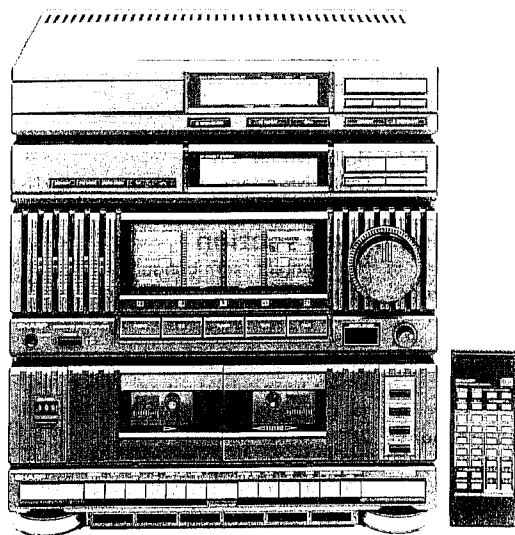
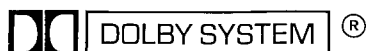



SHARP SERVICE MANUAL

S3026CD320XBK



CD-320X(GY)



Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

COMPACT
disc
DIGITAL AUDIO

In the interests of user-safety the set should be restored to its original condition and only parts identical to those specified be used.

INDEX TO CONTENTS

	Page
SPECIFICATIONS.....	2
CAUTIONS ON HANDLING THE UNIT.....	2
VOLTAGE SELECTION.....	3
NAMES OF PARTS.....	4,5
PLAYING A DISC.....	6,7
TROUBLESHOOTING.....	8-12
DISASSEMBLY.....	13,14
REPLACEMENT OF PICKUP.....	15
FITTING OF CD MECHANISM.....	15
FITTING OF DISC HOLDER.....	15
BLOCK DIAGRAM.....	16-18
ADJUSTMENT.....	19-22
FUNCTION TABLE OF IC.....	23-26
EQUIVALENT CIRCUIT (BLOCK DIAGRAM) OF IC.....	25
EXPLODED VIEW.....	27-33
NOTES ON SCHEMATIC DIAGRAM.....	34
TYPES OF TRANSISTOR AND LED.....	34
SCHEMATIC DIAGRAM/WIRING SIDE OF P.W.BOARD.....	35-59
REPLACEMENT PARTS LIST.....	60-71

FOR A COMPLETE DESCRIPTION OF THE OPERATION OF THIS UNIT, PLEASE REFER TO THE OPERATION MANUAL.

SPECIFICATIONS

■ Compact disc stereo system

General

Power source: AC 110/127/220/240 V, 50/60 Hz
 Power consumption: 360 W
 Dimensions: Width; 360 mm (14-3/16")
 Height; 386 mm (15-1/4")
 Depth; 335 mm (13-1/4")
 Weight: 9.6 kg (21.2 lbs.)

Amplifier section

Peak music power output: 640 W
 Music power output: 2 x 80 W/ 8 ohms, 0.8 % T.H.D.
 Continuous power output: 2 x 50 W/ 8 ohms, 0.8 % T.H.D.
 Input sensitivity and input impedance:
 AUX; 350 mV/47 kohms
 PHONO; 2.7 mV/47 kohms
 Loaded impedance: Speakers; 8 ohms
 Headphones; 8 - 50 ohms
 (recommended 32 ohms)

Tuner section

Frequency range: FM; 88 - 108 MHz
 AM; 531 - 1,602 kHz (9 kHz span)
 AM; 530 - 1,620 kHz (10 kHz span)
 Usable sensitivity: FM; 1.6 μ V
 AM; 398 μ V/m (with loop aerial)

Cassette deck section

Tape: Compact cassette tape
 Frequency response: Normal tape; 30 - 17,000 Hz
 CrO₂ tape; 30 - 18,000 Hz
 S/N ratio: Dolby NR off; 56 dB
 Dolby NR effect: 10 dB (at over 5 kHz)

Compact disc player section

Signal readout: Non-contact; semiconductor laser
 Rotational speed: Approx. 200-500 rpm CLV
 Error correction: CIRC (Cross Interleave Reed-Solomon Code)
 Audio channels: 2
 Decoder: 16-bit linear quantization
 Filter: 16-bit digital and active filter
 Frequency response: 20 - 20,000 Hz
 Dynamic range: 90 dB
 Wow & flutter: Unmeasurable

Specifications for this model are subject to change without prior notice.

CAUTIONS ON HANDLING THE UNIT

- Dew condensation
 You know such phenomenon that, in winter, a window-pane of the heated room develops some amount of dews on its surface. This phenomenon of dew condensation may also occur at the object lens in the pick-up unit in the following instances.
- When the compact disc player is operated immediately after you have turned on a heating device in your room.
- When it is operated in a room full of wet air (with steam or moisture).
- When it is operated in a warm place to which it has been moved from a rather cold place.
 If the object lens has some amount of dew condensed on it, the compact disc player may fail to operate correctly as it can't read out the information data recorded on the disc surface. If such occurs, remove the compact disc from the disc table, turn on the power switch and leave the unit for some time (about 1 hour at the longest); then it will resume its normal operation.

■ Proper use of the remote control

Aim (within range of 60° with no obstacles) the remote control at the remote control sensor and operate as shown.

Notes concerning use:

- Replace the batteries if control distance decreases or operation becomes erratic.
- Periodically clean the transmitter window on the remote control and the sensor on the main unit with a soft cloth.
- Exposing the sensor on the main unit to strong light can interfere with operation. Change lighting or direction of the unit.
- Keep the remote control away from moisture, excessive heat, shock, and vibrations.
- The remote control's usable range is between 0.2 m (0.7 feet) and 6 m (20 feet) away from the sensor.

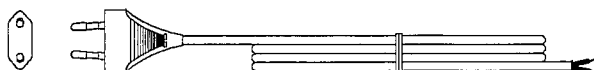
VOLTAGE SELECTION

The voltage selector is located on the rear of the unit. If adjustment is necessary, use a screwdriver in order to turn the selector in either direction until the correct voltage figure is displayed in the window next to the adjustment screw.

92LCōRD-1387A



92LCōRD-1318B



92LCōRD-1393A



QPLGA0250AFZZ



QPLGA0251AFZZ

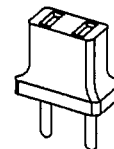


Figure 3 AC POWER SUPPLY CORD AND AC PLUG ADAPTOR

NAMES OF PARTS

■ CD control section

1. Play Indicator
2. Track Number Indicator
3. Minutes and Seconds Indicator
4. Pause Indicator: II
5. Repeat Indicator: G
6. Programme Indicator
7. Memory Indicator
8. Track Down/Review Button: ◀◀
9. Play Button: ▶
10. Pause Button: II
11. Track Up/Cue Button: ▶▶
12. Disc Table
13. Open/Close Button: ▲
14. Repeat Button: G
15. Call Button
16. Memory Button
17. Stop/Clear Button: ■

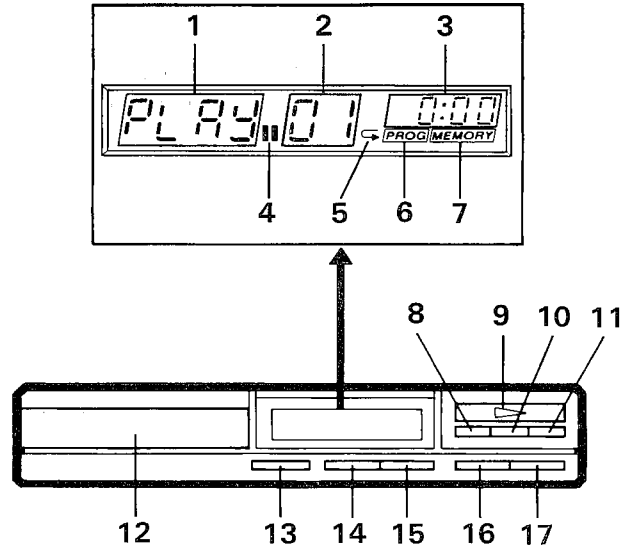


Figure 4-1 CD CONTROL SECTION

■ Tuner control section

1. Preset Channel Indicator
2. FM Stereo Mode Indicator
3. Band Indicators
4. Radio Frequency
5. FM Stereo Indicator
6. Station Preset Memory Indicator
7. Auto Scan Indicator
8. Preset Up/Down Buttons
9. Memory Button
10. FM Mode Button
11. Auto Scan Button
12. Tuning Up/Down Buttons
13. Band Selector Buttons

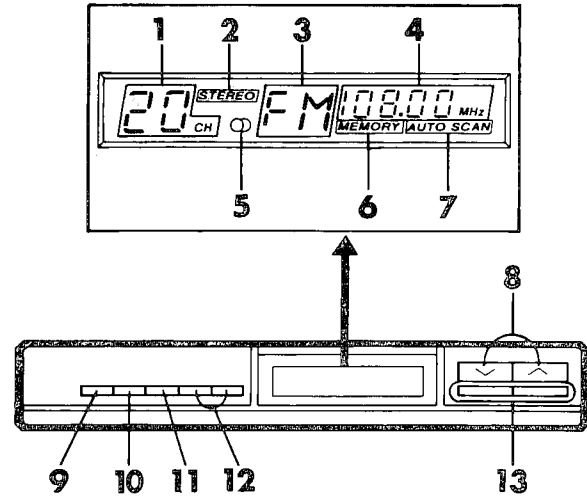


Figure 4-2 TUNER CONTROL SECTION

■ Amplifier section

14. Graphic Equalizer Controls
15. Remote Control Stand-by Indicator
16. Surround Indicators
17. Sound Level Meters
18. Extra Bass Indicators
19. Muting Indicator
20. Volume Control and Indicator
21. Headphones Socket
22. Power Switch
23. Function Selector Buttons and Indicators
24. Remote Control Sensor
25. Balance Control

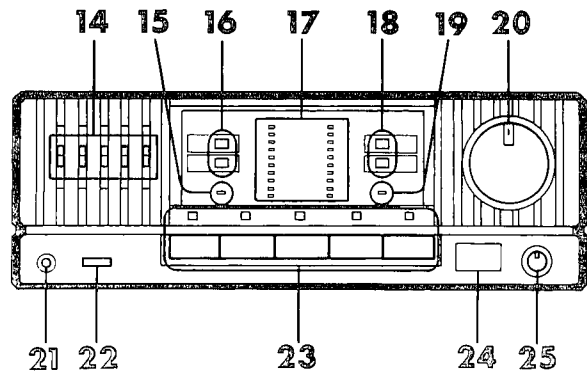


Figure 4-3 AMPLIFIER SECTION

■ **Tape control section**

- 26. TAPE 2) Tape Counter and Reset Button
- 27. TAPE 2) Cassette Compartment
- 28. TAPE 1) Cassette Compartment
- 29. Dolby NR Indicator
- 30. Dolby NR Switch
- 31. Dubbing Speed Switch
- 32. TAPE 1) Tape Selector Switch
- 33. TAPE 2) Tape Selector Switch
- 34. Record Button: ●
- 35. Play Button: ▶
- 36. Rewind Button: ◀◀
- 37. Fast Forward Button: ▶▶
- 38. Stop/Eject Button: ■/▲
- 39. Pause Button: ||
- 40. Reverse Mode Switch: ⇄
- 41. Play Button: ◀▶
- 42. Fast Wind Buttons: ◀◀ ▶▶
- 43. Stop/Eject Button: ■/▲
- 44. Direction Button: ◀▶
- 45. Direction Indicators

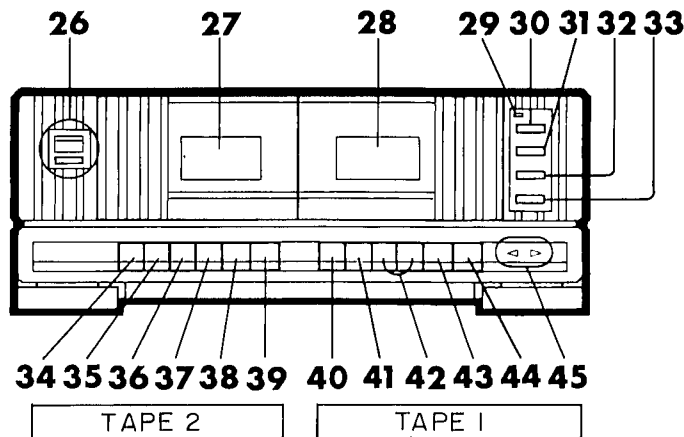


Figure 5-1 TAPE CONTROL SECTION

■ **Rear panel**

- 1. Battery Compartment
- 2. AM Loop Aerial Holder
- 3. Reset Button
- 4. Span Selector Switch
- 5. External FM Aerial Socket
- 6. External AM Aerial Earth Terminal
- 7. External AM Aerial Terminal
- 8. Phono Input Sockets
- 9. Record Output Sockets
- 10. Auxiliary Input Sockets
- 11. Beat Cancel Switch
- 12. AC Voltage Selector
- 13. Front Speaker Terminals
- 14. Rear Speaker Terminals
- 15. Phono Power Supply Socket (DC 12 V)
- 16. AC Supply Lead

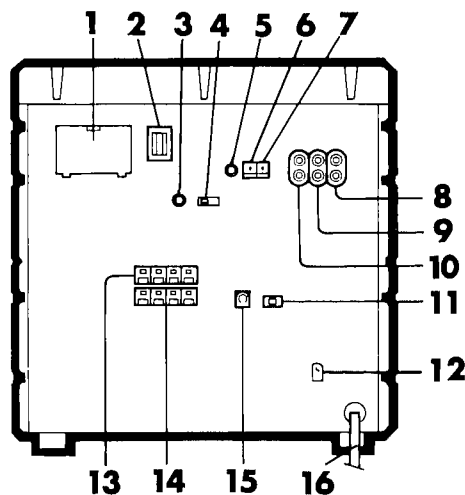


Figure 5-2 REAR PANEL

■ **Remote control**

- 1. Function Selector Buttons
 - 2. Remote Control Transmitter Window
- **Tuner control buttons**
- 3. Band Selector Buttons
 - 4. Preset Up/Down Buttons
- **CD control buttons**
- 5. Stop/Clear Button
 - 6. Repeat Button
 - 7. Play Button: ▶
 - 8. Pause Button: ||
 - 9. Memory Button
 - 10. Track Down/Review Button: ◀◀
 - 11. Track Up/Cue Button: ▶▶
 - 12. Track Number Input Buttons
- **Sound control buttons**
- 13. Volume Up/Down Buttons
 - 14. Power Button
 - 15. Muting Button
 - 16. Surround Buttons
 - 17. Extra Bass Buttons

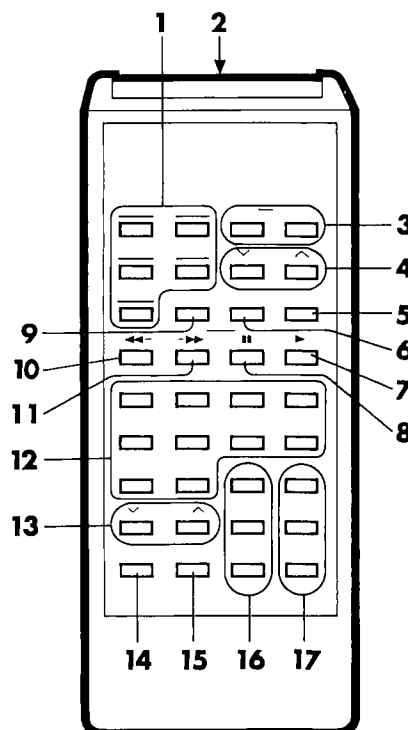


Figure 5-3 REMOTE CONTROL

PLAYING A DISC

■ APMS (Automatic Programmable Music Selector)

- 1 Load a disc and close the disc table.
- 2 Use the track number input buttons to select the desired track number.

● For example, to choose selection 35

- (1) Press the "3" button on the remote control.
- (2) Press the "5" button on the remote control.

- "35" appears on TRACK indicator.
- "Er" appears on TRACK indicator if a selection number exceeding total number of selections on disc is entered. Enter another selection number.

In addition, track selection can be done by using the ◀ and ▶ buttons.

- 3 Press the MEMORY button.

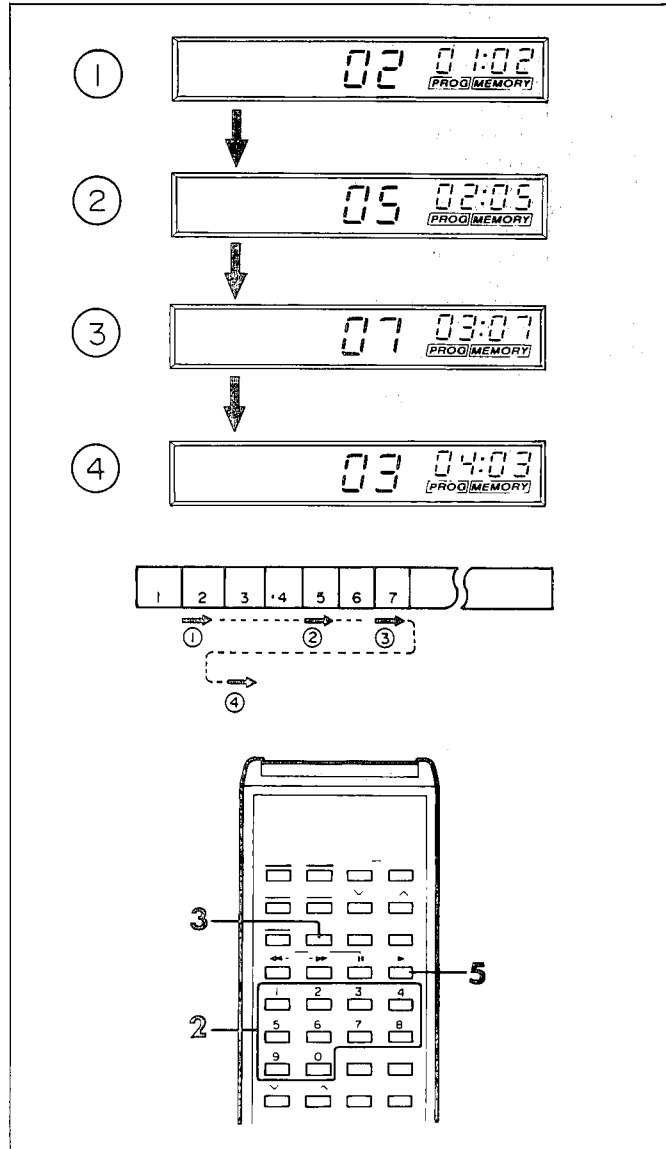
- The "MEMORY" and "PROG" indicators light to show that programmed sequence is being entered into memory. The SEC indicator will show the selected track number, and MIN indicator will show the playback order.

- 4 Repeat steps 2 - 3 for any other track. Up to 20 tracks can be programmed.

- 5 Press the ▶ button to start playback of programmed selections.

Notes:

- It is also possible to programme a sequence of tracks whilst looking at the list of tracks on the disc before closing the disc table.
- During playback or pause, programming is not possible.



Call, Clear

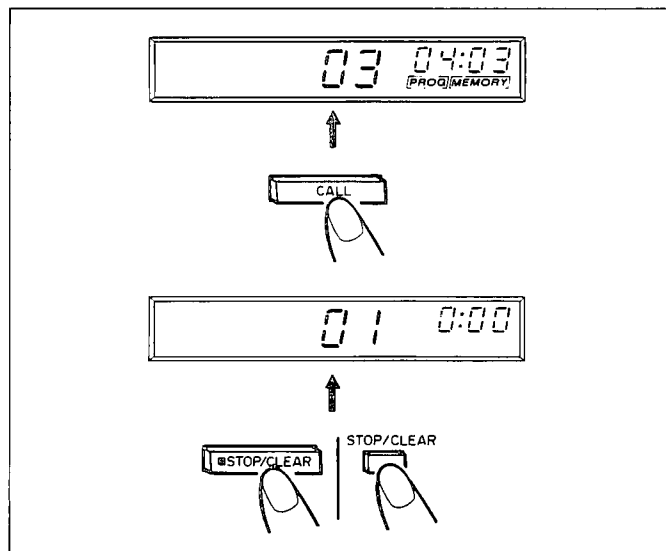
- 1 Press the CALL button on the main unit whilst the disc is stopped to review the order of a programmed sequence before playback begins. The playback sequence and track numbers will be displayed for easy confirmation.

- 2 Press the CALL button on the main unit during playback or pause to check the number of the next track to be played.

- 3 In order to clear the entire programmed sequence, first press the STOP/CLEAR button to stop the disc, and then press the STOP/CLEAR button again the same number of times as the number of tracks which were programmed.

- Each time the button is pressed, one track will be cleared, beginning with the last track programmed.

- Opening the disc table automatically cancels the programmed sequence.



■ Cue and review

- 1 Load a disc and begin playback.
 - 2 Press the PAUSE(II) button to interrupt playback.
 - 3 Press the CUE button whilst in pause mode for audible fast forward.
Press the REVIEW button whilst in pause mode for audible fast reverse.
- Cue and review proceeds at twice the normal playback speed for about 2 seconds, and then increases to 15 times the normal playback speed.
 - If the end of the disc is reached whilst cuing, the "End" indicator lights and CD operation is paused. Press the REVIEW button for fast reverse or press the STOP/CLEAR button to stop CD operation.
- 4 Press the PLAY(▶) button to resume playback.

Note:
Cue and review cannot be used if the unit is programmed.

■ Repeat play

An entire disc, a single track, or a programmed sequence can be continuously repeated.

● To repeat an entire disc

- 1 Press the REPEAT button.
- The "G" indicator will light up.
- 2 Press the PLAY(▶) button.

● To repeat the whole disc from the current track

Simply press the REPEAT button during playback.

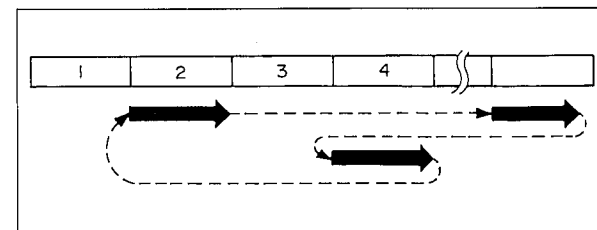
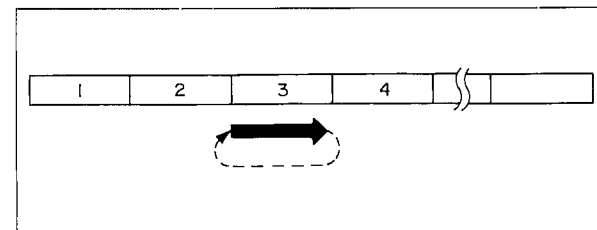
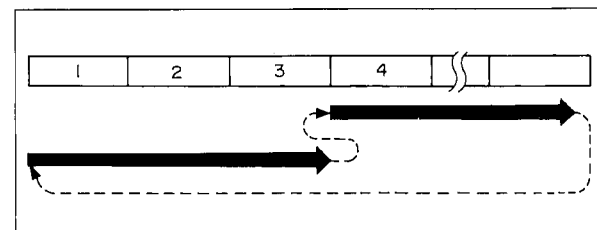
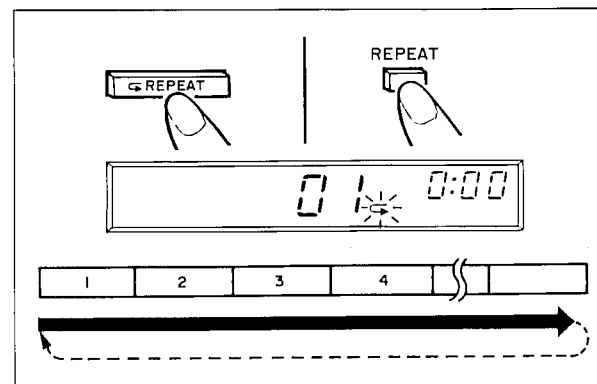
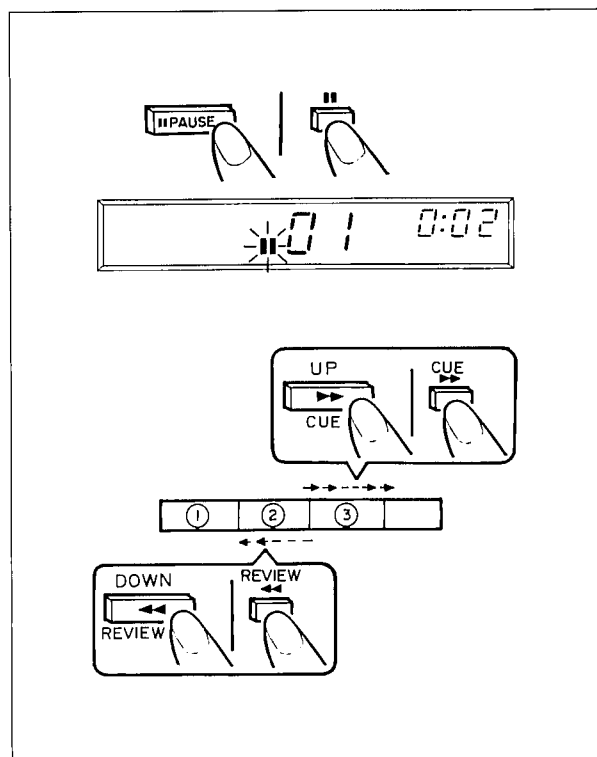
- The "G" indicator will light up.

● To repeat a single track

- 1 Programme a single track.
 - 2 Press the REPEAT button.
- The "G" indicator will light up.
- 3 Press the PLAY(▶) button.

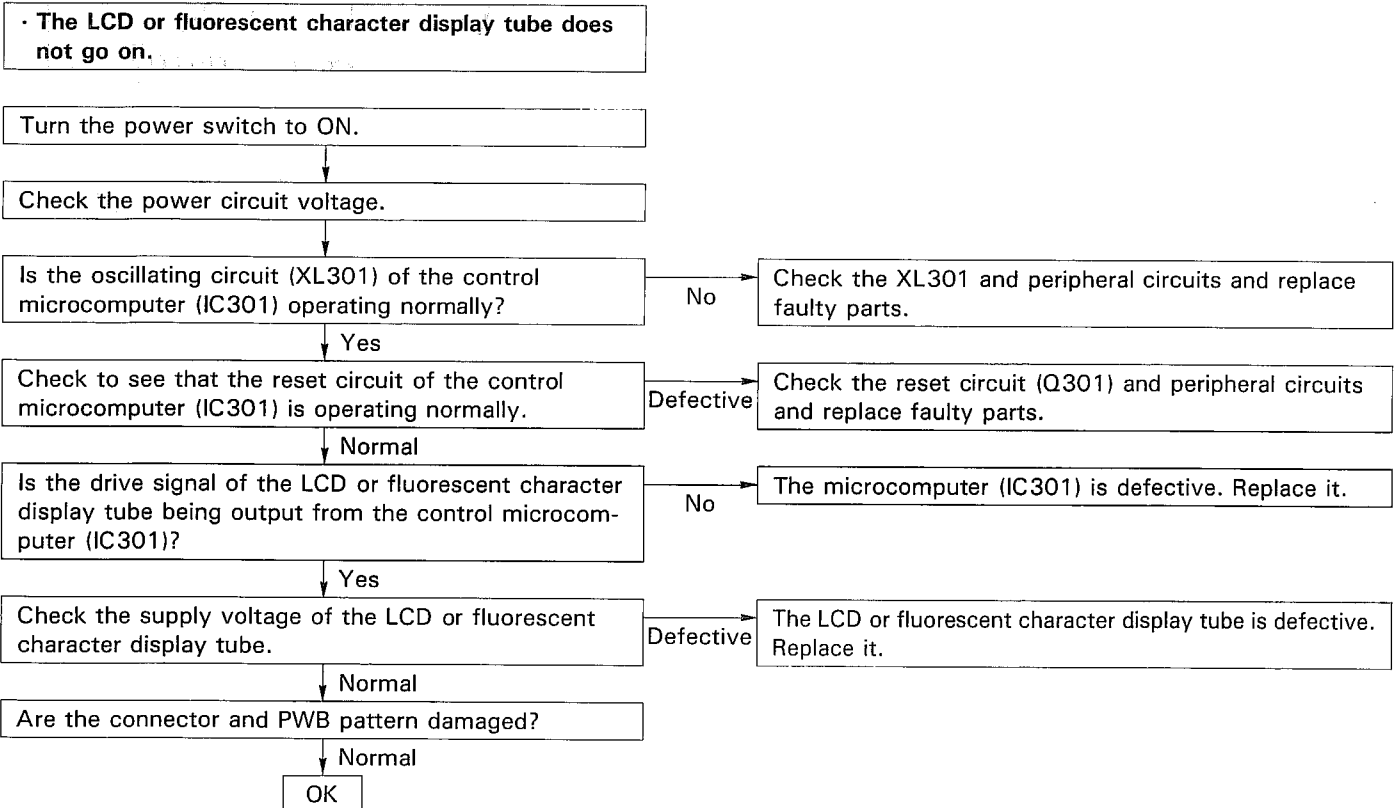
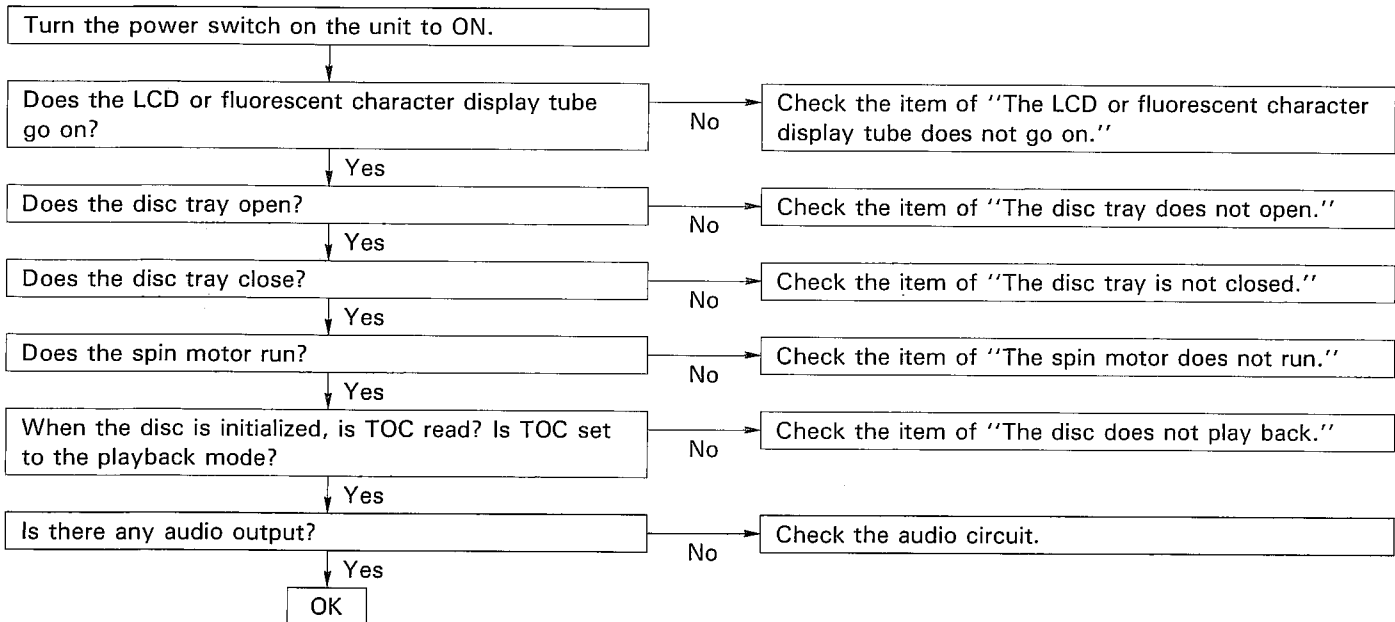
● To repeat a programmed sequence

