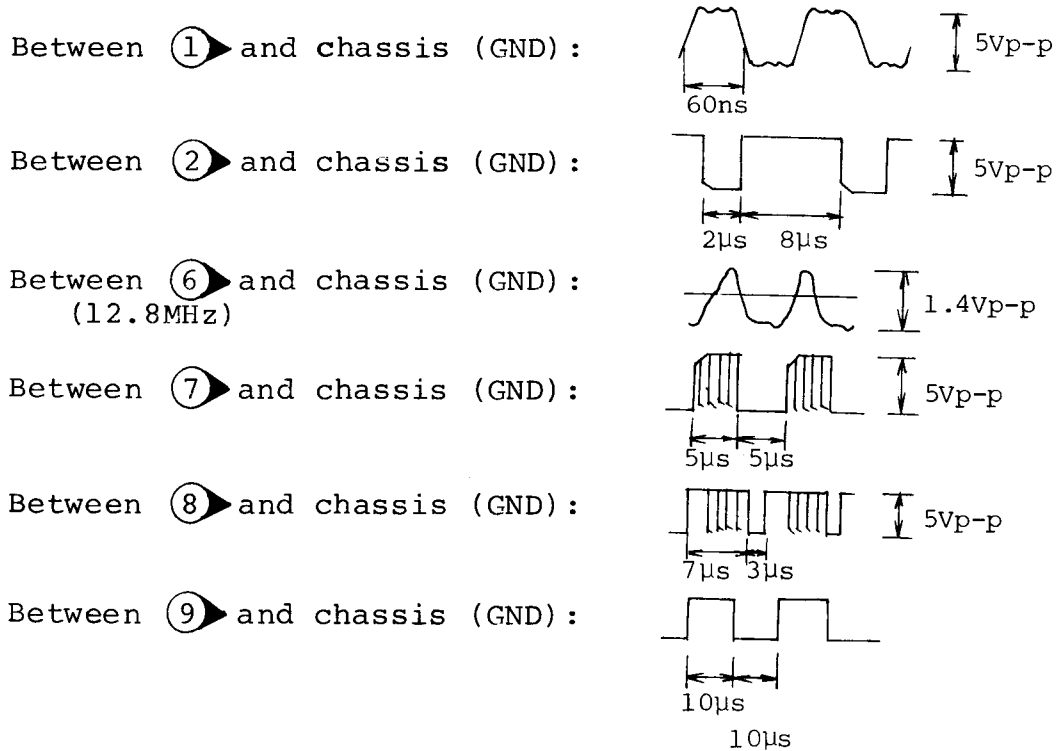
- ① Observe the waveform and level at each test point with a oscilloscope.
- ② Connect the grounding wire for the oscilloscope to the chassis (GND) of NRD-525.



(3) CMH-632 Data I/O Unit

a. Checking of 1st local section

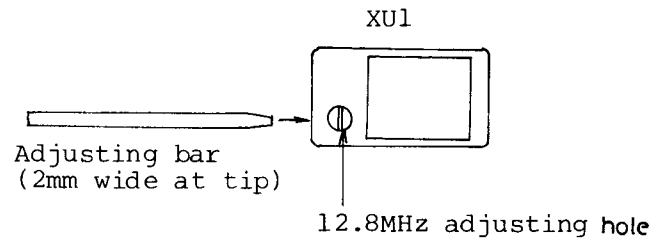
- ① Use the extension board CMH-365.
- ② Set the receiving frequency at 10MHz. Select the CW mode, and put the PBS control to the center position.
- ③ Using the oscilloscope, check the waveform and level at each point:



b. Calibration of standard Signal 12.8MHz

- ① Use the extension board CMH-365.
- ② Set the receiving frequency at 10MHz. Select the CW mode. Put the PBS control to the center position.

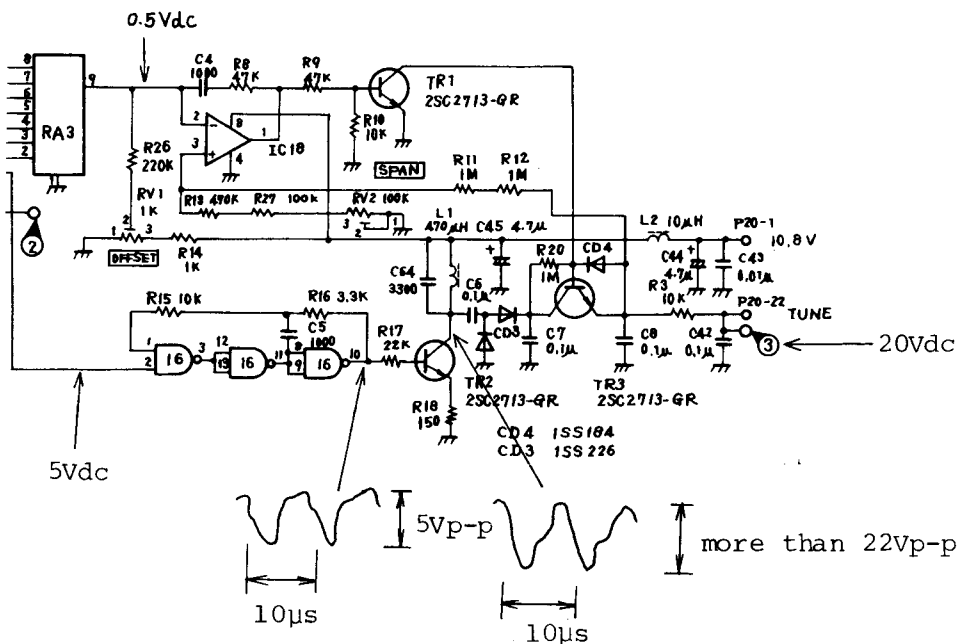
- ③ Connect the frequency counter between ② on the CFL-205 HF TUNE unit and chassis (GND).
- ④ Adjust XU1 on CMH-632 so that the frequency counter indicates $80.453\text{MHz} \pm 20\text{Hz}$.



(4) CDC-353 CPU Unit

a. Checking of D/A converter for RF TUNE unit

- ① Use the extension board CMH-365.
- ② Set the receiving frequency at 799kHz, and put the PBS control to the center position.
- ③ Check the waveform and level at each part with oscilloscope. Connect the grounding wire of the oscilloscope to the chassis (GND) of NRD-525.



b. Adjustment of RF TUNE voltage

- ① Connect a DC voltmeter (with input of more than $1M\Omega$) between ③ on CDC-353 and chassis (GND).
- ② Set the receiving frequency at 0.4MHz.
- ③ Adjust RV1 on CDC-353 so that the voltage at ③ on CDC-353 is $5.74 \pm 0.1V$ DC.
- ④ Set the receiving frequency at 0.799MHz.
- ⑤ Adjust RV2 on CDC-353 so that voltage at ③ on CDC-353 is $20 \pm 0.1V$ DC.
- ⑥ Repeat the steps ② through ⑤ above so that these voltages are satisfactory.

c. Calibration of 32.768kHz for clock

- ① Connect the frequency counter between ① on CDC-353 and chassis (GND).
- ② Adjust CV1 on CDC-353 so that the frequency counter indicates $32.768kHz \pm 0.01Hz$.

d. Checking of center position of PBS and BFO controls

- ① Put the PBS control to the center position and see that PBS CD6 on CDC-353 is lit. Also, see that PBS CD6 goes out when the PBS control is put to other position.
- ② See that BFO CD7 on CDC-353 is lit when the BFO control is put to the center position and that it goes out when the BFO control is put to other position.

NOTE 1: When PBS CD6 on CDC-353 is lit, the shift width of PBS is neutral (0). When BFO CD7 is lit, the oscillation frequency of the BFO is the neutral value (455kHz) (In CW mode).

2: The neutral values of PBS and BFO are provided when the controls are within $\pm 1/3$ from the center position.

(5) CGA-132 LOOP2 Unit

a. Adjustment of 2nd local section

- ① Use the extension board CMH-365.
- ② Set the receiving frequency at 10.00005MHz and put the PBS control at the center position.
- ③ Connect a radio frequency voltmeter between ① on CGA-132 and chassis (GND).
- ④ Connect ⑤ on CGA-132 to the chassis (GND) with a copper wire.
- ⑤ Adjust T3 on CGA-132 so that the radio frequency voltmeter indicates a minimum value.
- ⑥ Remove the copper wire from ⑤ on CGA-132. At this time, the lock indicator LP2 CD2 goes out.
- ⑦ Adjust T1 and T2 on CGA-132 so that the radio frequency voltmeter indicates a maximum value.
- ⑧ Measure the following voltages with the radio frequency voltmeter:
Between ① and chassis (GND): 0.15Vrms or more (Use R3 for adjustment.)
Between ③ and chassis (GND): 0.5~0.8Vrms

NOTE: For adjustment of T1, T2 and T3, use a Bakelite or Teflon \ominus adjusting rod (1mm wide at tip).
If a metal rod is used, the core may be damaged.

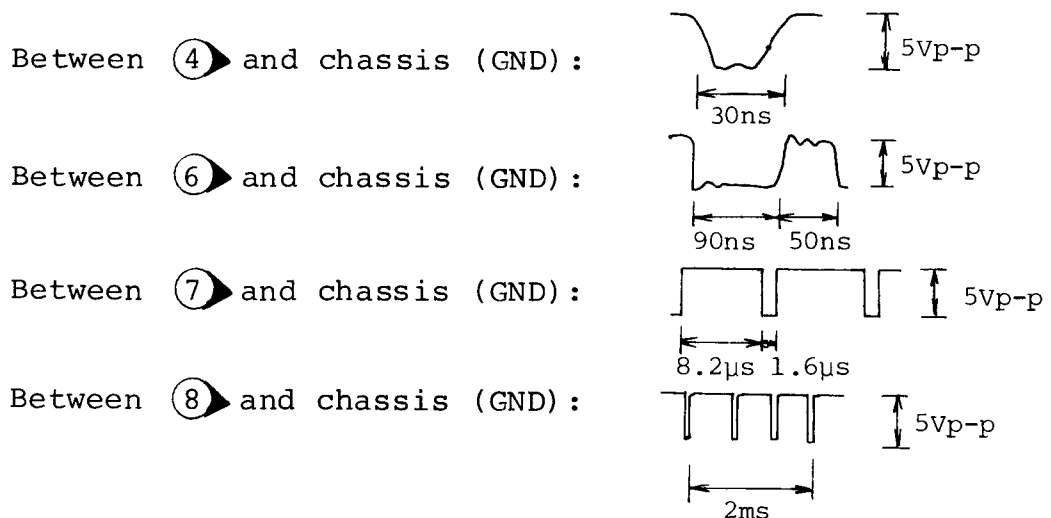
b. Checking of control voltage

Check the control voltage with a DC voltmeter (with input of $1M\Omega$ or more).

Between $\textcircled{5}$ and chassis (GND): 2 ~ 6V DC

c. Checking of counter

- ① Check the waveform and level at each part with a oscilloscope.



d. Adjustment of BFO

- ① Use the extension board CMH-365.
- ② Select the CW mode. Put the PBS and BFO controls to the center position.
- ③ Connect the radio frequency voltmeter between $\textcircled{10}$ on CGA-132 and chassis (GND).

- ④ Adjust T5 on CGA-132 so that the radio frequency voltmeter indicates a maximum value.
Between ⑩ and chassis (GND): 0.1 ~ 0.3Vrms
- ⑤ Connect the DC voltmeter (with input of 1M Ω or more) between ⑫ on CGA-132 and chassis (GND).
- ⑥ Adjust L5 on CGA-132 so that the DC voltmeter indicates 3 ± 0.2 V DC.
- ⑦ Connect the radio frequency voltmeter between ⑪ on CGA-132 and chassis (GND).
- ⑧ Adjust T6 on CGA-132 so that the radio frequency voltmeter indicates a maximum value.
Between ⑪ and chassis (GND): 0.5 ~ 0.7Vrms
- ⑨ Check the level between ⑬ on CGA-132 and chassis (GND) with the radio frequency voltmeter.
Between ⑬ and chassis (GND): 0.2Vrms or more
- ⑩ Connect the radio frequency voltmeter between ⑭ on CGA-132 and chassis (GND).
- ⑪ Adjust T7 on CGA-132 so that the radio frequency voltmeter indicates a maximum value.
Between ⑭ and chassis (GND): 0.3 ~ 0.6Vrms
- ⑫ See that the lock indicator BFO CD5 goes out.

NOTE: For adjustment of L5, T5, and T6, use a Bakelite or Teflon \ominus adjusting rod (1mm wide at tip).
If a metal rod is used, the core may be damaged.

e. Checking of BFO frequency

- ① Use the extension board CMH-365.
- ② Put the PBS control to the center position.
- ③ Connect the frequency counter between ④ on CGA-132 and chassis (GND).
- ④ Select the mode in the following manner, and check the BFO frequency in each mode.

Mode	BFO frequency	Remarks
CW	455kHz \pm 10Hz	Put BFO control to center position
	more than 457kHz	Turn BFO control fully clockwise.
	below 453kHz	Turn BFO control fully counterclockwise.
USB	456.5 kHz \pm 10Hz	
LSB	453.5 kHz \pm 10Hz	
FAX	456.9 kHz \pm 10Hz	
RTTY	457.21kHz \pm 10Hz	CMH-530 is not mounted, or the shift width of \pm 85Hz is selected with CMH-530 mounted.
	457.1 kHz \pm 10Hz	CMH-530 is mounted and shift width of \pm 200Hz is selected.
	456.87kHz \pm 10Hz	CMH-530 is mounted and shift width of \pm 425Hz is selected.

(6) CGA-131 LOOP 1 Unit

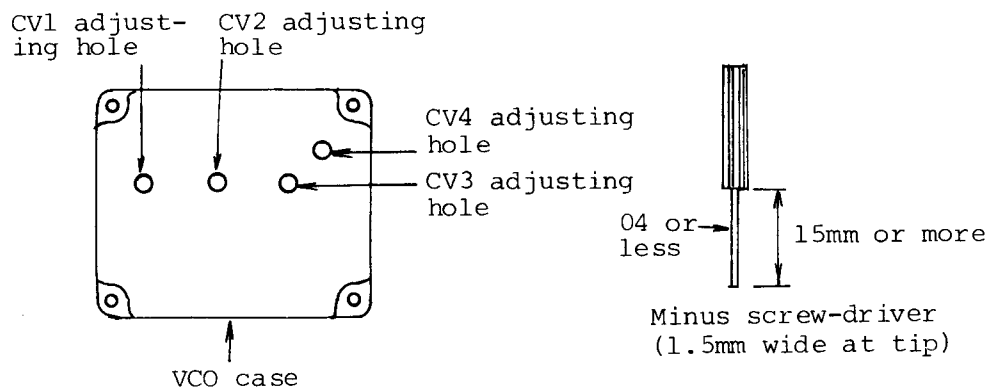
a. Adjustment of 8V

- ① Connect the DC voltmeter between ④ on CGA-131 and chassis (GND).
- ② Adjust RV2 on CGA-131 so that the voltage between ④ and chassis (GND) is $8 \pm 0.1V$ DC.

b. Adjustment of VCO at 1st local section

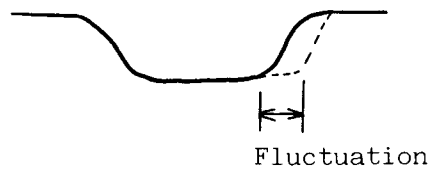
- ① Use the extension board CMH-365.
- ② Select the AM mode and put the PBS control to the center position.
- ③ Connect the radio frequency voltmeter between ② on CGA-131 and chassis (GND) and between ③ on CGA-131 and chassis (GND).
- ④ Connect the DC voltmeter (with input of $1M\Omega$ or more) between ⑨ on CGA-131 and chassis (GND).
- ⑤ Adjust the following trimmer so that the voltage between ⑨ on CGA-131 and chassis (GND) is set within $7 \pm 0.1V$ DC at the following receiving frequency. Also, check the output voltage at ② and ③ on CGA-131, and lock indicator UNLOCK CD16 on CGA-131.

Receiving frequency	Trimmer for adjustment	Voltage at ②	Voltage at ③	On/Off of UNLOCK CD16
7.28699MHz	CV1	0.2~0.4Vrms	0.08~0.2Vrms	Off
15.33299MHz	CV2	"	"	"
24.20699MHz	CV3	"	"	"
33.999 MHz	CV4	"	"	"



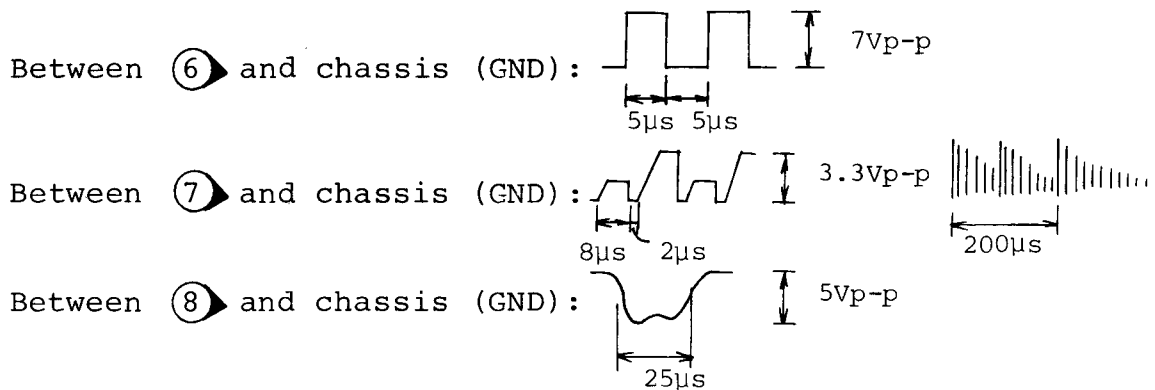
c. Adjustment of fluctuation

- ① Set the receiving frequency at 10MHz, and put the PBS control to the center position.
- ② Connect the oscilloscope between ⑧ on CGA-131 and chassis (GND).
- ③ While observing the waveform, adjust RV1 on CGA-131 so that fluctuation is minimized.



d. Checking of phase comparator

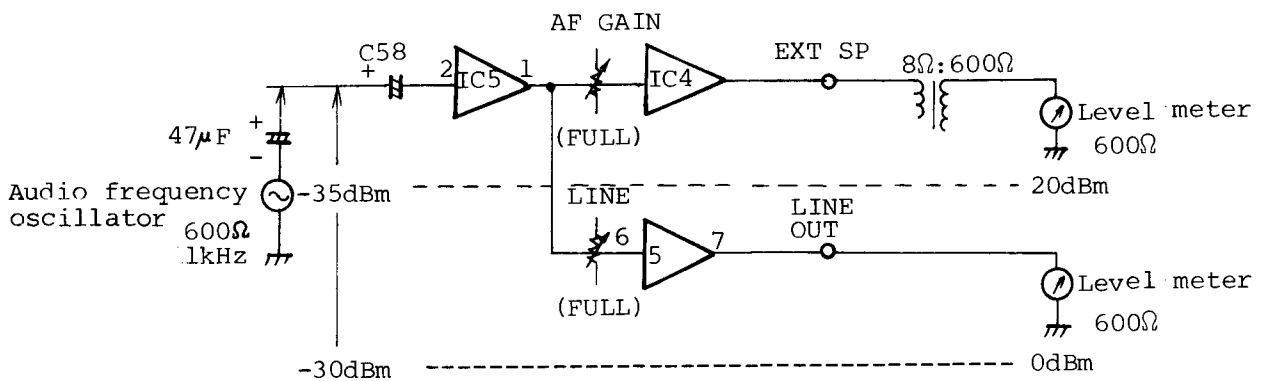
- ① Check the following waveforms and levels with the oscilloscope:



(7) CAE-182 IF AF AMP Unit

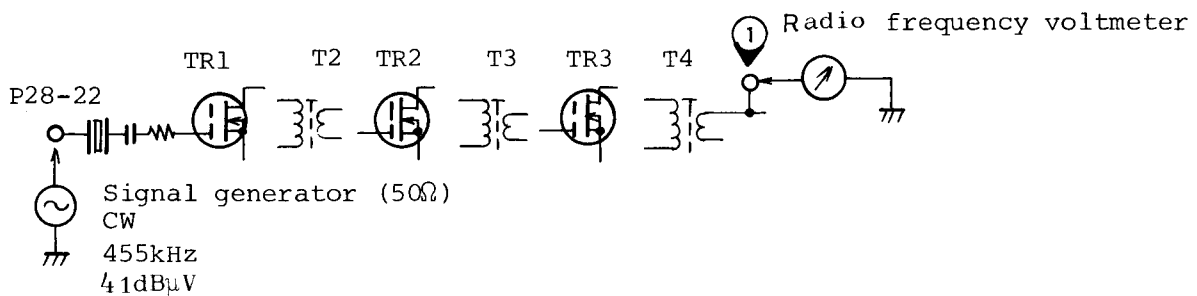
a. Checking of AF AMP

- ① Use the extension board CMH-365.
- ② Turn the RF GAIN control fully counterclockwise, and turn the AF GAIN control fully clockwise. Put the TONE control to the center position, and turn the LINE VR (chassis block RV3) fully clockwise.
- ③ Connect the audio frequency oscillator, audio frequency transformer (8:600 Ω), and level meter in the following manner.
- ④ Check the output level of the audio frequency oscillator so that the EXT SP output is 20dBm and that the LINE output is 0dBm.



b. Adjustment of IF AMP

- ① Use the extension board CMH-365.
- ② Turn the RF GAIN control fully clockwise, put the AGC and NOTCH control to the OFF position.
- ③ Connect the signal generator (50Ω) and radio frequency voltmeter as shown below:



- ④ Adjust T2, T3 and T4 on CAE-182 so that the radio frequency voltmeter indicates a maximum value.
- ⑤ At this time the output voltage at ① on CAE-182 should be 0.1~0.2Vrms.

c. Adjustment of IF AMP for FM

- ① Use the extension board CMH-365.
- ② Turn the RF GAIN control fully clockwise. Put the AGC and NOTCH controls to the OFF position. Select the FM mode.
- ③ Connect the internal or external loud speaker.
- ④ Connect the signal generator between P28-22 on CAE-182 and chassis (GND).

- ⑤ Set the signal generator as follows:
Frequency: 455kHz, Output level: 41dB μ V,
FM modulation: 1000Hz 30%
- ⑥ Adjust T1 on CAE-182 so that the speaker output indicates maximum.

d. Checking of Detector Circuit

- ① Use the extension board CMH-365.
- ② Set the receiving frequency at 7.104MHz. Turn the RF GAIN control fully clockwise. Put the AGC control to the FAST position, and put the NOTCH control to the OFF position. Put the PBS control to the center position.
- ③ Connect the signal generator (50 Ω) to MF/HF ANT on the rear panel of NRD-525.
- ④ Set the signal generator (50 Ω) as follows:
Frequency: 7,104MHz, Output level: 40dB μ V, CW
- ⑤ Connect the radio frequency voltmeter between ② on CAE-182 and chassis (GND).
- ⑥ Check the output level at ② on CAE-182 when the DSB or USB mode is selected.

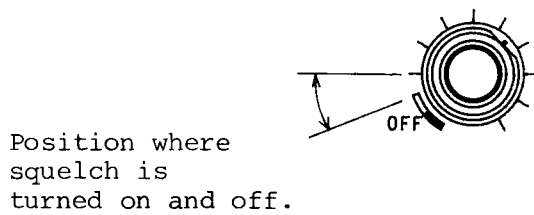
MODE: DSB - 0.2 ~ 0.3 Vrms

MODE: USB - 0.04 ~ 0.06 Vrms

e. Checking of All Mode Squelch

- ① Use the extension board CMH-365.
- ② Disconnect the antenna terminal cable.

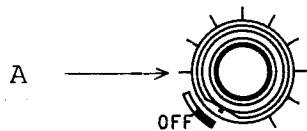
- ③ Select the USB mode. Put the AGC control to the FAST position, and turn the SQUELCH control fully counterclockwise.
- ④ Adjust the SQUELCH control to see the position where squelch is turned on and off.



Resistor for adjustment : R9

f. Adjustment of FM Squelch

- ① Use the extension board CMH-365.
- ② Disconnect the antenna terminal.
- ③ Select the FM mode. Turn the SQUELCH control fully counterclockwise. Also, turn the RF GAIN control fully counterclockwise.
- ④ Gradually turn the SQUELCH control clockwise, and adjust FM SQ RV1 on CAE-182 so that the squelch is turned on when the point A is reached. (SQL indicator is lit and AF output is turned off.)



g. Adjustment of AGC

- ① Set the receiving frequency at 7.104MHz. Turn the RF GAIN control fully clockwise. Put the AGC control to the FAST position. Put the NOTCH control to the OFF position. Put the PBS control at the center position. Select the DSB mode.
- ② Connect the signal generator (50Ω) to MF/HF ANT on the rear of NRD-525.
- ③ Set the signal generator as follows:
Frequency: 7,104MHz, Output level: 100dBμV, CW
- ④ Connect the radio frequency voltmeter between ① on CAE-182 and chassis (GND).
- ⑤ Adjust AGC RV5 on CAE-182 so that the radio frequency voltmeter indicates 0.085 ± 0.005 Vrms.
- ⑥ Select the USB mode, and check the output voltage at ① on CAE-182.
Between ① and chassis (GND): $0.08 \sim 0.09$ Vrms
(For adjustment, use resistor R93 on CAE-182.)
- ⑦ Change the output level of the signal generator in the range of $10 \sim 100$ dBμV.
At this time check the change of the output voltage level at ① on CAE-182.
Change of level at ① : $0.07 \sim 0.1$ Vrms

h. Adjustment of S Meter

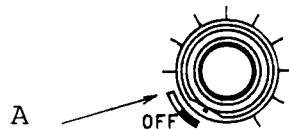
- ① Set the receiving frequency at 7.104MHz. Turn the RF GAIN control fully clockwise. Put the AGC control to the FAST position. Put the NOTCH control

to the OFF position. Put the PBS control to the center position. Select the DSB mode.

- ② Connect the signal generator (50Ω) to MF/HF ANT on the rear of NRD-525.
- ③ Set the signal generator as follows:
Frequency: 7.104MHz, Output level: 40dB μ V, CW
- ④ Adjust S RV6 on CAE-182 so that the S-meter indicates S9 \pm 1 divisions.

i. Adjustment of on-off of notch filter

- ① Use the extension board CMH-365.
- ② Slowly turn the NOTCH control clockwise, and adjust NOTCH RV4 on CAE-182 so that the notch filter is turned on when the point A is just reached. When the notch filter is turned on the LED for CD15 on CAE-182 is illuminated.



j. Adjustment of Notch Filter

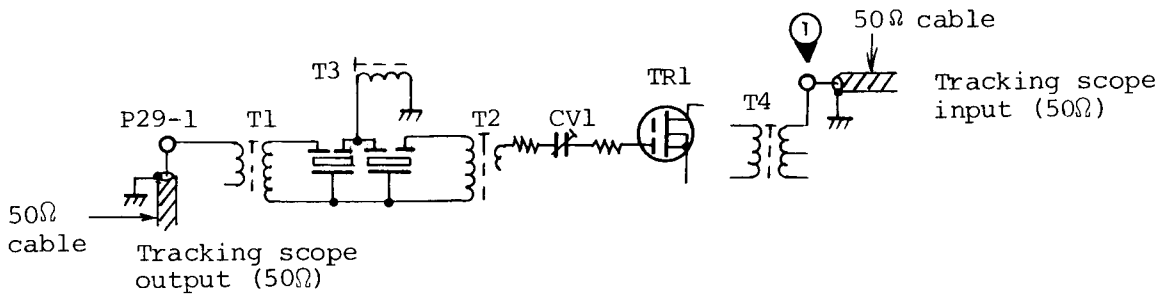
- ① Use the extension board CMH-365.
- ② Set the receiving frequency at 455kHz. Select the DSB mode. Put the PBS control to the center position. Put the BANDWIDTH to the WIDE position. Set the RF GAIN control so that the output waveform is not saturated.

- ③ Connect the output (50 Ω , center frequency of 455kHz) of the tracking scope to MF/HF ANT on the rear panel of NRD-525.
- ④ Connect the input of the tracking scope between ① on CAE-182 and chassis (GND).
- ⑤ Adjust the input and output attenuator for the tracking scope so that the waveform of ① on CAE-182 is not distorted.
- ⑥ Put the NOTCH control to the center position. While observing the waveform on the tracking scope, adjust RV2 on CAE-182 so that the dip point is set at 455kHz.
- ⑦ While observing the waveform on the tracking scope, turn the NOTCH control clockwise so that the dip point is set to 456kHz. Adjust DIPL RV3 on CAE-182 so that the dip point indicates maximum at this time.
- ⑧ While observing the waveform on the tracking scope, turn the NOTCH control counterclockwise so that the dip is set at 454kHz. Adjust DIPH RV7 on CAE-182 so that the dip indicates maximum at this time.
- ⑨ Repeat the steps ⑥, ⑦ and ⑧ so that attenuation at 454kHz and 456kHz dip point is more than 30dB.

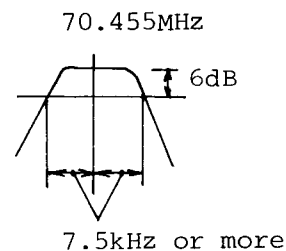
(8) CFH-36 IF Filter Unit

a. Adjustment of 1st IF filter (70.455MHz BPF)

- ① Use the extension board CMH-365.
- ② Remove the CFL-205 RF unit. Turn the RF GAIN control fully counterclockwise.
- ③ Connect the tracking scope in the following manner:



- ④ Adjust ATT for the tracking scope so that the output waveform at ① on CFH-36 is not saturated.
- ⑤ Adjust CV1 and T4 on CFH-36 so that the 70.455MHz point indicates maximum.
- ⑥ Adjust T1, T2 and T3 on CFH-36 so that the 6dB bandwidth is set $\pm 7.5\text{kHz}$ or more.
Using T1 and T2, make the band flat (less than 2dB).
Using T3, adjust the bandwidth ($70.455\text{MHz} \pm 7.5\text{kHz}$ or more).
- ⑦ Repeat the steps ⑤ and ⑥ until the required performance is obtained.



NOTE: For adjustment of T1, T2 and T3, use Bakelite or Teflon (⊖) adjusting rod (1mm wide at tip).
If a metal rod is used, the core may be damaged.

b. Checking of 2nd IF Filter (455kHz)

- ① Use the extension board CMH-365.
- ② Put the AGC control to the OFF position. Select the AM mode. Put the BANDWIDTH to the WIDE position. Turn the RF GAIN control fully clockwise. Put the NOTCH control to the OFF position.
- ③ Connect the output of the tracking scope between RV2 ① on CFH-36 and chassis (GND). Connect the input of the tracking scope between ① on CAE-182 and chassis (GND).
- ④ Adjust the RF GAIN control and ATT for the tracking scope so that the output waveform at ① on CAE-182 is not saturated.
- ⑤ Adjust T7 on CFH-36 so that the in-band ripple of the filter is minimized.
- ⑥ Change the position of the BANDWIDTH, and check the performance of each filter.

BANDWIDTH	Option	6dB bandwidth	60dB bandwidth
AUX	-	12kHz or more	-
WIDE	-	4kHz or more	10kHz or less
INTER	-	2kHz or more	6kHz or less
NARR	CFL-231 mounted	240Hz or more	560Hz or less
	CFL-232 mounted	0.5 ~ 0.8kHz	1.6kHz or less
	CFL-233 mounted	1 ~ 1.5kHz	3kHz or less
	CFL-218A mounted	1.7 ~ 1.9kHz	4.2kHz or less

NOTE: When the optional filter is not mounted in the NARR position, NARR cannot be selected with the BANDWIDTH switch.

c. Injection Level of 2nd Mixer

- ① Use the extension board CMH-365.
 - ② Connect the radio frequency voltmeter between ② on CFH-36 and chassis (GND).
 - ③ Adjust T8 on CFH-36 and T1 on CGA-132 so that the radio frequency voltmeter indicates a maximum value.
- Injection level : 0.7Vrms or more
Resistor for adjustment : R3 on CGA-132.

d. Adjustment of IF Transformer

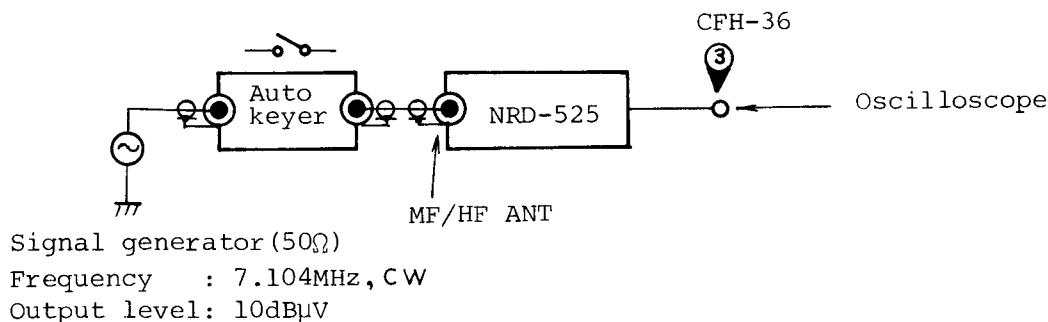
- ① Use the extension board CMH-365.
- ② Put the AGC control to the OFF position. Select the AM level. Put the BANDWIDTH to the WIDE position. Turn the RF GAIN control fully clockwise. Put the NOTCH control to the OFF position.

- ③ Connect the signal generator (with frequency of 70.453MHz and output level of 25dB μ V, CW, 50 Ω) P29-1 on CFH-36 and chassis (GND).
- ④ Connect the radio frequency voltmeter between ① on CAE-182 and chassis (GND).
- ⑤ Adjust T4, T5, and T6 on CFH-36 so that the radio frequency voltmeter indicates a maximum value.
- ⑥ At this time, the output voltage at ① on CAE-182 should be 0.1 ~ 0.2Vrms.

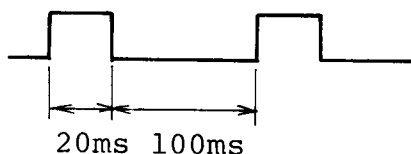
NOTE: For adjustment with T4, use a Bakelite or Teflon \ominus adjusting rod (1mm wide at tip). If a metal rod is used, the core may be damaged.

e. Adjustment of Noise Blanker

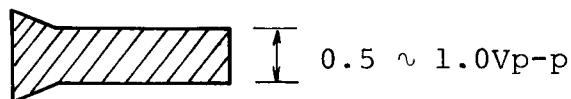
- ① Use the extension board CMH-365.
- ② Set the receiving frequency at 7.104MHz. Select the DSB mode. Put the AGC control to the FAST position. Put the BANDWIDTH switch to the WIDE position. Turn the NB LEVEL control fully clockwise.
- ③ Connect the signal generator, auto keyer and oscilloscope as follows:



Auto keyer: Capable of turning on radio frequency signal frequency for 20ms and turning it off for 100ms

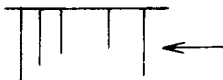


- ④ Adjust T9, T10 and T11 on CFH-36 so that the level of the output waveform at ③ on CFH-36 indicates maximum. If the output at ③ is saturated and it is difficult to get the maximum value, turn the NB LEVEL control counterclockwise.
- ⑤ Change the level of the signal generator in the range of 10 ~ 100dB μ V, check the output waveform at ③ on CFH-36.

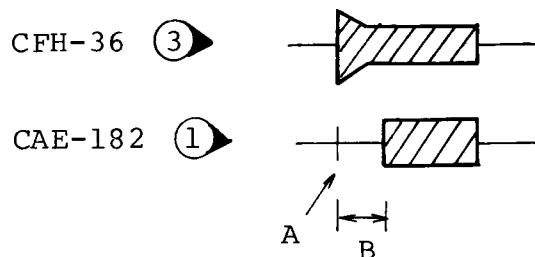


- ⑥ Set the signal generator at the output level of 105dB μ V and AM modulation (400Hz, 80%).
- ⑦ Connect the output from the signal generator to MF/HF ANT on NRD-525 without use of the auto keyer.
- ⑧ Connect the oscilloscope to ④ on CFH-36 and chassis (GND).
- ⑨ Turn **NB** (RV1) on CFH-36 fully clockwise, and turn the NB LEVEL control fully clockwise.

- ⑩ While observing the waveform on the oscilloscope, turn **NB** (RV1) on CFH-36 counterclockwise until the fall pulse disappears. If no fall pulse appears from the beginning, leave **NB** (RV1) on CFH-36 turned fully clockwise.

Waveform of ④ on CFH-36  on CFH-36 Fall pulse

- ⑪ Connect the signal generator and auto keyer as described in the step ③ above.
- ⑫ Connect Channel No.1 of the oscilloscope (two-channel Type) between ③ on CFH-36 and chassis (GND). Connect Channel No.2 between ① on CAE-182 and chassis (GND).
- ⑬ While observing the waveform at ① on CAE-182. Adjust RV2 on CFH-36 so that the level at A is set to minimum.

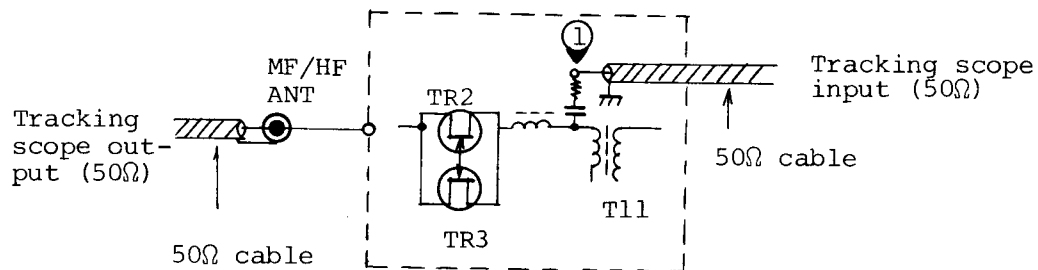


- ⑭ Put the NB LEVEL control to the Pull **W** position, and see that the distance B for ① on CAE-182 becomes larger.

(9) CFL-205 HF TUNE Unit

a. Adjustment of HF TUNE

- ① Use the extension board CMH-365.
- ② Put ATT to OFF and put PASS to OFF.
- ③ Check RF TUNE voltage as described in (4)-b.
- ④ Connect the tracking scope as shown below:



- ⑤ Change the receiving frequency as shown in the table below, and adjust transformers or trimmer capacitors so that deviation in tuning is less than 3dB in each receiving frequency.

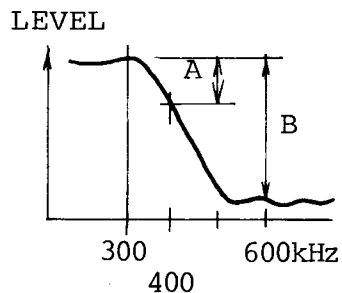
BAND		Receiving frequency	Tuning frequency	Transformer, trimmer capacitor
BAND2	SUB	0.8MHz	0.8MHz	T9, 10
		1.599MHz	1.599MHz	Checking only
	MAIN	0.799MHz	0.799MHz	CV5, 6
		0.4MHz	0.4MHz	Checking only
BAND3	SUB	2.65MHz	2.65MHz	T7, 8
		4.399MHz	4.399MHz	Checking only
	MAIN	2.649MHz	2.649MHz	CV3, 4
		1.6MHz	1.6MHz	Checking only

BAND		Receiving frequency	Tuning frequency	Transformer, trimmer capacitor
BAND4	SUB	7.4MHz	7.4MHz	T5, 6
		12.299MHz	12.299MHz	Checking only
	MAIN	7.399MHz	7.399MHz	CV1, 2
		4.4MHz	4.4MHz	Checking only
BAND5		20.499MHz	20.499MHz	T3, 4
		12.3MHz	12.3MHz	Checking only
BAND6		33.999MHz	33.999MHz	T1, 2
		20.5MHz	20.5MHz	Checking only

NOTE: For adjustment with T1, T2, T3 and T4, use a Bakelite or Teflon \ominus adjusting rod (1 mm wide at tip). If a metal rod is used, the core may be damaged.

b. Checking of Band 1 400kHz LPF

- ① Use the extension board CMH-365.
- ② Put ATT to OFF, and put PASS to OFF.
- ③ Connect the tracking scope as described in (9)-a.
- ④ Check the characteristic of the 400kHz LPF.



A = 3dB or less
B = 30dB or more

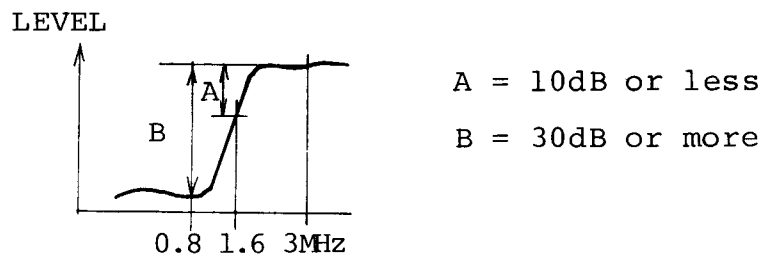
c. Checking of PASS (by-pass for input tuning circuit)

- ① Use the extension board CMH-365
- ② Put ATT to OFF.

- ③ While depressing the **MEMO** key, press the numerical key **4** to select PASS.

When PASS is selected, only 1600kHz HPF works, and the HF band input tuning circuit is by-passed.

- ④ Check the characteristic of the 1600kHz HPF.



d. Injection level of 1st mixer

- ① Use the extension board CMH-365.
- ② Connect the radio frequency voltmeter between ② on CFL-205 and chassis (GND).
- ③ Change the receiving frequency as shown in the table below, and check the output level at ② on CFL-205.

Receiving frequency	Output level at ② on CFL-205
7.28MHz	0.5Vrms or more
15.33MHz	"
24.2MHz	"
33.99MHz	"

Resistor for adjustment: R49

e. Adjustment of 1st IF transformer

- ① Use the extension board CMH-365.

- ② Put the AGC control to the OFF position. Select the AM mode. Put the BANDWIDTH switch to the WIDE position. Turn the RF GAIN control fully clockwise. Put the NOTCH control to OFF. Set the receiving frequency at 7.104MHz.
- ③ Connect the signal generator (with the frequency of 7.104MHz and output level of 10dB μ V, CW, 50 Ω) to MF/HF ANT on the rear panel of NRD-525.
- ④ Connect the radio frequency voltmeter between ① on CAE-182 and chassis (GND).
- ⑤ Adjust T12 on CFL-205 so that the radio frequency voltmeter indicates a maximum value.
- ⑥ At this time, the output voltage at ① on CAE-182 should be 0.1 ~ 0.2Vrms.

f. Adjustment of 1st mixer balance

- ① Set the receiving frequency at 100kHz and select the CW mode.
- ② Connect the internal or external speaker.
- ③ Then, the internal spurious beat is appeared to output. Adjust BAL (RV1) on CFL-205 so that the beat output should be minimized.

2-3 Procedures of Inspection and Adjustment of Optional Units

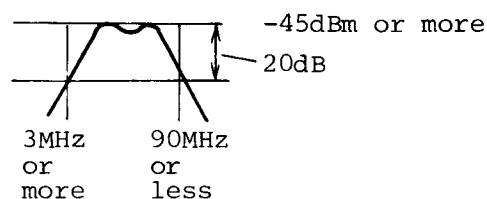
(1) CGA-118 VHF/UHF LOCAL unit

If this unit is to be adjusted, insert the CHE-85 VHF/UHF RF unit into NRD-525. If both CGA-118 and CHE-85 units are not mounted on NRD-525, the receiving frequency cannot be set at a frequency higher than 34MHz.

a. Adjustment of BPF

- ① Use the extension board CMH-365.
- ② Connect ① on CGA-118 to the chassis (GND) with a copper wire.
- ③ Connect the output (50 Ω , -40dBm) from the tracking scope between ⑧ on CGA-118 and chassis (GND), and connect input (50 Ω) to the tracking scope between ④ on CGA-118 and chassis (GND).

Set the receiving frequency at 34MHz, and check the characteristic of BPF.



- ④ Change the receiving frequency as shown in the table below, and adjust each BPF.

