

Service Manual

PIONEER
The Art of Entertainment

DEH-59/UC



ORDER NO.
CRT1809

HIGH POWER CD PLAYER WITH FM/AM TUNER

DEH-59

UC

DEH-52 UC

DEH-525 UC

DEH-49 UC

DEH-42 UC

DEH-425 UC

DEH-225 UC

DEH-523 ES

DEH-323 ES

DEH-223 ES

COMPACT
disc
DIGITAL AUDIO

- See the service manual CX-597(CRT1811) for the CD mechanism description, disassembly and circuit description.
- The CD mechanism employed in this model is one of CX-597 series.

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● CD Player Service Precautions

1. For pickup unit(CGY1070) handling, please refer to "Disassembly"(CX-597 Service Manual CRT1811).
During replacement, handling precautions shall be taken to prevent an electrostatic discharge(Protection by a short pin).
2. During disassembly, be sure to turn the power off since an internal IC might be destroyed when a connector is plugged or unplugged.

1. SAFETY INFORMATION

CAUTION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely; you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5). When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

2. SPECIFICATIONS

General

Power source	14.4 V DC (10.8 — 15.1 V allowable)
Grounding system	Negative type
Max. current consumption	10.0 A
Dimensions	
(DIN) (chassis)	178 (W) × 50 (H) × 150 (D) mm [7 (W) × 2 (H) × 5-7/8 (D) in.]
(nose)	188 (W) × 58 (H) × 22 (D) mm [7-3/8 (W) × 2-1/4 (H) × 7/8 (D) in.]
(D) (chassis)	178 (W) × 50 (H) × 155 (D) mm [7 (W) × 2 (H) × 6-1/8 (D) in.]
(nose)	170 (W) × 48 (H) × 17 (D) mm [6-3/4 (W) × 1-7/8 (H) × 5/8 (D) in.]
Weight	1.5 kg (3.3 lbs)

Amplifier

Continuous power output is 15 W per channel min. into 4 ohms, both channels driven 50 to 15,000 Hz with no more than 5% THD.

Maximum power output	35 W × 4
Load impedance	4 Ω (4 — 8 Ω allowable)
Preout output level/output impedance	500 mV/ 1 kΩ
Tone controls	
(Bass)	±12 dB (100 Hz)
(Treble)	±12 dB (10 kHz)
Loudness contour	+10 dB (100 Hz), +7 dB (10 kHz) (volume: -30 dB)

CD player

System	Compact disc audio system
Usable discs	Compact disc
Signal format	Sampling frequency: 44.1 kHz Number of quantization bits: 16; linear
Frequency characteristics	5 — 20,000 Hz (±1 dB)
Signal-to-noise ratio	94 dB (1 kHz)(IHF-A network)
Dynamic range	90 dB (1 kHz)
Number of channels	2 (stereo)

FM tuner

Frequency range (UC)	87.9 — 107.9 MHz
Frequency range (ES)	87.5 — 108 MHz
Usable sensitivity	11 dBf (1.0 V/75Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity	16 dBf (1.7 V/75Ω, mono)
Signal-to-noise ratio	70 dB (IHF-A network)
Distortion	0.3% (at 65 dBf, 1 kHz, stereo)
Frequency response	30 — 15,000 Hz (3 dB)
Stereo separation	40 dB (at 65 dBf, 1 kHz)
Selectivity	70 dB (2ACA)
Three-signal intermodulation (desire signal level)	50 dBf (two undesire signal level: 110 dBf)

AM tuner

Frequency range (UC, ES)	530 — 1,710 kHz
Frequency range (ES)	531 — 1,602 kHz
Usable sensitivity	18 V (25 dB) (S/N: 20 dB)
Selectivity	50 dB (10 kHz)

Note:

Specifications and the design are subject to possible modification without notice due to improvements.

3. OPERATION AND CONNECTION

Tuner Operation

Tuner Source and Band

- Push the **SOURCE** button or the **Tuner** button to select Tuner.
The Frequency appears on the display.
("◐") indicator lights when stereo station selected.)

- Use the **BAND** button to select the desired band.
(FM1, FM2, FM3, AM)

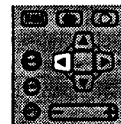
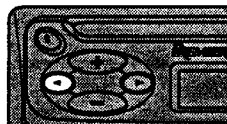
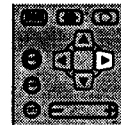
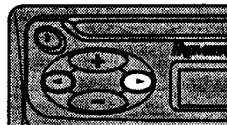
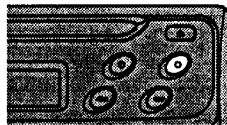
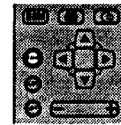
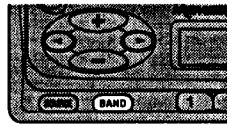
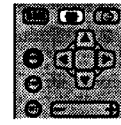
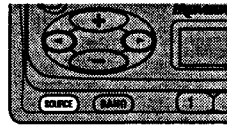
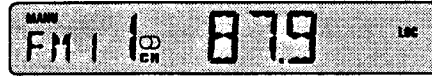
Manual and Seek Tuning

Both Manual (step-by-step) and Seek (automatic) tuning are available.

1. Press the **MANU** button to switch alternately between the Manual and Seek tuning modes.
The "MANU" indicator lights when Manual tuning is selected and turns OFF when Seek tuning is selected.

2. Press the (▶) button to tune the receiver to a higher frequency.
MANU ON (Manual tuning):
The frequency changes step by step.
MANU OFF (Seek Tuning):
The tuner automatically seeks out and receives broadcasting stations.

- Press the (◀) button to tune the receiver to a lower frequency.



Using the Built-in CD Player

The built-in CD player plays one standard 12 cm or 8 cm (single) CD at a time. Do not use an adapter when playing 8 cm CD.

Inserting and Removing Discs

- Insert the disc with the recorded (iridescent) surface down.

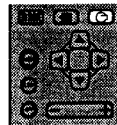
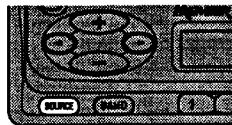
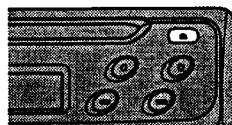
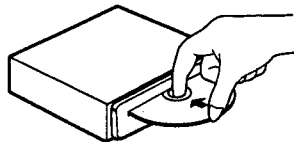
CD playback begins immediately, whether or not the player is ON or the built-in CD source selected. The track number and playing time are displayed.

- Press the **Eject** button to eject any disc loaded in the disc slot.

Playing the Built-in CD player

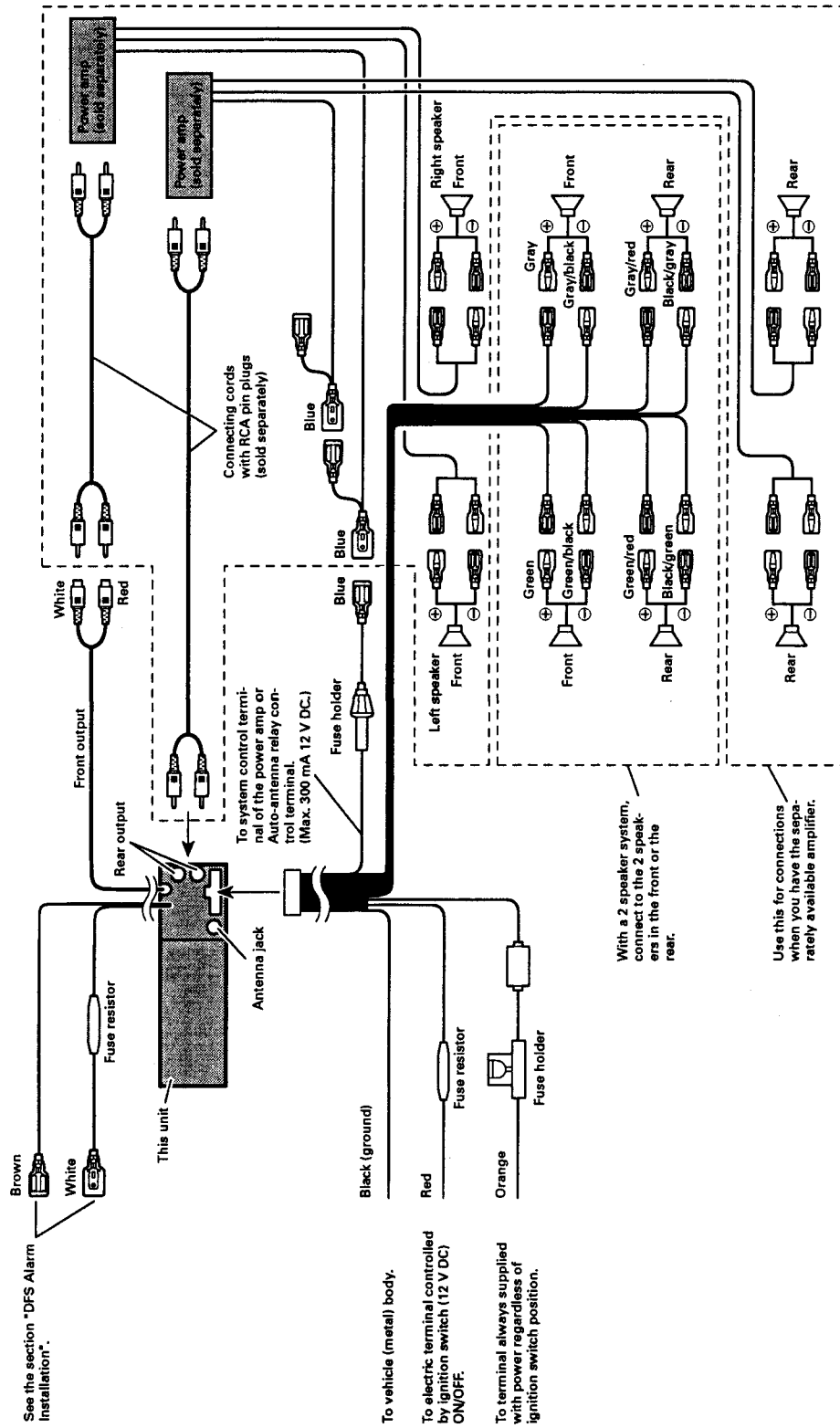
- To play a CD that is already loaded, press the **SOURCE** or **CD** button with a CD loaded to select the built-in CD player.

The built-in CD player is selected only when a CD is loaded.



DEH-59, 52, 525, 49, 42, 425, 225, 523, 323, 223

● Connection Diagram



4. DISASSEMBLY

● Removing the Case(Not shown)

- 1.Remove the two screws.
- 2.Insert and turn a flat screwdriver at locations indicated by arrows to remove the case.

● Removing the Detach Grille Assy(Fig.1) (Except for DEH-225/UC and DEH-223/ES)

- 1.Press the detach button, and then pull detach grille assy.

● Removing the Panel Assy(Fig.1) (Except for DEH-225/UC and DEH-223/ES)

- 1.Disconnect the two stoppers indicated by arrows, and then remove the panel assy.

● Removing the CD Mechanism Module(Fig.1,2)

- 1.Remove the four screws.
- 2.Disconnect the connector.
- 3.Remove the CD mechanism module.

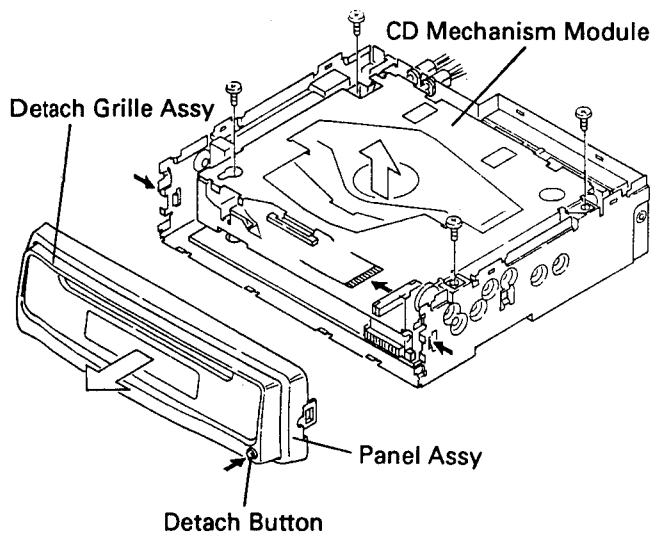


Fig.1

● Removing the Grille Assy(Fig.2) (DEH-225/UC and DEH-223/ES)

- 1.Disconnect the connector.
- 2.Disconnect the two stoppers indicated by arrows, and then remove the grille assy.

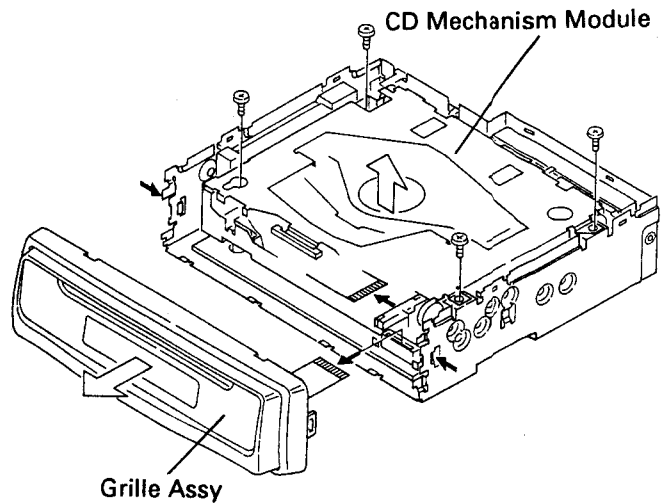


Fig. 2

● Removing the Chassis Unit(Fig.3)

- 1.Remove the screw A, two screws B, screw C and two screws D.
- 2.Stretch the claw.
- 3.Remove the two cords, and then remove the chassis Unit.

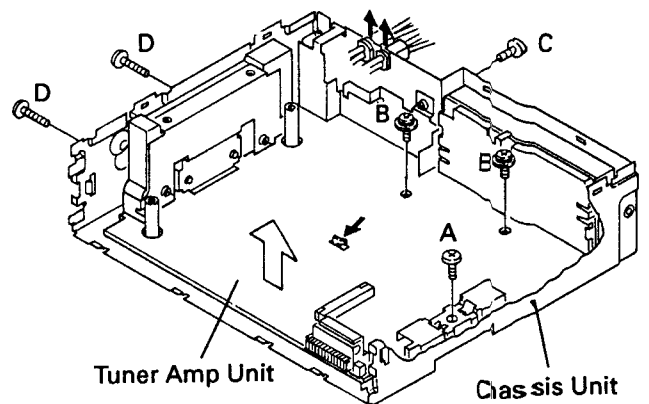


Fig. 3

5. ADJUSTMENT

● Connection Diagram

NOTE:

Select C1 so that total capacity of 80pF is attained from the direction of the receiver jack.

Z: Output impedance of SSG.

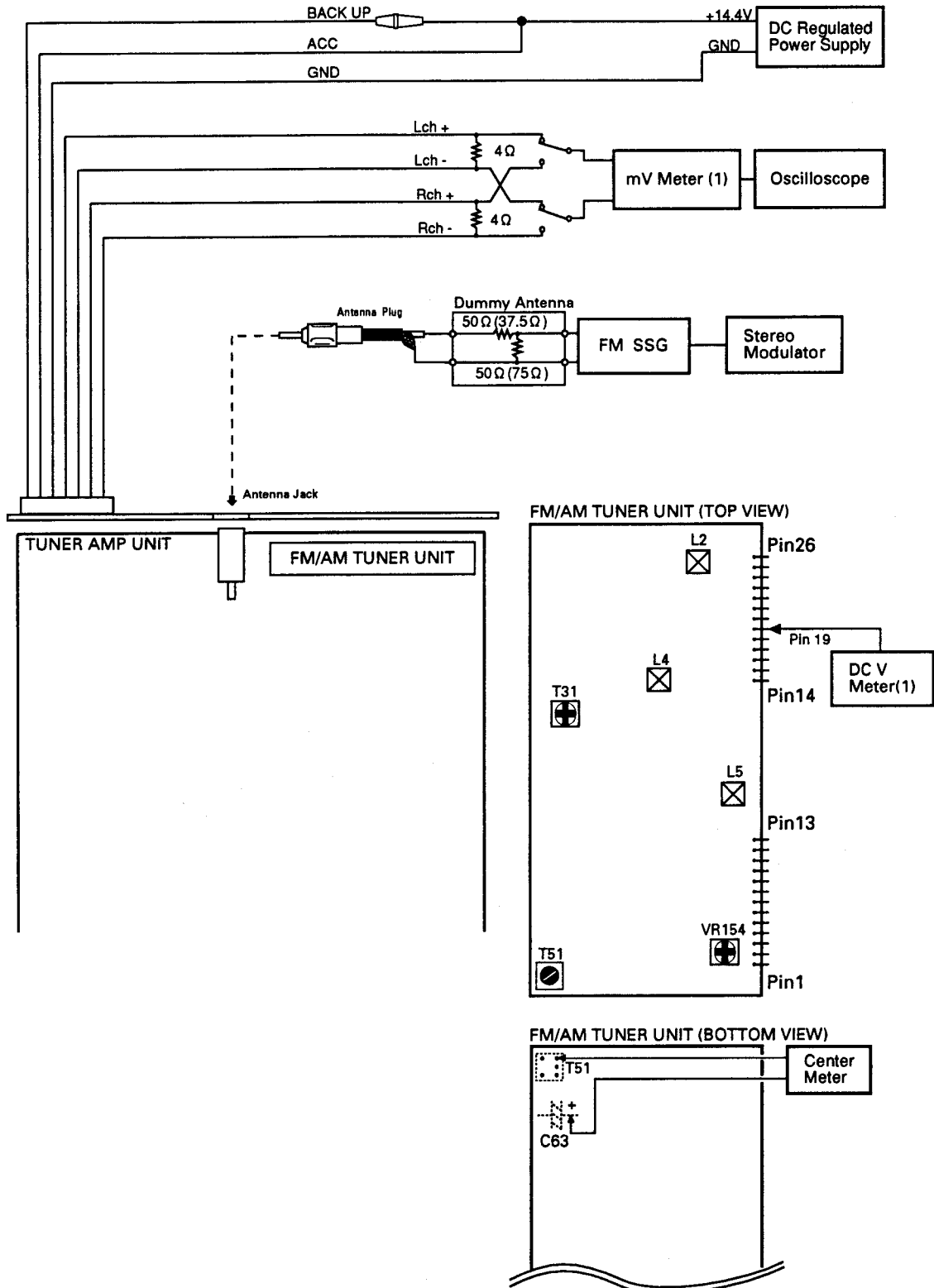


Fig. 4

FM ADJUSTMENT(UC MODEL)

Modulation M:MONO MOD., 400Hz 30%(22.5kHz Dev.)

S:STEREO MOD., 1kHz, L or R=30%(20.25kHz+7.5kHz Dev.)

NOTE:Before proceeding to further adjustments after switching power ON, let the tuner run for ten minutes to allow the circuits to stabilize.

	No.	FM SSG		Displayed Frequency(MHz)	Adjustment Point	Adjustment Method (Switch Position)
		Frequency(MHz)	Level(dBf)			
TUN Volt	1	.....	.....	107.9	L5	DC V Meter(1) : 6V
IF	1	98.1 M	60	98.1	T51	Center Meter : 0
ANT Coil	1	98.1 M	5	98.1	L2	mV Meter(1) : Maximum
RF Coil	1	98.1 M	5	98.1	L4	mV Meter(1) : Maximum
IFT	1	98.1 M	5	98.1	T31	mV Meter(1) : Maximum (STEREO MODE)
ARC	1	98.1 S	39	98.1	VR154	mV Meter(1) : Separation 5dB (STEREO MODE)

FM ADJUSTMENT(ES MODEL)

	No.	FM SSG		Displayed Frequency(MHz)	Adjustment Point	Adjustment Method (Switch Position)
		Frequency(MHz)	Level(dBf)			
TUN Volt	1	.....	.....	108.0	L5	DC V Meter(1) : 6V
IF	1	98.1 M	60	98.1	T51	Center Meter : 0
ANT Coil	1	98.1 M	5	98.1	L2	mV Meter(1) : Maximum
RF Coil	1	98.1 M	5	98.1	L4	mV Meter(1) : Maximum
IFT	1	98.1 M	5	98.1	T31	mV Meter(1) : Maximum (STEREO MODE)
ARC	1	98.1 S	39	98.1	VR154	mV Meter(1) : Separation 5dB (STEREO MODE)

6. TEST MODE

6.1 TEST MODE

1)Precautions

- This unit uses a single power supply (+5V) for the regulator. The signal reference potential, therefore, is connected to REFO(approx. 2.5V) instead of GND.

If REFO and GND are connected to each other by mistake during adjustments, not only will it be impossible to measure the potential correctly, but the servo will malfunction and a severe shock will be applied to the pick-up. To avoid this, take special note of the following.

Do not connect the negative probe of the measuring equipment to REFO and GND together. It is especially important not to connect the channel 1 negative probe of the oscilloscope to REFO with the channel 2 negative probe connected to GND.

Since the frame of the measuring instrument is usually at the same potential as the negative probe, change the frame of the measuring instrument to floating status.

If by accident REFO comes in contact with GND, immediately switch the regulator or power OFF.

- Always make sure the regulator is OFF when connecting and disconnecting the various filters and wiring required for measurements.
- Before proceeding to further adjustments and measurements after switching regulator ON, let the player run for about one minute to allow the circuits to stabilize.
- Since the protective systems in the unit's software are rendered inoperative in test mode, be very careful to avoid mechanical and /or electrical shocks to the system when making adjustment.
- Test mode starting procedure
Switch ACC, back-up ON while pressing the 4 and 6 keys together.

- Test mode cancellation
Switch ACC, back-up OFF.

- Disc detection during loading and eject operations is performed by means of a photo transistor in this unit. Consequently, if the inside of the unit is exposed to a strong light source when the outer casing is removed for repairs or adjustment, the following malfunctions may occur.