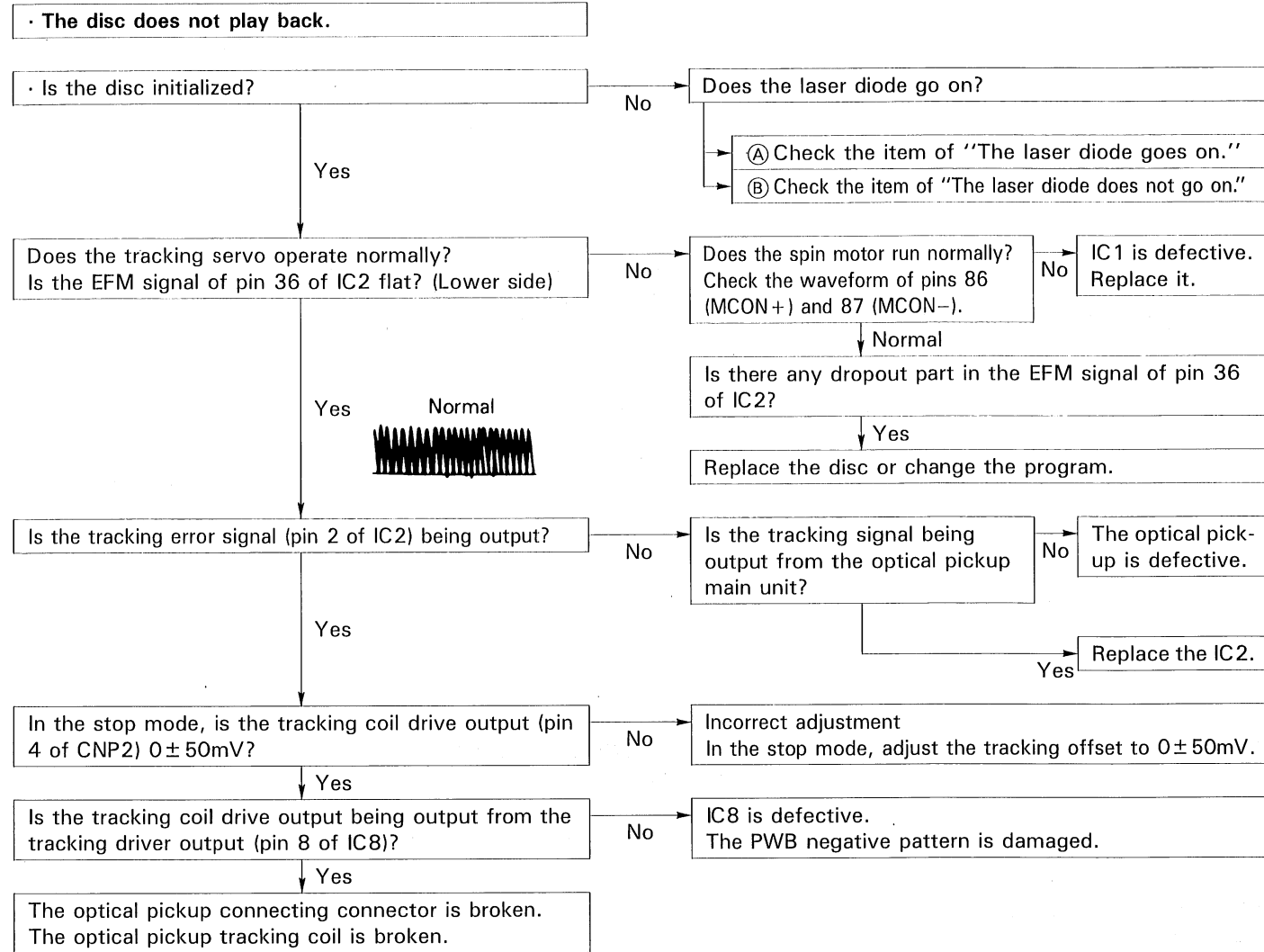
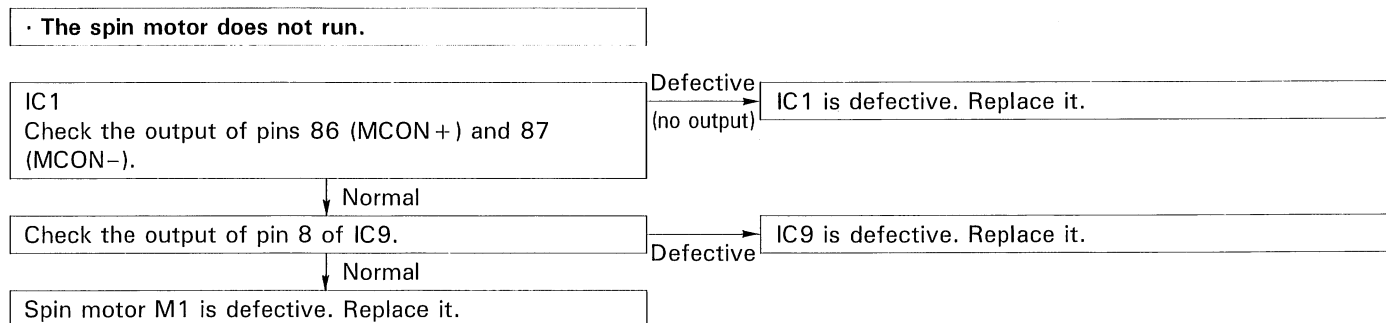
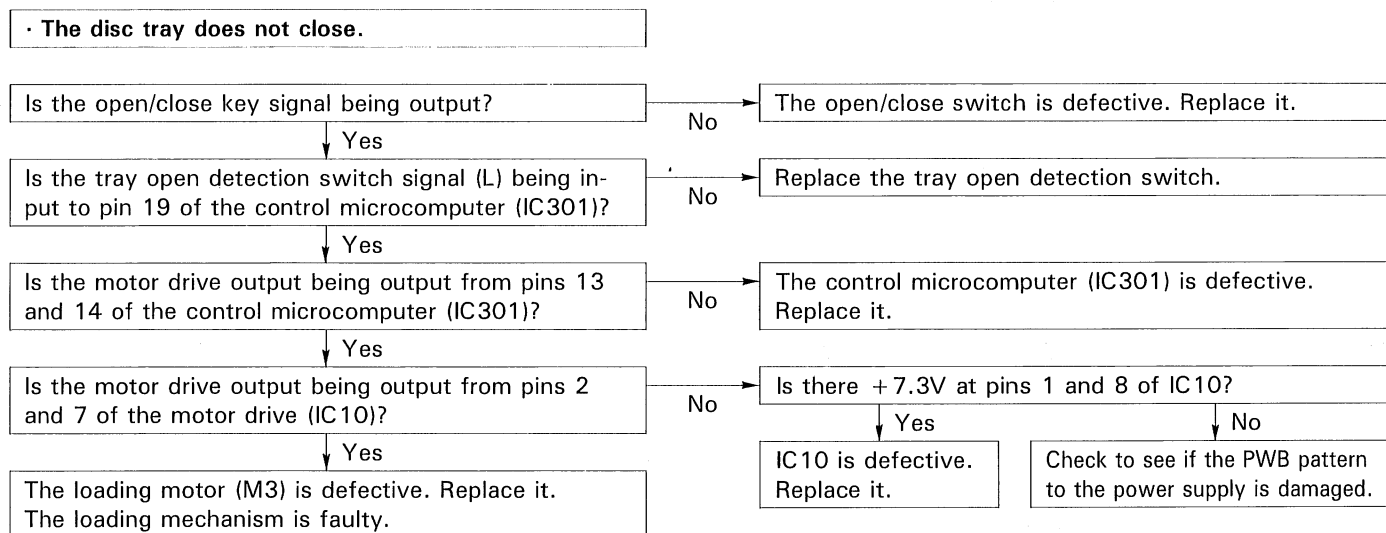
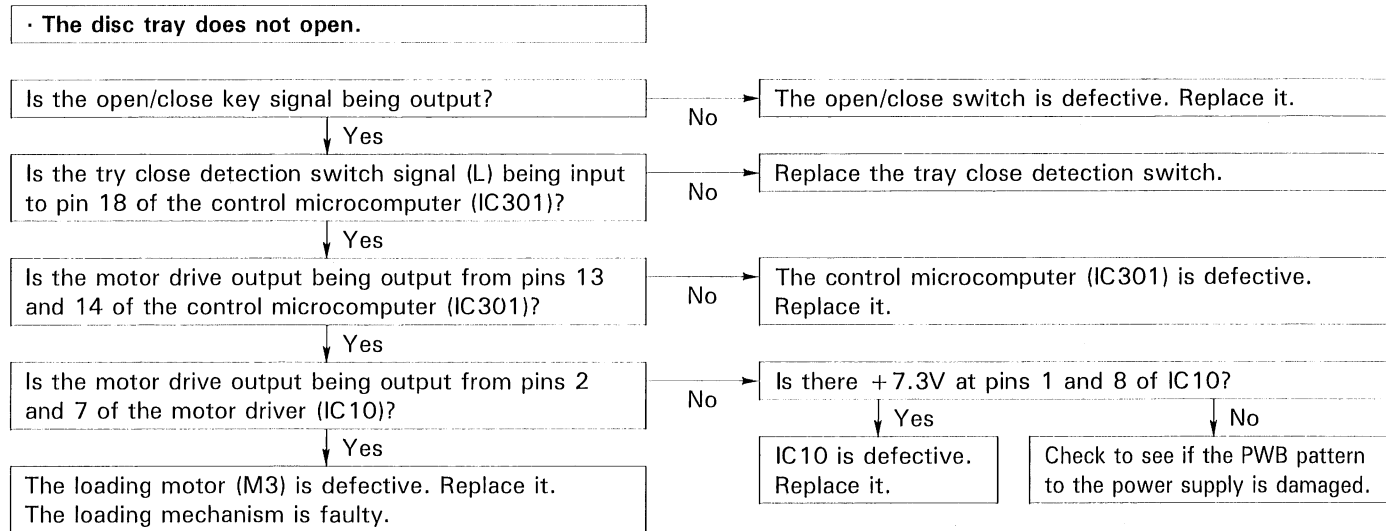
- 1 Programme a sequence of up to 20 tracks.
 - 2 Press the REPEAT button.
- The "G" indicator will light up.
- 3 Press the PLAY(▶) button.
- To cancel the repeat play, press the REPEAT button again.
(The "G" indicator goes out.)



TROUBLESHOOTING (CD section)

- Remove the cabinet and follow the troubleshooting instructions.





REPLACEMENT OF PICKUP

When replacing the pickup, refer to "Cares when Handling Pickup Assembly".

- (a) After removing the CD mechanism according to the disassembling procedure, remove the screws and connectors in order of 1, 2 and 3, and replace the pickup.
- (b) Fit a new pickup in reverse order of disassembling. After fitting, lock it with the screw 2.
- (c) Connect the connector and lead wire as it was.
- (d) The laser power adjustment is not necessary owing to improvement of performance of pickup.

Note: When replacing the pickup do not apply force to the turntable of spin motor. Otherwise, the height of main chassis and turntable may be varied.

After replacing the pickup
This new mechanism has been newly designed to enhance remarkably its performance as compared to the former ones, so that there is no need to adjust pickup posture.

* After mounting the pickup, apply voltage to the slide motor (M2), and ascertain that it runs at DC 1.5V or less.

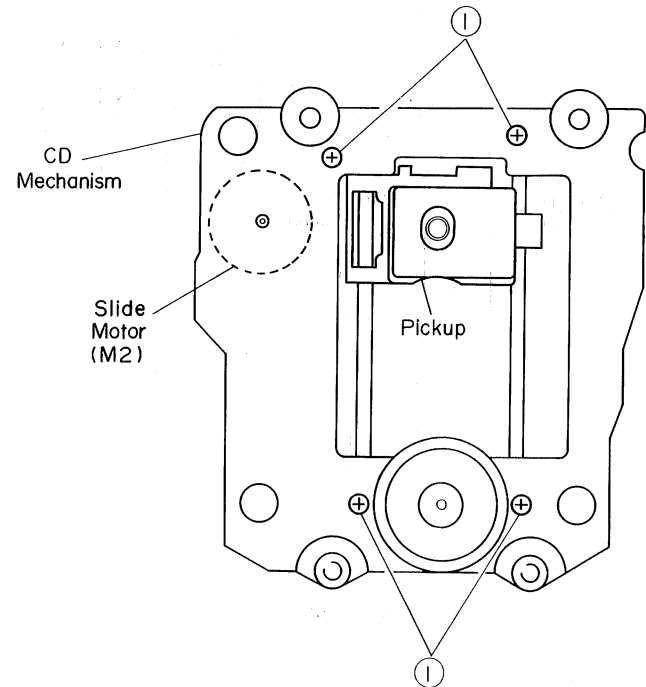


Figure 15-1

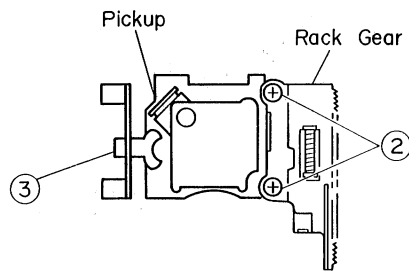


Figure 15-2

FITTING OF CD MECHANISM

1. Remove cushion from CD mechanism and fit it to loading chassis.
2. Fit CD mechanism with cushion and insert shift lever.
3. Fix shift lever to loading chassis using screws.

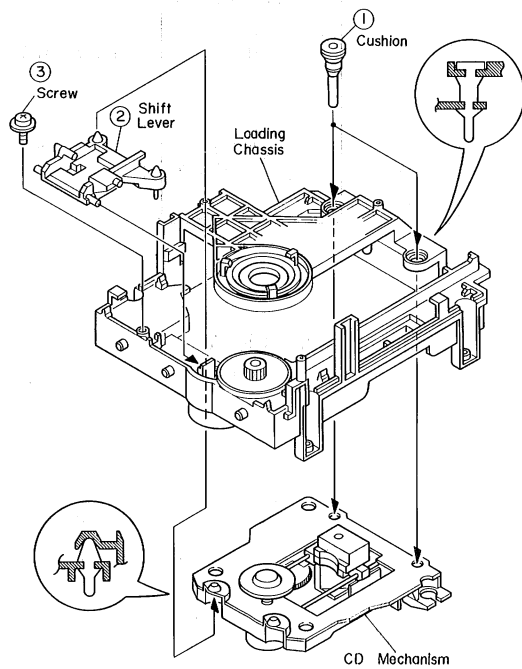


Figure 15-3

FITTING OF DISC HOLDER

1. Turn the rack gear in the arrow direction A. (This causes the disc lever to move to the direction B.)
2. While keeping the rack gear in the direction A, force-fit the disc holder to the chassis.
3. Turning the rack gear in the arrow direction C lowers the disc holder, so that the disc holder is fixed.

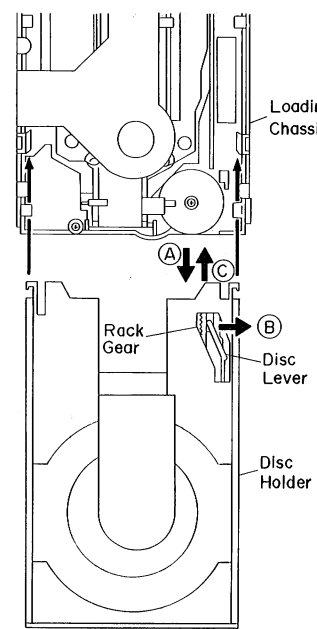


Figure 15-4

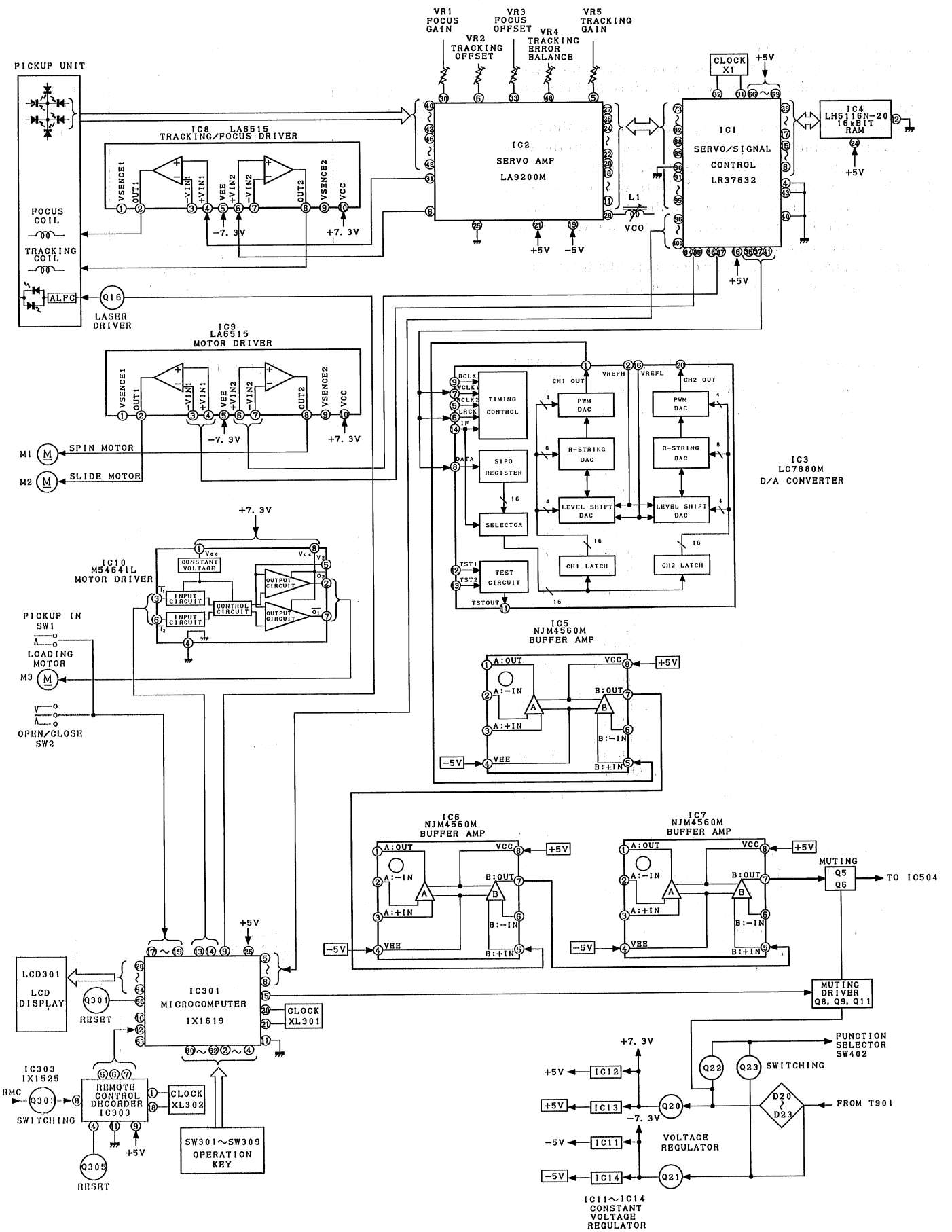


Figure 16 BLOCK DIAGRAM (1/2)

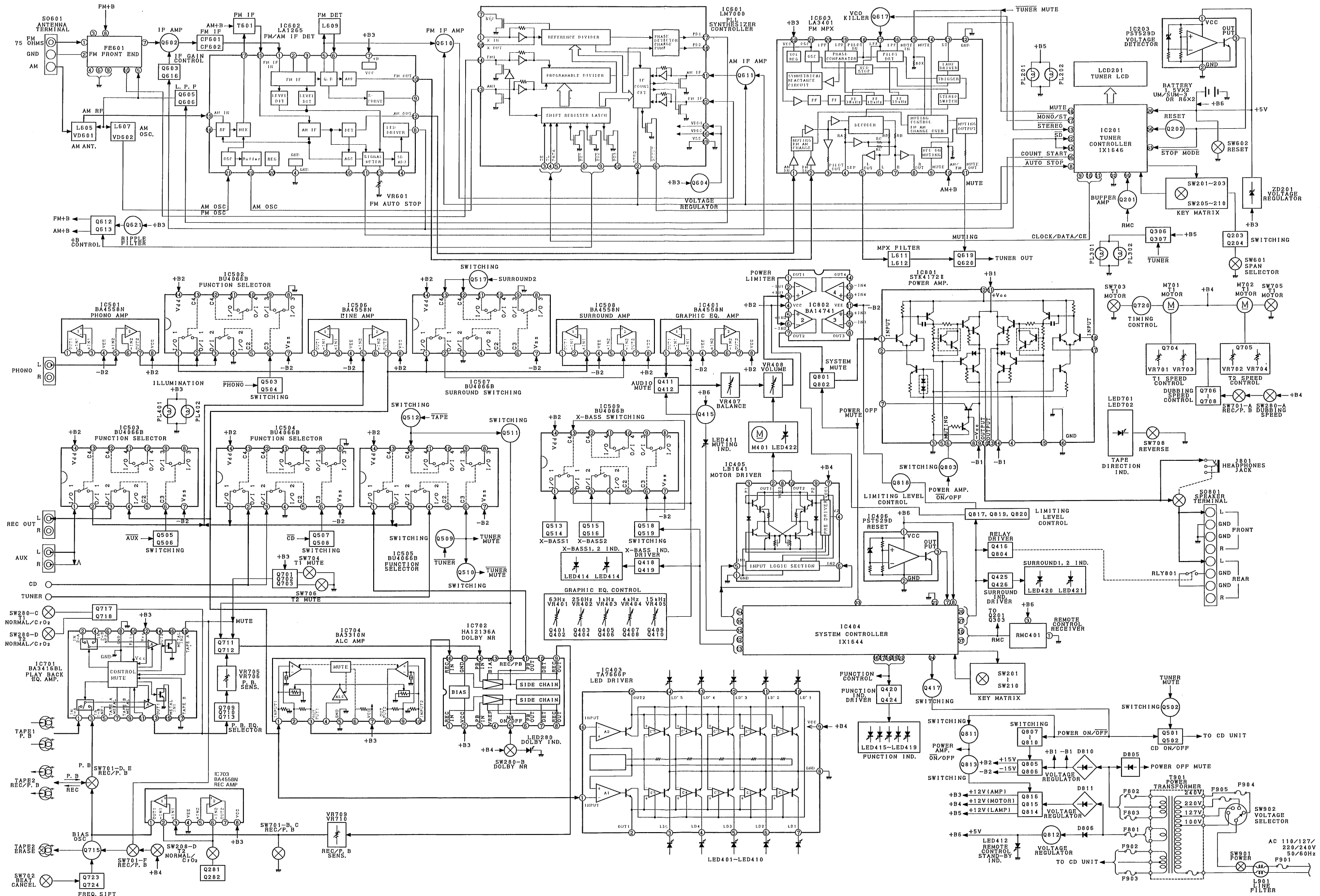


Figure 17 BLOCK DIAGRAM (2/2)

ADJUSTMENT

As for adjusting method refer to the relevant explanation in Service Manual "ADJUSTMENT PROCEDURES OF AUDIO PRODUCTS".

TUNER SECTION

fL: Low-range frequency
fH: High range frequency

AM IF/RF
Signal generator: 400 Hz, 30%, AM modulated

Test Stage	Frequency	Frequency Display	Setting/ Adjusting Parts	Instrument Connection
IF	450 kHz	1,602 kHz	T601	*1
AM (9 kHz Span) Band Coverage	-	531 kHz	L607 (fL): 1.1 ± 0.1V	*2
AM (9 kHz Span) Tracking	603 kHz	603 kHz	L605 (fL)	*1
	1,404 kHz	1,404 kHz	TC601 (fH)	

*1, Input: Antenna Output: TP602
*2, Input: Antenna Output: TP603

FM

Note:

- 1: Description of the "FM IF Adjustment: is not carried on this Manual. It is because the IF coil in the FM front end section has been best adjusted in the factory so that its further adjustment is not needed at the field. When replacing the FM front end assembly, no adjustment is needed either.
- 2: The parts in the FM front end section are prepared in a complete unit, so you can't obtain each part individually.

Detection/Distortion

Signal generator: 1 kHz, 40 kHz dev., FM modulated

Frequency	Frequency Display	Adjusting Parts	Instrument Connection
10.7 MHz	108 MHz	L609	Input: Antenna Output: IC602 10 Pin
98.00 MHz (60 dB)	98.00 MHz	L609*	Input: Antenna Output: TP601 ①, ②

* Adjust the L609 so that voltmeter reads 0 ± 50 mV.

FM Auto Stop Level

Signal generator: 1 kHz, 40 kHz dev., FM modulated

Frequency	Frequency Display	Adjusting Parts	Instrument Connection
98.00 MHz (25 dB)	98.00 MHz	VR601	Input: Antenna Output: Speaker terminal

* Adjust so that an output signal appears.

TAPE SECTION

Driving Force check

Torque Meter	Specified value
Forward Play: TW-2412	Over 150 g
Reverse Play: TW-2422	Over 150 g

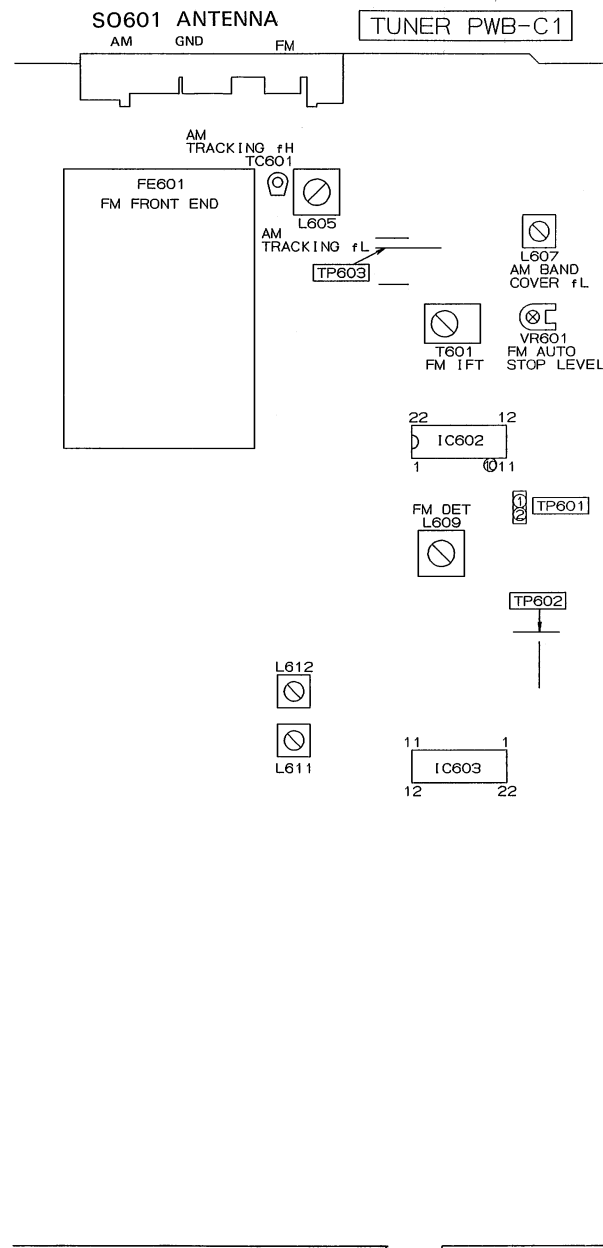


Figure 19-1 ADJUSTMENT POINTS

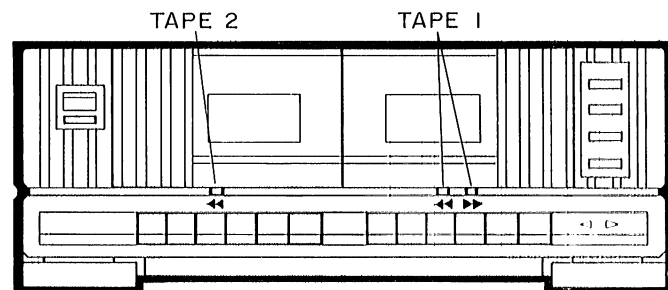


Figure 19-2 AZIMUTH POINTS

Torque Check

Torque Meter	Specified value	
	Tape 1	Tape 2
Forward Play: TW-2111	35 - 60 g.cm	35 - 60 g.cm
Reverse Play: TW-2121	35 - 60 g.cm	35 - 60 g.cm
Fast forward: TW-2231	60 - 115 g.cm	85 - 130 g.cm
Rewind: TW-2231	60 - 115 g.cm	85 - 130 g.cm

Head Azimuth

Test Tape	Instrument Connection
MTT-114	Output: TP702 ① (L) TP702 ⑤ (R)

Tape Speed

Adjust at first the normal speed.

	Test Tape	Adjusting Point	Specified value	Instrument Connection
High speed *	MTT-111	Tape 1: VR701	Forward: 6,000 ± 30 Hz = A Reverse: A ± 100 Hz	Output: TP702 ① (L) TP702 ⑤ (R)
		Tape 2: VR702	6,000 ± 30 Hz	
Normal speed	MTT-111	Tape 1: VR703	Forward: 3,000 ± 15 Hz = A Reverse: A ± 50 Hz	
		Tape 2: VR704	3,000 ± 15 Hz	

* Short TP701 ① and TP701 ② when performing the high speed adjustment.