Receivin frequency	Adjusting coils	at	fo	fL	fu
114MHz	L22, 23, 24	-40dB or more	115MHz	80MHz or more	160MHz or less
141MHz	L19, 20, 21	-40dB or more	150MHz	100MHz or more	225MHz or less
424MHz	L16, 17, 18	-35dB or more	425MHz	325MHz or more	550MHz or less

When fo=425MHz, connect the input to the tracking scope between ⑨ on CGA-118 and chassis (GND).

NOTE: For adjustment with L16 through L24, use a Bakelite or Teflon ⊖ adjusting rod (1mm wide at tip). If a metal rod is used, the core may be damaged.

b. Checking of mixer input level

- ① Use the extension board CMH-365.
- ② Connect the radio frequency voltmeter between ⑦ on CGA-118 and chassis (GND).
- ③ Change the receiving frequency as shown below, and check the output level at ⑦ on CGA-118.

Receiving frequency	Output level at ⑦ on CGA-118
141MHz	0.15Vrms or more
173.99MHz	"

c. Adjustment of VCO

- ① Use the extension board CMH-365.
- ② Connect the DC voltmeter (input of 1MΩ or more) between ① on CGA-118 and chassis (GND).

- ③ Connect the radio frequency voltmeter between ② on CGA-118 and chassis (GND).
- ④ Adjust coils on VCO or trimmer capacitors so that the voltage at ① on CGA-118 indicates 9V or 8V at each receiving frequency. Also, adjust the output level at ② on CGA-118.

Receiving frequency	Adjusting coil, trimmer capacitor	Voltage at ① on CGA-118	Output level at ② on CGA-118
59.9999MHz	L1	$9 \pm 0.1Vdc$	0.05Vrms or more
140.9999MHz	L4	"	"
173.9999MHz	L7	$8 \pm 0.1Vdc$	"
456.3999MHz	CV1	"	0.03Vrms or more

NOTE: For adjustment with L1, L4 and L7, use a Bakelite or Teflon \ominus adjusting rod (1mm wide at tip).
If a metal rod is used, the core may be damaged.

(2) CHE-85 VHF/UHF RF unit

Insert CGA-118 into NRD-525 beforehand.

a. Adjustment of VHF TUNE

- ① Use the extension board CMH-365.
- ② Connect the output (50Ω) from the tracking scope to VHF ANT on the rear of NRD-525. Connect the input (50Ω) to the tracking scope between ③ on CHE-85 and chassis (GND).
- ③ Change the receiving frequency as shown below, and

adjust transformers or trimmer capacitors so that deviation of tuning at each frequency is less than 3dB.

BAND	Receiving frequency	Tuning frequency	Transformer, trimmer capacitor
BAND 1	34.0000MHz	34.0000MHz	T9, 10
	40.9999MHz	40.9999MHz	CV5, 10
BAND 2	41.0000MHz	41.0000MHz	T7, 8
	48.9999MHz	48.9999MHz	CV4, 9
BAND 3	49.0000MHz	49.0000MHz	T5, 6
	59.9999MHz	59.9999MHz	CV3, 8
BAND 4	114.0000MHz	114.0000MHz	T3, 4
	140.9999MHz	140.9999MHz	CV2, 7
BAND 5	141.0000MHz	141.0000MHz	T1, 2
	173.9999MHz	173.9999MHz	CV1, 6

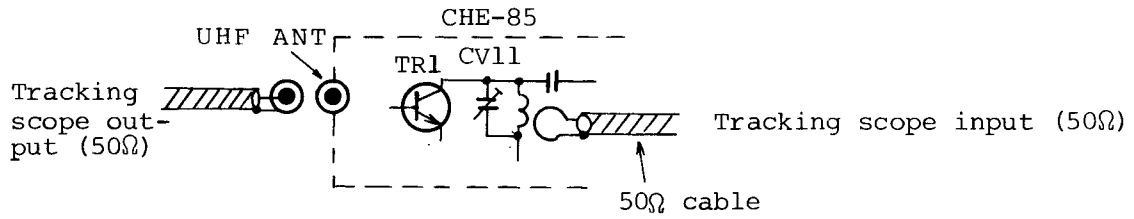
NOTE 1: Do tracking at the highest and lowest frequencies in each band. If clear double hump response cannot be maintained at 173.9999MHz, make adjustment with the receiving frequency and tuning frequency set at 160MHz.

NOTE 2: For adjusting with T1 through T10, use a Bakelite or Teflon (⊖) adjusting rod (1mm wide at tip). If a metal rod is used, the core may be damaged.

b. Adjustment of UHF TUNE

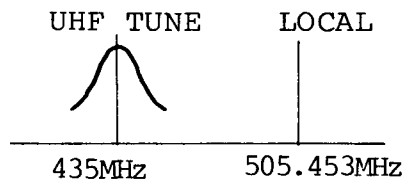
- ① Use the extension board CHM-365.

- ② Connect the tracking scope as shown below:

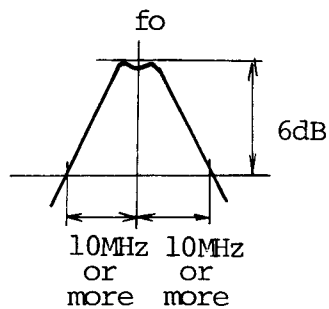


Fix a one-turn coil (with a diameter of about 5mm) to the end of the 50Ω cable, and bring it near L4 on CHE-85.

- ③ Set the receiving frequency at 435MHz.
 ④ Adjust CV2 so that the local level (505.453MHz) on the tracking scope indicates a maximum value.



- ⑤ Adjust CV1 so that the level on the 435MHz point indicates a maximum value.
 ⑥ Adjust FL1 so that f_0 is set at 453MHz and 6dB bandwidth is ± 10 MHz or more.
 ⑦ Repeat the steps ⑤ and ⑥ to get the required characteristic.



c. Adjustment of 1st IF transformer and S meter

- ① Use the extension board CMH-365.
- ② Set the signal generator (50 Ω) at the frequency of 144.1MHz and output level of 20dB μ V, CW.
- ③ Set the receiving frequency at 144.1MHz. Select the USB mode. Put the BANDWIDTH switch to the WIDE position.
- ④ Connect the signal generator to VHF ANT on the rear panel of NRD-525.
- ⑤ Adjust T15 on CHE-85 so that the AF output level indicates a maximum value.
- ⑥ Adjust RV2 on CHE-85 so that the S meter indicates S9. If the S meter does not reach S9, adjust RV2 on CHE-85 so that the S meter indicates a maximum value.
- ⑦ Set the frequency of the signal generator at 435.1MHz, and connect it to UHF ANT on the rear of NRD-525.
- ⑧ Set the receiving frequency at 435.1MHz.
- ⑨ Adjust T11 on CHE-85 so that the AF output level indicates a maximum value.
- ⑩ Adjust RV1 on CHE-85 so that the S meter indicates S9. If the S meter does not reach S9, adjust RV1 on CHE-85 so that the S meter indicates a maximum value.

NOTE 1: For adjustment with T11 and T15, use a Bakelite or Teflon (⊖) adjusting rod (1mm wide at tip). If a metal rod is used,

the core may be damaged.

NOTE 2: In the steps ⑤ and ⑨, the output level of the signal generator should be set at $-10\text{dB}\mu\text{V}$.

(3) CMH-530 RTTY Unit

a. Operating Procedures

① Selection of speed

Each time the numerical key "5" is pressed with the MEMO key depressed, the speed of 45.45 or 50 Bauds is alternately selected. At this time, the selected speed is indicated in the position (B) on the vacuum fluorescent display of the NRD-525.

② Selection of shift width

Each time the numerical key "6" is pressed with the MEMO key depressed, the shift width of 170Hz ($\pm 85\text{Hz}$), 400Hz ($\pm 200\text{Hz}$) or 850Hz ($\pm 425\text{Hz}$) is alternately selected. At this time, the selected shift width is indicated in the position (C) on the vacuum fluorescent display of the NRD-525.

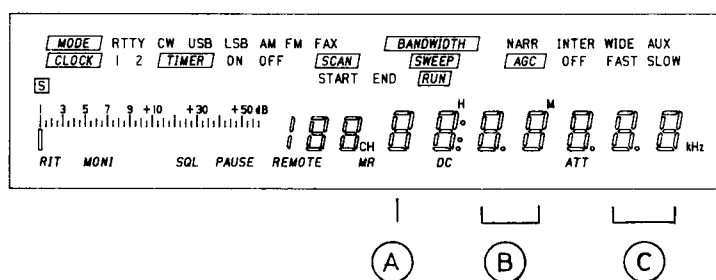
③ Selection of polarity

Each time the numerical key "7" is pressed with the MEMO key depressed, the normal or reverse polarity is selected alternately. At this time, the selected polarity is indicated in the position (A) on the vacuum fluorescent display of the NRD-525.

4 Fine tuning

In the RTTY mode, the BFO control works as the fine tuning control. Turning this control changes the center frequency of the space filter on the RTTY demodulator unit.

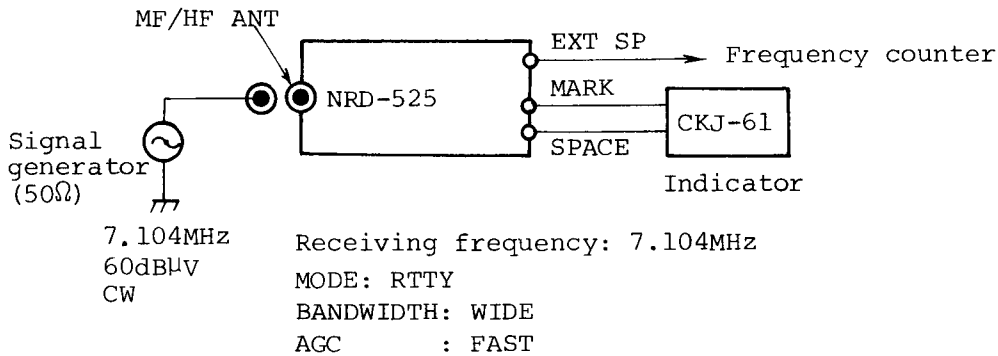
Ordinarily, set the control at the central position.



- Ⓐ Indication of polarity
 - 0: Reverse
 - 1: Normal
- Ⓑ Indication of baud rate
 - 45: 45.45 bauds
 - 50: 50 bauds
- Ⓒ Indication of shift width
 - 17: 170Hz (\pm 85Hz)
 - 40: 400Hz (\pm 200Hz)
 - 85: 850Hz (\pm 425Hz)

b. Adjustment of filter

- ① Connect the signal generator, frequency counter, and CKJ-61 indicator as shown below:



- ② Use the extension board CMH-365.
Turn RV2 and RV3 on CMH-530 fully clockwise.
- ③ Connect CH-1 of the oscilloscope (2-channel Type) between ④ on CMH-530 and chassis (GND). Connect CH-2 between ⑤ on CMH-530 and chassis (GND).
- ④ Perform fine adjustment of the frequency of the signal generator or the receiving frequency so that the EXT SP output frequency is set at 2295Hz.
- ⑤ Adjust RV4 so that the output level at ④ on CMH-530 indicates a maximum value. At this time, the output level is saturated. Turn RV1 on CMH-530 clockwise until the output level ceases to be saturated. Then, the MARK LED is illuminated.
- ⑥ Set the shift width at 170Hz (±85Hz).
- ⑦ Perform fine adjustment of the frequency of the signal generator or the receiving frequency so that EXT SP output is set at 2125Hz.

- ⑧ Adjust RV5 on CMH-530 so that the output level at ⑤ on CMH-530 indicates maximum. The SPACE LED is illuminated.
- ⑨ In the same manner as the steps ⑥, ⑦ and ⑧ above, adjust the 1895Hz and 1445Hz space filters.

Space filter	Shift width	VR for adjustment
1895Hz	400Hz	RV6
1445Hz	850Hz	RV7

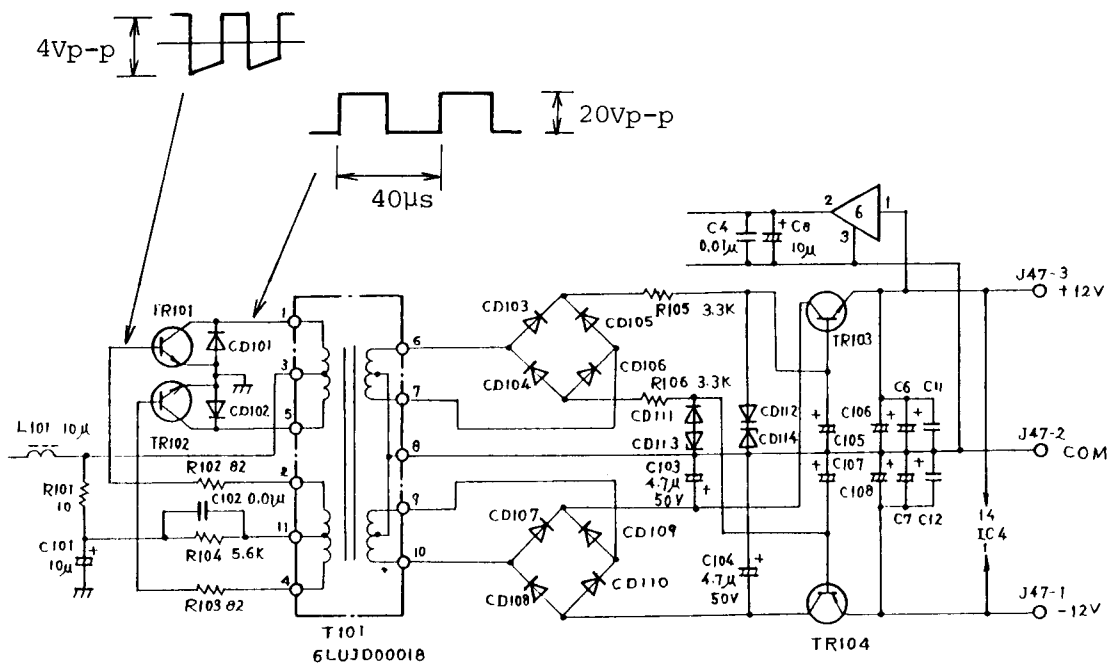
c. Adjustment of Mark and Space Filter Output levels

- ① Set the shift width at 400Hz.
- ② Perform fine adjustment of the frequency of the signal generator or the receiving frequency so that the EXT SP output frequency is set at 2295Hz or 1895Hz.
- ③ Adjust RV2 or RV3 on CMH-530 so that the output levels at ④ and ⑤ on CMH-530 becomes equivalent. At this time, RV2 and RV3 on CMH-530 should be preferably turned fully clockwise.
- ④ Adjust RV1 on CMH-530 so that the output levels at ④ and ⑤ on CMH-530 becomes 8Vp-p.

(4) CMH-532 RS-232C Unit

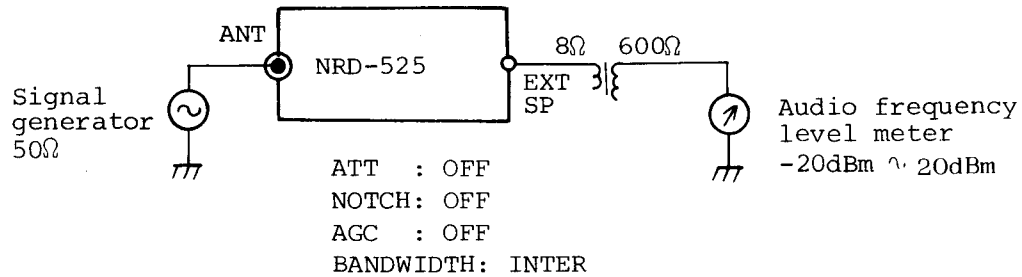
a. Checking of DC-DC converter

- 1 Check the waveform and level at each point with the oscilloscope.
- 2 Connect the GND terminal on the oscilloscope to the chassis (GND).



2-4 Measurement of AM Sensitivity

Connect the measuring instruments as shown below:



a. Measurement of AM sensitivity

- ① Select the AM mode for NRD-525.
- ② Set the signal generator at AM modulation (400Hz, 30%) and set the output level at 10dB μ V.
- ③ Set the frequency of the signal generator and receiving frequency at the measurement frequency.
- ④ Turn on the modulation of the signal generator.
- ⑤ Adjust the AF GAIN control so that the level meter indicates 10dBm.
- ⑥ Turn off the modulation of the signal generator. Adjust the output level of the signal generator so that the level meter indicates 0dBm.
- ⑦ Repeat the steps ④ through ⑥ above.
- ⑧ The AF OUTPUT level meter indicates 10dBm when modulation of the signal generator is turned on and the level meter indicates 0dBm when modulation is turned off. The AM sensitivity level is the output level of the signal generator.

b. Measurement of SSB, CW sensitivity

- ① Put the NRD-525 in the USB, LSB or CW mode.
- ② Turn off modulation of the signal generator.
- ③ Set the receiving frequency at the measurement frequency. The frequency of the signal generator should be deviated from the measurement frequency.
- ④ Adjust the AF GAIN control so that the level meter indicates 0dBm.
- ⑤ Set the frequency of the signal generator at the measurement frequency.
- ⑥ Perform fine adjustment of the TUNE control so that the level meter indicates a maximum value.
- ⑦ Adjust the output level of the signal generator so that the level meter indicates 10dBm.

The output available at this time is the SSB, CW sensitivity.

c. Measurement of FM sensitivity

- ① Put the NRD-525 in the FM mode.
- ② Turn off modulation of the signal generator.
- ③ Set the receiving frequency at the measurement frequency.
- ④ The frequency of the signal generator should be deviated from the measurement frequency.
- ⑤ Adjust the AF GAIN control so that the level meter indicates 10dBm.
- ⑥ Measure the frequency of the signal generator at the measurement frequency.

- ⑦ Adjust the output level of the signal generator so that the level meter indicates -10dBm .
The output level available at this time FM sensitivity.

3. TROUBLE SHOOTING

3-1

Besides the failure of the receiver itself, trouble of the receiver is also caused by erroneous operation, and by some cause ascribable to other devices. For trouble due to erroneous operation and other devices, refer to "8. Trouble Shooting" in Instruction Manual for NRD-525.

Here, the procedures of detecting the failure of the receiver itself are described. If the trouble is localized, replace the unit containing the affected part, or replace the affected part, referring to "4. Parts List".

3-2 Checking of Power Circuit

To detect the trouble of the receiver, the supply voltage must be checked first.

Check DC 10.8V, 9V, and 5V on the power supply unit (CBD-674) on the rear panel of NRD-525. If voltage is found to be abnormal, extract all the plug-in units. Also, remove all the connector pins excepting the connector P36 on the panel block. If the voltage remains to be abnormal, the trouble lies in the power supply unit. If 10.8V is likely to be adjusted, check operation after adjusting 10.8V. If 5V is abnormal, check the panel block because 5V is supplied to the panel block through P36 connector. If each voltage is normal when

the units are removed, mount the units one by one to find a defective unit. If spare unit is available, replace the defective unit with it, and see that the receiver works normally. Also, check abnormal hot C-MOS ICs. If a defective part has been found, replace it with a new one and confirm operation.

3-3 Too Low Sensitivity

If the sensitivity has become too low, replace the HF TUNE unit CFL-205 with a new one, if available. Then, replace the IF FILTER unit CFH-36, IF AF AMP unit CAE-182, and CPU unit CDC-353 in this order to find the defective unit. If the trouble cannot be eliminated even when the units are replaced, check the antenna and motherboard CFQ-1726. If spare units are unavailable, you should find which unit is affected in the following manner:

See if sensitivity is low in all the bands or in a particular band. (For bands, see the description of operation of the receiver block.) If SG is available, measure the sensitivity in each band compare it with the rating. If SG is unavailable, receive broadcasting in each band, and estimate the cause of the trouble from the difference of sensitivity in receiving through the tuning circuit and in receiving through the 1.6MHz high pass filter (PASS).

3-3-1 Too Low Sensitivity in Particular Band

If sensitivity is too low in a particular band, the cause of the trouble may be one of the following:

a) Improper selection of band by tuning circuit

A part may be defective. Check IC1, and CD5 through CD10 on the CFL-205 unit and IC5 on the CDC-353 unit.

b) Defective tuning circuit

The cause may be a defective part or improper adjustment. Perform re-adjustment first. If adjustment is impossible, the trouble lies in a part. Check the tuning transformer, trimmer capacitor and SUB band selector relay on the CFL-205 unit.

c) Defective tuning voltage generator circuit

The cause may be a defective part or improper adjustment. Perform re-adjustment first. If adjustment is impossible, the trouble lies in a part. Check the tuning voltage generator circuit in the CDC-353 unit.

3-3-2 Too Low Sensitivity in All Bands

If sensitivity is too low in all the bands, find the affected circuit by checking the levels in the passage of the receiving signal. For this purpose, measure levels at each test point, referring to the attached level diagram. Find a point where the measured value greatly differs from the standard value specified in the level diagram. Standard values in the level diagram may somewhat differ from the measured values.

If the defective circuit has an adjuster or control, make adjustment according to the specified procedures of adjustment. If adjustment is impossible, the cause lies in a part. So, check parts constituting that circuit.

3-4 No Sound from Speaker

If the loud speaker will not give off any sound, find the affected circuit in the following manner:

First, see that the line connected to the speaker is not disconnected and that the MUTE terminal on the rear of NRD-525 is used.

Check to see that the PLL loop in the synthesizer block is not locked out. Lock-out can be confirmed by checking LED (CD2) for LP2 and LED (CD5) for BFO on the CGA-132 unit. From the combination of illuminated LEDs, the defective circuit may be localized as shown below:

UNLOCK CD16	LP2 CD2	BFO CD5	Defective circuit
OFF	OFF	OFF	None (normal)
OFF	OFF	ON	BFO loop
OFF	ON	OFF	Loop 2
ON	OFF	OFF	Loop 1
ON	ON	ON	Standard signal or control block

From the above table, the defective circuit can be found. Then, find improper adjustment or a defective part,

comparing measured values with standard values.

If the synthesizer block is operating normally, check the squelch circuit. If the SQL segment on the vacuum fluorescent display remains illuminated even when the SQUELCH control on the panel is turned, the trouble lies in the squelch circuit. As described earlier, the squelch circuit utilizes different circuits in the FM mode and in other modes. If the squelch circuit is abnormal in all the modes, check IC2 and IC3 on the CAE-182 unit and the SQUELCH control on the panel. If the squelch circuit is abnormal only in the FM mode, check the FM detector circuit in the CAE-182 unit with emphasis put on IC10. If abnormality is found in other modes than the FM mode, check the AGC circuit on the CAE-182 unit.

3-5 Operation Impossible

If abnormality lies in the control system (control block and panel block), operation of NRD-525 may become impossible. NRD-525 has microcomputers in the control and panel blocks. If one of these microcomputers or IC around them fails, NRD-525 may become inoperable. To find a defective microcomputer or IC, they must be checked one by one by a person well versed with the fundamental performance of ISs and usage of them in each circuit. Here, apparent troubles and probable causes are described.

- a. No indication is given when the power is switched on.
 - o Is power supply circuit for vacuum fluorescent display working normally? Check the choke coil (L2), transformer (T1) and transistors (TR2 and TR3) for damage.
 - o Is not the heater for the vacuum fluorescent display damaged? Visually check the heater.

- b. NRD-525 does not operate every when a switch is pressed (although indication is normal).
 - o A certain switch will not work, check that switch. If several switches have become defective at a time, check IC7 on the CDE-418 unit.

- c. Receiving frequency indication does not change even if the tuning control is turned (although the key switch works normally).
 - o Check PG1 and IC6 on the CDE-418 unit.

- d. PBS and BFO do not work normally.
 - o If PBS and BFO do not work at all even when PBS and BFO controls are turned, check resistors and capacitors mounted between the PBS control (RV8) and BFO control (RV9) on the CDE-418 and IC5.

- e. The internal clock is not correct.

If the time given by the internal clock greatly deviates, connect the frequency counter to TP1 on the CDC-353 CPU unit, and adjust the trimmer capacitor CV1 so that the oscillation frequency becomes 32.768000kHz.

4. PARTS LIST

CONTENTS

		Page
CHASSIS		4-2
AVR	(CBD-674)	4-4
JACK	(CQB-40)	4-5
HF TUNE	(CFL-205)	4-6
IF FILTER	(CFH-36)	4-11
IF AF AMP	(CAE-182)	4-15
LOOP1	(CGA-131)	4-20
LOOP2	(CGA-132)	4-23
CPU	(CDC-353)	4-26
DATA I/O	(CMH-632)	4-29
DISPLAY	(CDE-418)	4-31
Accessories	(6ZX,1D00018)	4-33
V·UHF CONV	(CHE-85)	4-34
V·UHF LOCAL	(CGA-118)	4-38
Accessories	(CMK-165-F)	4-43
RTTY DEMO	(CMH-530)	4-44
Accessories	(CMH-530-F)	4-47
INTERFACE	(CMH-532)	4-48
Accessories	(CMH-532-F)	4-50

PARTS LIST

CHASSIS		TITLE		SHEET NO.	
CHASSIS		NRD-525		1	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
C1	CAP,FXD CER	DD106F103Z50	50V 10000PF	5CBAB00400	
C2	CAP,FXD CER	DE7150FZ103PVA1		5CBAB01618	
C3	CAP,FXD ELCTLT	ECES1VU672G	35MV 4700UF	5CEAA01681	
C4	CAP,FXD ELCTLT	ECE-A1ES101	25V100UF	5CEAA01349	
C5	CAP,FXD PLSTC	ECQ-V1H473JZ	0.047UF	5CRAA00389	
C6	CAP,FXD PLSTC	ECQ-V1H473JZ	0.047UF	5CRAA00389	
C7	CAP,FXD CER	DD104SL680J50	50V 68PF	5CAAA01099	
C8	CAP,FXD CER	DD104CH100D50	50V 10PF	5CAAA00846	
C9	CAP,FXD CER	DD105SL121J50	50V 120PF	5CAAA01102	
C10	CAP,FXD CER	DD104CH220J50	50V 22PF	5CAAA00850	
C11	CAP,FXD CER	DD104SL560J50	50V 56PF	5CAAA01098	
CD1	DIODE	M4C-52-12		5TXAE00374	
CD3	DIODE	EM1Z	200V 1A	5TXAN00061	
CD4	DIODE	RK44		5TXAN00114	
CD5	DIODE	1S2076S7		5TXAE00355	
F2	FUSE	MF60NR-1A	1A	5ZFA000014	
FS2	CHANGER	S-17221#9	100,120,22	5ZZEG00002	
IC1	IC	TA78L005AP		5DAAD00048	
J1	JACK	S-I0814#01		5ZZEG00003	
J2	JACK	PA-125	250V 6A	5JWAJ00007	
J3	TERMINAL	M-110C-3		5JTB00369	
J5	JACK	S-Q3097#03		5JJAL00055	
J6	JACK	S-Q3097#03		5JJAL00055	
J7	JACK	S-Q3096#03		5JJAL00056	
J8	JACK	S-Q3096#03		5JJAL00056	
J9	JACK	S-Q3097#03		5JJAL00055	
J10	TERMINAL	PT-C02P01		5JJAK00003	
J11	CONNECTOR	FM-NR-M(FM-205)		5JWBK00004	
J14	CONNECTOR	5273-08A		5JWBU00135	
J15	CONNECTOR	PCN6-22S-2.5DS		5JDA000082	
J16	CONNECTOR	PCN6-22S-2.5DS		5JDA000082	
J17	CONNECTOR	PCN6-22S-2.5DS		5JDA000082	
J18	CONNECTOR	PCN6-22S-2.5DS		5JDA000082	
J19	CONNECTOR	PCN6-22S-2.5DS		5JDA000082	
J20	CONNECTOR	PCN6-22S-2.5DS		5JDA000082	

4-2

PARTS LIST

CHASSIS		TITLE		SHEET NO.	
CHASSIS		NRD-525		2	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
J21	CONNECTOR	PCN6-22S-2.5DS		5JDA000082	
J22	CONNECTOR	PCN6-22S-2.5DS		5JDA000082	
J23	CONNECTOR	PCN6-22S-2.5DS		5JDA000082	
J24	CONNECTOR	PCN6-22S-2.5DS		5JDA000082	
J25	CONNECTOR	PCN6-22S-2.5DS		5JDA000082	
J26	CONNECTOR	PCN6-22S-2.5DS		5JDA000082	
J27	CONNECTOR	PCN6-22S-2.5DS		5JDA000082	
J28	CONNECTOR	PCN6-22S-2.5DS		5JDA000082	
J29	CONNECTOR	PCN6-22S-2.5DS		5JDA000082	
J30	CONNECTOR	PCN6-22S-2.5DS		5JDA000082	
J31	CONNECTOR	PCN6-22S-2.5DS		5JDA000082	
J32	CONNECTOR	PCN6-22S-2.5DS		5JDA000082	
J33	CONNECTOR	PCN6-22S-2.5DS		5JDA000082	
J34	CONNECTOR	PCN6-22S-2.5DS		5JDA000082	
J36	CONNECTOR	5273-05A		5JWBU00123	
J37	CONNECTOR	IL-G-12P-S3T2-E		5JWAD00082	
J38	CONNECTOR	IL-G-12P-S3T2-E		5JWAD00082	
J40	CONNECTOR	IL-G-6P-S3T2-E		5JWAD00099	
J42	JACK	S-Q3097#03		5JJAL00055	
J43	JACK	S-Q3097#03		5JJAL00055	
J44	CONNECTOR	67095-12		5JWBE00147	
J48	CONNECTOR	IL-G-5P-S3T2-E		5JWAD00069	
K1	RELAY	LZ12H		5KLAC00033	
L1	COIL	LAL03VBR22M	0.22UH	5LCAA00280	
L2	COIL	LAL03VBR22M	0.22UH	5LCAA00280	
P41	CONNECTOR	H-6ZCJD00100		6ZCJD00100	
P48	CABLE	H-6ZCJD00129		6ZCJD00129	
PC1	PCB	H-6PCJD00157B		6PCJD00157	
R1	RESISTOR FXD	ERD-50TJ103	1/2W 10K OHM	5RDA00859	
R3	RESISTOR FXD	ERD-25UJ333	1/4W 33K OHM	5RDA01381	
R4	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	5RDA01369	
R5	RESISTOR FXD	ERD-25UJ332	1/4W 3.3K OHM	5RDA01357	
R6	RESISTOR FXD	ERD-25UJ330	1/4W 33 OHM	5RDA01309	
R10	RESISTOR FXD	CRH20G5 OHM J		5RHA01300	
R10-1		0 20W		5ZJAP00003	

PARTS LIST

CHASST15		TITLE NRD-525		SHEET NO. 3	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
RV1	RESISTOR VAR	EVN-D4AA00B-14	10K OHM	5RVAB00279	
RV2	RESISTOR VAR	EVN-D4AA00B-14	10K OHM	5RVAB00279	
RV3	RESISTOR VAR	EVN-D4AA00B-14	10K OHM	5RVAB00279	
RV4	RESISTOR VAR	EVN-D4AA00B-23	2K OHM	5RVAB00275	
RV5	RESISTOR VAR	EVH9Y3F25A14		5RVAB00327	
S1	SWITCH	SSP322		5S8AB00206	
SP1	SPEAKER	77F51-1		5USAC00028	
T1	TRANSFORMER	H-6LTJD00015		6LTJD00015	
T2	RF XFMR	H-6LHJD00380		6LHJD00380	
TR1	TRANSISTOR	2SC1815-Y		5TCAF00219	

PARTS LIST

AVR

TITLE
CBD-674

SHEET NO.
1

PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE
C1	CAP,FXD	PLSTC	ECQ-V1H104JZ3	5CRAA00617
C2	CAP,FXD	ELCTL	ECE-A1EU100B	5CEAA01864
C3	CAP,FXD	ELCTL	ECE-A1EU100B	5CEAA01864
C4	CAP,FXD	ELCTL	ECE-A1EU101B	5CEAA01813
C5	CAP,FXD	PLSTC	ECQ-V1H104JZ3	5CRAA00617
C6	CAP,FXD	PLSTC	ECQ-V1H104JZ3	5CRAA00617
C7	CAP,FXD	ELCTL	ECE-A1EU100B	5CEAA01864
C8	CAP,FXD	ELCTL	ECE-A1EU100B	5CEAA01864
CD1	DIODE	1S2076RE		5TXAE00588
CD2	DIODE	HZ3B-2RE		5TXAE00566
IC1	IC	M5236L		5DDAB00170
IC2	IC	TA78005AP		5DAAD00082
IC3	IC	TA78009AP		5DAAD00124
P14	CONNECTOR	H-6ZCJD00123		6ZCJD00123
PC1	PCB	H-6PCJD00171A		6PCJD00171
R1	RESISTOR	FXD	ERD-25UJ221T	5RDAAD1543
R2	RESISTOR	FXD	ERD-25UJ333T	5RDAAD1591
R3	RESISTOR	FXD	ERD-25UJ392T	5RDAAD1608
R4	RESISTOR	FXD	ERD-25UJ101T	5RDAAD1599
R5	RESISTOR	FXD	ERD-25UJ222T	5RDAAD1548
R6	RESISTOR	FXD	ERD-25UJ103T	5RDAAD1547
RV1	RESISTOR	VAR	EVN-D4AA00B13	5RVAB00293
TR1	TRANSISTOR		2SB553-Y	5TBAE00036
TR1-2	ACCESSORY		AC229	5ZKAH00020
TR1-3	BUSHING		YC-40B	5ZZDY00005

PARTS LIST

PARTS NO		TITLE		SHEET NO.	
JACK		CQB-40		1	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
J1	JACK	HSJ0786-01-010		5JJAM00022	
J2	JACK	HLJ4305-01-090		5JJAM00027	
P40	CONNECTOR	H-6ZCJD00104		6ZCJD00104	
R7	RESISTOR FXD	ERD-S1VJ101T	0.5W	5RDA01711	

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HF TUNE

TITLE CFL-205

SHEET NO. 1

PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
C6	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C7	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C8	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C9	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C10	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C11	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C12	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C13	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C14	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C15	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C16	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C17	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C18	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C19	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C20	CAP,FXD	CER	C3216CH1H030C-E-TP	3PF	5CAAD00796
C21	CAP,FXD	CER	C3216CH1H030C-E-TP	3PF	5CAAD00796
C22	CAP,FXD	CER	C3216CH1H030C-E-TP	3PF	5CAAD00796
C23	CAP,FXD	CER	C3216CH1H030C-E-TP	3PF	5CAAD00796
C24	CAP,FXD	CER	C3216CH1H010C-E-TP	1PF	5CAAD00795
C25	CAP,FXD	CER	C3216CH1H020C-E-TP	2P	5CAAD00798
C26	CAP,FXD	CER	C3216CH1H471J-E-TP	470PF	5CAAD00797
C27	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C28	CAP,FXD	CER	C3216CH1H030C-E-TP	3PF	5CAAD00796
C29	CAP,FXD	CER	C3216CH1H030C-E-TP	3PF	5CAAD00796
C30	CAP,FXD	CER	C3216SL1H222J-E-TP	2200P	5CAAD00792
C31	CAP,FXD	CER	C3216CH1H050C-E-TP	5P	5CAAD00800
C32	CAP,FXD	CER	C3216CH1H100D-E-TP	10PF	5CAAD00785
C33	CAP,FXD	CER	C3216B1H472K-E-TP	4700PF	5CAAD00783
C36	CAP,FXD	CER	C3216CH1H050C-E-TP	5P	5CAAD00800
C37	CAP,FXD	CER	C3216CH1H100D-E-TP	10PF	5CAAD00785
C38	CAP,FXD	CER	C3216B1H472K-E-TP	4700PF	5CAAD00783
C39	CAP,FXD	CER	C3216B1H472K-E-TP	4700PF	5CAAD00783
C40	CAP,FXD	CER	C3216B1H472K-E-TP	4700PF	5CAAD00783
C41	CAP,FXD	CER	C3216B1H472K-E-TP	4700PF	5CAAD00783
C42	CAP,FXD	CER	C3216SL1H222J-E-TP	2200P	5CAAD00792

HF TUNE

TITLE CFL-205

SHEET NO. 2

PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
C43	CAP,FXD	CER	C3216B1H472K-E-TP	4700PF	5CAAD00783
C44	CAP,FXD	CER	C3216SL1H152J-E-TP	1500P	5CAAD00791
C45	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C46	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C47	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C48	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C49	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C50	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C51	CAP,FXD	ELCLTL	ECE-A1EU100B		5CEAA01864
C52	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
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	22P	5CAAD00869
C57	CAP,FXD	CER	C3216CH1H560J-E-TP		5CAAD00863
C58	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C59	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C60	CAP,FXD	ELCLTL	ECE-A1EU100B		5CEAA01864
C61	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C62	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C63	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C64	CAP,FXD	CER	C3216CH1H150J-E-TP	15P	5CAAD00787
C65	CAP,FXD	CER	C3216CH1H150J-E-TP	15P	5CAAD00787
C66	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C67	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C68	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C69	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C70	CAP,FXD	ELCLTL	ECE-A1EU100B		5CEAA01864
C71	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C72	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C73	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C74	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C75	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C76	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C77	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789

PARTS LIST

HF TUNE		TITLE CFL-205		SHEET NO. 4	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
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	
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	
CD50	DIODE	1SS85RE		STXAE00590	
CD51	DIODE	1SS181 TE85L		STXAD00356	
CD52	DIODE	1SS149HRE		STXAE00589	

PARTS LIST

HF TUNE		TITLE CFL-205		SHEET NO. 3	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
C78	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	SCAAD00789	
C79	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	SCAAD00789	
C80	CAP,FXD ELCTLT	ECE-A1EU100B		SCAA01864	
C81	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	SCAAD00789	
C82	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	SCAAD01056	
C83	CAP,FXD CER	C3216CH1H050C-E-TP	5P	SCAAD00800	
C84	CAP,FXD CER	C3216SL1H222J-E-TP	2200P	SCAAD00792	
C85	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	SCAAD00789	
C86	CAP,FXD CER	C3216SL1H821J-E-TP		SCAAD01068	
C87	CAP,FXD CER	C3216B1H472K-E-TP	4700PF	SCAAD00783	
C88	CAP,FXD CER	C3216SL1H222J-E-TP	2200P	SCAAD00792	
C89	CAP,FXD CER	C3216SL1H102J-E-TP	1000P	SCAAD00782	
C90	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	SCAAD00789	
C91	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	SCAAD00789	
C92	CAP,FXD TANTAL	202L3502 105MB	35V 1UF	SCSAC00982	
C93	CAP,FXD CER	C3216CH1H070D-E-TP		SCAAD00977	
C94	CAP,FXD CER	C3216CH1H070D-E-TP		SCAAD00977	
C95	CAP,FXD CER	C3216CH1H120J-E-TP	12P	SCAAD00784	
C96	CAP,FXD CER	C3216CH1H120J-E-TP	12P	SCAAD00784	
CD1	DIODE	MI301		STXAR00004	
CD2	DIODE	MI301		STXAR00004	
CD3	DIODE	MI301		STXAR00004	
CD4	DIODE	MI301		STXAR00004	
CD5	DIODE	1SS149HRE		STXAE00589	
CD6	DIODE	1SS149HRE		STXAE00589	
CD7	DIODE	1SS149HRE		STXAE00589	
CD8	DIODE	1SS149HRE		STXAE00589	
CD9	DIODE	1SS149HRE		STXAE00589	
CD10	DIODE	1SS149HRE		STXAE00589	
CD11	DIODE	1SS85RE		STXAE00590	
CD12	DIODE	1SS85RE		STXAE00590	
CD13	DIODE	1SS85RE		STXAE00590	
CD14	DIODE	1SS85RE		STXAE00590	
CD15	DIODE	1SS85RE		STXAE00590	
CD16	DIODE	1SS85RE		STXAE00590	

PARTS LIST		HF TUNE		TITLE CFL-205		SHEET NO. 5	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE			
CD53	DIODE	1SS149HRE		5TXAE00589			
CV1	CAPACITOR VAR	TZ03T200FR		5CVAAD0166			
CV2	CAPACITOR VAR	TZ03T200FR		5CVAAD0166			
CV3	CAPACITOR VAR	TZ03T200FR		5CVAAD0166			
CV4	CAPACITOR VAR	TZ03T200FR		5CVAAD0166			
CV5	CAPACITOR VAR	TZ03T200FR		5CVAAD0166			
CV6	CAPACITOR VAR	TZ03T200FR		5CVAAD0166			
IC1	IC	HD74LS145P		5DDAF00704			
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			
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		5KLAD00578			
K2	RELAY	DF2-DC9V		5KLAD00578			
K3	RELAY	DF2-DC9V		5KLAD00578			
K4	RELAY	DF2-DC9V		5KLAD00578			
K5	RELAY	DF2-DC9V		5KLAD00578			
K6	RELAY	DF2-DC9V		5KLAD00578			
K7	RELAY	DF2-DC9V		5KLAD00578			
L3	COIL	LAL03VB471K	470UH	5LCAA00270			
L4	COIL	LAL03VB471K	470UH	5LCAA00270			
L5	COIL	LAL03VB471K	470UH	5LCAA00270			
L6	COIL	LAL03VB220K	22UH	5LCAA00277			
L7	COIL	LAL03VB2R2M	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	LAL03VBR22M	0.22UH	5LCAA00280			
L14	COIL	LAL03VBR22M	0.22UH	5LCAA00280			
L15	COIL	LAL03VB471K	470UH	5LCAA00270			

PARTS LIST		HF TUNE		TITLE CFL-205		SHEET NO. 6	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE			
L16	COIL	LAL03VB3R3K	3.3UH	5LCAA00281			
L17	COIL	LAL03VBR22M	0.22UH	5LCAA00280			
L18	COIL	LAL03VB100K	10UH	5LCAA00273			
L19	COIL	LAL03VB471K	470UH	5LCAA00270			
L20	COIL	LAL03VBR33M	0.33UH	5LCAA00274			
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-6PCJD00158B		6PCJD00158			
R1	RESISTOR FXD	ERD-S1VJ390T		5RDAAA00590			
R2	RESISTOR FXD	ERD-S1VJ390T		5RDAAA00590			
R3	RESISTOR FXD	ERD-S1VJ100T		5RDAAA01712			
R4	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576			
R5	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576			
R6	RESISTOR FXD	ERJ-8GCSJ471T	1/8W 470 OHM	5REAG00579			
R7	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572			
R8	RESISTOR FXD	ERJ-8GCSJ470T	1/8W 47 OHM	5REAG00580			
R9	RESISTOR FXD	ERJ-8GCSJ470T	1/8W 47 OHM	5REAG00580			
R10	RESISTOR FXD	ERJ-8GCSJ470T	1/8W 47 OHM	5REAG00580			
R11	RESISTOR FXD	ERJ-8GCSJ470T	1/8W 47 OHM	5REAG00580			
R12	RESISTOR FXD	ERJ-8GCSJ470T	1/8W 47 OHM	5REAG00580			
R13	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586			
R14	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586			
R15	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586			
R16	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586			
R17	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586			
R18	RESISTOR FXD	ERJ-8GCSJ104T	1/8W 100K OHM	5REAG00587			
R19	RESISTOR FXD	ERJ-8GCSJ104T	1/8W 100K OHM	5REAG00587			
R20	RESISTOR FXD	ERJ-8GCSJ104T	1/8W 100K OHM	5REAG00587			
R21	RESISTOR FXD	ERJ-8GCSJ104T	1/8W 100K OHM	5REAG00587			
R22	RESISTOR FXD	ERJ-8GCSJ104T	1/8W 100K OHM	5REAG00587			
R23	RESISTOR FXD	ERJ-8GCSJ104T	1/8W 100K OHM	5REAG00587			
R24	RESISTOR FXD	ERJ-8GCSJ104T	1/8W 100K OHM	5REAG00587			