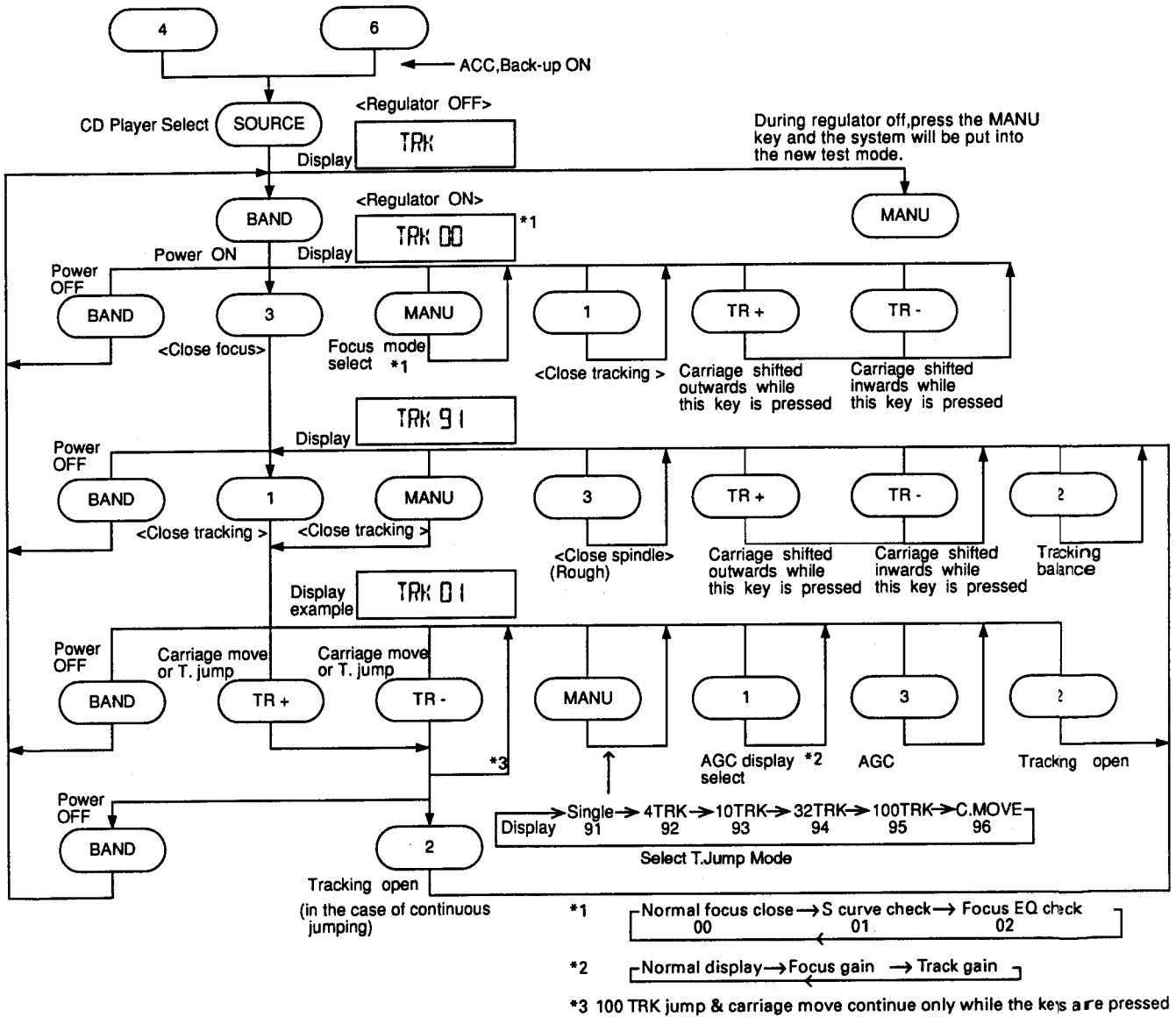
*During PLAY, even if the eject button is pressed, the disc will not be ejected and the unit will remain in the PLAY mode.

*The unit will not load a disc.

When the unit malfunctions this way, either re-position the light source, move the unit or cover the photo transistor.

- When loading and unloading discs during adjustment procedures, always wait for the disc to be properly clamped or ejected before pressing another key. Otherwise, there is a risk of the actuator being destroyed.
- Turn power off when pressing the button TR+ or the button TR- key for focus search in the test mode. (Or else lens may stick and the actuator may be damaged.)
- SINGLE/4TRK/10TRK/32TRK will continue to operate even after the key is released. Tracking is closed the moment C-MOVE is released.
- JUMP MODE resets to SINGLE as soon as power is switched off.

● Flow Chart



6.2 ERROR NUMBERS AND NEW TEST MODE

● Error Number Indication

If the CD should fail to operate or if an error has taken place during operation the player will enter into the error mode, and the cause of the error will be numerically indicated.

This is aimed at assisting in analysis or repair.

(1) Basic Means of Display

·With ERROR indicated in "MODE" on IP-BUS Display data, an error code is transmitted by the use of MIN and SEC. The MIN and SEC data will be identical.

·Examples of Display ER-XX

(2) Error Codes

Error Code	Classification	Description	Cause/Detail
10	ELECTRIC	Carriage home failure	Carriage doesn't move to or from the innermost position →Home switch failed and/or carriage immobile
11	ELECTRIC	Focus failure	Focus failed →Defects, disc upside-down, severe vibration
12	ELECTRIC	SETUP failure Subcode failure	Spindle failed to lock or subcode unreadable →Spindle defective, defect, severe vibration
14	ELECTRIC	Mirror failure	Unrecorded CD-R The disc is upside-down, defects, vibration
17	ELECTRIC	Set up failure	AGC protect failed →Defects, disc upside-down, severe vibration
30	ELECTRIC	Search time out	Failed to reach target address →Carriage/tracking defective and/or defects
A0	SYSTEM	Power failure	Power overvoltage or short circuit detected →Switching transistor defective and/or power abnormal

defects means scratches, dirt etc on the surface of the disc.

● New Test Mode(aging operation and setup analysis)

The single CD player plays in normal mode. After being set up, it will display FOK (focus), LOCK (spindle), subcode, sound skip, protection against a mechanical error or the like, occurrence of an error, cause and time of an expiry, if any, (and disc number).

During the setup, the CD software operation status (internal RAM and C-point)is displayed.

(1) How to enter NEW TEST Mode

See the test mode flow chart Page 11.

(2) Relations of keys between TEST and NEW TEST Modes

Keys	Test Mode		New Test Mode	
	Regulator OFF	Regulator ON	PLAY in progress	Error Occurred, Protection Activated
BAND	Regulator ON	Regulator OFF	—	Time of occurrence / cause of error select
TR+	—	FWD-KICK	TRACK+ / FF	—
TR-	—	REV-KICK	TRACK- / REV	—
1	—	TRACKING CLOSE	SCAN	—
2	—	TRACKING OPEN	REPEAT	—
3	—	FOCUS CLOSE	RANDOM	—
MANU	To New Test Mode Select	FOCUS MODE	AUTO/MANU	TRACK No./ time of occurrence select

Operations, such as EJECT, CD ON/OFF, etc. are performed normally.

(3) Error Cause (Error Number) Code

Error Code	Classification	Mode	Description	Cause	Detail
40	ELECTRIC	PLAY	FOK=L 100ms	Put out of focus	Scratch, Stain, Vibration, Servo defect, etc...
41	ELECTRIC	PLAY	LOCK=L 100ms	Spindle unlock	
42	ELECTRIC	PLAY	Subcode unacceptable 500ms	Failed to read subcode	
43	ELECTRIC	PLAY	Sound skipped	Last address memory operated	

(4) Indicating an Operation Status During Setup

Status No.	Description	Protection operation
01	Carriage home mode started	None
02	Carriage moving inwards	10-second time out, Home switch failed
03	Carriage moving outwards	10-second time out, Home switch failed
05	Carriage moving outwards	None
11	Setup started	None
12	Spindle turn/Focus search started	None
13	Waiting for focus closure (XSI=L)	Failure to close focus
10,14	Waiting for focus closure (FOK=H)	Failure to close focus
15, 16, 17	Focus closed, Tracking open	Focus disrupted
18	During focus AGC Subcode waiting	Focus disrupted
19	During tracking AGC	Disrupted focus
20	Waiting for MIRR, LOCK or subcode read Carriage closed, SPINDLE=ADAPTIVE	Focus disrupted, MIRR NG, Failure to lock, Failed to read subcode

(5) Example of Display.

·SET UP in progress
Auto

TNo.
11

Manual

Min	Sec
11	11

·Operation (PLAY, SEARCH, etc.) in progress perfectly identical with that in the normal mode.

·Protection/Error upon occurrence

(a)Error number indicated

ER-xx

← Select the display with the BAND key.

(b)Track number indicated

TNo.
10

←

(c)Absolute time indicated

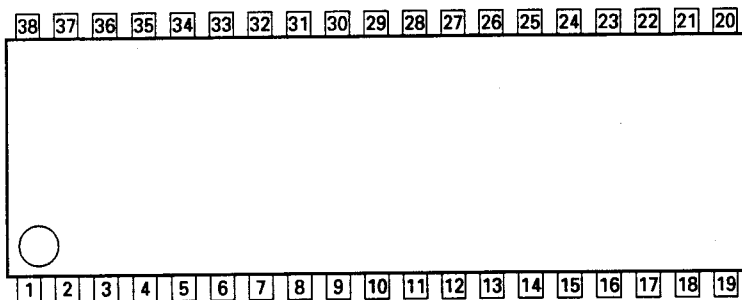
Min	Sec
40	05

← Select the display with the MANU key.

● Pin Functions (UPC2572GS)

Pin No.	Pin Name	I/O	Function and Operation
1	EFM-IN	I	EFM comparator input
2	AGC-OUT	O	AGC amplifier output
3	C. AGC		Connects AGC peak detection condenser
4	RF-IN	I	RF signal DC component cut input
5	RF-OUT	O	RF amplifier output
6	RF-	I	RF amplifier inverted input
7	C1, 3T		Connects RF3T component detection condenser
8	C2, 3T		Connects RF3T component detection condenser
9	Vcc		Power supply
10	A	I	A signal input
11	C	I	C signal input
12	B	I	B signal input
13	D	I	D signal input
14	F	I	F signal input
15	E	I	E signal input
16	PD	I	APC amplifier input
17	LD	O	APC amplifier output
18	LDON	I	Laser diode ON/OFF input
19	VREF-OUT	O	Reference voltage output
20	VREF-IN	I	Reference voltage input
21	DET-OUT	O	Vibration detection circuit output
22	DET-IN	I	Vibration detection circuit input
23	TE-OUT2	O	Tracking error amplifier output (fourfold gain)
24	TE-OUT1	O	Tracking error amplifier output (singlefold gain)
25	TE-	I	Tracking error amplifier inverted input
26	GND		GND
27	FE-	I	Focus error amplifier inverted input
28	FE-OUT	O	Focus error amplifier output
29	C.FE	I	Focus error signal DC component cut input
30	3T-OUT	O	RF3T component output
31	MIRR	O	MIRR signal output
32	RFOK	O	RFOK signal output
33	DEFECT	O	DEFECT signal output
34	C. DEF		Connects DEFECT signal detection condenser
35	EFM-OUT	O	EFM comparator output
36	ASY	I	EFM comparator level input
37	TE-BAL	I	Tracking balance control
38	FE-BAL	I	Focus balance control

UPC2572GS



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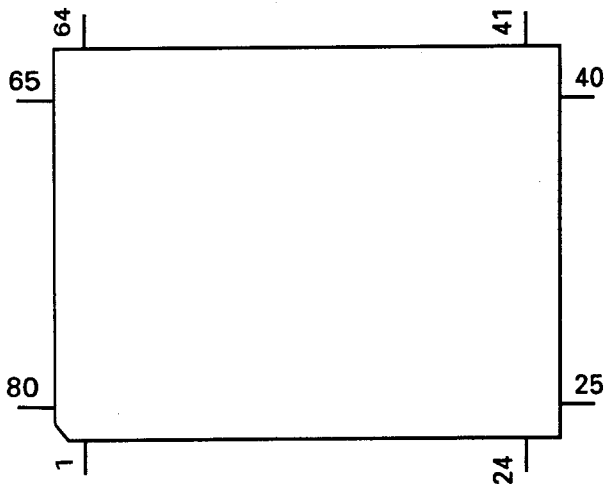
● Pin Functions (UPD63702GF)

Pin No.	Pin Name	I/O	Function and Operation
1	D.VDD		Supplies current of positive voltage to the logic circuits
2	RST	I	System reset input pin
3	AO	I	Microcomputer interface AO="L": STB active and set to address register AO="H": STB active and set to parameter
4	STB	I	Signal to latch serial data within the LSI
5	SCK	I	Clock input pin to input and output serial data
6	SO	O	Outputs serial data and status signal
7	SI	I	Serial data input pin
8	D.GND		Logic circuit GND
9	X.GND		Crystal oscillation circuit GND
10	XTAL	I	Crystal oscillator connection pin
11	XTAL	O	Crystal oscillator connection pin
12	X.VDD		Supplies current of positive voltage to the crystal oscillation circuit
13	DA.VDD		Supplies current of positive voltage to the D/A converter
14	R+	O	Right channel analog audio data output pin
15	R-	O	Right channel analog audio data output pin
16,17	DA.GND		D/A converter GND
18	L-	O	Left channel analog audio data output pin
19	L+	O	Left channel analog audio data output pin
20	DA.VDD		Supplies current of positive voltage to the D/A converter
21	D.VDD		Supplies current of positive voltage to logic circuit
22	FLAG	O	Flag output pin to indicate that audio data currently being output consists of noncorrectable data
23	WDCK	O	Pin to output double the frequency of LRCK
24	C16M	O	Pin to output the clock
25	EMPH	O	Output pin for the pre-emphasis data in the sub-Q code
26	DIN	I	Input pin for serial audio data
27	DOUT	O	Output pin for the serial audio data
28	SCKO	O	Output pin for the clock for the serial audio data
29	LRCK	O	Signals to distinguish the right and left channels of the audio data output from DOUT. Frequency is 44.1kHz at 50% duty at normal regeneration
30	TX	O	Output pin for the digital audio interface data
31	CTLV	I	Oscillation control pin for high-frequency clock generation VCO used for the digital PLL upon regeneration at fast speed of 2- or 4-fold
32	POUT	O	Output point for phase comparison
33	D.GND		GND for the logic circuit
34	VCO	I	Input pin for the inverter
35	VCO	O	Output pin for the inverter
36	D.VDD		Supplies current of positive voltage to the logic circuit
37	PLCK	O	Pin for monitoring the bit clock
38	LOCK	O	Indicates "H" when the synchronized pattern detection signal matches the frame counter output at the EFM recovery modulation, and "L" when they don't match
39	WFCK	O	Minute-cycle signal for the bit clock, the signal indicates the cycle of 1 frame (approx. 7.35kHz)
40	RFCK	O	Minute-cycle signal for the clock, the signal indicates cycle of 1 frame (approx. 7.35kHz)
41	D.GND		GND for the logic circuit
42,43	TEST0,1	I	Test pins
44,45	TM2, TM4	I	Pins for controlling regeneration at fast speed of 2- or 4-fold
46-49	T4-T7	I	Test pins
50,51	C1D1,C1D2	O	Output pin for indicating the C1 error correction results
52-54	C2D1-C2D3	O	Output pin for indicating the C2 error correction results
55	D.VDD		Supplies current of positive voltage to the logic circuit
56	SFSY	O	Outputs 1 word of the subcode. Generally, 1 cycle is approx 136 micro seconds
57	SBSY	O	The signal indicates the beginning of the subcode block. The SFSY signal is output at high level every 98 times
58	SBSO	O	Output pin for the subcode data

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Pin No.	Pin Name	I/O	Function and Operation
59	SBCK	I	Input pin for the clock signal for read-out of the subcode data
60	A.GND		GND for the analog circuit
61	MD	O	Output pin for the spindle drive
62	SD	O	Output pin for the sled drive
63	TD	O	Output pin for the tracking drive
64	FD	O	Output pin for the focus drive
65	FBAL	O	Output pin for the focus balance control
66	TBAL	O	Output pin for the tracking balance control
67	A.VDD		Supplies current of positive voltage to the analog circuit
68	TBC	I	Switches coefficient banks for the tracking filter
69	EFM	I	Input pin for the EFM signal
70	HOLD	I	Input pin for the hold control signal
71	RFOK	I	Input pin for the RFOK signal
72	MIRR	I	Input pin for the MIRR signal
73	A.GND		GND for the analog circuit
74,75	VR2,1	I	The signal input through these pins is digitized to 8-bit by the A/D converter, which by operation of the assigned register, can be read into the microcomputer
76	FE	I	Inputs a focus-error signal from the RF amplifier
77	TE	I	Inputs a tracking-error signal from the RF amplifier
78	TEC	I	Input pin for the tracking comparator
79	REFOUT	O	Output point for midpoint potential for the A/D converter for the LSI portion
80	A.VDD		Supplies current of accurate voltage to the analog circuit

*UPD63702GF



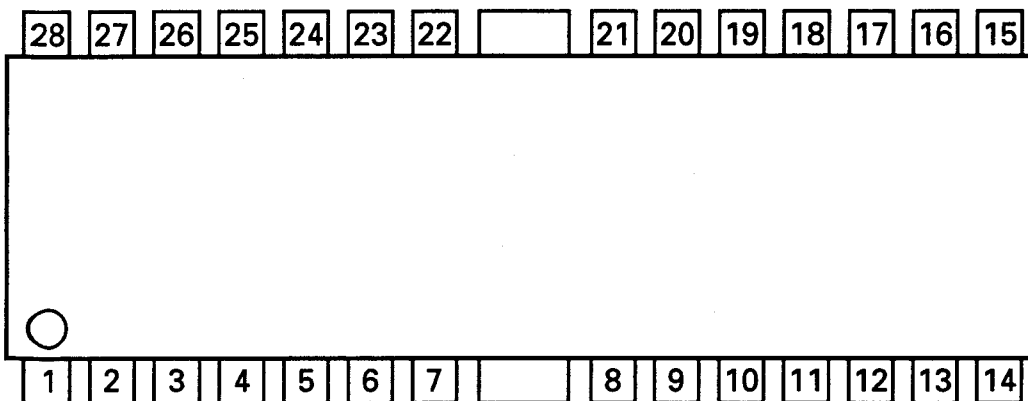
IC's marked by are MOS type.*

Be careful in handling them because they are very liable to be damaged by electrostatic induction.

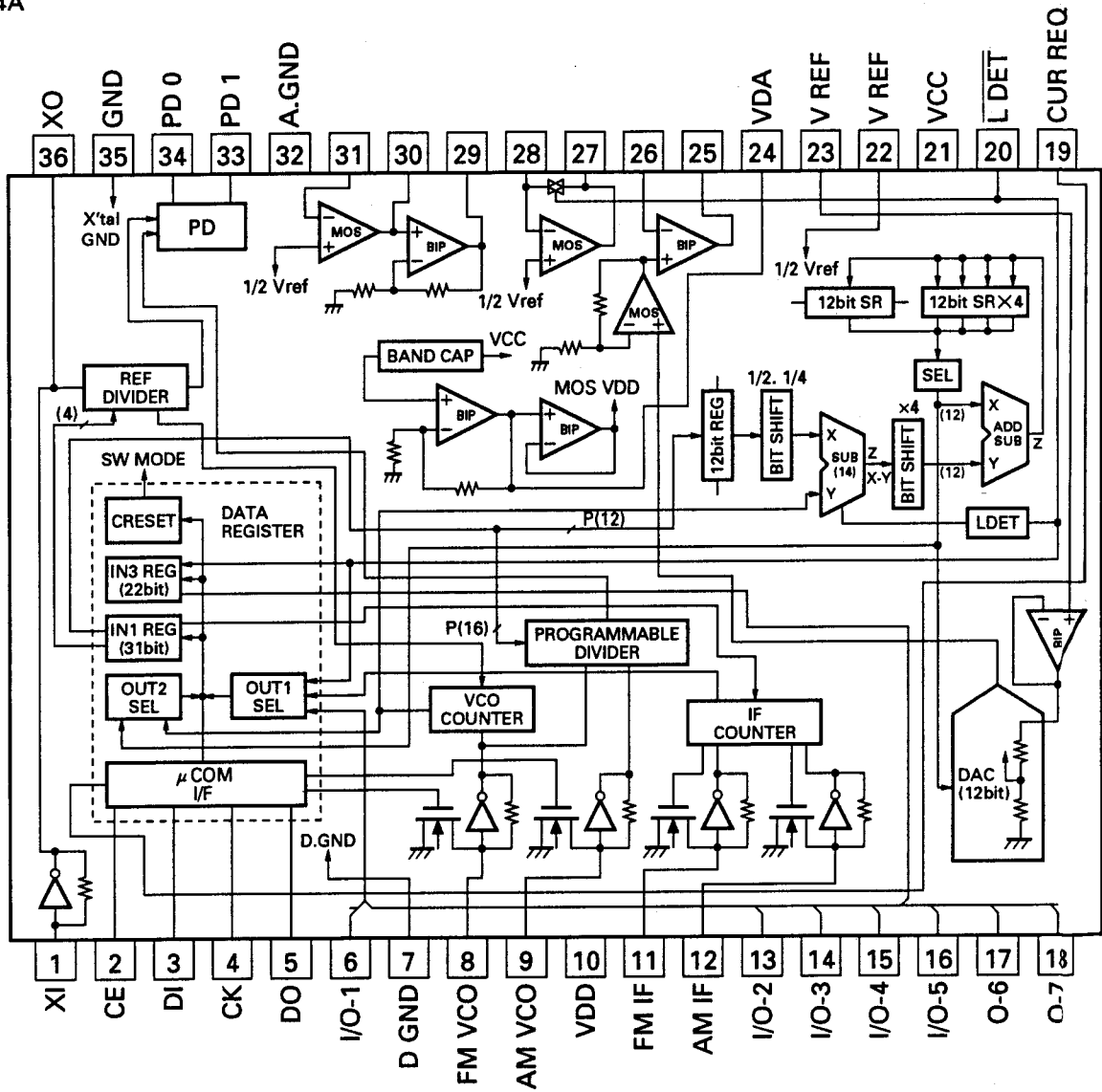
● Pin Functions (XLA6997FP)

Pin No.	Pin Name	I/O	Function and Operation
1	OUT1-A	O	CH1 driver output
2	OUT1-B	O	CH1 driver output
3	IN1	I	CH1 input
4	IN1'	I	CH1 gain adjustment input
5	REG-B		PowTr base connection pin for regulator
6	REG OUT	O	Regulator output PowTr collector connection
7	REG GND		Regulator GND/Common circuit GND
8	BIAS	I	BIAS input
9	MUTE		Mute control pin
10	REG SW		Regulator switch pin
11	TEMP MON		Humidity monitor pin
12	IN2	I	CH2 input
13	OUT2-B	O	CH2 driver output
14	OUT2-A	O	CH2 driver output
15	GND		GND
16	OUT3-A	O	CH3 driver output
17	OUT3-B	O	CH3 driver output
18	IN3''		CH3 gain adjustment pin
19	IN3'		CH3 gain adjustment pin
20	IN3	I	CH3 input
21,22	VCC		VCC
23	IN4	I	CH4 input
24	IN4'		CH4 gain adjustment pin
25	IN4''		CH4 gain adjustment pin
26	OUT4-B	O	CH4 driver output
27	OUT4-A	O	CH4 driver output
28	GND		GND

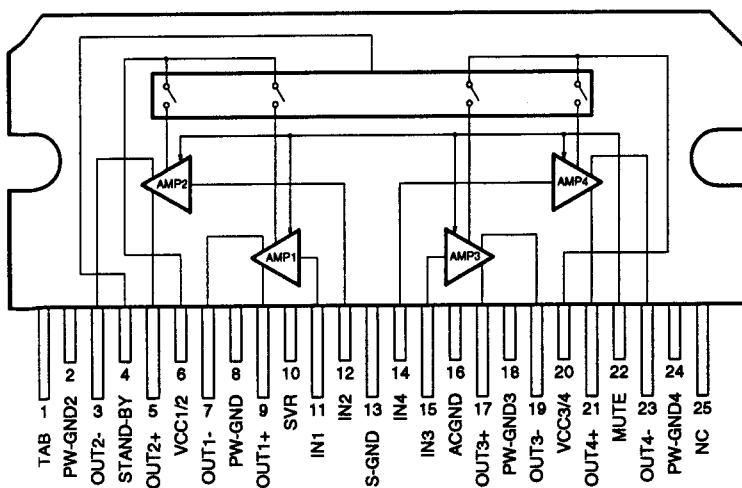
XLA6997FP



*PM2004A



PA1003A



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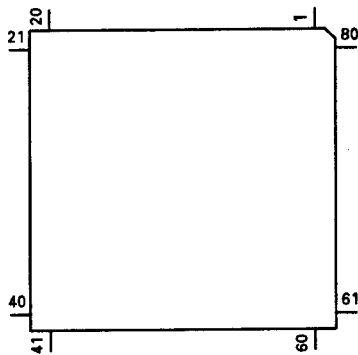
● Pin Functions (PDR027A)