DECK SECTION

Position of each switch or control	
Volume	Min
Balance	Center
Graphic equalizer	Center
Function selector switch	Aux
Dolby NR switch	OFF
Tape selector switch	Normal

Tape 1 Playback Amplifier Sensitivity

Test Tape	Adjusting Point	Specified value	Instrument Connection
MTT-150	L: VR705 R: VR706	Normal: 580 mV ± 1 dB	TP702 ① (L) TP702 ⑤ (R)

Record/Playback Sensitivity

Test Tape	Adjusting Point	Specified value	Instrument Connection
MTT-502	Frequency oscillator	100 mV	Input: SO501 (AUX) Output: TP702 ① (L) TP702 ⑤ (R)
	L: VR709 R: VR710	100 mV ± 1 dB	

Bias Current

Adjusting Point	Specified value	Instrument Connection
L: VR707 R: VR708	Normal: 13 ± 2 mV CrO2: 19.5 ± 3 mV	CNP704 ①/③

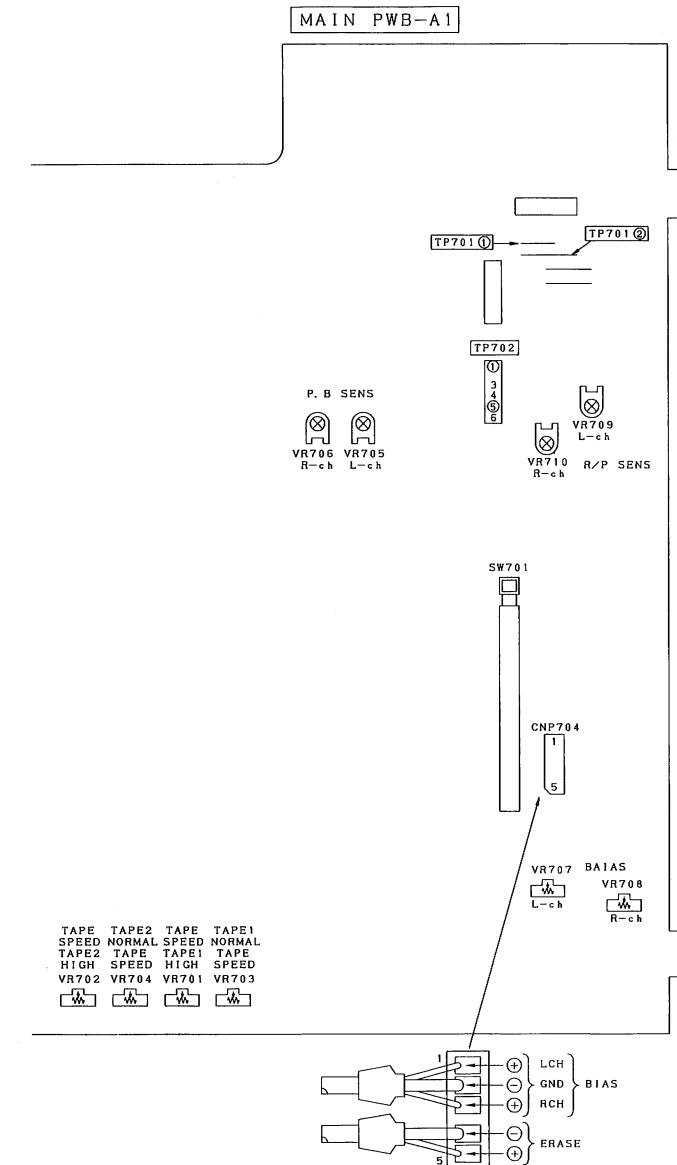


Figure 20-1 ADJUSTMENT POINTS

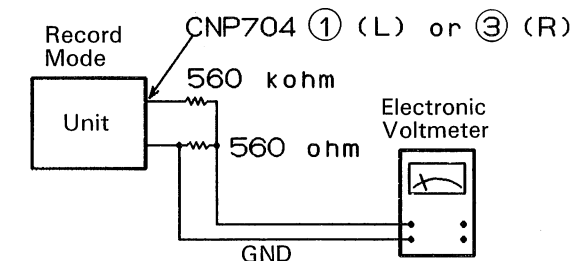


Figure 20-2 BIAS CURRENT

CD SECTION

1. Preparation for Adjustment

When adjusting, be sure to refer to Service Manual "ADJUSTMENT PROCEDURES OF AUDIO PRODUCTS".
 .Test mode of control microcomputer
 Depressing the REPEAT button and CALL button, turn on the power switch.

2. VCO Free-Run Frequency

Adjusting Point	Specified value	Instrument Connection
L1	4,300 kHz ± 15 kHz	Test point (φS) and GND.

Short-circuit the test point EFM and GND.

3. Servo Unit

The procedure of adjustment differs from that stated in Service Manual "ADJUSTMENT PROCEDURES OF AUDIO PRODUCTS".
 Follow the procedure stated below.

• Focus Offset

Adjusting Point	Specified value	Instrument Connection
VR3	0 ± 50 mV	Test point (FO) and GND.

• Tracking Offset

Adjusting Point	Specified value	Instrument Connection
VR2	0 ± 50 mV	Test point (TO) and GND.

• Tracking Error Balance

Adjusting Point	Adjusting method	Instrument Connection
VR4	*1	Test point (TE) and GND.

*1: Short-circuit the test point TBL and GND.
 Adjust so as to obtain symmetric waveform (Fig. 21-2) when DC is 0V.

• Focus Gain

Adjusting Point	Adjusting method	Instrument Connection
VR1	Adjust so that the voltage of CH-1 is equal to that of CH-2. *2	Test point (FG) and GND.

*2: Apply sine wave (Oscillation frequency 1.0 kHz, 1.0 Vrms) as shown in Fig. 21-3.

• Tracking Gain

Adjusting Point	Adjusting method	Instrument Connection
VR5	Adjust so that the voltage of CH-1 is equal to that of CH-2. *3	Test point (TE, TG) and GND.

*3: Apply sine wave (oscillation frequency 1.0 kHz, 1.0 Vrms) as shown in Fig. 22-1.

• Check HF output

Adjusting Point	Adjusting method	Instrument Connection
—	—	Test point (HF) and GND.

Make sure that waveform is as shown in Fig. 22-2.

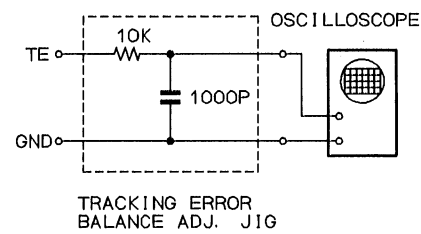


Figure 21-1

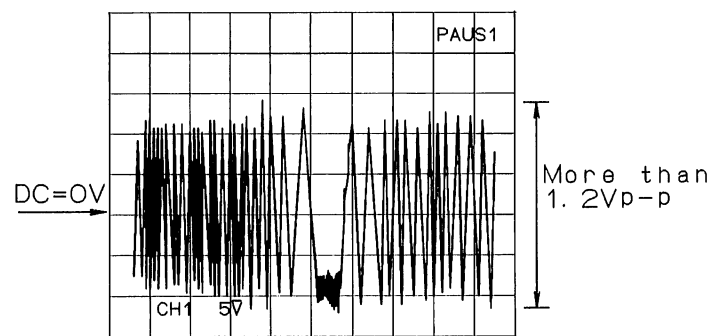


Figure 21-2

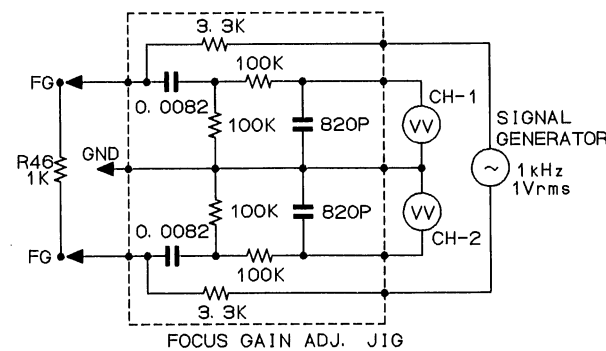


Figure 21-3

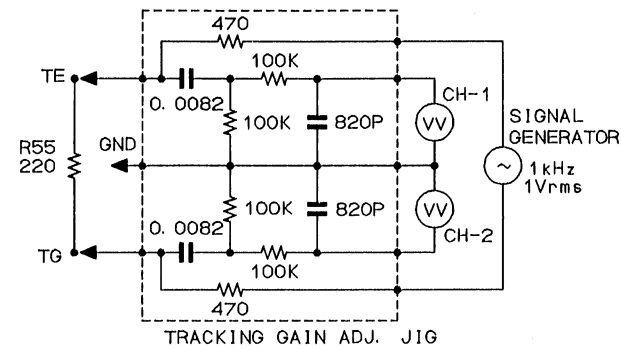


Figure 22-1

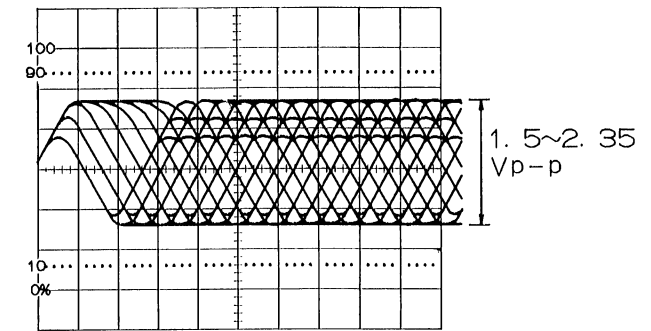


Figure 22-2

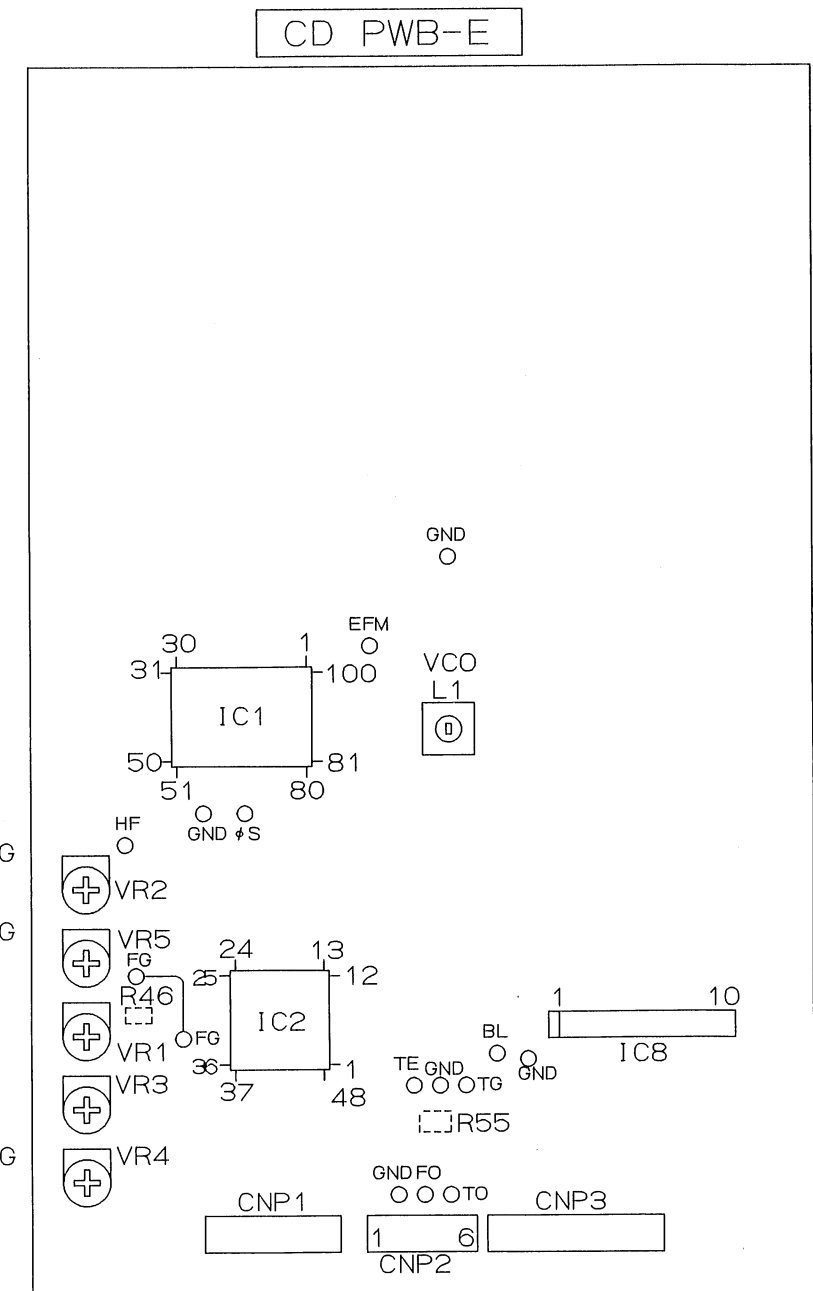


Figure 22-3 ADJUSTMENT POINTS

FUNCTION TABLE OF IC

IC1 VHILR37632/-1 (LR37632)

Pin No.	Terminal Name	Input/output	Function
1	LOIN	Output	Free-running sync signal/Frame sync signal coincidence output
2*	FCON	Output	Laser output ON/OFF timing control
3*	MUTE	Output	Frame asynchronous output
4	SBCL	Input	Sub code call clock
5*	SCREQ	Output	Sub code take in completion flag
6*	SDATA	Output	Sub code data output
7*	SSYN	Output	Sub code sync signal detect flag
8 - 15	A0 - A7	Output	Address signal, data signal and input control signal
16	VDD	-	Power terminal
17, 18, 19	A8, A9, \overline{WE}	Output	Address signal, data signal and input control signal
20	\overline{OE}	Output	Address signal, data signal and input control signal
21	A10	Output	Address signal, data signal and input control signal
22 - 29	D8 - D1	Output	Address signal, data signal and input control signal
30	DEPH	Output	Deemphasis control signal
31, 32	XIN, XOUT	-	Crystal oscillation terminal
33	$\phi 4$	-	Synchronizing signal output
34*	$\phi 2$	-	1/2 sync signal output
35	SDO	Output	Synchronizing signal output
36*	SDSY	Output	L/R channel sync signal output
37	882K	-	Synchronizing signal output
38*	SWL	Output	Degitch SWL output
39*	SWR	Output	Degitch SWR output
40	GND	-	Ground
41	LROR	Output	Synchronizing signal output
42	$\overline{T/N}$	Input	Digital filtering ON/OFF switching input
43	$\overline{2C/OB}$	Output	Setting of data format of 16-bit music signal
44* - 59*	DA1 - DA16	Output	16 bit source signal parallel output
60* - 62*	TIN1 - TIN3	-	Test terminal
63	ϕS	Output	System clock standard output
64*	DFCL	Output	VCO frame sync signal
65*	CRCC	Output	Sub code CRCC error detecting output
66	VDD	-	Power terminal
67, 68	TEST1 - 2	-	Test terminal
69	C1FL	-	Test terminal
70*	DFL	-	Test terminal
71, 72*	C1F, C2F	Output	Error state output
73	FCS	Output	Focus servo initial writing signal
74	FZC	Input	Focus point indicating signal
75	FRF	Input	Disk reflected signal
76	HF	Input	HF envelope signal
77	TER	Input	Tracking error signal
78	TROF	Output	Tracking servo operating area switching signal
79	TRGL	Output	Tracking servo gain switching signal
80	TRHD	Output	Tracking error signal level hold signal
81, 82	KP+, KP-	Output	Kick pulse signal to move pickup
83	FEOf	Output	Tracking error signal stop
84, 85	FEM+, -	Output	Field pulse signal to move pickup
86, 87	MCON+, -	Output	Spin servo control signal
88	FD	Output	VCO clock error output
89	PD	Output	Phase comparator output
90	GND	-	Ground
91, 92	VCO, \overline{VCO}	Input	Clock oscillation
93	EFMO	Output	Auto-level slice
94	EFMN	Input/Output	Auto-level slice
95	EFMI	Input	Auto-level slice
96	WQ	Output	Q code output
97	R/W	Input	Q code input
98	DOUT	Output	Q code output
99	DIN	Input	Command data input
100	SCK	Input	Clock input

In this unit, the terminal with asterisked mark (*) is (open) terminal which is not connected to the outside.

IC404 RH-iX1644AFZZ (IX1644)

Pin No.	Terminal Name	Input/output	Function
1	F1	Output	Key matrix output
2	F2	Output	Key matrix output
3	F3	Output	Key matrix output
4	XOUT	Output	Input/output terminal for built-in clock circuit. Connect the ceramic resonator (2 MHz).
5	XIN	Input	Input/output terminal for built-in clock circuit. Connect the ceramic resonator (2 MHz).
6	CE	Input	Connect to VDD.
7	RESET	Input	Reset input
8	VDD	-	Connect to the power supply (+5 V).
9	CNTR	-	Not used. Connect to GND.
10	INT	Input	Remote control input
11	C	-	Not used. Open
12	$\overline{XBS-1}$	Output	X-BASS control output
13	$\overline{XBS-2}$	Output	X-BASS control output
14*	$\overline{XBS-3}$	Output	X-BASS control output
15*	VOL.C	Output	Volume up/down speed control output
16	PHONO	Output	Function control output
17	TUNER	Output	Function control output
18	TAPE	Output	Function control output
19	CD	Output	Function control output
20	CNVss	-	Connect to ground.
21	Vss	-	Connect to ground.
22	AUX	Output	Function control output
23*	S5	Output	Function control output
24	POWER	Output	POWER ON/OFF output
25*	$\overline{X-BASS}$	Output	X-BASS control output
26	$\overline{SUR-1}$	Output	Surround control output
27	$\overline{SUR-2}$	Output	Surround control output
28*	$\overline{SUR-3}$	Output	Surround control output
29*	$\overline{P-UP}$	Output	Tuner preset up output
30*	$\overline{P-DWN}$	Output	Tuner preset down output
31*	\overline{SUR}	Output	Surround output
32	A-MUT	Output	Audio muting output
33	S-MUT	Output	System muting output
34	V-DWN	Output	Volume down output
35	V-UP	Output	Volume up output
36	FLAS	Output	Volume indicator flushing output
37	RMC	Input	Remote control input
38	K0	Input	Key matrix input
39	K1	Input	Key matrix input
40	K2	Input	Key matrix input
41	K3	Input	Key matrix input
42	F0	Output	Key matrix output

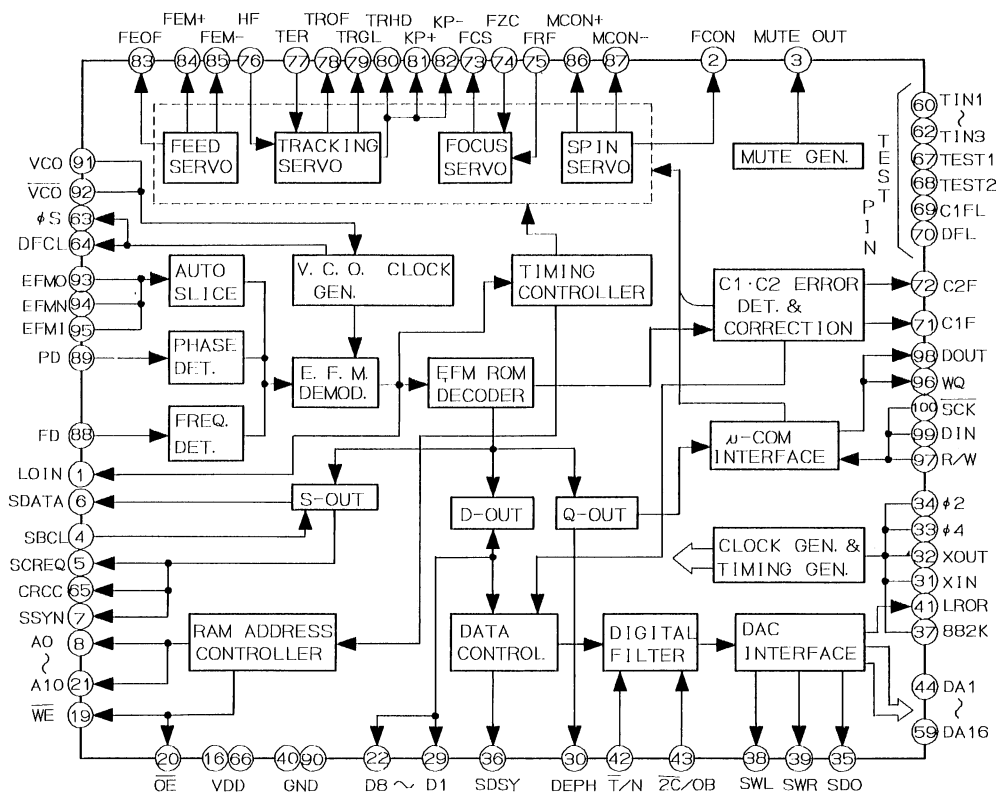
In this unit, the terminal with asterisked mark (*) is (open) terminal which is not connected to the outside.

IC201 RH-iX1646AFZZ (IX1646)

Pin No.	Terminal Name	Input/output	Function
1	NC	-	Not used
2*	P32	Output	Key matrix output
3	P31	Output	Key matrix output
4	P30	Output	Key matrix output
5	P03/SI	Input	Key matrix input
6	P02/SO	Input	Key matrix input
7	P01/SCK	Input	Key matrix input
8	P63 (A-STP-I)	Input	IF count stop signal input
9	P62 (CE)	Output	CE output to PLL
10	P61 (DATA)	Output	DATA output to PLL
11	P60 (CLK)	Output	CLOCK output to PLL
12	P53 (C-REQ-I)	Input	IF count start signal input
13	P52 (STEREO)	Input	FM stereo signal input
14	P51 (SD)	Input	SD signal input
15	P50 (SYS-STP-I)	Input	System stop
16	P43 (C-STA-O)	Output	Count start output
17	P42 (MONO/ST)	Output	FM monaural/stereo signal output H: FM stereo L: FM monaural
18	P41 (MUTE)	Output	Muting signal output
19	P40	Output	LCD ON/OFF output
20*	X2	Output	Connect the ceramic resonator
21*	X1	Input	Connect the ceramic resonator
22	Vss	-	Ground
23	VLC3	Input	Power supply input for LCD
24	VLC2	Input	Power supply input for LCD
25	VLC1	Input	Power supply input for LCD
26	VDD	-	Connect to power supply
27*	COM3	Output	Not used. Open.
28	COM2	Output	Remote control signal output for LCD
29	COM1	Output	Remote control signal output for LCD
30	COM0	Output	Remote control signal output for LCD
31-54	S23-S0	Output	LCD segment output
55	INT1	Input	Remote control input
56	RESET	Input	Reset input
57	CL1	Input	System clock input
58	VDD	-	Connect to power supply
59	CL2	Output	System clock output
60	P13	Input	Key strobe input
61	P12	Input	Key strobe input
62	P11	Input	Key strobe input
63	$\overline{STP-MO-I}$	Input	Stop mode signal input
64	P33	Output	Key matrix output

In this unit, the terminal with asterisked mark (*) is (open) terminal which is not connected to the outside.

IC1 VHILR37632/-1 (LR37632)



IC201 RH-iX1646AFZZ (IX1646)

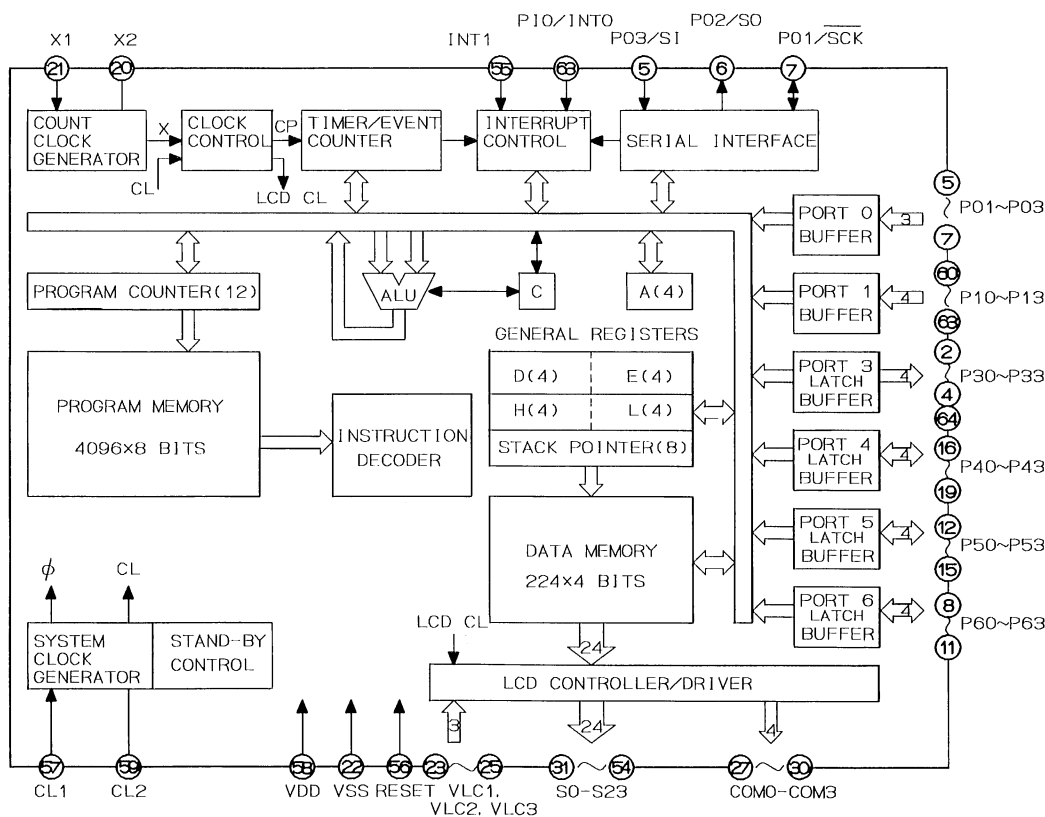


Figure 25 EQUIVALENT CIRCUIT (BLOCK DIAGRAM) OF IC

IC301 RH-IX1619AFZZ (IX1619)

Pin No.	Terminal Name	Input/output	Function
1	NC	—	Not used
2, 3	P32, P31	Output	Key strobe signal
4	P30	Output	Key strobe signal
5	P03/SI (DIN)	Input	Data input: connected to the pin 98 of IC1. Data is inputted according to SCK clock input when the pin 96 of IC1 is in high level.
6	P02/SO (DOU)	Output	Data output: connected to the pin 99 of IC1. Data is outputted when the pin 97 of IC1 is in high level.
7	P01/SCK	Output	Data output: clock signal necessary for data transfer is outputted.
8	P63 (R/W)	Output (R/W)	Data line switching signal
9	P62 (LANF)	Output	Laser power control
10	P61 (SDO)	Input	Remote control data
11	P60	Input	Timer control
12	P53 (CKI)	Output	Remote control clock
13, 14	P52, P51	Output	Tray motor. Open/close output
15	P50	Output	Muting control output
16	P43	Input	To sense whether switching is to CD or not.
17	P42	Input	Pickup IN detection input
18	P41	Input	Close tray switch input
19	P40	Input	Open tray switch input
20, 21	X1, X2	Input	Clock input
22	Vss	—	Ground
23-25	VLC3-VLC1	—	LCD power input terminal
26	VDD	—	Power terminal
27*	COM3	Output	No operation
28-30	COM2-COM0	Output	LCD segment signal output
31*	S23	Output	No operation
32-54	S22-S0	Output	LCD segment signal output terminal
55	INT1	Input	Data transfer request input
56	RESET	Input	Reset input
57	CL1	—	For clock generation: capacitor connecting terminal
58*	VDD	—	Power terminal
59	CL2	—	For clock generation: capacitor connecting terminal
60-62	P13-P11	Input	Key strobe signal
63	P10 (RDY)	Input	Remocon redy
64*	P33	Output	No operation

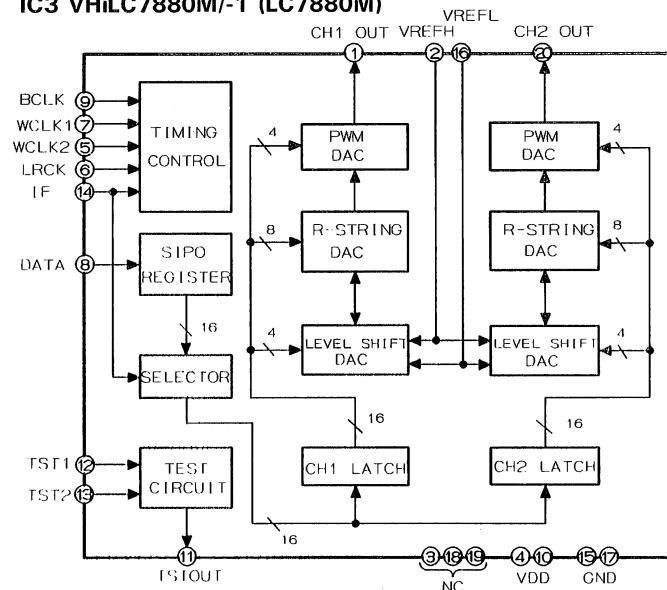
In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC3 VHILC7880M/-1 (LC7880M)

Pin No.	Terminal Name	Input/output	Function
1	CH1 OUT	Output	CH1 output terminal
2	Vref H	Input	Reference voltage "H" input
3	NC	—	Not used
4	Vdd	—	Power terminal +5 V
5	WCLK2	Input	Word clock 2 input terminal: internal signal to latch digital audio data (CH1 data) is generated by using fall of WCLK2 when IF is in low level.
6	LRCK	Input	LR clock 2 input terminal: CH1 and CH2 of input digital audio data are indicated.
7	WCLK1	Input	Word clock 1 input terminal: internal signal to latch the digital audio data (CH2 data) is generated by using fall of WCLK1 when IF is in low level.
8	DATA	Input	Digital audio data input terminal
9	BCLK	—	Bit clock terminal
10	Vdd	—	Power terminal, +5 V
11*	TST OUT	Output	Output terminal for test: usually open
12, 13	TST1, TST2	Input	Input terminal for test: usually used for grounding
14	IF	—	Interface switching terminal
15	GND	—	Ground
16	Vref L	Input	Reference voltage "L" input
17	GND	—	Ground
18, 19	NC	—	Not used
20	CH2 OUT	Output	CH2 output terminal

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC3 VHILC7880M/-1 (LC7880M)