PARTS LIST

PARTS NO		PARTS NAME		TYPE		DESCRIPTION		CODE	
HF TUNE		TITLE		CFL-205		SHEET NO.		7	
R25	RESISTOR	FXD	ERJ-8GCSJ104T	1/8W	100K	OHM	SREAG00587		
R26	RESISTOR	FXD	ERJ-8GCSJ104T	1/8W	100K	OHM	SREAG00587		
R27	RESISTOR	FXD	ERJ-8GCSJ104T	1/8W	100K	OHM	SREAG00587		
R28	RESISTOR	FXD	ERJ-8GCSJ104T	1/8W	100K	OHM	SREAG00587		
R29	RESISTOR	FXD	ERJ-8GCSJ104T	1/8W	100K	OHM	SREAG00587		
R30	RESISTOR	FXD	ERJ-8GCSJ104T	1/8W	100K	OHM	SREAG00587		
R31	RESISTOR	FXD	ERJ-8GCSJ104T	1/8W	100K	OHM	SREAG00587		
R32	RESISTOR	FXD	ERJ-8GCSJ104T	1/8W	100K	OHM	SREAG00587		
R33	RESISTOR	FXD	ERJ-8GCSJ470T	1/8W	47	OHM	SREAG00580		
R34	RESISTOR	FXD	ERJ-8GCSJ821T	1/8W	820	OHM	SREAG00636		
R35	RESISTOR	FXD	ERJ-8GCRK5R6T	1/8W	5/6	OHM	SREAG00595		
R36	RESISTOR	FXD	ERJ-8GCRK5R6T	1/8W	5/6	OHM	SREAG00595		
R37	RESISTOR	FXD	ERJ-8GCSJ221T	1/8W	220	OHM	SREAG00594		
R38	RESISTOR	FXD	ERJ-8GCSJ221T	1/8W	220	OHM	SREAG00594		
R39	RESISTOR	FXD	ERJ-8GCSJ103T	1/8W	10K	OHM	SREAG00576		
R40	RESISTOR	FXD	ERJ-8GCSJ470T	1/8W	47	OHM	SREAG00580		
R41	RESISTOR	FXD	ERJ-8GCSJ102T	1/8W	1K	OHM	SREAG00572		
R42	RESISTOR	FXD	ERJ-8GCSJ102T	1/8W	1K	OHM	SREAG00572		
R43	RESISTOR	FXD	ERJ-8GCSJ470T	1/8W	47	OHM	SREAG00580		
R44	RESISTOR	FXD	ERJ-8GCSJ221T	1/8W	220	OHM	SREAG00594		
R45	RESISTOR	FXD	ERJ-8GCSJ221T	1/8W	220	OHM	SREAG00594		
R46	RESISTOR	FXD	ERJ-8GCRK5R6T	1/8W	5/6	OHM	SREAG00595		
R47	RESISTOR	FXD	ERJ-8GCSJ101T	1/8W	100	OHM	SREAG00586		
R48	RESISTOR	FXD	ERJ-8GCSJ101T	1/8W	100	OHM	SREAG00586		
R49	RESISTOR	FXD	ERJ-8GCSJ330T	1/8W	33	OHM	SREAG00620		
R50	RESISTOR	FXD	ERJ-8GCSJ151T	1/8W	150	OHM	SREAG00583		
R51	RESISTOR	FXD	ERJ-8GCSJ682T	1/8W	6.8K	OHM	SREAG00577		
R52	RESISTOR	FXD	ERJ-8GCSJ332T	1/8W	3.3K	OHM	SREAG00589		
R53	RESISTOR	FXD	ERJ-8GCSJ222T	1/8W	2.2K	OHM	SREAG00575		
R54	RESISTOR	FXD	ERJ-8GCSJ103T	1/8W	10K	OHM	SREAG00576		
R55	RESISTOR	FXD	ERJ-8GCSJ103T	1/8W	10K	OHM	SREAG00576		
R56	RESISTOR	FXD	ERJ-8GCSJ473T	1/8W	47K	OHM	SREAG00578		
R57	RESISTOR	FXD	ERJ-8GCSJ103T	1/8W	10K	OHM	SREAG00576		
R58	RESISTOR	FXD	ERJ-8GCSJ103T	1/8W	10K	OHM	SREAG00576		
R59	RESISTOR	FXD	ERJ-8GCSJ101T	1/8W	100	OHM	SREAG00586		

PARTS LIST

PARTS NO		PARTS NAME		TYPE		DESCRIPTION		CODE	
HF TUNE		TITLE		CFL-205		SHEET NO.		8	
R60	RESISTOR	FXD	ERJ-8GCSJ470T	1/8W	47	OHM	SREAG00580		
R61	RESISTOR	FXD	ERJ-8GCSJ101T	1/8W	100	OHM	SREAG00586		
R62	RESISTOR	FXD	ERJ-8GCSJ470T	1/8W	47	OHM	SREAG00580		
RA1	RESISTOR		IHR-7-473JA				SRZAB00955		
RJ1	RESISTOR	FXD	ERJ-8GCSOR00T	0	OHM		SREAG00590		
RJ2	RESISTOR	FXD	ERJ-8GCSOR00T	0	OHM		SREAG00590		
RJ3	RESISTOR	FXD	ERJ-8GCSOR00T	0	OHM		SREAG00590		
RJ4	RESISTOR	FXD	ERJ-8GCSOR00T	0	OHM		SREAG00590		
RJ5	RESISTOR	FXD	ERJ-8GCSOR00T	0	OHM		SREAG00590		
RJ6	RESISTOR	FXD	ERJ-8GCSOR00T	0	OHM		SREAG00590		
RJ7	RESISTOR	FXD	ERJ-8GCSOR00T	0	OHM		SREAG00590		
RJ8	RESISTOR	FXD	ERJ-8GCSOR00T	0	OHM		SREAG00590		
RJ9	RESISTOR	FXD	ERJ-8GCSOR00T	0	OHM		SREAG00590		
RJ10	RESISTOR	FXD	ERJ-8GCSOR00T	0	OHM		SREAG00590		
RJ11	RESISTOR	FXD	ERJ-8GCSOR00T	0	OHM		SREAG00590		
RJ12	RESISTOR	FXD	ERJ-8GCSOR00T	0	OHM		SREAG00590		
RJ13	RESISTOR	FXD	ERJ-8GCSOR00T	0	OHM		SREAG00590		
RJ14	RESISTOR	FXD	ERJ-8GCSOR00T	0	OHM		SREAG00590		
RJ15	RESISTOR	FXD	ERJ-8GCSOR00T	0	OHM		SREAG00590		
RV1	RESISTOR	VAR	EVN-D1A00B23				SRVAB00323		
T1	RF XFMR		H-6LHJDD00441				6LHJDD00441		
T2	RF XFMR		H-6LHJDD00441				6LHJDD00441		
T3	RF XFMR		H-6LHJDD00442				6LHJDD00442		
T4	RF XFMR		H-6LHJDD00442				6LHJDD00442		
T5	RF XFMR		H-6LHJDD00385				6LHJDD00385		
T6	RF XFMR		H-6LHJDD00385				6LHJDD00385		
T7	RF XFMR		H-6LHJDD00384				6LHJDD00384		
T8	RF XFMR		H-6LHJDD00384				6LHJDD00384		
T9	RF XFMR		H-6LHJDD00383				6LHJDD00383		
T10	RF XFMR		H-6LHJDD00383				6LHJDD00383		
T11	RF XFMR		H-6LHJDD00410				6LHJDD00410		
T12	RF XFMR		H-6LHJDD00440				6LHJDD00440		
TP1	TEST TERMINAL		PCN6-PEA				5JDA00364		
TP2	TEST TERMINAL		PCN6-PEA				5JDA00364		
TR1	TRANSISTOR		2SA1162-Y TE85L				5TAAG00182		

PARTS LIST

HF TUNE		TITLE		SHEET NO.	
HF TUNE		CFL-205		9	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
TR2	TRANSISTOR	2SK125		5TKAH00002	
TR3	TRANSISTOR	2SK125		5TKAH00002	
TR4	TRANSISTOR	2SK125		5TKAH00002	
TR5	TRANSISTOR	2SK125		5TKAH00002	
TR6	TRANSISTOR	2SC1254		5TCAB00024	
TR7	TRANSISTOR	2SA1162-Y	TE85L	5TAAG00182	
TR8	TRANSISTOR	2SC2712Y	TE85L	5TAAG00186	

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PARTS LIST

IF FILTER		TITLE CFH-36		SHEET NO. 2	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	

C36	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C37	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C38	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C39	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C40	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C41	CAP,FXD	TANTAL	202L3502 105MB	35V 1UF	5CSAC00982
C42	CAP,FXD	ELCTLT	ECE-A1EU100B		5CEAA01864
C43	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C44	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C45	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C46	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C47	CAP,FXD	CER	C3216CH1H271J-E-TP		5CAAD00883
C48	CAP,FXD	CER	C3216CH1H271J-E-TP		5CAAD00883
C49	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C50	CAP,FXD	CER	C3216CH1H271J-E-TP		5CAAD00883
C51	CAP,FXD	CER	C3216CH1H271J-E-TP		5CAAD00883
C52	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C53	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C54	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C55	CAP,FXD	CER	C3216CH1H680J-E-TP	68PF	5CAAD00929
C56	CAP,FXD	CER	C3216CH1H680J-E-TP	68PF	5CAAD00929
C57	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C58	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C59	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C60	CAP,FXD	CER	C3216CH1H680J-E-TP	68PF	5CAAD00929
C61	CAP,FXD	CER	C3216CH1H680J-E-TP	68PF	5CAAD00929
C62	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C63	CAP,FXD	CER	C3216CH1H050C-E-TP	5P	5CAAD00800
C64	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C65	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C66	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C67	CAP,FXD	ELCTLT	ECE-A1EU100B		5CEAA01864
C68	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C69	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C70	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789

PARTS LIST

IF FILTER		TITLE CFH-36		SHEET NO. 1	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	

C1	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C2	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C3	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C4	CAP,FXD	CER	C3216CH1H020C-E-TP	2P	5CAAD00798
C5	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C6	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C7	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C8	CAP,FXD	CER	C3216CH1H220J-E-TP	22P	5CAAD00869
C9	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C10	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C11	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C12	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C13	CAP,FXD	CER	C3216CH1H470J-E-TP	47P	5CAAD00864
C14	CAP,FXD	CER	C3216CH1H470J-E-TP	47P	5CAAD00864
C15	CAP,FXD	CER	C3216CH1H680J-E-TP	68PF	5CAAD00929
C16	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C17	CAP,FXD	ELCTLT	ECE-A1EU100B		5CEAA01864
C18	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C19	CAP,FXD	CER	C3216CH1H151J-E-TP	150P	5CAAD00870
C20	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C21	CAP,FXD	ELCTLT	ECE-A1EU100B		5CEAA01864
C22	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C23	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C24	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C25	CAP,FXD	CER	C3216CH1H220J-E-TP	22P	5CAAD00869
C26	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C27	CAP,FXD	CER	C3216CH1H101J-E-TP	100PF	5CAAD00780
C28	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C29	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C30	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C31	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C32	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C33	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C34	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C35	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056

IF FILTER		TITLE CFH-36		IF FILTER		TITLE CFH-36	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	PARTS NO	PARTS NAME	TYPE	DESCRIPTION
L5	COIL	LAL04NA331K		L5	COIL	LAL04NA331K	220UH
L6	COIL	LAL03VB221K		L6	COIL	LAL03VB221K	10UH
L7	COIL	LAL04NA221K		L7	CONNECTOR	EC1C-22P-2.5DSA	22P
L8	COIL	LAL03VB100K		P29	CONNECTOR	EC1C-22P-2.5DSA	22P
P29	CONNECTOR	EC1C-22P-2.5DSA		P30	CONNECTOR	EC1C-22P-2.5DSA	22P
P30	CONNECTOR	EC1C-22P-2.5DSA		PC1	PCB	H-6PCJDD00159B	
R1	RESISTOR	FXD ERJ-8GCSJ102T		R1	RESISTOR	FXD ERJ-8GCSJ102T	1/8W 1K OHM
R2	RESISTOR	FXD ERJ-8GCSJ102T		R2	RESISTOR	FXD ERJ-8GCSJ102T	1/8W 1K OHM
R3	RESISTOR	FXD ERJ-8GCSJ330T		R3	RESISTOR	FXD ERJ-8GCSJ330T	1/8W 33 OHM
R4	RESISTOR	FXD ERJ-8GCSJ330T		R4	RESISTOR	FXD ERJ-8GCSJ330T	1/8W 33 OHM
R5	THERMISTOR	23D25		R5	THERMISTOR	23D25	
R6	RESISTOR	FXD ERJ-8GCSJ821T		R6	RESISTOR	FXD ERJ-8GCSJ821T	1/8W 820 OHM
R7	RESISTOR	FXD ERJ-8GCSJ332T		R7	RESISTOR	FXD ERJ-8GCSJ332T	1/8W 3.3K OHM
R8	RESISTOR	FXD ERJ-8GCSJ101T		R8	RESISTOR	FXD ERJ-8GCSJ101T	1/8W 100 OHM
R9	RESISTOR	FXD ERJ-8GCSJ222T		R9	RESISTOR	FXD ERJ-8GCSJ222T	1/8W 2.2K OHM
R10	RESISTOR	FXD ERJ-8GCSJ222T		R10	RESISTOR	FXD ERJ-8GCSJ222T	1/8W 2.2K OHM
R11	RESISTOR	FXD ERJ-8GCSJ101T		R11	RESISTOR	FXD ERJ-8GCSJ101T	1/8W 100 OHM
R12	RESISTOR	FXD ERJ-8GCSJ123T		R12	RESISTOR	FXD ERJ-8GCSJ123T	1/8W 12K OHM
R13	RESISTOR	FXD ERJ-8GCSJ123T		R13	RESISTOR	FXD ERJ-8GCSJ123T	1/8W 12K OHM
R14	RESISTOR	FXD ERJ-8GCSJ681T		R14	RESISTOR	FXD ERJ-8GCSJ681T	1/8W 680 OHM
R15	RESISTOR	FXD ERJ-8GCSJ470T		R15	RESISTOR	FXD ERJ-8GCSJ470T	1/8W 47 OHM
R16	RESISTOR	FXD ERJ-8GCSJ222T		R16	RESISTOR	FXD ERJ-8GCSJ222T	1/8W 2.2K OHM
R17	RESISTOR	FXD ERJ-8GCSJ122T		R17	RESISTOR	FXD ERJ-8GCSJ122T	1/8W 1.2K OHM
R18	RESISTOR	FXD ERJ-8GCSJ471T		R18	RESISTOR	FXD ERJ-8GCSJ471T	1/8W 470 OHM
R19	RESISTOR	FXD ERJ-8GCSJ470T		R19	RESISTOR	FXD ERJ-8GCSJ470T	1/8W 47 OHM
R20	RESISTOR	FXD ERJ-8GCSJ102T		R20	RESISTOR	FXD ERJ-8GCSJ102T	1/8W 1K OHM
R21	RESISTOR	FXD ERJ-8GCSJ472T		R21	RESISTOR	FXD ERJ-8GCSJ472T	1/8W 4.7K OHM
R22	RESISTOR	FXD ERJ-8GCSJ101T		R22	RESISTOR	FXD ERJ-8GCSJ101T	1/8W 100 OHM
R23	RESISTOR	FXD ERJ-8GCSJ332T		R23	RESISTOR	FXD ERJ-8GCSJ332T	1/8W 3.3K OHM
R24	RESISTOR	FXD ERJ-8GCSJ101T		R24	RESISTOR	FXD ERJ-8GCSJ101T	1/8W 100 OHM
R25	RESISTOR	FXD ERJ-8GCSJ104T		R25	RESISTOR	FXD ERJ-8GCSJ104T	1/8W 100K OHM
R26	RESISTOR	FXD ERJ-8GCSJ221T		R26	RESISTOR	FXD ERJ-8GCSJ221T	1/8W 220 OHM
R27	RESISTOR	FXD ERJ-8GCSJ333T		R27	RESISTOR	FXD ERJ-8GCSJ333T	1/8W 33K OHM
R28	RESISTOR	FXD ERJ-8GCSJ122T		R28	RESISTOR	FXD ERJ-8GCSJ122T	1/8W 1.2K OHM

IF FILTER		TITLE CFH-36		IF FILTER		TITLE CFH-36	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	PARTS NO	PARTS NAME	TYPE	DESCRIPTION
C71	CAP,FXD	CER C3216SL1H102J-E-TP	1000P	5CAAD00782			
C72	CAP,FXD	CER C3216F1H104Z-E-TP	0.1UF	5CAAD01056			
C73	CAP,FXD	CER C3216CH1H050C-E-TP	5P	5CAAD00800			
C74	CAP,FXD	CER C3216B1H103K-E-TP	0.01UF	5CAAD00789			
C75	CAP,FXD	CER C3216B1H103K-E-TP	0.01UF	5CAAD00789			
C76	CAP,FXD	CER C3216F1H104Z-E-TP	0.1UF	5CAAD01056			
C77	CAP,FXD	CER C3216F1H104Z-E-TP	0.1UF	5CAAD01056			
C78	CAP,FXD	CER C3216F1H104Z-E-TP	0.1UF	5CAAD01056			
C79	CAP,FXD	CER C3216F1H104Z-E-TP	0.1UF	5CAAD01056			
C80	CAP,FXD	CER C3216CH1H100D-E-TP	10PF	5CAAD00785			
C81	CAP,FXD	CER C3216CH1H100D-E-TP	10PF	5CAAD00785			
CD1	DIODE	1SS226 TE85L		5TXAD00320			
CD2	DIODE	1SS226 TE85L		5TXAD00320			
CD3	DIODE	RD5.1MB1-T1		5TXAA00515			
CD4	DIODE	1SS226 TE85L		5TXAD00320			
CD5	DIODE	1SS181 TE85L		5TXAD00356			
CD6	DIODE	1SS181 TE85L		5TXAD00356			
CD7	DIODE	1SS181 TE85L		5TXAD00356			
CD8	DIODE	1SS181 TE85L		5TXAD00356			
CD9	DIODE	1SS226 TE85L		5TXAD00320			
CD10	DIODE	1SS181 TE85L		5TXAD00356			
CD11	DIODE	1SS181 TE85L		5TXAD00356			
CD12	DIODE	1SS226 TE85L		5TXAD00320			
CD13	DIODE	1SS181 TE85L		5TXAD00356			
CD15	DIODE	1SS184 TE85L		5TXAD00290			
CV1	CAPACITOR	VAR TZ03T200FR		5CVAA00166			
FL1	CRYSTAL	CKT H-6XWJDD00114	70.455MHZ	6XWJDD00114			
FL2	COIL	LF-B12		5LFAE00009			
FL3	FILTER	CLF-D6S	BW=6KHZ	5NRAD00001			
FL4	FILTER	MF-31C		5NMAA00019			
IC1	IC	HD74LS145P		5DDAF00704			
L1	COIL	LAL03VBR33M	0.33UH	5LCAA00274			
L2	COIL	LAL03VB471K	470UH	5LCAA00270			
L3	COIL	LAL03VB471K	470UH	5LCAA00270			
L4	COIL	LAL03VB331K	330UH	5LCAA00271			

PARTS LIST

PARTS NO		IF FILTER		TITLE CFH-36		SHEET NO. 5	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE			
R29	RESISTOR FXD	ERJ-8GCSJ332T	1/8W 3.3K OHM	5REAG00589			
R30	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572			
R31	RESISTOR FXD	ERJ-8GCSJ472T	1/8W 4.7K OHM	5REAG00573			
R32	RESISTOR FXD	ERJ-8GCSJ332T	1/8W 3.3K OHM	5REAG00589			
R33	RESISTOR FXD	ERJ-8GCSJ151T	1/8W 150 OHM	5REAG00583			
R34	RESISTOR FXD	ERJ-8GCSJ222T	1/8W 2.2K OHM	5REAG00575			
R35	RESISTOR FXD	ERJ-8GCSJ333T	1/8W 33K OHM	5REAG00592			
R36	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572			
R37	RESISTOR FXD	ERJ-8GCSJ472T	1/8W 4.7K OHM	5REAG00573			
R38	RESISTOR FXD	ERJ-8GCSJ332T	1/8W 3.3K OHM	5REAG00589			
R39	RESISTOR FXD	ERJ-8GCSJ151T	1/8W 150 OHM	5REAG00583			
R40	RESISTOR FXD	ERJ-8GCSJ222T	1/8W 2.2K OHM	5REAG00575			
R41	RESISTOR FXD	ERJ-8GCSJ333T	1/8W 33K OHM	5REAG00592			
R42	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572			
R43	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576			
R44	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572			
R45	RESISTOR FXD	ERJ-8GCSJ153T	1/8W 15K OHM	5REAG00596			
R46	RESISTOR FXD	ERJ-8GCSJ104T	1/8W 100K OHM	5REAG00587			
R47	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576			
R48	RESISTOR FXD	ERJ-8GCSJ332T	1/8W 3.3K OHM	5REAG00589			
R49	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576			
R51	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576			
R52	RESISTOR FXD	ERJ-8GCSJ334T	1/8W 330K OHM	5REAG00532			
R53	RESISTOR FXD	ERJ-8GCSJ223T	1/8W 22K OHM	5REAG00581			
R54	RESISTOR FXD	ERJ-8GCSJ472T	1/8W 4.7K OHM	5REAG00573			
R55	RESISTOR FXD	ERJ-8GCSJ472T	1/8W 4.7K OHM	5REAG00573			
R56	RESISTOR FXD	ERJ-8GCSJ222T	1/8W 2.2K OHM	5REAG00575			
R57	RESISTOR FXD	ERJ-8GCSJ223T	1/8W 22K OHM	5REAG00581			
R58	RESISTOR FXD	ERJ-8GCSJ223T	1/8W 22K OHM	5REAG00581			
R59	RESISTOR FXD	ERJ-8GCSJ122T	1/8W 1.2K OHM	5REAG00585			
R60	RESISTOR FXD	ERJ-8GCSJ122T	1/8W 1.2K OHM	5REAG00585			
R61	RESISTOR FXD	ERJ-8GCSJ122T	1/8W 1.2K OHM	5REAG00585			
R62	RESISTOR FXD	ERJ-8GCSJ122T	1/8W 1.2K OHM	5REAG00585			
R63	RESISTOR FXD	ERJ-8GCSJ122T	1/8W 1.2K OHM	5REAG00585			
R64	RESISTOR FXD	ERJ-8GCSJ122T	1/8W 1.2K OHM	5REAG00585			

PARTS LIST

PARTS NO		IF FILTER		TITLE CFH-36		SHEET NO. 6	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE			
R65	RESISTOR FXD	ERJ-8GCSJ122T	1/8W 1.2K OHM	5REAG00585			
R66	RESISTOR FXD	ERJ-8GCSJ122T	1/8W 1.2K OHM	5REAG00585			
R67	RESISTOR FXD	ERJ-8GCSJ122T	1/8W 1.2K OHM	5REAG00585			
R68	RESISTOR FXD	ERJ-8GCSJ122T	1/8W 1.2K OHM	5REAG00585			
R69	RESISTOR FXD	ERJ-8GCSJ821T	1/8W 820 OHM	5REAG00036			
R70	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586			
R71	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586			
R72	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586			
R73	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586			
R74	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586			
R75	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586			
RA1	RESISTOR	IHR-5-473JA	47K OHM X5	5RZAB00419			
RJ1	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590			
RJ2	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590			
RJ3	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590			
RJ5	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590			
RJ6	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590			
RJ7	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590			
RJ8	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590			
RJ9	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590			
RJ10	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590			
RJ11	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590			
RJ12	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590			
RJ13	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590			
RJ14	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590			
RJ15	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590			
RJ16	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590			
RJ17	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590			
RJ18	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590			
RJ19	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590			
RJ20	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590			
RJ21	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590			
RJ22	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590			
RJ23	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590			
RJ24	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590			

PARTS LIST

PARTS NO	PARTS NAME	TYPE	TITLE		DESCRIPTION	CODE
			IF FILTER	CFH-36		
RJ25	RESISTOR FXD	ERJ-8GCSRD00T			0 OHM	5REAG00590
RV1	RESISTOR VAR	EVN-D4A00B54				5RVAB00317
RV2	RESISTOR VAR	EVN-D1A00B22				5RVAB00320
T1	RF XFMR	H-6LHJD00415			70.455MHZ	6LHJD00415
T2	RF XFMR	H-6LHJD00415			70.455MHZ	6LHJD00415
T3	RF XFMR	H-6LHJD00416			0.95UH	6LHJD00416
T4	RF XFMR	H-6LHJD00456				6LHJD00456
T5	RF XFMR	H-6LHJD00389				6LHJD00389
T6	RF XFMR	H-6LHJD00390A				6LHJD00390
T7	RF XFMR	H-6LHJD00390A				6LHJD00390
T8	RF XFMR	H-6LHJD00297				6LHJD00297
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	3SK77-GR				5TKA00108
TR2	TRANSISTOR	2SK125				5TKA00002
TR3	TRANSISTOR	2SK125				5TKA00002
TR4	TRANSISTOR	2SC2714Y TE85L				5TCAF00436
TR5	TRANSISTOR	3SK77-GR				5TKA00108
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-Y TE85L				5TAA000182
W1	TIN COATED WIRE	TA-0.8P				2717100002
W2	TIN COATED WIRE	TA-0.8P				2717100002

PARTS LIST

IF AF AMP		TITLE CAE-182		SHEET NO. 1	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
C1	CAP,FXD CER	C3216CH1H680J-E-TP	68PF	5CAAD00929	
C2	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864	
C3	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	
C4	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	
C5	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	
C6	CAP,FXD TANTAL	202L2502 225MB	2.2UF 25V	5CSAC01129	
C7	CAP,FXD CER	C3216CH1H101J-E-TP	100PF	5CAAD00780	
C8	CAP,FXD CER	C3216SL1H102J-E-TP	1000P	5CAAD00782	
C9	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	
C10	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	
C11	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	
C12	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	
C13	CAP,FXD TANTAL	202L3502 224MB	0.22UF 35V	5CSAC00988	
C14	CAP,FXD TANTAL	202L3502 224MB	0.22UF 35V	5CSAC00988	
C15	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864	
C16	CAP,FXD TANTAL	202L3502 105MB	35V 1UF	5CSAC00982	
C17	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864	
C18	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864	
C19	CAP,FXD CER	C3216SL1H222J-E-TP	2200P	5CAAD00792	
C20	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	
C21	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864	
C22	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	
C23	CAP,FXD CER	C3216SL1H102J-E-TP	1000P	5CAAD00782	
C24	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864	
C25	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789	
C26	CAP,FXD ELCTLT	ECE-A1EU330B		5CEAA01822	
C27	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	
C28	CAP,FXD ELCTLT	ECE-A1EU221B	25V 220UF	5CEAA01786	
C29	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864	
C30	CAP,FXD TANTAL	202L3502 224MB	0.22UF 35V	5CSAC00988	
C31	CAP,FXD ELCTLT	ECE-A1EU221B	25V 220UF	5CEAA01786	
C32	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789	
C33	CAP,FXD CER	C3216CH1H101J-E-TP	100PF	5CAAD00780	
C34	CAP,FXD CER	C3216CH1H101J-E-TP	100PF	5CAAD00780	
C35	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	

PARTS LIST

IF AF AMP		TITLE CAE-182		SHEET NO. 2	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
C36	CAP,FXD CER	C3216CH1H151J-E-TP	150P	5CAAD00870	
C37	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789	
C38	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864	
C39	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	
C40	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	
C41	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789	
C42	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	
C43	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	
C44	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789	
C45	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	
C46	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	
C47	CAP,FXD CER	C3216CH1H221J-E-TP	220P	5CAAD00790	
C48	CAP,FXD CER	C3216CH1H221J-E-TP	220P	5CAAD00790	
C49	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	
C50	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	
C51	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	
C52	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	
C53	CAP,FXD ELCTLT	ECE-A1EU330B		5CEAA01822	
C54	CAP,FXD CER	C3216SL1H222J-E-TP	2200P	5CAAD00792	
C55	CAP,FXD CER	C3216B1E333J-E-TP		5CAAD01055	
C56	CAP,FXD TANTAL	202L3502 474MB		5CSAC01065	
C57	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789	
C58	CAP,FXD TANTAL	202L3502 474MB		5CSAC01065	
C59	CAP,FXD TANTAL	202L3502 474MB		5CSAC01065	
C60	CAP,FXD CER	C3216CH1H101J-E-TP	100PF	5CAAD00780	
C61	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	
C62	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864	
C63	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864	
C64	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789	
C65	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	
C66	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	
C67	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	
C68	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	
C69	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	
C70	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	

PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE
C71	CAP,FXD CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C72	CAP,FXD CER	C3216CH1H101J-E-TP	100PF	5CAAD00780
C73	CAP,FXD CER	C3216CH1H221J-E-TP	220P	5CAAD00790
C74	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C75	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864
C76	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C77	CAP,FXD TANTAL	202L3502 224MB	0.22UF 35V	5CSAC00988
C78	CAP,FXD TANTAL	202L3502 224MB	0.22UF 35V	5CSAC00988
C79	CAP,FXD TANTAL	202L2502 475MB		5CSAC00934
C80	CAP,FXD TANTAL	202L3502 105MB	35V 1UF	5CSAC00982
C81	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C82	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864
C83	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C84	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C85	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C86	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C87	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C88	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C89	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C90	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C91	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864
C92	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C93	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C94	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C95	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C96	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C97	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C98	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C99	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864
C100	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C101	CAP,FXD CER	C3216B1E333J-E-TP		5CAAD01055
C102	CAP,FXD TANTAL	202L3502 105MB	35V 1UF	5CSAC00982
CD1	DIODE	1SS226 TE85L		5TXAD00320
CD2	DIODE	1SS226 TE85L		5TXAD00320
CD3	DIODE	1SS226 TE85L		5TXAD00320

PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE
CD4	DIODE	1SS226 TE85L		5TXAD00320
CD5	DIODE	1SS184 TE85L		5TXAD00290
CD6	DIODE	1SS184 TE85L		5TXAD00290
CD7	DIODE	1SS184 TE85L		5TXAD00290
CD8	DIODE	1SS184 TE85L		5TXAD00290
CD9	DIODE	1SS181 TE85L		5TXAD00356
CD10	DIODE	1SS184 TE85L		5TXAD00290
CD11	DIODE	1SS181 TE85L		5TXAD00356
CD12	DIODE	1SS226 TE85L		5TXAD00320
CD13	DIODE	1SV149B		5TXAD00332
CD14	DIODE	1SV149B		5TXAD00332
CD15	LED	TLR102A		5TZAD00020
CD16	DIODE	1SS184 TE85L		5TXAD00290
IC1	IC	SM16913P		5DDAL00301
IC2	IC	TC4052BP		5DDAE00208
IC3	IC	M5223P		5DDAB00171
IC4	IC	TA7222AP		5DAAD00070
IC4-1	HEAT SINK	MPTH00638A		MPTH00638A
IC5	IC	M5218P		5DDAB00152
IC6	IC	M5223P		5DDAB00171
IC7	IC	TC4066BP		5DDAE00078
IC8	IC	TC4066BP		5DDAE00078
IC9	IC	M5223P		5DDAB00171
IC10	IC	MC3361P		5DDAS00080
J1	CONNECTOR	IL-G-2P-S3L2-E		5JWAD00094
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
JP5	TIN COATED WIRE	TA-0.6P		2717100001
L1	COIL	LAL03VB221K	220UH	5LCAA00272
L2	COIL	FL-7H472J	4.7MH	5LCAA00023
L3	COIL	LAL03VB100K	10UH	5LCAA00273
P27	CONNECTOR	EC1C-22P-2.5DSA	22P	5JWBS00070
P28	CONNECTOR	EC1C-22P-2.5DSA	22P	5JWBS00070

PARTS LIST

SHEET NO. 5

SHEET NO. 6

IF AF AMP TITLE CAE-182

PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE
PC1	PCB	H-6PCJD00160B		6PCJD00160
R1	RESISTOR FXD	ERJ-8GCSJ223T	1/8W 22K OHM	5REAG00581
R2	RESISTOR FXD	ERJ-8GCSJ474T	1/8W 470K OHM	5REAG00593
R3	RESISTOR FXD	ERJ-8GCSJ682T	1/8W 6.8K OHM	5REAG00577
R4	RESISTOR FXD	ERJ-8GCSJ332T	1/8W 3.3K OHM	5REAG00589
R5	RESISTOR FXD	ERJ-8GCSJ822T	1/8W 8.2K OHM	5REAG00584
R6	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R7	RESISTOR FXD	ERJ-8GCSJ473T	1/8W 47K OHM	5REAG00578
R8	RESISTOR FXD	ERJ-8GCSJ563T	1/8W 56K OHM	5REAG00627
R9	RESISTOR FXD	ERJ-8GCSJ562T	1/8W 5.6K OHM	5REAG00625
R10	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R11	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572
R12	RESISTOR FXD	ERJ-8GCSJ105T	1/8W 1M OHM	5REAG00772
R13	RESISTOR FXD	ERJ-8GCSJ105T	1/8W 1M OHM	5REAG00772
R14	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R15	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R16	RESISTOR FXD	ERJ-8GCSJ473T	1/8W 47K OHM	5REAG00578
R17	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R18	RESISTOR FXD	ERJ-8GCSJ222T	1/8W 2.2K OHM	5REAG00575
R19	RESISTOR FXD	ERJ-8GCSJ221T	1/8W 220 OHM	5REAG00594
R20	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572
R21	RESISTOR FXD	ERJ-8GCSJ221T	1/8W 220 OHM	5REAG00594
R22	RESISTOR FXD	ERJ-8GCSJ562T	1/8W 5.6K OHM	5REAG00625
R23	RESISTOR FXD	ERJ-8GCSJ472T	1/8W 4.7K OHM	5REAG00573
R24	RESISTOR FXD	ERJ-8GCSJ220T	1/8W 22 OHM	5REAG00619
R25	RESISTOR FXD	ERJ-8GCSJ473T	1/8W 47K OHM	5REAG00578
R26	RESISTOR FXD	ERJ-8GCSJ104T	1/8W 100K OHM	5REAG00587
R27	RESISTOR FXD	ERJ-8GCSJ473T	1/8W 47K OHM	5REAG00578
R28	RESISTOR FXD	ERJ-8GCSJ563T	1/8W 56K OHM	5REAG00627
R29	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R30	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572
R31	RESISTOR FXD	ERJ-8GCSJ474T	1/8W 470K OHM	5REAG00593
R32	RESISTOR FXD	ERJ-8GCSJ104T	1/8W 100K OHM	5REAG00587
R33	RESISTOR FXD	ERJ-8GCSJ104T	1/8W 100K OHM	5REAG00587
R34	RESISTOR FXD	ERJ-8GCSJ221T	1/8W 220 OHM	5REAG00594
R35	RESISTOR FXD	ERD-50TJ101	1/2W 100 OHM	5RDA000811

PARTS LIST

SHEET NO. 5

SHEET NO. 6

IF AF AMP TITLE CAE-182

PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE
R37	RESISTOR FXD	ERJ-8GCSJ104T	1/8W 100K OHM	5REAG00587
R38	RESISTOR FXD	ERJ-8GCSJ104T	1/8W 100K OHM	5REAG00587
R39	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R40	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R41	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R42	RESISTOR FXD	ERJ-8GCSJ330T	1/8W 33 OHM	5REAG00620
R43	RESISTOR FXD	ERJ-8GCSJ333T	1/8W 33K OHM	5REAG00592
R44	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R45	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R46	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R47	RESISTOR FXD	ERJ-8GCSJ560T	1/8W 56 OHM	5REAG00900
R48	THERMISTOR	13D49 (D-1A)		5RXAB00027
R49	RESISTOR FXD	ERJ-8GCSJ332T	1/8W 3.3K OHM	5REAG00589
R50	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R51	RESISTOR FXD	ERJ-8GCSJ333T	1/8W 33K OHM	5REAG00592
R52	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R53	RESISTOR FXD	ERJ-8GCSJ470T	1/8W 47 OHM	5REAG00580
R54	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R55	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R56	RESISTOR FXD	ERJ-8GCSJ221T	1/8W 220 OHM	5REAG00594
R57	RESISTOR FXD	ERJ-8GCSJ473T	1/8W 47K OHM	5REAG00578
R58	RESISTOR FXD	ERJ-8GCSJ473T	1/8W 47K OHM	5REAG00578
R59	RESISTOR FXD	ERJ-8GCSJ473T	1/8W 47K OHM	5REAG00578
R60	RESISTOR FXD	ERJ-8GCSJ472T	1/8W 4.7K OHM	5REAG00573
R61	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R62	RESISTOR FXD	ERJ-8GCSJ473T	1/8W 47K OHM	5REAG00578
R63	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R64	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R65	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R66	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R67	RESISTOR FXD	ERJ-8GCSJ104T	1/8W 100K OHM	5REAG00587
R68	RESISTOR FXD	ERJ-8GCSJ471T	1/8W 470 OHM	5REAG00579
R69	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R70	RESISTOR FXD	ERJ-8GCSJ105T	1/8W 1M OHM	5REAG00772
R71	RESISTOR FXD	ERJ-8GCSJ105T	1/8W 1M OHM	5REAG00772

PARTS LIST

SHEET NO. 7

SHEET NO. 8

TITLE CAE-182

TITLE CAE-182

IF AF AMP

IF AF AMP

PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE
R72	RESISTOR FXD	ERJ-8GCSJ105T	1/8W 1M OHM	5REAG00772
R73	RESISTOR FXD	ERJ-8GCSJ332T	1/8W 3.3K OHM	5REAG00589
R74	RESISTOR FXD	ERJ-8GCSJ183T	1/8W 18K OHM	5REAG00682
R75	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572
R76	RESISTOR FXD	ERJ-8GCSJ105T	1/8W 1M OHM	5REAG00772
R77	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R78	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R79	RESISTOR FXD	ERJ-8GCSJ473T	1/8W 47K OHM	5REAG00578
R80	RESISTOR FXD	ERJ-8GCSJ472T	1/8W 4.7K OHM	5REAG00573
R81	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R82	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R83	RESISTOR FXD	ERJ-8GCSJ221T	1/8W 220 OHM	5REAG00594
R84	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572
R85	RESISTOR FXD	ERJ-8GCSJ682T	1/8W 6.8K OHM	5REAG00577
R86	RESISTOR FXD	ERJ-8GCSJ472T	1/8W 4.7K OHM	5REAG00573
R87	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572
R88	RESISTOR FXD	ERJ-8GCSJ472T	1/8W 4.7K OHM	5REAG00573
R89	RESISTOR FXD	ERJ-8GCSJ682T	1/8W 6.8K OHM	5REAG00577
R90	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R91	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R92	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R93	RESISTOR FXD	ERJ-8GCSJ223T	1/8W 22K OHM	5REAG00581
R94	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R95	RESISTOR FXD	ERJ-8GCSJ332T	1/8W 3.3K OHM	5REAG00589
R96	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R97	RESISTOR FXD	ERJ-8GCSJ473T	1/8W 47K OHM	5REAG00578
R98	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572
R99	RESISTOR FXD	ERJ-8GCSJ332T	1/8W 3.3K OHM	5REAG00589
R100	RESISTOR FXD	ERJ-8GCSJ333T	1/8W 33K OHM	5REAG00592
R101	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R102	RESISTOR FXD	ERJ-8GCSJ473T	1/8W 47K OHM	5REAG00578
R103	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R104	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572
R105	RESISTOR FXD	ERJ-8GCSJ105T	1/8W 1M OHM	5REAG00772
R106	RESISTOR FXD	ERJ-8GCSJ105T	1/8W 1M OHM	5REAG00772

PARTS LIST

SHEET NO. 7

SHEET NO. 8

TITLE CAE-182

TITLE CAE-182

IF AF AMP

IF AF AMP

PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE
R107	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R108	RESISTOR FXD	ERJ-8GCSJ473T	1/8W 47K OHM	5REAG00578
R109	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R110	RESISTOR FXD	ERJ-8GCSJ473T	1/8W 47K OHM	5REAG00578
R111	RESISTOR FXD	ERJ-8GCSJ473T	1/8W 47K OHM	5REAG00578
R112	RESISTOR FXD	ERJ-8GCSJ472T	1/8W 4.7K OHM	5REAG00573
R113	RESISTOR FXD	ERJ-8GCSJ473T	1/8W 47K OHM	5REAG00578
R114	RESISTOR FXD	ERJ-8GCSJ105T	1/8W 1M OHM	5REAG00772
R115	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572
R116	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R117	RESISTOR FXD	ERJ-8GCSJ472T	1/8W 4.7K OHM	5REAG00573
R118	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R119	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R120	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R121	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R122	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R123	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R124	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R125	RESISTOR FXD	ERJ-8GCSJ153T	1/8W 15K OHM	5REAG00596
R126	RESISTOR FXD	ERJ-8GCSJ104T	1/8W 100K OHM	5REAG00587
R127	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R128	RESISTOR FXD	ERJ-8GCSJ563T	1/8W 56K OHM	5REAG00627
R131	RESISTOR FXD	ERJ-8GCSJ104T	1/8W 100K OHM	5REAG00587
RJ1	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590
RJ2	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590
RJ3	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590
RJ4	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590
RJ5	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590
RJ6	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590
RJ7	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590
RJ8	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590
RJ9	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590
RJ10	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590
RJ11	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590
RJ12	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590

PARTS LIST

IF AF AMP		TITLE CAE-182		SHEET NO. 9	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
RJ13	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ14	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ15	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ16	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ17	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ18	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ19	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ20	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ21	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ22	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ23	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ24	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ25	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ26	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ27	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ28	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ29	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ30	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ31	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ32	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ34	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ35	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ36	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ37	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ38	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ39	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ40	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ41	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ42	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ43	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ44	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ45	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ46	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ47	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ48	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	

PARTS LIST

IF AF AMP		TITLE CAE-182		SHEET NO. 10	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
RJ49	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RJ50	RESISTOR FXD	ERJ-8GCSOR00T	0 OHM	5REAG00590	
RV1	RESISTOR VAR	EVN-D4AA00B-14	10K OHM	5RVAB00279	
RV2	RESISTOR VAR	EVN-D4AA00B-14	10K OHM	5RVAB00279	
RV3	RESISTOR VAR	EVN-D4AA00B-24	20K OHM	5RVAB00278	
RV4	RESISTOR VAR	EVN-D4AA00B-14	10K OHM	5RVAB00279	
RV5	RESISTOR VAR	EVN-D1AA00B23		5RVAB00323	
RV6	RESISTOR VAR	EVN-D1AA00B14		5RVAB00324	
RV7	RESISTOR VAR	EVN-D4AA00B-14	10K OHM	5RVAB00279	
T1	COIL	5D-ELD19A-41		6LAFD00018	
T2	RF XFMR	S-061-006		5LJARA00006	
T3	RF XFMR	S-061-006		5LJARA00006	
T4	RF XFMR	S-061-006		5LJARA00006	
TP1	TEST TERMINAL	PCN6-PEA		5JDA000364	
TP2	TEST TERMINAL	PCN6-PEA		5JDA000364	
TP3	TEST TERMINAL	PCN6-PEA		5JDA000364	
TR1	TRANSISTOR	3SK77-GR		5TKA00108	
TR2	TRANSISTOR	3SK77-GR		5TKA00108	
TR3	TRANSISTOR	3SK77-GR		5TKA00108	
TR4	TRANSISTOR	2SC2712Y TE85L		5TAAG00186	
TR5	TRANSISTOR	2SC2712Y TE85L		5TAAG00186	
TR6	TRANSISTOR	2SC2712Y TE85L		5TAAG00186	
TR7	TRANSISTOR	2SC2712Y TE85L		5TAAG00186	
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	2SC2712Y TE85L		5TAAG00186	
TR14	TRANSISTOR	2SC2712Y TE85L		5TAAG00186	
TR15	TRANSISTOR	2SC2712Y TE85L		5TAAG00186	
TR16	TRANSISTOR	2SA1162-Y TE85L		5TAAG00182	
TR17	TRANSISTOR	2SA1162-Y TE85L		5TAAG00182	
TR18	TRANSISTOR	2SA1162-Y TE85L		5TAAG00182	
X1	RESONATOR	R460C FO+-0.1X		5NNAF00003	