Pin No.	Pin Name	I/O	Format	Function and Operation
1	MODEL1	I		Model select input
2,3	NC			Not used
4	AVSS			GND
5	ST	I		FM stereo input
6	SD	I		SD input
7	AVREF1			A/D converter reference voltage
8	KYDT	I		Key data input
9	DPDT	O	C	Display data output
10	NC			Not used
11	PDI	I		Data input from PLL IC
12	PDO	O	C	Data output for PLL IC
13	PCK	O	C	Serial clock output for PLL IC
14	PCE	O	C	Chip enable output for PLL IC
15	CURRQ	O	C	Tuner voltage FIX output
16	XSI	I		Data input from CD mechanism module LSI
17	XSO	O	C	Data output for CD mechanism module LSI
18	XSCK	O	C	Clock output for CD mechanism module LSI
19	NC			Not used
20	AM	O	C	AM power control output
21	FM	O	C	FM power control output
22	VDCONT	O	C	VD control output
23	CONT	O	C	Servo driver power supply control
24	XAO	O	C	Command/Data output for CD mechanism module LSI
25	XRST	O	C	Reset output for CD mechanism module LSI
26	XSTB	O	C	Strobe output for CD mechanism module LSI
27	CLAMP	I		Disc clamp sense input
28	MIRR	I		Mirror detector input
29	FOK	I		Focus OK signal input
30	LOCK	I		Spindle lock detector input
31	CDLOAD	O	C	Load motor loading control output
32	NC			Not used
33	VSS			GND
34	CDEJET	O	C	Load motor eject control output
35	CD5VON	O	C	CD +5V power supply control output
36	DLED	O	N	Alarm LED output
37,38	MODEL2,3	I		Model select input
39,40	NC			Not used
41	SWVDD	O	C	Grille power supply control output
42	SYSPW	O	C	System power supply control output
43	ILMPW	O	C	Illumination power supply control output
44	MUTE	O	C	System mute output
45	PEE	O	C	Beep tone output
46	DOORH	O	C	Door system select output
47	DRSENS	I		Door open/close sense input
48	NC			Not used
49	VST	O	C	Strobe pulse output for electronic volume
50	VCK	O	C	Clock output for electronic volume
51	VDT	O	C	Data output for electronic volume
52-54	NC			Not used
55	DRELAY	O	C	External relay output
56	TUNPW	O	C	Tuner power supply control output
57	LPFSW	O	C	Output for FIE
58,59	NC			Not used
60	RESET	I		Reset input
61	LDET	I		PLL lock sense input
62	NC			Not used
63	ASENS	I		ACC power sense input
64	BSENS	I		Back up power sense input

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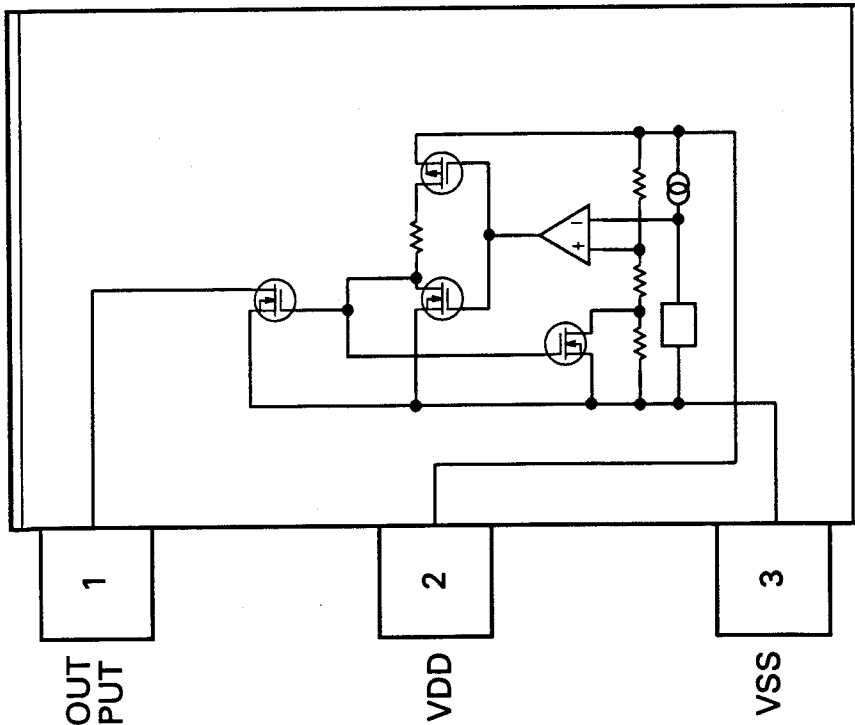
Pin No.	Pin Name	I/O	Format	Function and Operation
65	DSENS	I		Grille detach sense
66	CLKIN	I		Clock input
67	NC			Not used
68	VDD			Power supply
69	X2			Crystal oscillator connection pin
70	X1			Crystal oscillator connection pin
71	IC			Connect to GND
72	XT2			Not used
73	TESTIN	I		Test program mode input
74	AVDD			Positive power supply terminal for analog circuit
75	AVREF0			A/D converter reference voltage
76	SL	I		SD level input from tuner
77	TEMP	I		Temperature detect input
78	VDSENS	I		VD power supply short detection input
79	DSCSNC	I		Disc sense input
80	EJTSNC	I		Disc eject position sense input

*PDR027A



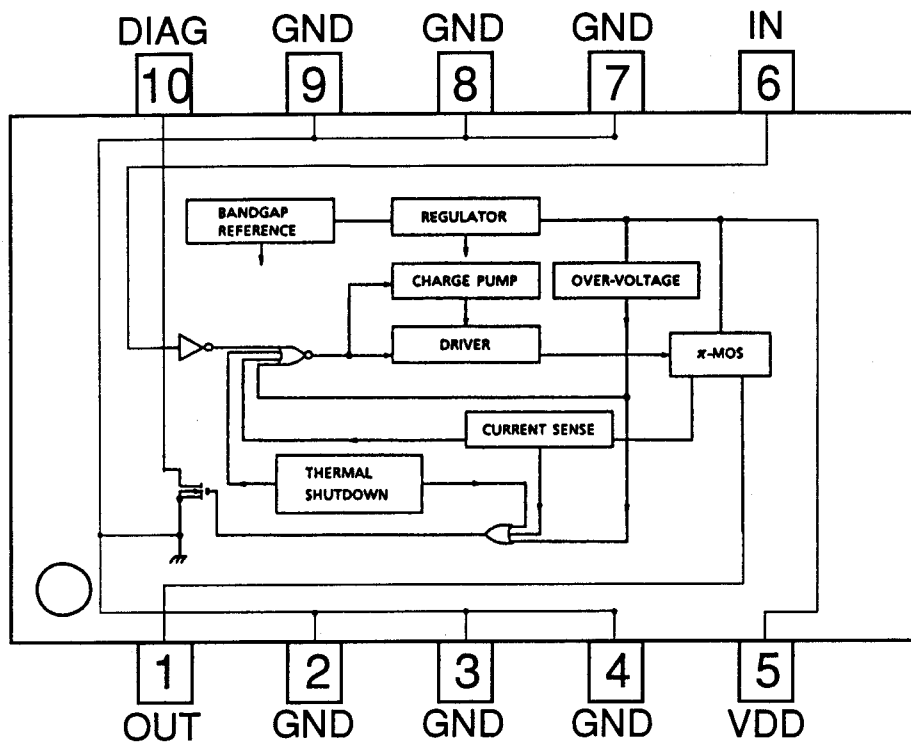
Format	Meaning
C	C MOS
N	N channel open drain

*S-80734AN



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TPD1018F



8. ELECTRICAL PARTS LIST

NOTE:

- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

Chip Resistor

RS1/OSOOOJ,RS1/OOSOOOJ

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

====Circuit Symbol & No. Part Name=====	Part No.	====Circuit Symbol & No. Part Name=====	Part No.
Unit Number : CWM4485(DEH-59/UC)		R 441 442 506 537 539 624 625	RS1/10S0R0J
Unit Name : Tuner Amp Unit		R 443 444	RD1/4PU222J
		R 445 446	FS1/10S162J
		R 459 460 633	FS1/10S272J
		R 461 462	FS1/10S151J
MISCELLANEOUS			
IC 451	SN761025DL		
IC 501	PM2004A	R 463 464	FS1/10S101J
IC 551	PAL003A	R 474 477 523 571 580 954 955 972 975	FS1/10S103J
IC 601	PDR027A	R 475 476	FD1/4PU471J
IC 602	S-80734AN	R 501	FS1/8S102J
		R 502 511 657 668	FS1/10S222J
IC 961	TPD1018F		
Q 421 431 432	FMG3A	R 503 608 609 610 651 652	FD1/4PU472J
Q 423 441	DTA124ES	R 504	FD1/4PU223J
Q 501 631 953 971 972	2SC2458	R 507	FS1/8S473J
Q 502	DTC114ES	R 508	FS1/10S102J
		R 509 526	FS1/10S472J
Q 551	DTC144ES		
Q 632 992	FMC2A	R 513 528 664 951 978 983 993	FS1/10S472J
Q 641	DTC114ES	R 514 607 627 659 956 971 973 974 976	FS1/10S473J
Q 651	2SA1048	R 515 516 518	FD1/4PU681J
Q 653	2SB1236	R 517	FD1/4PU681J
		R 519 520	FS1/10S392J
Q 654 952	DTC124ES		
Q 951	2SB1243	R 521	FS1/10S152J
Q 973	2SD1859	R 522	FS1/10S682J
Q 981 991	2SD2396	R 524	FS1/10S561J
Q 982 983	2SA1674	R 525	FD1/4PU272J
		R 527	FS1/10S682J
Q 984	FMG1A		
D 503 504 601 954 955	1SS133	R 529	FS1/10S681J
D 611 612 631 632 951 952 961 962	1SR139-200	R 530	FS1/10S222J
D 633	BR4361F	R 531	FS1/10S103J
D 657	HZS6LB2	R 532	FS1/10S224J
		R 533	FS1/8S0R0J
D 658 659 660	MA153		
D 953	HZS9LA2	R 534 605 665 958 985 986	FD1/4PU102J
D 971	HZS7LC3	R 536	FS1/8S102J
D 972	HZS7LC2	R 570	FS1/8S103J
D 973	1SR139-200	R 579	FS1/10S331J
		R 581 582 584 642	FD1/4PU102J
D 974	HZS6LB1		
D 981	HZS9LB3	R 583	FS1/10S562J
D 992	HZS9LB1	R 601	RI1/10SE223D
L 501	Ferri-Inductor LAU220K	R 602	FD1/4PU104J
L 502 601	Ferri-Inductor LAU2R2K	R 603	FS1/10S333J
		R 604	FS1/10S393J
L 503 631	Ferri-Inductor LAU2R2K		
L 602	Ferri-Inductor LAU101K	R 606	FS1/10S124J
L 651	Ferri-Inductor LAU101K	R 621 622 638 639	FD1/4PU473J
TH 601	Thermistor CCX1031	R 630	FD1/4PU473J
X 501	Crystal Resonator 7.2MHz CSS1379	R 631	FD1/4PU103J
		R 632	FS1/8S223J
X 601	Ceramic Resonator 4.19MHz CSS1047		
BZ 601	FM/AM Tuner Unit CWE1417	R 634 952 953	FD1/4PU331J
	Buzzer CPV1011	R 635	FD1/4PU103J
		R 641	FS1/10S202J
		R 653 654 655 681 683 684	FD1/4PU222J
		R 656	FD1/4PU472J
RESISTORS			
R 421 422	RS1/10S104J		
R 431	RS1/8S471J	R 658	FS1/8S222J
R 432	RS1/10S471J	R 661 981	FS1/10S1R0J
R 433 434 478 691 693	RS1/10S102J	R 682	FD1/4PU222J
R 435 436 437 438 473	RS1/10S223J	R 688	FD1/4PU681J
		R 692	FS1/8S102J

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====Circuit Symbol & No. Part Name=====	Part No.	====Circuit Symbol & No. Part Name=====	Part No.
R 977	RS1/10S101J	X 901	Ceramic Resonator 4.97MHz
R 982	RD1/4PU471J	IL 901 902 903 904	Lamp 14V 40mA
R 984	RS1/8S472J	IL 905	Lamp 14V 40mA
R 987	RS1/10S221J		LCD
R 991 992	RD1/4PU221J		
R 994	RS1/10S122J		
CAPACITORS		RESISTORS	
C 421 422	CEA3R3M50LL	R 901 902 903	RS1/8S222J
C 431 432 433 434 457 458 463 464 473 570	CEA100M16LL	R 906	RS1/10S470J
C 435 436 437 438	CCSQCH220J50	R 908 909	RS1/10S0R0J
C 443 444	CKSQYB473K25	R 911 912 913 914	RS1/10S471J
C 445 446 447	CKSQYB102K50	CAPACITORS	
C 451 452 469 470 474 490 607	CEA2R2M50LL	C 901 902 903 904	CKSQYB103K50
C 453 454 604	CEA4R7M35LL	C 905	CEA470M6R3LS
C 455	CKSYF104Z25	C 906	CKSQYB473K50
C 456	CKSQYF104Z25	Unit Number : CWE1417	
C 459 460	CKSQYB822K50	Unit Name : FM/AM Tuner Unit	
C 461 462 572 574	CEA010M50LL	MISCELLANEOUS	
C 465 466	CKSQYB152K50	IC 1	PA4023A
C 467 468	CCSQCH101J50	IC 2	PA4024A
C 471 472	CKSQYB333K25	Q 1 31 202	2SC2412KLN
C 477 482	CKSQYB104K50	Q 2 203	DTC124EU
C 478 501 508 517 519 527 529 590 982	CKSQYB103K50	Q 3	3SK263
C 481	CEA470M10LL	Q 201	2SK932
C 483 484	CKSQYB183K25	D 1 2	RD39JS
C 485 486 507 513 992	CKSQYB102K50	D 4	1SV251
C 504 651 972 974 991	CKSQYB473K50	D 5 7 8	KV1410
C 505	CCSCH101J50	D 6 201 202	MA157
C 506	CKSYB103K50	D 231	SVC253
C 502 503 509 535	CKSQYB223K50	L 2 4	CTC1108
C 510 512	CEA220M10LL	L 3	LCTB2R2K2125
C 515	CKSQYB223K50	L 5	CTC1107
C 516	CCH1165	L 51	LAU150K
C 518	CCH1165	L 201	Ferri-Inductor
C 520	CKLSR473K16	L 202	Ferri-Inductor
C 522 591	CEA220M10LL	L 203	Ferri-Inductor
C 523	CKSQYB104K50	L 208	Inductor
C 524 525	CCSQCH150J50	L 231	Inductor
C 526	CKSYB332K50	T 31	Coil
C 530 536	CKSQYB103K50	T 51	Coil
C 531	CCSQCH101J50	CF 51 52 53	Ceramic Filter
C 532	CKSQYB103K50	CF 232	Ceramic Filter
C 539	CKSQYB473K50	X 151	Ceramic Resonator 920.5kHz
C 551 553 554	CEAR22M50LL	X 231	Crystal Resonator 10.26MHz
C 552	CEAR22M50LL	VR 154	Semi-fixed 68kΩ(B)
C 556	CCH1150		
C 571	CEA330M10LL	RESISTORS	
C 573	CKSYB104K50	R 1 2	RS1/16S225J
C 605	CCSQCH101J50	R 4	RS1/16S154J
C 606	CKSQYB473K50	R 5	RS1/16S391J
C 652	CEA4R7M35LL	R 6 10 202	RS1/16S223J
C 961	CKSYB473K50	R 7 247	RS1/16S123J
C 971	CCH-114	R 8 17	RS1/16S332J
C 973	CEA101M10LL	R 9	RS1/16S473J
C 981	CEAS331M10	R 11	RS1/16S124J
C 983	CEA101M16LL	R 13	RS1/16S563J
C 993	CEA101M10LS	R 15	RS1/16S271J
Unit Number : CWM4501		R 16	RS1/16S104J
Unit Name : Key Board Unit		R 18	RS1/16S332J
MISCELLANEOUS		R 31	RS1/16S470J
IC 901	PD6122A	R 32 215	RS1/16S822J
IC 902	RPM-678CBB	R 33	RS1/16S822J
D 901 902	DA204K	R 34 35	RS1/16S331J
D 903	MA3051L	R 51	RS1/16S271J
L 901	LCTB4R7K3216	R 52	RS1/16S560J
		R 55	RS1/16S102J
		R 56	RS1/16S823J

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====Circuit Symbol & No. Part Name=====	Part No.	====Circuit Symbol & No. Part Name=====	Part No.
R 61	RS1/16S392J	C 103	CKSRYPB682K25
R 62	RS1/16S273J	C 104	CEA2R2M50LL
R 101	RS1/16S272J	C 106	CCSRCH151J50
R 102	RS1/16S682J	C 151	CKSRYPB472K50
R 103	RS1/16S333J	C 153 157	CEA3R3M50LL
R 104	RS1/16S334J	C 154	CKSQYB104K16
R 105	RS1/16S683J	C 158	CKSYB474K16
R 107	RS1/16S222J	C 159	CEA220M6R3LL
R 151	RS1/16S222J	C 161 209	CKSQYB104K16
R 152	RS1/16S393J	C 162	CEA3R3M50LL
R 239	RS1/16S104J	C 163	CKSRYPB102K50
R 155	RS1/16S273J	C 170 202	CCSRCH100D50
R 156	RS1/16S243J	C 201 250	CCSRCH471J50
R 157	RS1/16S203J	C 203 235	CKSRYPB332K50
R 160	RS1/16S222J	C 204 205 236 244	CKSQYB473K16
R 161	RS1/16S563J	C 206 233	CKSQYB104K16
R 162	RS1/16S105J	C 207	CCSRCH560J50
R 163	RS1/16S223J	C 211	CCSRCH101J50
R 203	RS1/16S225J	C 212	CEA470M6R3LL
R 204	RS1/16S103J	C 216	CCSRCH101J50
R 206	RS1/16S220J	C 217	CEA1R5M50LL
R 207	RS1/16S101J	C 219	CCSRCH471J50
R 208 217	RS1/16S102J	C 220 230	CKSRYPB103K25
R 209	RS1/16S471J	C 231	CCSRCH330J50
R 214	RS1/16S822J	C 232	CCSRCH150J50
R 231	RS1/16S272J	C 237	CCSRCH180J50
R 232	RS1/16S473J	C 239	CKSRYPB472K50
R 237	RS1/16S103J	C 240 242	CEA47M50LL
R 238	RS1/16S104J	C 243	CEA4R3M50LL
R 239	RS1/16S104J	C 245	CKSRYPB183K25
R 240	RS1/16S332J	C 246	CKSQYB473K16
R 241	RS1/16S202J		
R 243	RS1/16S183J	Unit Number : CWX1889	
R 244	RS1/16S472J	Unit Name : Control Unit	
CAPACITORS		MISCELLANEOUS	
C 1	CCSQCH060D50	IC 101	LPC2572GS
C 2	CCSRCH020C50	IC 201	LPD63702GF
C 4	CCSRCH820J50	IC 301	LA6997FP
C 6	CCSRCH820J50	IC 302	RA6285FP
C 8 18 25 31 52 59 62 105 107 213	CKSRYPB103K25	IC 601	A2063F
C 9 34 56 152 160 241	CKSQYB104K16	IC 701	FD05TZ51
C 10	CCSRCH0R5C50	Q 101	SD1664
C 11	CEA010M50LL	Q 102	MD2N
C 12 13 17 19 20	CKSRYPB222K50	Q 601 602	SD1781K
C 14	CCSRCH220J50	Q 603	SB709A
C 15	CCSRCH060D50	D 601	IA151WA
C 16	CCSRCH080D50	D 701 702	SR154-400
C 21	CEA100M16LL	D 801 802	L200IRX
C 22	CCSRTH090D50	X 201	GS1363
C 23	CCSRTH120J50	S 801 802	SN1028
C 24	CCSRCH471J50		
C 26	CCSRCH101J50		
C 32	CKSQYB472K50		
C 33	CCSRCH050C50		
C 36	CCSRRH201J50		
C 51	CKSRYPB223K25		
C 54	CCSRCH470J50		
C 55	CKSQYB223K25		
C 57	CKSRYPB472K50		
C 58 234	CEA330M10LL		
C 60	CKSRYPB102K50		
C 61	CKSRYPB102K50		
C 63	CEA22M50LL		
C 101	CEA100M10NPLL		
C 102	CKSRYPB182K50		
		RESISTORS	
		R 101	RS1/8S100J
		R 102	RS1/8S120J
		R 103	RS1/16S102J
		R 104	RS1/16S822J
		R 105	RS1/16S682J
		R 106	RS1/16S183J
		R 107	RS1/16S822J
		R 108	RS1/16S333J
		R 109	RS1/16S683J
		R 110	RS1/16S134J
		R 111	RS1/16S273J
		R 112	RS1/16S222J
		R 113 114 607	RS1/16S103J
		R 115	RS1/16S102J
		R 116 117	RS1/16S163J

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====Circuit Symbol & No. Part Name=====	Part No.
R 201	RS1/16S104J
R 202	RS1/16S473J
R 304 501	RS1/16S0R0J
R 505	RS1/16S102J
R 507	RA4C102J
R 508	RA4C681J
R 510	RS1/10S0R0J
R 601 602	RS1/16S102J
R 603 604	RS1/16S223J
R 605 606	RS1/16S162J
R 801 802	RS1/8S751J
CAPACITORS	
C 101 601 703	CEV101M6R3
C 102	CKSQYB104K16
C 103	CEV470M6R3
C 104	CKSYB334K16
C 105	CCSRCH330J50
C 106 304	CKSRYB103K25
C 107 603 604	CEV4R7M35
C 108	CKSQYB273K50
C 109	CCSRCH101J50
C 110 202	CKSQYB104K16
C 111	CKSRYB332K50
C 112	CKSQYB473K16
C 113	CKSRYB103K25
C 114	CKSRYB391K50
C 115	CCSRCH121J50
C 116	CKSRYB682K25
C 117	CKSRYB333K16
C 118 201	CKSYB334K16
C 119	CKSYB334K16
C 120 121 702	CKSYB334K16
C 122 124	CKSQYB104K16
C 123	CKSRYB472K50
C 125	CCSRCH060D50
C 126	CKSRYB153K25
C 127	CCSRCH102J25
C 203	CKSQYB104K16
C 303	CEV470M16
C 305 306	CKSRYB103K25
C 502	CKSRYB471K50
C 602	CKSQYB104K16
C 605 606	CKSRYB152K50
C 607	CEV220M6R3
C 701	CCH1233
C 901 903	CCSRCH471J50
C 902	CCSRCH271J50
C 904	CCSRCH101J50

Unit Number :
Unit Name : Detector P.C.Board

Q 1 2 Photo Transistor CPT-230S-X

Miscellaneous Parts List

M 1	PU Unit	CGY1070
M 2	Motor Unit(Spindle)	CXA9100
M 2	CRG Motor Unit(Carriage)	CXA8986
M 3	Load Motor Unit>Loading)	CXA8702

● The DEH-52/UC, DEH-525/UC, DEH-523/ES, DEH-49/UC, DEH-42/UC, DEH-425/UC, DEH-323/ES, DEH-225/UC, and DEH-223/ES Parts Lists enumerate the parts which differ from those enumerated in the DEH-59/UC Parts List only. The parts other than those enumerated in the former are identical with those in the latter, to which you are requested to refer, accordingly. The DEH-59/UC Parts List is given on page 23.