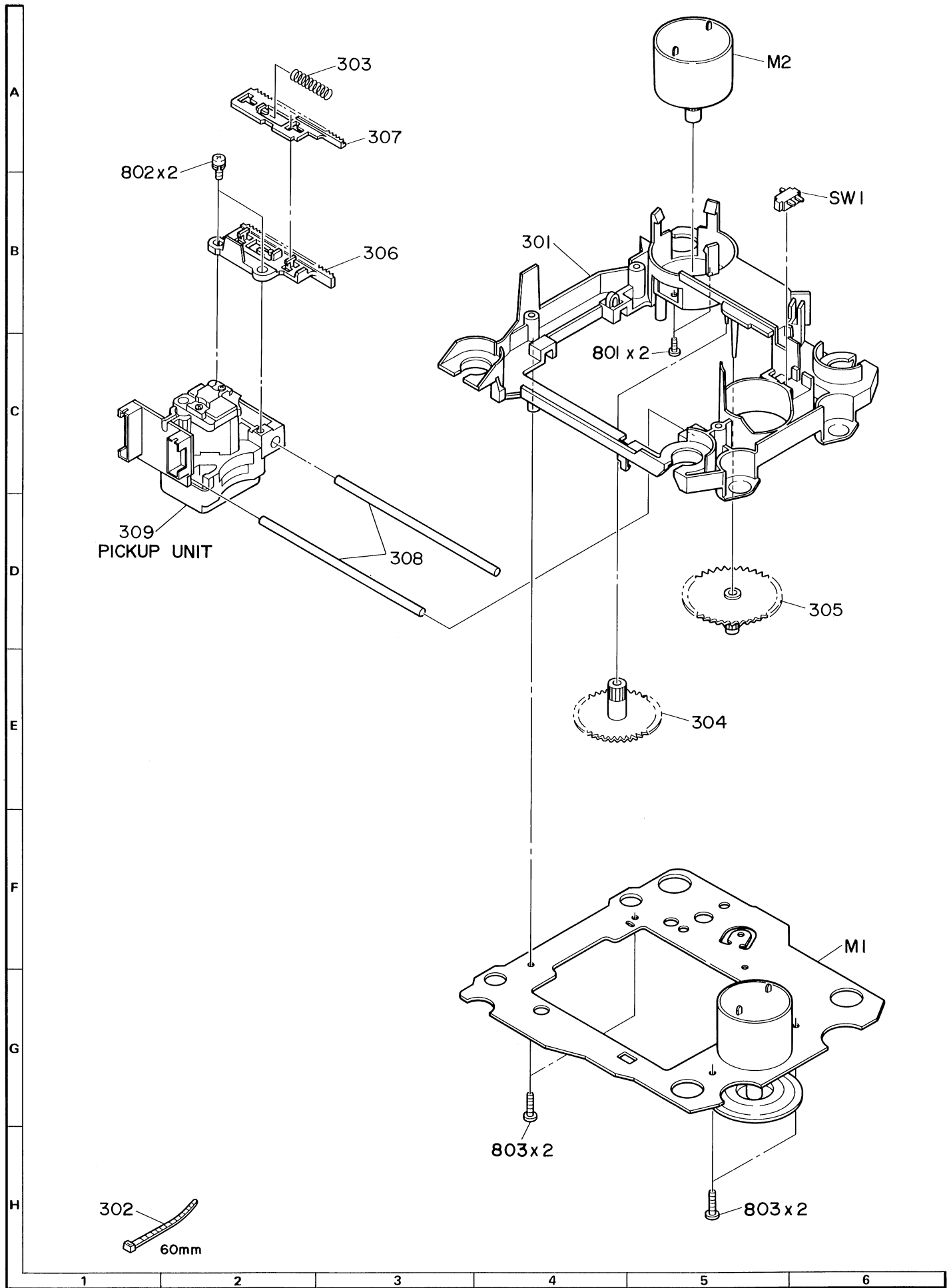


Figure 27 CD MECHANISM EXPLODED VIEW

TOP VIEW

TAPE 1

A
B
C
D
E
F
G
H

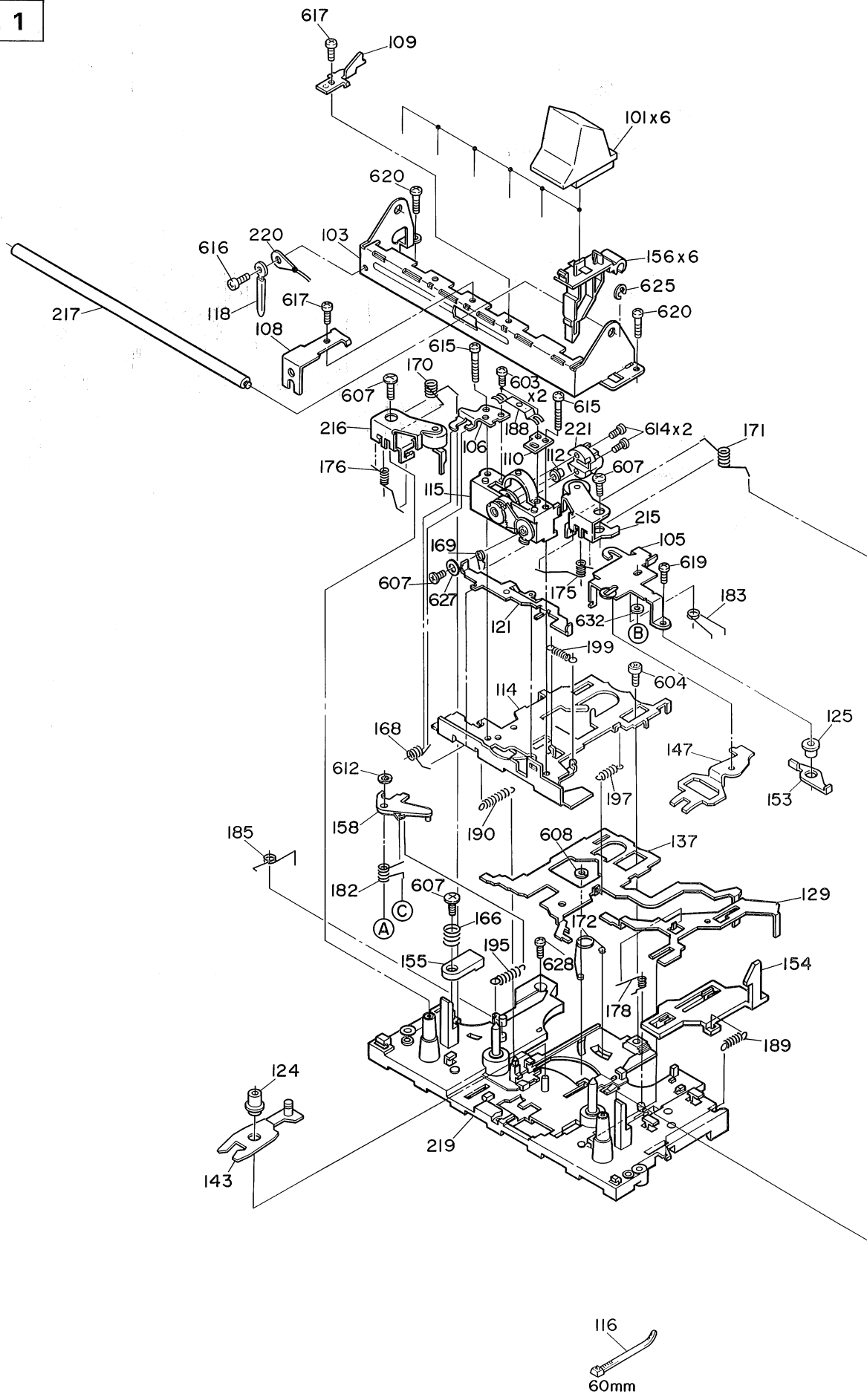


Figure 28 TAPE MECHANISM EXPLODED VIEW (1/4)

BOTTOM VIEW

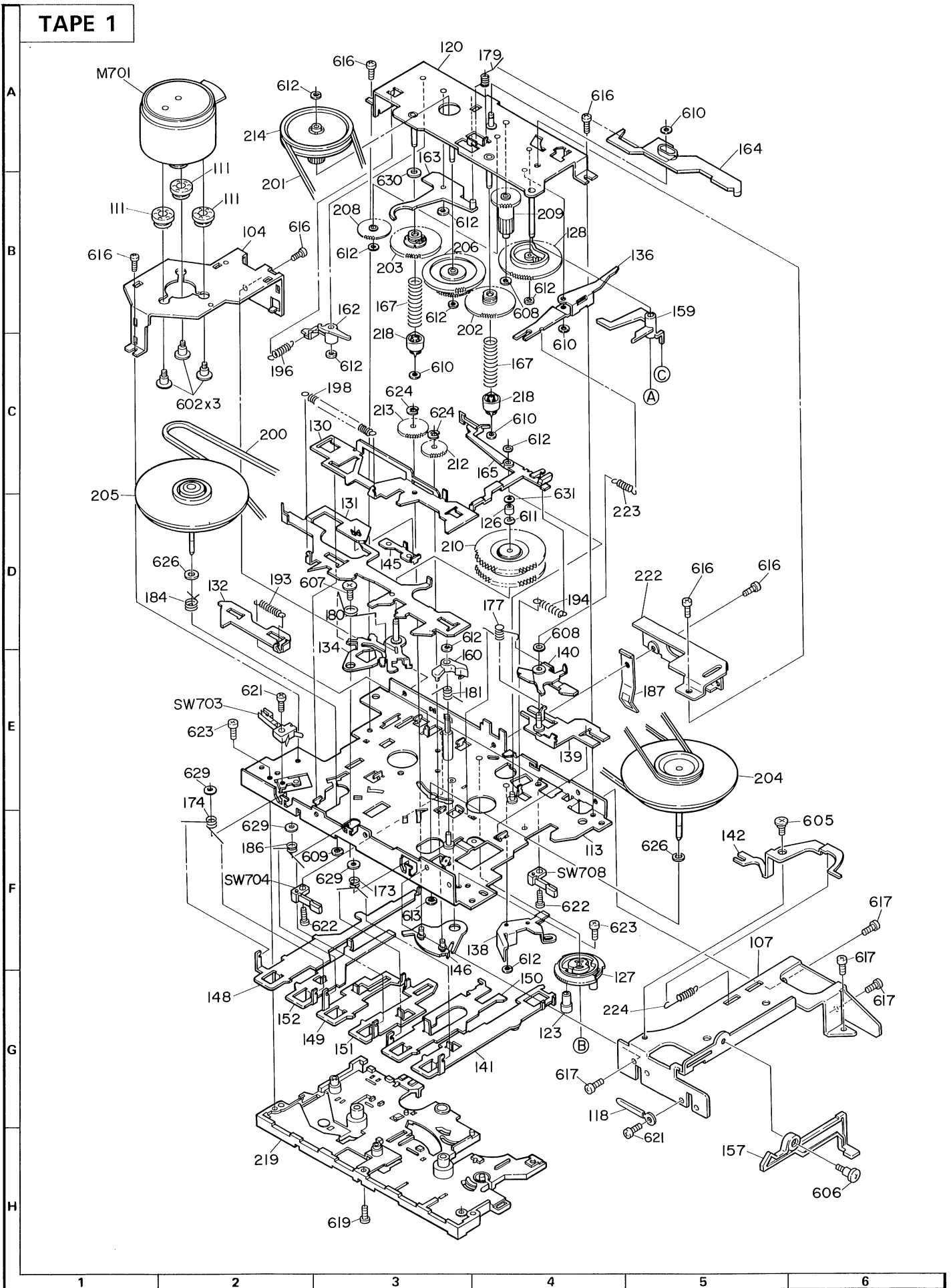


Figure 29 TAPE MECHANISM EXPLODED VIEW (2/4)

TOP VIEW

TAPE 2

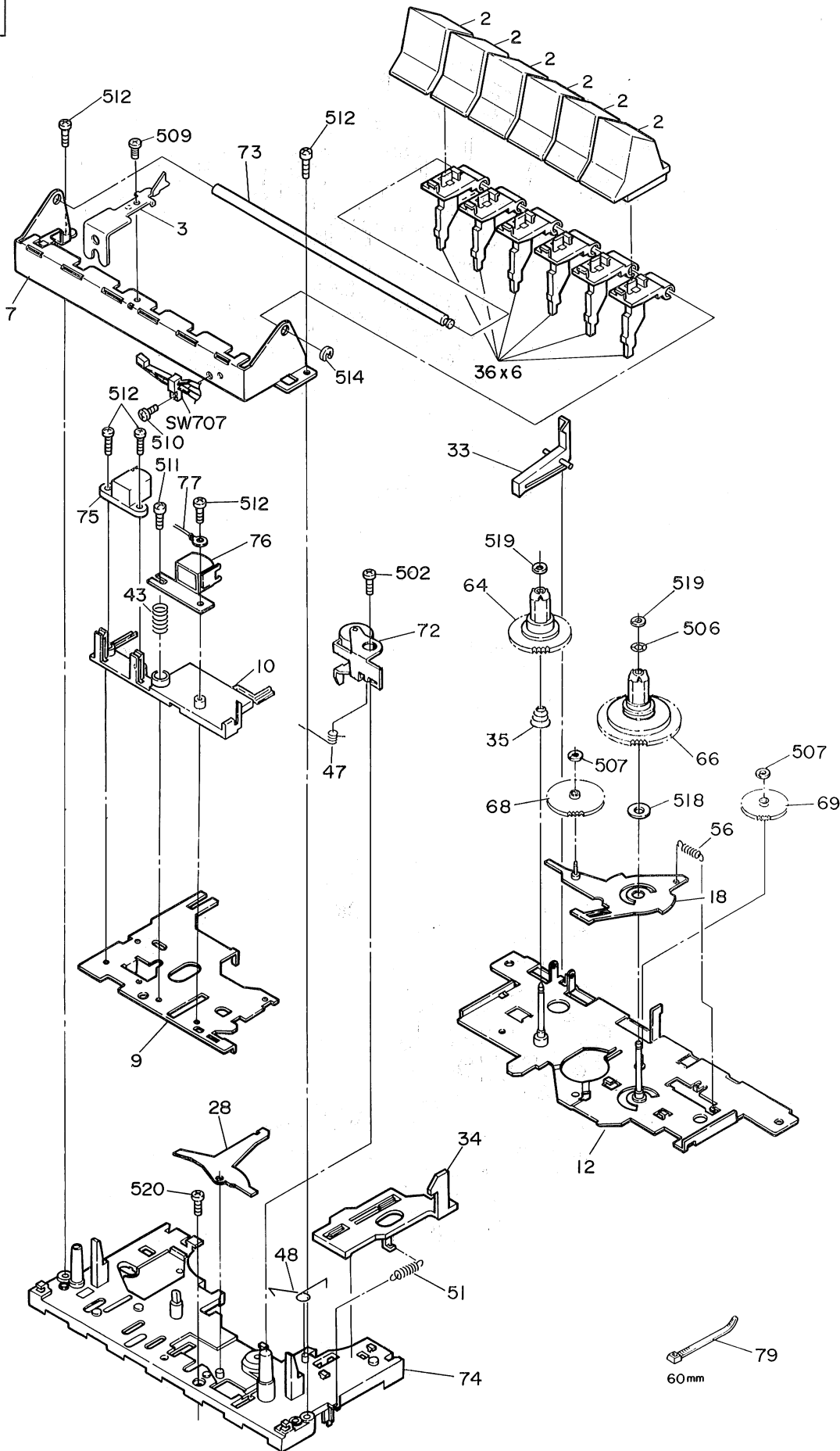


Figure 30 TAPE MECHANISM EXPLODED VIEW (3/4)

BOTTOM VIEW

TAPE 2

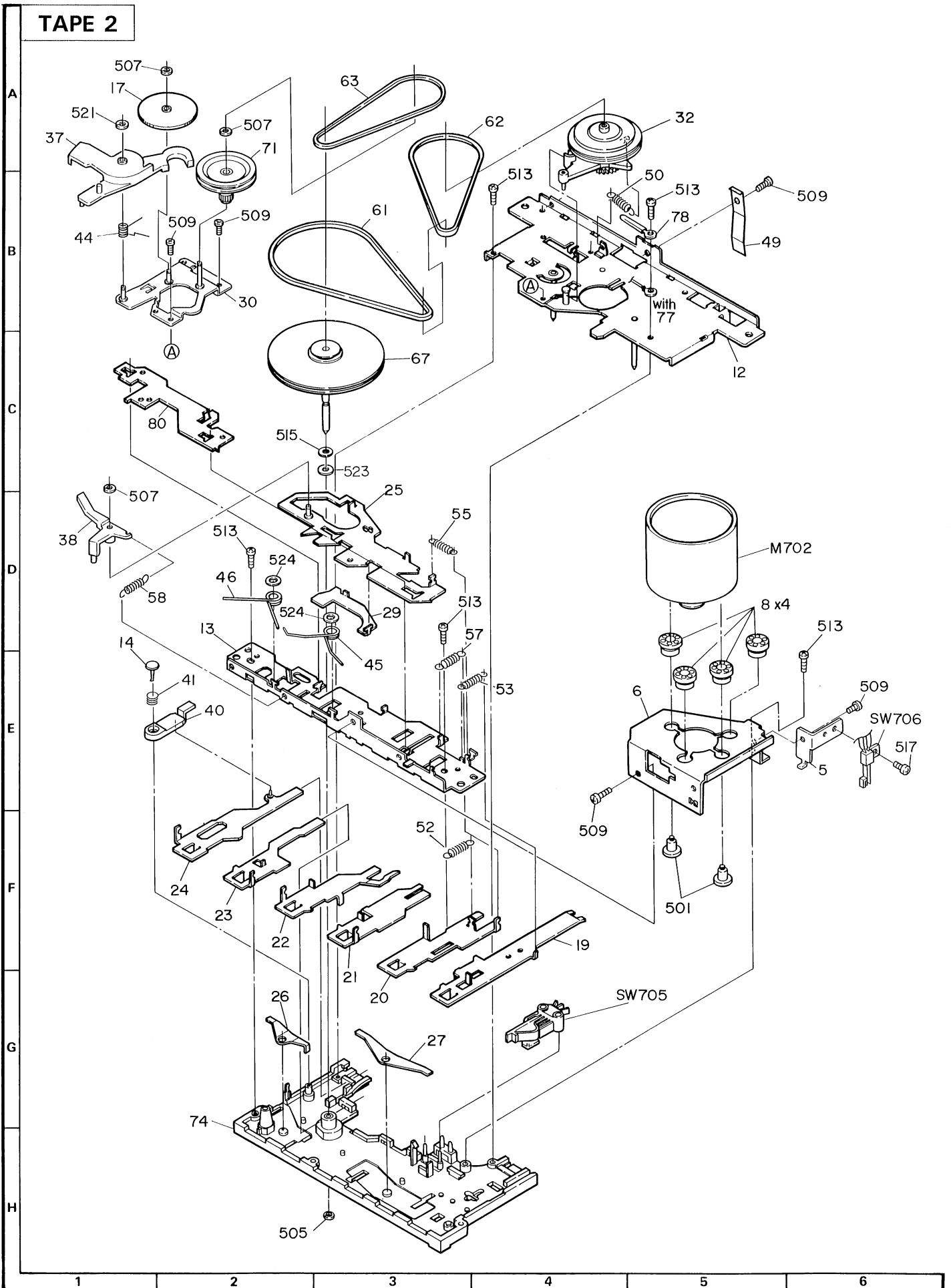


Figure 31 TAPE MECHANISM EXPLODED VIEW (4/4)

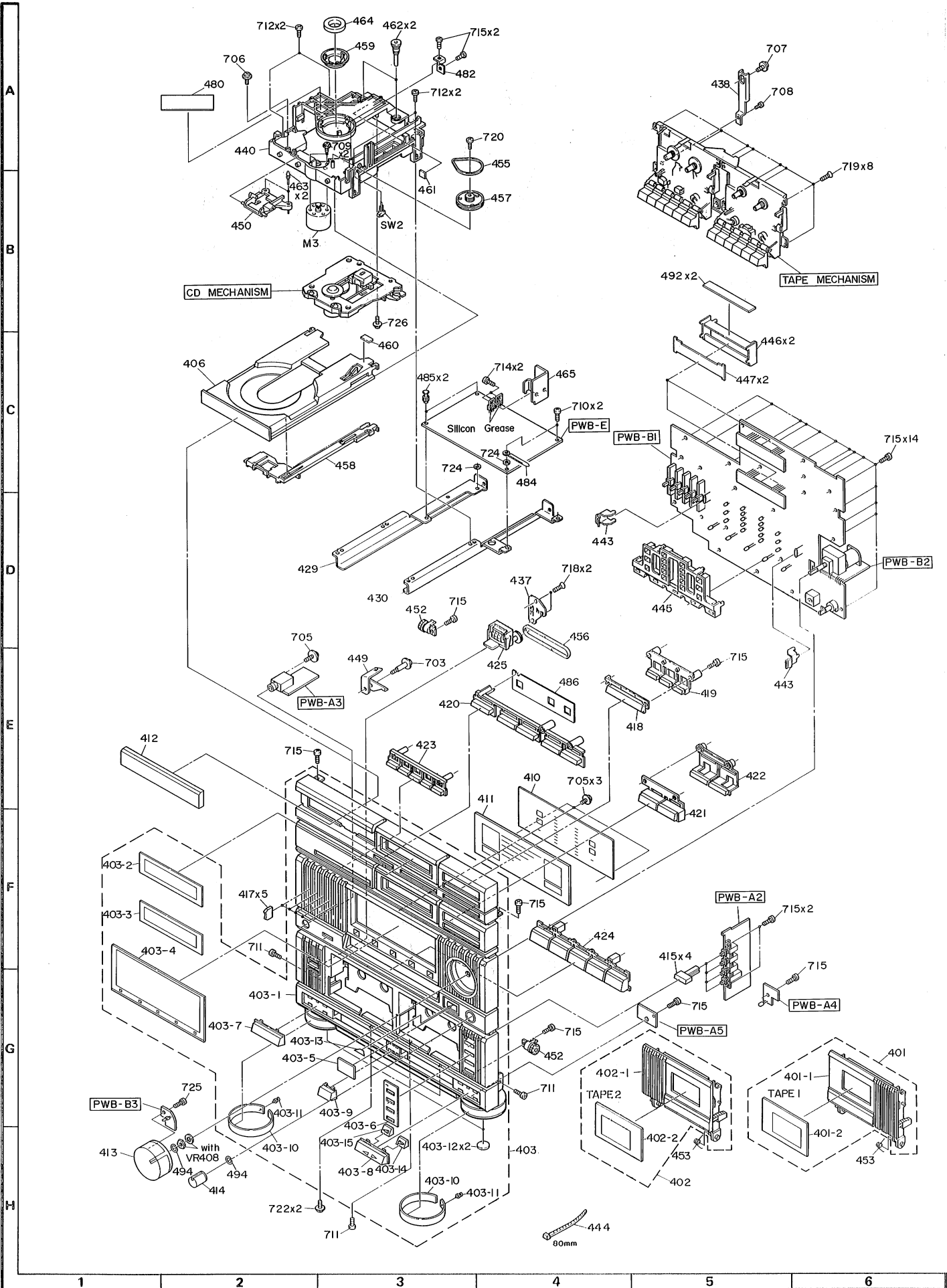


Figure 32 CABINET EXPLODED VIEW (1/2)

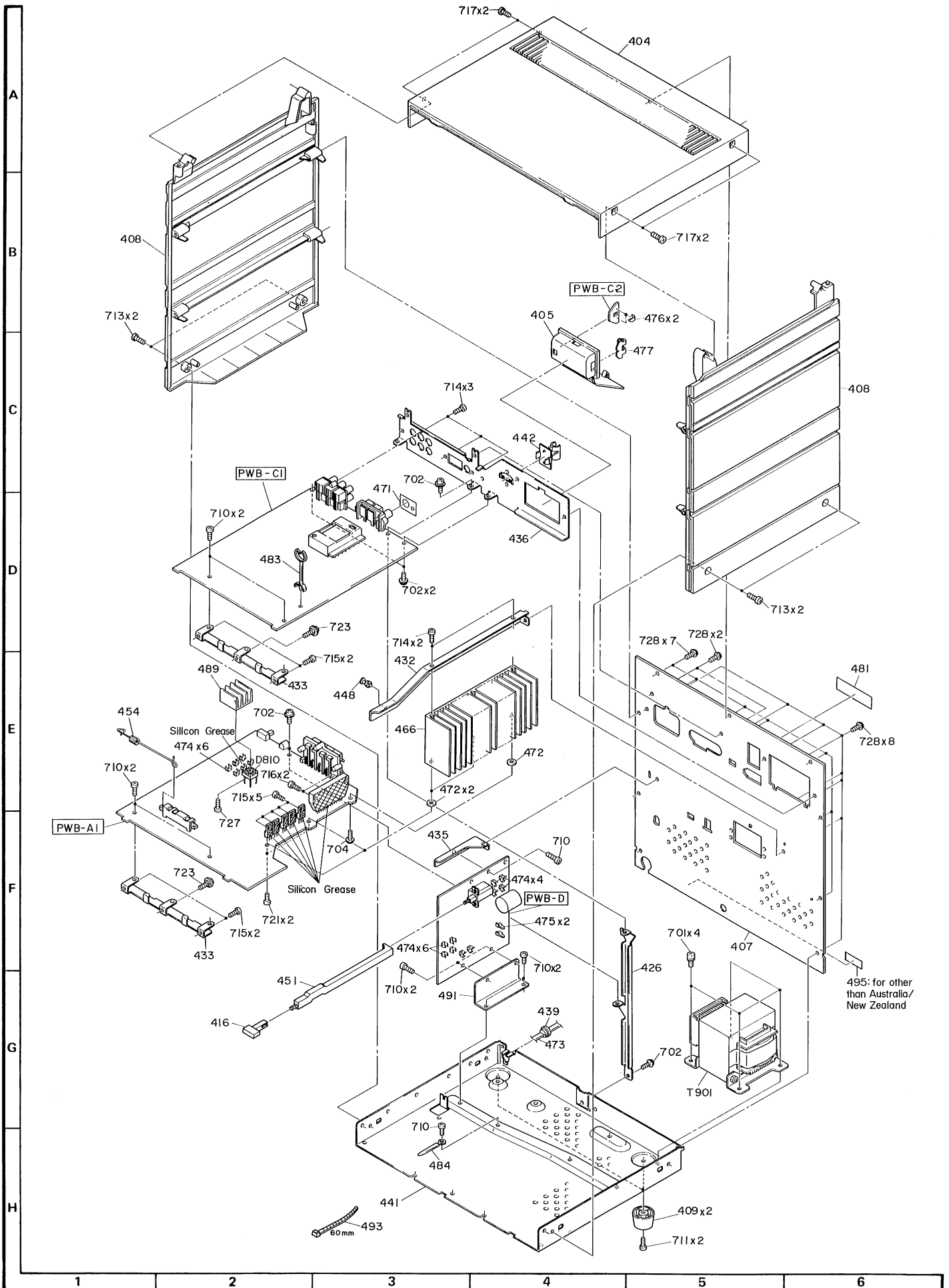


Figure 33 CABINET EXPLODED VIEW (2/2)

NOTES ON SCHEMATIC DIAGRAM

- **Resistor:**
To differentiate the units of resistors, such symbol as K and M are used: the symbol K means 1000 ohm and the symbol M means 1000 kohm and the resistor without any symbol is ohm-type resistor. Besides, the one with "Fusible" is a fuse type.
- **Capacitor:**
To indicate the unit of capacitor, a symbol P is used: this symbol P means micro-micro-farad and the unit of the capacitor without such a symbol is microfarad. As to electrolytic capacitor, the expression "capacitance/withstand voltage" is used.
(CH), (UJ): Temperature compensation

- (ML): Mylar type
(P.P.): Polypropylene type
- The indicated voltage in each section is the one measured by Digital Multimeter between such a section and the chassis with no signal given.
- Schematic diagram and Wiring Side of P.W.Board for this model are subject to change for improvement without prior notice.
- Parts marked with "△" () are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

REF.NO.	DESCRIPTION	POSITION
SW1	Pickup In	ON-OFF
SW2	Disc Holder	OPEN-CLOSE
SW201	Tuning Up, Tuner	ON-OFF
SW202	Tuning Down, Tuner	ON-OFF
SW203	LW, Tuner	ON-OFF
SW204	MW, Tuner	ON-OFF
SW205	FM, Tuner	ON-OFF
SW206	FM Mode, Tuner	ON-OFF
SW207	Preset Up, Tuner	ON-OFF
SW208	Preset Down, Tuner	ON-OFF
SW209	Memory, Tuner	ON-OFF
SW210	Auto Scan, Tuner	ON-OFF
SW280-A	Dubbing Speed	HIGH-NORMAL
SW280-B	Dolby NR	ON-OFF
SW280-C	Tape 1	CrO2-NORMAL
SW280-D	Tape 2	CrO2-NORMAL
SW301	Play, CD	ON-OFF

REF.NO.	DESCRIPTION	POSITION
SW302	Pause, CD	ON-OFF
SW303	Cue/APSS Up, CD	ON-OFF
SW304	Review/APSS Down, CD	ON-OFF
SW305	Stop/Clear, CD	ON-OFF
SW306	Memory, CD	ON-OFF
SW307	Call, CD	ON-OFF
SW308	Repeat, CD	ON-OFF
SW309	Open/Close, CD	ON-OFF
SW401	Phono, Function	ON-OFF
SW402	CD, Function	ON-OFF
SW403	Tuner, Function	ON-OFF
SW404	Tape, Function	ON-OFF
SW405	Aux, Function	ON-OFF
SW601	Span Selector	FM50 kHz AM 9 kHz FM100 kHz AM 10 kHz

REF.NO.	DESCRIPTION	POSITION
SW602	Reset	ON-OFF
SW701	Rec./P.B. Selector	REC-PB
SW702	Beat Cancel	A-B
SW703	Motor, Tape 1	ON-OFF
SW704	Mute, Tape 1	ON-OFF
SW705	Motor, Tape 2	ON-OFF
SW706	Mute, Tape 2	ON-OFF
SW707	Bias, Tape 2	ON-OFF
SW708	Tape Direction	ON-OFF
SW901	Power	ON-OFF
SW902	Voltage Selector	110 V- 127 V- 220 V- 240 V