PARTS LIST		TITLE CGA-131		SHEET NO. 1	
LOOP 1					
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
C1	CAP,FXD CER	C3216CH1H101J-E-TP	100PF	5CAAD00780	
C2	CAP,FXD CER	C3216CH1H101J-E-TP	100PF	5CAAD00780	
C3	CAP,FXD CER	C3216CH1H101J-E-TP	100PF	5CAAD00780	
C4	CAP,FXD CER	C3216CH1H101J-E-TP	100PF	5CAAD00780	
C5	CAP,FXD CER	C3216SL1H102J-E-TP	1000P	5CAAD00782	
C6	CAP,FXD CER	C3216CH1H060D-E-TP	6P	5CAAD00799	
C7	CAP,FXD CER	C3216CH1H270J-E-TP	27P	5CAAD00793	
C8	CAP,FXD CER	C3216SL1H102J-E-TP	1000P	5CAAD00782	
C9	CAP,FXD CER	C3216CH1H020C-E-TP	2P	5CAAD00798	
C10	CAP,FXD CER	C3216SL1H102J-E-TP	1000P	5CAAD00782	
C11	CAP,FXD CER	C3216CH1H030C-E-TP	3PF	5CAAD00796	
C12	CAP,FXD CER	C3216CH1H220J-E-TP	22P	5CAAD00869	
C13	CAP,FXD CER	C3216SL1H102J-E-TP	1000P	5CAAD00782	
C14	CAP,FXD CER	C3216CH1H020C-E-TP	2P	5CAAD00798	
C15	CAP,FXD CER	C3216SL1H102J-E-TP	1000P	5CAAD00782	
C16	CAP,FXD CER	C3216CH1H040C-E-TP	4P	5CAAD00801	
C17	CAP,FXD CER	C3216CH1H270J-E-TP	27P	5CAAD00793	
C18	CAP,FXD CER	C3216SL1H102J-E-TP	1000P	5CAAD00782	
C19	CAP,FXD CER	C3216CH1H020C-E-TP	2P	5CAAD00798	
C20	CAP,FXD CER	C3216SL1H102J-E-TP	1000P	5CAAD00782	
C21	CAP,FXD CER		*	6ZZAB02065	
C22	CAP,FXD CER	C3216CH1H220J-E-TP	22P	5CAAD00869	
C23	CAP,FXD CER	C3216SL1H102J-E-TP	1000P	5CAAD00782	
C24	CAP,FXD CER	C3216CH1H100D-E-TP	10PF	5CAAD00785	
C25	CAP,FXD CER	C3216SL1H102J-E-TP	1000P	5CAAD00782	
C26	CAP,FXD CER	C3216CH1H100D-E-TP	10PF	5CAAD00785	
C27	CAP,FXD CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056	
C28	CAP,FXD ELCTLT	ECE-A1EU101B		5CEAA01813	
C29	CAP,FXD CER	C3216SL1H102J-E-TP	1000P	5CAAD00782	
C30	CAP,FXD CER	C3216SL1H102J-E-TP	1000P	5CAAD00782	
C31	CAP,FXD CER	C3216SL1H102J-E-TP	1000P	5CAAD00782	
C32	CAP,FXD CER	C3216SL1H102J-E-TP	1000P	5CAAD00782	
C33	CAP,FXD CER	C3216SL1H102J-E-TP	1000P	5CAAD00782	
C34	CAP,FXD CER	C3216SL1H102J-E-TP	1000P	5CAAD00782	
C48	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864	

PARTS LIST		TITLE CGA-131		SHEET NO. 2	
LOOP 1					
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
C49	CAP,FXD CER	C3216SL1H102J-E-TP	1000P	5CAAD00782	
C50	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864	
C51	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864	
C52	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789	
C53	CAP,FXD CER	C3216SL1H102J-E-TP	1000P	5CAAD00782	
C54	CAP,FXD MICA	DM05C150J1	100WV 15PF	5CMAB00051	
C55	CAP,FXD PLSTC	ECQ-B1H102JZ3	1000PF 50V	5CRAA00585	
C56	CAP,FXD ELCTLT	ECE-A1EU101B		5CEAA01813	
C57	CAP,FXD CER	C3216CH1H221J-E-TP	220P	5CAAD00790	
C58	CAP,FXD CER	C3216SL1H102J-E-TP	1000P	5CAAD00782	
C59	CAP,FXD ELCTLT	ECE-A1EU101B		5CEAA01813	
C60	CAP,FXD TANTAL	202L2502 475MB		5CSAC00934	
C61	CAP,FXD TANTAL	202L3502 225MB		5CSAC01069	
C62	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789	
C63	CAP,FXD ELCTLT	ECE-A1EU100B		5CEAA01864	
C64	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789	
C65	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789	
C66	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789	
C67	CAP,FXD CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789	
CD1	DIODE	1SV68RE		5TXAE00591	
CD2	DIODE	1SV68RE		5TXAE00591	
CD3	DIODE	1SV68RE		5TXAE00591	
CD4	DIODE	1SV68RE		5TXAE00591	
CD5	DIODE	1SV68RE		5TXAE00591	
CD6	DIODE	1SV68RE		5TXAE00591	
CD7	DIODE	1SV68RE		5TXAE00591	
CD8	DIODE	1SV68RE		5TXAE00591	
CD9	DIODE	1SS85RE		5TXAE00590	
CD10	DIODE	1SS85RE		5TXAE00590	
CD11	DIODE	1SS85RE		5TXAE00590	
CD12	DIODE	1SS85RE		5TXAE00590	
CD14	DIODE	1SS181 TE85L		5TXAD00356	
CD15	DIODE	1SS184 TE85L		5TXAD00290	
CD16	LED	TLR102A		5TZAD00020	
CV1	CAPACITOR VAR	TZ03Z070FR		5CVAA00165	

PARTS LIST

PARTS LIST		TITLE CGA-131		SHEET NO. 3	
LOOP 1		LOOP 1		LOOP 1	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
CV2	CAPACITOR VAR	TZ03Z070FR		5CVAAA00165	
CV3	CAPACITOR VAR	TZ03Z070FR		5CVAAA00165	
CV4	CAPACITOR VAR	TZ03Z070FR		5CVAAA00165	
FL1	FILTER	DSS310-55B222M	100V 0.0022UF	5NXXAA00005	
FL2	FILTER	DSS310-55B222M	100V 0.0022UF	5NXXAA00005	
FL3	FILTER	BPEB1		5NBAG00011	
FL4	FILTER	BPEB1		5NBAG00011	
IC1	IC	TA7521P		5DAAD00045	
IC2	IC	MC14016BCP		5DAAJ00351	
IC3	IC	UPC141C		5DAAA00042	
IC5	IC	HD74LS26P		5DDAF00297	
IC6	IC	MC4044P		5DDAS00002	
IC7	IC	HD74LS26P		5DDAF00297	
IC8	IC	UPC1651G		5DAAA00171	
IC9	IC	UPC1651G		5DAAA00171	
L1	COIL	S18(3.5T)J77J		5LAAA00031	
L2	COIL	S18(3.5T)J77J		5LAAA00031	
L3	COIL	S18(2.5T)J77J		5LAAA00032	
L4	COIL	S18(2.5T)J77J		5LAAA00032	
L5	COIL	LAL04NA2R2M		5LCAA00184	
L6	COIL	LAL04NA2R2M		5LCAA00184	
L7	COIL	LAL04NA2R2M		5LCAA00184	
L8	COIL	LAL04NA2R2M		5LCAA00184	
L9	COIL	LAL04NA2R2M		5LCAA00184	
L10	COIL	LAL04NA2R2M		5LCAA00184	
L11	COIL	LAL04NA2R2M		5LCAA00184	
L12	COIL	LAL04NA2R2M		5LCAA00184	
L14	COIL	LAL03VB471K	470UH	5LCAA00270	
L15	COIL	LAL03VB471K	470UH	5LCAA00270	
L19	COIL	LAL03VB471K	470UH	5LCAA00270	
L20	COIL	LAL03VB471K	470UH	5LCAA00270	
P23	CONNECTOR	EC1C-22P-2.5DSA	22P	5JWBS00070	
P24	CONNECTOR	EC1C-22P-2.5DSA	22P	5JWBS00070	
PC1	PCB	H-6PCJD00161C		6PCJD00161	
R1	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576	

PARTS LIST

PARTS LIST		TITLE CGA-131		SHEET NO. 4	
LOOP 1		LOOP 1		LOOP 1	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
R2	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576	
R3	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576	
R4	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576	
R5	RESISTOR FXD	ERJ-8GCSJ471T	1/8W 47K OHM	5REAG00579	
R6	RESISTOR FXD	ERJ-8GCSJ473T	1/8W 47K OHM	5REAG00578	
R7	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586	
R8	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586	
R9	RESISTOR FXD	ERJ-8GCSJ471T	1/8W 47K OHM	5REAG00579	
R10	RESISTOR FXD	ERJ-8GCSJ473T	1/8W 47K OHM	5REAG00578	
R11	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586	
R12	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586	
R13	RESISTOR FXD	ERJ-8GCSJ471T	1/8W 47K OHM	5REAG00579	
R14	RESISTOR FXD	ERJ-8GCSJ473T	1/8W 47K OHM	5REAG00578	
R15	RESISTOR FXD	ERJ-8GCSJ330T	1/8W 33 OHM	5REAG00620	
R16	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586	
R17	RESISTOR FXD	ERJ-8GCSJ471T	1/8W 47K OHM	5REAG00579	
R18	RESISTOR FXD	ERJ-8GCSJ473T	1/8W 47K OHM	5REAG00578	
R19	RESISTOR FXD	ERJ-8GCSJ100T	1/8W 10 OHM	5REAG00617	
R20	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586	
R21	RESISTOR FXD	ERJ-8GCSJ473T	1/8W 47K OHM	5REAG00578	
R23	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586	
R24	RESISTOR FXD	ERJ-8GCSJ473T	1/8W 47K OHM	5REAG00578	
R25	RESISTOR FXD	ERJ-8GCSJ221T	1/8W 220 OHM	5REAG00594	
R26	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586	
R27	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586	
R28	RESISTOR FXD	ERJ-8GCSJ470T	1/8W 47 OHM	5REAG00580	
R29	RESISTOR FXD	ERJ-8GCSJ680T	1/8W 68 OHM	5REAG00621	
R30	RESISTOR FXD	ERJ-8GCSJ680T	1/8W 68 OHM	5REAG00621	
R31	RESISTOR FXD	ERJ-8GCSJ680T	1/8W 68 OHM	5REAG00621	
R45	RESISTOR FXD	ERD-25UJ2R2T	1/4W 2.2 OHM	5RDAAD01633	
R46	RESISTOR FXD	ERJ-8GCSJ822T	1/8W 8.2K OHM	5REAG00584	
R47	RESISTOR FXD	ERJ-8GCSJ182T	1/8W 1.8K OHM	5REAG00582	
R48	RESISTOR FXD	ERJ-8GCSJ221T	1/8W 220 OHM	5REAG00594	
R49	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572	
R50	RESISTOR FXD	ERJ-8GCSJ152T	1/8W 1.5K OHM	5REAG00574	

PARTS LIST

PARTS NO		PARTS NAME		TYPE		DESCRIPTION		CODE	
C1		CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF			5CAAD00789	
C2		CAP,FXD	ELCTLT	ECE-A1EU100B				5CEAA01864	
C3		CAP,FXD	CER	C3216SL1H102J-E-TP	1000P			5CAAD00782	
C4		CAP,FXD	CER	C3216CH1H220J-E-TP	22P			5CAAD00869	
C5		CAP,FXD	CER	C3216SL1H102J-E-TP	1000P			5CAAD00782	
C6		CAP,FXD	CER	C3216SL1H102J-E-TP	1000P			5CAAD00782	
C7		CAP,FXD	CER	C3216CH1H220J-E-TP	22P			5CAAD00869	
C8		CAP,FXD	CER	C3216CH1H101J-E-TP	100PF			5CAAD00780	
C9		CAP,FXD	CER	C3216SL1H102J-E-TP	1000P			5CAAD00782	
C10		CAP,FXD	CER	C3216CH1H220J-E-TP	22P			5CAAD00869	
C11		CAP,FXD	CER	C3216SL1H102J-E-TP	1000P			5CAAD00782	
C12		CAP,FXD	CER	C3216CH1H020C-E-TP	2P			5CAAD00798	
C13		CAP,FXD	CER	C3216CH1H220J-E-TP	22P			5CAAD00869	
C14		CAP,FXD	CER	C3216SL1H102J-E-TP	1000P			5CAAD00782	
C15		CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF			5CAAD00789	
C16		CAP,FXD	CER	C3216CH1H120J-E-TP	12P			5CAAD00784	
C17		CAP,FXD	CER	C3216CH1H101J-E-TP	100PF			5CAAD00780	
C18		CAP,FXD	CER	C3216CH1H101J-E-TP	100PF			5CAAD00780	
C19		CAP,FXD	ELCTLT	ECE-A1EU101B				5CEAA01813	
C20		CAP,FXD	ELCTLT	ECE-A1EU101B				5CEAA01813	
C21		CAP,FXD	TANTAL	202L2502 475MB				5CSAC00934	
C22		CAP,FXD	CER	C3216CH1H101J-E-TP	100PF			5CAAD00780	
C23		CAP,FXD	CER	C3216CH1H101J-E-TP	100PF			5CAAD00780	
C24		CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF			5CAAD01056	
C25		CAP,FXD	ELCTLT	ECE-A1EU101B				5CEAA01813	
C27		CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF			5CAAD00789	
C28		CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF			5CAAD00789	
C29		CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF			5CAAD00789	
C30		CAP,FXD	CER	C3216CH1H820J-E-TP	82P			5CAAD00930	
C31		CAP,FXD	CER	C3216CH1H150J-E-TP	15P			5CAAD00787	
C32		CAP,FXD	TANTAL	202L3502 474MB				5CSAC01065	
C33		CAP,FXD	TANTAL	202L2502 475MB				5CSAC00934	
C34		CAP,FXD	CER	C3216SL1H102J-E-TP	1000P			5CAAD00782	
C35		CAP,FXD	CER	C3216CH1H220J-E-TP	22P			5CAAD00869	
C36		CAP,FXD	CER	C3216CH1H820J-E-TP	82P			5CAAD00930	

PARTS NO		PARTS NAME		TYPE		DESCRIPTION		CODE	
C37		CAP,FXD	CER	C3216SL1H102J-E-TP	1000P			5CAAD00782	
C38		CAP,FXD	CER	C3216SL1H102J-E-TP	1000P			5CAAD00782	
C39		CAP,FXD	CER	C3216SL1H102J-E-TP	1000P			5CAAD00782	
C40		CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF			5CAAD00789	
C41		CAP,FXD	CER	C3216SL1H102J-E-TP	1000P			5CAAD00782	
C42		CAP,FXD	CER	C3216SL1H102J-E-TP	1000P			5CAAD00782	
C43		CAP,FXD	CER	C3216SL1H102J-E-TP	1000P			5CAAD00782	
C44		CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF			5CAAD01056	
C45		CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF			5CAAD01056	
C46		CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF			5CAAD01056	
C47		CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF			5CAAD00789	
C48		CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF			5CAAD00789	
C49		CAP,FXD	ELCTLT	ECE-A1EU100B				5CEAA01864	
C50		CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF			5CAAD00789	
C51		CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF			5CAAD00789	
C52		CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF			5CAAD00789	
C53		CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF			5CAAD00789	
C54		CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF			5CAAD00789	
C55		CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF			5CAAD00789	
CD1		DIODE		FC53N-4	11.2-14.8PF(4V)			5TXAB00034	
CD2		LED		TLR102A				5TZAD00020	
CD3		DIODE		1SV68RE				5TXAE00591	
CD4		DIODE		1SS184 TE85L				5TXAD00290	
CD5		LED		TLR102A				5TZAD00020	
FL1		FILTER		DSS310-55B222M	100V 0.0022UF			5NXAA00005	
FL2		FILTER		DSS310-55B222M	100V 0.0022UF			5NXAA00005	
IC1		IC		TA7310P				5DAAD00091	
IC2		IC		TA7310P				5DAAD00091	
IC3		IC		NJM78L08A	8V 100MA			5DAAM00079	
IC4		IC		MC14016BCP				5DAAJ00351	
IC5		IC		MC4044P				5DDAS00002	
IC6		IC		HD74LS123P				5DDAF00354	
IC7		IC		HD74LS26P				5DDAF00297	
IC8		IC		TC74HC4520P				5DDAE00675	
IC9		IC		MC74HC00N				5DAAJ00142	

PARTS LIST

PARTS NO		PARTS NAME		TYPE		DESCRIPTION		CODE	
C37		CAP,FXD	CER	C3216SL1H102J-E-TP	1000P			5CAAD00782	
C38		CAP,FXD	CER	C3216SL1H102J-E-TP	1000P			5CAAD00782	
C39		CAP,FXD	CER	C3216SL1H102J-E-TP	1000P			5CAAD00782	
C40		CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF			5CAAD00789	
C41		CAP,FXD	CER	C3216SL1H102J-E-TP	1000P			5CAAD00782	
C42		CAP,FXD	CER	C3216SL1H102J-E-TP	1000P			5CAAD00782	
C43		CAP,FXD	CER	C3216SL1H102J-E-TP	1000P			5CAAD00782	
C44		CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF			5CAAD01056	
C45		CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF			5CAAD01056	
C46		CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF			5CAAD01056	
C47		CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF			5CAAD00789	
C48		CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF			5CAAD00789	
C49		CAP,FXD	ELCTLT	ECE-A1EU100B				5CEAA01864	
C50		CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF			5CAAD00789	
C51		CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF			5CAAD00789	
C52		CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF			5CAAD00789	
C53		CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF			5CAAD00789	
C54		CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF			5CAAD00789	
C55		CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF			5CAAD00789	
CD1		DIODE		FC53N-4	11.2-14.8PF(4V)			5TXAB00034	
CD2		LED		TLR102A				5TZAD00020	
CD3		DIODE		1SV68RE				5TXAE00591	
CD4		DIODE		1SS184 TE85L				5TXAD00290	
CD5		LED		TLR102A				5TZAD00020	
FL1		FILTER		DSS310-55B222M	100V 0.0022UF			5NXAA00005	
FL2		FILTER		DSS310-55B222M	100V 0.0022UF			5NXAA00005	
IC1		IC		TA7310P				5DAAD00091	
IC2		IC		TA7310P				5DAAD00091	
IC3		IC		NJM78L08A	8V 100MA			5DAAM00079	
IC4		IC		MC14016BCP				5DAAJ00351	
IC5		IC		MC4044P				5DDAS00002	
IC6		IC		HD74LS123P				5DDAF00354	
IC7		IC		HD74LS26P				5DDAF00297	
IC8		IC		TC74HC4520P				5DDAE00675	
IC9		IC		MC74HC00N				5DAAJ00142	

PARTS LIST

PARTS LIST		TITLE CGA-131		SHEET NO. 6	
LOOP 1		TITLE CGA-131		SHEET NO. 6	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
TR15	TRANSISTOR	2SA1162-Y	TE85L	5TAAG00182	
TR16	TRANSISTOR	2SC2712Y	TE85L	5TAAG00186	

PARTS LIST

PARTS LIST		TITLE CGA-131		SHEET NO. 5	
LOOP 1		TITLE CGA-131		SHEET NO. 5	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
R51	RESISTOR FXD	ERJ-8GCSJ152T	1/8W 1.5K OHM	5REAG00574	
R52	RESISTOR FXD	ERJ-8GCSJ221T	1/8W 220 OHM	5REAG00594	
R53	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572	
R54	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586	
R55	RESISTOR FXD	ERJ-8GCSJ394T	1/8W 390K OHM	5REAG01000	5
R56	RESISTOR FXD	ERJ-8GCSJ124T	1/8W 120K OHM	5REAG00629	
R57	RESISTOR FXD	ERJ-8GCSJ124T	1/8W 120K OHM	5REAG00629	
R58	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576	
R59	RESISTOR FXD	ERJ-8GCSJ472T	1/8W 4.7K OHM	5REAG00573	
R60	RESISTOR FXD	ERJ-8GCSJ472T	1/8W 4.7K OHM	5REAG00573	10
R61	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576	
R62	RESISTOR FXD	ERJ-8GCSJ561T	1/8W 560 OHM	5REAG00571	
R63	RESISTOR FXD	ERJ-8GCSJ472T	1/8W 4.7K OHM	5REAG00573	
R64	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572	
R65	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572	15
R66	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586	
R67	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572	
R68	RESISTOR FXD	ERJ-8GCSJ221T	1/8W 220 OHM	5REAG00594	
R69	RESISTOR FXD	HVN1/8-10M OHM K	1/8W 10M OHM	5RDAC02203	
RV1	RESISTOR VAR	EVN-D1AA00B13	1K	5RVAB00313	20
RV2	RESISTOR VAR	EVN-D1AA00B13	1K	5RVAB00313	
TP2	TEST TERMINAL	PCN6-PEA		5JDA000364	
TP4	TEST TERMINAL	PCN6-PEA		5JDA000364	
TP8	TEST TERMINAL	PCN6-PEA		5JDA000364	
TP9	TEST TERMINAL	PCN6-PEA		5JDA000364	25
TR1	TRANSISTOR	2SC2712Y	TE85L	5TAAG00186	
TR2	TRANSISTOR	2SC2712Y	TE85L	5TAAG00186	
TR3	TRANSISTOR	2SC2712Y	TE85L	5TAAG00186	
TR4	TRANSISTOR	2SC2712Y	TE85L	5TAAG00186	
TR5	TRANSISTOR	2SK192A-BL		5TKAA00080	30
TR6	TRANSISTOR	2SK192A-BL		5TKAA00080	
TR7	TRANSISTOR	2SK192A-BL		5TKAA00080	
TR8	TRANSISTOR	2SK192A-BL		5TKAA00080	
TR9	TRANSISTOR	2SK192A-BL		5TKAA00080	
TR14	TRANSISTOR	2SA1162-Y	TE85L	5TAAG00182	35

PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE
R13	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R14	RESISTOR FXD	ERJ-8GCSJ223T	1/8W 22K OHM	5REAG00581
R15	RESISTOR FXD	ERJ-8GCSJ223T	1/8W 22K OHM	5REAG00581
R16	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572
R17	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572
R18	RESISTOR FXD	ERJ-8GCSJ100T	1/8W 10 OHM	5REAG00617
R19	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R20	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572
R21	RESISTOR FXD	ERJ-8GCSJ105T	1/8W 1M OHM	5REAG00772
R22	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R23	RESISTOR FXD	ERJ-8GCSJ330T	1/8W 33 OHM	5REAG00620
R25	RESISTOR FXD	ERJ-8GCSJ331T	1/8W 330 OHM	5REAG00597
R26	RESISTOR FXD	ERJ-8GCSJ222T	1/8W 2.2K OHM	5REAG00575
R27	RESISTOR FXD	ERJ-8GCSJ472T	1/8W 4.7K OHM	5REAG00573
R28	RESISTOR FXD	ERJ-8GCSJ153T	1/8W 15K OHM	5REAG00596
R29	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R30	RESISTOR FXD	ERJ-8GCSJ471T	1/8W 470 OHM	5REAG00579
R31	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R32	RESISTOR FXD	ERJ-8GCSJ104T	1/8W 100K OHM	5REAG00587
R33	RESISTOR FXD	ERJ-8GCSJ222T	1/8W 2.2K OHM	5REAG00575
R34	RESISTOR FXD	ERJ-8GCSJ223T	1/8W 22K OHM	5REAG00581
R35	RESISTOR FXD	ERJ-8GCSJ331T	1/8W 330 OHM	5REAG00597
R36	RESISTOR FXD	ERJ-8GCSJ470T	1/8W 47 OHM	5REAG00580
R37	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572
R38	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572
R39	RESISTOR FXD	ERJ-8GCSJ471T	1/8W 470 OHM	5REAG00579
R40	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572
R41	RESISTOR FXD	ERJ-8GCSJ221T	1/8W 220 OHM	5REAG00594
R42	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R43	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R44	RESISTOR FXD	ERJ-8GCSJ561T	1/8W 560 OHM	5REAG00571
R45	RESISTOR FXD	ERJ-8GCSJ472T	1/8W 4.7K OHM	5REAG00573
T1	RF XFMR	H-6LHJDD00297		6LHJDD00297
T2	RF XFMR	H-6LHJDD00297		6LHJDD00297
T3	RF XFMR	H-6LHJDD00297		6LHJDD00297

PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE
IC10	IC	HD10551P		5DDAF00953
IC11	IC	MC74HC160N		5DAAJ00182
IC12	IC	MC74HC160N		5DAAJ00182
IC13	IC	MC74HC74N		5DAAJ00133
IC14	IC	MC74HC161N		5DAAJ00136
IC15	IC	M54459L	1/100 1/20	5DDAB00083
IC16	IC	MC145145P		5DDAS00058
IC17	IC	MC74HC574N		5DAAJ00230
IC18	IC	MC14560BCP		5DAAJ00350
IC19	IC	MC14560BCP		5DAAJ00350
IC20	IC	MC74HC574N		5DAAJ00230
IC21	IC	MC14560BCP		5DAAJ00350
IC22	IC	MC14560BCP		5DAAJ00350
IC23	IC	MC74HC574N		5DAAJ00230
L1	COIL	LAL03VB2R2M	2.2UH	5LCAA00278
L2	COIL	LAL03VBR47M	0.47UH	5LCAA00283
L3	COIL	LAL03VB1R0M	1UH	5LCAA00282
L4	COIL	LAL03VB471K	470UH	5LCAA00270
L5	COIL	H-6LAJDD00234A		6LAJDD00234
L6	COIL	LAL03VB221K	220UH	5LCAA00272
L7	COIL	LAL03VB471K	470UH	5LCAA00270
P21	CONNECTOR	EC1C-22P-2.5DSA	22P	5JWBS00070
P22	CONNECTOR	EC1C-22P-2.5DSA	22P	5JWBS00070
PC1	PCB	H-6PCJDD00162B		6PCJDD00162
R1	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R2	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R3	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R4	RESISTOR FXD	ERJ-8GCSJ471T	1/8W 470 OHM	5REAG00579
R5	RESISTOR FXD	ERJ-8GCSJ472T	1/8W 4.7K OHM	5REAG00573
R6	RESISTOR FXD	ERJ-8GCSJ153T	1/8W 15K OHM	5REAG00596
R7	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R8	RESISTOR FXD	ERJ-8GCSJ104T	1/8W 100K OHM	5REAG00587
R9	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R11	RESISTOR FXD	ERJ-8GCSJ561T	1/8W 560 OHM	5REAG00571
R12	RESISTOR FXD	ERJ-8GCSJ472T	1/8W 4.7K OHM	5REAG00573

PARTS LIST

PARTS NO		PARTS NAME		TITLE		SHEET NO.	
LOOP 2		CGA-132		CGA-132		5	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE			
T5	RF XFMR	H-6LHJD00297		6LHJD00297			
T6	RF XFMR	H-6LHJD00288A	7MHZ	6LHJD00288			
T7	RF XFMR	S-061-006		5LJAA00006			
TP1	TEST TERMINAL	PCN6-PEA		5JDA000364			
TP3	TEST TERMINAL	PCN6-PEA		5JDA000364			
TP4	TEST TERMINAL	PCN6-PEA		5JDA000364			
TP5	TEST TERMINAL	PCN6-PEA		5JDA000364			
TP10	TEST TERMINAL	PCN6-PEA		5JDA000364			
TP11	TEST TERMINAL	PCN6-PEA		5JDA000364			
TP12	TEST TERMINAL	PCN6-PEA		5JDA000364			
TP14	TEST TERMINAL	PCN6-PEA		5JDA000364			
TP15	TEST TERMINAL	PCN6-PEA		5JDA000364			
TR1	TRANSISTOR	2SC2714Y TE85L		5TCAF00436			
TR2	TRANSISTOR	2SC2712Y TE85L		5TAAG00186			
TR3	TRANSISTOR	2SA1162-Y TE85L		5TAAG00182			
TR4	TRANSISTOR	2SC2712Y TE85L		5TAAG00186			
TR5	TRANSISTOR	2SA1162-Y		5TAAG00179			
X1	CRYSTAL	H-6XHJD00189		6XHJD00189			

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PARTS LIST

CPU		TITLE CDC-353		SHEET NO. 1	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
BT1	BATTERY	CR-2032FT6		5ZBAD00067	
C1	CAP,FXD	CER	C3216CH1H330J-E-TP	33P	5CAAD00794
C2	CAP,FXD	CER	C3216CH1H150J-E-TP	15P	5CAAD00787
C3	CAP,FXD	CER	C3216CH1H150J-E-TP	15P	5CAAD00787
C4	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C5	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C6	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C7	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C8	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C9	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C10	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C11	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C12	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C13	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C14	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C15	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C16	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C18	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C19	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C20	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C21	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C22	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C23	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C25	CAP,FXD	CER	C3216CH1H330J-E-TP	33P	5CAAD00794
C26	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C27	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C28	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C29	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C30	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C31	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C32	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C33	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C35	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C36	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C37	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789

PARTS LIST

CPU		TITLE CDC-353		SHEET NO. 2	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
C38	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C39	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C40	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C42	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C43	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C44	CAP,FXD	TANTAL	202L2502 475MB		5CSAC00934
C45	CAP,FXD	TANTAL	202L2502 475MB		5CSAC00934
C46	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C47	CAP,FXD	TANTAL	202L2502 475MB		5CSAC00934
C48	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C49	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C50	CAP,FXD	TANTAL	202L2502 475MB		5CSAC00934
C51	CAP,FXD	TANTAL	202L3502 105MB	35V 1UF	5CSAC00982
C52	CAP,FXD	TANTAL	202L3502 105MB	35V 1UF	5CSAC00982
C53	CAP,FXD	TANTAL	202L3502 105MB	35V 1UF	5CSAC00982
C54	CAP,FXD	TANTAL	202L3502 105MB	35V 1UF	5CSAC00982
C55	CAP,FXD	TANTAL	202L3502 105MB	35V 1UF	5CSAC00982
C56	CAP,FXD	TANTAL	202L3502 105MB	35V 1UF	5CSAC00982
C57	CAP,FXD	TANTAL	202L3502 105MB	35V 1UF	5CSAC00982
C58	CAP,FXD	TANTAL	202L3502 105MB	35V 1UF	5CSAC00982
C59	CAP,FXD	TANTAL	202L3502 105MB	35V 1UF	5CSAC00982
C60	CAP,FXD	TANTAL	202L3502 105MB	35V 1UF	5CSAC00982
C61	CAP,FXD	TANTAL	202L6301 476MB		5CSAC00963
C62	CAP,FXD	TANTAL	202L2502 475MB		5CSAC00934
C63	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C64	CAP,FXD	CER	C3216B1H332K-E-TP		5CAAD01020
CD1	DIODE		1SS184 TE85L		5TXAD00290
CD2	DIODE		1SS184 TE85L		5TXAD00290
CD3	DIODE		1SS226 TE85L		5TXAD00320
CD4	DIODE		1SS184 TE85L		5TXAD00290
CD5	DIODE		1SS181 TE85L		5TXAD00356
CD6	LED		TLR102A		5TZAD00020
CD7	LED		TLR102A		5TZAD00020
CV1	CAPACITOR VAR		TZ03R300YR		5CVAA00171
FL1	FILTER		DS310-55B222M	100V 0.0022UF	5NXAA00002

PARTS LIST

PARTS NO		CPU		TITLE CDC-353		SHEET NO. 3	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE			
IC1	IC	MC74HC245N		5DAAJ00203			
IC2	IC	M5L2764K		5PAA000038			
IC3	IC	MSM5126-20RS		5DDAG00139			
IC4	IC	MC146818P		5DAAJ00112			
IC5	IC	MSM82C55A-5RS		5DDAG00102			
IC6	IC	TD62083AP		5DDAE00507			
IC7	IC	S-8054ALR		5DZBX00003			
IC8	IC	MC74HC573N		5DAAJ00229			
IC9	IC	TC40H138P		5DDAE00310			
IC10	IC	MC74HC573N		5DAAJ00229			
IC11	IC	HD63AD3RP		5DDAF00934			
IC12	IC	MC74HC00N		5DAAJ00142			
IC13	IC	MC74HC11N		5DAAJ00156			
IC14	IC	MC74HC00N		5DAAJ00142			
IC15	IC	MC74HC14N		5DAAJ00157			
IC16	IC	MC14011UBCP		5DAAJ00349			
IC17	IC	MC74HC74N		5DAAJ00133			
IC18	IC	M5223P		5DDAB00171			
ICS2	IC SOCKET	ICC05-028-360T		5ZJCK00042			
L1	COIL	LAL03VB471K	470UH	5LCAA00270			
L2	COIL	LAL03VB100K	10UH	5LCAA00273			
L3	COIL	LAL03VB221K	220UH	5LCAA00272			
L4	COIL	LAL03VB221K	220UH	5LCAA00272			
L5	COIL	LAL03VB221K	220UH	5LCAA00272			
L6	COIL	LAL03VB221K	220UH	5LCAA00272			
L7	COIL	LAL03VB221K	220UH	5LCAA00272			
L8	COIL	LAL03VB221K	220UH	5LCAA00272			
L9	COIL	LAL03VB221K	220UH	5LCAA00272			
L10	COIL	LAL03VB221K	220UH	5LCAA00272			
L12	COIL	LAL03VB221K	220UH	5LCAA00272			
L13	COIL	LAL03VB221K	220UH	5LCAA00272			
L14	COIL	LAL03VB221K	220UH	5LCAA00272			
L15	COIL	LAL03VB221K	220UH	5LCAA00272			
L16	COIL	LAL03VB221K	220UH	5LCAA00272			
L17	COIL	LAL03VB221K	220UH	5LCAA00272			

PARTS LIST

PARTS NO		CPU		TITLE CDC-353		SHEET NO. 4	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE			
P19	CONNECTOR	EC1C-22P-2.5DSA	22P	5JWBS000070			
P20	CONNECTOR	EC1C-22P-2.5DSA	22P	5JWBS000070			
PC1	PCB	H-6PCJD00163B	22P	6PCJD00163			
R1	RESISTOR	ERJ-8GCSJ154T	1/8W 150K OHM	5REAG00630			
R2	RESISTOR	RC1/4GF5.1M OHM J	1/4W5.1M OHM	5RCAA00742			
R3	RESISTOR	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576			
R6	RESISTOR	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576			
R7	RESISTOR	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576			
R8	RESISTOR	ERJ-8GCSJ473T	1/8W 47K OHM	5REAG00578			
R9	RESISTOR	ERJ-8GCSJ473T	1/8W 47K OHM	5REAG00578			
R10	RESISTOR	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576			
R11	RESISTOR	ERJ-8GCSJ105T	1/8W 1M OHM	5REAG00772			
R12	RESISTOR	ERJ-8GCSJ105T	1/8W 1M OHM	5REAG00772			
R13	RESISTOR	ERJ-8GCSJ474T	1/8W 470K OHM	5REAG00593			
R14	RESISTOR	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572			
R15	RESISTOR	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576			
R16	RESISTOR	ERJ-8GCSJ302T	1/8W 22K OHM	5RDA001573			
R17	RESISTOR	ERJ-8GCSJ223T	1/8W 22K OHM	5REAG00581			
R18	RESISTOR	ERJ-8GCSJ151T	1/8W 150 OHM	5REAG00583			
R20	RESISTOR	ERJ-8GCSJ105T	1/8W 1M OHM	5REAG00772			
R21	RESISTOR	ERJ-8GCSJ332T	1/8W 3.3K OHM	5REAG00589			
R22	RESISTOR	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572			
R23	RESISTOR	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572			
R24	RESISTOR	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586			
R25	RESISTOR	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586			
R26	RESISTOR	ERJ-8GCSJ224T	1/8W 220K OHM	5REAG00631			
R27	RESISTOR	ERJ-8GCSJ104T	1/8W 100K OHM	5REAG00587			
R28	RESISTOR	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576			
R29	RESISTOR	ERJ-8GCSJ104T	1/8W 100K OHM	5REAG00587			
RA1	RESISTOR	IHR-1/8-8-103JA		5RZAB00388			
RA2	RESISTOR	IHR-1/8-8-103JA		5RZAB00388			
RA3	RESISTOR	EXB-LD7104G		5RZAS00180			
RA4	RESISTOR	IHR-1/8-4-103JA		5RZAB00936			
RA5	RESISTOR	IHR-1/8-8-103JA		5RZAB00388			
RA6	RESISTOR	IHR-1/8-8-103JA		5RZAB00388			

PARTS LIST

PARTS NO		PARTS NAME		TYPE		DESCRIPTION		CODE	
CPU		TITLE		66C-353		SHEET NO.		5	
RV1	RESISTOR	VAR	EVN-D1A00B13	1K				SRVAB00313	
RV2	RESISTOR	VAR	EVN-D1A00B15	100K				SRVAB00314	
TP1	TEST TERMINAL		PCN6-PEA					5JDAAD0364	
TP2	TEST TERMINAL		PCN6-PEA					5JDAAD0364	
TP3	TEST TERMINAL		PCN6-PEA					5JDAAD0364	
TP4	TEST TERMINAL		PCN6-PEA					5JDAAD0364	
TR1	TRANSISTOR		2SC2713-GR	TE85L				5TCAF00433	
TR2	TRANSISTOR		2SC2713-GR	TE85L				5TCAF00433	
TR3	TRANSISTOR		2SC2713-GR	TE85L				5TCAF00433	
X1	CRYSTAL		MX-38T	32.768KHZ				5XHAA00509	
X2	CRYSTAL		LN-X-0008	F=4.9152MH				5XHAA00422	

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PARTS LIST

PARTS NO		DATA I/O		TITLE CMH-632		SHEET NO. 1	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE			
C1	CAP,FXD	CER	C3216CH1H101J-E-TP	100PF	SCAAD00780		
C2	CAP,FXD	CER	C3216CH1H101J-E-TP	100PF	SCAAD00780		
C3	CAP,FXD	CER	C3216CH1H471J-E-TP	470PF	SCAAD00797		
C4	CAP,FXD	CER	C3216CH1H471J-E-TP	470PF	SCAAD00797		
C5	CAP,FXD	CER	C3216CH1H471J-E-TP	470PF	SCAAD00797		
C6	CAP,FXD	CER	C3216CH1H471J-E-TP	470PF	SCAAD00797		
C7	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	SCAAD00782		
C8	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	SCAAD00782		
C9	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	SCAAD00782		
C10	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	SCAAD00782		
C11	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	SCAAD00782		
C12	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	SCAAD00782		
C13	CAP,FXD	CER	C3216CH1H471J-E-TP	470PF	SCAAD00797		
C14	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	SCAAD00789		
C17	CAP,FXD	CER	C3216CH1H471J-E-TP	470PF	SCAAD00797		
C18	CAP,FXD	CER	C3216CH1H471J-E-TP	470PF	SCAAD00797		
C20	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	SCAAD00789		
C21	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	SCAAD00789		
C22	CAP,FXD	ELCTLT	ECE-A1EU100B		5CEAA01864		
C23	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	SCAAD00789		
C24	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	SCAAD00789		
C25	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	SCAAD00789		
C26	CAP,FXD	ELCTLT	ECE-A1EU100B		5CEAA01864		
C27	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	SCAAD00789		
C28	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	SCAAD00789		
C29	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	SCAAD00789		
C30	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	SCAAD00789		
C31	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	SCAAD00789		
C32	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	SCAAD00789		
C33	CAP,FXD	CER	C3216CH1H101J-E-TP	100PF	SCAAD00780		
C34	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	SCAAD00782		
C35	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	SCAAD00782		
C36	CAP,FXD	CER	C3216CH1H331J-E-TP		5CAAD01066		
C37	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	SCAAD00789		
C38	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	SCAAD01056		

PARTS LIST

PARTS NO		DATA I/O		TITLE CMH-632		SHEET NO. 2	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE			
C39	CAP,FXD	CER	C3216CH1H221J-E-TP	220P	5CAAD00790		
C40	CAP,FXD	CER	C3216CH1H221J-E-TP	220P	5CAAD00790		
C41	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056		
FL1	FILTER		DSS310-55B222M	100V 0.0022UF	5NXAA00005		
FL2	FILTER		DSS310-55B222M	100V 0.0022UF	5NXAA00005		
IC1	IC		HD10551P		5DDAF00953		
IC2	IC		MC74HC00N		5DAAJ00142		
IC3	IC		MC74HC161N		5DAAJ00136		
IC4	IC		MC74HC74N		5DAAJ00133		
IC5	IC		MC74HC161N		5DAAJ00136		
IC6	IC		MC74HC161N		5DAAJ00136		
IC7	IC		MC74HC74N		5DAAJ00133		
IC8	IC		MSM82C55A-5RS		5DDAG00102		
IC9	IC		MC74HC27N		5DAAJ00158		
IC10	IC		MC74HC139N		5DAAJ00175		
IC11	IC		MC74HC174N		5DAAJ00187		
IC13	IC		M54455L		5DDAB00172		
IC14	IC		MC74HC74N		5DAAJ00133		
IC15	IC		HD74LS160P		5DDAF00429		
IC16	IC		HD74LS160P		5DDAF00429		
IC17	IC		MC74HC574N		5DAAJ00230		
IC18	IC		MC14560BCP		5DAAJ00350		
IC19	IC		MC14560BCP		5DAAJ00350		
IC20	IC		MC74HC574N		5DAAJ00230		
J45	CONNECTOR		HKP-10FD2		5JJA000076		
J46	CONNECTOR		HKP-12FD2		5JJA000088		
L2	COIL		LAL03VB100K	10UH	5LCAAD0273		
L3	COIL		LAL03VB100K	10UH	5LCAAD0273		
L4	COIL		LAL03VB100K	10UH	5LCAAD0273		
L5	COIL		LAL03VB100M	1UH	5LCAAD0282		
P17	CONNECTOR		EC1C-22P-2.5DSA	22P	5JWBS00070		
P18	CONNECTOR		EC1C-22P-2.5DSA	22P	5JWBS00070		
PC1	PCB		H-6PCJD00165B		6PCJD00165		
R1	RESISTOR	FXD	ERJ-8GCSJ473T	1/8W 47K OHM	5REAG00578		
R2	RESISTOR	FXD	ERJ-8GCSJ221T	1/8W 220 OHM	5REAG00594		

PARTS LIST

DATA 170 TITLE CMH-632 SHEET NO. 3

PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE
R3	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R5	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R6	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R7	RESISTOR FXD	ERJ-8GCSJ472T	1/8W 4.7K OHM	5REAG00573
R8	RESISTOR FXD	ERJ-8GCSJ682T	1/8W 6.8K OHM	5REAG00577
R9	RESISTOR FXD	ERJ-8GCSJ473T	1/8W 47K OHM	5REAG00578
R10	RESISTOR FXD	ERJ-8GCSJ331T	1/8W 330 OHM	5REAG00597
R11	RESISTOR FXD	ERJ-8GCSJ331T	1/8W 330 OHM	5REAG00597
R12	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R13	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572
R14	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572
R15	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572
R16	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572
R17	RESISTOR FXD	ERJ-8GCSJ331T	1/8W 330 OHM	5REAG00597
R18	RESISTOR FXD	ERJ-8GCSJ331T	1/8W 330 OHM	5REAG00597
R19	RESISTOR FXD	ERJ-8GCSJ331T	1/8W 330 OHM	5REAG00597
R20	RESISTOR FXD	ERJ-8GCSJ331T	1/8W 330 OHM	5REAG00597
R21	RESISTOR FXD	ERJ-8GCSJ331T	1/8W 330 OHM	5REAG00597
R22	RESISTOR FXD	ERJ-8GCSJ331T	1/8W 330 OHM	5REAG00597
RA1	RESISTOR	IHR-1/8-8-473JA		5RZAB00442
TR1	TRANSISTOR	2SC2712Y TE85L		5TAAG00186
TR2	TRANSISTOR	2SC2712Y TE85L		5TAAG00186
TR3	TRANSISTOR	2SC2712Y TE85L		5TAAG00186
TR4	TRANSISTOR	2SC2712Y TE85L		5TAAG00186
XU1	CRYSTAL OSC	NT0-771A	12.8MHZ	5XNAG00002