Tuner Amp Unit

Circuit Symbol & No.	DEH-59/UC Part No.	DEH-52/UC Part No.	DEH-525/UC Part No.	DEH-523/ES Part No.	DEH-49/UC Part No.	DEH-42/UC Part No.	DEH-425/UC Part No.	DEH-323/ES Part No.	DEH-225/UC Part No.	DEH-223/ES Part No.
IC961	TPD1018F	*****	*****	*****	*****	*****	*****	*****	*****	*****
Q421	FMG3A	*****	FMG3A	FMG3A	FMG3A	*****	FMG3A	*****	*****	*****
Q423	DTA124ES	*****	DTA124ES	DTA124ES	DTA124ES	*****	DTA124ES	*****	*****	*****
Q432	FMG3A	*****	FMG3A	FMG3A	FMG3A	*****	*****	*****	*****	*****
Q631	2SC2458	*****	*****	*****	*****	*****	*****	*****	*****	*****
Q632	FMC2A	*****	*****	FMC2A	*****	*****	*****	*****	*****	*****
Q641	DTC114ES	*****	*****	*****	DTC114ES	*****	*****	*****	*****	*****
D611,612	1SR139-200	*****	*****	*****	*****	*****	*****	*****	*****	*****
D631,632	1SR139-200	*****	*****	1SR139-200	*****	*****	*****	*****	*****	*****
D633	BR4361F	*****	*****	BR4361F	*****	*****	*****	*****	*****	*****
D657	HZS6LB2	HZS6LB2	HZS6LB2	HZS6LB2	HZS6LB2	HZS6LB2	HZS6LB2	HZS6LB2	*****	*****
D658,659,660	MA153	MA153	MA153	MA153	MA153	MA153	MA153	MA153	*****	*****
BZ601	CPV1011	*****	*****	*****	CPV1011	*****	*****	*****	*****	*****
L631	LAU2R2K	*****	*****	LAU2R2K	*****	*****	*****	*****	*****	*****
R421,422	RS1/10S104J	*****	RS1/10S104J	RS1/10S104J	RS1/10S104J	*****	RS1/10S104J	*****	*****	*****
R433,434	RS1/10S102J	*****	RS1/10S102J	RS1/10S102J	RS1/10S102J	*****	*****	*****	*****	*****
R437,438	RS1/10S223J	*****	RS1/10S223J	RS1/10S223J	RS1/10S223J	*****	*****	*****	*****	*****
R477	RS1/10S103J	*****	*****	RS1/10S103J	*****	*****	*****	*****	*****	*****
R478	RS1/10S102J	*****	*****	RS1/10S102J	*****	*****	*****	*****	*****	*****
R506	RS1/10S0R0J	RS1/10S0R0J	RS1/10S0R0J	*****	RS1/10S0R0J	RS1/10S0R0J	RS1/10S0R0J	*****	RS1/10S0R0J	*****
R602	RD1/4PU104J	RD1/4PU333J	RD1/4PU473J	RD1/4PU333J	RD1/4PU104J	RD1/4PU333J	RD1/4PU473J	RD1/4PU333J	RD1/4PU473J	RD1/4PU333J
R603	RS1/10S333J	RS1/10S473J	RS1/10S333J	RS1/10S104J	RS1/10S333J	RS1/10S473J	RS1/10S333J	RS1/10S104J	RS1/10S333J	RS1/10S104J
R625	RS1/10S0R0J	RS1/10S0R0J	RS1/10S0R0J	RS1/10S0R0J	*****	*****	*****	*****	*****	*****
R626	*****	*****	*****	RS1/10S0R0J	RS1/10S0R0J	RS1/10S0R0J	RS1/10S0R0J	RS1/10S0R0J	*****	*****
R627	RS1/10S473J	RS1/10S473J	RS1/10S473J	RS1/10S473J	*****	*****	*****	*****	RS1/10S473J	RS1/10S473J
R628	*****	*****	*****	*****	RS1/10S473J	RS1/10S473J	RS1/10S473J	RS1/10S473J	RS1/10S473J	RS1/10S473J
R630	RD1/4PU473J	*****	*****	RD1/4PU473J	*****	*****	*****	*****	*****	*****
R631	RD1/4PU103J	*****	*****	RD1/4PU103J	*****	*****	*****	*****	*****	*****
R632	RS1/8S223J	*****	*****	RS1/8S223J	*****	*****	*****	*****	*****	*****
R633	RS1/10S272J	*****	*****	RS1/10S272J	*****	*****	*****	*****	*****	*****
R634	RD1/4PU331J	*****	*****	RD1/4PU331J	*****	*****	*****	*****	*****	*****
R635	RD1/4PU103J	*****	*****	*****	*****	*****	*****	*****	*****	*****
R641	RS1/10S202J	*****	*****	*****	RS1/10S202J	*****	*****	*****	*****	*****
R642	RD1/4PU102J	*****	*****	*****	RD1/4PU102J	*****	*****	*****	*****	*****
R958	RD1/4PU102J	*****	*****	RD1/4PU102J	*****	*****	*****	*****	*****	*****
C421,422	CEA3R3M50LL	*****	CEA3R3M50LL	CEA3R3M50LL	CEA3R3M50LL	*****	*****	*****	*****	*****
C433,434	CEA100M16LL	*****	CEA100M16LL	CEA100M16LL	CEA100M16LL	*****	*****	*****	*****	*****
C437,438	CCSQCH220J50	*****	CCSQCH220J50	CCSQCH220J50	CCSQCH220J50	*****	*****	*****	*****	*****
C490	CEA2R2M50LL	*****	*****	CEA2R2M50LL	*****	*****	*****	*****	*****	*****
C511	*****	*****	*****	CKSQYB103K50	*****	*****	*****	CKSQYB103K50	*****	CKSQYB103K50
C651	CKSQYB473K50	CKSQYB473K50	CKSQYB473K50	CKSQYB473K50	CKSQYB473K50	CKSQYB473K50	CKSQYB473K50	CKSQYB473K50	*****	*****
C661	CKSYB473K50	*****	*****	*****	*****	*****	*****	*****	*****	*****

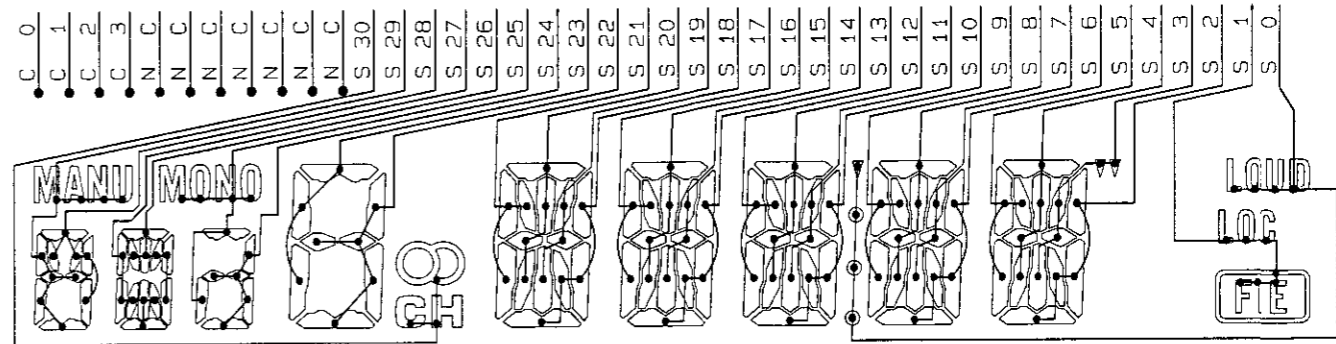
Key Board Unit

Circuit Symbol & No.	DEH-523/ES Part No.	DEH-525/UC Part No.	DEH-52/UC Part No.	DEH-49/UC Part No.	DEH-323/ES Part No.	DEH-425/UC Part No.	DEH-223/ES Part No.	DEH-225/UC Part No.
IC902	RPM-678CBR	*****	*****	*****	*****	*****	*****	*****
D601,902	DA204K	*****	DA204K	*****	*****	*****	*****	*****
D603	MA3051L	MA3056L	MA3056L	MA3056L	MA3056L	*****	MA3056L	*****
LCD	CAW1329	CAW1330	CAW1330	CAW1330	CAW1330	*****	CAW1330	*****
R905	*****	RS1/10S0R0J	RS1/10S0R0J	RS1/10S0R0J	*****	*****	RS1/10S0R0J	*****
R906	RS1/10S470J	*****	*****	*****	*****	*****	*****	*****
C905	CEA470M6R3LS	*****	*****	*****	*****	*****	*****	*****

9. LCD

- CAW1329 (DEH-59/UC, 52/UC, 525/UC, 523/ES)
- CAW1330 (DEH-49/UC, 42/UC, 425/UC, 323/ES, 225/UC, 223/ES)

SEGMENT



COMMON

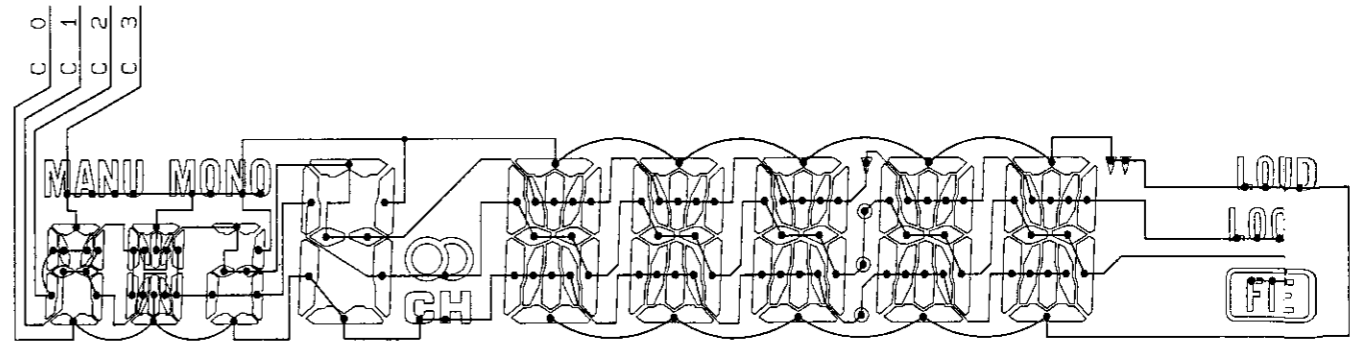


Fig. 5

10. BLOCK DIAGRAM

TUNER AMP UNIT

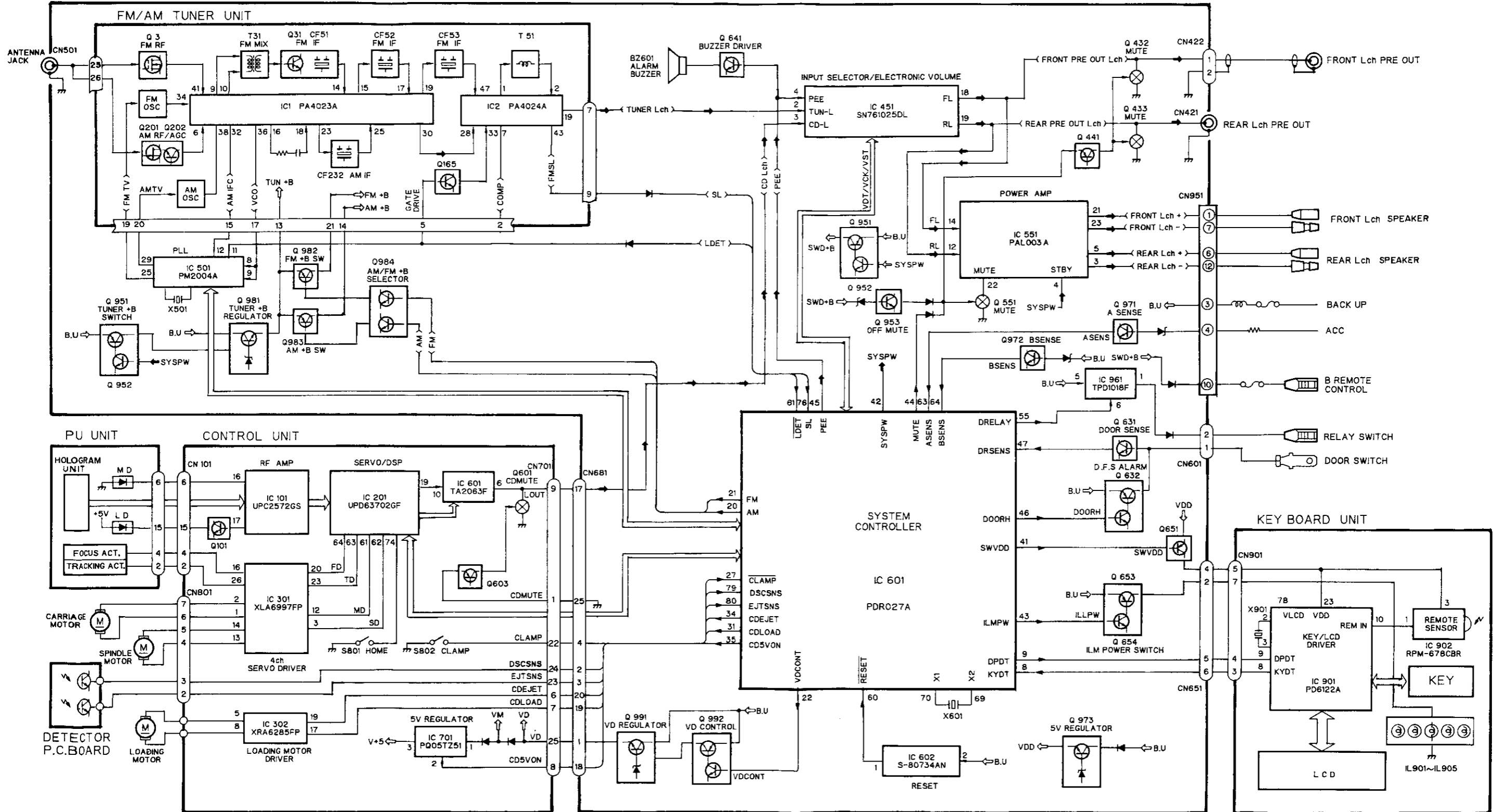
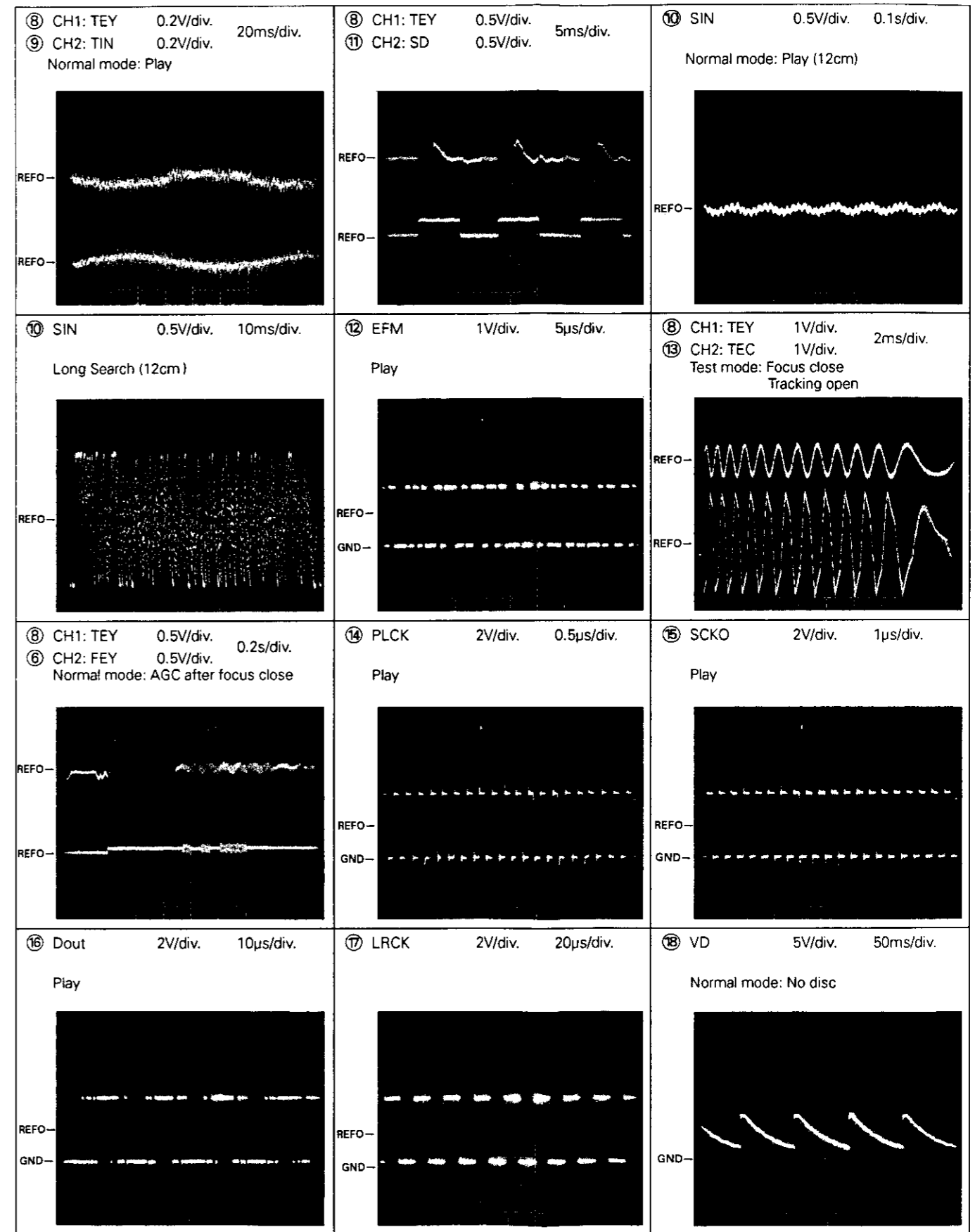
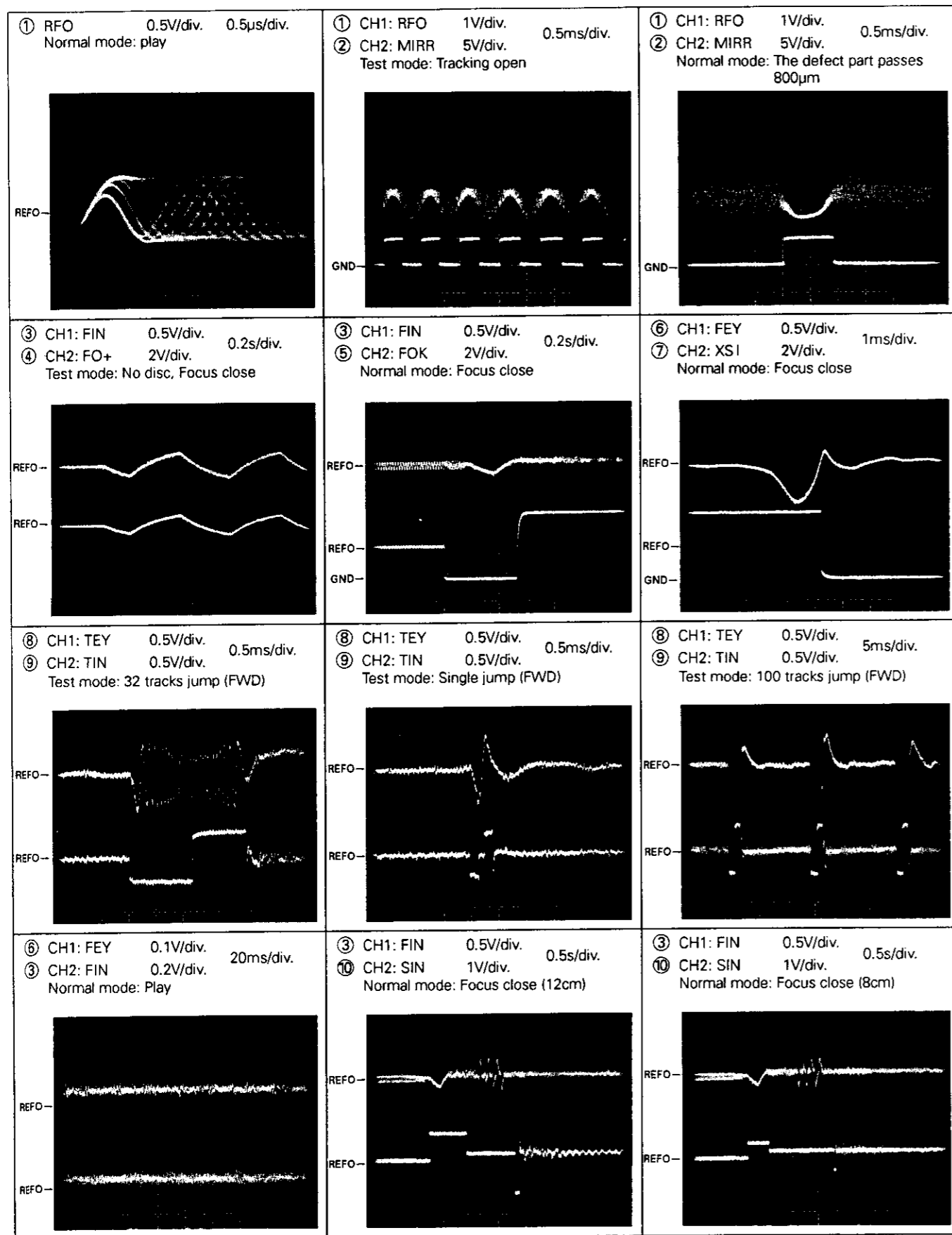


Fig. 6

Note: 1. The encircled numbers denote measuring pointes in the circuit diagram.
 2. Reference voltage
 REFO: 2.5V