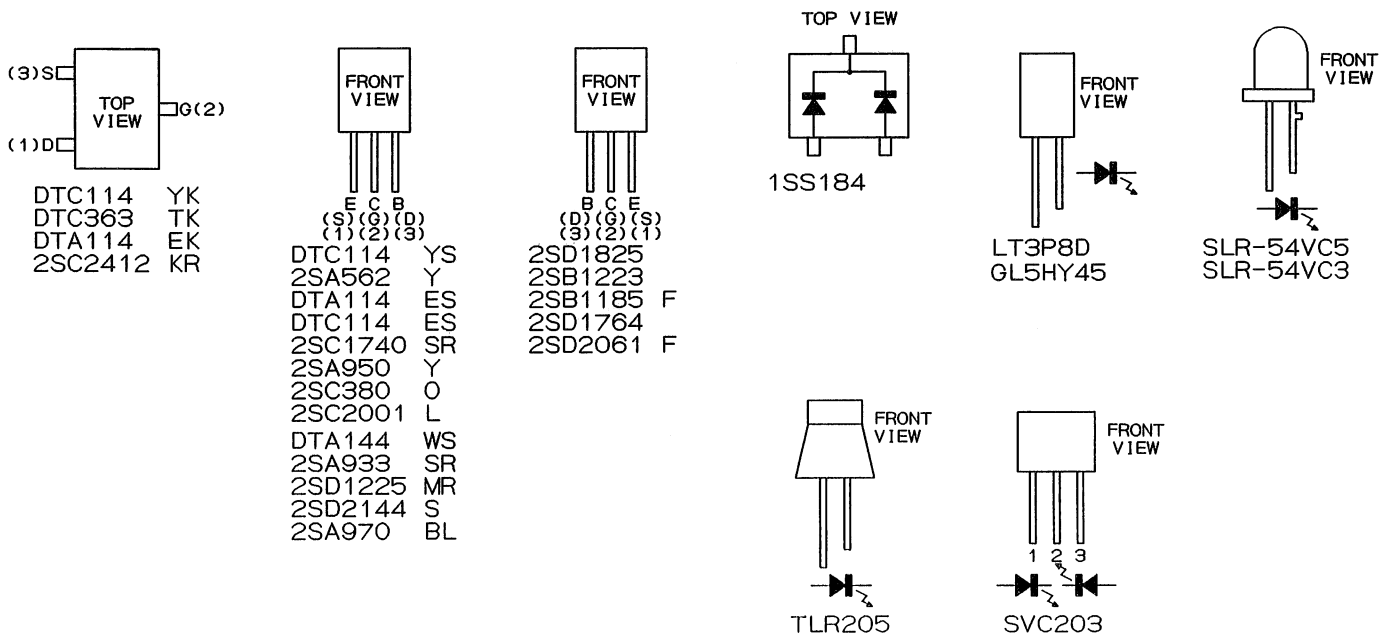


Figure 34 TYPES OF TRANSISTOR AND LED

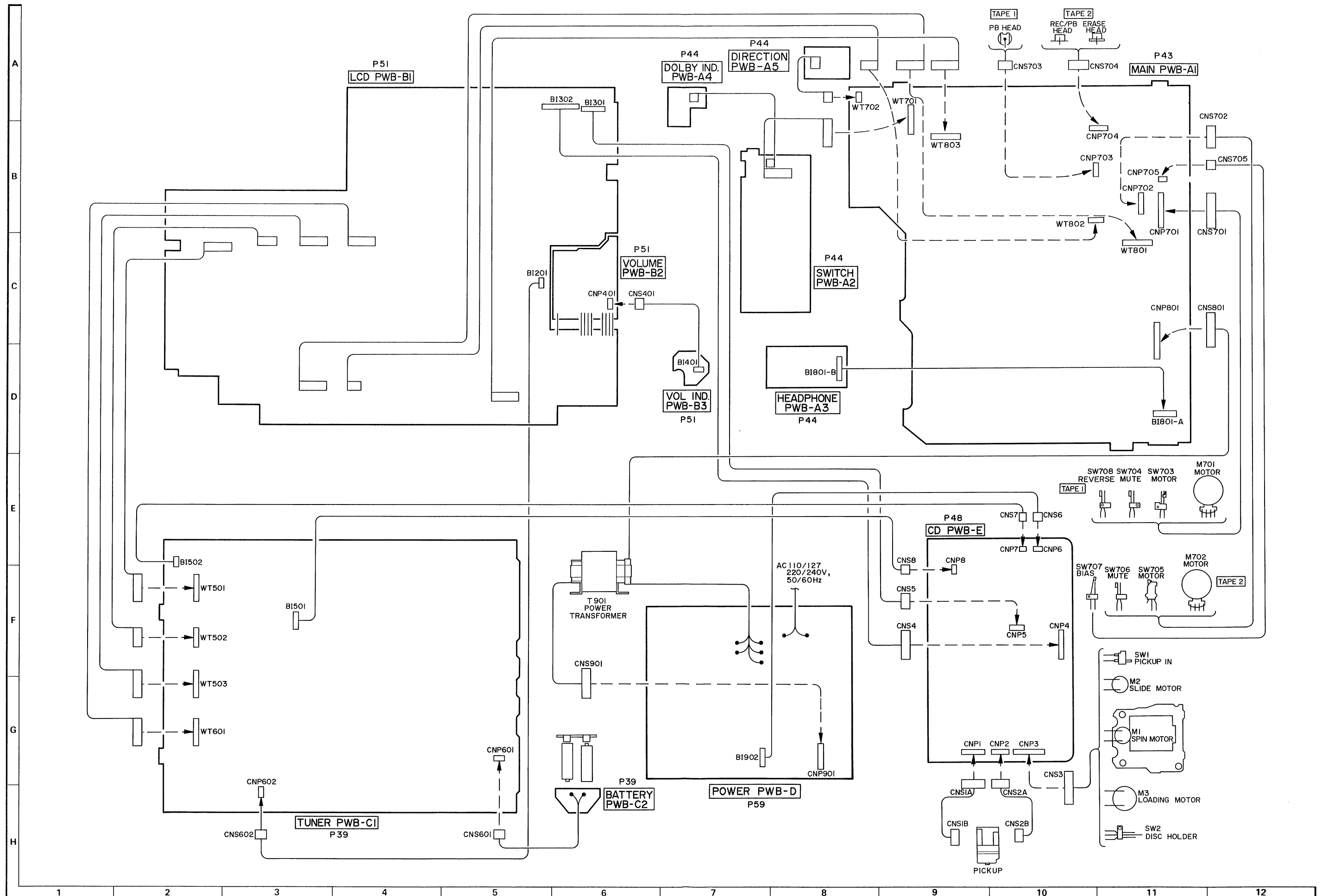
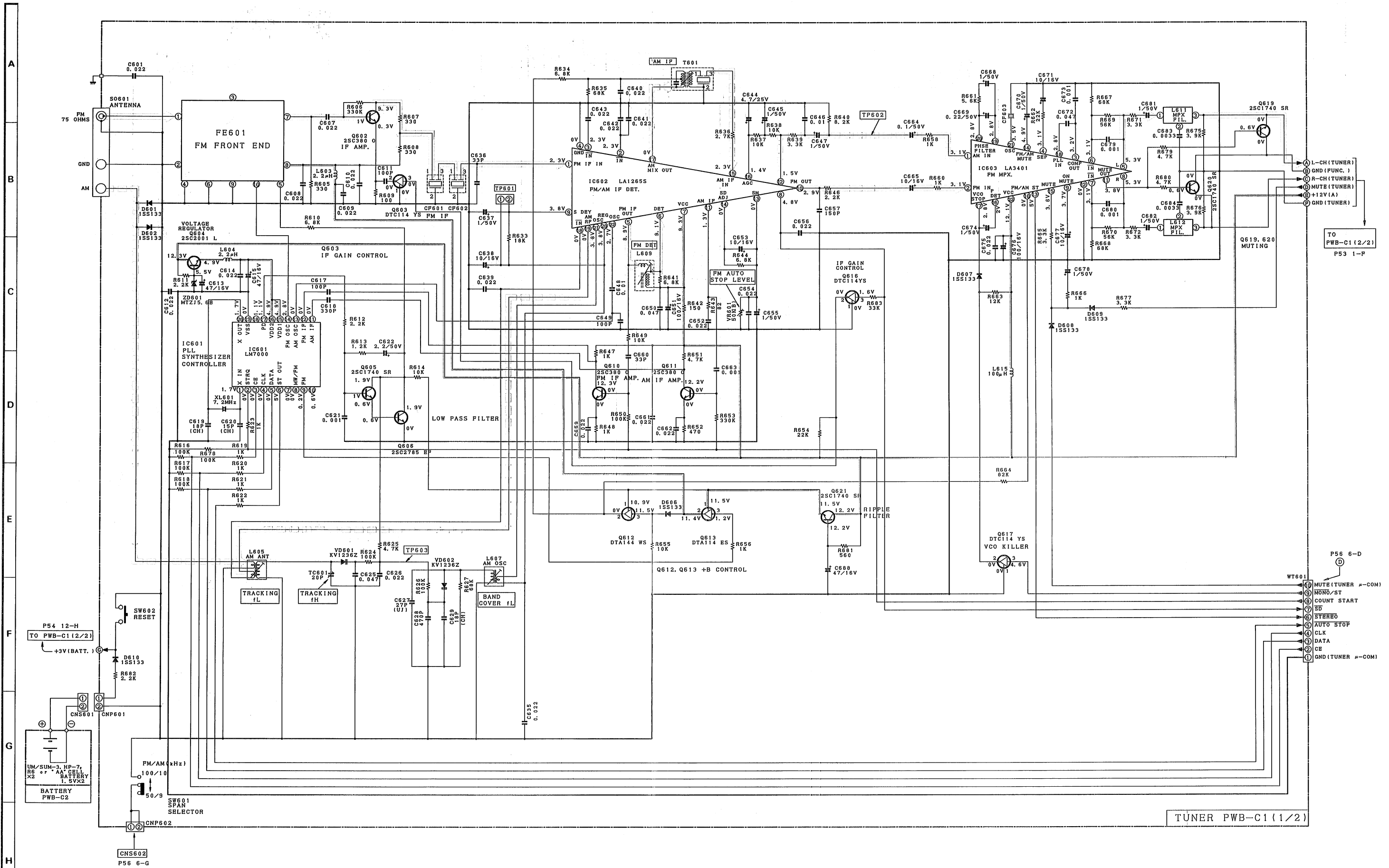


Figure 35 PWB WIRING DIAGRAM



NOTES ON SCHEMATIC DIAGRAM can be found on page 34.

Figure 37 SCHEMATIC DIAGRAM (1/8)

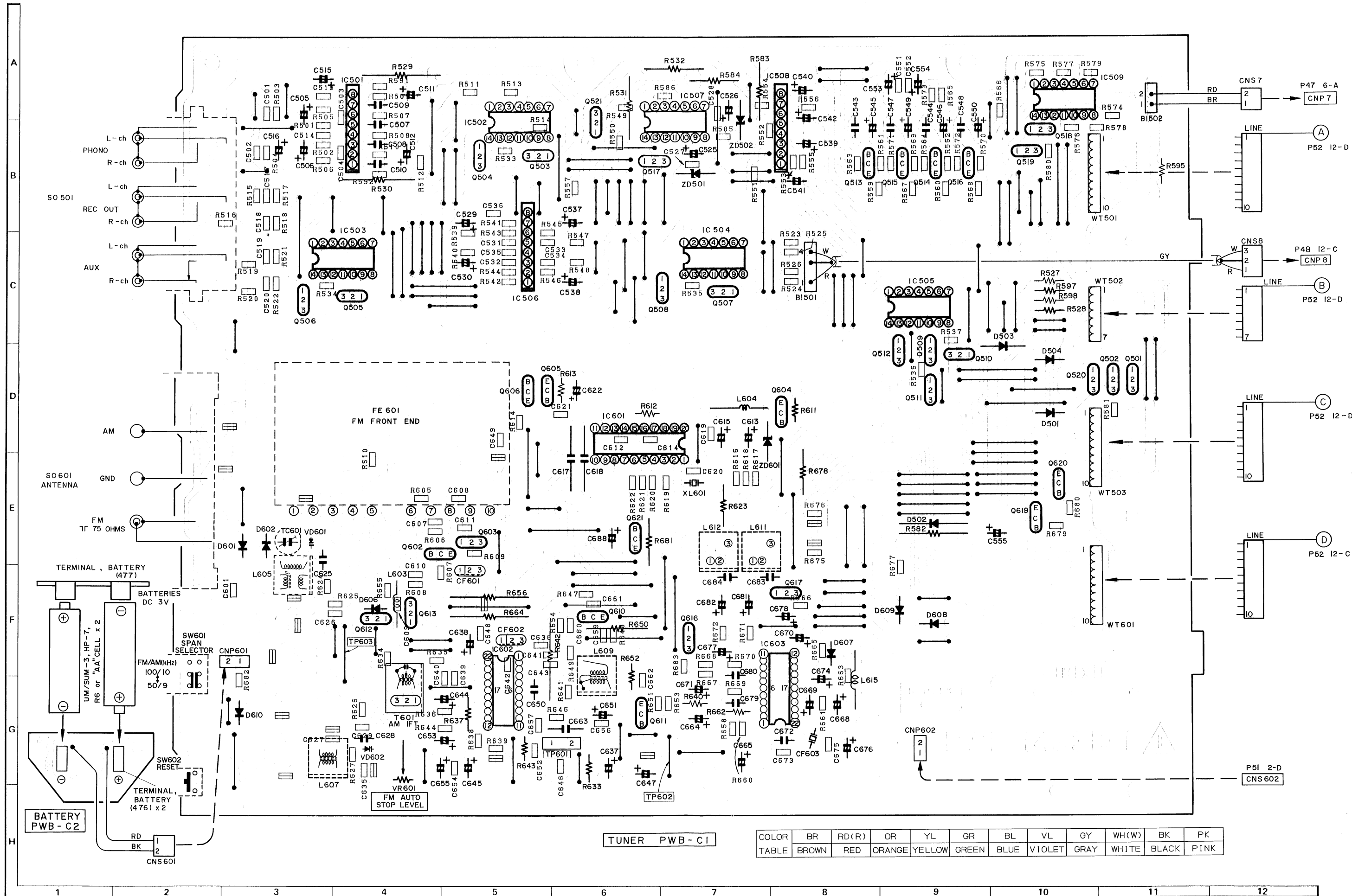
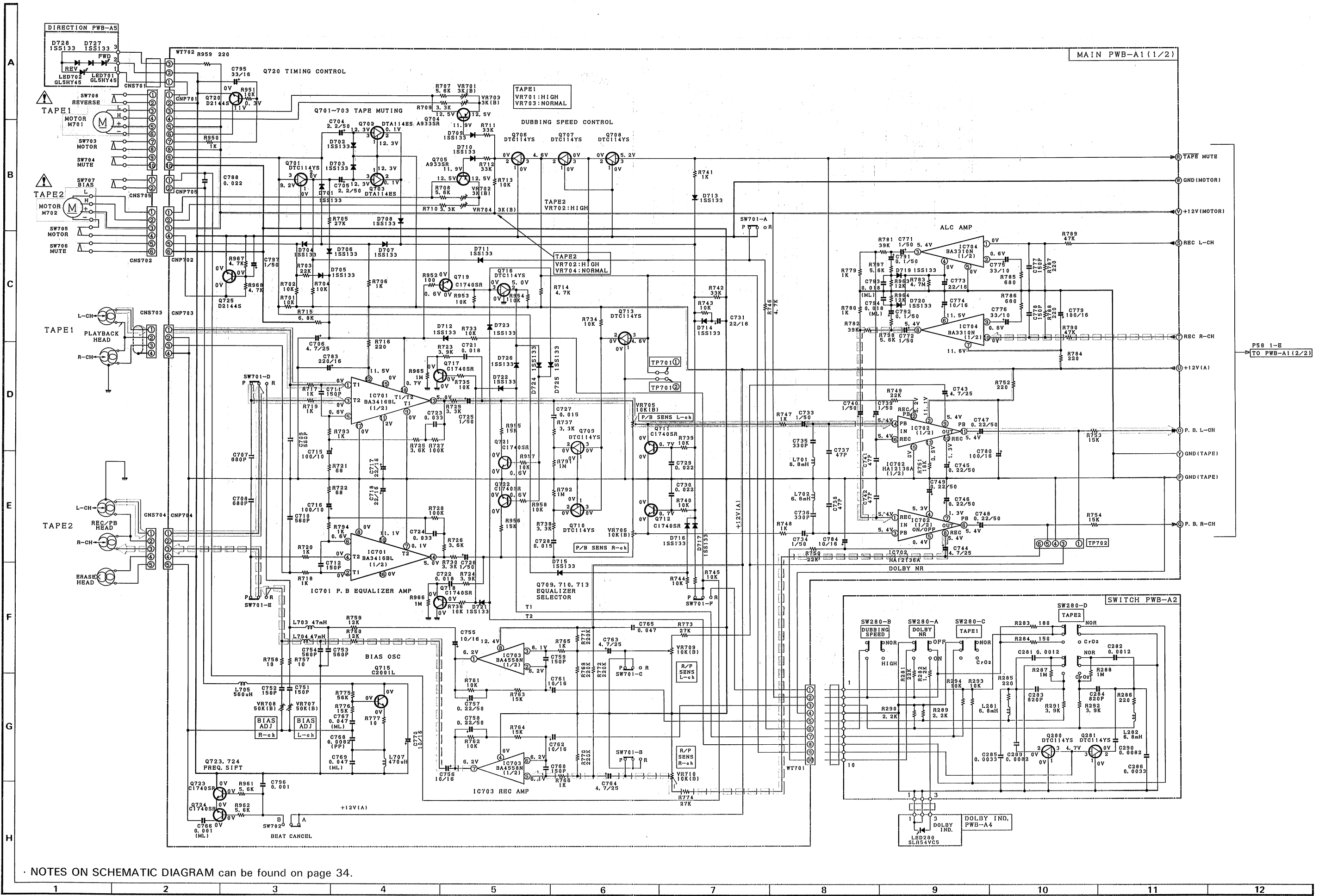
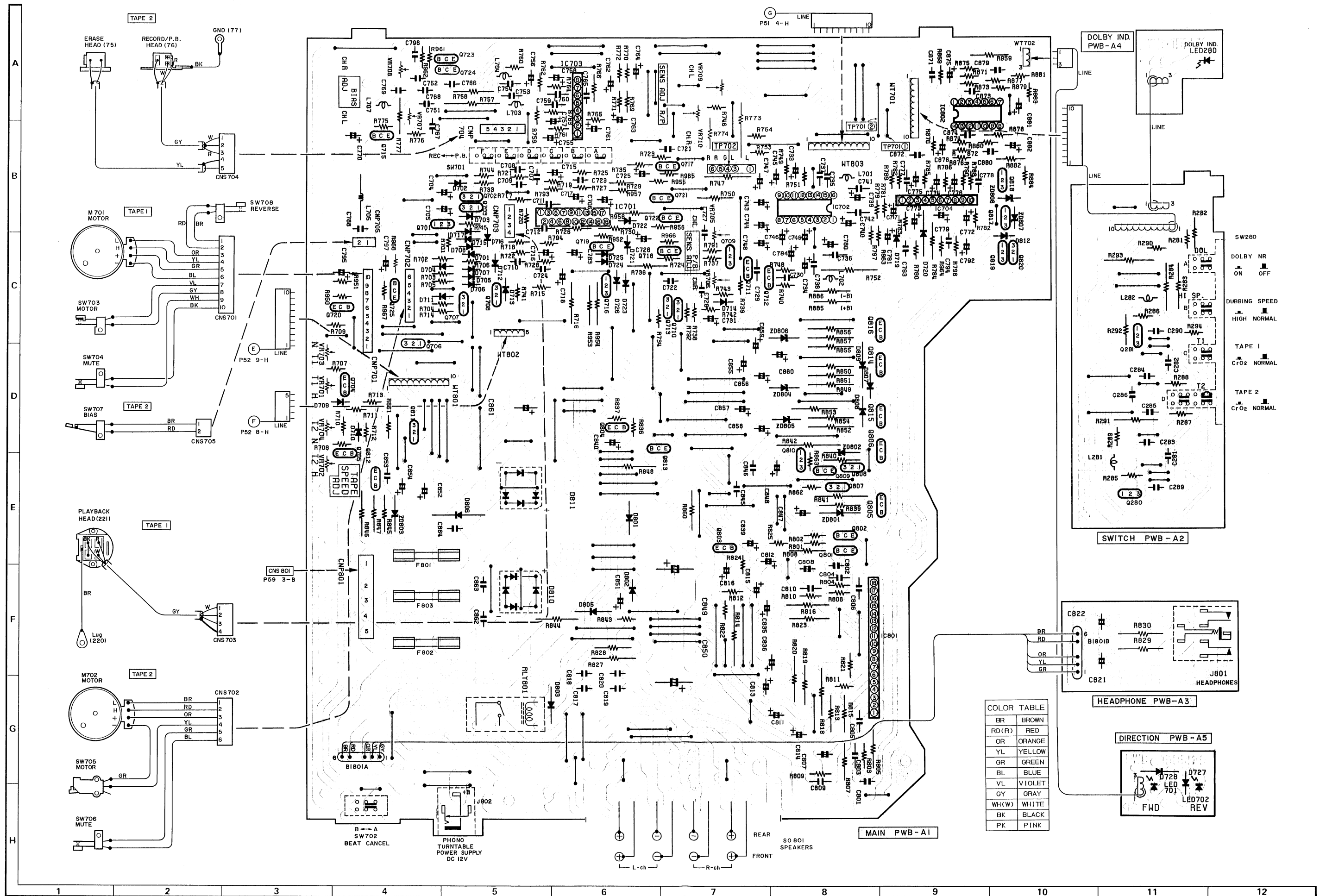


Figure 39 WIRING SIDE OF P.W.BOARD (1/5)



NOTES ON SCHEMATIC DIAGRAM can be found on page 34.

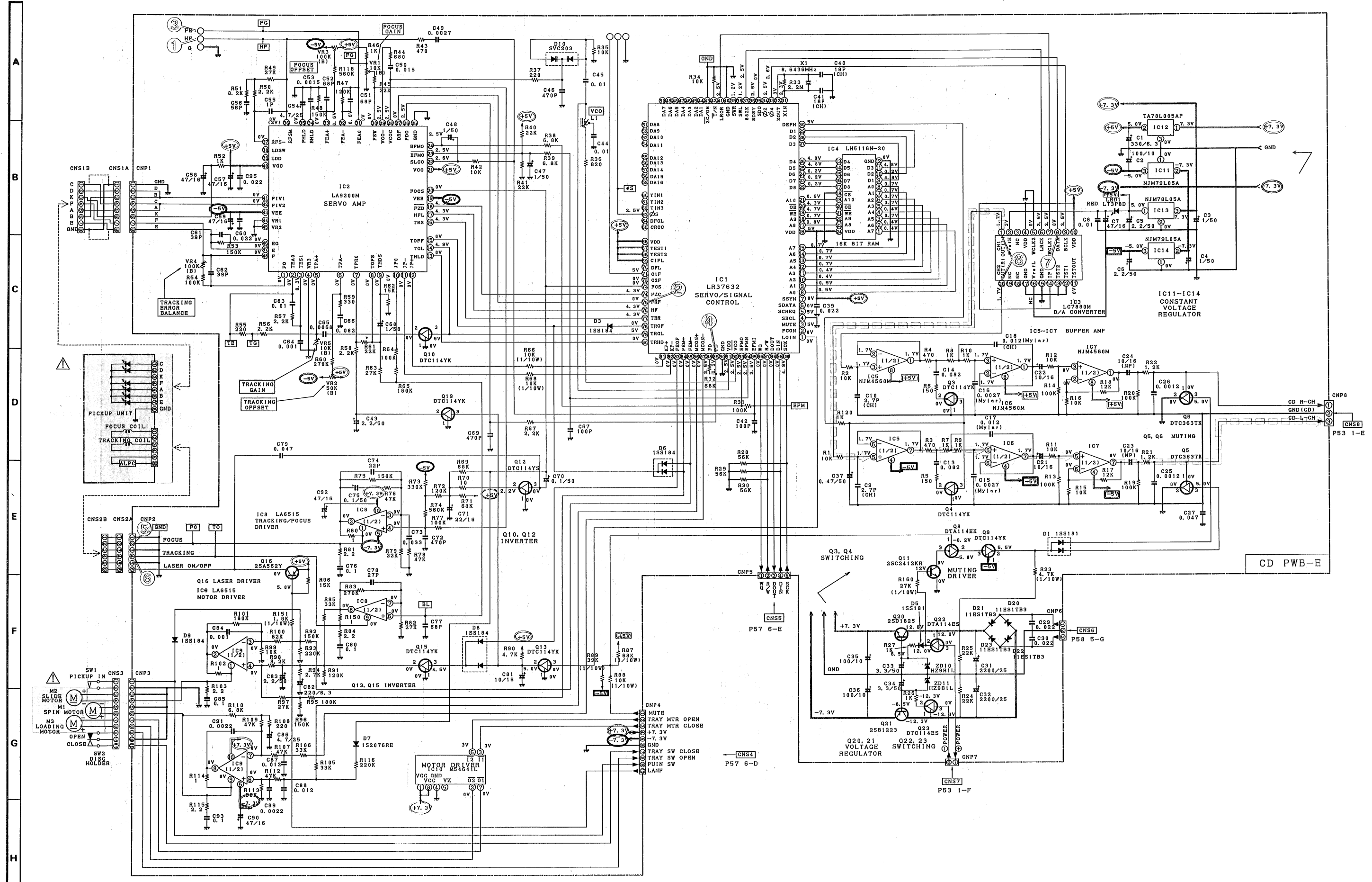
Figure 41 SCHEMATIC DIAGRAM (2/8)



COLOR TABLE

BR	BROWN
RD (R)	RED
OR	ORANGE
YL	YELLOW
GR	GREEN
BL	BLUE
VL	VIOLET
GY	GRAY
WH(W)	WHITE
BK	BLACK
PK	PINK

Figure 43 WIRING SIDE OF P.W.BOARD (2/5)



NOTES ON SCHEMATIC DIAGRAM can be found on page :

The numbers ① to ⑧ are waveform numbers shown in page 55.

Figure 45 SCHEMATIC DIAGRAM (3/8)

The numbers 1 to 3 are waveform numbers shown in page 55.

COLOR	BR	RD(R)	OR	YL	GR	BL	VL	GY	WH(W)	BK	PK
TABLE	BROWN	RED	ORANGE	YELLOW	GREEN	BLUE	VIOLET	GRAY	WHITE	BLACK	PINK

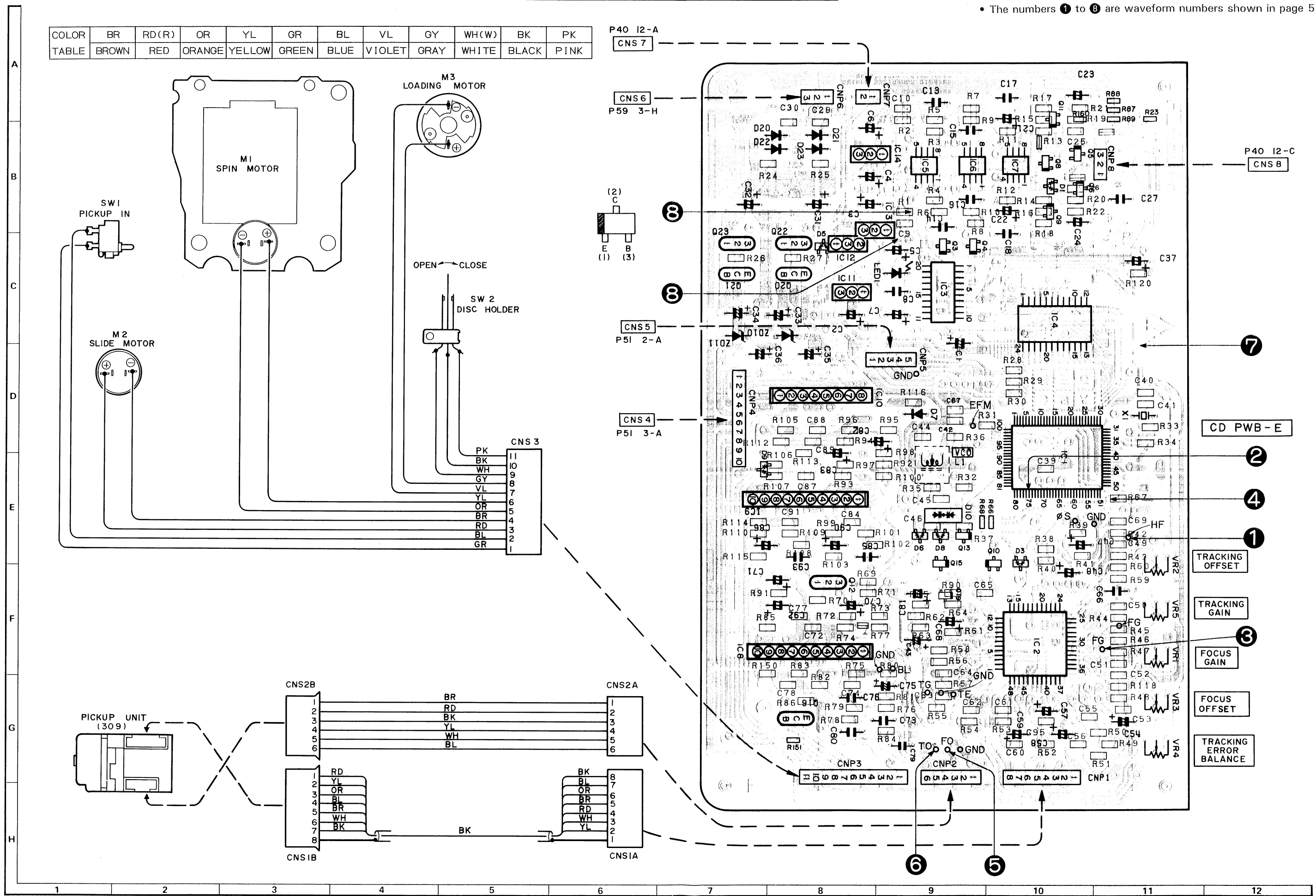
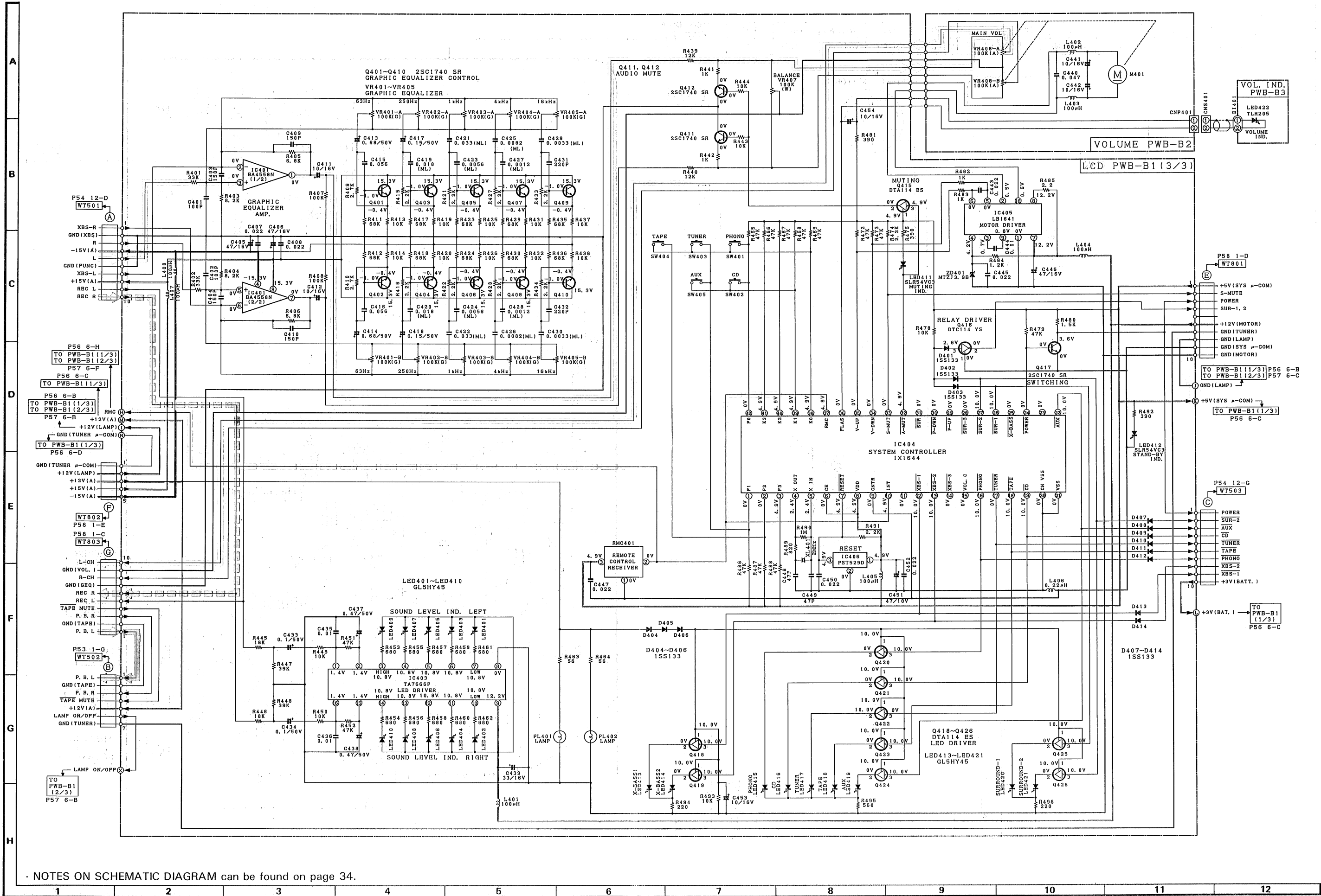