PARTS LIST

DISPLAY		TITLE		SHEET NO.	
CDE-418		CDE-418		1	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
C1	CAP,FXD	PLSTC	ECQ-V1H473JZ3	50V 0.047	5CRAA00628
C2	CAP,FXD	CER	DD104-979CH220J50		5CAA02543
C3	CAP,FXD	CER	DD104-979CH220J50		5CAA02543
C4	CAP,FXD	PLSTC	ECQ-B1H152JZ3		5CRAA00727
C5	CAP,FXD	PLSTC	ECQ-V1H104JZ3		5CRAA00617
C6	CAP,FXD	PLSTC	ECQ-V1H104JZ3		5CRAA00617
C7	CAP,FXD	PLSTC	ECQ-V1H104JZ3		5CRAA00617
C8	CAP,FXD	CER	DD106-979F103Z50		5CAA02544
C9	CAP,FXD	TANTAL	202L2502 475MB		5CSAC00934
C10	CAP,FXD	CER	DD106-979F103Z50		5CAA02544
C11	CAP,FXD	CER	DD106-979F103Z50		5CAA02544
C12	CAP,FXD	ELCTL	ECE-A1HU100B	50V 10UF	5CEAA02184
C13	CAP,FXD	ELCTL	ECE-A1HU100B	50V 10UF	5CEAA02184
C14	CAP,FXD	ELCTL	ECE-A1EU101B		5CEAA01813
C15	CAP,FXD	PLSTC	ECQ-M1102KZ3	50V 1000PF	5CRAA00728
C16	CAP,FXD	ELCTL	ECE-A1EU100B		5CEAA01864
C17	CAP,FXD	TANTAL	202L3502 105MB	35V 1UF	5CSAC00982
C18	CAP,FXD	TANTAL	202L3502 105MB	35V 1UF	5CSAC00982
C19	CAP,FXD	TANTAL	202L3502 105MB	35V 1UF	5CSAC00982
C20	CAP,FXD	TANTAL	202L3502 105MB	35V 1UF	5CSAC00982
C21	CAP,FXD	TANTAL	202L3502 105MB	35V 1UF	5CSAC00982
C22	CAP,FXD	ELCTL	ECE-A1EU100B		5CEAA01864
CD1	LED		PR5551K		5TZAW00035
CD2	LED		PG5551KY		5TZAW00055
CD3	LED		PG5551KY		5TZAW00055
CD4	DIODE		HZ9A2RE		5TXAE00592
CD5	DIODE		1S2076RE		5TXAE00588
CD6	DIODE		1S2076RE		5TXAE00588
CD7	DIODE		1S2076RE		5TXAE00588
CD8	DIODE		1S2076RE		5TXAE00588
CD9	DIODE		1S2076RE		5TXAE00588
CD10	DIODE		1S2076RE		5TXAE00588
CD11	DIODE		1S2076RE		5TXAE00588
CD12	DIODE		1S2076RE		5TXAE00588
CD13	DIODE		1S2076RE		5TXAE00588

PARTS LIST

DISPLAY		TITLE		SHEET NO.	
CDE-418		CDE-418		2	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
CD14	DIODE		1S2076RE		5TXAE00588
CD15	DIODE		1S2076RE		5TXAE00588
CD16	DIODE		1S2076RE		5TXAE00588
F1	VFD		CP5243A6LR		5NZBE00002
FL1	FILTER		DS310-55B222M	100V 0.0022UF	5NXAA00002
IC1	IC		UPD8749HD		5DDAC00317
IC2	IC		MSM82C43RS		5DDAG00096
IC3	IC		MSM82C43RS		5DDAG00096
IC4	IC		TC509DAP		5DDAE00396
IC5	IC		MC14051BCP		5DAAJ00348
IC6	IC		LR3671D		5DDBN00037
IC7	IC		MC74HC244N		5DAAJ00138
IC8	IC		MSL915RS		5DDAG00052
IC9	IC		MSL915RS		5DDAG00052
IC10	IC		MSL915RS		5DDAG00052
IC11	IC		MSL915RS		5DDAG00052
IC12	IC		HD74LS14P		5DDAF00294
J1	JACK UNIT		CQB-40		CQB-40
J45	CONNECTOR		B4P-SHF-1AA		5JWAP00089
L2	COIL		FL-9H471J		5LCAR00089
L3	COIL		LAL04NA330K		5LCAR00196
P36	CONNECTOR		H-6ZCJD00126A		6ZCJD00126
P37	CONNECTOR		H-6ZCJD00124		6ZCJD00124
P38	CONNECTOR		H-6ZCJD00125		6ZCJD00125
PC1	PCB		H-6PCJD00164B		6PCJD00164
PG1	PULSE MOTOR		RES20-50-200-B		5BPAF00004
R1	RESISTOR	FXD	ERD-25UJ223T	22K OHM 1/4W	5RDA01545
R2	RESISTOR	FXD	ERD-25UJ562T	1/4W 5.6K OHM	5RDA01597
R3	RESISTOR	FXD	ERD-25UJ123T	1/4W 12K OHM	5RDA01592
R5	RESISTOR	FXD	ERD-25UJ103T	10K OHM 1/4W	5RDA01547
R6	RESISTOR	FXD	ERD-25UJ105T	1/4W 1M OHM	5RDA01616
R7	RESISTOR	FXD	ERD-25UJ472T	4.7K OHM 1/4W	5RDA01549
R8	RESISTOR	FXD	ERD-25UJ472T	4.7K OHM 1/4W	5RDA01549
R9	RESISTOR	FXD	ERD-25UJ472T	4.7K OHM 1/4W	5RDA01549
R10	RESISTOR	FXD	ERD-25UJ103T	10K OHM 1/4W	5RDA01547

PARTS LIST

DISPLAY		TITLE		SHEET NO.	
CDE-418		CDE-418		3	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
R11	RESISTOR FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAA01547	
R12	RESISTOR FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAA01547	
R13	RESISTOR FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAA01547	
R14	RESISTOR FXD	ERD-25UJ472T	4.7K OHM 1/4W	SRDAA01549	
R15	RESISTOR FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAA01547	
R16	RESISTOR FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAA01547	
R17	RESISTOR FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAA01547	
R18	RESISTOR FXD	ERD-25UJ221T	220 OHM 1/4	SRDAA01543	
R19	RESISTOR FXD	ERD-25UJ101T	1/4W 100 OHM	SRDAA01599	
R20	RESISTOR FXD	ERD-25UJ101T	1/4W 100 OHM	SRDAA01599	
R21	RESISTOR FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAA01547	
R22	RESISTOR FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAA01547	
R24	RESISTOR FXD	ERD-25UJ101T	1/4W 100 OHM	SRDAA01599	
R25	RESISTOR FXD	ERD-25UJ101T	1/4W 100 OHM	SRDAA01599	
R26	RESISTOR FXD	ERD-25UJ221T	220 OHM 1/4	SRDAA01543	
R29	RESISTOR FXD	ERD-25UJ682T		SRDAA01713	
R30	RESISTOR FXD	ERD-25UJ102T	1K OHM 1/4	SRDAA01542	
R31	RESISTOR FXD	ERD-25UJ103T	10K OHM 1/4W	SRDAA01547	
RA1	RESISTOR	IHR-1/8-4-103JA		SRZAB00936	
RV1	RESISTOR VAR	EVH-0XA009A14		SRVAB00261	
RV2	RESISTOR VAR	EVH-0XA009A14		SRVAB00261	
RV3	RESISTOR VAR	EVH-0XA009B14		SRVAB00262	
RV5	RESISTOR VAR	EVH-0XA009B14		SRVAB00262	
RV6	RESISTOR VAR	EVH-0XA009B14		SRVAB00262	
RV8	RESISTOR VAR	EVH-0XA009B14		SRVAB00262	
RV9	RESISTOR VAR	EVH-0XA009B14		SRVAB00262	
S1	SWITCH	B3F-1022S		SSCAP00036	
S2	SWITCH	B3F-1022S		SSCAP00036	
S3	SWITCH	B3F-1022S		SSCAP00036	
S4	SWITCH	B3F-1022S		SSCAP00036	
S5	SWITCH	B3F-1022S		SSCAP00036	
S6	SWITCH	B3F-1022S		SSCAP00036	
S7	SWITCH	B3F-1022S		SSCAP00036	
S8	SWITCH	B3F-1022S		SSCAP00036	
S9	SWITCH	B3F-1022S		SSCAP00036	

PARTS LIST

DISPLAY		TITLE		SHEET NO.	
CDE-418		CDE-418		4	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
S10	SWITCH	B3F-1022S		SSCAP00036	
S11	SWITCH	B3F-1022S		SSCAP00036	
S12	SWITCH	B3F-1022S		SSCAP00036	
S13	SWITCH	B3F-1022S		SSCAP00036	
S14	SWITCH	B3F-1022S		SSCAP00036	
S15	SWITCH	B3F-1022S		SSCAP00036	
S16	SWITCH	B3F-1022S		SSCAP00036	
S17	SWITCH	B3F-1022S		SSCAP00036	
S18	SWITCH	B3F-1022S		SSCAP00036	
S19	SWITCH	B3F-1022S		SSCAP00036	
S20	SWITCH	B3F-1022S		SSCAP00036	
S21	SWITCH	B3F-1022S		SSCAP00036	
S22	SWITCH	B3F-1022S		SSCAP00036	
S23	SWITCH	B3F-1022S		SSCAP00036	
S24	SWITCH	B3F-1022S		SSCAP00036	
S25	SWITCH	B3F-1022S		SSCAP00036	
S26	SWITCH	B3F-1022S		SSCAP00036	
S27	SWITCH	B3F-1022S		SSCAP00036	
S28	SWITCH	B3F-1022S		SSCAP00036	
S29	SWITCH	B3F-1022S		SSCAP00036	
S30	SWITCH	B3F-1022S		SSCAP00036	
S31	SWITCH	B3F-1022S		SSCAP00036	
S32	SWITCH	B3F-1022S		SSCAP00036	
S33	SWITCH	B3F-1022S		SSCAP00036	
S35	SWITCH	D-2023KB AT-451		SSAAB00551	
T1	TRANSFORMER	H-6LUJDD00017		6LUJDD00017	
TR1	TRANSISTOR	2SA1015-Y		STAAG00070	
TR2	TRANSISTOR	2SD471L	HFE135-270	STDAB00020	
TR3	TRANSISTOR	2SD471L	HFE135-270	STDAB00020	
X1	TRANSUCER	CSA8.46MT		SUNAB00033	

PARTS LIST

ACCESSORIES		TITLE		SHEET NO.	
		6ZXJD00018		1	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
AC1	CONNECTOR	M-P-3		5JAA00010	
AC2	PLUG	AR568-BLK		5JWGC0003	
AC3	PLUG	AP-320		5JJAW00033	
AC4	PLUG	AP310-BLK		5JJAW00036	
AC5	FUSE	MF60NR-1A	1A	5ZFAD00014	
AC6	DC CABLE	H-6ZCJD00127		6ZCJD00127	

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PARTS LIST		TITLE CHE-85		SHEET NO. 1	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
C1	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C2	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C3	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C4	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C5	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C6	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C7	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C8	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C9	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C10	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C11	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C12	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C13	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C14	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C15	CAP,FXD	CER	DD104SL0R5C50	5CAAA02174	
C16	CAP,FXD	CER	DD105CH330J50	5CAAA00852	
C17	CAP,FXD	CER	DD104CK010C50	5CAAA00841	
C18	CAP,FXD	CER	DD107SL221J50	5CAAA01105	
C19	CAP,FXD	CER	DD107CH101J50	5CAAA00858	
C20	CAP,FXD	CER	DD104CK010C50	5CAAA00841	
C21	CAP,FXD	CER	DD107SL331J50	5CAAA01106	
C22	CAP,FXD	CER	DD104SL0R5C50	5CAAA02174	
C23	CAP,FXD	CER	DD104CK010C50	5CAAA00841	
C24	CAP,FXD	CER	DD105CH330J50	5CAAA00852	
C25	CAP,FXD	CER	DD105CH330J50	5CAAA00852	
C26	CAP,FXD	CER	DD107SL331J50	5CAAA01106	
C27	CAP,FXD	CER	DD104SL0R5C50	5CAAA02174	
C28	CAP,FXD	CER	DD104CK010C50	5CAAA00841	
C29	CAP,FXD	CER	DD105CH330J50	5CAAA00852	
C30	CAP,FXD	CER	DD105CH330J50	5CAAA00852	
C31	CAP,FXD	CER	DD107SL331J50	5CAAA01106	
C32	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C33	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C34	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C35	CAP,FXD	ELCTLT	ECE-A1ES100	5CEAA01348	

PARTS LIST		TITLE CHE-85		SHEET NO. 2	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
C36	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C37	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C38	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C39	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C40	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C41	CAP,FXD	CER	DD105SL101J50	5CAAA01101	
C42	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C43	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C44	CAP,FXD	CER	DD104CH220J50	5CAAA00850	
C45	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C46	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C47	CAP,FXD	ELCTLT	ECE-A1ES100	5CEAA01348	
C48	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C49	CAP,FXD	CER	DD105SL101J50	5CAAA01101	
C50	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C51	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C52	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C53	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C54	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C55	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C56	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C57	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C58	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C59	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C60	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C61	CAP,FXD	CER	DD104CH220J50	5CAAA00850	
C62	CAP,FXD	ELCTLT	ECE-A1ES100	5CEAA01348	
C63	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C64	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C65	CAP,FXD	CER	DD105SL101J50	5CAAA01101	
C66	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C67	CAP,FXD	CER	DD105SL101J50	5CAAA01101	
C68	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C69	CAP,FXD	CER	DD104B102K50	5CBAB00302	
C70	CAP,FXD	CER	DD104B102K50	5CBAB00302	

PARTS LIST

PARTS NO		PARTS NAME		TYPE		DESCRIPTION		CODE	
CD1		DIODE	MI301					5TXAR00004	
CD2		DIODE	MI301					5TXAR00004	
CD3		DIODE	1SS85					5TXAE00085	
CD4		DIODE	1SS85					5TXAE00085	
CD5		DIODE	1SS85					5TXAE00085	
CD6		DIODE	1SS85					5TXAE00085	
CD7		DIODE	1SS85					5TXAE00085	
CD8		DIODE	1SS85					5TXAE00085	
CD9		DIODE	1SS85					5TXAE00085	
CD10		DIODE	1SS85					5TXAE00085	
CD11		DIODE	1SS85					5TXAE00085	
CD12		DIODE	1SS85					5TXAE00085	
CD13		DIODE	MI301					5TXAR00004	
CD14		DIODE	MI301					5TXAR00004	
CD15		DIODE	1SV97					5TXAE00415	
CD16		DIODE	1SV97					5TXAE00415	
CD17		DIODE	1SV97					5TXAE00415	
CD18		DIODE	1SV97					5TXAE00415	
CD19		DIODE	1SV97					5TXAE00415	
CD20		DIODE	1SV97					5TXAE00415	
CD21		DIODE	1SV97					5TXAE00415	
CD22		DIODE	1SV97					5TXAE00415	
CD23		DIODE	1SV97					5TXAE00415	
CD24		DIODE	1SV97					5TXAE00415	
CD25		DIODE	1SV97					5TXAE00415	
CD26		DIODE	1SV97					5TXAE00415	
CD27		DIODE	FC66M-010					5TXAB00035	
CD28		DIODE	FC66M-010					5TXAB00035	
CD29		DIODE	FC66M-010					5TXAB00035	
CD30		DIODE	FC66M-010					5TXAB00035	
CD31		DIODE	FC66M-010					5TXAB00035	
CD32		DIODE	FC66M-010					5TXAB00035	
CD33		DIODE	FC66M-010					5TXAB00035	
CD34		DIODE	FC66M-010					5TXAB00035	
CD35		DIODE	1S2076S7					5TXAE00355	

PARTS LIST

PARTS NO		PARTS NAME		TYPE		DESCRIPTION		CODE	
CD36		DIODE	1S2076S7					5TXAE00355	
CD37		DIODE	1S2076S7					5TXAE00355	
CD38		DIODE	1S2076S7					5TXAE00355	
CD39		DIODE	1SS85					5TXAE00085	
CD40		DIODE	1SS85					5TXAE00085	
CD41		DIODE	HZ5C1			SV 0.5W		5TXAE00130	
CD42		DIODE	ND487C1-3R					5TXAA00334	
CD43		DIODE	MI301					5TXAR00004	
CV1		CAPACITOR VAR	TZ03Z070FR					5CVAA00165	
CV2		CAPACITOR VAR	TZ03Z070FR					5CVAA00165	
CV3		CAPACITOR VAR	TZ03Z070FR					5CVAA00165	
CV4		CAPACITOR VAR	TZ03Z070FR					5CVAA00165	
CV5		CAPACITOR VAR	TZ03Z070FR					5CVAA00165	
CV6		CAPACITOR VAR	TZ03Z070FR					5CVAA00165	
CV7		CAPACITOR VAR	TZ03Z070FR					5CVAA00165	
CV8		CAPACITOR VAR	TZ03Z070FR					5CVAA00165	
CV9		CAPACITOR VAR	TZ03Z070FR					5CVAA00165	
CV10		CAPACITOR VAR	TZ03Z070FR					5CVAA00165	
CV11		CAPACITOR VAR	TZ03Z070FR					5CVAA00165	
CV12		CAPACITOR VAR	TZ03Z070FR					5CVAA00165	
FL1		FILTER	7HW TQ52MX-1858A					5LGAE00015	
FL2		FILTER	D5310-55B222M			100V 0.0022UF		5NXAA00002	
FL3		FILTER	D5310-55B222M			100V 0.0022UF		5NXAA00002	
FL4		FILTER	UVS04					5NBAG00006	
FL5		FILTER	LP174A1					5NLAT00020	
IC1		IC	HD74LS145P					5DDAF00704	
J1		CONNECTOR	TMP-J01X-V2					5JWCL00048	
J2		CONNECTOR	TMP-J01X-V2					5JWCL00048	
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	
JP5		TIN COATED WIRE	TA-0.6P					2717100001	
JP6		TIN COATED WIRE	TA-0.6P					2717100001	
JP7		TIN COATED WIRE	TA-0.6P					2717100001	

PARTS LIST		TITLE CHE-85		TITLE CHE-85	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	DESCRIPTION
JP8	TIN COATED WIRE TA-0.6P			2717100001	1/4W 100K OHM
JP9	TIN COATED WIRE TA-0.6P			2717100001	1/4W 100K OHM
JP10	TIN COATED WIRE TA-0.6P			2717100001	1/4W 100K OHM
K1	RELAY 65Y-154P 9V			5KLAFO0354	1/4W 100K OHM
K2	RELAY 65Y-154P 9V			5KLAFO0354	1/4W 100K OHM
KC1	CABLE H-6ZCJD00128			6ZCJD00128	1/4W 100K OHM
KC2	CABLE H-6ZCJD00128			6ZCJD00128	1/4W 100K OHM
L3	COIL 6ZZAB00009			6ZZAB00009	1/4W 100K OHM
L4	COIL 6ZZAB00009			6ZZAB00009	1/4W 100K OHM
L5	COIL 6ZZAB00009			6ZZAB00009	1/4W 100K OHM
P33	CONNECTOR EC1C-22P-2.5DSA		22P	5JWBS00070	1/4W 10K OHM
P34	CONNECTOR EC1C-22P-2.5DSA		22P	5JWBS00070	1/4W 10K OHM
PC1	PCB H-6PCJD00166B			6PCJD00166	1/4W 560 OHM
R1	RESISTOR FXD ERD-25UJ101		1/4W 100 OHM	5RDAAO1321	1/4W 10K OHM
R2	RESISTOR FXD ERD-25UJ103		1/4W 10K OHM	5RDAAO1369	1/4W 100 OHM
R3	RESISTOR FXD ERD-25UJ680		1/4W 68 OHM	5RDAAO1317	1/4W 10K OHM
R4	RESISTOR FXD ERD-25UJ221		1/4W 220 OHM	5RDAAO1329	1/4W 68 OHM
R5	RESISTOR FXD ERD-25UJ221		1/4W 220 OHM	5RDAAO1329	1/4W 220K OHM
R6	RESISTOR FXD ERD-25UJ221		1/4W 220 OHM	5RDAAO1329	1/4W 1K OHM
R7	RESISTOR FXD ERD-25UJ221		1/4W 220 OHM	5RDAAO1329	1/4W 10K OHM
R8	RESISTOR FXD ERD-25UJ221		1/4W 220 OHM	5RDAAO1329	1/4W 10K OHM
R9	RESISTOR FXD ERD-25UJ221		1/4W 220 OHM	5RDAAO1329	1/4W 220 OHM
R10	RESISTOR FXD ERD-25UJ221		1/4W 220 OHM	5RDAAO1329	1/4W 100 OHM
R11	RESISTOR FXD ERD-25UJ221		1/4W 220 OHM	5RDAAO1329	1/4W 220 OHM
R12	RESISTOR FXD ERD-25UJ221		1/4W 220 OHM	5RDAAO1329	1/4W 1K OHM
R13	RESISTOR FXD ERD-25UJ221		1/4W 220 OHM	5RDAAO1329	1/4W 220K OHM
R14	RESISTOR FXD ERD-25UJ104		1/4W 100K OHM	5RDAAO1393	1/4W 10K OHM
R15	RESISTOR FXD ERD-25UJ104		1/4W 100K OHM	5RDAAO1393	1/4W 10K OHM
R16	RESISTOR FXD ERD-25UJ104		1/4W 100K OHM	5RDAAO1393	1/4W 1K OHM
R17	RESISTOR FXD ERD-25UJ104		1/4W 100K OHM	5RDAAO1393	1/4W 220K OHM
R18	RESISTOR FXD ERD-25UJ104		1/4W 100K OHM	5RDAAO1393	1/4W 1K OHM
R19	RESISTOR FXD ERD-25UJ104		1/4W 100K OHM	5RDAAO1393	1/4W 1K OHM
R20	RESISTOR FXD ERD-25UJ104		1/4W 100K OHM	5RDAAO1393	1/4W 220K OHM
R21	RESISTOR FXD ERD-25UJ104		1/4W 100K OHM	5RDAAO1393	1/4W 220 OHM
R22	RESISTOR FXD ERD-25UJ104		1/4W 100K OHM	5RDAAO1393	1/4W 1K OHM
R23	RESISTOR FXD ERD-25UJ104		1/4W 100K OHM	5RDAAO1393	1/4W 100K OHM
R24	RESISTOR FXD ERD-25UJ104		1/4W 100K OHM	5RDAAO1393	1/4W 100K OHM
R25	RESISTOR FXD ERD-25UJ104		1/4W 100K OHM	5RDAAO1393	1/4W 100K OHM
R26	RESISTOR FXD ERD-25UJ104		1/4W 100K OHM	5RDAAO1393	1/4W 100K OHM
R27	RESISTOR FXD ERD-25UJ104		1/4W 100K OHM	5RDAAO1393	1/4W 100K OHM
R28	RESISTOR FXD ERD-25UJ104		1/4W 100K OHM	5RDAAO1393	1/4W 100K OHM
R29	RESISTOR FXD ERD-25UJ104		1/4W 100K OHM	5RDAAO1393	1/4W 100K OHM
R30	RESISTOR FXD ERD-25UJ104		1/4W 100K OHM	5RDAAO1393	1/4W 100K OHM
R31	RESISTOR FXD ERD-25UJ104		1/4W 100K OHM	5RDAAO1393	1/4W 100K OHM
R32	RESISTOR FXD ERD-25UJ104		1/4W 100K OHM	5RDAAO1393	1/4W 100K OHM
R33	RESISTOR FXD ERD-25UJ102		1/4W 1K OHM	5RDAAO1345	1/4W 1K OHM
R34	RESISTOR FXD ERD-25UJ102		1/4W 1K OHM	5RDAAO1345	1/4W 1K OHM
R35	RESISTOR FXD ERD-25UJ561		1/4W 560 OHM	5RDAAO1339	1/4W 560 OHM
R36	RESISTOR FXD ERD-25UJ103		1/4W 10K OHM	5RDAAO1369	1/4W 10K OHM
R37	RESISTOR FXD ERD-25UJ101		1/4W 100 OHM	5RDAAO1321	1/4W 100 OHM
R38	RESISTOR FXD ERD-25UJ103		1/4W 10K OHM	5RDAAO1369	1/4W 10K OHM
R39	RESISTOR FXD ERD-25UJ680		1/4W 68 OHM	5RDAAO1317	1/4W 68 OHM
R40	RESISTOR FXD ERD-25UJ224		1/4W 220K OHM	5RDAAO1401	1/4W 220K OHM
R41	RESISTOR FXD ERD-25UJ102		1/4W 1K OHM	5RDAAO1345	1/4W 1K OHM
R42	RESISTOR FXD ERD-25UJ103		1/4W 10K OHM	5RDAAO1369	1/4W 10K OHM
R43	RESISTOR FXD ERD-25UJ103		1/4W 10K OHM	5RDAAO1369	1/4W 10K OHM
R44	RESISTOR FXD ERD-25UJ221		1/4W 220 OHM	5RDAAO1329	1/4W 220 OHM
R45	RESISTOR FXD ERD-25UJ101		1/4W 100 OHM	5RDAAO1321	1/4W 100 OHM
R46	RESISTOR FXD ERD-25UJ221		1/4W 220 OHM	5RDAAO1329	1/4W 220 OHM
R47	RESISTOR FXD ERD-25UJ102		1/4W 1K OHM	5RDAAO1345	1/4W 1K OHM
R48	RESISTOR FXD ERD-25UJ224		1/4W 220K OHM	5RDAAO1401	1/4W 220K OHM
R49	RESISTOR FXD ERD-25UJ103		1/4W 10K OHM	5RDAAO1369	1/4W 10K OHM
R50	RESISTOR FXD ERD-25UJ103		1/4W 10K OHM	5RDAAO1369	1/4W 10K OHM
R51	RESISTOR FXD ERD-25UJ102		1/4W 1K OHM	5RDAAO1345	1/4W 1K OHM
R52	RESISTOR FXD ERD-25UJ224		1/4W 220K OHM	5RDAAO1401	1/4W 220K OHM
R53	RESISTOR FXD ERD-25UJ102		1/4W 1K OHM	5RDAAO1345	1/4W 1K OHM
R54	RESISTOR FXD ERD-25UJ102		1/4W 1K OHM	5RDAAO1345	1/4W 1K OHM
R55	RESISTOR FXD ERD-25UJ224		1/4W 220K OHM	5RDAAO1401	1/4W 220K OHM
R56	RESISTOR FXD ERD-25UJ221		1/4W 220 OHM	5RDAAO1329	1/4W 220 OHM
R57	RESISTOR FXD ERD-25UJ102		1/4W 1K OHM	5RDAAO1345	1/4W 1K OHM

PARTS LIST

PARTS LIST		TITLE CHE-85		SHEET NO. 7	
V-UHF CONV					
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
R58	RESISTOR FXD	ERD-25UJ330	1/4W 33 OHM	5RDAAA01309	
R59	RESISTOR FXD	ERD-25UJ821	1/4W 820 OHM	5RDAAA01343	
R60	RESISTOR FXD	ERD-25UJ100	1/4W 10 OHM	5RDAAA01297	
R61	RESISTOR FXD	ERD-25UJ332	1/4W 3.3K OHM	5RDAAA01357	
R62	RESISTOR FXD	ERD-25UJ101	1/4W 100 OHM	5RDAAA01321	
R63	RESISTOR FXD	ERD-25UJ221	1/4W 220 OHM	5RDAAA01329	
R64	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	5RDAAA01369	
R65	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	5RDAAA01369	
R66	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	5RDAAA01369	
R67	RESISTOR FXD	ERD-25UJ101	1/4W 100 OHM	5RDAAA01321	
R68	RESISTOR FXD	ERD-25UJ102	1/4W 1K OHM	5RDAAA01345	
R69	RESISTOR FXD	ERD-25UJ102	1/4W 1K OHM	5RDAAA01345	
R70	RESISTOR FXD	ERD-25UJ472	1/4W 4.7K OHM	5RDAAA01361	
RA1	RESISTOR VAR	IHR-5-473JA	47K OHM X5	5RZAB00419	
RV1	RESISTOR VAR	EVN-D1AA00B22		5RVAB00320	
RV2	RESISTOR VAR	EVN-D1AA00B14		5RVAB00324	
T1	RF XFMR	H-6LHJD00443		6LHJD00443	
T2	RF XFMR	H-6LHJD00443		6LHJD00443	
T3	RF XFMR	H-6LHJD00444		6LHJD00444	
T4	RF XFMR	H-6LHJD00444		6LHJD00444	
T5	RF XFMR	H-6LHJD00407A		6LHJD00407	
T6	RF XFMR	H-6LHJD00407A		6LHJD00407	
T7	RF XFMR	H-6LHJD00408A		6LHJD00408	
T8	RF XFMR	H-6LHJD00408A		6LHJD00408	
T9	RF XFMR	H-6LHJD00409A		6LHJD00409	
T10	RF XFMR	H-6LHJD00409A		6LHJD00409	
T11	RF XFMR	H-6LHJD00297		6LHJD00297	
T12	RF XFMR	H-6LHJD00445		6LHJD00445	
T13	RF XFMR	H-6LHJD00445		6LHJD00445	
T14	RF XFMR	H-6LHJD00445		6LHJD00445	
T15	RF XFMR	H-6LHJD00297		6LHJD00297	
TP1	TEST TERMINAL	PCN6-PEA		5JDAAO0364	
TP2	TEST TERMINAL	PCN6-PEA		5JDAAO0364	
TP3	TEST TERMINAL	PCN6-PEA		5JDAAO0364	
TR1	TRANSISTOR	2SC1988		5TCAB00135	

PARTS LIST

PARTS LIST		TITLE CHE-85		SHEET NO. 8	
V-UHF CONV					
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
TR2	TRANSISTOR	3SK129-P2		5TKAK00005	
TR3	TRANSISTOR	2SC1260		5TCAB00025	
TR4	TRANSISTOR	2SA1015-Y		5TAAG00070	
TR5	TRANSISTOR	2SC1260		5TCAB00025	
TR6	TRANSISTOR	2SC1260		5TCAB00025	
TR7	TRANSISTOR	3SK77-GR		5TKAA00108	
TR8	TRANSISTOR	2SA1015-Y		5TAAG00070	

PARTS LIST

PARTS NO		PARTS NAME	TYPE	DESCRIPTION	CODE
A1	MIXER	M8-8P			5EZA00006
C1	CAP,FXD	CER	C3216CH1H020C-E-TP	2P	5CAAD00798
C2	CAP,FXD	CER	C3216CH1H020C-E-TP	2P	5CAAD00798
C3	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C4	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C5	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C6	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C7	CAP,FXD	CER	C3216CH1H020C-E-TP	2P	5CAAD00798
C8	CAP,FXD	CER	C3216CH1H020C-E-TP	2P	5CAAD00798
C9	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C10	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C11	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C12	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C13	CAP,FXD	CER	C3216CH1H020C-E-TP	2P	5CAAD00798
C14	CAP,FXD	CER	C3216CH1H020C-E-TP	2P	5CAAD00798
C15	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C16	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C17	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C18	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C19	CAP,FXD	CER	C3216CH1H070D-E-TP		5CAAD00977
C20	CAP,FXD	CER	C3216CH1H010C-E-TP	1PF	5CAAD00795
C21	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C22	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C23	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C24	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C25	CAP,FXD	CER	C3216CH1H020C-E-TP	2P	5CAAD00798
C26	CAP,FXD	CER	C3216CH1H01J-E-TP	100PF	5CAAD00780
C27	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C28	CAP,FXD	ELCTLT	ECE-A1ES100	25V10UF	5CEAA01348
C29	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C30	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C31	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C32	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C33	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C34	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782

PARTS LIST

PARTS NO		PARTS NAME	TYPE	DESCRIPTION	CODE
C35	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C36	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C37	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C38	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C39	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C40	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C41	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C42	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C43	CAP,FXD	CER	C3216CH1H100D-E-TP	10PF	5CAAD00785
C44	CAP,FXD	CER	C3216CH1H030C-E-TP	3PF	5CAAD00796
C45	CAP,FXD	CER	C3216CH1H100D-E-TP	10PF	5CAAD00785
C46	CAP,FXD	CER	C3216CH1H070D-E-TP		5CAAD00977
C47	CAP,FXD	CER	C3216CH1H070D-E-TP		5CAAD00977
C48	CAP,FXD	TANTAL	202L2502 475M4	4.7UF 25V	5CSAC00344
C49	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C50	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C51	CAP,FXD	ELCTLT	ECE-A1ES100	25V10UF	5CEAA01348
C52	CAP,FXD	CER	C3216F1H104Z-E-TP	0.1UF	5CAAD01056
C53	CAP,FXD	CER	C3216CH1H101J-E-TP	100PF	5CAAD00780
C54	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C55	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C56	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C57	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C58	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C59	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C60	CAP,FXD	CER	C3216B1H103K-E-TP	0.01UF	5CAAD00789
C61	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C62	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C63	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C64	CAP,FXD	CER	C3216SL1H102J-E-TP	1000P	5CAAD00782
C65	CAP,FXD	CER	C3216CH1H020C-E-TP	2P	5CAAD00798
C66	CAP,FXD	CER	C3216CH1H0R5C-E-TP		5CAAD00976
C67	CAP,FXD	CER	C3216CH1H010C-E-TP	1PF	5CAAD00795
C68	CAP,FXD	CER	C3216CH1H0R5C-E-TP		5CAAD00976
C69	CAP,FXD	CER	C3216CH1H020C-E-TP	2P	5CAAD00798

PARTS LIST

PARTS NO		PARTS NAME		TYPE		DESCRIPTION		CODE	
C70	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C71	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C72	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C73	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C74	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C75	CAP, FXD	CER	C3216CH1H070D-E-TP			5CAAD00977			
C76	CAP, FXD	CER	C3216CH1H020C-E-TP	2P	2P	5CAAD00798			
C77	CAP, FXD	CER	C3216CH1H070D-E-TP			5CAAD00977			
C78	CAP, FXD	CER	C3216CH1H020C-E-TP	2P	2P	5CAAD00798			
C79	CAP, FXD	CER	C3216CH1H070D-E-TP			5CAAD00977			
C80	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C81	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C82	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C83	CAP, FXD	CER	C3216CH1H120J-E-TP	12P	12P	5CAAD00784			
C84	CAP, FXD	CER	C3216CH1H030C-E-TP	3PF	3PF	5CAAD00796			
C85	CAP, FXD	CER	C3216CH1H120J-E-TP	12P	12P	5CAAD00784			
C86	CAP, FXD	CER	C3216CH1H030C-E-TP	3PF	3PF	5CAAD00796			
C87	CAP, FXD	CER	C3216CH1H120J-E-TP	12P	12P	5CAAD00784			
C88	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C89	CAP, FXD	CER	C3216B1H103K-E-TP	0.01UF	0.01UF	5CAAD00789			
C90	CAP, FXD	CER	C3216CH1H820J-E-TP	82P	82P	5CAAD00930			
C91	CAP, FXD	CER	C3216CH1H820J-E-TP	82P	82P	5CAAD00930			
C92	CAP, FXD	CER	C3216CH1H330J-E-TP	33P	33P	5CAAD00794			
C93	CAP, FXD	CER	C3216CH1H121J-E-TP	120PF	120PF	5CAAD00931			
C94	CAP, FXD	CER	C3216CH1H100D-E-TP	10PF	10PF	5CAAD00785			
C95	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C96	CAP, FXD	CER	C3216CH1H101J-E-TP	100PF	100PF	5CAAD00780			
C97	CAP, FXD	CER	C3216CH1H101J-E-TP	100PF	100PF	5CAAD00780			
C98	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C99	CAP, FXD	CER	C3216CH1H101J-E-TP	100PF	100PF	5CAAD00780			
C100	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C101	CAP, FXD	CER	C3216CH1H101J-E-TP	100PF	100PF	5CAAD00780			
C102	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C103	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C104	CAP, FXD	ELCTLT	ECE-A1ES100	25V10UF	25V10UF	5CEAA01348			

PARTS LIST

PARTS NO		PARTS NAME		TYPE		DESCRIPTION		CODE	
C105	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C106	CAP, FXD	CER	C3216B1H103K-E-TP	0.01UF	0.01UF	5CAAD00789			
C107	CAP, FXD	CER	C3216B1H103K-E-TP	0.01UF	0.01UF	5CAAD00789			
C108	CAP, FXD	CER	C3216B1H103K-E-TP	0.01UF	0.01UF	5CAAD00789			
C109	CAP, FXD	CER	C3216B1H103K-E-TP	0.01UF	0.01UF	5CAAD00789			
C110	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C111	CAP, FXD	ELCTLT	ECE-A1ES100	25V10UF	25V10UF	5CEAA01348			
C112	CAP, FXD	CER	C3216B1H103K-E-TP	0.01UF	0.01UF	5CAAD00789			
C113	CAP, FXD	CER	C3216B1H103K-E-TP	0.01UF	0.01UF	5CAAD00789			
C114	CAP, FXD	CER	C3216B1H103K-E-TP	0.01UF	0.01UF	5CAAD00789			
C115	CAP, FXD	CER	C3216B1H103K-E-TP	0.01UF	0.01UF	5CAAD00789			
C116	CAP, FXD	CER	C3216B1H103K-E-TP	0.01UF	0.01UF	5CAAD00789			
C117	CAP, FXD	CER	C3216F1H104Z-E-TP	0.1UF	0.1UF	5CAAD01056			
C118	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C119	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C120	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C121	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C122	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C123	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C124	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C125	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C126	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C127	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C128	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C129	CAP, FXD	CER	C3216CH1H0R5C-E-TP	3PF	3PF	5CAAD00976			
C131	CAP, FXD	CER	C3216CH1H0R5C-E-TP	100PF	100PF	5CAAD00976			
C132	CAP, FXD	CER	C3216CH1H101J-E-TP	100PF	100PF	5CAAD00780			
C133	CAP, FXD	CER	C3216CH1H101J-E-TP	100PF	100PF	5CAAD00780			
C134	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C135	CAP, FXD	CER	C3216CH1H030C-E-TP	3PF	3PF	5CAAD00976			
C136	CAP, FXD	CER	C3216CH1H101J-E-TP	100PF	100PF	5CAAD00780			
C137	CAP, FXD	CER	C3216SL1H102J-E-TP	1000P	1000P	5CAAD00782			
C138	CAP, FXD	ELCTLT	ECE-A1EU101	25V 100UF	25V 100UF	5CEAA01839			
C139	CAP, FXD	CER	C3216CH1H101J-E-TP	100PF	100PF	5CAAD00780			
CD1	DIODE		1SV68			5TXAE00170			

PARTS LIST

PARTS LIST		TITLE CGA-118		SHEET NO. 5	
V.VHF LOCAL		TITLE CGA-118		SHEET NO. 6	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
CD2	DIODE	1SV68		STXAE00170	
CD4	DIODE	1SS226 TE85L		STXAD00320	
CD5	DIODE	1S2208(B)		STXAD00549	
CD6	DIODE	1S2208(B)		STXAD00549	
CD8	DIODE	1SS226 TE85L		STXAD00320	
CD9	DIODE	1S2208(B)		STXAD00549	
CD10	DIODE	1S2208(B)		STXAD00549	
CD12	DIODE	1SS226 TE85L		STXAD00320	
CD13	DIODE	1S2208(B)		STXAD00549	
CD15	DIODE	1SS226 TE85L		STXAD00320	
CD16	DIODE	1SS226 TE85L		STXAD00320	
CD17	DIODE	1SS226 TE85L		STXAD00320	
CD18	DIODE	1SS226 TE85L		STXAD00320	
CD19	DIODE	1SS226 TE85L		STXAD00320	
CD20	DIODE	1SS226 TE85L		STXAD00320	
CD21	DIODE	1SS226 TE85L		STXAD00320	
CD22	DIODE	1SS226 TE85L		STXAD00320	
CD23	DIODE	1SS226 TE85L		STXAD00320	
CD24	DIODE	1SS226 TE85L		STXAD00320	
CD25	DIODE	1SS226 TE85L		STXAD00320	
CD26	DIODE	1SS226 TE85L		STXAD00320	
CD27	DIODE	1SS181 TE85L		STXAD00356	
CD28	DIODE	1SS226 TE85L		STXAD00320	
CD29	DIODE	1SS226 TE85L		STXAD00320	
CD30	DIODE	1SS226 TE85L		STXAD00320	
CD31	DIODE	1SS226 TE85L		STXAD00320	
CD32	DIODE	1SS226 TE85L		STXAD00320	
CD33	DIODE	1SS226 TE85L		STXAD00320	
CD34	DIODE	1SS226 TE85L		STXAD00320	
CD35	DIODE	1SS226 TE85L		STXAD00320	
CD36	DIODE	1SS181 TE85L		STXAD00356	
CD37	DIODE	1SS181 TE85L		STXAD00356	
CV1	CAPACITOR VAR	TZ03Z050FR	1.5-5PF	5CVAA00169	
FL1	FILTER	HP5803		5NHAD00001	
FL2	FILTER	UVS04		5NBAG00006	

PARTS LIST

PARTS LIST		TITLE CGA-118		SHEET NO. 6	
V.VHF LOCAL		TITLE CGA-118		SHEET NO. 6	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
FL3	FILTER	UVS04		5NBAG00006	
FL4	FILTER	BPTB1		5NBAG00015	
FL5	FILTER	LP163A1		5NLAT00013	
FL6	FILTER	HP5803		5NHAD00001	
FL7	FILTER	BPEB1		5NBAG00011	
FL8	FILTER	DS310-55B222M	100V 0.0022UF	5NXAA00002	
FL9	FILTER	DS310-55B222M	100V 0.0022UF	5NXAA00002	
IC1	IC	HD74LS145P		5DDAF00704	
IC2	IC	MC4044P		5DDAS00002	
IC3	IC	TC74HC161P		5DDAE00430	
IC4	IC	TC74HC161P		5DDAE00430	
IC5	IC	HD10551P		5DDAF00953	
IC6	IC	UPB582C		5DDAC00504	
IC7	IC	UPC1651G		5DAAA00171	
IC8	IC	UPC1651G		5DAAA00171	
IC9	IC	UPC1651G		5DAAA00171	
IC10	IC	UPC1651G		5DAAA00171	
IC11	IC	UPC1651G		5DAAA00171	
L1	COIL	H-6LAJD00253		6LAJD00253	
L2	COIL	LAL03VBR1R0M	1UH	5LCAA00282	
L3	COIL	LAL03VBR1R0M	1UH	5LCAA00282	
L4	COIL	H-6LAJD00254		6LAJD00254	
L5	COIL	LAL03VBR33M	0.33UH	5LCAA00274	
L6	COIL	LAL03VBR33M	0.33UH	5LCAA00274	
L7	COIL	H-6LAJD00255		6LAJD00255	
L8	COIL	LAL03VBR22M	0.22UH	5LCAA00280	
L9	COIL	LAL03VBR22M	0.22UH	5LCAA00280	
L10	COIL	H-6LAJD00256		6LAJD00256	
L11	COIL	H-6LAJD00212		6LAJD00212	
L12	COIL	H-6LAJD00212		6LAJD00212	
L13	TIN COATED WIRE	TA-0.6P		2717100001	
L14	TIN COATED WIRE	TA-0.6P		2717100001	
L15	COIL	LAL03VB471K	470UH	5LCAA00270	
L16	COIL	H-6LAJD00257		6LAJD00257	
L17	COIL	H-6LAJD00257		6LAJD00257	

PARTS LIST

PARTS NO		PARTS NAME		TYPE		DESCRIPTION		CODE	
L18		COIL	H-6LAJD00257					6LAJD00257	
L19		COIL	H-6LAJD00258					6LAJD00258	
L20		COIL	H-6LAJD00258					6LAJD00258	
L21		COIL	H-6LAJD00258					6LAJD00258	
L22		COIL	H-6LAJD00258					6LAJD00258	
L23		COIL	H-6LAJD00258					6LAJD00258	
L24		COIL	H-6LAJD00258					6LAJD00258	
L25		COIL	LAL03VBR33M		0.33UH			5LCAA00274	
L26		COIL	H-6LAJD00212			1/8W 470 OHM		6LAJD00212	
L27		COIL	H-6LAJD00212			1/8W 47K OHM		6LAJD00212	
P25		CONNECTOR	EC1C-22P-2.5DSA		22P			5JWBS00070	
P26		CONNECTOR	EC1C-22P-2.5DSA		22P			5JWBS00070	
PC1		PCB	H-6PCJD00167B					6PCJD00167	
R1		RESISTOR	ERJ-8GCSJ471T			1/8W 470 OHM		5REAG00579	
R2		RESISTOR	ERJ-8GCSJ473T			1/8W 47K OHM		5REAG00578	
R3		RESISTOR	ERJ-8GCSJ101T			1/8W 100 OHM		5REAG00586	
R4		RESISTOR	ERJ-8GCSJ471T			1/8W 470 OHM		5REAG00579	
R5		RESISTOR	ERJ-8GCSJ473T			1/8W 47K OHM		5REAG00578	
R6		RESISTOR	ERJ-8GCSJ101T			1/8W 100 OHM		5REAG00586	
R7		RESISTOR	ERJ-8GCSJ471T			1/8W 470 OHM		5REAG00579	
R8		RESISTOR	ERJ-8GCSJ473T			1/8W 47K OHM		5REAG00578	
R9		RESISTOR	ERJ-8GCSJ101T			1/8W 100 OHM		5REAG00586	
R10		RESISTOR	ERJ-8GCSJ471T			1/8W 470 OHM		5REAG00579	
R11		RESISTOR	ERJ-8GCSJ473T			1/8W 47K OHM		5REAG00578	
R12		RESISTOR	ERJ-8GCSJ101T			1/8W 100 OHM		5REAG00586	
R13		RESISTOR	ERJ-8GCSJ471T			1/8W 470 OHM		5REAG00579	
R14		RESISTOR	ERJ-8GCSJ473T			1/8W 47K OHM		5REAG00578	
R15		RESISTOR	ERJ-8GCSJ101T			1/8W 100 OHM		5REAG00586	
R16		RESISTOR	ERJ-8GCSJ473T			1/8W 47K OHM		5REAG00578	
R17		RESISTOR	ERJ-8GCSJ221T			1/8W 220 OHM		5REAG00594	
R18		RESISTOR	ERJ-8GCSJ102T			1/8W 1K OHM		5REAG00572	
R19		RESISTOR	ERJ-8GCSJ101T			1/8W 100 OHM		5REAG00586	
R20		RESISTOR	ERJ-8GCSJ101T			1/8W 100 OHM		5REAG00586	
R21		RESISTOR	ERJ-8GCSJ101T			1/8W 100 OHM		5REAG00586	
R22		RESISTOR	ERJ-8GCSJ101T			1/8W 100 OHM		5REAG00586	