● Waveforms



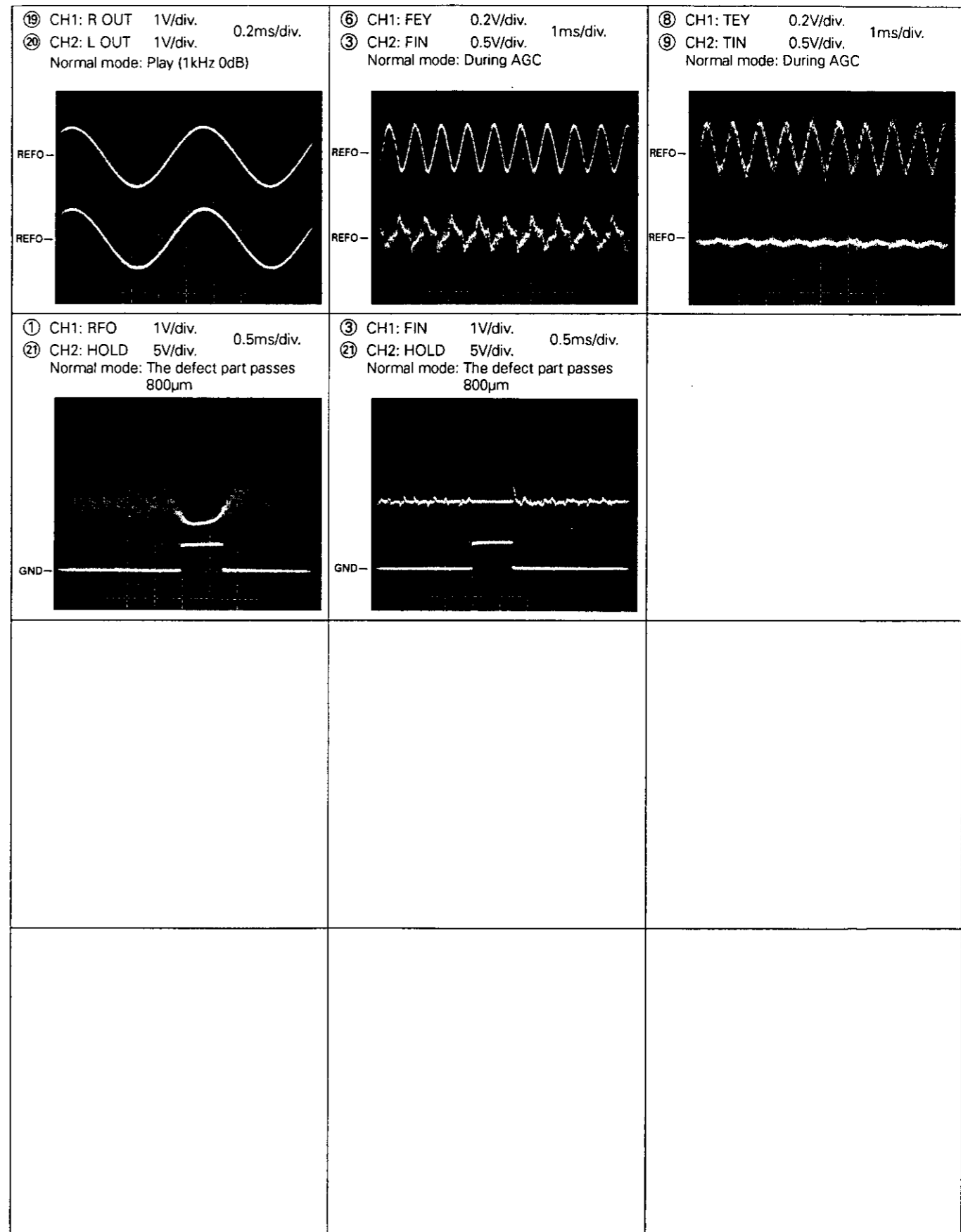
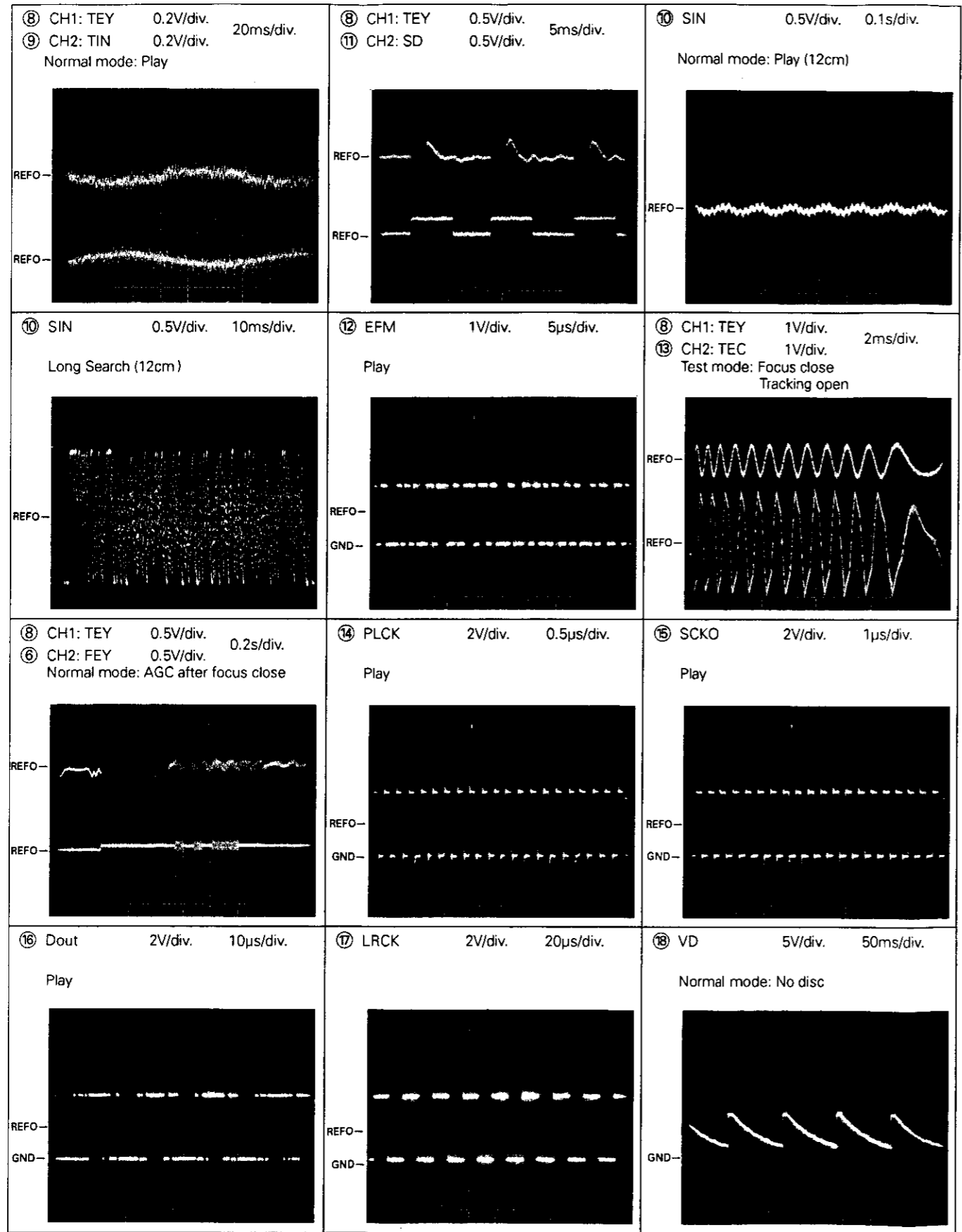
it diagram.

0.5ms/div.
part passes

1ms/div.

5ms/div.
p (FWD)

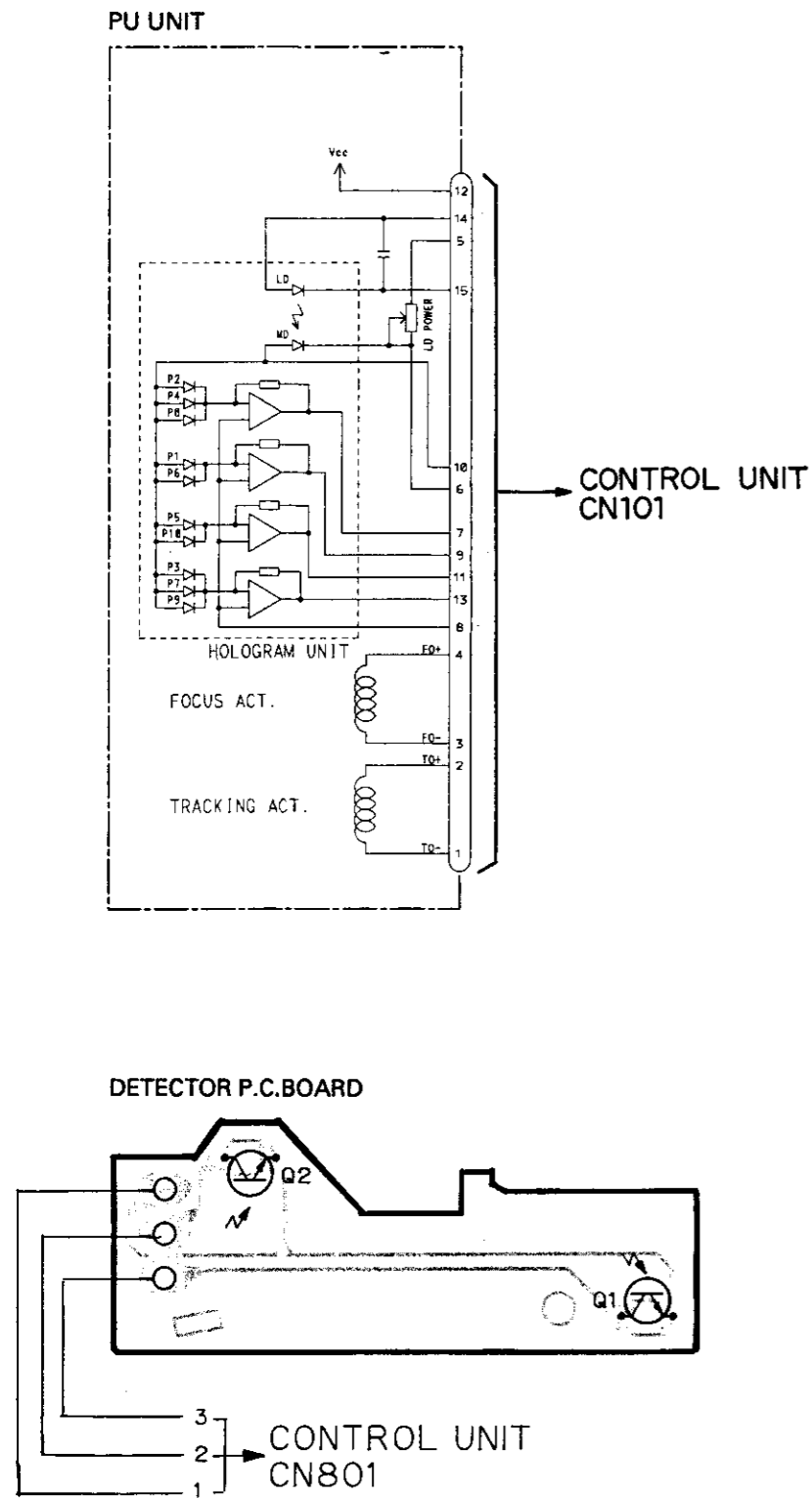
0.5s/div.
p (8cm)



11. CIRCUIT DIAGRAM AND PATTERN

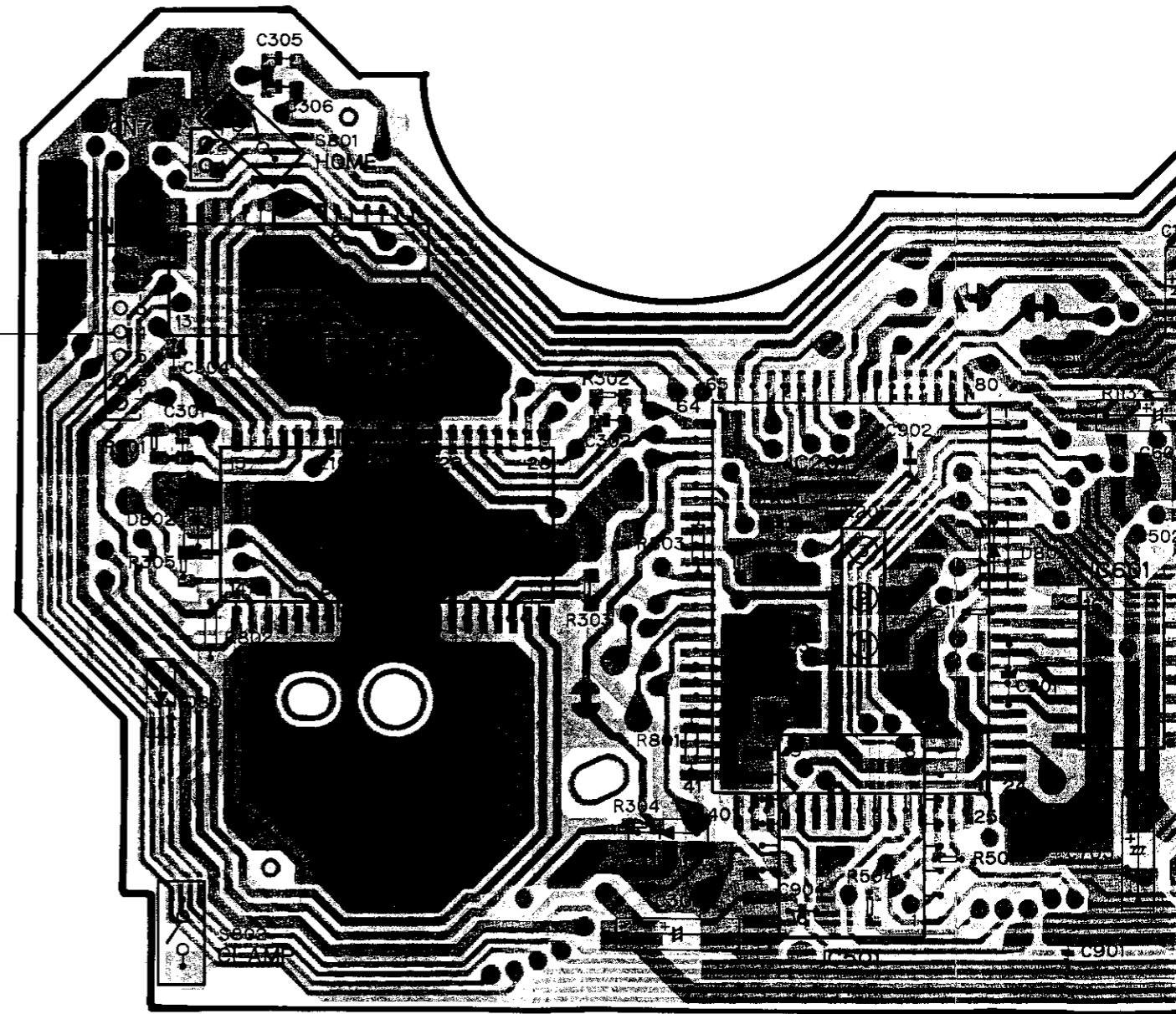
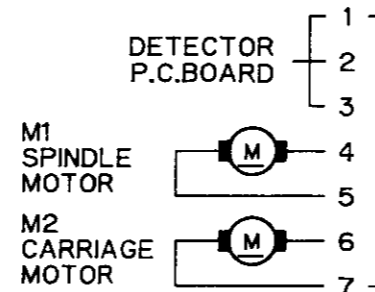
11.1 CD MECHANISM MODULE

● Connection Diagram



CONTROL UNIT

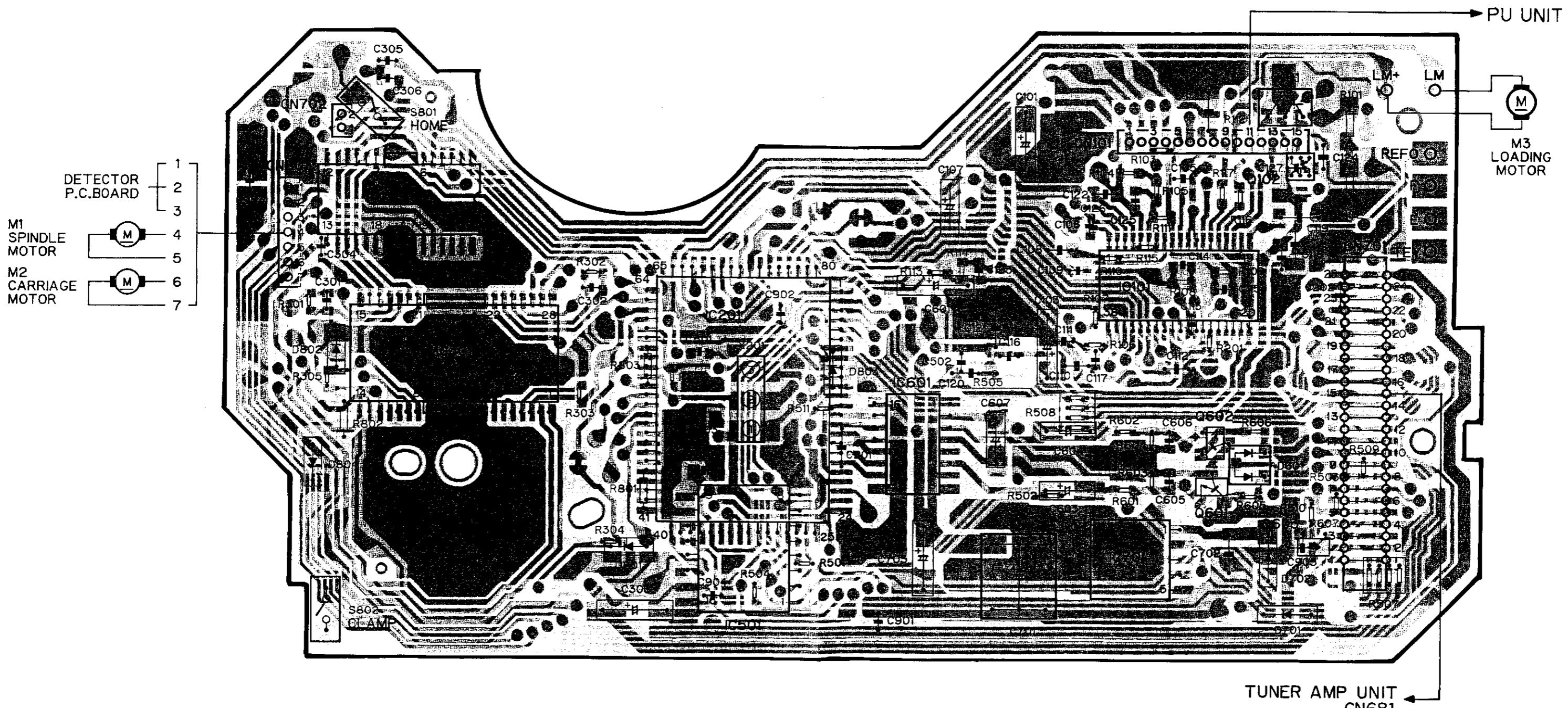
IC, Q	IC302 IC301	IC201 IC501	IC601
-------	----------------	----------------	-------



NOTE:
The parts moun
For further infor

CONTROL UNIT

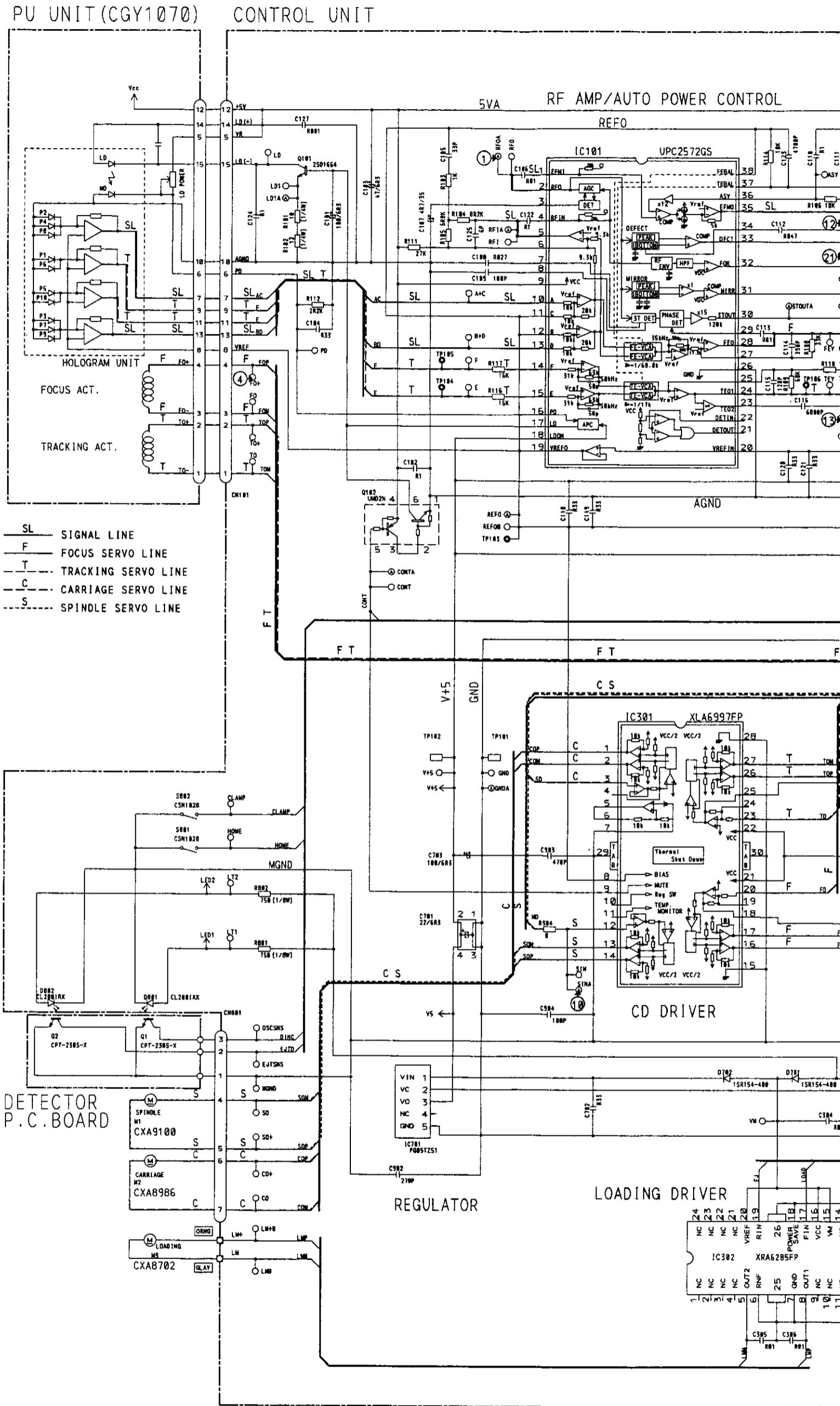
IC. Q	IC302 IC301	IC201 IC501	IC601	IC701	IC101 Q602 Q601	Q101 Q102 Q603
-------	----------------	----------------	-------	-------	-----------------------	----------------------



NOTE:
The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

Fig. 7

● Circuit Diagram



SL SIGNAL LINE
 F FOCUS SERVO LINE
 T TRACKING SERVO LINE
 C CARRIAGE SERVO LINE
 S SPINDLE SERVO LINE

DETECTOR
 P.C. BOARD

SWITCHES:
 CONTROL UNIT
 S801:HOME SWITCH.....ON-OFF
 S802:CLAMP SWITCH.....ON-OFF
 The underlined indicates the switch position.