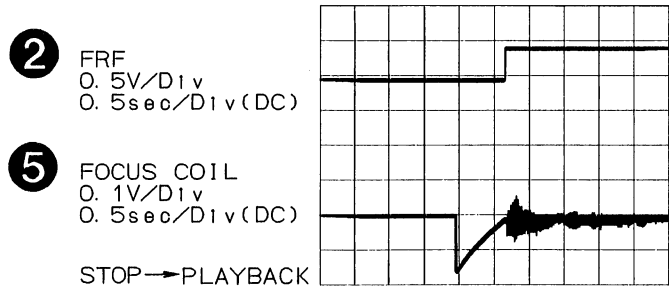
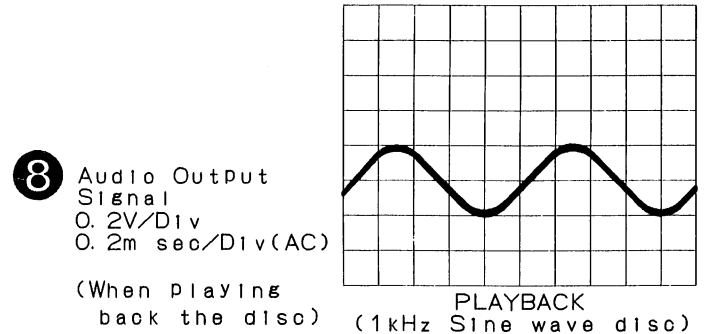
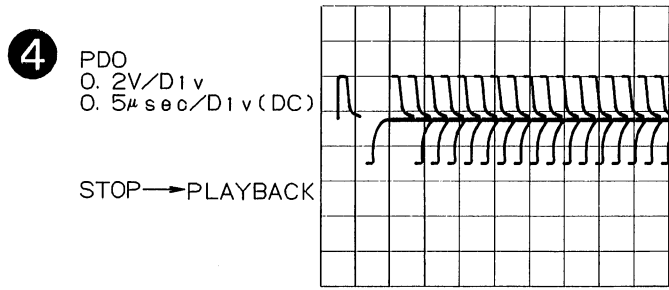
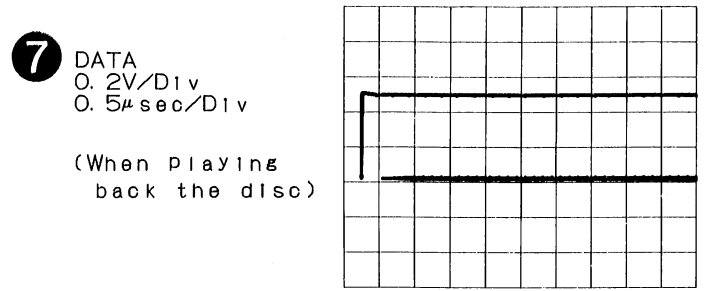
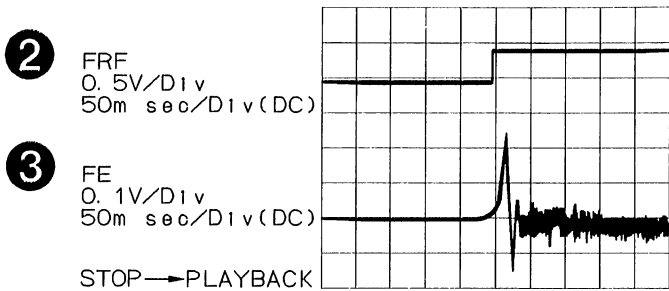
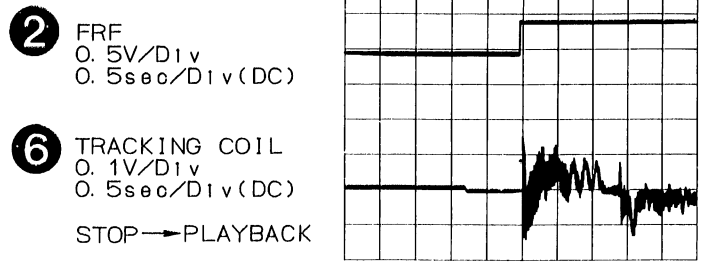
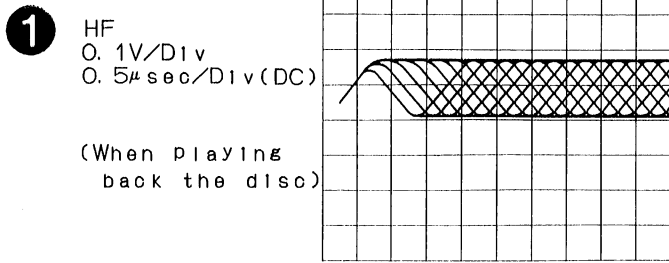
Figure 47 WIRING SIDE OF P.W.BOARD (3/5)



NOTES ON SCHEMATIC DIAGRAM can be found on page 34.

Figure 49 SCHEMATIC DIAGRAM (4/8)

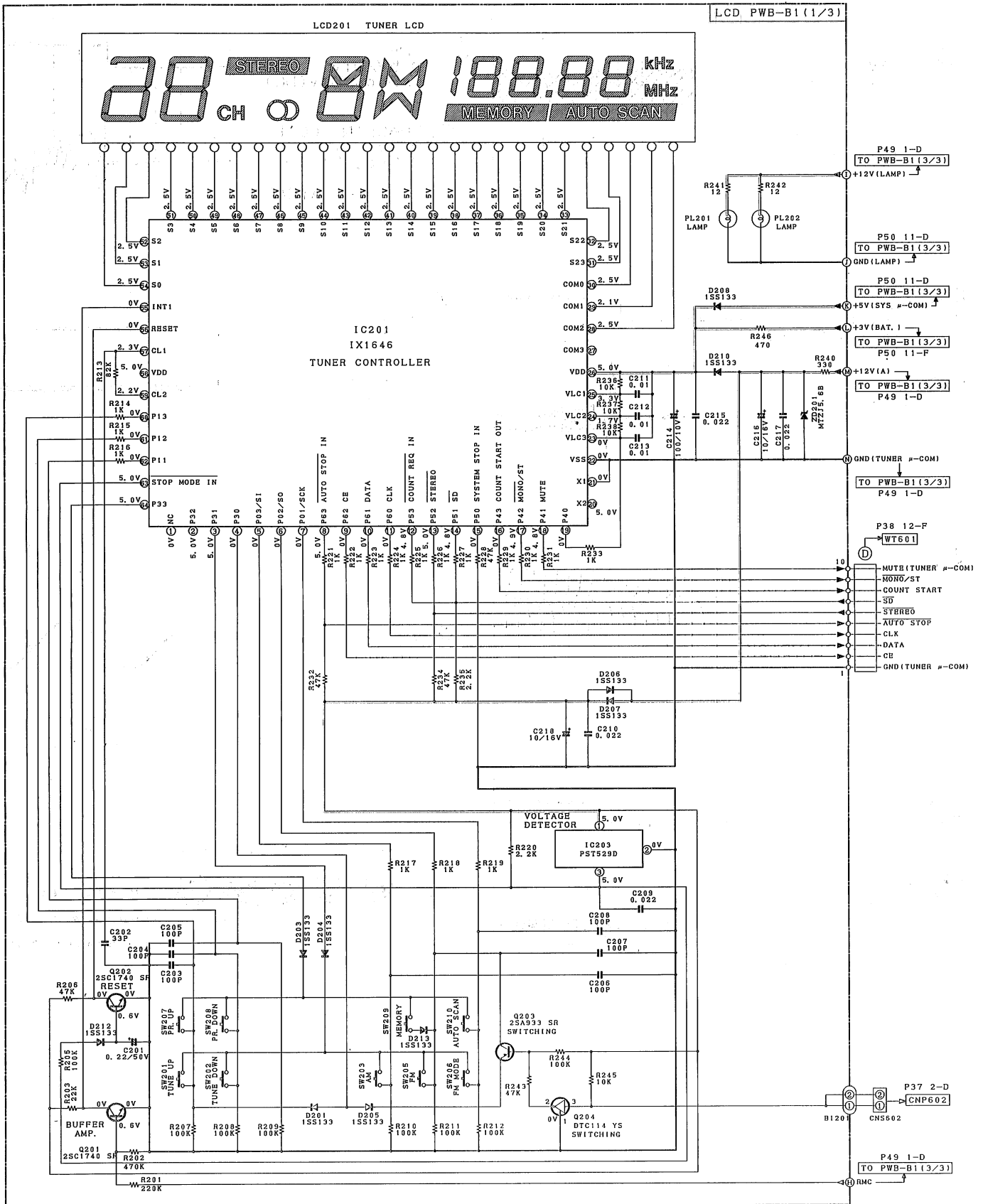
Wave forms CD Circuit



NOTE:

1. Use 10:1 Probe to connect.
2. **2** **3** **4** **5** **6** The storage oscilloscope was used for measurement.

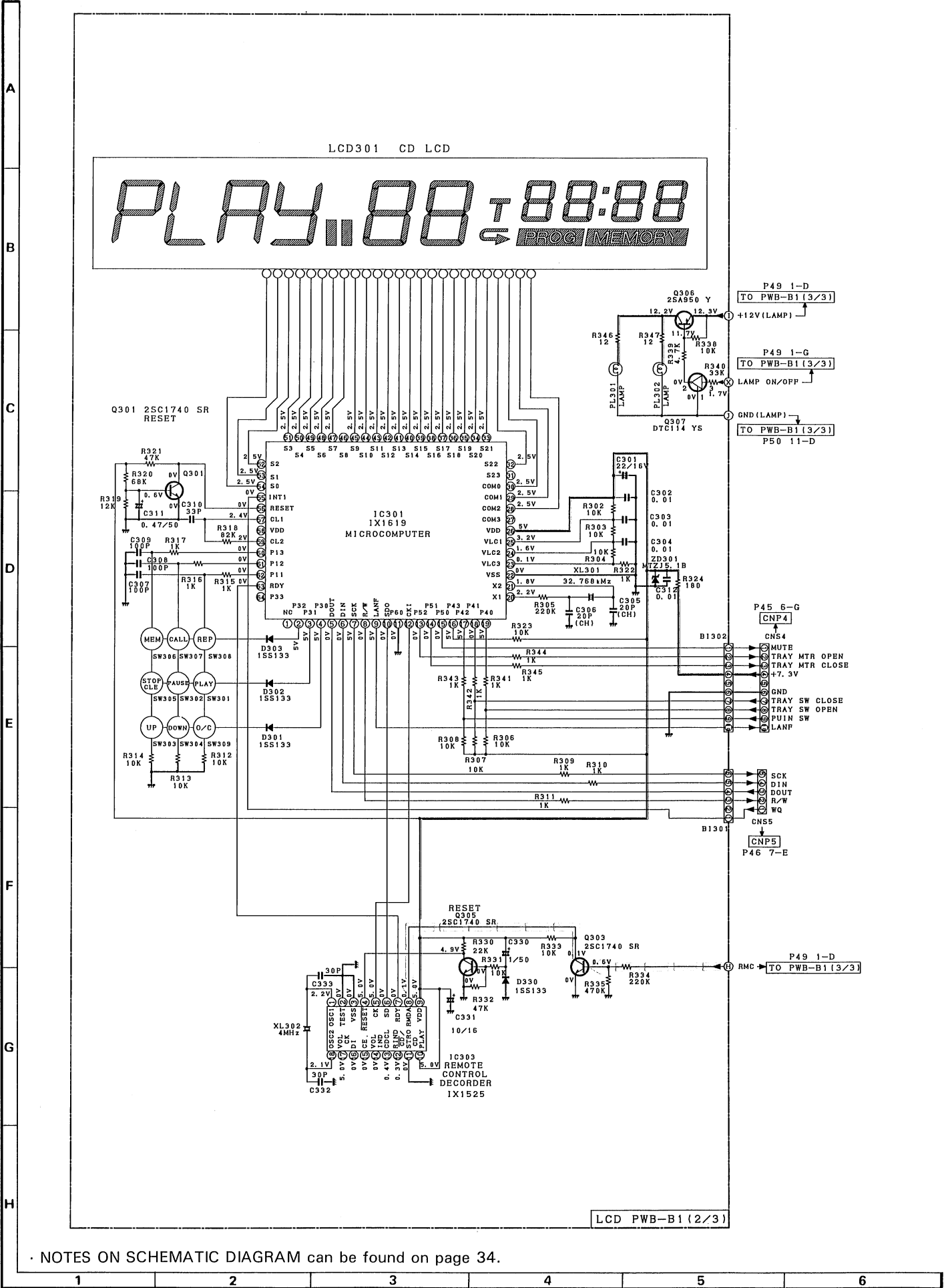
A
B
C
D
E
F
G
H



NOTES ON SCHEMATIC DIAGRAM can be found on page 34.

Figure 56 SCHEMATIC DIAGRAM (6/8)

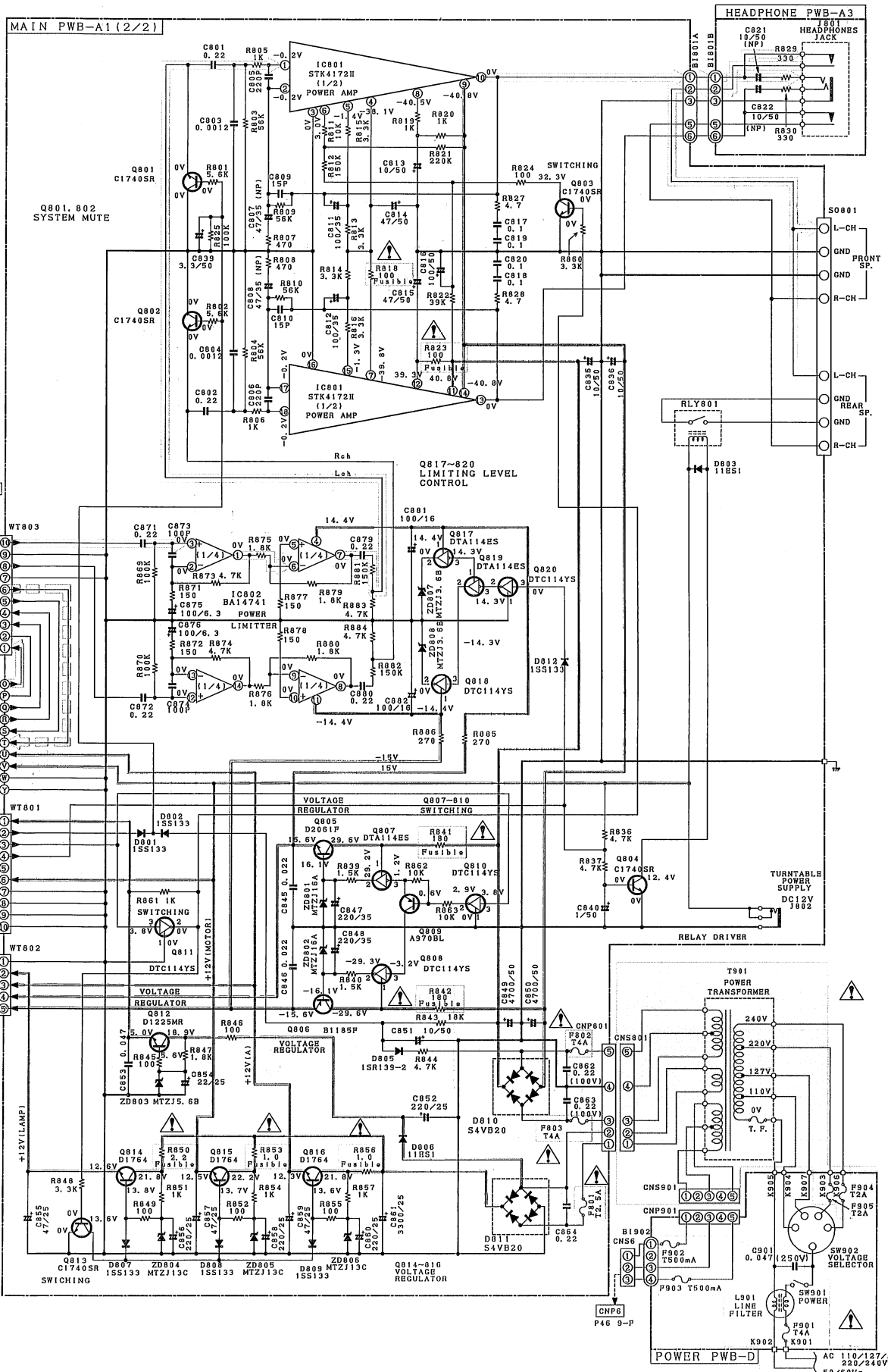
4-B REMOTE CONTROL SIGNAL



NOTES ON SCHEMATIC DIAGRAM can be found on page 34.

Figure 57 SCHEMATIC DIAGRAM (7/8)

— +B → FM SIGNAL
 — -B → PLAYBACK SIGNAL □ □ → RECORD SIGNAL



NOTES ON SCHEMATIC DIAGRAM can be found on page 34.

Figure 58 SCHEMATIC DIAGRAM (8/8)

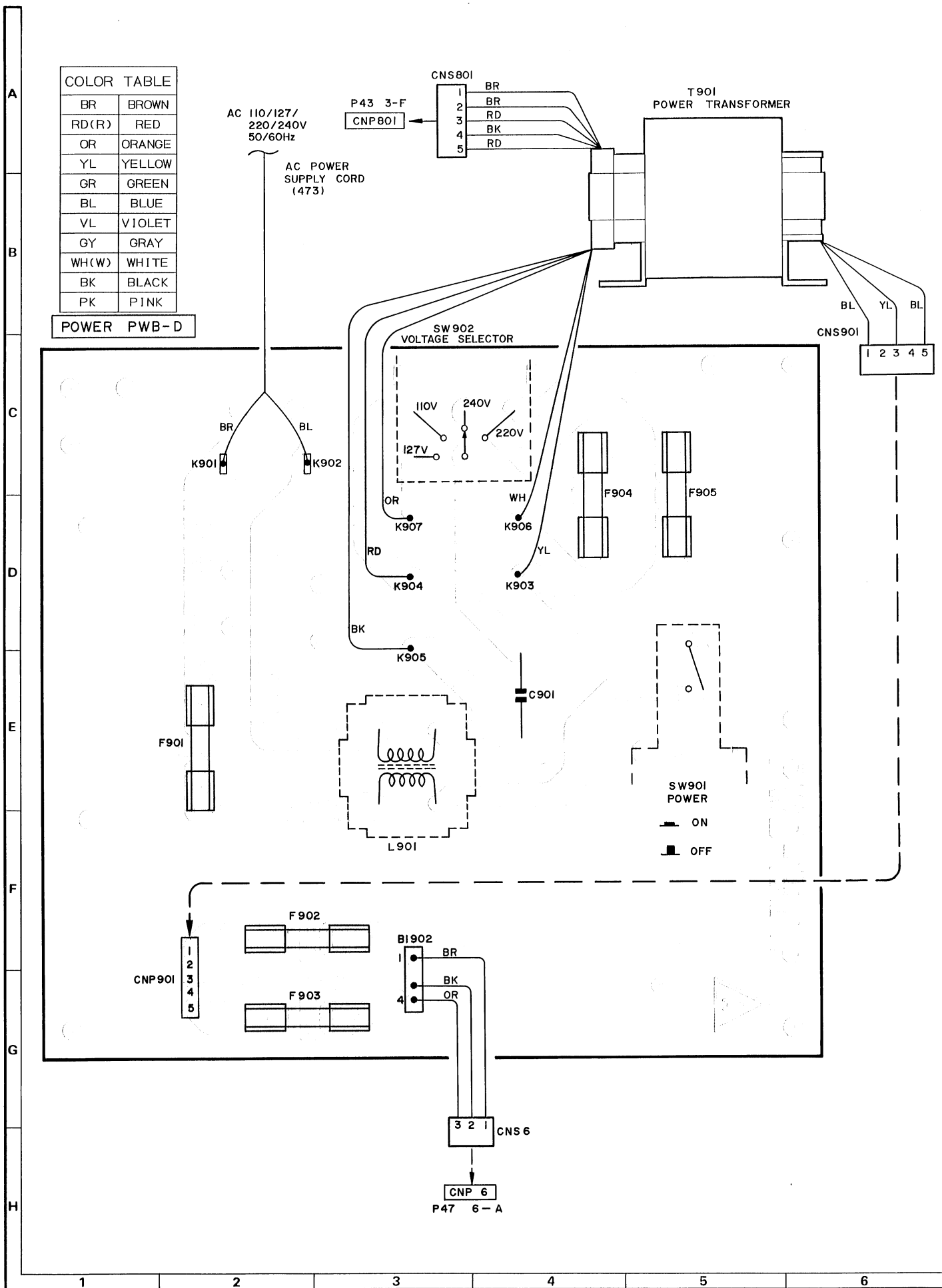


Figure 59 WIRING SIDE OF P.W.BOARD (5/5)

REPLACEMENT PARTS LIST

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following information.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION

★MARK: SPARE PARTS-DELIVERY SECTION

NOTE:

Parts marked with "△" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

REF.NO.	PART NO.	★	DESCRIPTION	CODE	REF.NO.	PART NO.	★	DESCRIPTION	CODE
INTEGRATED CIRCUITS					IC702	VHiHA12136A-1	J	Dolby NR,HA12136A	A M
					IC703	VHiBA4558N/-1	J	Rec. Amp.,BA4558N	A C
					IC704	VHiBA3310N/-1	J	ALC Amp.,BA3310N	A F
IC1	VHiLR37632/-1	J	Servo/Signal Control, LR37632	A X	IC801	VHiSTK4172M-1	J	Power Amp.,STK4172II	B D
IC2	VHiLA9200M/-1	J	Servo Amp.,LA9200M	A N	IC802	VHiBA14741/-1	J	Power Limiter,BA14741	A G
IC3	VHiLC7880M/-1	J	D/A Converter,LC7880M	A N	TRANSISTORS				
IC4	VHiLH5116N-20	J	16K-bit RAM,LH5116N-20	A P	Q3,4	VSDTC114YK/-1	J	Digital,NPN,DTC114 YK	A B
	or				Q5,6	VSDTC363TK/-1	J	Digital,NPN,DTC363 TK	A C
IC5~7	VHiLH5116N-10	J	16K-bit RAM,LH5116N-10	A P	Q8	VSDTA114EK/-1	J	Digital,PNP,DTA114 EK	A B
	VHiNJM4560M-1	J	Buffer Amp.,NJM4560M	A E	Q9,10	VSDTC114YK/-1	J	Digital,NPN,DTC114 YK	A B
	or				Q11	VS2SC2412KR-1	J	Silicon,NPN,2SC2412 KR	A B
IC8	VHiRC4560M/-1	J	Buffer Amp.,RC4560M	A D	Q12	VSDTC114YS/-1	J	Digital,NPN,DTC114 YS	A B
	VHiLA6515// -1	J	Tracking/Focus Driver, LA6515	A H	Q13	VSDTC114YK/-1	J	Digital,NPN,DTC114 YK	A B
IC9	VHiLA6515// -1	J	Motor Driver,LA6515	A H	Q15	VSDTC114YK/-1	J	Digital,NPN,DTC114 YK	A B
IC10	VHiM54641L/-1	J	Motor Driver,M54641L	A G	Q16	VS2SA562-Y/-1	J	Silicon,PNP,2SA562 Y	A C
IC11	VHiNJM79L05A1	J	Voltage Regulator,NJM79 L05A	A E	Q19	VSDTC114YK/-1	J	Digital,NPN,DTC114 YK	A B
	or				Q20	VS2SD1825/-1F	J	Silicon,NPN,2SD1825	A E
	VHiRC79L05A-1	J	Voltage Regulator,RC79L05 A	A E	Q21	VS2SB1223/-1F	J	Silicon,PNP,2SB1223	A F
IC12	VHiTA78L005AP	J	Voltage Regulator,TA78 L005AP	A F	Q22	VSDTA114ES/-1	J	Digital,PNP,DTA114 ES	A B
IC13	VHiNJM78L05A1	J	Voltage Regulator,NJM78 L05A	A D	Q23	VSDTC114ES/-1	J	Digital,NPN,DTC114 ES	A B
	or				Q201,202	VS2SC1740SR-1	J	Silicon,NPN,2SC1740 SR	A B
	VHiRC78L05A-1	J	Voltage Regulator,RC78L05 A	A D	Q203	VS2SA933SR/-1	J	Silicon,PNP,2SA933 SR	A B
IC14	VHiNJM79L05A1	J	Voltage Regulator,NJM79 L05A	A E	Q204	VSDTC114YS/-1	J	Digital,NPN,DTC114 YS	A B
	or				Q280,281	VSDTC114YS/-1	J	Digital,NPN,DTC114 YS	A B
	VHiRC79L05A-1	J	Voltage Regulator,RC79L05 A	A E	Q301	VS2SC1740SR-1	J	Silicon,NPN,2SC1740 SR	A B
IC201	RH-iX1646AFZZ	J	Tuner Controller,IX1646	A T	Q303	VS2SC1740SR-1	J	Silicon,NPN,2SC1740 SR	A B
IC203	VHiPST529D/-1	J	Voltage Detector,PST529D	A E	Q305	VS2SC1740SR-1	J	Silicon,NPN,2SC1740 SR	A B
IC301	RH-iX1619AFZZ	J	Microcomputer,IX1619	A T	Q306	VS2SA950Y// -1	J	Silicon,PNP,2SA950 Y	A B
IC303	RH-iX1525AFZZ	J	Remote Control Decoder, IX1525	A M	Q307	VSDTC114YS/-1	J	Digital,NPN,DTC114 YS	A B
IC401	VHiBA4558N/-1	J	Gr. Eq. Amp.,BA4558N	A C	Q401~412	VS2SC1740SR-1	J	Silicon,NPN,2SC1740 SR	A B
IC403	VHiTA7666P/-1	J	LED Driver,TA7666P	A M	Q415	VSDTA114ES/-1	J	Digital,PNP,DTA114 ES	A B
IC404	RH-iX1644AFZZ	J	System Controller,IX1644	A P	Q416	VSDTC114YS/-1	J	Digital,NPN,DTC114 YS	A B
IC405	VHiLB1641// -1	J	Motor Driver,LB1641	A F	Q417	VS2SC1740SR-1	J	Silicon,NPN,2SC1740 SR	A B
IC406	VHiPST529D/-1	J	Reset,PST529D	A E	Q418~426	VSDTA114ES/-1	J	Digital,PNP,DTA114 ES	A B
IC501	VHiBA4558N/-1	J	Phono Amp.,BA4558N	A C	Q501	VSDTA114ES/-1	J	Digital,PNP,DTA114 ES	A B
IC502~505	VHiBU4066B/-1	J	Function Selector,BU4066B	A F	Q502,503	VSDTC114YS/-1	J	Digital,NPN,DTC114 YS	A B
IC506	VHiBA4558N/-1	J	Line Amp.,BA4558N	A C	Q504	VSDTA114ES/-1	J	Digital,PNP,DTA114 ES	A B
IC507	VHiBU4066B/-1	J	Surround Switching, BU4066B	A F	Q505	VSDTC114YS/-1	J	Digital,NPN,DTC114 YS	A B
IC508	VHiBA4558N/-1	J	Surround Amp.,BA4558N	A C	Q506	VSDTA114ES/-1	J	Digital,PNP,DTA114 ES	A B
IC509	VHiBU4066B/-1	J	X-Bass Switching,BU4066B	A F	Q507	VSDTC114YS/-1	J	Digital,NPN,DTC114 YS	A B
IC601	VHiLM7000// -1	J	PLL Synthesizer Controller,LM7000	A P	Q508,509	VSDTA114ES/-1	J	Digital,PNP,DTA114 ES	A B
IC602	VHiLA1265S/-1	J	FM IF/Det & AM IF,LA1265 S	A U	Q510,511	VSDTC114YS/-1	J	Digital,NPN,DTC114 YS	A B
IC603	VHiLA3401// -1	J	FM MPX,LA3401	A K	Q512	VSDTA114ES/-1	J	Digital,PNP,DTA114 ES	A B
IC701	VHiBA3416BL-1	J	Playback Equalizer Amp., BA3416BL	A G	Q513~516	VS2SC1740SR-1	J	Silicon,NPN,2SC1740 SR	A B
					Q517~519	VSDTA114ES/-1	J	Digital,PNP,DTA114 ES	A B
					Q520,521	VSDTC114YS/-1	J	Digital,NPN,DTC114 YS	A B
					Q602	VS2SC380-0/-1	J	Silicon,NPN,2SC380 O	A C
					Q603	VSDTC114YS/-1	J	Digital,NPN,DTC114 YS	A B
					Q604	VS2SC2001-L-1	J	Silicon,NPN,2SC2001 L	A B
					Q605	VS2SC1740SR-1	J	Silicon,NPN,2SC1740 SR	A B
					Q606	VS2SC2785EF-1	J	Silicon,NPN,2SC2785 EF	A B
					Q610,611	VS2SC380-0/-1	J	Silicon,NPN,2SC380 O	A C
					Q612	VSDTA144WS/-1	J	Digital,PNP,DTA144 WS	A C