PARTS LIST

PARTS NO		PARTS NAME		TYPE		DESCRIPTION		CODE	
R23		RESISTOR	FXD ERJ-8GCSJ101T			1/8W 100 OHM		5REAG00586	
R24		RESISTOR	FXD ERJ-8GCSJ101T			1/8W 100 OHM		5REAG00586	
R25		RESISTOR	FXD ERJ-8GCSJ101T			1/8W 100 OHM		5REAG00586	
R26		RESISTOR	FXD ERJ-8GCSJ101T			1/8W 100 OHM		5REAG00586	
R27		RESISTOR	FXD ERJ-8GCSJ101T			1/8W 100 OHM		5REAG00586	
R28		RESISTOR	FXD ERJ-8GCSJ102T			1/8W 1K OHM		5REAG00572	
R29		RESISTOR	FXD ERJ-8GCSJ471T			1/8W 470 OHM		5REAG00579	
R30		RESISTOR	FXD ERJ-8GCSJ100T			1/8W 10 OHM		5REAG00617	
R31		RESISTOR	FXD ERJ-8GCSJ151T			1/8W 150 OHM		5REAG00583	
R32		RESISTOR	FXD ERJ-8GCSJ100T			1/8W 10 OHM		5REAG00617	
R33		RESISTOR	FXD ERJ-8GCSJ103T			1/8W 10K OHM		5REAG00576	
R34		RESISTOR	FXD ERJ-8GCSJ470T			1/8W 47 OHM		5REAG00580	
R35		RESISTOR	FXD ERJ-8GCSJ222T			1/8W 2.2K OHM		5REAG00575	
R36		RESISTOR	FXD ERJ-8GCSJ562T			1/8W 5.6K OHM		5REAG00625	
R37		RESISTOR	FXD ERJ-8GCSJ474T			1/8W 470K OHM		5REAG00593	
R38		RESISTOR	FXD ERJ-8GCSJ222T			1/8W 2.2K OHM		5REAG00575	
R39		RESISTOR	FXD ERJ-8GCSJ103T			1/8W 10K OHM		5REAG00576	
R40		RESISTOR	FXD ERJ-8GCSJ103T			1/8W 10K OHM		5REAG00576	
R41		RESISTOR	FXD ERJ-8GCSJ103T			1/8W 10K OHM		5REAG00576	
R42		RESISTOR	FXD ERJ-8GCSJ103T			1/8W 10K OHM		5REAG00576	
R43		RESISTOR	FXD ERJ-8GCSJ103T			1/8W 10K OHM		5REAG00576	
R44		RESISTOR	FXD ERJ-8GCSJ330T			1/8W 33 OHM		5REAG00620	
R45		RESISTOR	FXD ERJ-8GCSJ331T			1/8W 330 OHM		5REAG00597	
R46		RESISTOR	FXD ERJ-8GCSJ100T			1/8W 10 OHM		5REAG00617	
R47		RESISTOR	FXD ERJ-8GCSJ151T			1/8W 150 OHM		5REAG00583	
R48		RESISTOR	FXD ERJ-8GCSJ100T			1/8W 10 OHM		5REAG00617	
R49		RESISTOR	FXD ERJ-8GCSJ100T			1/8W 10 OHM		5REAG00617	
R50		RESISTOR	FXD ERJ-8GCSJ151T			1/8W 150 OHM		5REAG00583	
R51		RESISTOR	FXD ERJ-8GCSJ100T			1/8W 10 OHM		5REAG00617	
R52		RESISTOR	FXD ERJ-8GCSJ100T			1/8W 10 OHM		5REAG00617	
R53		RESISTOR	FXD ERJ-8GCSJ151T			1/8W 150 OHM		5REAG00583	
R54		RESISTOR	FXD ERJ-8GCSJ100T			1/8W 10 OHM		5REAG00617	
R55		RESISTOR	FXD ERJ-8GCSJ471T			1/8W 470 OHM		5REAG00579	
R56		RESISTOR	FXD ERJ-8GCSJ471T			1/8W 470 OHM		5REAG00579	
R57		RESISTOR	FXD ERJ-8GCSJ223T			1/8W 22K OHM		5REAG00581	

V.VHF LOCAL

TITLE CGA-118

PARTS LIST

V.VHF LOCAL	TITLE CGA-118	SHEET NO. 10
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PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE
R95	RESISTOR FXD	ERJ-8GCSJ680		5REAG00495
R96	RESISTOR FXD	ERJ-8GCSJ103	1/8W 10K OHM	5REAG00517
R97	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
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
TP8	TEST TERMINAL	PCN6-PEA		5JDA000364
TP9	TEST TERMINAL	PCN6-PEA		5JDA000364
TR1	TRANSISTOR	2SK192A-BL		5TKAA00080
TR2	TRANSISTOR	2SK192A-BL		5TKAA00080
TR3	TRANSISTOR	2SK192A-BL		5TKAA00080
TR4	TRANSISTOR	2SK192A-BL		5TKAA00080
TR5	TRANSISTOR	2SK192A-BL		5TKAA00080
TR6	TRANSISTOR	2SC2714-0		5TCAF00407
TR7	TRANSISTOR	2SC2714-0		5TCAF00407
TR8	TRANSISTOR	2SC2714-0		5TCAF00407
TR9	TRANSISTOR	2SA1162-Y TE85L		5TAAG00182
TR10	TRANSISTOR	2SC2714-0		5TCAF00407
TR11	TRANSISTOR	2SA817A-Y		5TAAG00229
TR12	TRANSISTOR	2SA817A-Y		5TAAG00229
TR13	TRANSISTOR	2SC2714-0		5TCAF00407

PARTS LIST

V.VHF LOCAL	TITLE CGA-118	SHEET NO. 9
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PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE
R58	RESISTOR FXD	ERJ-8GCSJ221T	1/8W 220 OHM	5REAG00594
R59	RESISTOR FXD	ERJ-8GCSJ221T	1/8W 220 OHM	5REAG00594
R60	RESISTOR FXD	ERJ-8GCSJ472T	1/8W 4.7K OHM	5REAG00573
R62	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572
R63	RESISTOR FXD	ERJ-8GCSJ100T	1/8W 10 OHM	5REAG00617
R64	RESISTOR FXD	ERJ-8GCSJ470T	1/8W 47 OHM	5REAG00580
R65	RESISTOR FXD	ERJ-8GCSJ100T	1/8W 10 OHM	5REAG00617
R66	RESISTOR FXD	ERJ-8GCSJ151T	1/8W 150 OHM	5REAG00583
R67	RESISTOR FXD	ERJ-8GCSJ100T	1/8W 10 OHM	5REAG00617
R68	RESISTOR FXD	ERJ-8GCSJ151T	1/8W 150 OHM	5REAG00583
R69	RESISTOR FXD	ERJ-8GCSJ471T	1/8W 470 OHM	5REAG00579
R70	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572
R71	RESISTOR FXD	ERJ-8GCSJ220T	1/8W 22 OHM	5REAG00619
R72	RESISTOR FXD	ERJ-8GCSJ470T	1/8W 47 OHM	5REAG00580
R73	RESISTOR FXD	ERJ-8GCSJ220T	1/8W 22 OHM	5REAG00619
R74	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R75	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R76	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R77	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R78	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R79	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R80	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R81	RESISTOR FXD	ERJ-8GCSJ102T	1/8W 1K OHM	5REAG00572
R82	RESISTOR FXD	ERJ-8GCSJ100T	1/8W 10 OHM	5REAG00617
R83	RESISTOR FXD	ERJ-8GCSJ151T	1/8W 150 OHM	5REAG00583
R84	RESISTOR FXD	ERJ-8GCSJ100T	1/8W 10 OHM	5REAG00617
R85	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R86	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R87	RESISTOR FXD	ERJ-8GCSJ101T	1/8W 100 OHM	5REAG00586
R89	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R90	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R91	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R92	RESISTOR FXD	ERJ-8GCSJ103T	1/8W 10K OHM	5REAG00576
R93	RESISTOR FXD	ERJ-8GCSJ472T	1/8W 4.7K OHM	5REAG00573
R94	RESISTOR FXD	ERJ-8GCSJ561T	1/8W 560 OHM	5REAG00571

PARTS LIST

ACCESSORIES		TITLE CMK-165-F		SHEET NO. 1
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE
AC1	LEVER	MTD000776		MTD000776
AC2	LEVER	MTD000776		MTD000776
AC3	CASE	CMK-165		5ZXAM00003
AC5	MANUAL	CMK-165		6ZXJD00022

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PARTS LIST

PARTS LIST		RTTY DEMO		TITLE CMH-530		SHEET NO. 1	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE			
C1	CAP,FXD TANTAL	202L3502 105M5471	35V 1UF	5CSAC00796			
C2	CAP,FXD TANTAL	202L3502 105M5471	35V 1UF	5CSAC00796			
C3	CAP,FXD TANTAL	202L3502 105M5471	35V 1UF	5CSAC00796			
C4	CAP,FXD TANTAL	202L3502 105M5471	35V 1UF	5CSAC00796			
C5	CAP,FXD TANTAL	202L2502 106M4	10UF 25V	5CSAC00324			
C6	CAP,FXD TANTAL	202L3502 105M5471	35V 1UF	5CSAC00796			
C7	CAP,FXD TANTAL	202L3502 105M5471	35V 1UF	5CSAC00796			
C8	CAP,FXD TANTAL	202L3502 105M5471	35V 1UF	5CSAC00796			
C9	CAP,FXD TANTAL	202L3502 105M5471	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 474M5 471	35V 0.47UF	5CSAC00825			
C13	CAP,FXD TANTAL	202L3502 474M5 471	35V 0.47UF	5CSAC00825			
C14	CAP,FXD TANTAL	202L2502 106M4	10UF 25V	5CSAC00324			
C15	CAP,FXD TANTAL	202L2502 106M4	10UF 25V	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 105M5471	35V 1UF	5CSAC00796			
C20	CAP,FXD TANTAL	202L3502 105M5471	35V 1UF	5CSAC00796			
C21	CAP,FXD ELCTLT	ECE-A1ES100	25V10UF	5CEAA01348			
C22	CAP,FXD ELCTLT	ECE-A1ES100	25V10UF	5CEAA01348			
C23	CAP,FXD ELCTLT	ECE-A1ES100	25V10UF	5CEAA01348			
C24	CAP,FXD ELCTLT	ECE-A1ES100	25V10UF	5CEAA01348			
C25	CAP,FXD ELCTLT	ECE-A1ES100	25V10UF	5CEAA01348			
C26	CAP,FXD CER	DD106F103Z50	50V 10000PF	5CBAB00400			
C27	CAP,FXD ELCTLT	ECE-A1ES100	25V10UF	5CEAA01348			
C28	CAP,FXD CER	DD106F103Z50	50V 10000PF	5CBAB00400			
C29	CAP,FXD CER	DD106F103Z50	50V 10000PF	5CBAB00400			
C30	CAP,FXD ELCTLT	ECE-A1ES100	25V10UF	5CEAA01348			
C31	CAP,FXD CER	DD106F103Z50	50V 10000PF	5CBAB00400			
C32	CAP,FXD CER	DD106F103Z50	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		5TXAE00355			

4-44

PARTS LIST

PARTS LIST		RTTY DEMO		TITLE CMH-530		SHEET NO. 2	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE			
CD2	DIODE	1S2076S7		5TXAE00355			
CD3	DIODE	1S2076S7		5TXAE00355			
CD4	DIODE	1S2076S7		5TXAE00355			
CD5	DIODE	1S2076S7		5TXAE00355			
CD6	DIODE	1S2076S7		5TXAE00355			
CD7	DIODE	1S2076S7		5TXAE00355			
CD8	LED	TLR102A		5TZAD00020			
CD9	LED	TLR102A		5TZAD00020			
CP1	PHOTO COUPLER	P1501		5TZCS00004			
CP2	PHOTO COUPLER	P1501		5TZCS00004			
IC1	IC	TC74HC138P		5DDAE00440			
IC2	IC	MSM82C51ARS		5DDAG00110			
IC3	IC	MSM82C55A-SRS		5DDAG00102			
IC4	IC	TC9122P		5DDAE00281			
IC5	IC	TC74HC160P		5DDAE00446			
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-2.5DSA	22P	5JWBS00070			
P16	CONNECTOR	EC1C-22P-2.5DSA	22P	5JWBS00070			
PC1	PCB	H-6PCJDD00169A		6PCJDD00169			
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			

PARTS LIST

RTTY DEMO TITLE CMH-530 SHEET NO. 3

PARTS NO	PARTS 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

RTTY DEMO TITLE CMH-530 SHEET NO. 4

PARTS NO	PARTS 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 1M 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	SRDAA01329
R73	RESISTOR FXD	ERD-25UJ221	1/4W 220 OHM	SRDAA01329
R74	RESISTOR FXD	ERD-25UJ221	1/4W 220 OHM	SRDAA01329
R75	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R76	RESISTOR FXD	ERD-25UJ103	1/4W 10K OHM	SRDAA01369
R77	RESISTOR FXD	ERD-25UJ221	1/4W 220 OHM	SRDAA01329
R78	RESISTOR FXD	ERD-25UJ104	1/4W 100K OHM	SRDAA01393

PARTS LIST

RTTY DEMO		TITLE CMH-530		SHEET NO. 5	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
RA1	RESISTOR	IHR-8-103JA	10K OHM X8	5RZAB00136	
RA2	RESISTOR	IHR-4-103JA	10K OHM X4 1/8W	5RZAB00133	
RV1	RESISTOR VAR	GFD6P-10K OHM	10K OHM	5RMAB00053	
RV2	RESISTOR VAR	GFD6P-10K OHM	10K OHM	5RMAB00053	
RV3	RESISTOR VAR	GFD6P-10K OHM	10K OHM	5RMAB00053	
RV4	RESISTOR VAR	GFD6P-10K OHM	10K OHM	5RMAB00053	
RV5	RESISTOR VAR	GFD6P-10K OHM	10K OHM	5RMAB00053	
RV6	RESISTOR VAR	GFD6P-10K OHM	10K OHM	5RMAB00053	
RV7	RESISTOR VAR	GFD6P-10K OHM	10K OHM	5RMAB00053	
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	

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PARTS LIST

ACCESSORIES		TITLE CMH-530-F		SHEET NO. 1
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE
AC1	LEVER	MTD000776		MTD000776
AC2	LEVER	MTD000776		MTD000776
AC3	CASE	CMH-530		5ZXAM00001
AC4	MANUAL	CMH-530		6ZXJD00019
AC5	INDI UNIT	CKJ-61 6EZJD00008		6EZJD00008
AC6	CNNECTOR	67096-012		5JWBE00142
AC7	RECEPTACLE	76630-001		5JWBE00143

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INTERFACE

TITLE CMH-532

PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE
C1	CAP,FXD CER	DD107SL221J50	50V 220PF	5CAAA01105
C2	CAP,FXD CER	DD107SL221J50	50V 220PF	5CAAA01105
C3	CAP,FXD CER	DD107SL221J50	50V 220PF	5CAAA01105
C4	CAP,FXD CER	DD106F103Z50	50V 10000PF	5CBAB00400
C5	CAP,FXD ELCTLT	ECE-A1ES100	25V10UF	5CEAA01348
C6	CAP,FXD ELCTLT	ECE-A1ES100	25V10UF	5CEAA01348
C7	CAP,FXD ELCTLT	ECE-A1ES100	25V10UF	5CEAA01348
C8	CAP,FXD ELCTLT	ECE-A1ES100	25V10UF	5CEAA01348
C9	CAP,FXD ELCTLT	ECE-A1ES100	25V10UF	5CEAA01348
C10	CAP,FXD CER	DD106F103Z50	50V 10000PF	5CBAB00400
C11	CAP,FXD CER	DD106F103Z50	50V 10000PF	5CBAB00400
C12	CAP,FXD CER	DD106F103Z50	50V 10000PF	5CBAB00400
C13	CAP,FXD CER	DD106F103Z50	50V 10000PF	5CBAB00400
C14	CAP,FXD CER	DD106F103Z50	50V 10000PF	5CBAB00400
C15	CAP,FXD TANTAL	245M3502 105M	35V 1UF	5CSAC00709
C16	CAP,FXD ELCTLT	ECE-A1ES100	25V10UF	5CEAA01348
C17	CAP,FXD CER	DD104SL330J50	50V 33PF	5CAAA01095
C18	CAP,FXD CER	DD104SL330J50	50V 33PF	5CAAA01095
C101	CAP,FXD ELCTLT	ECE-A1ES100	25V10UF	5CEAA01348
C102	CAP,FXD CER	DD106F103Z50	50V 10000PF	5CBAB00400
C103	CAP,FXD ELCTLT	ECE-A1HS4R7	50V4.7UF	5CEAA01372
C104	CAP,FXD ELCTLT	ECE-A1HS4R7	50V4.7UF	5CEAA01372
C105	CAP,FXD TANTAL	202L2502 475M4	4.7UF 25V	5CSAC00344
C106	CAP,FXD TANTAL	202L2502 475M4	4.7UF 25V	5CSAC00344
C107	CAP,FXD TANTAL	202L2502 475M4	4.7UF 25V	5CSAC00344
C108	CAP,FXD TANTAL	202L2502 475M4	4.7UF 25V	5CSAC00344
CD1	DIODE	TLP504A		5DZAD00033
CD2	DIODE	TLP504A		5DZAD00033
CD3	DIODE	TLP504A		5DZAD00033
CD4	DIODE	TLP504A		5DZAD00033
CD101	DIODE	1SS149H		5TXAE00181
CD102	DIODE	1SS149H		5TXAE00181
CD103	DIODE	1S2076S7		5TXAE00355
CD104	DIODE	1S2076S7		5TXAE00355
CD105	DIODE	1S2076S7		5TXAE00355

INTERFACE

TITLE CMH-532

PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE
CD106	DIODE	1S2076S7		5TXAE00355
CD107	DIODE	1S2076S7		5TXAE00355
CD108	DIODE	1S2076S7		5TXAE00355
CD109	DIODE	1S2076S7		5TXAE00355
CD110	DIODE	1S2076S7		5TXAE00355
CD111	DIODE	1S2076S7		5TXAE00355
CD112	DIODE	1S2076S7		5TXAE00355
CD113	DIODE	HZ12A2	1/2W 12V	5TXAE00235
CD114	DIODE	HZ12A2	1/2W 12V	5TXAE00235
IC1	IC	TC4050BP	MOS	5DDAE00073
IC3	IC	TC4069UBP	MOS	5DDAE00045
IC4	IC	SN75188N		5DDAL00409
IC5	IC	SN75189AN		5DDAL00460
IC6	IC	TA78L005AP		5DAAD00048
IC7	IC	TC9122P		5DDAE00281
IC8	IC	TC74HC573P		5DDAE00631
IC9	IC	TC74HC32P		5DDAE00427
IC10	IC	MSM82C51ARS		5DDAG00110
J47	CONNECTOR	67095-010	10P	5JWFS00011
J50	SPACER	KGLS-10S		5ZJEB00003
KC1	CABLE	H-6ZCJD00141		6ZCJD00141
L1	COIL	LAL04NA100K		5LCAA00191
L2	COIL	LAL04NA100K		5LCAA00191
L101	COIL	LAL04NA100K		5LCAA00191
P45	CONNECTOR	HKP-10M2		5JJAA00075
P46	CONNECTOR	HKP-12M2		5JJAA00089
PC1	PCB	H-6PCJD00186B		6PCJD00186
R1	RESISTOR FXD	ERD-25UJ681	1/4W 680 OHM	5RDAAO1341
R2	RESISTOR FXD	ERD-25UJ681	1/4W 680 OHM	5RDAAO1341
R3	RESISTOR FXD	ERD-25UJ681	1/4W 680 OHM	5RDAAO1341
R4	RESISTOR FXD	ERD-25UJ681	1/4W 680 OHM	5RDAAO1341
R5	RESISTOR FXD	ERD-25UJ681	1/4W 680 OHM	5RDAAO1341
R6	RESISTOR FXD	ERD-25UJ681	1/4W 680 OHM	5RDAAO1341
R7	RESISTOR FXD	ERD-25UJ681	1/4W 680 OHM	5RDAAO1341
R8	RESISTOR FXD	ERD-25UJ105	1/4W 1M OHM	5RDAAO1417

PARTS LIST

PARTS NO		TITLE		STREET NO.	
INTERFACE		CMH-532		3	
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE	
R9	RESISTOR FXD	ERD-25UJ472	1/4W 4.7K OHM	SRDAA01361	
R10	RESISTOR FXD	ERD-25UJ472	1/4W 4.7K OHM	SRDAA01361	
R11	RESISTOR FXD	ERD-25UJ472	1/4W 4.7K OHM	SRDAA01361	
R12	RESISTOR FXD	ERD-25UJ472	1/4W 4.7K OHM	SRDAA01361	
R13	RESISTOR FXD	ERD-25UJ472	1/4W 4.7K OHM	SRDAA01361	
R14	RESISTOR FXD	ERD-25UJ472	1/4W 4.7K OHM	SRDAA01361	
R15	RESISTOR FXD	ERD-25UJ472	1/4W 4.7K OHM	SRDAA01361	
R101	RESISTOR FXD	ERD-25UJ100	1/4W 10 OHM	SRDAA01297	
R102	RESISTOR FXD	ERD-25UJ820	1/4W 82 OHM	SRDAA01319	
R103	RESISTOR FXD	ERD-25UJ820	1/4W 82 OHM	SRDAA01319	
R104	RESISTOR FXD	ERD-25UJ562	1/4W 5.6K OHM	SRDAA01363	
R105	RESISTOR FXD	ERD-25UJ332	1/4W 3.3K OHM	SRDAA01357	
R106	RESISTOR FXD	ERD-25UJ332	1/4W 3.3K OHM	SRDAA01357	
T101	TRANSFORMER	H-6LUJD00018		6LUJD00018	
TR101	TRANSISTOR	2SC1627A-Y		5TCAF00532	
TR102	TRANSISTOR	2SC1627A-Y		5TCAF00532	
TR103	TRANSISTOR	2SC1627A-Y		5TCAF00532	
TR104	TRANSISTOR	2SA817A-Y		5TAAAG00229	
X1	CRYSTAL	NC-18C F=3.6864MHZ		5XHAA00527	

PARTS LIST

ACCESSORIES		TITLE CMH-532-F		SHEET NO. 1
PARTS NO	PARTS NAME	TYPE	DESCRIPTION	CODE
AC1	LEVER	MTD000776		MTD000776
AC2	LEVER	MTD000776		MTD000776
AC3	CASE	CMH-532		5ZXAM00002
AC4	MANUAL	CMH-532		6ZXJD00020
AC5	CONNECTOR	RP17-13P-12PC		5JCAA00518
AC6	CONNECTOR	RP17-PC-112		5JCAA00519

10

15

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35

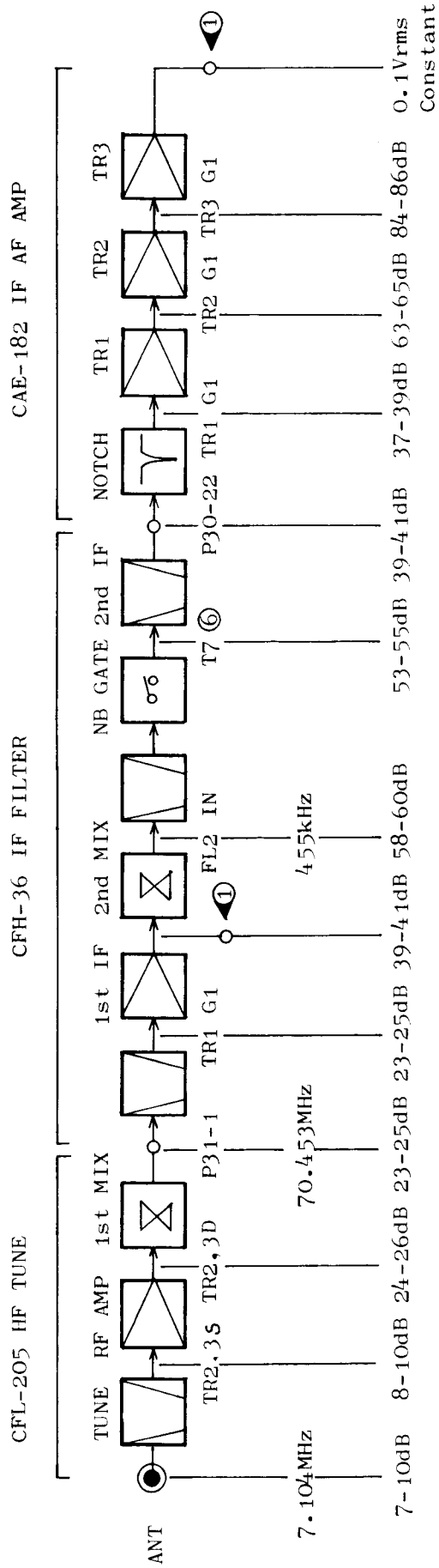
5. APPENDIX DRAWINGS

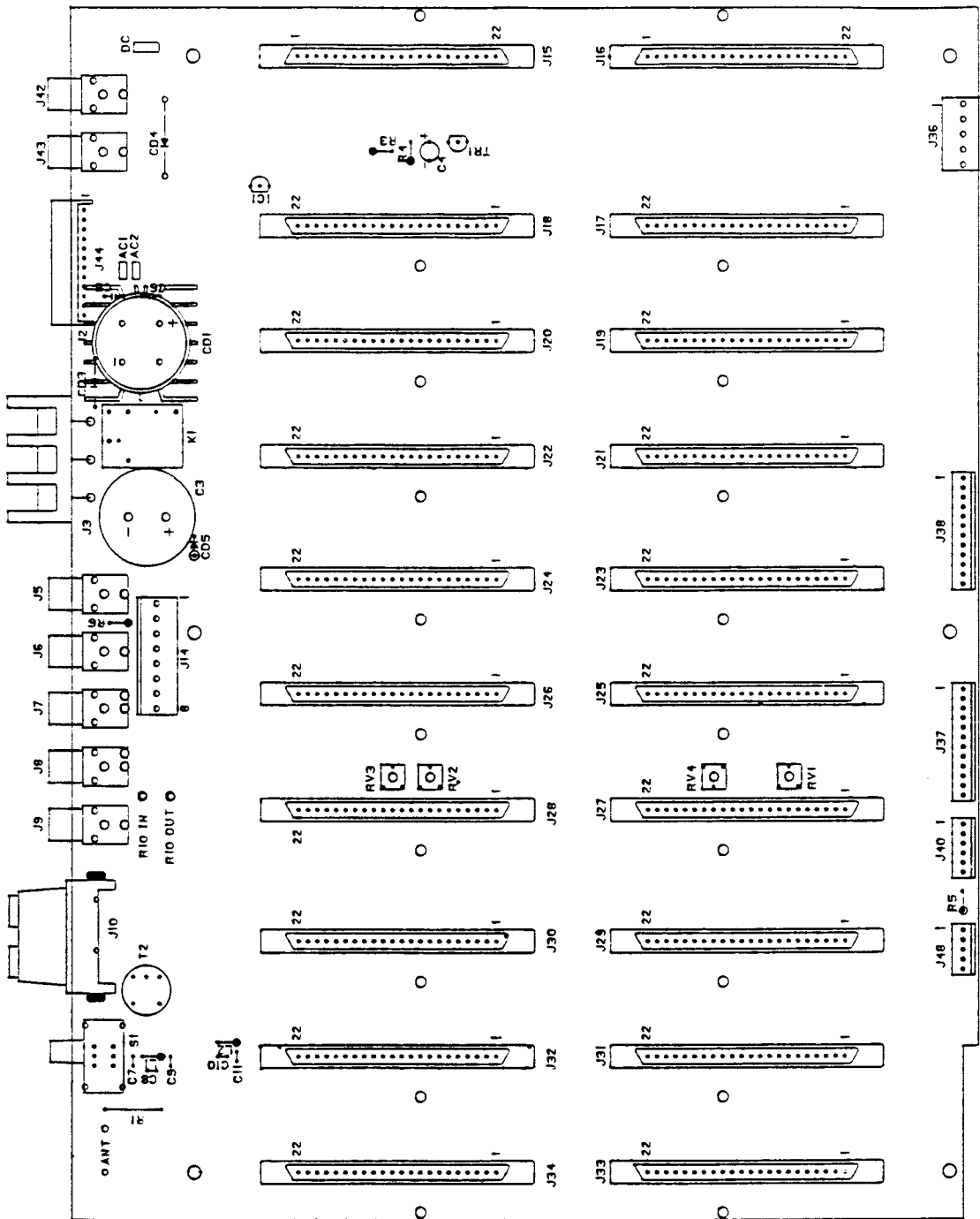
CONTENTS

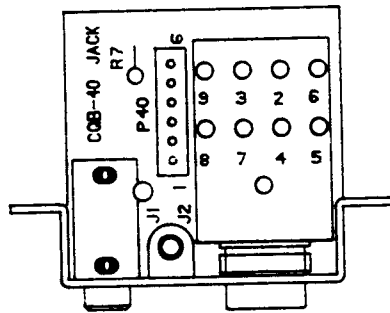
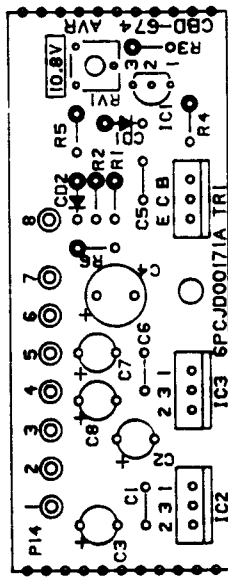
	Page
NRD-525 Level Diagram	5-2
MOTHERBOARD PCB Assembly (CFQ-1726)	5-3
JACK And AVR PCB Assembly (CQB-40,CBD-674)	5-4
HF TUNE PCB Assembly (CFL-205)	5-5
IF FILTER PCB Assembly (CFH-36)	5-6
IF AF AMP PCB Assembly (CAE-182)	5-7
LOOP1 PCB Assembly (CGA-131)	5-8
LOOP2 PCB Assembly (CGA-132)	5-9
CPU PCB Assembly (CDC-353)	5-10
DATA I/O PCB Assembly (CMH-632)	5-11
DISPLAY PCB Assembly (CDE-418)	5-12
V·UHF CONV PCB Assembly (CHE-85)	5-13
V·UHF LOCAL PCB Assembly (CGA-118)	5-14
RTTY DEMO PCB Assembly (CMH-530)	5-15
INTERFACE PCB Assembly (CMH-532)	5-16
NRD-525 Block Diagram	5-17
CHASSIS Schematic Diagram	5-18
HF TUNE Schematic Diagram (CFL-205)	5-19
IF FILTER Schematic Diagram (CFH-36)	5-20
IF AF AMP Schematic Diagram (CAE-182)	5-21
LOOP1 Schematic Diagram (CGA-131)	5-22
LOOP2 Schematic Diagram (CGA-132)	5-23
CPU Schematic Diagram (CDC-353)	5-24
DATA I/O Schematic Diagram (CMH-632)	5-25
DISPLAY Schematic Diagram (CDE-418)	5-26
V·UHF CONV Schematic Diagram (CHE-85)	5-27
V·UHF LOCAL Schematic Diagram (CGA-118)	5-28
RTTY DEMO Schematic Diagram (CMH-530)	5-29
INTERFACE Schematic Diagram (CMH-532)	5-30

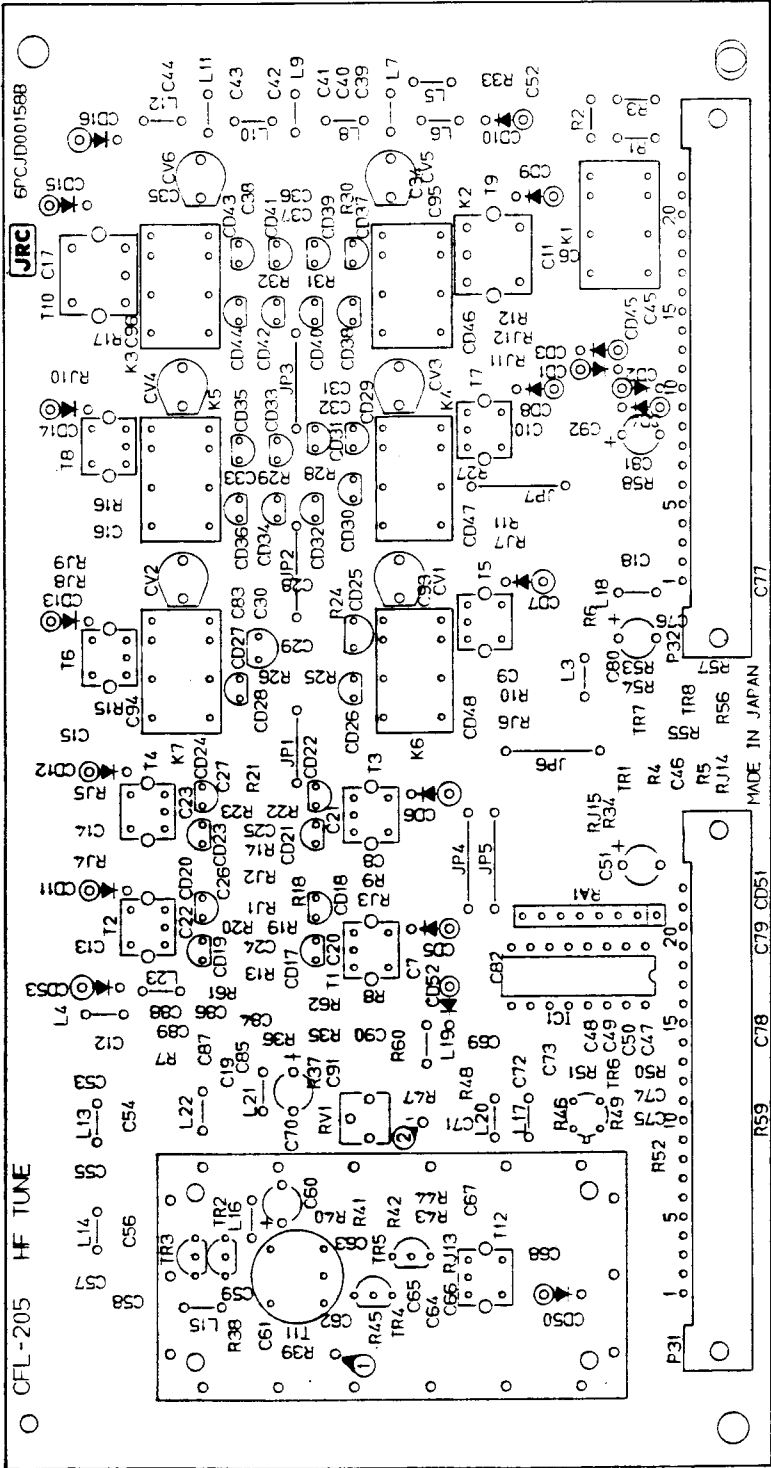
NRD-525 LEVEL DIAGRAM

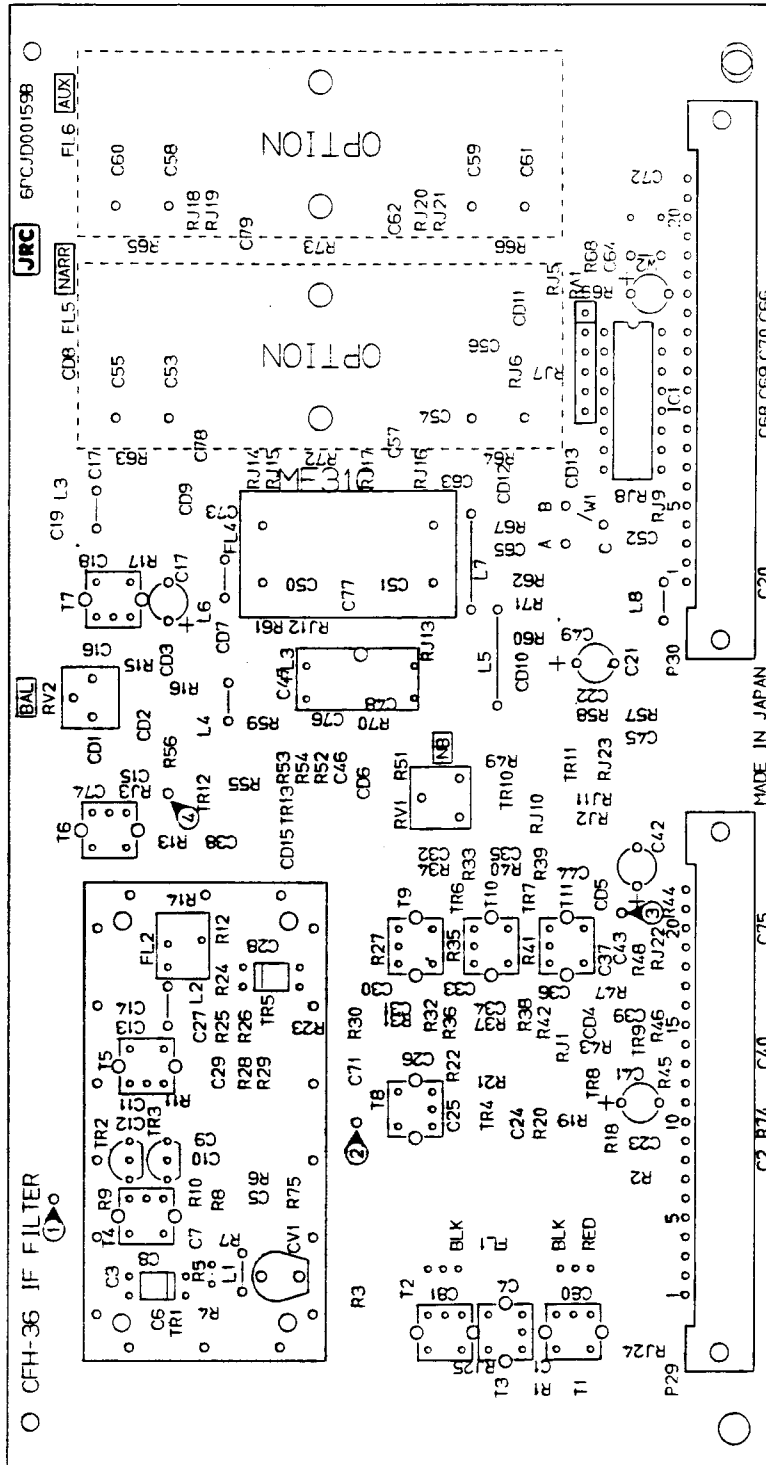
FR : 7.104MHz
 B.W : WIDE
 MODE : DSB
 RF GAIN: MAX
 AGC : OFF
 SSG : 50 OHM