Rev. 4887

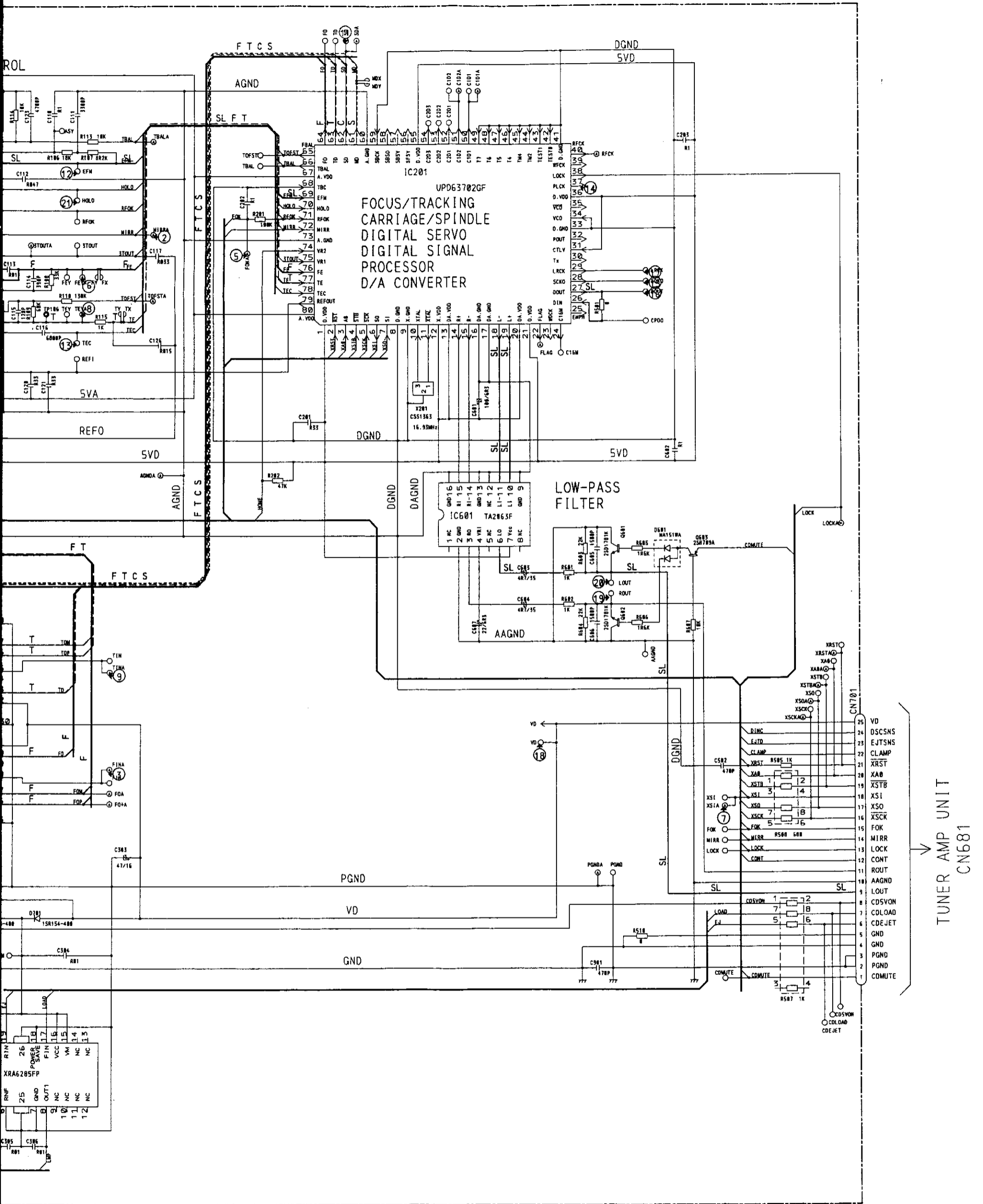
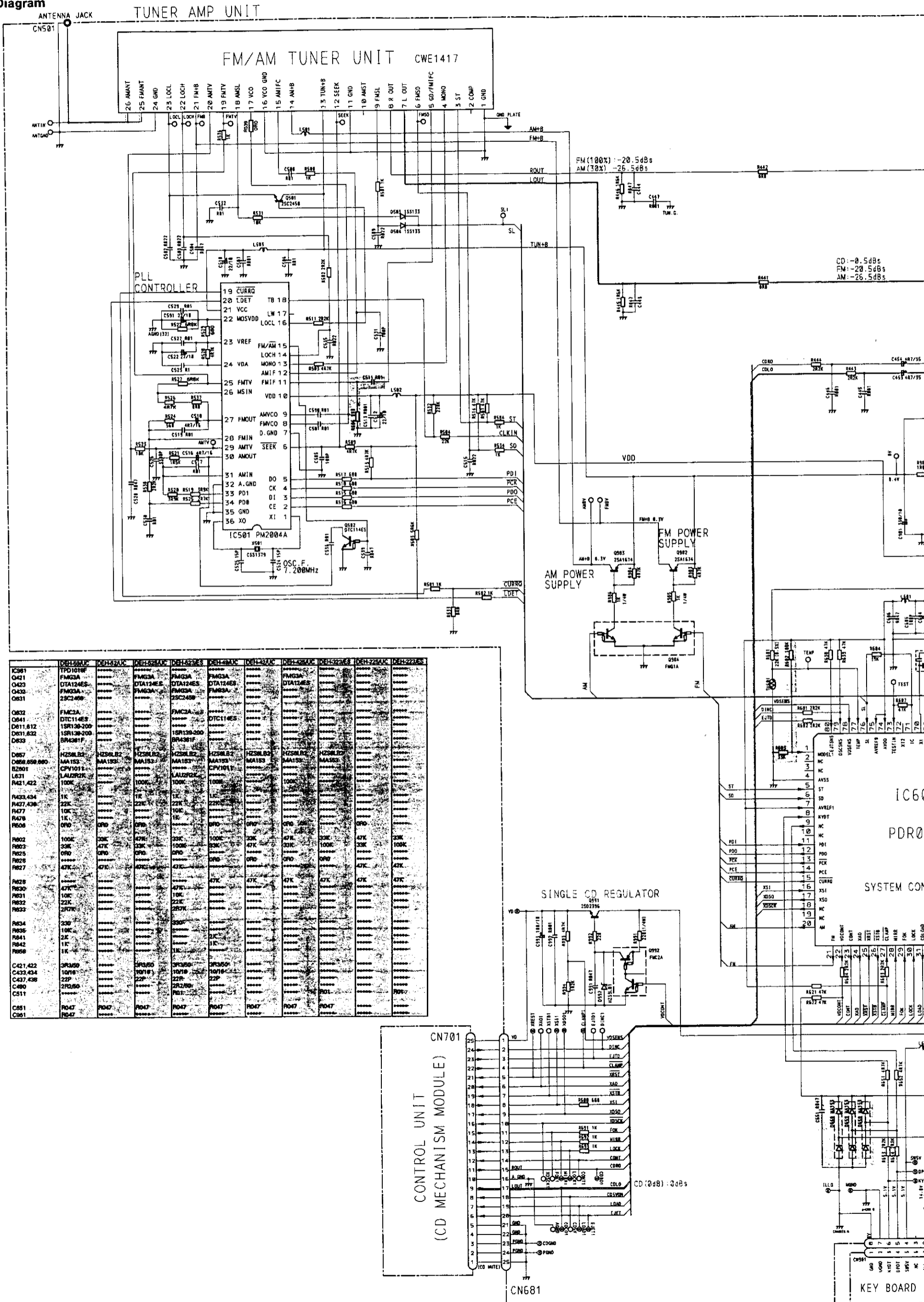


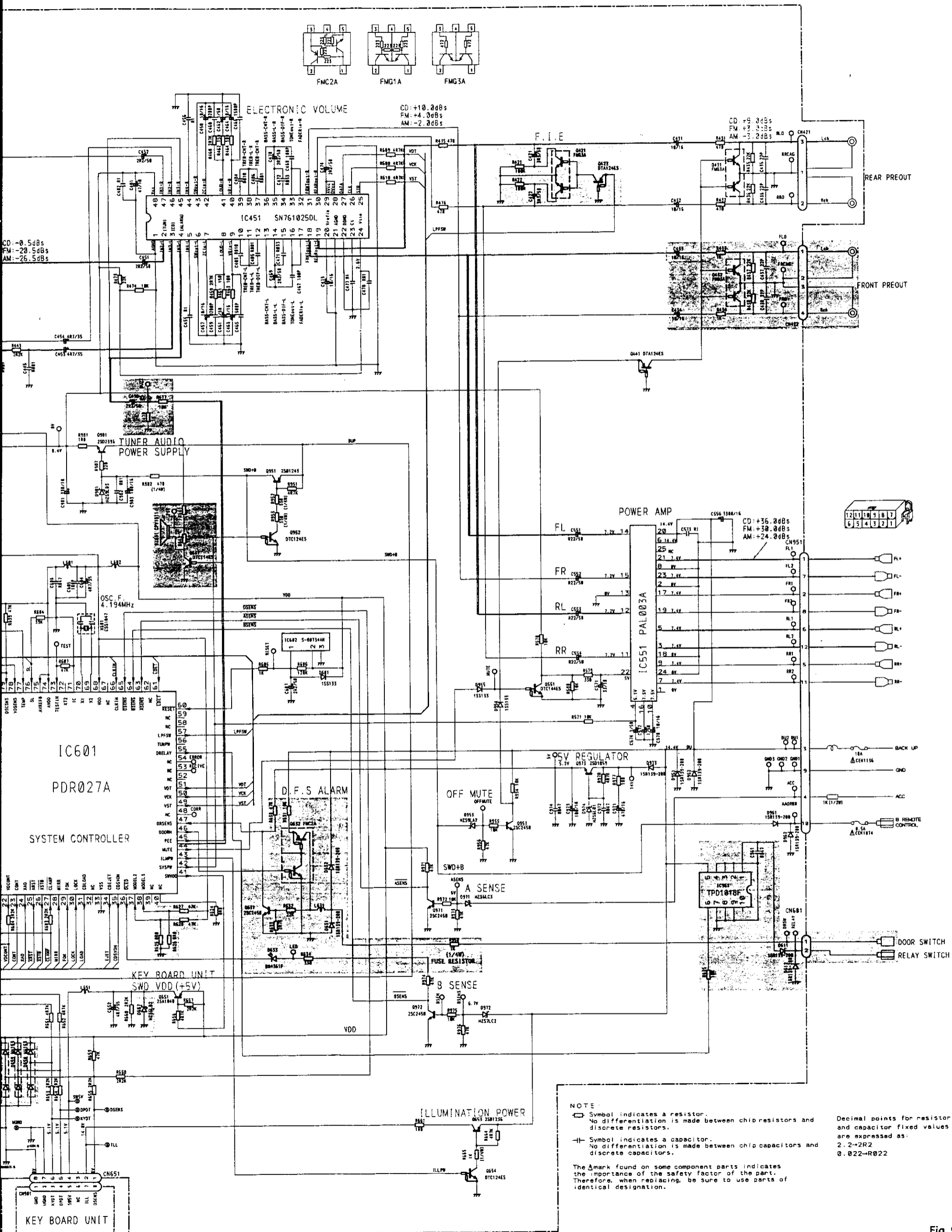
Fig. 8

11.2 TUNER AMP UNIT

● Circuit Diagram



	DEH-59AUC	DEH-52AUC	DEH-525AUC	DEH-49AUC	DEH-42AUC	DEH-425AUC	DEH-225AUC	DEH-523AUC	DEH-323AUC	DEH-223AUC
C081	FMQ3A	FMQ3A	FMQ3A	FMQ3A	FMQ3A	FMQ3A	FMQ3A	FMQ3A	FMQ3A	FMQ3A
O423	DTA124ES	DTA124ES	DTA124ES	DTA124ES	DTA124ES	DTA124ES	DTA124ES	DTA124ES	DTA124ES	DTA124ES
O432	FMQ3A	FMQ3A	FMQ3A	FMQ3A	FMQ3A	FMQ3A	FMQ3A	FMQ3A	FMQ3A	FMQ3A
O631	2SC2458	2SC2458	2SC2458	2SC2458	2SC2458	2SC2458	2SC2458	2SC2458	2SC2458	2SC2458
O832	FMQ3A	FMQ3A	FMQ3A	FMQ3A	FMQ3A	FMQ3A	FMQ3A	FMQ3A	FMQ3A	FMQ3A
O841	DTA114ES	DTA114ES	DTA114ES	DTA114ES	DTA114ES	DTA114ES	DTA114ES	DTA114ES	DTA114ES	DTA114ES
D011.812	1SR138-200	1SR138-200	1SR138-200	1SR138-200	1SR138-200	1SR138-200	1SR138-200	1SR138-200	1SR138-200	1SR138-200
D031.832	1SR138-200	1SR138-200	1SR138-200	1SR138-200	1SR138-200	1SR138-200	1SR138-200	1SR138-200	1SR138-200	1SR138-200
D033	BR4381F	BR4381F	BR4381F	BR4381F	BR4381F	BR4381F	BR4381F	BR4381F	BR4381F	BR4381F
D057	H258L82	H258L82	H258L82	H258L82	H258L82	H258L82	H258L82	H258L82	H258L82	H258L82
D058.858.860	MA153	MA153	MA153	MA153	MA153	MA153	MA153	MA153	MA153	MA153
I2001	CPV201	CPV201	CPV201	CPV201	CPV201	CPV201	CPV201	CPV201	CPV201	CPV201
L031	LAL2R2K	LAL2R2K	LAL2R2K	LAL2R2K	LAL2R2K	LAL2R2K	LAL2R2K	LAL2R2K	LAL2R2K	LAL2R2K
R421.422	100K	100K	100K	100K	100K	100K	100K	100K	100K	100K
R423.434	1K	1K	1K	1K	1K	1K	1K	1K	1K	1K
R427.438	22K	22K	22K	22K	22K	22K	22K	22K	22K	22K
R477	10K	10K	10K	10K	10K	10K	10K	10K	10K	10K
R478	1K	1K	1K	1K	1K	1K	1K	1K	1K	1K
R608	0R0	0R0	0R0	0R0	0R0	0R0	0R0	0R0	0R0	0R0
R602	100K	33K	47K	33K	100K	33K	47K	33K	100K	33K
R603	33K	47K	33K	100K	47K	33K	100K	33K	47K	33K
R625	0R0	0R0	0R0	0R0	0R0	0R0	0R0	0R0	0R0	0R0
R628	0R0	0R0	0R0	0R0	0R0	0R0	0R0	0R0	0R0	0R0
R627	47K	47K	47K	47K	47K	47K	47K	47K	47K	47K
R626	47K	47K	47K	47K	47K	47K	47K	47K	47K	47K
R630	47K	47K	47K	47K	47K	47K	47K	47K	47K	47K
R631	10K	10K	10K	10K	10K	10K	10K	10K	10K	10K
R632	22K	22K	22K	22K	22K	22K	22K	22K	22K	22K
R633	2R07K	2R07K	2R07K	2R07K	2R07K	2R07K	2R07K	2R07K	2R07K	2R07K
R634	20K	20K	20K	20K	20K	20K	20K	20K	20K	20K
R636	10K	10K	10K	10K	10K	10K	10K	10K	10K	10K
R641	2K	2K	2K	2K	2K	2K	2K	2K	2K	2K
R642	1K	1K	1K	1K	1K	1K	1K	1K	1K	1K
R658	1K	1K	1K	1K	1K	1K	1K	1K	1K	1K
C421.422	0R050	0R050	0R050	0R050	0R050	0R050	0R050	0R050	0R050	0R050
C432.434	10R11K	10R11K	10R11K	10R11K	10R11K	10R11K	10R11K	10R11K	10R11K	10R11K
C437.438	22P	22P	22P	22P	22P	22P	22P	22P	22P	22P
C480	2R250	2R250	2R250	2R250	2R250	2R250	2R250	2R250	2R250	2R250
C511	0R1	0R1	0R1	0R1	0R1	0R1	0R1	0R1	0R1	0R1
C851	0R47	0R47	0R47	0R47	0R47	0R47	0R47	0R47	0R47	0R47
C851	0R47	0R47	0R47	0R47	0R47	0R47	0R47	0R47	0R47	0R47



NOTE

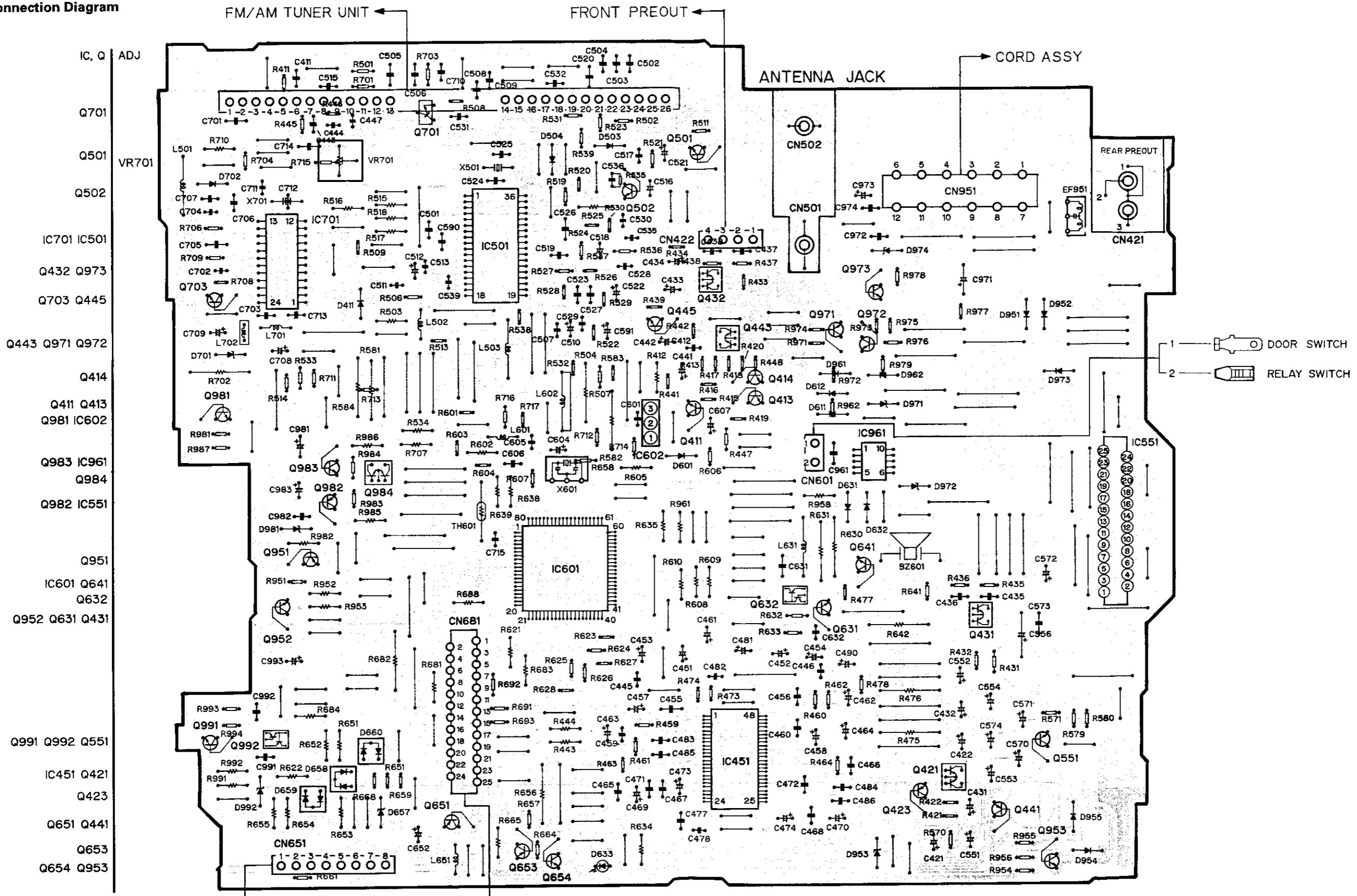
- ⊞ Symbol indicates a resistor. No differentiation is made between chip resistors and discrete resistors.
- ⊞ Symbol indicates a capacitor. No differentiation is made between chip capacitors and discrete capacitors.

The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

Decimal points for resistor and capacitor fixed values are expressed as:
 2.2-2R2
 0.022-R022

Fig. 9

● Connection Diagram

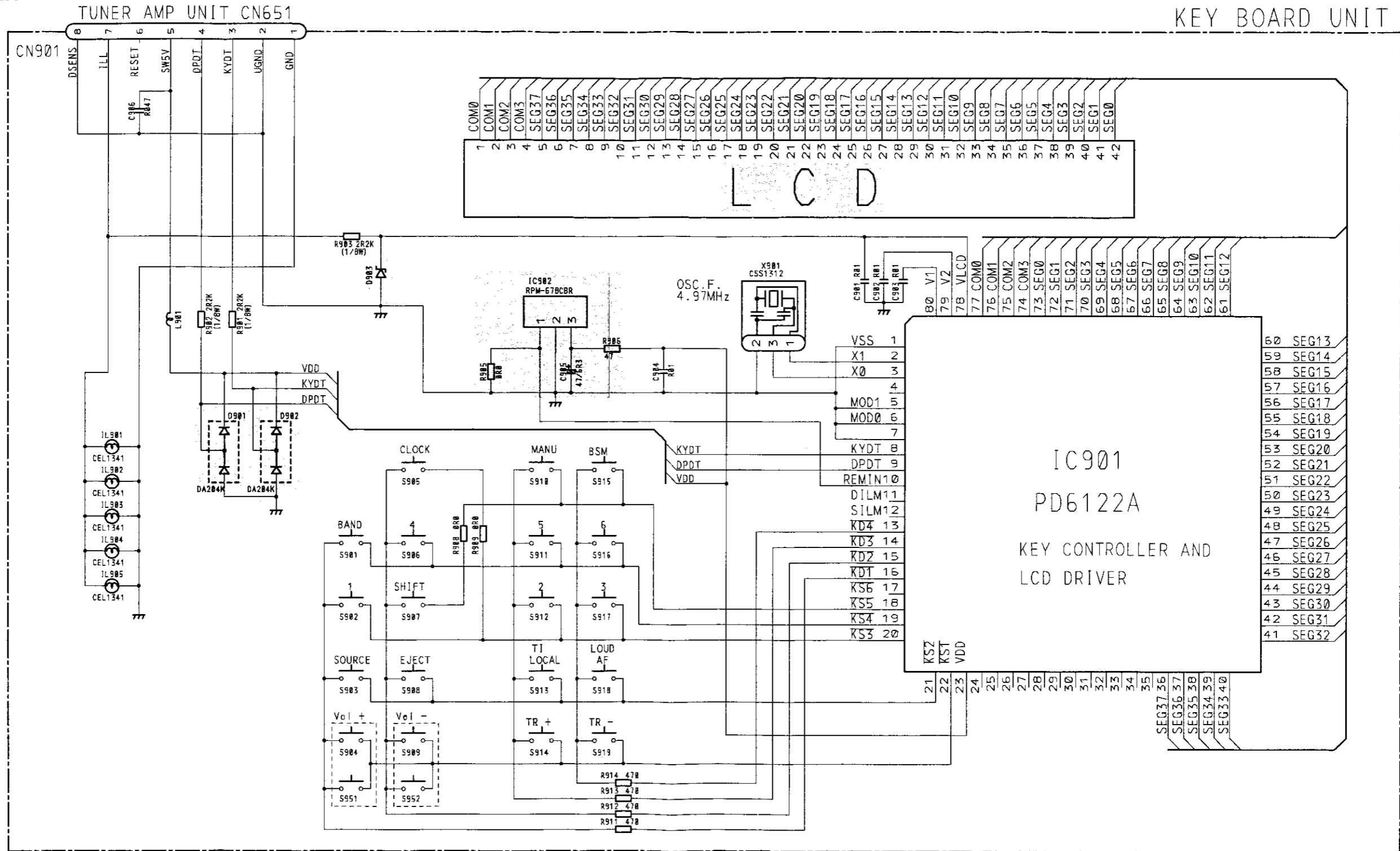


NOTE:
 The parts mounted on this PCB include all necessary parts for several destinations.
 For further information for respective destinations, be sure to check with the schematic diagram.

fig. 10

11.3 KEY BOARD UNIT

● Circuit Diagram



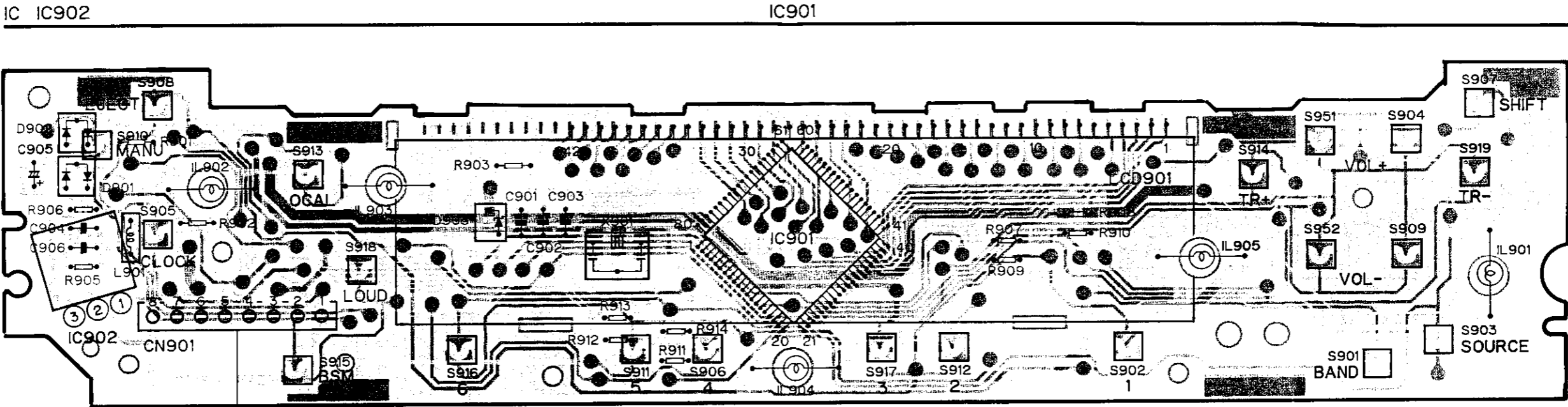
	DEH-523/ES DEH-525/UC DEH-52/UC DEH-59/UC	DEH-323/ES DEH-425/UC DEH-42/UC DEH-49/UC	DEH-223/ES DEH-225/UC
IC902	RPM-678CBR	DA204K	MA3056L
D901, 902	DA204K	MA3056L	MA3056L
LCD	CAW1329	CAW1330	CAW1330
R905	.....	0R0	0R0
R906	47	.....	.....
C905	47/6R3	.....	.....