CD-320X

REF.NO.	PART NO.	★	DESCRIPTION	CODE
VARIABLE CAPACITORS				
TC601	RT0-H1072AFZZ	J	Trimmer,FM Oscillation	A C
VD601/602	VHCKV1236Z23F	J	Variable Capacitance, KV1236Z23F	A S
VIBRATORS				
CF603	RCRM-0010AFZZ	J	Ceramic,18.950 kHz	A D
X1	RCRSB0128AFZZ	J	Crystal,8.6436 MHz	A F
XL301	RCRSP0051AFZZ	J	Crystal,32.768 kHz	A K
XL302	RCRM-0018AFZZ	J	Ceramic,4 MHz	A D
XL401	RCRM-0013AFZZ	J	Ceramic,2 MHz	A E
XL601	RCRSB0146AFZZ	J	Crystal,7.2 MHz	A H
CAPACITORS				
There are two types of capacitors available and they can be identified from each other by reading their Part Numbers.				
• Ceramic type capacitor: A symbol "C" or "K" is given at the 3rd digit of its Part Number like "VCC (or K).....J."				
• Semiconductor type capacitor: A symbol "T" is given at the 3rd digit of its Part Number like "VCT.....J."				
The capacitance error of each capacitor is indicated by the symbol given at the 13th digit of the Part Number as follows:"J" (±5%), "K" (±10%), "M" (±20%), "N" (±30%), "C" (±0.25 pF), "D" (±0.5 pF), "Z" (+80-20%).				
(Tubular type ceramic capacitor is identified by the symbol TV(TQ/CY) of the part NO. VC00TV(TQ/CY)0000000; this TV(TQ/CY) does not mean the lead wire.)				
(Tubular type ceramic capacitor is identified by the symbol MF(MN) of the part NO. VC00MF(MN)0000000; this MF(MN) does not mean the lead wire.)				
Unless otherwise specified, electrolytic capacitors are ±20% type.				
C1	RC-GZA337AF0J	J	330 μF,6.3V,Electrolytic	A B
C2	RC-GZA107AF1A	J	100 μF,10V,Electrolytic	A B
C3,4	RC-GZA105AF1H	J	1 μF,50V,Electrolytic	A B
C5	RC-GZA225AF1H	J	2.2 μF,50V,Electrolytic	A B
C6	RC-EZY225AF1H	J	2.2 μF,50V,Electrolytic	A B
C7	RC-GZA476AF1C	J	47 μF,16V,Electrolytic	A B
C8	VCKZPA1HF103Z	J	0.01 μF,50V	A A
C9,10	VCCCMN1HH2R7C	J	2.7 pF (CH),50V	A A
C13,14	VCFYHA1HA823J	J	0.082 μF,50V,Thin Film	A B
C15,16	VCQYKA1HM272J	J	0.0027 μF,50V,Mylar	A B
C17,18	VCQPKA2AA123J	J	0.012 μF,100V, Polypropylene	A B
C21,22	RC-GZA106AF1C	J	10 μF,16V,Electrolytic	A B
C23,24	VCE9AA1CF106M	J	10 μF,16V,Electrolytic,Non -polar	A B
C25,26	VCTYMN1CX122K	J	0.0012 μF,16V	A A
C27	VCKZPA1HF473Z	J	0.047 μF,50V	A A
C29,30	VCTYMN1EF223Z	J	0.022 μF,25V	A A
C31,32	RC-EZ1477AFZZ	J	2200 μF,25V,Electrolytic	A E
C33,34	RC-GZA335AF1H	J	3.3 μF,50V,Electrolytic	A B
C35,36	RC-GZA107AF1A	J	100 μF,10V,Electrolytic	A B
C37	RC-GZA474AF1H	J	0.47 μF,50V,Electrolytic	A A
C39	VCTYMN1EF223Z	J	0.022 μF,25V	A A
C40,41	VCCCMN1HH180J	J	18 pF (CH),50V	A A
C42	VCKYMN1HB101K	J	100 pF,50V	A A
C43	RC-GZA225AF1H	J	2.2 μF,50V,Electrolytic	A B
C44,45	VCTYMN1CY103K	J	0.01 μF,16V	A A
C46	VCKYMN1HB471K	J	470 pF,50V	A A
C47,48	RC-GZA105AF1H	J	1 μF,50V,Electrolytic	A B
C49	VCTYMN1CX272K	J	0.0027 μF,16V	A A
C50	VCTYMN0JY153M	J	0.015 μF,6.3V	A A
C51,52	VCCSMN1HL680J	J	68 pF,50V	A A
C53	VCTYMN1CX152K	J	0.0015 μF,16V	A A
C54	RC-EZY475AF1E	J	4.7 μF,25V,Electrolytic	A B
C55	VCCSMN1HL1R0C	J	1 pF,50V	A A
C56	VCCSMN1HL560J	J	56 pF,50V	A A

REF.NO.	PART NO.	★	DESCRIPTION	CODE
C57~59	RC-GZA476AF1C	J	47 μF,16V,Electrolytic	A B
C60	VCTYMN1EF223Z	J	0.022 μF,25V	A A
C61,62	VCCSMN1HL390J	J	39 pF,50V	A A
C63	VCTYMN1CY103K	J	0.01 μF,16V	A A
C64	VCKYMN1HB102K	J	0.001 μF,50V	A A
C65	VCTYMN1CX682K	J	0.0068 μF,16V	A A
C66	VCFYHA1HA823J	J	0.082 μF,50V,Thin Film	A B
C67	VCKYMN1HB101K	J	100 pF,50V	A A
C68	RC-GZA105AF1H	J	1 μF,50V,Electrolytic	A B
C69	VCKYMN1HB471K	J	470 pF,50V	A A
C70	RC-GZA104AF1H	J	0.1 μF,50V,Electrolytic	A B
C71	RC-GZA226AF1C	J	22 μF,16V,Electrolytic	A B
C72	VCKYMN1HB471K	J	470 pF,50V	A A
C73	VCTYPA1CX333K	J	0.033 μF,16V	A A
C74	VCCSMN1HL220J	J	22 pF,50V	A A
C75	RC-GZA104AF1H	J	0.1 μF,50V,Electrolytic	A B
C76	VCTYPA1CX104K	J	0.1 μF,16V	A B
C77	VCCSMN1HL680J	J	68 pF,50V	A A
C78	VCCSMN1HL270J	J	27 pF,50V	A A
C79	VCFYHA1HA473J	J	0.047 μF,50V,Thin Film	A B
C80	VCTYPA1CX104K	J	0.1 μF,16V	A B
C81	RC-GZA106AF1C	J	10 μF,16V,Electrolytic	A B
C82	RC-GZA227AF0J	J	220 μF,6.3V,Electrolytic	A B
C83	RC-GZA225AF1H	J	2.2 μF,50V,Electrolytic	A B
C84	VCKYMN1HB102K	J	0.001 μF,50V	A A
C85	VCTYPA1CX104K	J	0.1 μF,16V	A B
C86	RC-GZA475AF1E	J	4.7 μF,25V,Electrolytic	A B
C87,88	VCTYMN1CY123M	J	0.012 μF,16V	A A
C89	VCTYMN1CX222K	J	0.0022 μF,16V	A A
C90	RC-GZA476AF1C	J	47 μF,16V,Electrolytic	A B
C91	VCTYMN1CX222K	J	0.0022 μF,16V	A A
C92	RC-GZA476AF1C	J	47 μF,16V,Electrolytic	A B
C93	VCTYPA1CX104K	J	0.1 μF,16V	A B
C95	VCTYMN1EF223Z	J	0.022 μF,25V	A A
C201	RC-EZD224AF1H	J	0.22 μF,50V,Electrolytic	A B
C202	VCCSMN1HL330J	J	33 pF,50V	A A
C203~208	VCKYMN1HB101K	J	100 pF,50V	A A
C209,210	VCTYMN1EF223Z	J	0.022 μF,25V	A A
C211~213	VCTYMN1CY103M	J	0.01 μF,16V	A A
C214	RC-GZA107AF1A	J	100 μF,10V,Electrolytic	A B
C215	VCTYMN1EF223Z	J	0.022 μF,25V	A A
C216	RC-GZA106AF1C	J	10 μF,16V,Electrolytic	A B
C217	VCTYMN1EF223Z	J	0.022 μF,25V	A A
C218	RC-EZD106AF1C	J	10 μF,16V,Electrolytic	A B
C281,282	VCTYPA1EX122K	J	0.0012 μF,25V	A B
C283,284	VCKYPA1HB821K	J	820 pF,50V	A A
C285,286	VCTYPA1EX332K	J	0.0033 μF,25V	A A
C289,290	VCTYPA1EX822K	J	0.0082 μF,25V	A A
C301	RC-GZA226AF1C	J	22 μF,16V,Electrolytic	A B
C302~304	VCTYMN1CY103M	J	0.01 μF,16V	A A
C305,306	VCCCMN1HH200J	J	20 pF (CH),50V	A A
C307~309	VCKYMN1HB101K	J	100 pF,50V	A A
C310	VCCSMN1HL330J	J	33 pF,50V	A A
C311	RC-GZA474AF1H	J	0.47 μF,50V,Electrolytic	A A
C312	VCTYMN1CY103M	J	0.01 μF,16V	A A
C330	RC-GZA105AF1H	J	1 μF,50V,Electrolytic	A B
C331	RC-GZA106AF1C	J	10 μF,16V,Electrolytic	A B
C332,333	VCCSMN1HL300J	J	30 pF,50V	A A
C401,402	VCKYMN1HB101K	J	100 pF,50V	A A
C403,404	VCKYMN1HB151K	J	150 pF,50V	A A
C405,406	RC-GZA476AF1C	J	47 μF,16V,Electrolytic	A B
C407,408	VCTYMN1EF223Z	J	0.022 μF,25V	A A
C409,410	VCKYMN1HB151K	J	150 pF,50V	A A
C411,412	RC-GZA106AF1C	J	10 μF,16V,Electrolytic	A B
C413,414	RC-GZA684AF1H	J	0.68 μF,50V,Electrolytic	A B
C415,416	VCFYHA1HA563J	J	0.056 μF,50V,Thin Film	A B
C417,418	RC-GZA154AF1H	J	0.15 μF,50V,Electrolytic	A A
C419,420	VCQYKA1HM183K	J	0.018 μF,50V,Mylar	A B
C421,422	VCQYKA1HM333K	J	0.033 μF,50V,Mylar	A B
C423,424	VCQYKA1HM562K	J	0.0056 μF,50V,Mylar	A A

REF.NO.	PART NO.	★	DESCRIPTION	CODE	REF.NO.	PART NO.	★	DESCRIPTION	CODE	REF.NO.	PART NO.	★	DESCRIPTION	CODE	REF.NO.	PART NO.	★	DESCRIPTION	CODE
C425,426	VCQYKA1HM822K	J	0.0082 μ F,50V,Mylar	A A	C645	RC-GZA105AF1H	J	1 μ F,50V,Electrolytic	A B	C773	RC-GZA226AF1C	J	22 μ F,16V,Electrolytic	A B	R13,14	VRD-MN2BD104J	J	100 kohm,1/8W	A A
C427,428	VCQYKA1HM122K	J	0.0012 μ F,50V,Mylar	A A	C646	VCTYMN1CY103M	J	0.01 μ F,16V	A A	C774	RC-GZA106AF1C	J	10 μ F,16V,Electrolytic	A B	R15,16	VRD-MN2BD103J	J	10 kohm,1/8W	A A
C429,430	VCQYKA1HM332K	J	0.0033 μ F,50V,Mylar	A A	C647	RC-GZA105AF1H	J	1 μ F,50V,Electrolytic	A B	C775,776	RC-GZA336AF1A	J	33 μ F,10V,Electrolytic	A B	R17,18	VRD-MN2BD123J	J	12 kohms,1/8W	A A
C431,432	VCKYPA1HB221K	J	220 pF,50V	A A	C648	VCTYMN1CY103M	J	0.01 μ F,16V	A A	C777,778	VCKYBT1HB151K	J	150 pF,50V	A A	R19,20	VRD-MN2BD104J	J	100 kohm,1/8W	A A
C433,434	RC-EZD104AF1H	J	0.1 μ F,50V,Electrolytic	A B	C649	VCKYMN1HB101K	J	100 pF,50V	A A	C779,780	RC-GZA107AF1C	J	100 μ F,16V,Electrolytic	A B	R21,22	VRD-MN2BD122J	J	1.2 kohms,1/8W	A A
C435,436	VCTYMN1CY103M	J	0.01 μ F,16V	A A	C650	VCKZPA1HF473Z	J	0.047 μ F,50V	A A	C783	RC-GZA227AF1C	J	220 μ F,16V,Electrolytic	A B	R23	VRS-TV2AB472J	J	4.7 kohms,1/10W	A A
C437,438	RC-EZD474AF1H	J	0.47 μ F,50V,Electrolytic	A B	C651	RC-GZA107AF1C	J	100 μ F,16V,Electrolytic	A B	C784	RC-GZA106AF1C	J	10 μ F,16V,Electrolytic	A B	R24,25	VRD-MN2BD223J	J	22 kohms,1/8W	A A
C439	RC-EZD336AF1C	J	33 μ F,16V,Electrolytic	A B	C652	VCTYMN1EF223Z	J	0.022 μ F,25V	A A	C788	VCKZPA1HF223Z	J	0.022 μ F,50V	A A	R26,27	VRD-MN2BD102J	J	1 kohm,1/8W	A A
C440	VCKZPA1HF473Z	J	0.047 μ F,50V	A A	C653	RC-GZA106AF1C	J	10 μ F,16V,Electrolytic	A B	C791,792	RC-GZA104AF1H	J	0.1 μ F,50V,Electrolytic	A B	R28~30	VRD-MN2BD563J	J	56 kohms,1/8W	A A
C441,442	RC-GZA106AF1C	J	10 μ F,16V,Electrolytic	A B	C654	VCTYMN1EF223Z	J	0.022 μ F,25V	A A	C793,794	VCQYKA1HM183K	J	0.018 μ F,50V,Mylar	A B	R31	VRD-MN2BD104J	J	100 kohm,1/8W	A A
C443	VCTYMN1EF223Z	J	0.022 μ F,25V	A A	C655	RC-GZA105AF1H	J	1 μ F,50V,Electrolytic	A B	C795	RC-GZA336AF1C	J	33 μ F,16V,Electrolytic	A B	R32	VRD-MN2BD683J	J	68 kohms,1/8W	A A
C444	VCTYMN1CY103M	J	0.01 μ F,16V	A A	C656	VCTYMN1EF223Z	J	0.022 μ F,25V	A A	C796	VCKYPA1HB102K	J	0.001 μ F,50V	A A	R33	VRD-MN2BD225J	J	2.2 Mohms,1/8W	A A
C445	VCTYMN1EF223Z	J	0.022 μ F,25V	A A	C657	VCKYMN1HB151K	J	150 pF,50V	A A	C797	RC-GZA105AF1H	J	1 μ F,50V,Electrolytic	A B	R34,35	VRD-MN2BD103J	J	10 kohm,1/8W	A A
C446	RC-GZA476AF1C	J	47 μ F,16V,Electrolytic	A B	C659	VCTYMN1EF223Z	J	0.022 μ F,25V	A A	C801,802	VCFYHA1HA224J	J	0.22 μ F,50V,Thin Film	A B	R36	VRD-MN2BD821J	J	820 ohms,1/8W	A A
C447	VCTYMN1EF223Z	J	0.022 μ F,25V	A A	C660	VCCSMN1HL330J	J	33 pF,50V	A A	C803,804	VCTYBT1CX122M	J	0.0012 μ F,16V	A A	R37	VRD-MN2BD221J	J	220 ohms,1/8W	A A
C448,449	VCCSMN1HL470J	J	47 pF,50V	A A	C661,662	VCTYMN1EF223Z	J	0.022 μ F,25V	A A	C805,806	VCKYBT1HB221K	J	220 pF,50V	A A	R38,39	VRD-MN2BD223J	J	2.2 kohms,1/8W	A A
C450	VCTYMN1EF223Z	J	0.022 μ F,25V	A A	C663	VCKYBT1HB102K	J	0.001 μ F,50V	A A	C807,808	VCE9AA1VF476M	J	47 μ F,35V,Electrolytic,Non -Polar	A C	R40,41	VRD-MN2BD223J	J	22 kohms,1/8W	A A
C451	RC-EZD476AF1A	J	47 μ F,10V,Electrolytic	A C	C664	RC-GZA104AF1H	J	0.1 μ F,50V,Electrolytic	A B	C809,810	VCCSBT1HL150J	J	15 pF,50V	A A	R42	VRD-MN2BD103J	J	10 kohm,1/8W	A A
C452	VCTYMN1EF223Z	J	0.022 μ F,25V	A A	C665	RC-GZA106AF1C	J	10 μ F,16V,Electrolytic	A B	C811,812	RC-GZA107AF1V	J	100 μ F,35V,Electrolytic	A B	R43	VRD-MN2BD471J	J	470 ohms,1/8W	A A
C453,454	RC-EZD106AF1C	J	10 μ F,16V,Electrolytic	A B	C668	RC-GZA105AF1H	J	1 μ F,50V,Electrolytic	A B	C813	RC-GZA106AF1H	J	10 μ F,50V,Electrolytic	A B	R44	VRD-MN2BD681J	J	680 ohms,1/8W	A A
C501,502	VCKYMN1HB101K	J	100 pF,50V	A A	C669	RC-GZA224AF1H	J	0.22 μ F,50V,Electrolytic	A B	C814,815	RC-GZA476AF1H	J	47 μ F,50V,Electrolytic	A B	R45	VRD-MN2BD223J	J	22 kohms,1/8W	A A
C503,504	VCKYMN1HB561K	J	560 pF,50V	A A	C670	RC-GZA105AF1H	J	1 μ F,50V,Electrolytic	A B	C816	RC-GZA107AF1H	J	100 μ F,50V,Electrolytic	A C	R46	VRD-MN2BD102J	J	1 kohm,1/8W	A A
C505,506	RC-GZA476AF1C	J	47 μ F,16V,Electrolytic	A B	C671	RC-GZA106AF1C	J	10 μ F,16V,Electrolytic	A B	C817~820	VCFYHA1HA104K	J	0.1 μ F,50V,Thin Film	A B	R47	VRD-MN2BD124J	J	120 kohms,1/8W	A A
C507,508	VCQYKA1HM822K	J	0.0082 μ F,50V,Mylar	A A	C672	VCTYPA1EX473K	J	0.047 μ F,25V	A A	C821,822	VCE9AA1HF106M	J	10 μ F,50V,Electrolytic,Non -Polar	A B	R48	VRD-MN2BD154J	J	150 kohms,1/8W	A A
C509,510	VCQYKA1HM222K	J	0.0022 μ F,50V,Mylar	A A	C673	VCKYMN1HB102K	J	0.001 μ F,50V	A A	C835,836	RC-GZA106AF1H	J	10 μ F,50V,Electrolytic	A B	R49	VRD-MN2BD273J	J	27 kohms,1/8W	A A
C511,512	RC-GZA474AF1H	J	0.47 μ F,50V,Electrolytic	A A	C674	RC-GZA105AF1H	J	1 μ F,50V,Electrolytic	A B	C839	RC-GZA335AF1H	J	3.3 μ F,50V,Electrolytic	A B	R50	VRD-MN2BD222J	J	2.2 kohms,1/8W	A A
C513,514	VCTYMN1EF223Z	J	0.022 μ F,25V	A A	C675	VCTYMN1EF223Z	J	0.022 μ F,25V	A A	C840	RC-GZA105AF1H	J	1 μ F,50V,Electrolytic	A B	R51	VRD-MN2BD822J	J	8.2 kohms,1/8W	A A
C515,516	RC-GZA476AF1C	J	47 μ F,16V,Electrolytic	A B	C676	RC-GZA107AF1C	J	100 μ F,16V,Electrolytic	A B	C845,846	VCKZPA1HF223Z	J	0.022 μ F,50V	A A	R52	VRD-MN2BD102J	J	1 kohm,1/8W	A A
C517,518	VCKYMN1HB101K	J	100 pF,50V	A A	C677	RC-GZA106AF1C	J	10 μ F,16V,Electrolytic	A B	C847,848	RC-GZA227AF1V	J	220 μ F,35V,Electrolytic	A D	R53	VRD-MN2BD154J	J	150 kohms,1/8W	A A
C519,520	VCKYMN1HB101K	J	100 pF,50V	A A	C678	RC-GZA105AF1H	J	1 μ F,50V,Electrolytic	A B	C849,850	RC-EZ1441AFZZ	J	4700 μ F,50V,Electrolytic	A K	R54	VRD-MN2BD104J	J	100 kohm,1/8W	A A
C525,526	RC-GZA476AF1C	J	47 μ F,16V,Electrolytic	A B	C679,680	VCKYPA1HB102K	J	0.001 μ F,50V	A A	C851	RC-GZA106AF1H	J	10 μ F,50V,Electrolytic	A B	R55	VRD-MN2BD221J	J	220 ohms,1/8W	A A
C527,528	VCTYMN1EF223Z	J	0.022 μ F,25V	A A	C681,682	RC-GZA105AF1H	J	1 μ F,50V,Electrolytic	A B	C852	RC-GZA227AF1E	J	220 μ F,25V,Electrolytic	A B	R56~58	VRD-MN2BD222J	J	2.2 kohms,1/8W	A A
C529,530	RC-GZA105AF1H	J	1 μ F,50V,Electrolytic	A B	C683,684	VCTYPA1EX332K	J	0.0033 μ F,25V	A A	C853	VCKZPA1HF473Z	J	0.047 μ F,50V	A A	R59	VRD-MN2BD331J	J	330 ohms,1/8W	A A
C531,532	VCKYMN1HB101K	J	100 pF,50V	A A	C688	RC-GZA476AF1C	J	47 μ F,16V,Electrolytic	A B	C854	RC-GZA226AF1E	J	22 μ F,25V,Electrolytic	A B	R60	VRD-MN2BD274J	J	270 kohms,1/8W	A A
C533,534	VCKYMN1HB151K	J	150 pF,50V	A A	C704,705	RC-GZA225AF1H	J	2.2 μ F,50V,Electrolytic	A B	C855	RC-GZA476AF1E	J	47 μ F,25V,Electrolytic	A B	R61	VRD-MN2BD223J	J	22 kohms,1/8W	A A
C535,536	VCTYMN1EF223Z	J	0.022 μ F,25V	A A	C706	RC-GZA475AF1E	J	4.7 μ F,25V,Electrolytic	A B	C857	RC-GZA227AF1E	J	220 μ F,25V,Electrolytic	A B	R62	VRD-MN2BD153J	J	15 kohms,1/8W	A A
C537,538	RC-GZA475AF1H	J	4.7 μ F,50V,Electrolytic	A B	C707,708	VCKYPA1HB681K	J	680 pF,50V	A A	C858	RC-GZA227AF1E	J	220 μ F,25V,Electrolytic	A B	R63	VRD-MN2BD273J	J	27 kohms,1/8W	A A
C539,540	RC-GZA476AF1C	J	47 μ F,16V,Electrolytic	A B	C709,710	VCKYPA1HB561K	J	560 pF,50V	A A	C859	RC-GZA476AF1E	J	47 μ F,25V,Electrolytic	A B	R64	VRD-MN2BD104J	J	100 kohm,1/8W	A A
C541,542	RC-GZA105AF1H	J	1 μ F,50V,Electrolytic	A B	C711,712	VCKYBT1HB151K	J	150 pF,50V	A A	C860	RC-GZA227AF1E	J	220 μ F,25V,Electrolytic	A B	R65	VRD-MN2BD184J	J	180 kohms,1/8W	A A
C543,544	VCFYHA1HA224J	J	0.22 μ F,50V,Thin Film	A B	C715,716	RC-GZA107AF1A	J	100 μ F,10V,Electrolytic	A B	C861	RC-GZW338AF1E	J	3300 μ F,25V,Electrolytic	A C	R66	VRS-TV2AB103J	J	10 kohm,1/10W	A A
C545,546	RC-GZA684AF1H	J	0.68 μ F,50V,Electrolytic	A B	C717,718	RC-GZA226AF1C	J	22 μ F,16V,Electrolytic	A B	C862,863	VCFYHA2AA224J	J	0.22 μ F,100V,Thin Film	A C	R67	VRD-MN2BD222J	J	2.2 kohms,1/8W	A A
C547,548	VCQYKA1HM223K	J	0.022 μ F,50V,Mylar	A B	C721,722	VCTYPA1EX183K	J	0.018 μ F,25V	A A	C864	VCFYHA1HA224J	J	0.22 μ F,50V,Thin Film	A B	R68	VRS-TV2AB103J	J	10 kohm,1/10W	A A
C549,550	RC-GZA684AF1H	J	0.68 μ F,50V,Electrolytic	A B	C723,724	VCTYPA1EX333K	J	0.033 μ F,25V	A A	C871,872	VCFYHA1HA224J	J	0.22 μ F,50V,Thin Film	A B	R69	VRD-MN2BD683J	J	68 kohms,1/8W	A A
C551,552	VCTYMN1EF223Z	J	0.022 μ F,25V	A A	C725,726	RC-GZA105AF1H	J	1 μ F,50V,Electrolytic	A B	C873,874	VCKYPA1HB101K	J	100 pF,50V	A A	R70	VRD-MN2BD100J	J	10 ohm,1/8W	A A
C553,554	RC-GZA476AF1C	J	47 μ F,16V,Electrolytic	A B	C727,728	VCTYPA1EX153K	J	0.015 μ F,25V	A A	C875,876	RC-GZA107AF0J	J	100 μ F,6.3V,Electrolytic	A B	R71	VRD-MN2BD683J	J	68 kohms,1/8W	A A
C555	RC-GZA335AF1H	J	3.3 μ F,50V,Electrolytic	A B	C729,730	VCTYBT1EF223Z	J	0.022 μ F,25V	A A	C879,880	VCFYHA1HA224J	J	0.22 μ F,50V,Thin Film	A B	R72	VRD-MN2BD124J	J	120 kohms,1/8W	A A
C601	VCTYMN1EF223Z	J	0.022 μ F,25V	A A	C731	RC-GZA226AF1C	J	22 μ F,16V,Electrolytic	A B	C881,882	RC-GZA107AF1C	J	100 μ F,16V,Electrolytic	A B	R73	VRD-MN2BD124J	J	120 kohms,1/8W	A A
C607~610	VCTYMN1EF223Z	J	0.022 μ F,25V	A A	C733,734	RC-GZA105AF1H	J	1 μ F,50V,Electrolytic	A B	Δ C901	RC-FZ104EAFZZ	J	0.047 μ F,250V,Metalized Plastic	A E	R74	VRD-MN2BD564J	J	560 kohms,1/8W	A A
C611	VCKYMN1HB101K	J	100 pF,50V	A A	C735,736	VCKYBT1HB331K	J	330 pF,50V	A A					R75	VRD-MN2BD154J	J	150 kohms,1/8W	A A	
C612	VCTYMN1EF223Z	J	0.022 μ F,25V	A A	C737,738	VCCSBT1HL470J	J	47 pF,50V	A A										