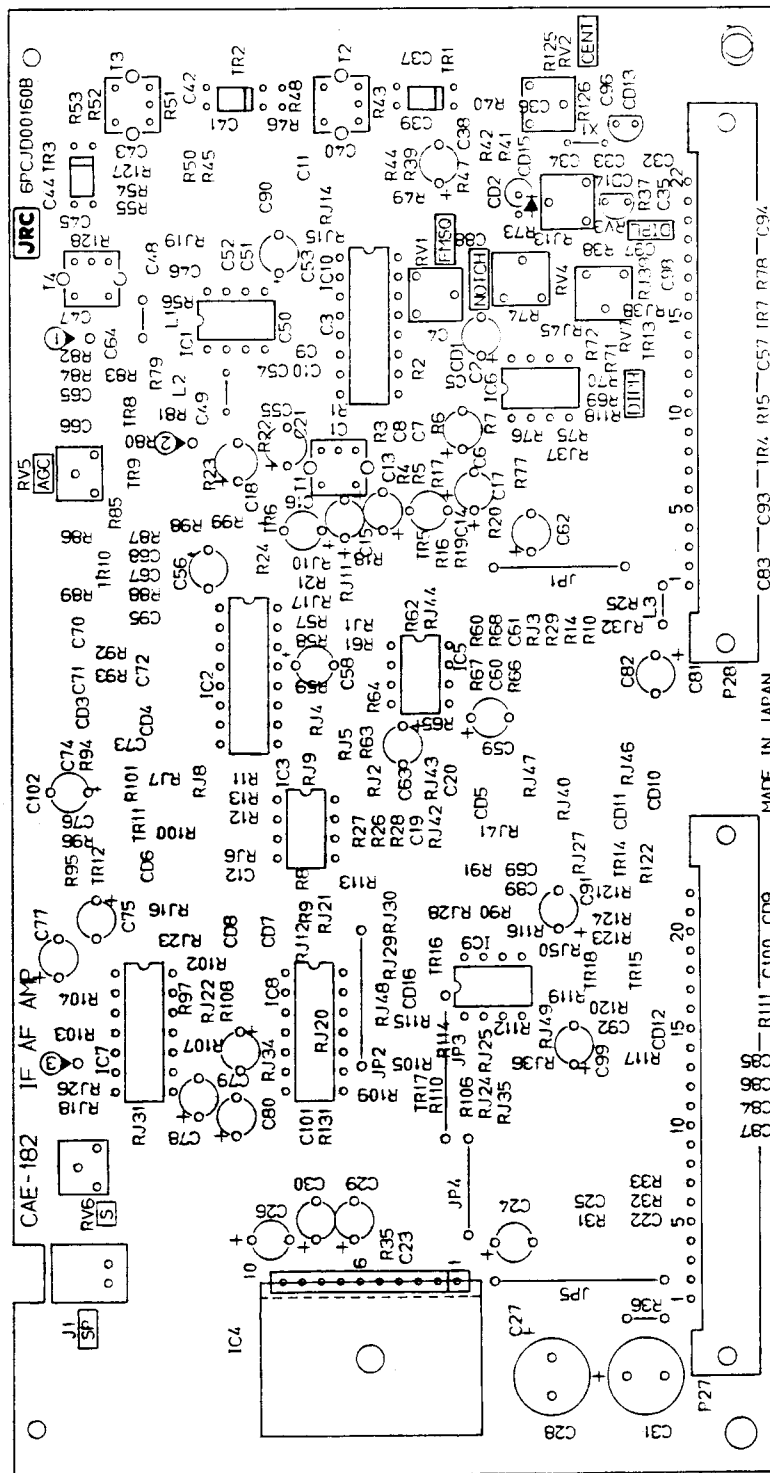


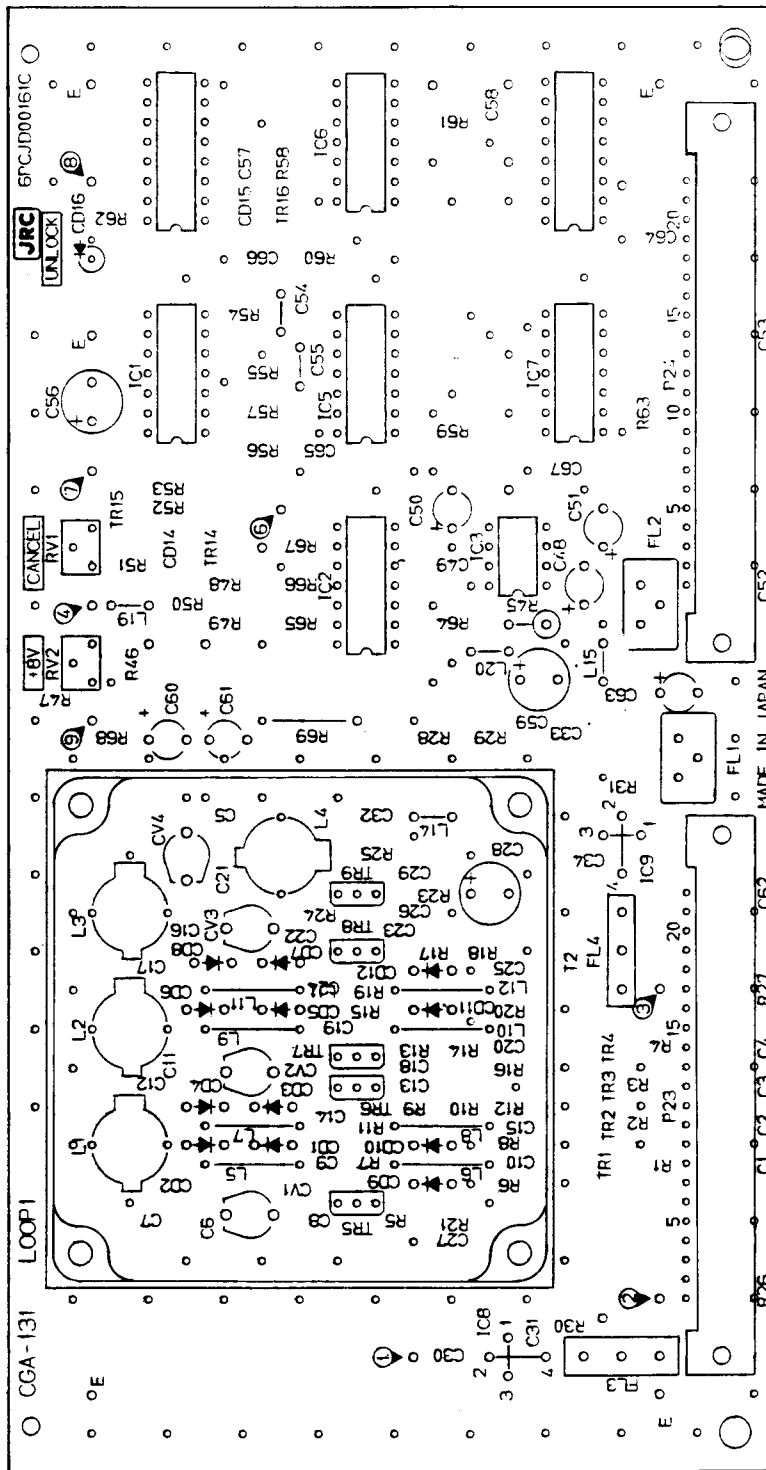


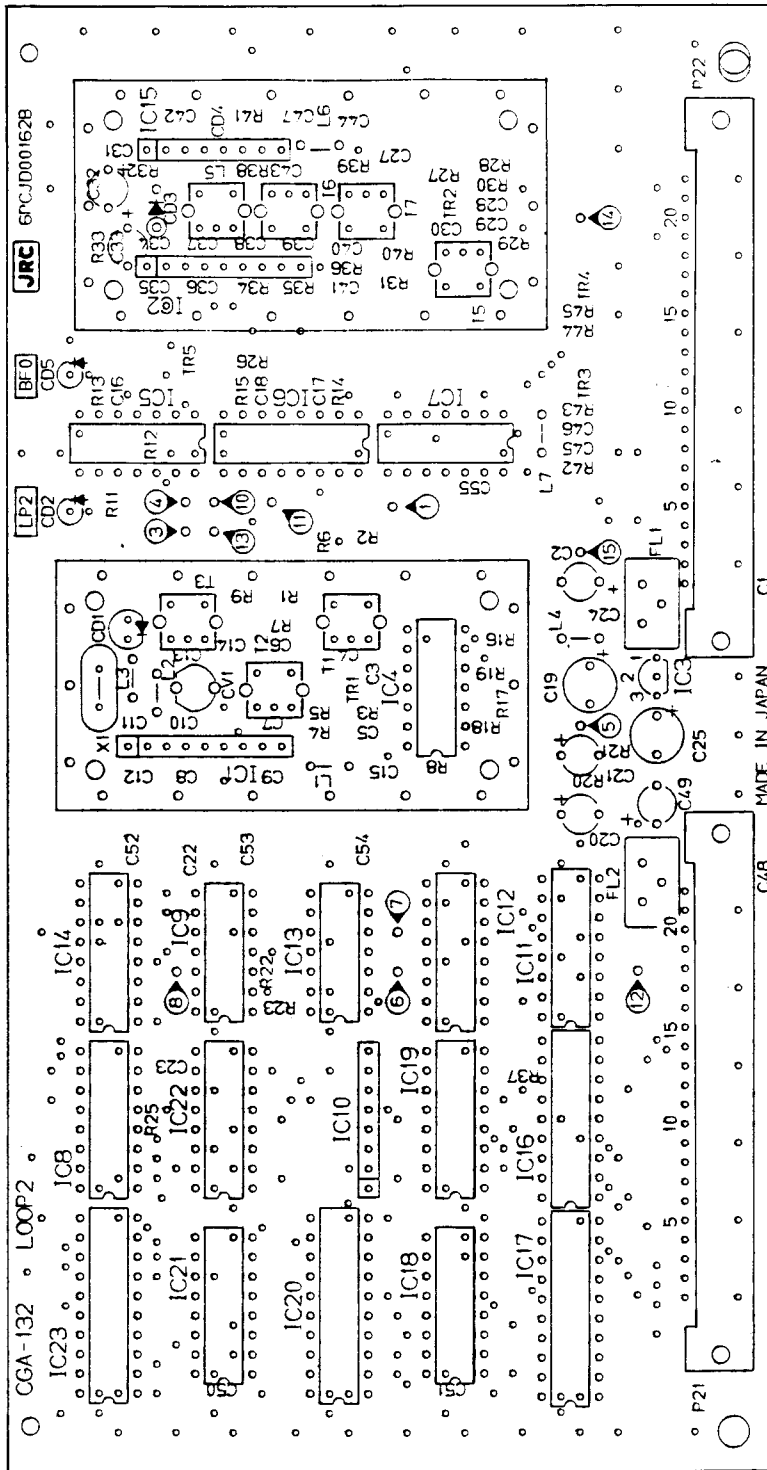


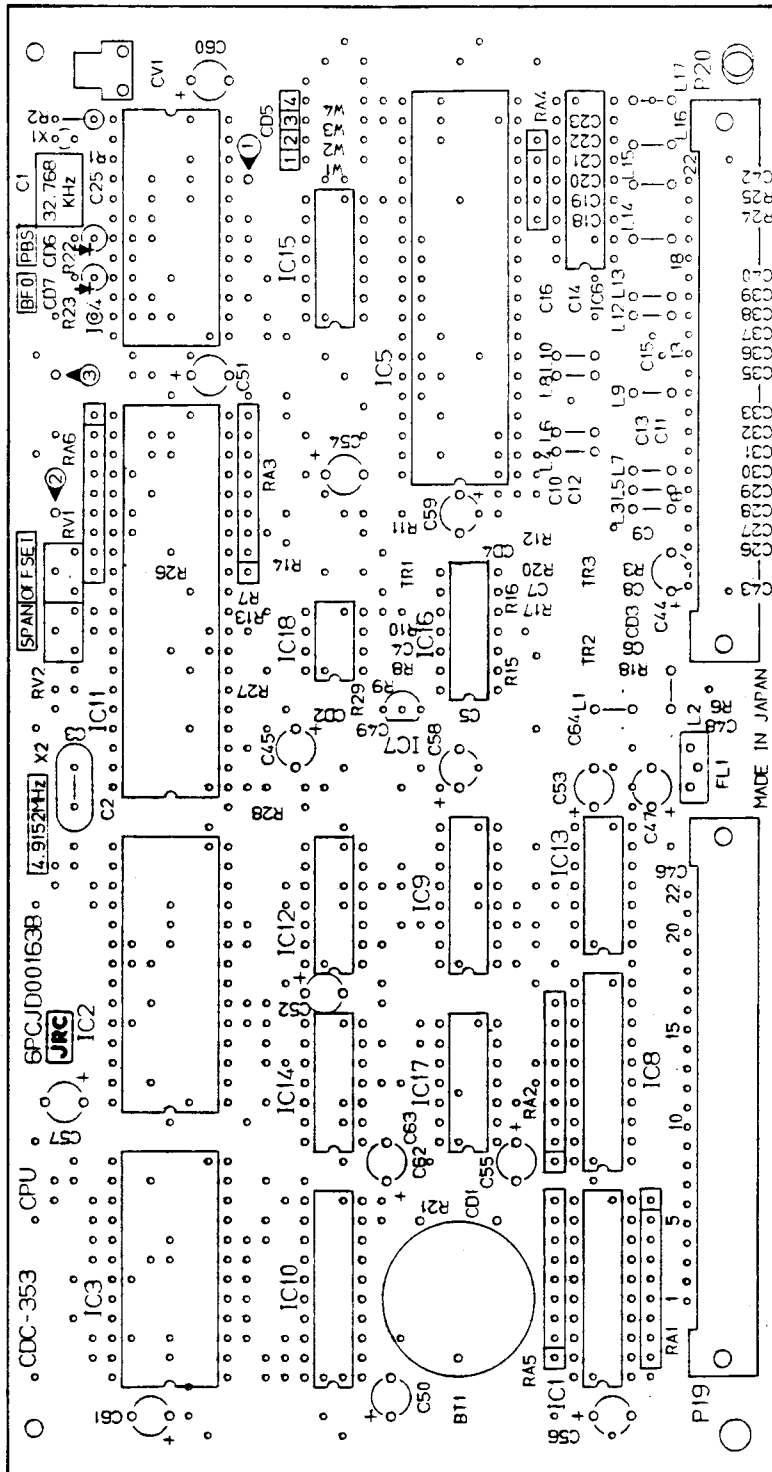


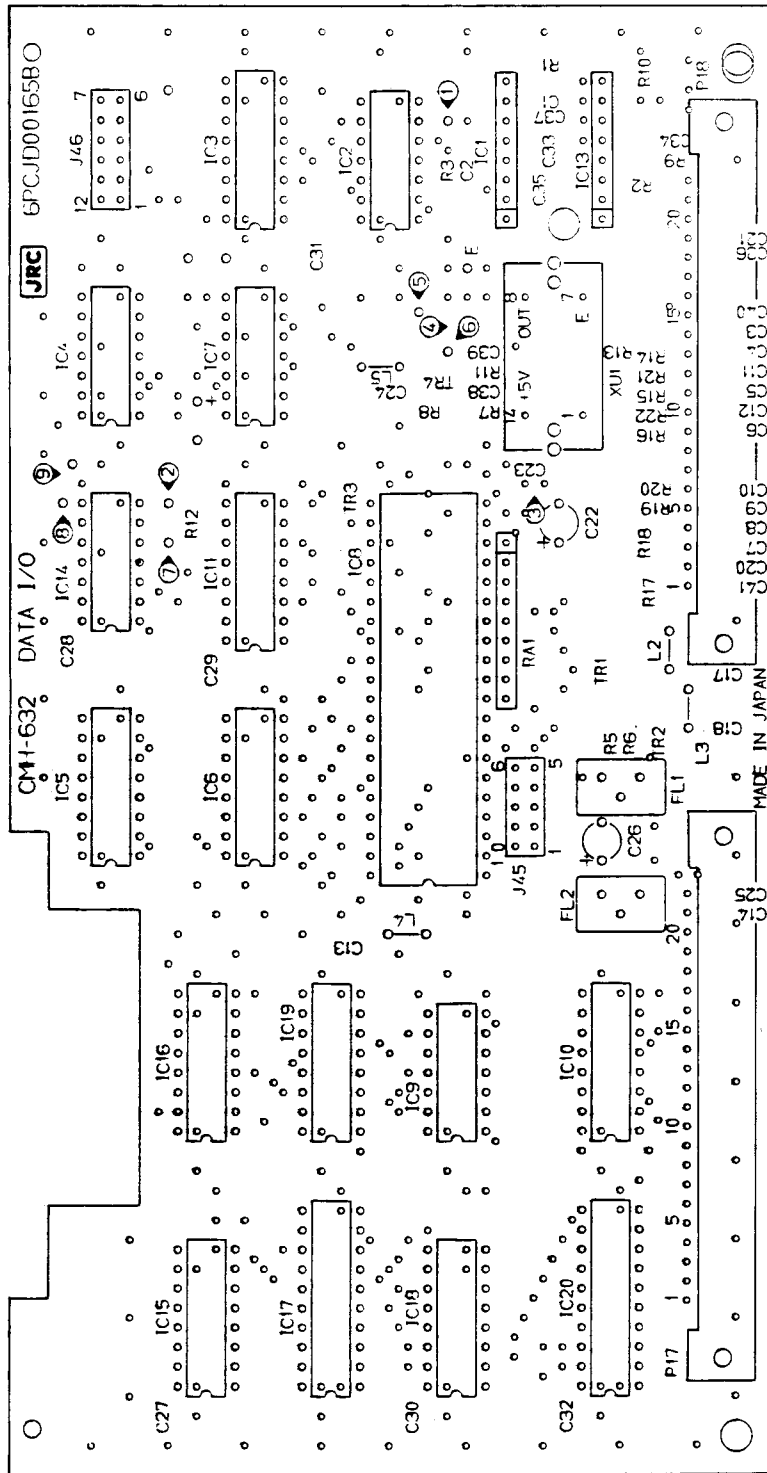


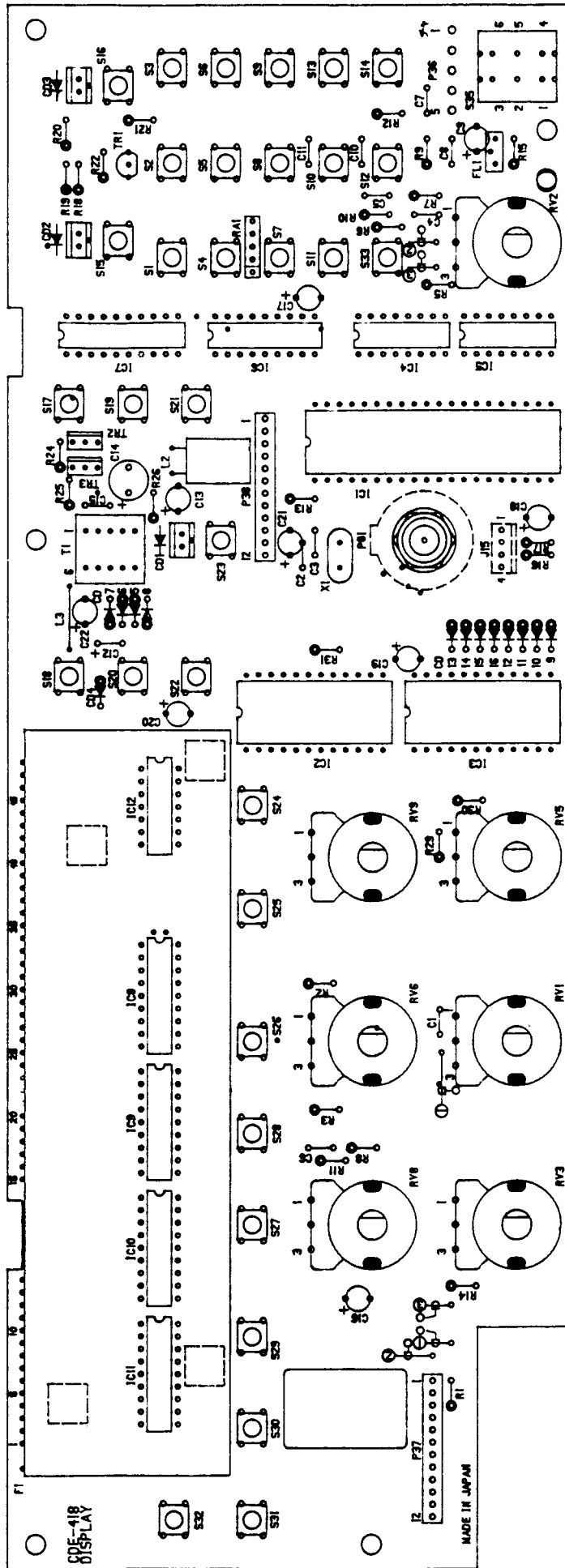


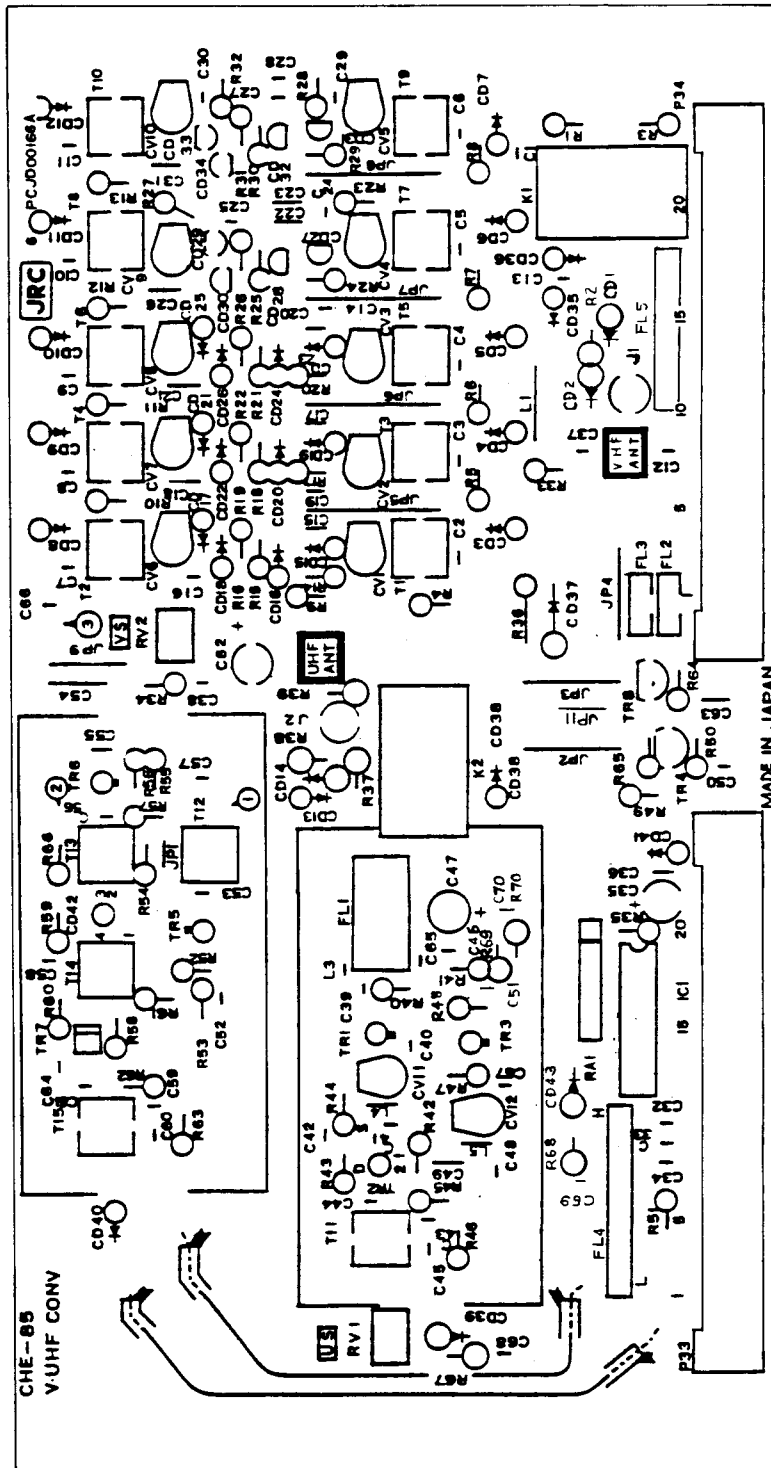


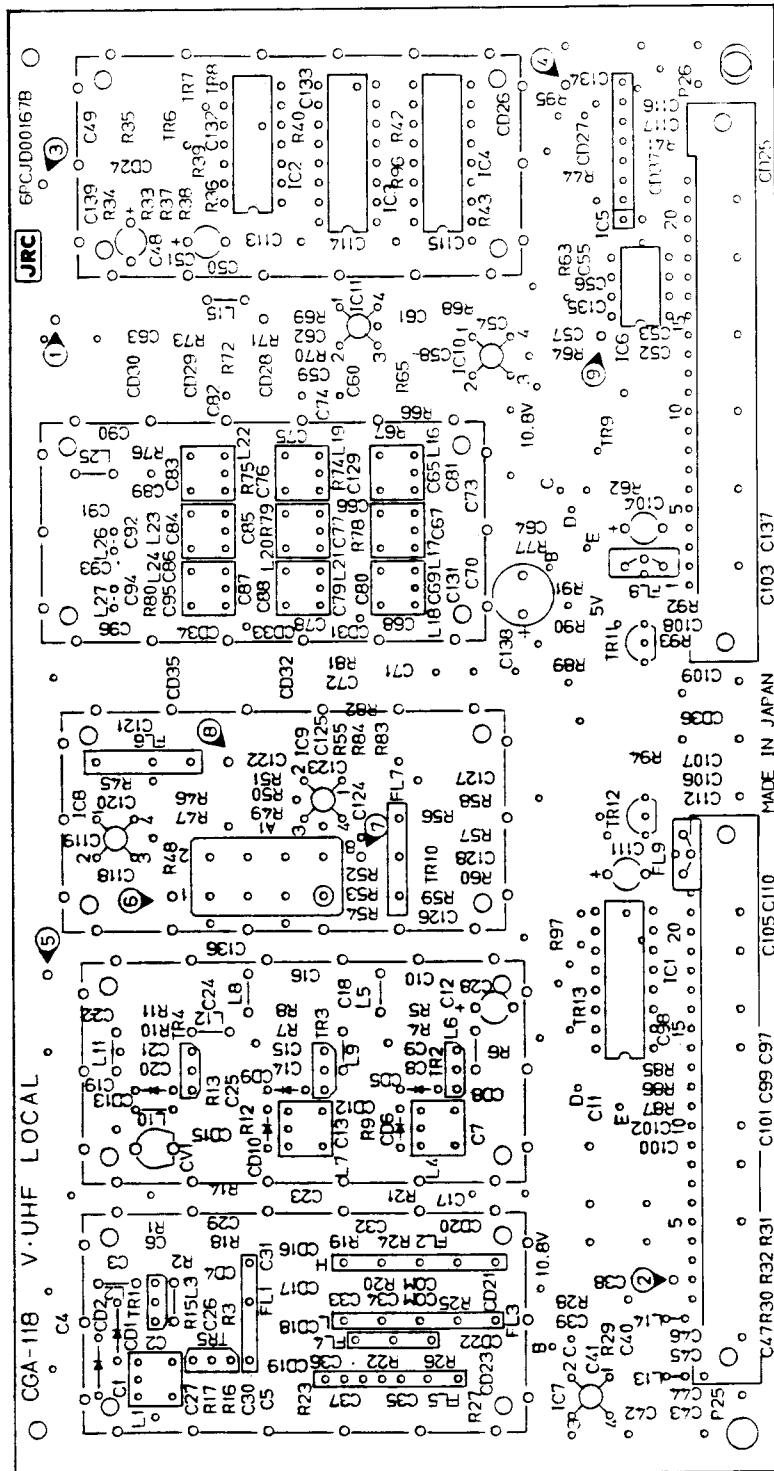


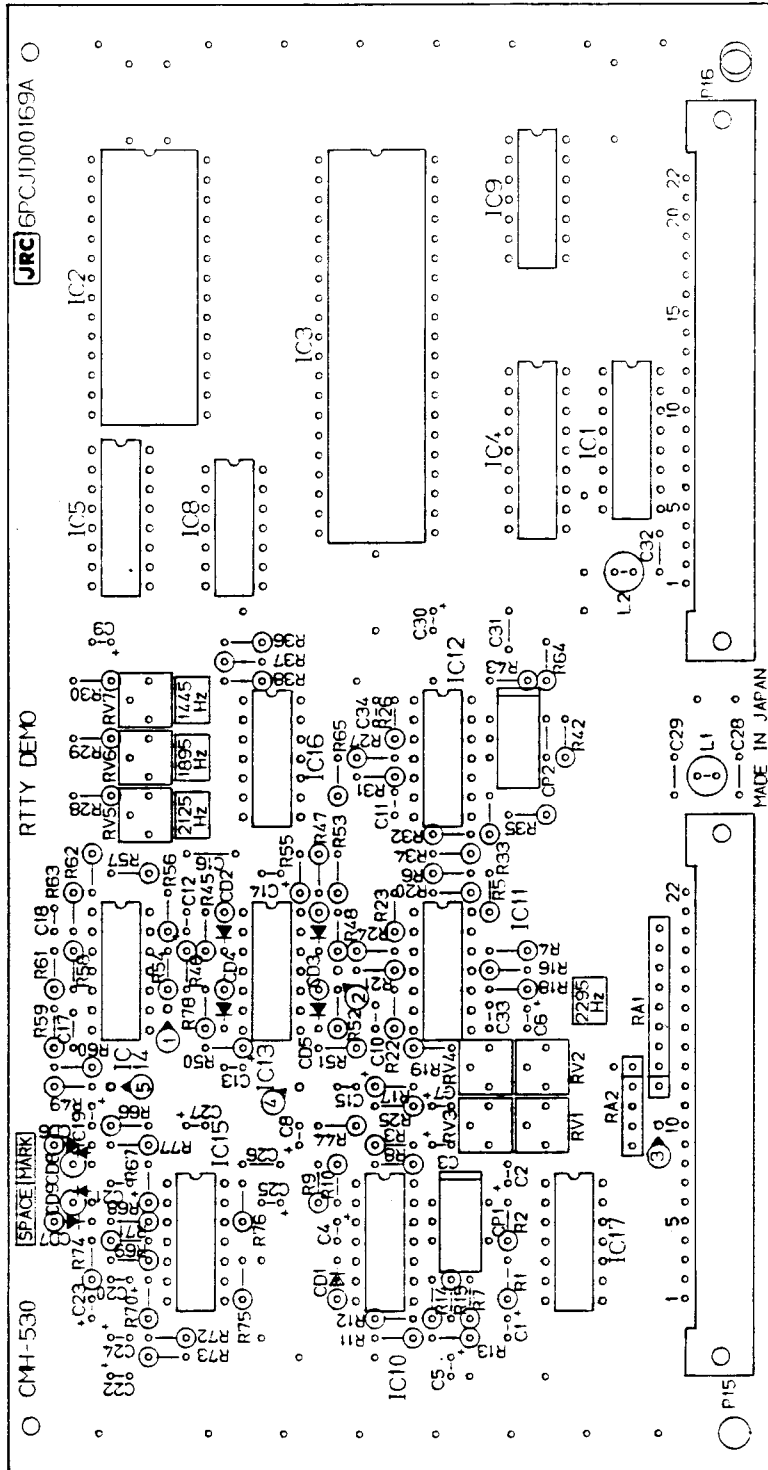


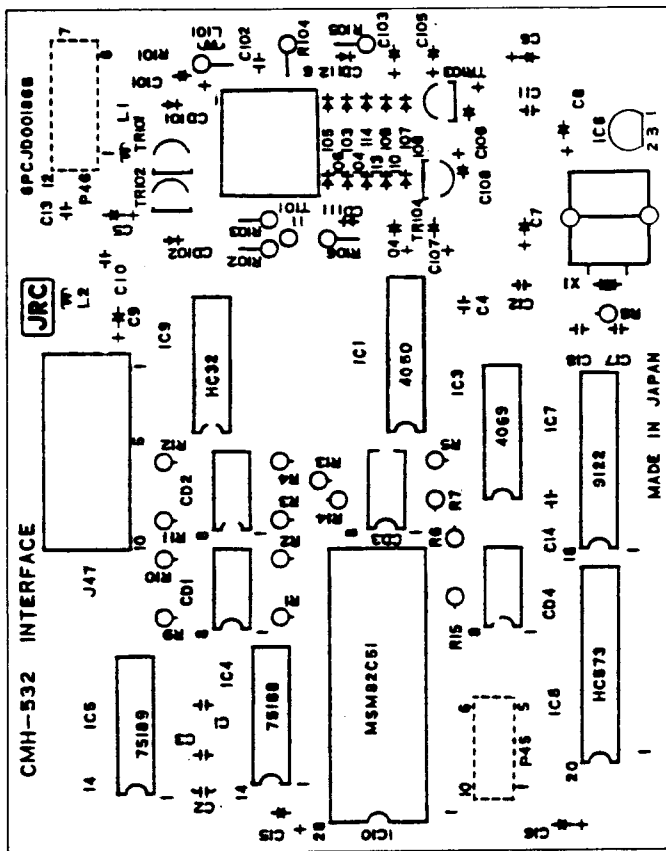


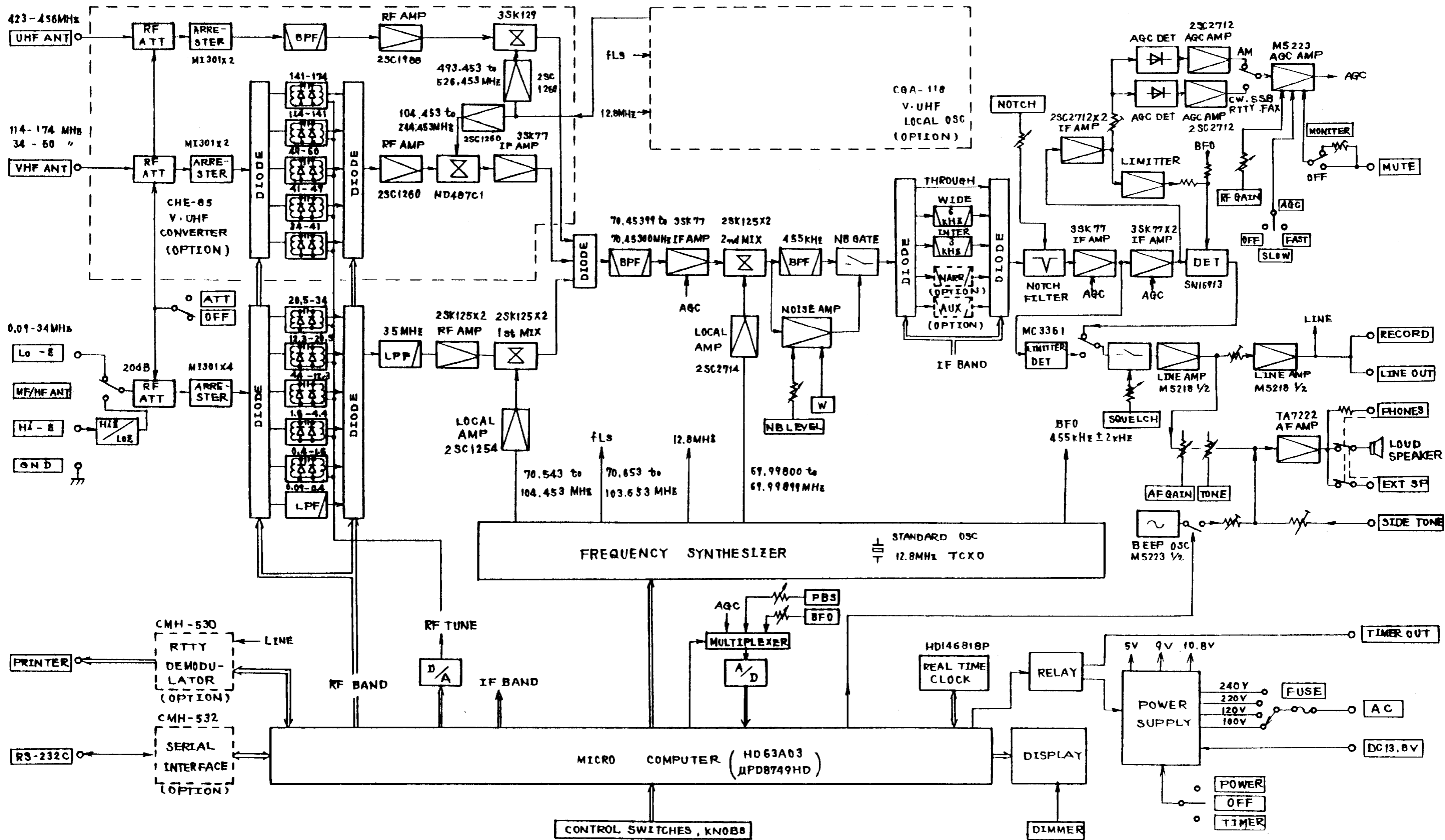


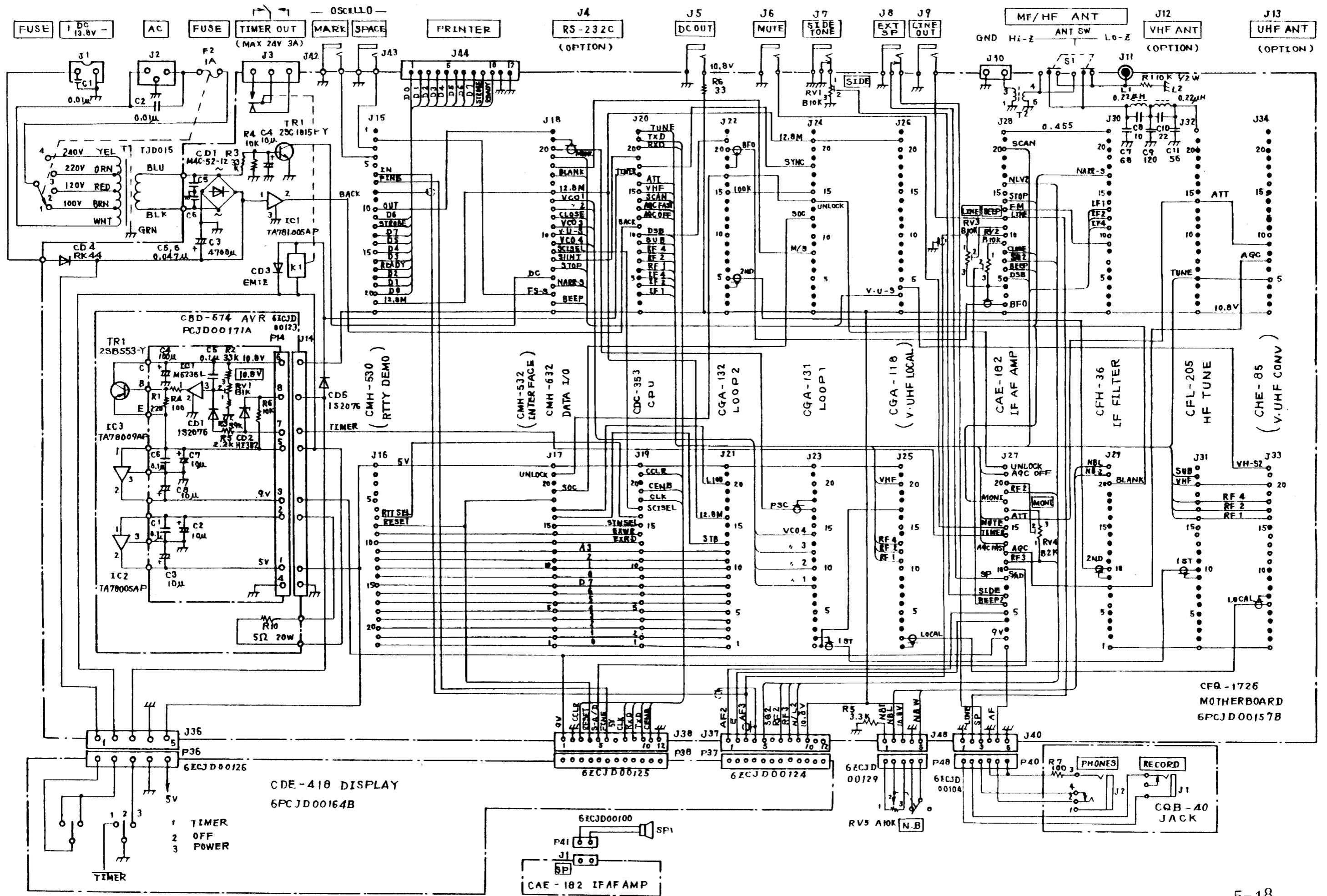


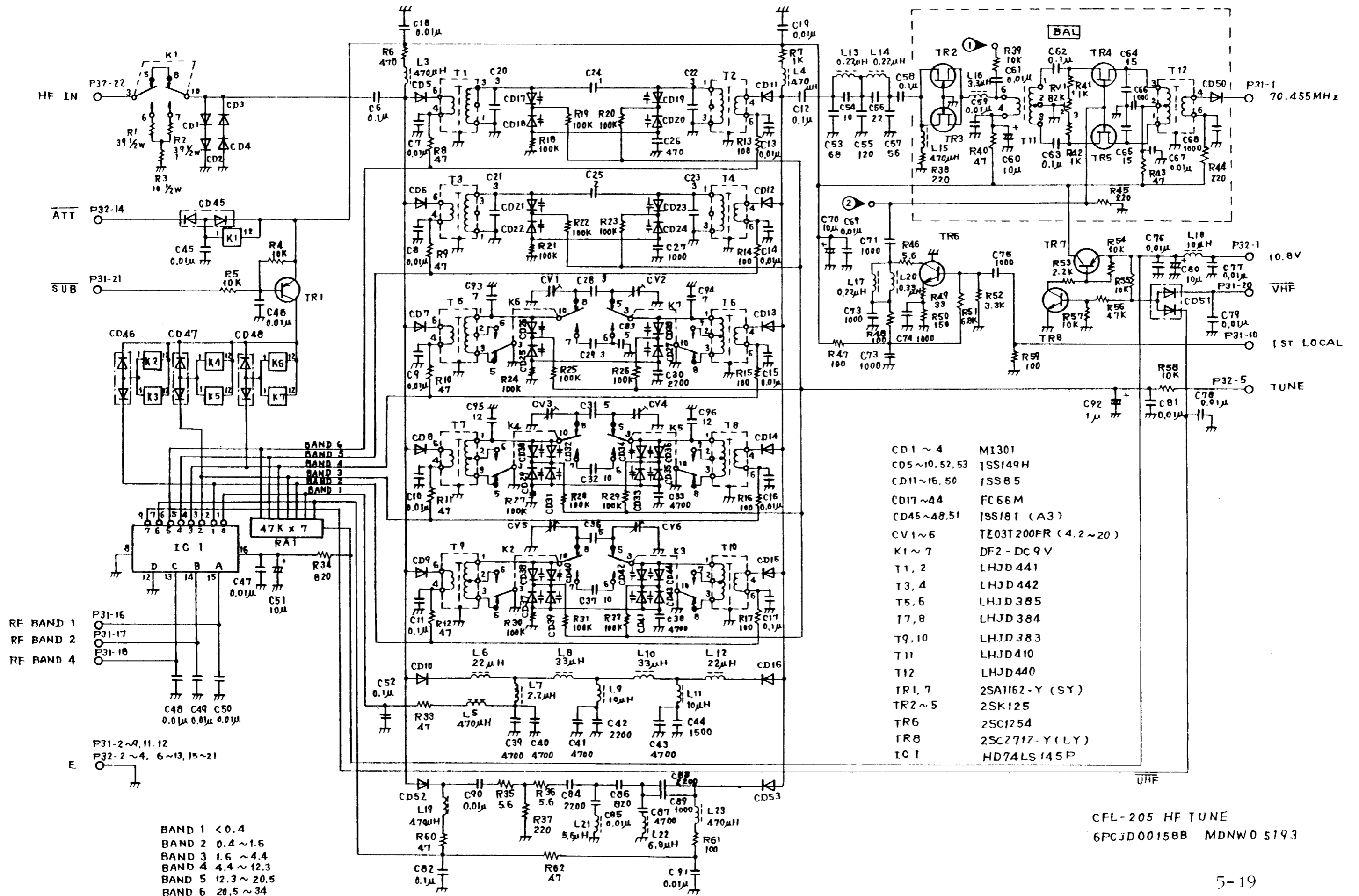




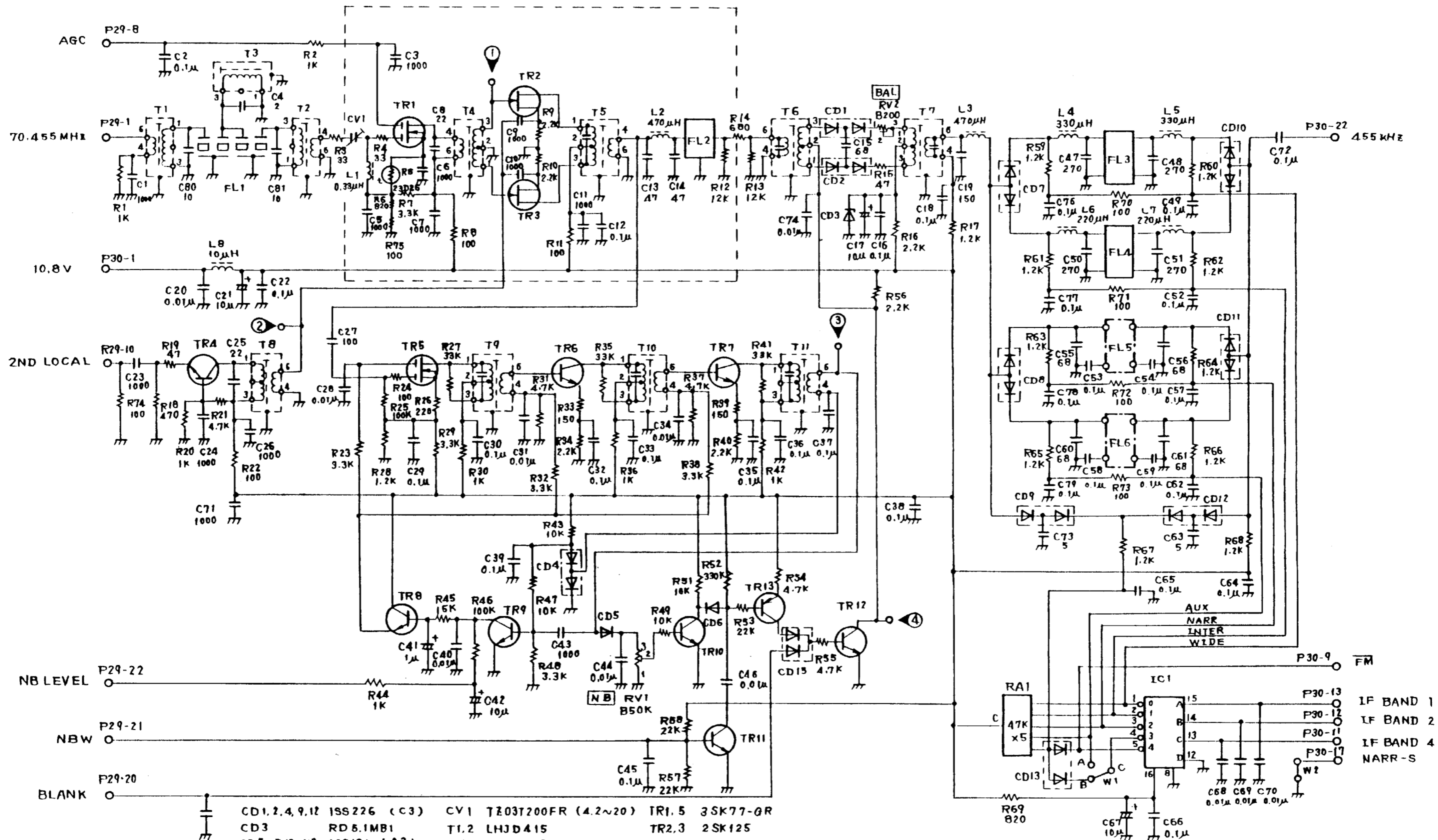






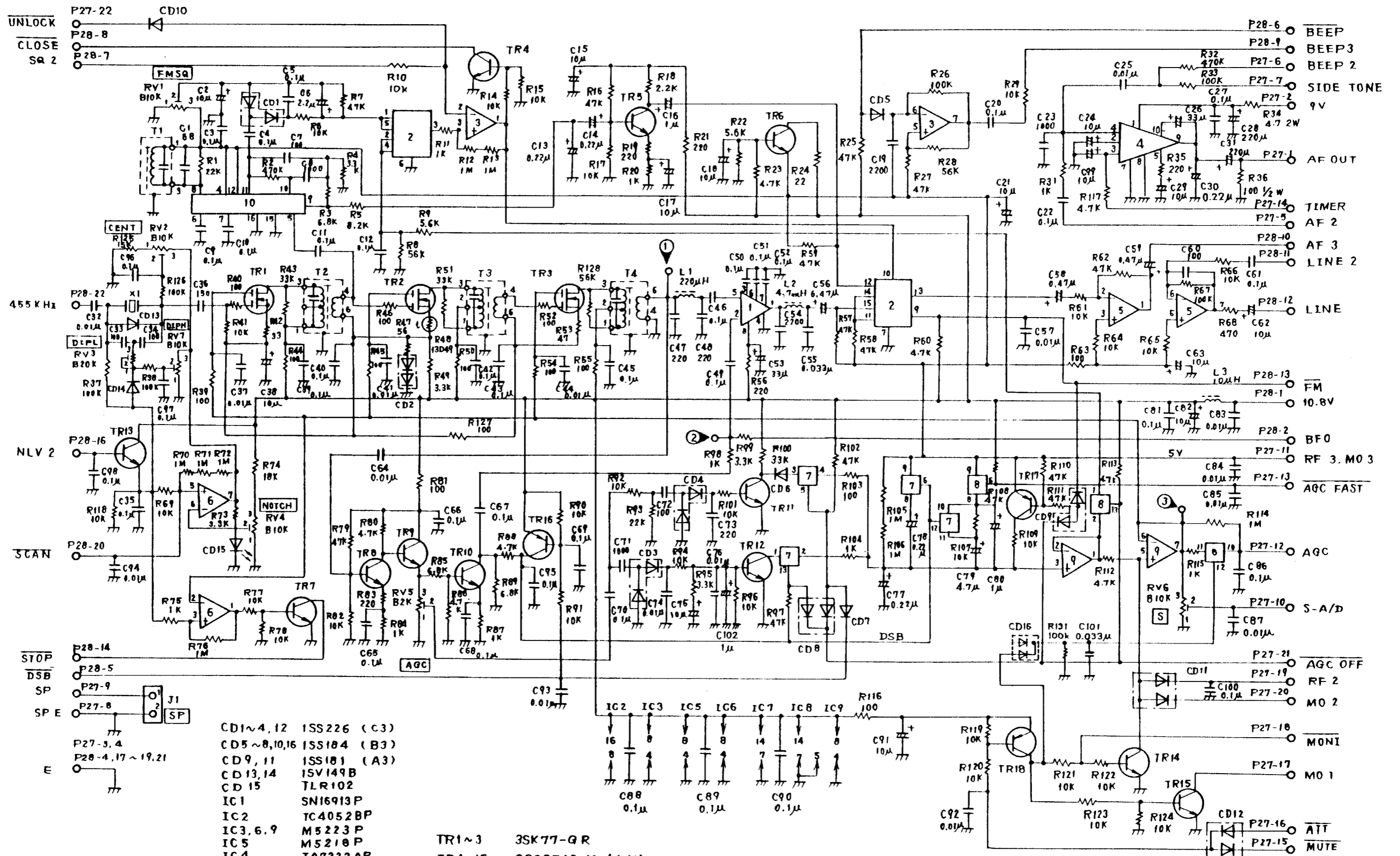


CFL-205 HF TUNE
 6PCJD00158B MDNW05193



CD1,2,4,9,12	ISS226 (C3)	CV1	TZ03T200FR (4.2~20)	TR1,5	3SK77-GR
CD3	RD5.1MB1	T1,2	LHJD415	TR2,3	2SK125
CD5~8,10,11,3	1SS181 (A3)	T3	LHJD416	TR4	2SC2714-Y (QY)
CD15	1SS184 (B3)	T4	LHJD456	TR6-12	2SC2712-Y (LY)
FL1	XMJD114	T5	LHJD389	TR13	2SA1162-Y (SY)
FL2	LF-B12	T6,7	LHJD390A	IC1	HD74LS145P
FL3	CLF-D6S	T8	LHJD297		
FL4	MF-31C	T9,10	S-061-006		
FL5,6	OPTION	T11	LJJD37A		