NOTE :

- Symbol indicates a resistor. No differentiation is made between chip resistors and discrete resistors.
- ⊃ Symbol indicates a capacitor. No differentiation is made between chip capacitors and discrete capacitors.

Decimal points for resistor and capacitor fixed values are expressed as:
2.2→2R2
0.022→R022

● Connection Diagram



TUNER AMP UNIT
CN651

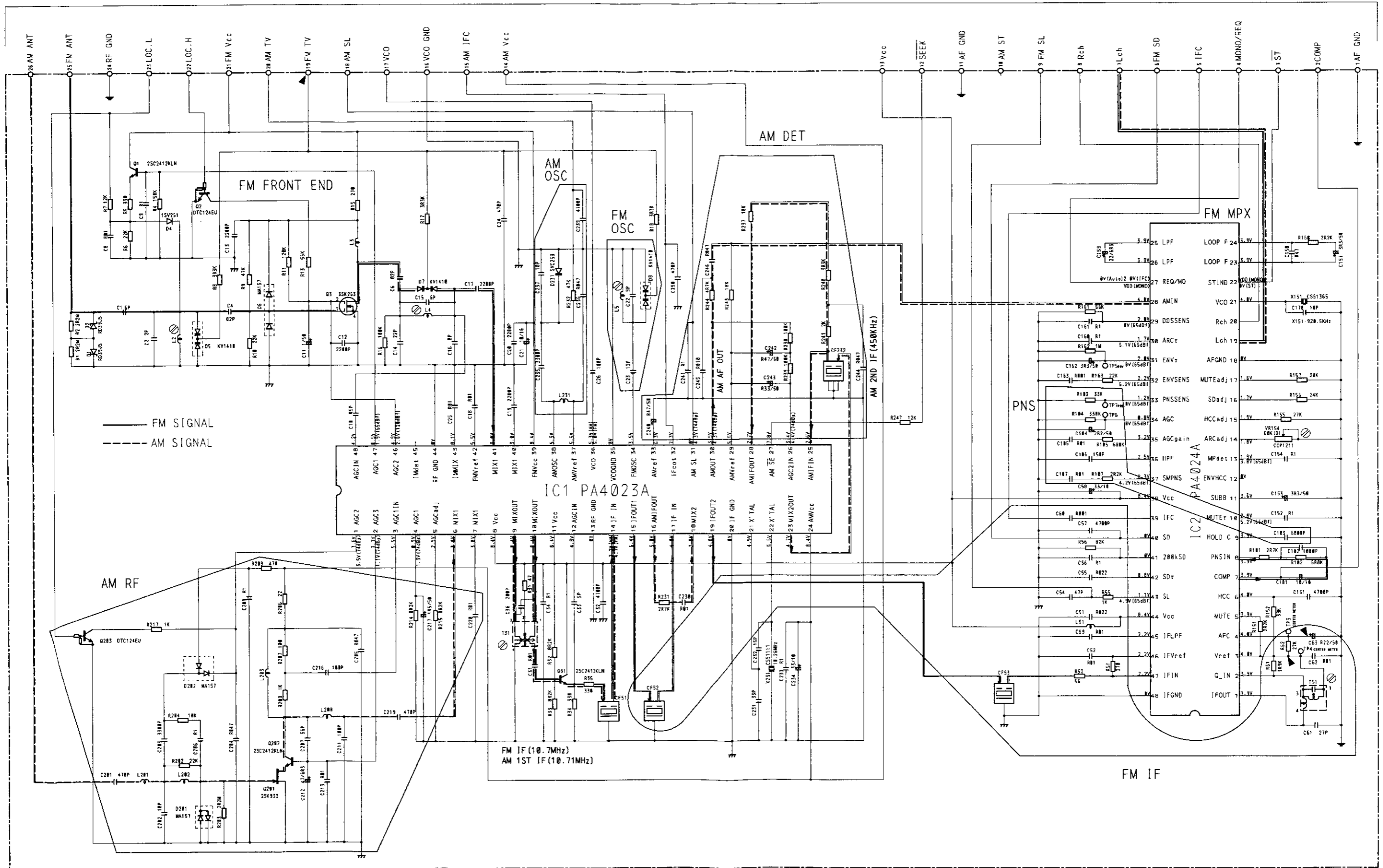
NOTE:
 The parts mounted on this PCB include all necessary parts for several destinations.
 For further information for respective destinations, be sure to check with the schematic diagram.

Fig. 12

11.4 FM/AM TUNER UNIT

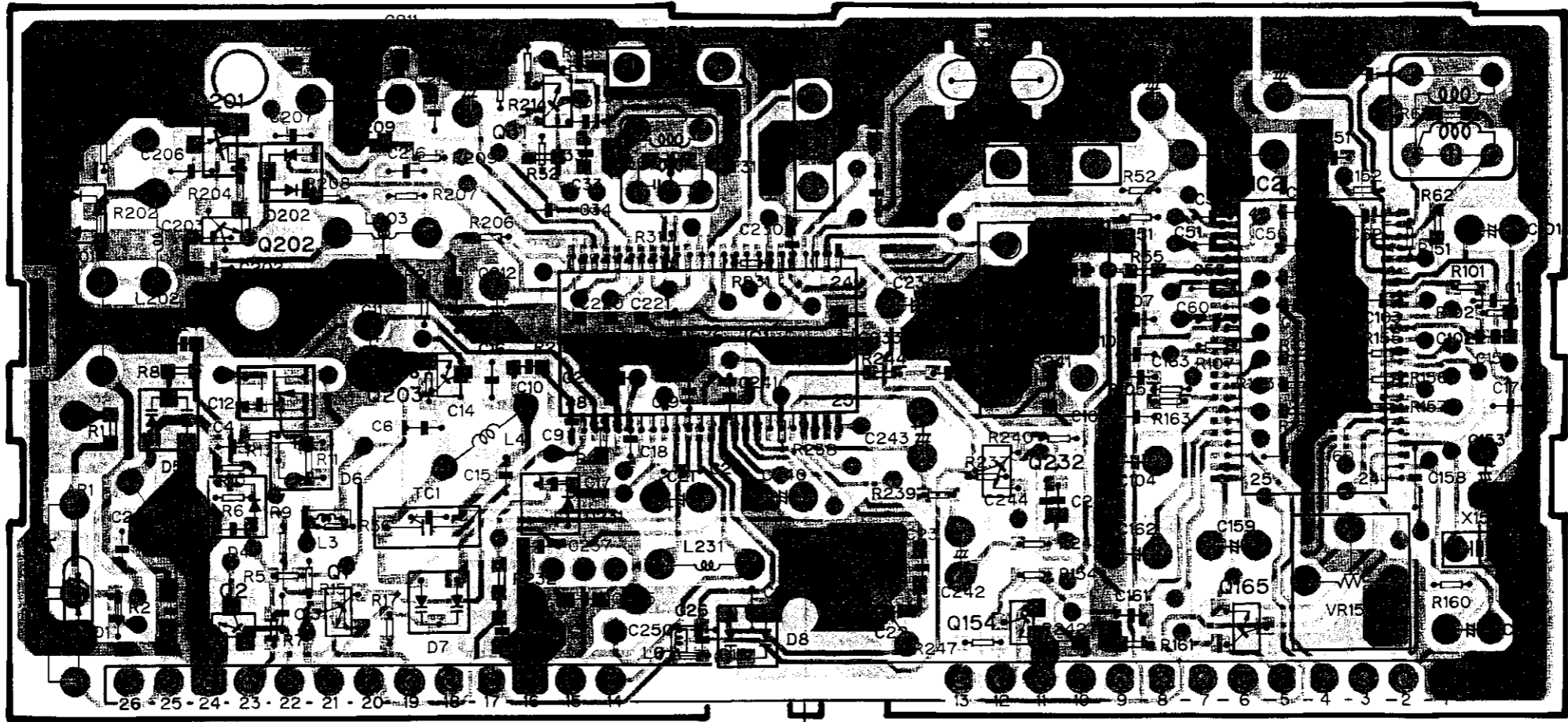
● Circuit Diagram

TUNER AMP UNIT



● Connection Diagram

IC, Q	Q201 Q202 Q2	Q3	Q1	Q203	Q31	IC1	Q232 Q154	Q165	IC2	
ADJ	L2			TC1	L4	T31	L5		VR154	T51



TUNER AMP UNIT ←

NOTE:
The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

Fig. 14

12. EXPLODED VIEW AND PARTS LIST

12.1 CHASSIS(EXCEPT FOR DEH-225/UC AND DEH-223/ES)

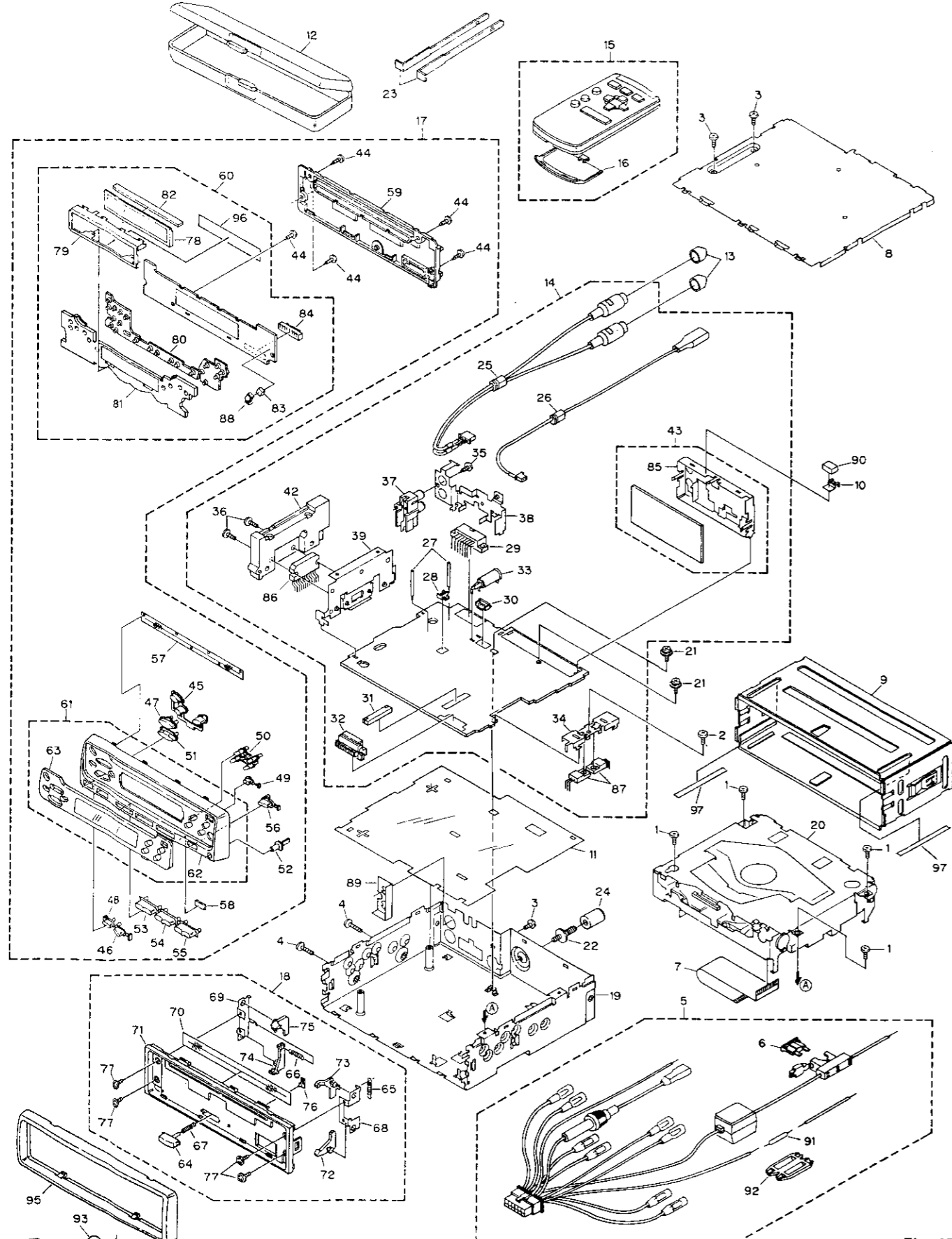


Fig. 15

NOTE:

● Parts marked by " * " are generally unavailable because they are not in our Master Spare Parts List.

● **Parts List(DEH-59/UC)**

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Screw	BSZ26P050FMC	41	*****	
2	Screw	BSZ26P080FMC	42	Heat Sink	CNR1407
3	Screw	BSZ30P050FMC	43	FM/AM Tuner Unit	CWE1417
4	Screw	BSZ30P160FMC	44	Screw	BPZ20P100FZK
5	Cord	CDE4867	45	Button (S,SEEK)	CAC4469
6	Fuse	CEK1136	46	Button (BAND)	CAC4470
7	Cable	CDE4869	47	Button (+)	CAC4471
8	Case	CNB1989	48	Button (SOURCE)	CAC4472
9	Holder	CNC4946	49	Button (EJECT)	CAC4473
10	Holder	CNC6469	50	Button (*,-)	CAC4474
11	Insulator	CNM4522	51	Button (-)	CAC4542
12	Case	CNS3860	52	Button (DETACH)	CAC4547
13	Cap	CNV2680	53	Button (1 2)	CAC4578
14	Tuner Amp Unit	CWM4485	54	Button (3 4)	CAC4579
15	Remote Control Assy	CXA7390	55	Button (5 6)	CAC4580
16	Battery Cover	CNS3383	56	Button (BSM)	CAC4581
17	Detach Grille Assy	CXA8250	57	Cover	CNM4704
18	Panel Assy	CXA8585	58	Spacer	CNM4776
19	Chassis Unit	CXA8229	59	Cover	CNS3694
20	CD Mechanism Module	CKX5001	60	Key Board Unit	CWM4501
21	Screw	PSB30P060FMC	61	Grille Unit	CXA9112
22	Screw	CBA1284	62	Grille	CNS4043
23	Handle	CNC4947	63	Plate	CNS3732
24	Bush	CNV1009	64	Button	CAC3776
25	Cord	CDE4770	65	Spring	CBH1834
26	*****		66	Spring	CBH1835
27	Clamper	CEF1005	67	Spring	CBH1858
28	Plug(CN601)(2P)	CKM1129	68	Bracket	CNC6135
29	Plug(CN951)(12P)	CKM1225	69	Bracket	CNC6136
30	Plug(CN422)(4P)	CKS1238	70	Cover	CNM4875
31	Connector(CN681)(25P)	CKS2228	71	Panel	CNS3695
32	Connector(CN651)(8P)	CKS2884	72	Arm	CNV4358
33	Antenna Jack(CN501)	CKX1006	73	Arm	CNV4359
34	Holder	CNC6132	74	Arm	CNV4437
35	Screw	BPZ26P080FMC	75	Arm	CNV4438
36	Screw	BSZ26P120FMC	76	Lens	CNV4479
37	Connector(CN421)	CKS3357	77	Screw	PMS20P030FZK
38	Bracket	CNC6130	78	LCD	CAW1329
39	Holder	CNC6131	79	Holder	CNC6430
40	*****		80	Rubber	CNV4354

DEH-59,52,525,49,42,425,225,523,323,223

Mark No.	Description	Part No.	Mark No.	Description	Part No.
81	Lens	CNV4355	91	Resistor	RS1/2P102JL
82	Connector	CNV4449	92	Cap	CNS1472
83	Spacer	CNM4740	93	Spring	CBH-865
84	Connector(CN901)(8P)	CKS2883	94	Cord	CDE4772
85	Holder	CNC6555	95	Panel	CNS3581
86	IC(IC551)	PAL003A	96	Spacer	CNM4871
87	Transistor(Q981,991)	2SD2396	* 97	Spacer	CNM4888
88	IC(IC902)	RPM-678CBR			
89	Insulator	CNM4811			
90	Cushion	CNM4870			

- The DEH-52/UC, DEH-525/UC, DEH-523/ES, DEH-49/UC, DEH-42/UC, DEH-425/UC, and DEH-323/ES Parts Lists enumerate the parts which differ from those enumerated in the DEH-59/UC Parts List only. The parts other than those enumerated in the former are identical with those in the latter, to which you are requested to refer, accordingly. The DEH-59/UC Parts List is given on page 53.

Mark No.	Description	59/UC	52/UC	525/UC	523/ES	49/UC	42/UC	425/UC	323/ES
		Part No.	Part No.	Part No.	Part No.	Part No.	Part No.	Part No.	Part No.
12	Case	CNS3860	CNS3860	CNS3860	CNS3860	CNS3860	.....	CNS3860	CNS3860
13	Cap	CNV2680	CNV2680	CNV2680	CNV2680	CNV2680	.....	.....	.....
14	Tuner Amp Unit	CWM4485	CWM4487	CWM4486	CWM4488	CWM4489	CWM4491	CWM4490	CWM4494
15	Remote Control Assy	CXA7390	CXA7390	CXA7390	CXA7390	.....	.....	.....	.....
16	Battery Cover	CNS3383	CNS3383	CNS3383	CNS3383	.....	.....	.....	.....
17	Detach Grille Assy	CXA8250	CXA8252	CXA8251	CXA8253	CXA8254	CXA8256	CXA8255	CXA8259
18	Panel Assy	CXA8585	CXA8586	CXA8586	CXA8585	CXA8586	CXA8586	CXA8586	CXA8586
19	Chassis Unit	CXA8229	CXA8231	CXA8230	CXA8229	CXA8230	CXA8231	CXA8231	CXA8231
25	Cord	CDE4770	.....	CDE4770	CDE4770	CDE4770	.....	.....	.....
26	Cord	.....	.....	.....	CDE4771	.....	.....	.....	.....
27	Clamper	CEF1005	.....	CEF1005	CEF1005	CEF1005	.....	.....	.....
28	Plug(CN601)	CKM1129	.....	.....	CKM1129	.....	.....	.....	.....
30	Plug(CN422)	CKS1238	.....	CKS1238	CKS1238	CKS1238	.....	.....	.....
60	Key Board Unit	CWM4501	CWM4501	CWM4501	CWM4501	CWM4502	CWM4502	CWM4502	CWM4502
61	Grille Unit	CXA9112	CXA8284	CXA8283	CXA9115	CXA8286	CXA8288	CXA8287	CXA8291
62	Grille	CNS4043	CNS3718	CNS3718	CNS4043	CNS3718	CNS3718	CNS3718	CNS3718
63	Plate	CNS3732	CNS3734	CNS3733	CNS3735	CNS3736	CNS3738	CNS3737	CNS3740
76	Lens	CNV4479	.....	.....	CNV4479	.....	.....	.....	.....
78	LCD	CAW1329	CAW1329	CAW1329	CAW1329	CAW1330	CAW1330	CAW1330	CAW1330
83	Spacer	CNM4740	CNM4740	CNM4740	CNM4740	.....	.....	.....	.....
88	IC(IC902)	PRM-678CBR	PRM-678CBR	PRM-678CBR	PRM-678CBR	.....	.....	.....	.....
94	Cord	CDE4772	.....	.....	.....	.....	.....	.....	.....