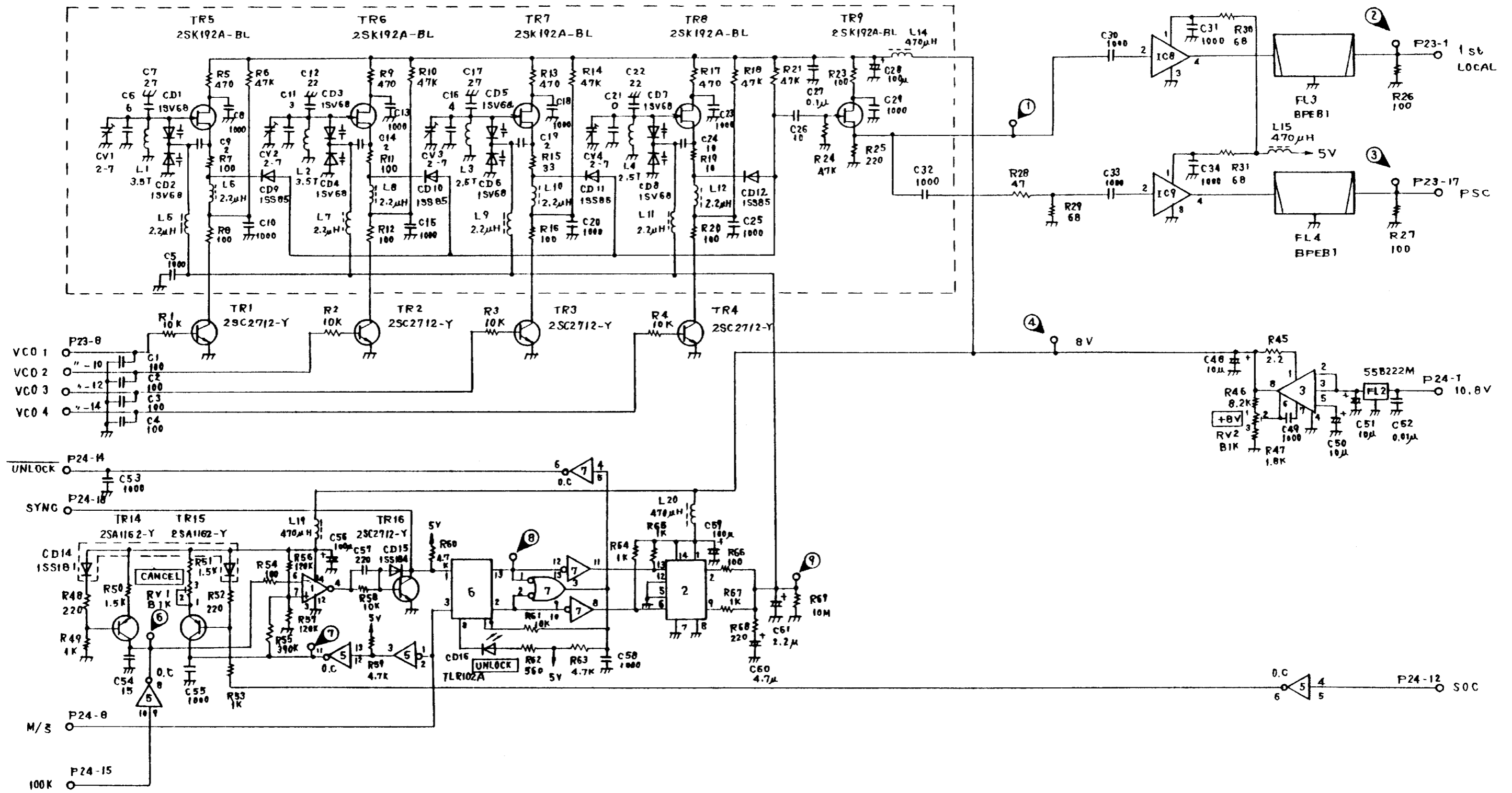
CFH-36 IF FILTER
6PCJD00159B MDNW05194



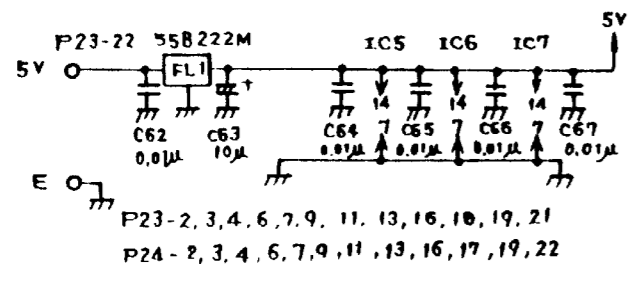
- CD1~4,12 1SS226 (C3)
- CD5~8,10,16 1SS104 (B3)
- CD9,11 1SS101 (A3)
- CD13,14 1SV149B
- CD15 TLR102
- IC1 SN16913P
- IC2 TC4052BP
- IC3,6,9 M5223P
- IC5 M5210P
- IC4 TA7222AP
- IC7,8 TC4066BP
- IC10 MC3361P

- TR1~3 3SK77-QR
- TR4~15 2SC2712-Y (LY)
- TR16~18 2SA1162-Y (SY)
- T1 LAFD10 (5D-ELD19A-41)
- T2~4 S-061-006
- X1 R460C10.1A

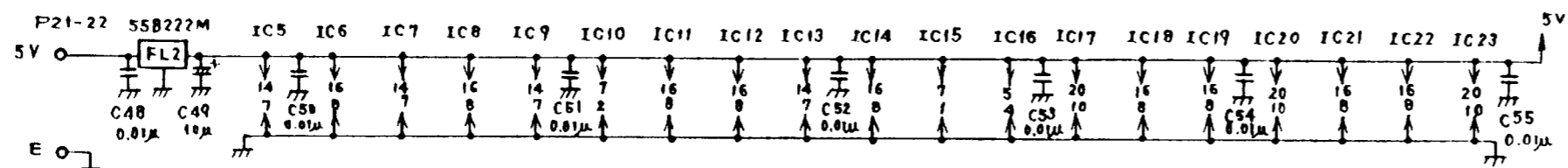
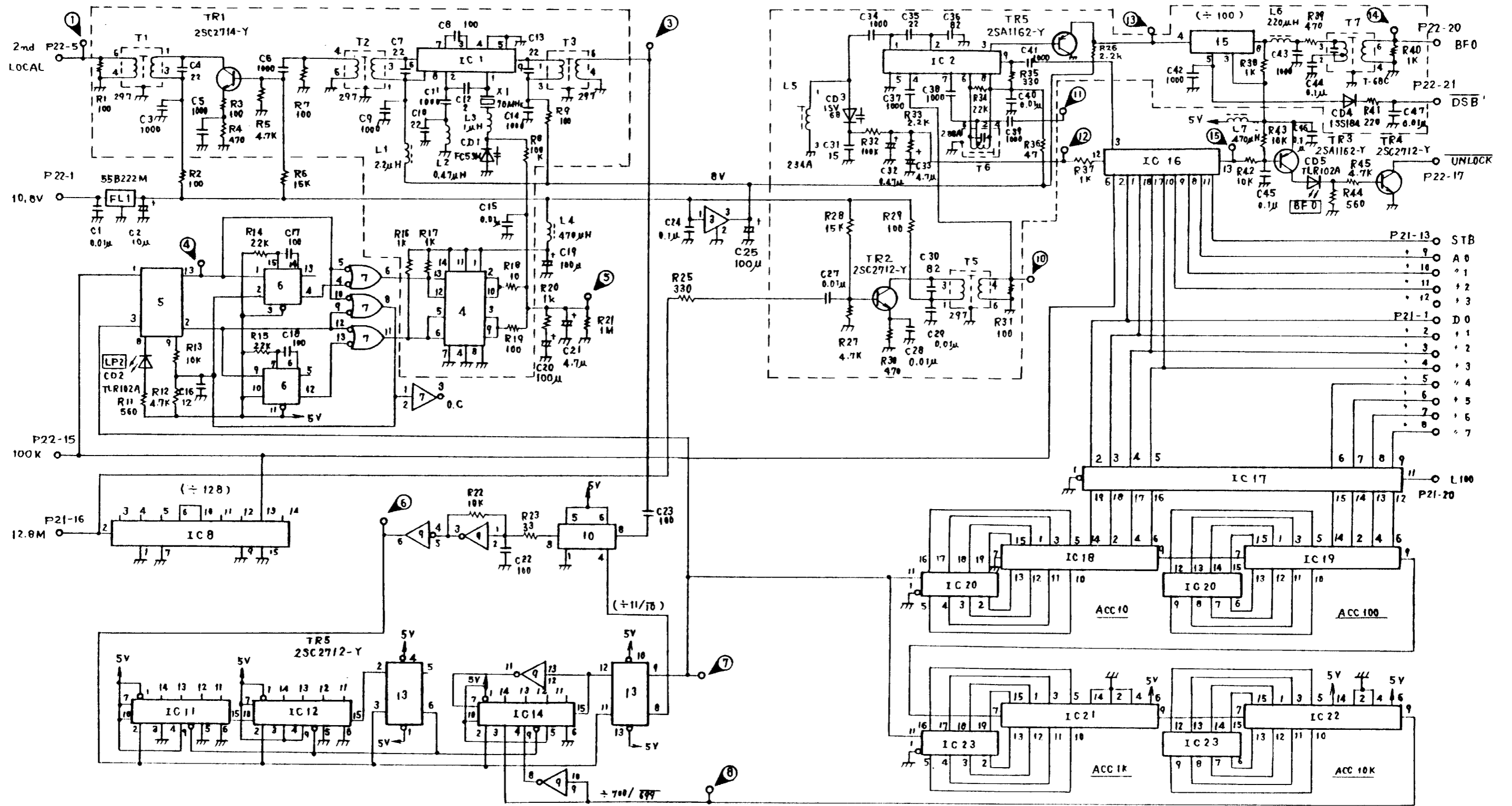
CAE-102 IF AF AMP
6PCJD00160B MDHW00684



IC 1	1A7521P	IC 6	MC4044P
2	TCA016BP	7	HD74LS26P
3	μPC141C	8	μPC1651Q
4	not used	9	"
5	HD74LS26P		



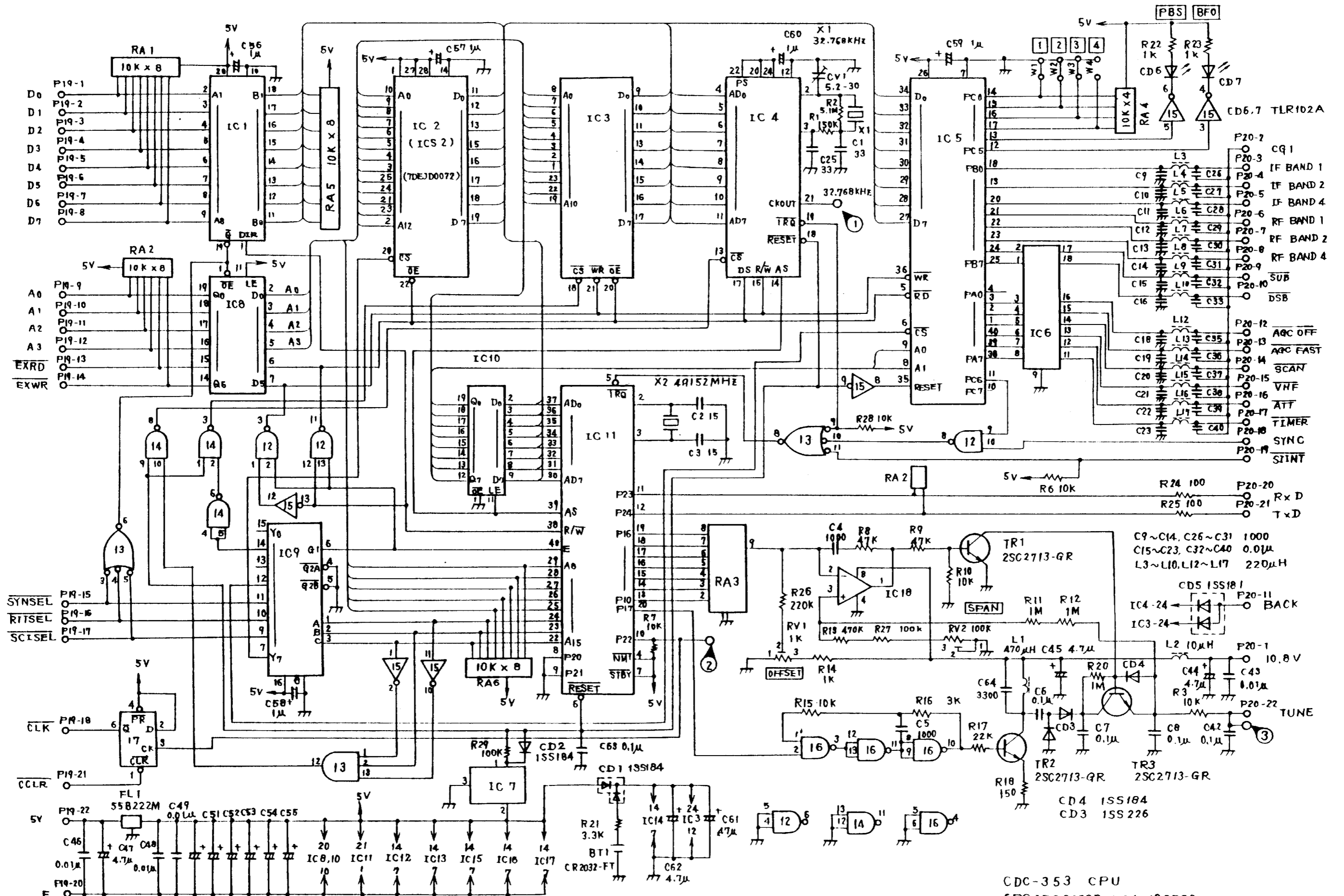
CGA-131 LOOP1
6PCJD00161C MDEW00621



P21-14, 15, 17~19, 21
 P22-2, 3, 4, 6~9.
 11~14, 16, 18, 19, 22

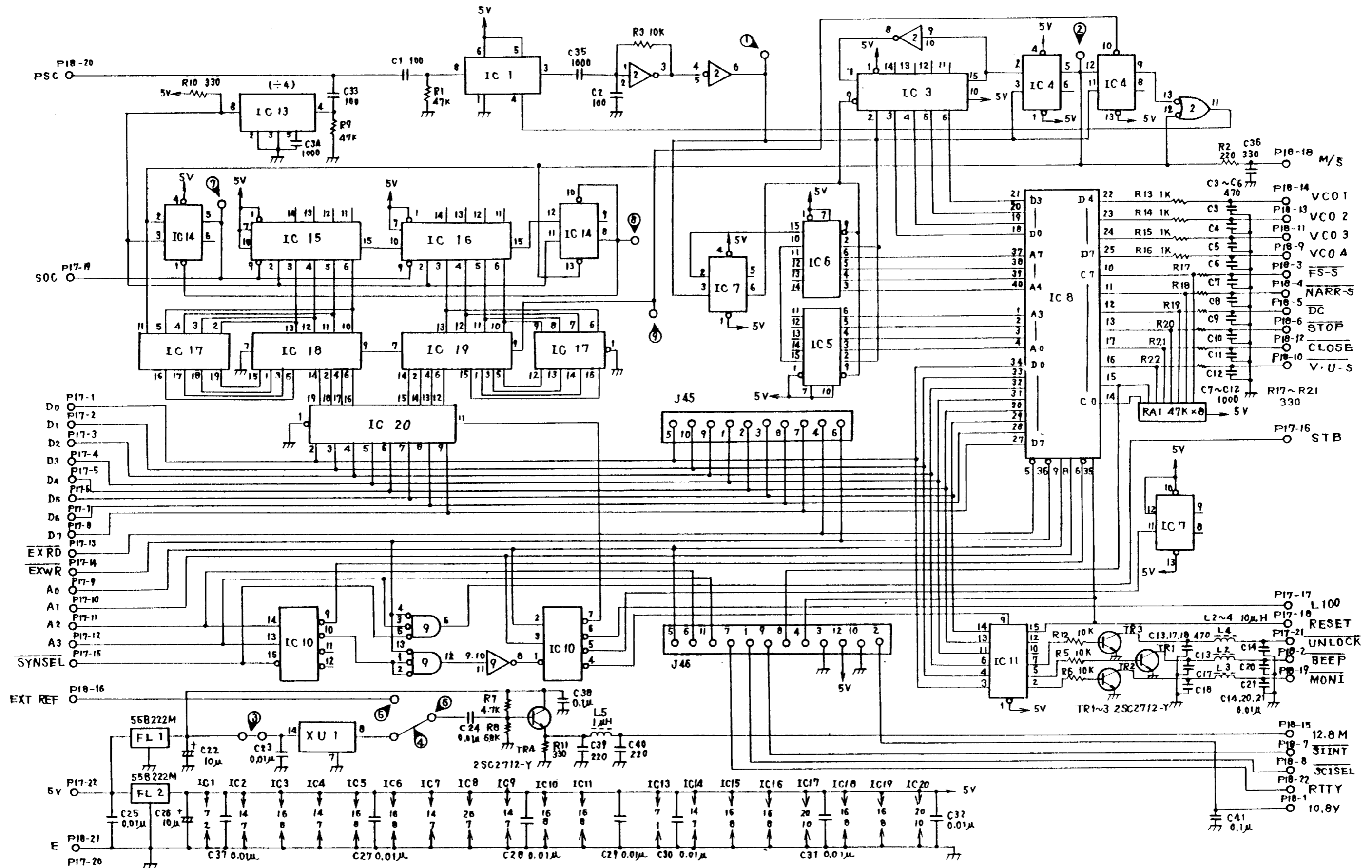
IC 1	TA 7310P	IC 7	HD74LS26P	IC 13	TC74HC74P	IC 19	TC4560BP
2	"	8	TC74HC4520F	14	TC74HC161P	20	TC74HC574P
3	NJM78L08A	9	TC74HC00P	15	M54459L	21	TC4560BP
4	TC4016BP	10	HD10551P	16	MC145145P	22	"
5	MC4044P	11	TC74HC160P	17	TC74HC574P	23	TC74HC574P
6	HD74LS123P	12	"	18	TC4560BP		

CGA-132 LOOP 2
 6PCJD00162B MDEW00620



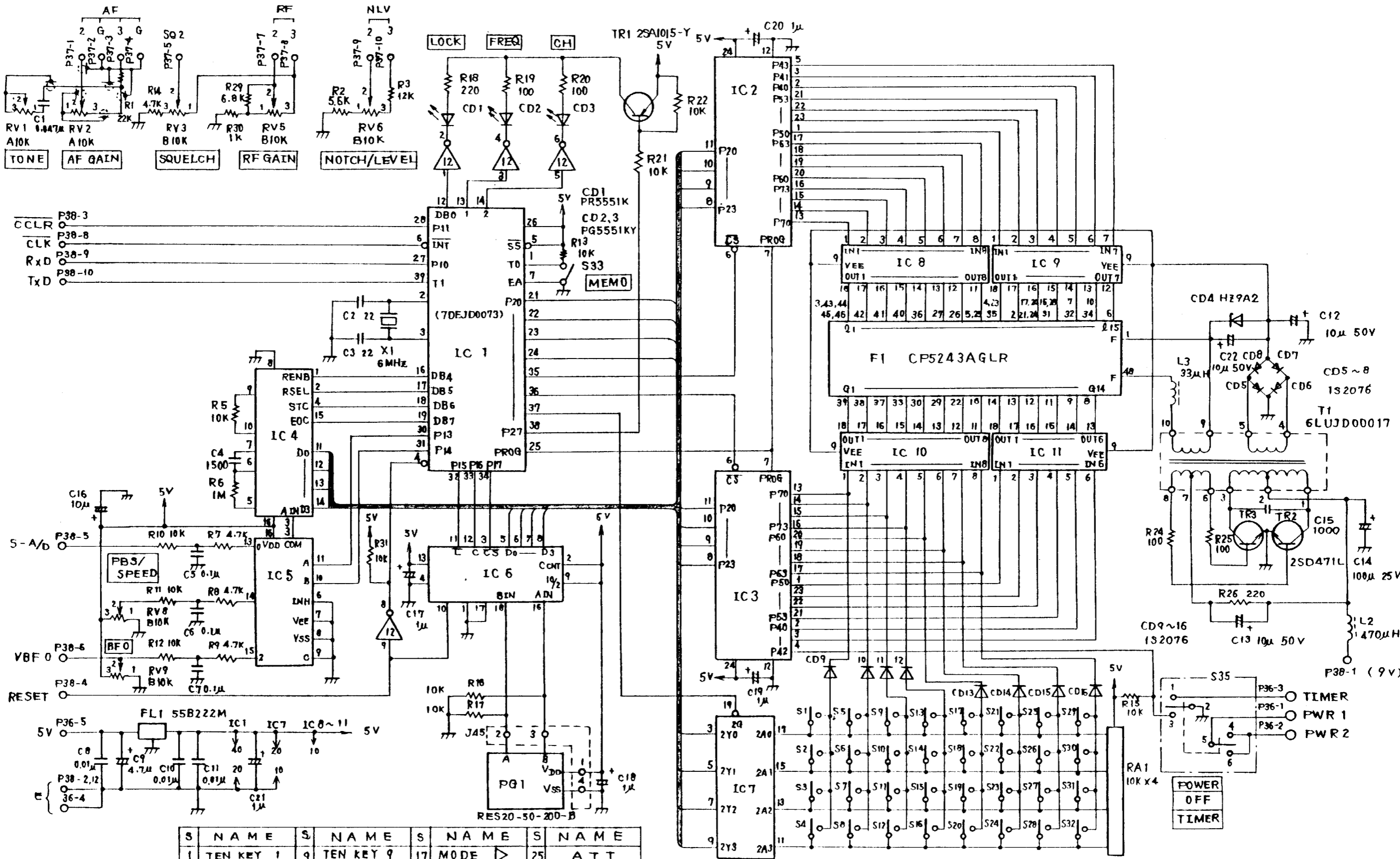
CDC-353 CPU
6PCJD00163B MDLW02762

1	TC74HC245P	4	WD146818P	7	S-8054ALR	10	TC74HC573P	13	TC74HC11P	16	TC4011UBP
2	MBM2764-30	5	MSM82C55A-565	8	TC74HC573P	11	HD63A03RP	14	TC74HC00P	17	TC74HC74P
3	MSM512620RS	6	TD62083AP	9	TC40H138P	12	TC74HC00P	15	TC74HC14P	18	M5223P



IC 1	HD1055 1P	IC 6	TC74HC161P	IC 11	TC74HC174P	IC 16	HD7ALS160P
IC 2	TC74HC00P	IC 7	TC74HC74P	IC 12	not used	IC 17	TC74HC574P
IC 3	TC74HC181P	IC 8	MSM82C56A-8R3	IC 13	M54A55L	IC 18	TC4560BP
IC 4	TC74HC74P	IC 9	TC74HC27P	IC 14	TC74HC74P	IC 19	TC4560BP
IC 5	TC74HC161P	IC 10	TC74HC139P	IC 15	HD7ALS160P	IC 20	TC74HC574P

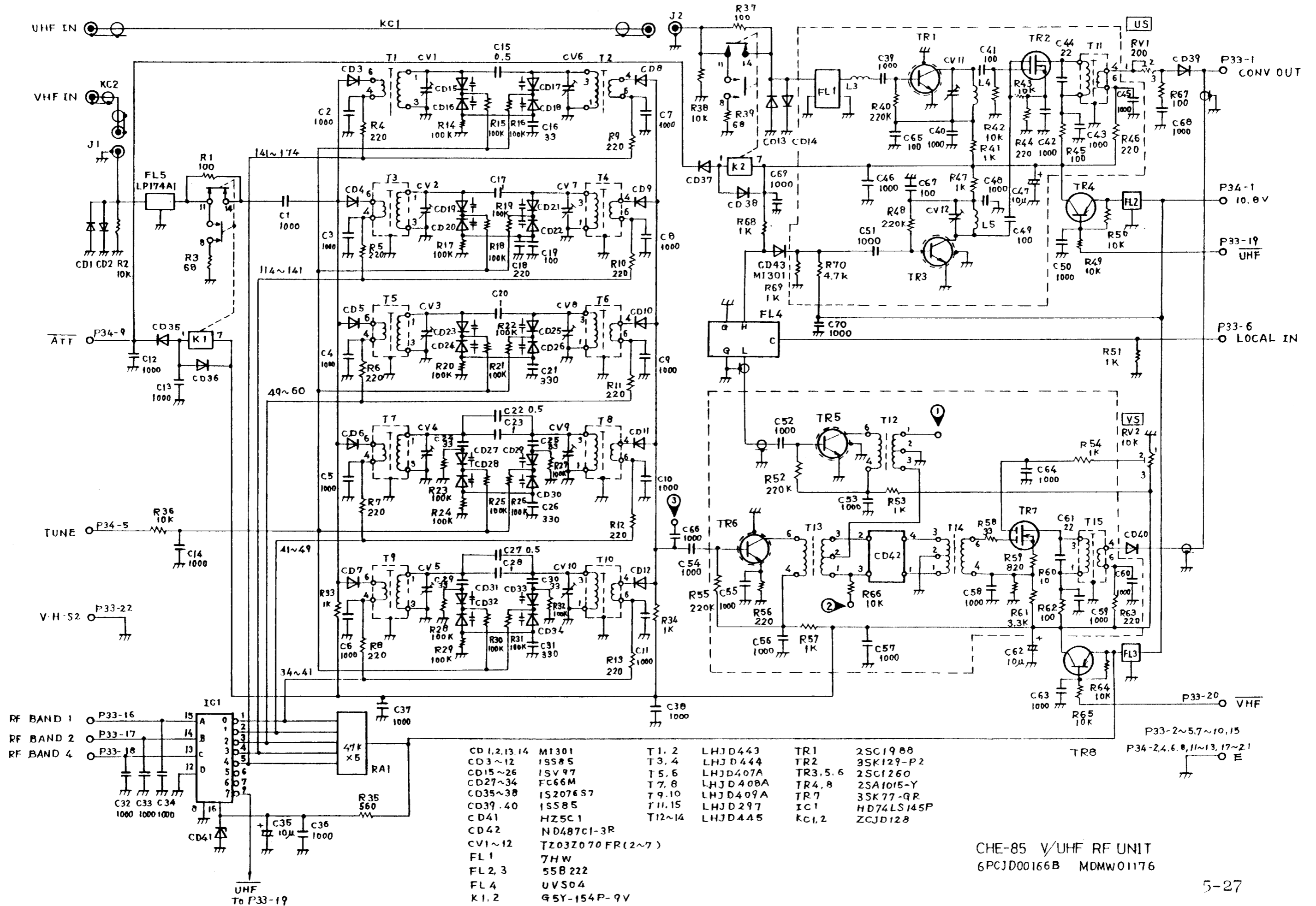
CMH-632 DATA I/O
6PCJD00165B MDYW01983

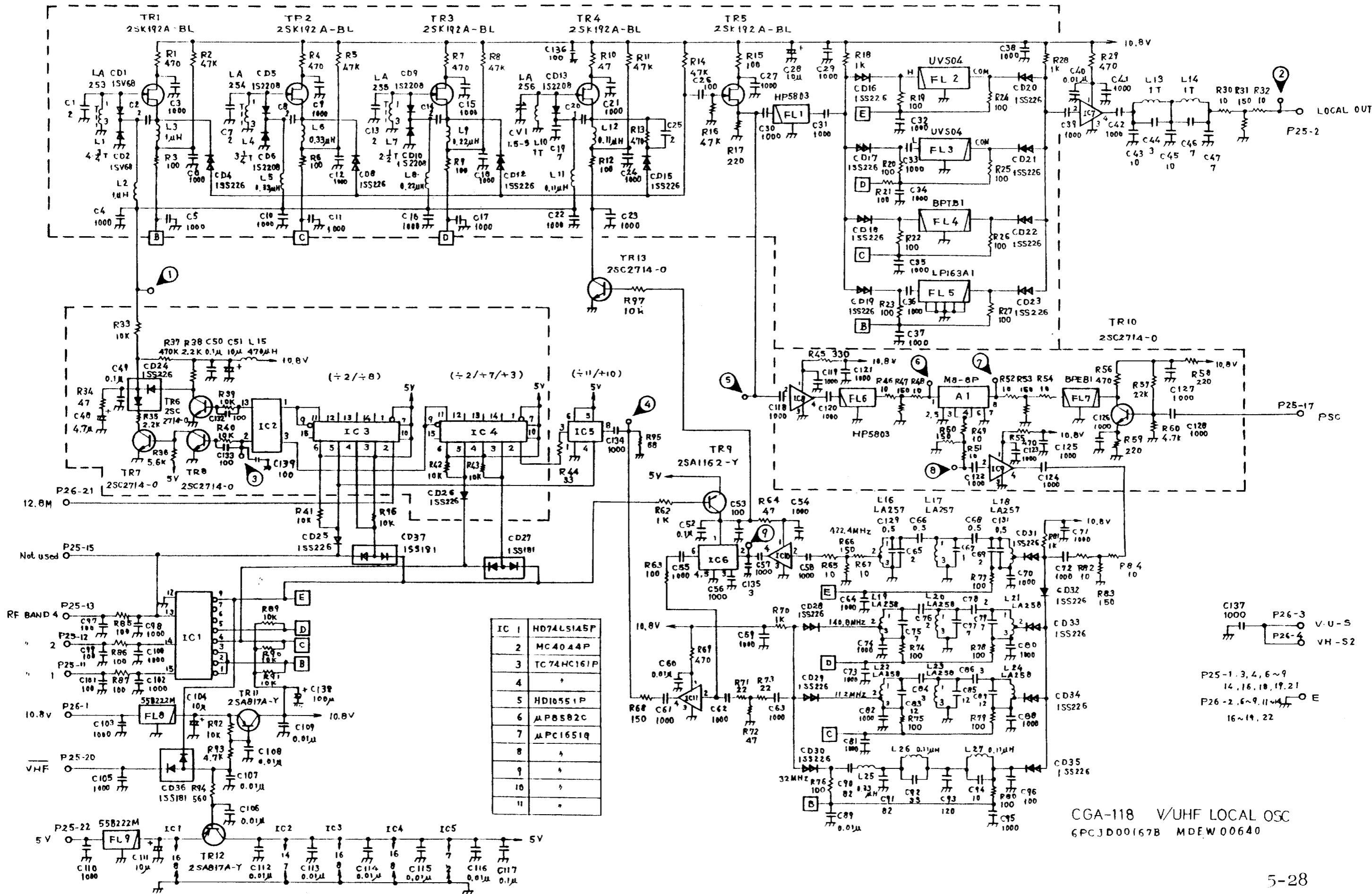


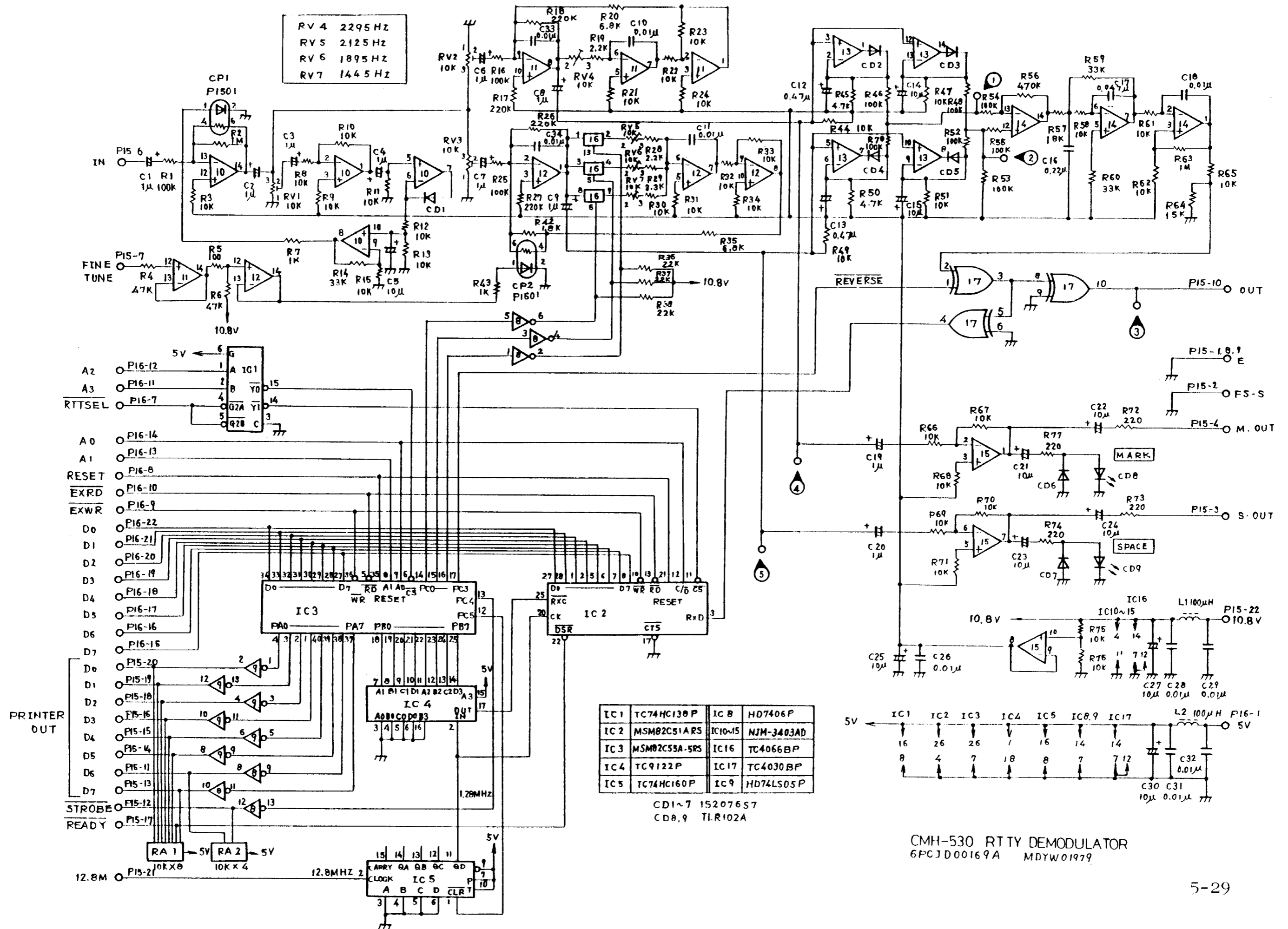
1	μPD8749HD	8	MSL915RS
2	MSM80C43RS	9	MSL915RS
3	MSM80C43RS	10	MSL915RS
4	TC5090AP	11	MSL915RS
5	TC4051BP	12	HD74LS14P
6	LR3671D		
7	TC74HC244P		

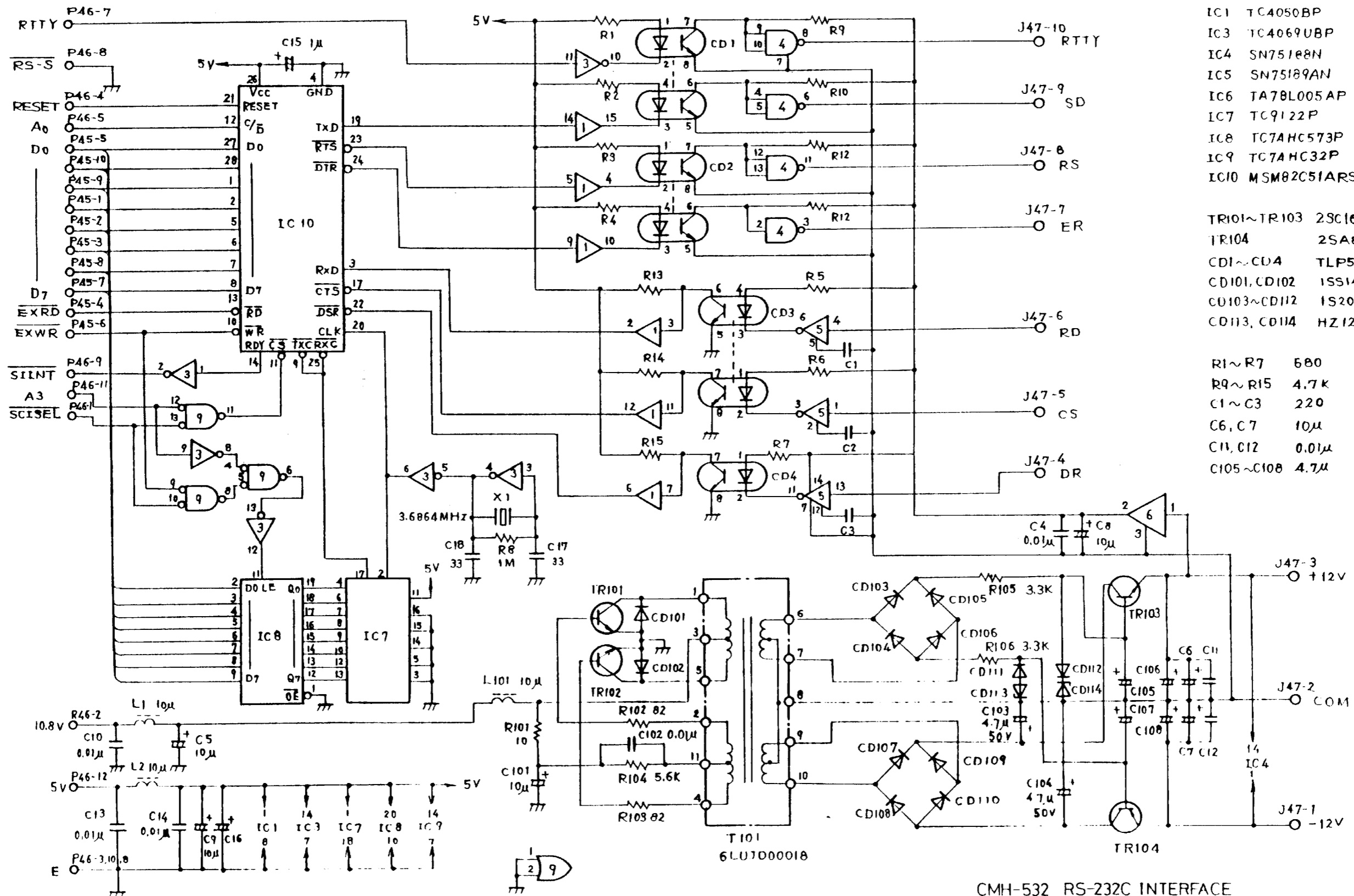
S	NAME	S	NAME	S	NAME	S	NAME
1	TEN KEY 1	9	TEN KEY 9	17	MODE ▷	25	ATT
2	" 2	10	" 0	18	MODE ◁	26	RUN
3	" 3	11	PERIOD .	19	BAND ▷	27	SCAN
4	" 4	12	CLR	20	BAND ◁	28	SWEEP
5	" 5	13	MHE	21	UP	29	CLOCK/TIMER
6	" 6	14	KHE/ENT	22	DOWN	30	MON I
7	" 7	15	FREQ	23	LOCK	31	RIT
8	" 8	16	CH	24	AGC	32	DIMM

CDE-418 DISPLAY
6PCJD00164B MDLW02763









- IC1 TC4050BP
- IC3 TC4069UBP
- IC4 SN75188N
- IC5 SN75189AN
- IC6 TA78L005AP
- IC7 TC9122P
- IC8 TC74HC573P
- IC9 TC74HC32P
- IC10 MSM82C51ARS

- TR101~TR103 2SC1627A-Y
- TR104 2SA817A-YC
- CD1~CD4 TLP504A
- CD101, CD102 1SS149H
- CD103~CD112 1S2076S7
- CD113, CD114 HZ12A2

- R1~R7 680
- R9~R15 4.7K
- C1~C3 220
- C6, C7 10µ
- C11, C12 0.01µ
- C105~C108 4.7µ

CMH-532 RS-232C INTERFACE
6 PCJD00186B MDYW01976