12.2 CHASSIS(DEH-225/UC AND DEH-223/ES)

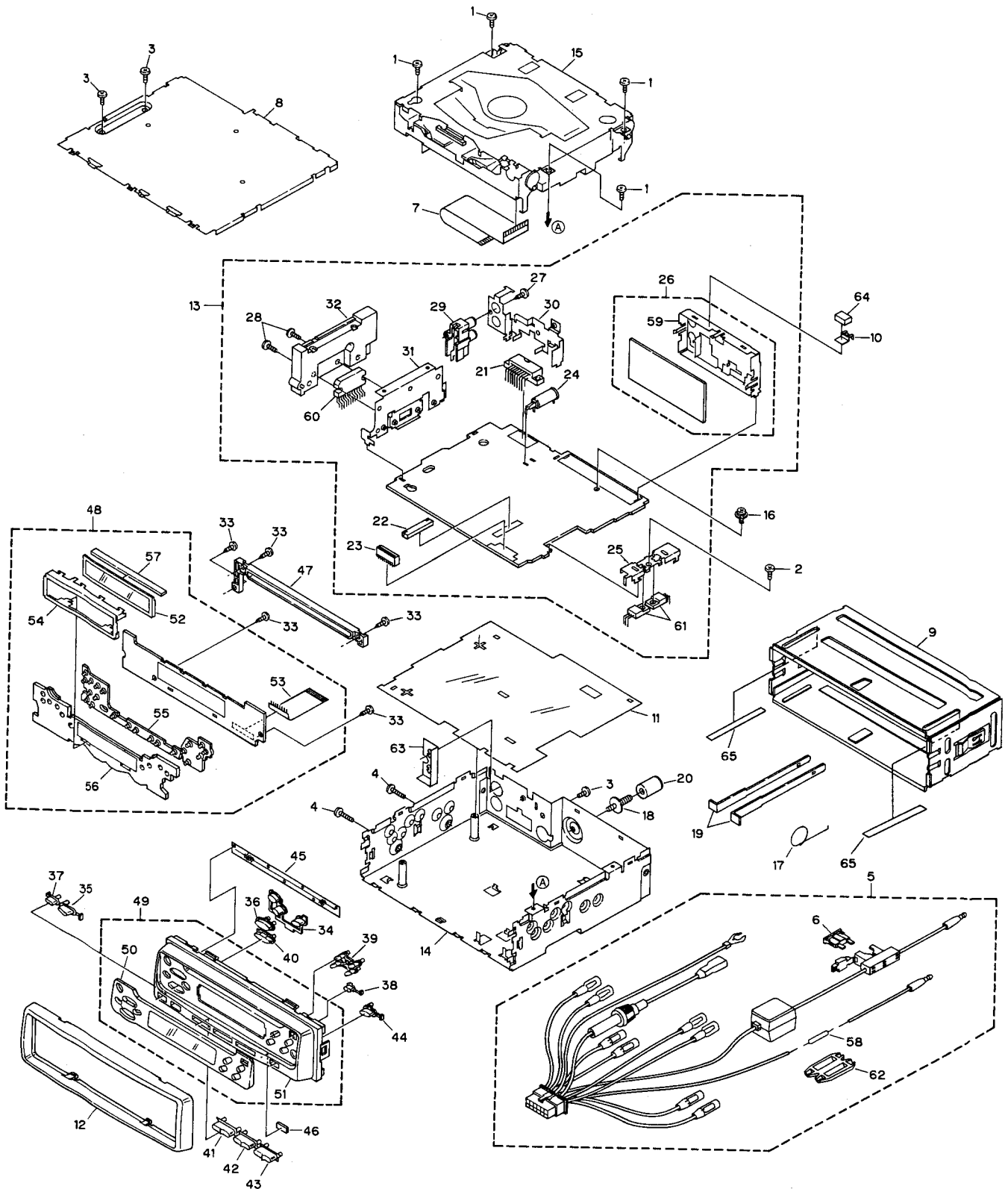


Fig. 16

DEH-59,52,525,49,42,425,225,523,323,223

● Parts List

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Screw	BSZ26P050FMC	35	Button(BAND)	CAC4470
2	Screw	BSZ26P080FMC	36	Button(+)	CAC4471
3	Screw	BSZ30P050FMC	37	Button(SOURCE)	CAC4472
4	Screw	BSZ30P160FMC	38	Button(EJECT)	CAC4473
5	Cord	CDE4867	39	Button(·,-)	CAC4474
6	Fuse	CEK1136	40	Button(-)	CAC4542
7	Cable	CDE4869	41	Button(1 2)	CAC4578
8	Case	CNB1989	42	Button(3 4)	CAC4579
9	Holder	CNC4946	43	Button(5 6)	CAC4580
10	Holder	CNC6469	44	Button(BSM)	CAC4581
11	Insulator	CNM4522	45	Cover	CNM4704
12	Panel	CNS3861	46	Spacer	CNM4776
13	Tuner Amp Unit(DEH-225)	CWM4495	47	Holder	CNV4356
	Tuner Amp Unit(DEH-223)	CWM4497	48	Key Board Unit	CWM4505
14	Chassis Unit	CXA8529	49	Grille Unit(DEH-225)	CXA8292
15	CD Mechanism Module	CXK5001		Grille Unit(DEH-223)	CXA8294
16	Screw	PSB30P060FMC	50	Plate(DEH-225)	CNS3741
17	Spring	CBH-865		Plate(DEH-223)	CNS3743
18	Screw	CBA1284	51	Grille	CNS3859
19	Handle	CNC4947	52	LCD	CAW1330
20	Bush	CNV1009	53	Cable	CDE4868
21	Plug(CN951)(12P)	CKM1225	54	Holder	CNC6430
22	Connector(CN681)(25P)	CKS2228	55	Rubber	CNV4354
23	Connector(CN651)(8P)	CKS3380	56	Lens	CNV4355
24	Antenna Jack(CN501)	CKX1006	57	Connector	CNV4449
25	Holder	CNC6132	58	Resistor	RS1/2P102JL
26	FM/AM Tuner Unit	CWE1417	59	Holder	CNC6429
27	Screw	BPZ26P080FMC	60	IC(IC551)	PAL003A
28	Screw	BSZ26P120FMC	61	Transistor(Q981,991)	2SD2396
29	Connector(CN421)	CKS3357	62	Cap	CNS1472
30	Bracket	CNC6130	63	Insulator	CNM4111
31	Holder	CNC6131	64	Cushion	CNM4387
32	Heat Sink	CNR1407	* 65	Spacer	CNM4188
33	Screw	BPZ20P100FMC			
34	Button(S,SEEK)	CAC4469			

12.3 CD MECHANISM MODULE

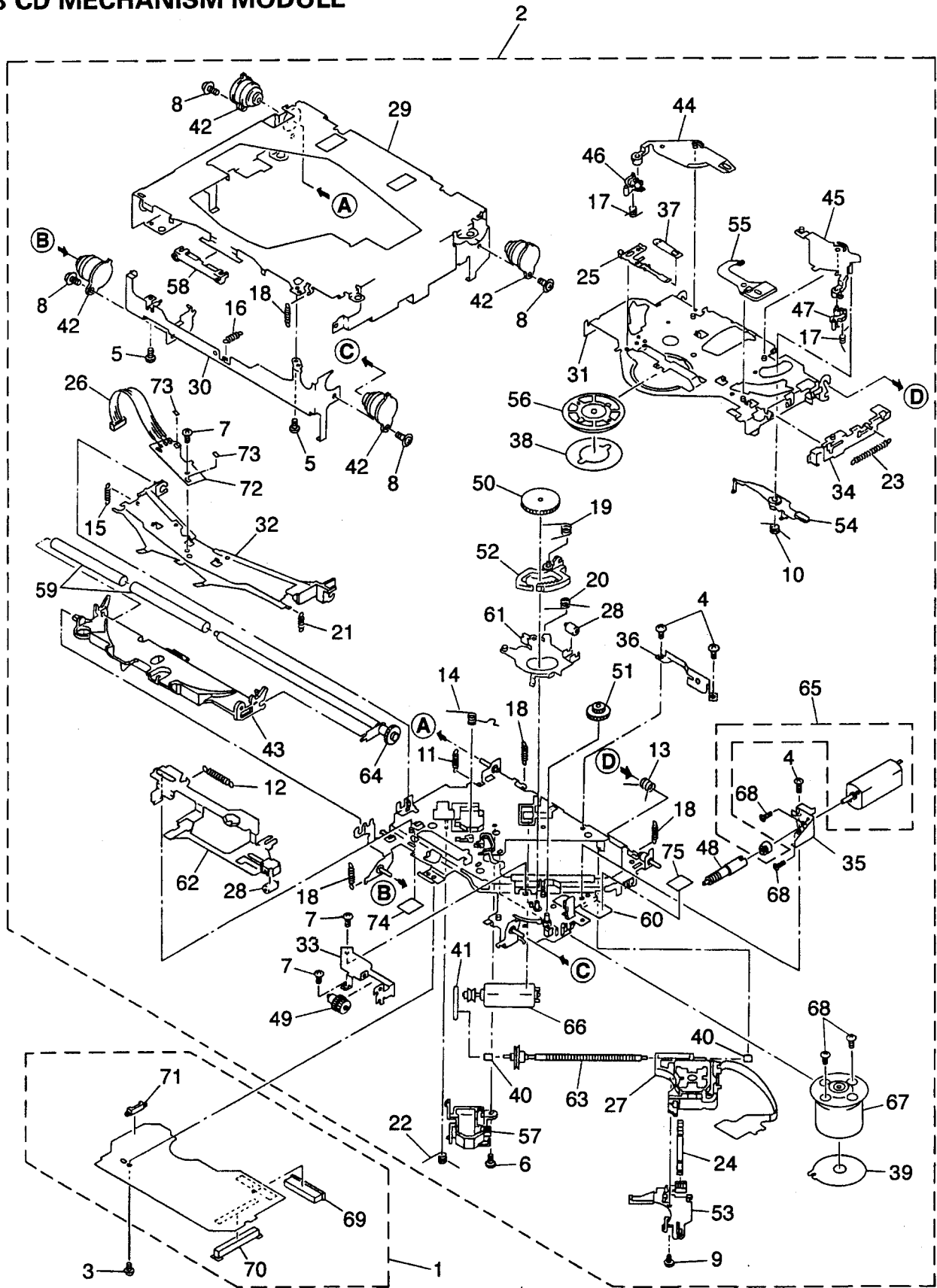


Fig. 17

DEH-59,52,525,49,42,425,225,523,323,223

● Parts List

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Control Unit	CWX1889	46	Arm	CNV4124
2	CD Mechanism Unit	CXA8870	47	Arm	CNV4125
3	Screw	PMS26P035FMC	48	Gear	CNV4128
4	Screw	BMZ20P030FMC	49	Gear	CNV4129
5	Screw	BSZ20P040FMC	50	Gear	CNV4130
6	Screw(M2×3)	CBA1077	51	Gear	CNV4131
7	Screw(M2×2)	CBA1250	52	Arm	CNV4136
8	Screw(M2×5)	CBA1296	53	Holder	CNV4663
9	Screw(M2×3.85)	CBA1362	54	Arm	CNV4138
10	Spring	CBH1916	55	Arm	CNV4139
11	Spring	CBH1724	56	Clamper	CNV4140
12	Spring	CBH1727	57	Holder	CNV4664
13	Spring	CBH1729	58	Guide	CNV4484
14	Spring	CBH1730	59	Roller	CNV4509
15	Spring	CBH1731	60	Chassis Unit	CXA8561
16	Spring	CBH1732	61	Arm Unit	CXA8565
17	Spring	CBH1736	62	Lever Unit	CXA8567
18	Spring	CBH1745	63	Screw Unit	CXA8699
19	Spring	CBH1832	64	Gear Unit	CXA8701
20	Spring	CBH1833	65	Load Motor Unit(M3)	CXA8702
21	Spring	CBH1848	66	CRG Motor Unit(M2)	CXA8986
22	Spring	CBH1849	67	Motor Unit(M1)	CXA9100
23	Spring	CBH1863	68	Screw	JFZ20P025FMC
24	Spring	CBL1214	69	Connector(CN101)	CKS1953
25	Spring	CBL1269	70	Connector(CN701)	CKS2774
26	Connector(CN1)	CDE4576	71	Connector(CN801)	CKS2196
27	PU Unit	CGY1070	* 72	Gathering P.C.Board	CNX2445
28	Roller	CLA2627	73	Photo-transistor(Q1, 2)	CPT-230S-X
29	Frame	CNC5796	74	Sheet	CNM4873
30	Frame	CNC5797	75	Cushion	CNM3917
31	Arm	CNC5799			
* 32	Arm	CNC5801			
33	Bracket	CNC5871			
34	Lever	CNC6054			
35	Bracket	CNC6056			
* 36	Bracket	CNC6376			
37	Spacer	CNM3315			
38	Sheet	CNM4849			
39	P.C.Board	CNP4230			
40	Bearing	CNR1415			
41	Belt	CNT1071			
42	Damper	CNV3974			
43	Arm	CNV4120			
44	Arm	CNV4122			
45	Arm	CNV4123			

13. PACKING METHOD

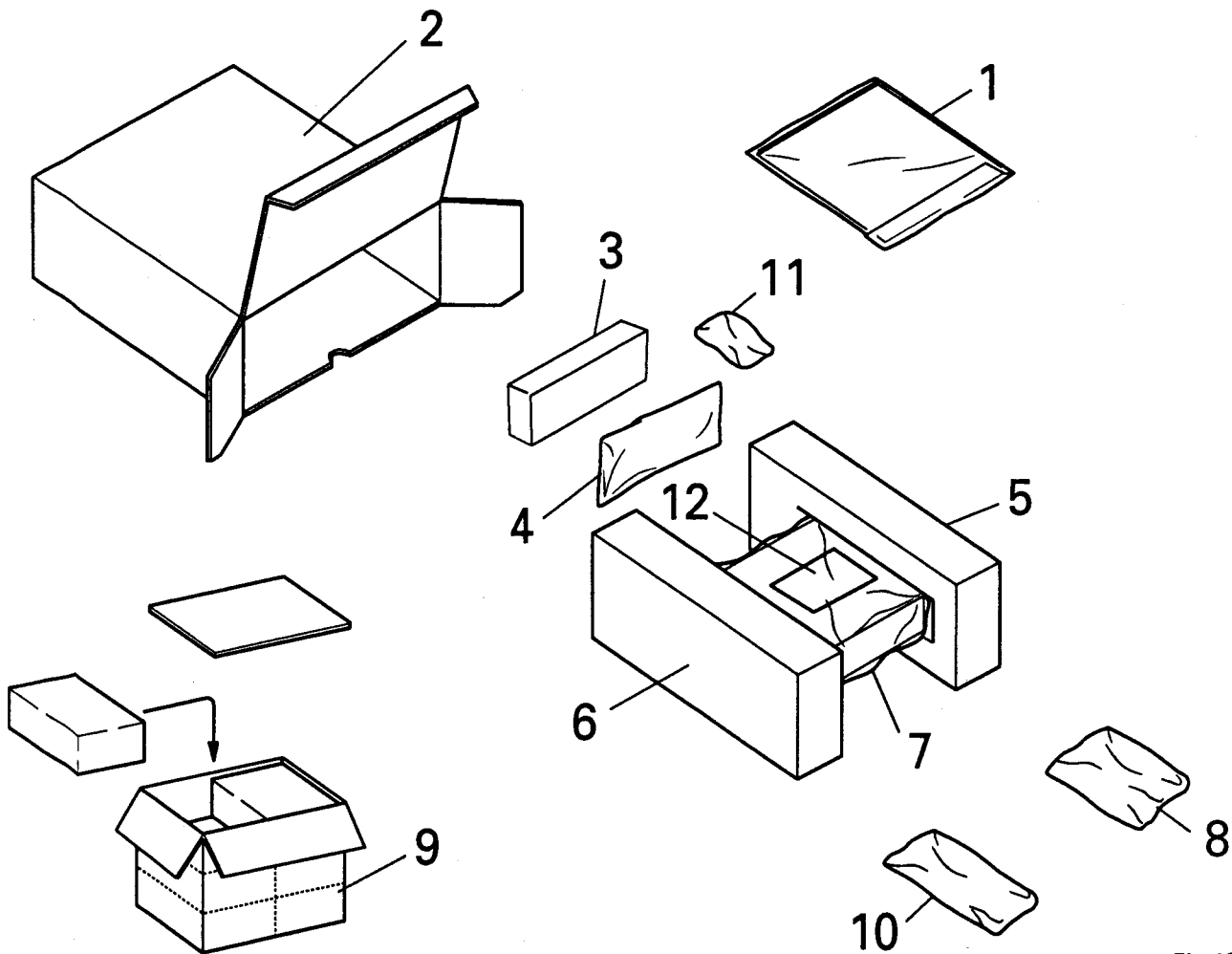


Fig.18

● Parts List(DEH-59/UC)

Mark	No.	Description	Part No.
	1-1	Owner's Manual	CRD1946
	1-2	Installation Manual	CRD1983
*	1-3	Label	CRW1343
*	1-4	Warranty Card	CRY1070
	1-5	.....
	1-6	Polyethylene Bag	CEG1116
	2	Carton	CHG2848
	3	Case	CNS3860
	4	Cord	CDE4867
	5	Protector	CHP1769

Mark	No.	Description	Part No.
	6	Protector	CHP1768
	7	Polyethylene Bag	CEG1173
	8	Accessory Assy	CEA1918
	9	Contain Box	CHL2848
	10	Accessory Assy	CEA1473
	11	Remote Control Assy	CXA7390
*	12	Caution Card	CRP1145

● Owner's Manual

Model	Part No.	Language
DEH-59/UC	CRD1946	English, French
DEH-52/UC, DEH525/UC	CRD1948	English, French, Spanish
DEH-523/ES	CRD1951	English, French, Spanish, Arabic
DEH-49/UC	CRD1947	English, French
DEH-42/UC, DEH-425/UC	CRD1949	English, French, Spanish
DEH-323/ES	CRD1952	English, French, Spanish, Arabic
DEH-225/UC	CRD1950	English, French, Spanish
DEH-223/ES	CRD1953	English, French, Spanish, Arabic

DEH-59,52,525,49,42,425,225,523,323,223

● Installation Manual

Model	Part No.	Language
DEH-59/UC	CRD1983	English, French
DEH-52/UC, DEH-42/UC, DEH-425/UC DEH-225/UC	CRD1987	English, French, Spanish
DEH-525/UC	CRD1984	English, French, Spanish
DEH-523/ES	CRD1985	English, French, Spanish, Arabic
DEH-49/UC	CRD1986	English, French
DEH-323/ES, DEH-223/ES	CRD1988	English, French, Spanish, Arabic

● Accessory Assy

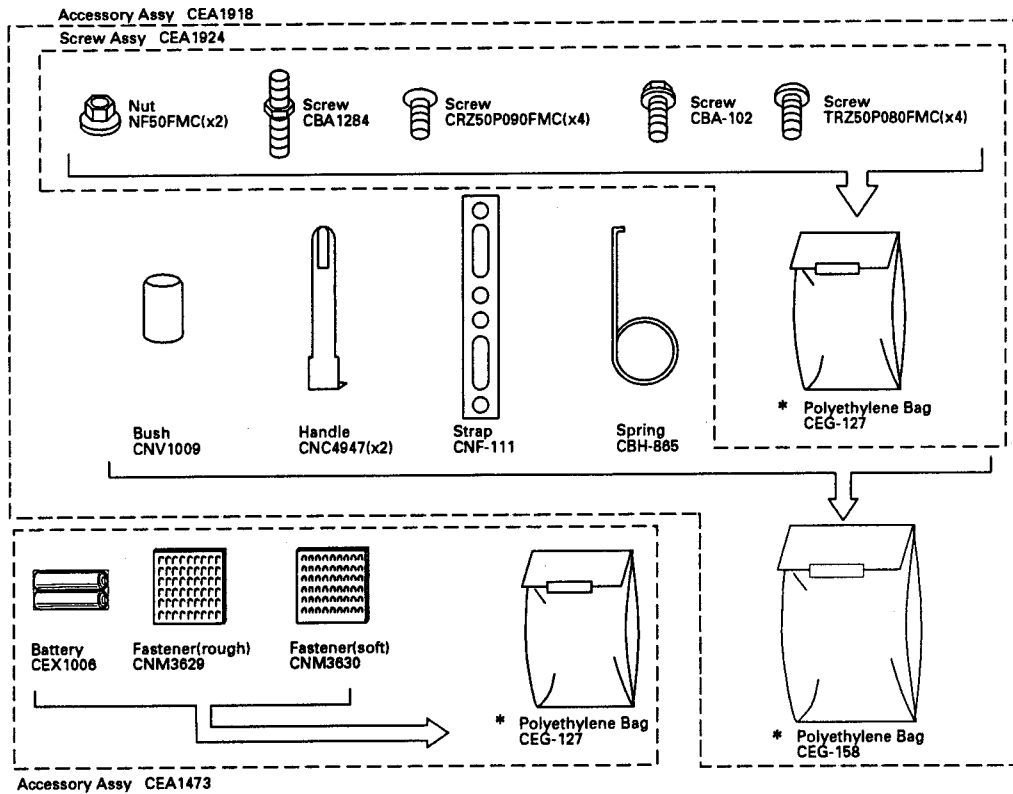


Fig. 19

● The DEH-52/UC, DEH-525/UC, DEH-523/ES, DEH-49/UC, DEH-42/UC, DEH-425/UC, DEH-323/ES, DEH-225/UC and DEH-223/ES Parts Lists enumerate the parts which differ from those enumerated in the DEH-59/UC Parts List only. The parts other than those enumerated in the former are identical with those in the latter, to which you are requested to refer, accordingly. The DEH-59/UC Parts List is given on page 60.

Mark No.	Description	DEH-59/UC	DEH-52/UC	DEH-525/UC	DEH-523/ES	DEH-49/UC	DEH-42/UC	DEH-425/UC
		Part No.	Part No.	Part No.	Part No.	Part No.	Part No.	Part No.
1-1	Owner's Manual	CRD1946	CRD1948	CRD1948	CRD1951	CRD1947	CRD1949	CRD1949
1-2	Installation Manual	CRD1983	CRD1987	CRD1984	CRD1985	CRD1986	CRD1987	CRD1987
* 1-3	Label	CRW1343	.....	.....	.....	.....	.....	.....
* 1-4	Warranty Card	CRY1070	.....	.....	.....	(CRY1070)	.....	.....
* 1-5	Card	.....	ARY1048	ARY1048	.....	.....	ARY1048	ARY1048
2	Carton	CHG2848	CHG2847	CHG2846	CHG2845	CHG2855	CHG2854	CHG2853
7	Polyethylene Bag	CEG1173	CEG1173	CEG1173	CEG-162	CEG1173	CEG1173	CEG1173
8	Accessory Assy	CEA1918	CEA1918	CEA1918	CEA2002	CEA1918	CEA1918	CEA1918
9	Contain Box	CHL2848	CHL2847	CHL2846	CHL2845	CHL2855	CHL2854	CHL2853
10	Accessory Assy	CEA1473	CEA1473	CEA1473	CEA1473	.....	.....	.....
11	Remote Control Assy	CXA7390	CXA7390	CXA7390	CXA7390	.....	.....	.....

DEH-59,52,525,49,42,425,225,523,323,223

Mark No.	Description	DEH-59/UC	DEH-323/ES	DEH-225/UC	DEH-223/ES
		Part No.	Part No.	Part No.	Part No.
1-1	Owner's Manual	CRD1946	CRD1952	CRD1950	CRD1953
1-2	Installation Manual	CRD1983	CRD1988	CRD1987	CRD1988
* 1-3	Label	CRW1343	.....	.....	.....
* 1-4	Warranty Card	CRY1070	.....	.....	.....
* 1-5	Card	.....	.....	ARY1048	.....
2	Carton	CHG2848	CHG2852	CHG2856	CHG2857
7	Polyethylene Bag	CEG1173	CEG-162	CEG1173	CEG-162
8	Accessory Assy	CEA1918	CEA2002	CEA1918	CEA2002
9	Contain Box	CHL2848	CHL2852	CHL2856	CHL2857
10	Accessory Assy	CEA1473	.....	.....	.....
11	Remote Control Assy	CXA7390	.....	.....	.....