CD-320X

CD-320X

REF.NO.	PART NO.	★	DESCRIPTION	CODE	REF.NO.	PART NO.	★	DESCRIPTION	CODE	REF.NO.	PART NO.	★	DESCRIPTION	CODE	REF.NO.	PART NO.	★	DESCRIPTION	CODE
97	VRD-MN2BD273J	J	27 kohms,1/8W	A A	R333	VRD-MN2BD103J	J	10 kohm,1/8W	A A	R521,522	VRD-MN2BD123J	J	12 kohms,1/8W	A A	R655	VRD-MN2BD103J	J	10 kohm,1/8W	A A
98	VRD-MN2BD822J	J	8.2 kohms,1/8W	A A	R334	VRD-MN2BD224J	J	220 kohms,1/8W	A A	R523,524	VRD-MN2BD822J	J	8.2 kohms,1/8W	A A	R656	VRD-ST2CD102J	J	1 kohm,1/6W	A A
99	VRD-MN2BD103J	J	10 kohm,1/8W	A A	R335	VRD-MN2BD474J	J	470 kohms,1/8W	A A	R525,526	VRD-MN2BD182J	J	1.8 kohms,1/8W	A A	R658	VRD-MN2BD102J	J	1 kohm,1/8W	A A
100	VRD-MN2BD823J	J	82 kohms,1/8W	A A	R338	VRD-MN2BD103J	J	10 kohm,1/8W	A A	R527,528	VRD-ST2CD102J	J	1 kohm,1/6W	A A	R660	VRD-MN2BD102J	J	1 kohm,1/8W	A A
101	VRD-MN2BD184J	J	180 kohms,1/8W	A A	R339	VRD-MN2BD472J	J	4.7 kohms,1/8W	A A	R529,530	VRD-ST2EE561J	J	560 ohms,1/4W	A A	R661	VRD-MN2BD563J	J	5.6 kohms,1/8W	A A
102	VRD-MN2BD1R0J	J	1 ohm,1/8W	A A	R340	VRD-ST2CD333J	J	33 kohms,1/6W	A A	R531,532	VRD-ST2EE391J	J	390 ohms,1/4W	A A	R662	VRD-ST2CD223J	J	22 kohms,1/6W	A A
103	VRD-MN2BD2R2J	J	2.2 ohms,1/8W	A A	R341~344	VRD-MN2BD102J	J	1 kohm,1/8W	A A	R533~535	VRD-MN2BD473J	J	47 kohms,1/8W	A A	R663	VRD-MN2BD123J	J	12 kohms,1/8W	A A
105,106	VRD-MN2BD333J	J	33 kohms,1/8W	A A	R345	VRD-MN2BD102J	J	1 kohm,1/8W	A A	R536,537	VRD-MN2BD472J	J	4.7 kohms,1/8W	A A	R664	VRD-ST2CD823J	J	82 kohms,1/6W	A A
107	VRD-MN2BD473J	J	47 kohms,1/8W	A A	R346,347	VRD-ST2EE120J	J	12 ohms,1/4W	A A	R539,540	VRD-MN2BD473J	J	47 kohms,1/8W	A A	R665	VRD-MN2BD332J	J	3.3 kohms,1/8W	A A
108	VRD-MN2BD221J	J	220 ohms,1/8W	A A	R401,402	VRD-MN2BD333J	J	33 kohms,1/8W	A A	R541,542	VRD-MN2BD102J	J	1 kohm,1/8W	A A	R666	VRD-MN2BD102J	J	1 kohm,1/8W	A A
109	VRD-MN2BD473J	J	47 kohms,1/8W	A A	R403,404	VRD-MN2BD822J	J	8.2 kohms,1/8W	A A	R543,544	VRD-MN2BD182J	J	1.8 kohms,1/8W	A A	R667,668	VRD-MN2BD683J	J	68 kohms,1/8W	A A
110	VRD-MN2BD682J	J	6.8 kohms,1/8W	A A	R405,406	VRD-MN2BD682J	J	6.8 kohms,1/8W	A A	R545,546	VRD-MN2BD822J	J	8.2 kohms,1/8W	A A	R669,670	VRD-MN2BD563J	J	5.6 kohms,1/8W	A A
112	VRD-MN2BD473J	J	47 kohms,1/8W	A A	R407	VRD-MN2BD104J	J	100 kohm,1/8W	A A	R547,548	VRD-MN2BD104J	J	100 kohm,1/8W	A A	R671,672	VRD-MN2BD332J	J	3.3 kohms,1/8W	A A
113	VRD-MN2BD563J	J	56 kohms,1/8W	A A	R408	VRD-ST2CD104J	J	100 kohm,1/6W	A A	R549,550	VRD-MN2BD472J	J	4.7 kohms,1/8W	A A	R675,676	VRD-MN2BD392J	J	3.9 kohms,1/8W	A A
114	VRD-MN2BD1R0J	J	1 ohm,1/8W	A A	R409,410	VRD-MN2BD272J	J	2.7 kohms,1/8W	A A	R551~554	VRD-MN2BD472J	J	4.7 kohms,1/8W	A A	R677	VRD-MN2BD332J	J	3.3 kohms,1/8W	A A
115	VRD-MN2BD2R2J	J	2.2 ohms,1/8W	A A	R411,412	VRD-MN2BD683J	J	68 kohms,1/8W	A A	R555,556	VRD-MN2BD104J	J	100 kohm,1/8W	A A	R678	VRD-ST2CD104J	J	100 kohm,1/6W	A A
116	VRD-MN2BD224J	J	220 kohms,1/8W	A A	R413,414	VRD-MN2BD103J	J	10 kohm,1/8W	A A	R557	VRD-MN2BD473J	J	47 kohms,1/8W	A A	R679,680	VRD-MN2BD472J	J	4.7 kohms,1/8W	A A
118	VRD-MN2BD564J	J	560 kohms,1/8W	A A	R415,416	VRD-MN2BD222J	J	2.2 kohms,1/8W	A A	R559,560	VRD-MN2BD103J	J	10 kohm,1/8W	A A	R681	VRD-ST2EE561J	J	560 ohms,1/4W	A A
120	VRD-MN2BD102J	J	1 kohm,1/8W	A A	R417,418	VRD-MN2BD683J	J	68 kohms,1/8W	A A	R561,562	VRD-MN2BD683J	J	68 kohms,1/8W	A A	R682	VRD-MN2BD222J	J	2.2 kohms,1/8W	A A
150	VRD-MN2BD1R0J	J	1 ohm,1/8W	A A	R419,420	VRD-MN2BD103J	J	10 kohm,1/8W	A A	R563,564	VRD-MN2BD152J	J	1.5 kohms,1/8W	A A	R683	VRD-MN2BD333J	J	33 kohms,1/8W	A A
151	VRS-TV2AB182J	J	1.8 kohms,1/10W	A A	R421,422	VRD-MN2BD222J	J	2.2 kohms,1/8W	A A	R565,566	VRD-MN2BD104J	J	100 kohm,1/8W	A A	R701,702	VRD-ST2CD103J	J	10 kohm,1/6W	A A
160	VRS-TV2AB273J	J	27 kohms,1/10W	A A	R423,424	VRD-MN2BD683J	J	68 kohms,1/8W	A A	R567,568	VRD-MN2BD103J	J	10 kohm,1/8W	A A	R703	VRD-ST2CD223J	J	22 kohms,1/6W	A A
201	VRD-MN2BD224J	J	220 kohms,1/8W	A A	R425,426	VRD-MN2BD103J	J	10 kohm,1/8W	A A	R569,570	VRD-MN2BD683J	J	68 kohms,1/8W	A A	R704	VRD-ST2CD103J	J	10 kohm,1/6W	A A
202	VRD-MN2BD474J	J	470 kohms,1/8W	A A	R427,428	VRD-MN2BD222J	J	2.2 kohms,1/8W	A A	R571,572	VRD-MN2BD272J	J	2.7 kohms,1/8W	A A	R705	VRD-ST2CD273J	J	27 kohms,1/6W	A A
203	VRD-MN2BD223J	J	22 kohms,1/8W	A A	R429,430	VRD-MN2BD683J	J	68 kohms,1/8W	A A	R573,574	VRD-MN2BD104J	J	100 kohm,1/8W	A A	R706	VRD-ST2CD102J	J	1 kohm,1/6W	A A
205	VRD-MN2BD104J	J	100 kohm,1/8W	A A	R431,432	VRD-MN2BD103J	J	10 kohm,1/8W	A A	R575~578	VRD-MN2BD105J	J	1 Mohm,1/8W	A A	R707,708	VRD-ST2CD562J	J	5.6 kohms,1/6W	A A
206	VRD-MN2BD473J	J	47 kohms,1/8W	A A	R433,434	VRD-MN2BD222J	J	2.2 kohms,1/8W	A A	R579,580	VRD-MN2BD473J	J	47 kohms,1/8W	A A	R709,710	VRD-ST2CD332J	J	3.3 kohms,1/6W	A A
207~212	VRD-MN2BD104J	J	100 kohm,1/8W	A A	R435,436	VRD-MN2BD683J	J	68 kohms,1/8W	A A	R581	VRD-MN2BD103J	J	10 kohm,1/8W	A A	R711,712	VRD-ST2CD333J	J	33 kohms,1/6W	A A
213	VRD-MN2BD823J	J	82 kohms,1/8W	A A	R437,438	VRD-MN2BD103J	J	10 kohm,1/8W	A A	R582	VRD-ST2CD102J	J	1 kohm,1/6W	A A	R713	VRD-ST2CD103J	J	10 kohm,1/6W	A A
214~219	VRD-MN2BD102J	J	1 kohm,1/8W	A A	R439,440	VRD-ST2CD123J	J	12 kohms,1/6W	A A	R583,584	VRD-ST2EE561J	J	560 ohms,1/4W	A A	R714	VRD-ST2CD472J	J	4.7 kohms,1/6W	A A
220	VRD-MN2BD222J	J	2.2 kohms,1/8W	A A	R441,442	VRD-ST2CD102J	J	1 kohm,1/6W	A A	R585,586	VRD-MN2BD682J	J	6.8 kohms,1/8W	A A	R715	VRD-ST2CD682J	J	6.8 kohms,1/6W	A A
221~227	VRD-MN2BD102J	J	1 kohm,1/8W	A A	R443,444	VRD-MN2BD103J	J	10 kohm,1/8W	A A	R591,592	VRD-MN2BD102J	J	1 kohm,1/8W	A A	R716	VRD-ST2EE221J	J	220 ohms,1/4W	A A
228	VRD-ST2CD473J	J	47 kohms,1/6W	A A	R445,446	VRD-MN2BD183J	J	18 kohms,1/8W	A A	R595	VRD-ST2CD333J	J	33 kohms,1/6W	A A	R717~720	VRD-ST2CD102J	J	1 kohm,1/6W	A A
229~231	VRD-MN2BD102J	J	1 kohm,1/8W	A A	R447,448	VRD-MN2BD393J	J	39 kohms,1/8W	A A	R597,598	VRD-ST2CD562J	J	5.6 kohms,1/6W	A A	R721,722	VRD-ST2CD680J	J	68 ohms,1/6W	A A
232	VRD-MN2BD473J	J	47 kohms,1/8W	A A	R449,450	VRD-MN2BD103J	J	10 kohm,1/8W	A A	R605	VRD-MN2BD331J	J	330 ohms,1/8W	A A	R723,724	VRD-ST2CD392J	J	3.9 kohms,1/6W	A A
233	VRD-MN2BD102J	J	1 kohm,1/8W	A A	R451,452	VRD-MN2BD473J	J	47 kohms,1/8W	A A	R606	VRD-MN2BD334J	J	330 kohms,1/8W	A A	R725,726	VRD-ST2CD362J	J	3.6 kohms,1/6W	A A
234	VRD-MN2BD473J	J	47 kohms,1/8W	A A	R453~461	VRD-MN2BD681J	J	680 ohms,1/8W	A A	R607,608	VRD-MN2BD331J	J	330 kohms,1/8W	A A	R727	VRD-ST2CD104J	J	100 kohm,1/6W	A A
235	VRD-MN2BD222J	J	2.2 kohms,1/8W	A A	R462	VRD-ST2CD681J	J	680 ohms,1/6W	A A	R609	VRD-MN2BD101J	J	100 ohm,1/8W	A A	R728	VRD-ST2CD104J	J	100 kohm,1/6W	A A
236~238	VRD-MN2BD103J	J	10 kohm,1/8W	A A	R463,464	VRD-ST2EE560J	J	560 ohms,1/4W	A A	R610	VRD-MN2BD682J	J	6.8 kohms,1/8W	A A	R729,730	VRD-ST2CD332J	J	3.3 kohms,1/6W	A A
240	VRD-ST2EE331J	J	330 ohms,1/4W	A A	R465~468	VRD-MN2BD473J	J	47 kohms,1/8W	A A	R611	VRD-ST2CD222J	J	2.2 kohms,1/6W	A A	R733~736	VRD-ST2CD103J	J	10 kohm,1/6W	A A
241,242	VRD-ST2EE120J	J	12 ohms,1/4W	A A	R469	VRD-ST2CD473J	J	47 kohms,1/6W	A A	R612	VRD-ST2CD222J	J	2.2 kohms,1/6W	A A	R737,738	VRD-ST2CD332J	J	3.3 kohms,1/6W	A A
243	VRD-MN2BD473J	J	47 kohms,1/8W	A A	R472,473	VRD-MN2BD473J	J	47 kohms,1/8W	A A	R613	VRD-ST2CD122J	J	1.2 kohms,1/6W	A A	R739,740	VRD-ST2CD103J	J	10 kohm,1/6W	A A
244	VRD-MN2BD104J	J	100 kohm,1/8W	A A	R474	VRD-MN2BD222J	J	2.2 kohms,1/8W	A A	R614	VRD-MN2BD103J	J	10 kohm,1/8W	A A	R741	VRD-ST2CD102J	J	1 kohm,1/6W	A A
245	VRD-MN2BD103J	J	10 kohm,1/8W	A A	R475	VRD-MN2BD391J	J	390 ohms,1/8W	A A	R616~618	VRD-MN2BD104J	J	100 kohm,1/8W	A A	R742	VRD-ST2CD333J	J	33 kohms,1/6W	A A
246	VRD-ST2CD471J	J	470 ohms,1/6W	A A	R478	VRD-ST2CD103J	J	10 kohm,1/6W	A A	R619~622	VRD-MN2BD102J	J	1 kohm,1/8W	A A	R743,744	VRD-ST2CD103J	J	10 kohm,1/6W	A A
281	VRD-ST2CD223J	J	22 kohms,1/6W	A A	R479	VRD-ST2CD473J	J	47 kohms,1/6W	A A	R623	VRD-ST2CD102J	J	1 kohm,1/6W	A A	R745	VRD-ST2CD103J	J	10 kohm,1/6W	A A
282	VRD-ST2CD122J	J	1.2 kohms,1/6W	A A	R480	VRD-MN2BD152J	J	1.5 kohms,1/8W	A A	R624	VRD-MN2BD104J	J	100 kohm,1/8W	A A	R746	VRD-ST2CD472J	J	4.7 kohms,1/6W	A A
283	VRD-RT2HD181J	J	180 ohms,1/2W	A A	R481	VRD-ST2CD391J	J	390 ohms,1/6W	A A	R625	VRD-MN2BD472J	J	4.7 kohms,1/8W	A A	R747,748	VRD-ST2CD102J	J	1 kohm,1/6W	A A
284	VRD-RT2HD151J	J	150 ohms,1/2W	A A	R482,483	VRD-ST2CD102J	J	1 kohm,1/6W	A A	R626	VRD-MN2BD104J	J	100 kohm,1/8W	A A	R749,750	VRD-ST2CD223J	J	22 kohms,1/6W	A A
285,286	VRD-ST2CD221J	J	220 ohms,1/6W	A A	R484	VRD-MN2BD122J	J	1.2 kohms,1/8W	A A	R627	VRD-MN2BD683J	J	68 kohms,1/8W	A A	R751	VRD-ST2CD183J	J	18 kohms,1/6W	A A
287,288	VRD-ST2CD105J	J	1 Mohm,1/6W	A A	R485	VRD-ST2EE2R2J	J	2.2 ohms,1/4W	A A	R633	VRD-ST2CD183J	J	18 kohms,1/6W	A A	R752	VRD-ST2EE221J	J	220 ohms,1/4W	A A
289,290	VRD-ST2CD222J	J	2.2 kohms,1/6W	A A	R486~488	VRD-MN2BD473J	J	47 kohms,1/8W	A A	R634	VRD-MN2BD682J	J	6.8 kohms,1/8W	A A	R753,754	VRD-ST2CD153J	J	15 kohms,1/6W	A A
291,292	VRD-ST2CD392J	J	3.9 kohms,1/6W	A A	R489	VRD-MN2BD821J	J	820 ohms,1/8W	A A	R635	VRD-MN2BD683J	J	68 kohms,1/8W	A A	R757,758	VRD-ST2CD100J	J	10 ohm,1/6W	A A
293,294	VRD-ST2CD103J	J	10 kohm,1/6W	A A	R490	VRD-MN2BD105J	J	1 Mohm,1/8W	A A	R636	VRD-MN2BD272J	J	2.7 kohms,1/8W	A A	R759,760	VRD-ST2CD123J	J	12 kohms,1/6W	A A
302~304	VRD-MN2BD103J	J	10 kohm,1/8W	A A	R491	VRD-MN2BD222J	J	2.2 kohms,1/8W	A A	R637	VRD-ST2CD103J	J	10 kohm,1/6W	A A	R761,762	VRD-ST2CD103J	J	10 kohm,1/6W	A A
305	VRD-MN2BD224J	J	220 kohms,1/8W	A A	R492	VRD-ST2CD391J	J	390 ohms,1/6W	A A	R638	VRD-MN2BD103J	J	10 kohm,1/8W	A A	R763,764	VRD-ST2CD153J	J	15 kohms,1/6W	A A
306~308	VRD-MN2BD103J	J	10 kohm,1/8W	A A	R493	VRD-MN2BD103J	J	10 kohm,1/8W	A A	R639	VRD-MN2BD332J	J	3.3 kohms,1/8W	A A	R765,766	VRD-ST2CD102J	J	1 kohm,1/6W	A A
309~311	VRD-MN2BD102J	J	1 kohm,1/8W	A A	R494	VRD-ST2EE221J	J	220 ohms,1/4W	A A	R640	VRD-ST2CD822J	J	8.2 kohms,1/6W	A A	R769~772	VRD-ST2CD224J	J	220 kohms,1/6W	A A
312~314	VRD-MN2BD103J	J	10 kohm,1/8W	A A	R495	VRD-ST2CD561J	J	560 ohms,1/6W	A A	R641	VRD-MN2BD682J	J	6.8 kohms,1/8W	A A	R773,774	VRD-ST2CD273J	J	27 kohms,1/6W	A A
315~317	VRD-MN2BD102J	J	1 kohm,1/8W																

REF.NO.	PART NO.	★	DESCRIPTION	CODE	REF.NO.	PART NO.	★	DESCRIPTION	CODE
R793,794	VRD-ST2CD102J	J	1 kohm,1/6W	A A	BI801A,B	92LC0NE5M1505A	J	Connector Ass'y,6-6Pin	A G
R797,798	VRD-ST2CD562J	J	5.6 kohms,1/6W	A A	BI902	92LC0NE-1468A	J	Connector Ass'y,4-3Pin	A E
R801,802	VRD-ST2CD562J	J	5.6 kohms,1/6W	A A	CNP1	QCNCM687HAFZZ	J	Plug,8Pin	A B
R803,804	VRD-ST2CD563J	J	56 kohms,1/6W	A A	CNP2	QCNCM687FAFZZ	J	Plug,6Pin	A B
R805,806	VRD-ST2CD102J	J	1 kohm,1/6W	A A	CNP3	QCNCM687LAFZZ	J	Plug,11Pin	A C
R807,808	VRD-ST2CD471J	J	470 ohms,1/6W	A A	CNP4	QCNCM687KAFZZ	J	Plug,10Pin	A C
R809,810	VRD-ST2CD563J	J	56 kohms,1/6W	A A	CNP5	QCNCM687EAFZZ	J	Plug,5Pin	A B
R811	VRD-ST2CD103J	J	10 kohm,1/6W	A A	CNP6	QCNCM687CAFZZ	J	Plug,3Pin	A A
R812	VRD-ST2CD154J	J	150 kohms,1/6W	A A	CNP7	QCNCM687BAFZZ	J	Plug,2Pin	A A
R813~816	VRD-ST2EE332J	J	3.3 kohms,1/4W	A A	CNP8	QCNCM687CAFZZ	J	Plug,3Pin	A A
△R818	VRG-ST2EF101J	J	100 ohm,1/4W,Fusible	A B	CNP401	QCNCM742BAFZZ	J	Plug,2Pin	A A
R819,820	VRD-ST2EE102J	J	1 kohm,1/4W	A A	CNP601,602	QCNCM742BAFZZ	J	Plug,2Pin	A A
R821	VRD-ST2CD224J	J	220 kohms,1/6W	A A	CNP701	QCNCM742KAFZZ	J	Plug,10Pin	A C
R822	VRD-ST2CD393J	J	39 kohms,1/6W	A A	CNP702	QCNCM742FAFZZ	J	Plug,6Pin	A B
△R823	VRG-ST2EF101J	J	100 ohm,1/4W,Fusible	A B	CNP703	QCNCM683DAFZZ	J	Plug,4Pin	A A
R824	VRD-ST2CD101J	J	100 ohm,1/6W	A A	CNP704	QCNCM742EAFZZ	J	Plug,5Pin	A B
R825	VRD-ST2CD104J	J	100 kohm,1/6W	A A	CNP705	QCNCM742BAFZZ	J	Plug,2Pin	A A
R827,828	VRD-ST2EE4R7J	J	4.7 ohms,1/4W	A A	CNP801	QCNCM643EAFZZ	J	Plug,5Pin	A C
R829,830	VRS-PT3AE331J	J	330 ohms,1W,Metal Oxide Film	A A	CNP901	QCNCM184EAFZZ	J	Plug,5Pin	A C
R836,837	VRD-ST2CD472J	J	4.7 kohms,1/6W	A A	CNS1A/B	QCNCM184EAFZZ	J	Connector Ass'y,6-6/8-8 Pin	A P
R839,840	VRD-ST2EE152J	J	1.5 kohms,1/4W	A A	CNS2A/B	_____	_____	Part of Ref. No.CNS1A/B	—
△R841,842	VRG-ST3AJ181J	J	180 ohms,1W,Fusible	A B	CNS3	QCNCM3762AFZZ	J	Connector Ass'y,11Pin	A G
R843	VRD-ST2CD183J	J	18 kohms,1/6W	A A	CNS4	_____	_____	Part of Ref. No.BI302	—
R844	VRD-ST2EE472J	J	4.7 kohms,1/4W	A A	CNS5	_____	_____	Part of Ref. No.BI301	—
R845	VRD-ST2EE101J	J	100 ohm,1/4W	A A	CNS6	_____	_____	Part of Ref. No.BI902	—
R846	VRD-RT2HD101J	J	100 ohm,1/2W	A A	CNS7	_____	_____	Part of Ref. No.BI502	—
R847	VRD-ST2EE182J	J	1.8 kohms,1/4W	A A	CNS8	_____	_____	Part of Ref. No.BI501	—
R848	VRD-ST2CD332J	J	3.3 kohms,1/6W	A A	CNS401	_____	_____	Part of Ref. No.BI401	—
R849	VRD-ST2EE101J	J	100 ohm,1/4W	A A	CNS601	QCNCM3852AFZZ	J	Connector Ass'y,2Pin	A B
△R850	VRG-ST2EG2R2J	J	2.2 ohms,1/4W,Fusible	A B	CNS602	_____	_____	Part of Ref. No.BI201	—
R851	VRD-ST2EE102J	J	1 kohm,1/4W	A A	CNS701	92LM-C0NE1505C	J	Connector Ass'y,10Pin	A H
R852	VRD-ST2EE101J	J	100 ohm,1/4W	A A	CNS702	92LM-C0NE1505A	J	Connector Ass'y,6Pin	A F
△R853	VRG-ST2EG1R0J	J	1 ohm,1/4W,Fusible	A B	CNS703	92LM-C0NE1505B	J	Connector Ass'y,4Pin	A N
R854	VRD-ST2EE102J	J	1 kohm,1/4W	A A	CNS704	92LM-C0NE1505D	J	Connector Ass'y,5Pin	A H
R855	VRD-ST2EE101J	J	100 ohm,1/4W	A A	CNS705	92LM-C0NE1505E	J	Connector Ass'y,2Pin	A C
△R856	VRG-ST2EG1R0J	J	1 ohm,1/4W,Fusible	A B	△CNS801	_____	_____	Part of Ref. No.T901	—
R857	VRD-ST2EE102J	J	1 kohm,1/4W	A A	△CNS901	_____	_____	Part of Ref. No.T901	—
R860	VRD-ST2CD332J	J	3.3 kohms,1/6W	A A	△F801	QFS-C252GAFNi	J	Fuse,T2.5A,250V	A D
R861	VRD-ST2CD102J	J	1 kohm,1/6W	A A	△F802,803	QFS-C402GAFNi	J	Fuse,T4A,250V	A D
R862,863	VRD-ST2CD103J	J	10 kohm,1/6W	A A	△F901	QFS-C402GAFNi	J	Fuse,T4A,250V	A D
R869,870	VRD-ST2CD104J	J	100 kohm,1/6W	A A	△F902,903	QFS-C501GAFNi	J	Fuse,T500mA,250V	A D
R871,872	VRD-ST2CD151J	J	150 ohms,1/6W	A A	△F904,905	QFS-C202GAFNi	J	Fuse,T2A,250V	A D
R873,874	VRD-ST2CD472J	J	4.7 kohms,1/6W	A A	FE601	RTUNS0062AFZZ	J	FM Front End	A X
R875,876	VRD-ST2CD182J	J	1.8 kohms,1/6W	A A	J801	QJAKJ0119AFZZ	J	Jack,Headphones	A F
R877,878	VRD-ST2CD151J	J	150 ohms,1/6W	A A	J802	QJAKC0068AFZZ	J	Jack,DC Power Supply	A C
R879,880	VRD-ST2CD182J	J	1.8 kohms,1/6W	A A	LCD201	RV-LX0091AFZZ	J	LCD [Tuner]	A T
R881,882	VRD-ST2CD154J	J	150 kohms,1/6W	A A	LCD301	RV-LX0092AFZZ	J	LCD [CD]	A T
R883,884	VRD-ST2CD472J	J	4.7 kohms,1/6W	A A	△M1	RM0TV0364AF01	J	Motor Ass'y [Spin]	A T
R885,886	VRD-ST2HD271J	J	270 ohms,1/2W	A A	△M2	RM0TV0365AF00	J	Motor with Gear [Slide]	A Q
R950	VRD-ST2CD102J	J	1 kohm,1/6W	A A	△M3	RM0TV0366AFZZ	J	Motor with Pulley [Loading]	A M
R951	VRD-ST2CD103J	J	10 kohm,1/6W	A A	M401	_____	_____	Part of Ref. No.VR408	—
R952	VRD-ST2CD101J	J	100 ohm,1/6W	A A	△M701	92LMTR1439AASY	J	Motor with Pulley [TAPE 1]	A S
R953,954	VRD-ST2CD103J	J	10 kohm,1/6W	A A	△M702	RM0TV0303AF08	J	Motor with Pulley [TAPE 2]	A R
R955,956	VRD-ST2CD153J	J	15 kohms,1/6W	A A	PL201,202	RLMPM0208AFZZ	J	Lamp	A D
R957,958	VRD-ST2CD103J	J	10 kohm,1/6W	A A	PL301,302	RLMPM0208AFZZ	J	Lamp	A D
R959	VRD-ST2EE221J	J	220 ohms,1/4W	A A	PL401,402	RLMPM0208AFZZ	J	Lamp	A D
R961,962	VRD-ST2CD562J	J	5.6 kohms,1/6W	A A	RLY801	RRLYU0029AFZZ	J	Relay	A K
R963,964	VRD-ST2CD123J	J	12 kohms,1/6W	A A	RMC401	RRMCU0063AFZZ	J	Receiver,Remote Control	A L
R965,966	VRD-ST2CD105J	J	1 Mohm,1/6W	A A	SO501	QS0CJ4629AFZZ	J	Socket,6Pin, RCA Type [AUX/REC OUT/ PHONO]	A H
R967,968	VRD-ST2CD472J	J	4.7 kohms,1/6W	A A	SO601	QTANC0401AFZZ	J	Socket [Antenna]	A G
					SO801	QTANA0804AFZZ	J	Terminal,Speaker	A G
					SW1	QSW-P9209AFZZ	J	Switch,Push Type [Pickup In]	A C
					SW2	QSW-F0211AFZZ	J	Switch,Leaf Type	A D
					SW201~203	QSW-K0170AFZZ	J	Switch,Key Type [Tuner Control]	A B

OTHER CIRCUITRY PARTS

BI201	QCNCM3951AFZZ	J	Connector Ass'y,2-2Pin	A C
BI301	QCNCM3849AFZZ	J	Connector Ass'y,6-5Pin	A F
BI302	QCNCM3850AFZZ	J	Connector Ass'y,10-10Pin	A H
BI401	QCNCM3853AFZZ	J	Connector Ass'y,2-2Pin	A C
BI501	QCNCM3848AFZZ	J	Connector Ass'y,4-3Pin	A F
BI502	QCNCM3847AFZZ	J	Connector Ass'y,2-2Pin	A D

CD-320X

REF.NO.	PART NO.	★	DESCRIPTION	CODE	REF.NO.	PART NO.	★	DESCRIPTION	CODE
SW205~210	QSW-K0170AFZZ	J	Switch,Key Type [Tuner Control]	A B	138	MLEVF2291AFFW	J	Lever,Revers Switch	A B
SW280	QSW-P0911AFZZ	J	Switch,Push Type [Tape Control]	A M	139	MLEVF2293AFZZ	J	Lever,Logic Slide	A C
SW301~309	QSW-K0170AFZZ	J	Switch,Key Type [CD Control]	A B	140	MLEVF2294AFFW	J	Lever,Logic	A B
SW401~405	QSW-K0170AFZZ	J	Switch,Key Type [Function]	A B	141	MLEVF2297AFZZ	J	Lever,Mode	A C
SW601	QSW-S0427AFZZ	J	Switch,Slide Type [Span Selector]	A E	142	MLEVF2303AFFW	J	Lever,Change Release	A B
SW602	QSW-K0064AFZZ	J	Switch,Key Type [Reset]	A C	143	MLEVF2305AFZZ	J	Lever,Revers Joint	A C
SW701	QSW-S0540AFZZ	J	Switch,Slide Type [Rec./P. B]	A G	144	MLEVF2308AFFW	J	Lever,Eject Action	A A
SW702	QSW-S0427AFZZ	J	Switch,Slide Type [Beat Cancel]	A E	145	MLEVF2309AFZZ	J	Lever,Idler	A D
SW703	QSW-F0341AFZZ	J	Switch,Skeleton Type	A C	146	MLEVF2310AFFW	J	Lever,Revers	A A
SW704	QSW-F0306AFZZ	J	Switch,Leaf Type	A B	147	MLEVF2332AFFW	J	Lever,Direction	A F
SW705	QSW-F0136AFZZ	J	Switch,Skeleton Type	A D	148	MLEVF2333AFFW	J	Lever,Fast Forward	A F
SW706	QSW-F0307AFZZ	J	Switch,Leaf Type	A B	149	MLEVF2334AFFW	J	Lever,Play	A F
SW707	QSW-F0334AFZZ	J	Switch,Leaf Type	A C	150	MLEVF2335AFFW	J	Lever,Rewind	A F
SW708	QSW-F0306AFZZ	J	Switch,Leaf Type	A B	151	MLEVF2336AFFW	J	Lever,Stop	A F
△SW901	QSW-P9202AFZZ	J	Switch,Push Type [Power]	A F	152	MLEVF2348AFFW	J	Lever,Back Joint	A A
SW902	QSDCE0612AFZZ	J	Voltage Selector	A K	153	MLEVP0761AF00	J	Lever,Holder Lock	A A
TP601	QCNCM545BAFZZ	J	Plug,2Pin [Test Point]	A A	154	MLEVP0762AF00	J	Latch Plate	A A
TP702	QCNCM0503SGZZ	J	Plug,6Pin [Test Point]	A C	155	MLEVP0764AF00	J	Lever,Button	A A
WT501	QCNCM680KAFZZ	J	Socket,10Pin,Wire Trap	A D	156	MLEVP0897AFZZ	J	Lever,Pause Release	A B
WT502	QCNCM680GAFZZ	J	Socket,7Pin,Wire Trap	A C	157	MLEVP0898AFZZ	J	Lever,One Cycle Action	A A
WT503	QCNCM680KAFZZ	J	Socket,10Pin,Wire Trap	A D	158	MLEVP0899AFZZ	J	Lever,One Cycle	A B
WT601	QCNCM680KAFZZ	J	Socket,10Pin,Wire Trap	A D	159	MLEVP0900AFZZ	J	Lever,One Way	A A
WT701	QCNCM680KAFZZ	J	Socket,10Pin,Wire Trap	A D	160	MLEVP0902AFZZ	J	Lever,Killer	A A
WT702	QCNCM680CAFZZ	J	Socket,3Pin,Wire Trap	A B	161	MLEVP0903AFZZ	J	Lever,Senser	A B
WT801	QCNCM680KAFZZ	J	Socket,10Pin,Wire Trap	A D	162	MLEVP0904AFZZ	J	Lever,Full Auto Senser	A B
WT802	QCNCM680EAFZZ	J	Socket,5Pin,Wire Trap	A A	163	MLEVP0905AFZZ	J	Lever,R Cam	A B
WT803	QCNCM680KAFZZ	J	Socket,10Pin,Wire Trap	A D	164	MSPRC0862AFFJ	J	Spring,Pause Lock Lever	A A
TAPE 1 MECHANISM PARTS					165	MSPRC0825AFFJ	J	Spring,Back Tension	A A
101	92LM-BTN1505A	J	Button,Tape Mechanism	A B	166	MSPRD1076AFFJ	J	Spring,Revers	A A
103	LANGT1560AFFW	J	Bracket,Button	A B	167	MSPRD1077AFFJ	J	Spring,Head Gear	A A
104	LANGT1775AFFW	J	Bracket,Motor	A C	168	MSPRD1078AFFJ	J	Spring,Pinch Roller Return, Left	A A
105	LANGT1777AFFW	J	Bracket,Revers Cam	A B	169	MSPRD1079AFFJ	J	Spring,Pinch Roller Return, Right	A A
106	LANGT1779AFFW	J	Bracket,Head Azimuth	A C	170	MSPRD1080AFFJ	J	Spring,FR Change	A B
107	LANGT1782AFFW	J	Bracket,Mechanism Joint	A D	171	MSPRD1081AFFJ	J	Spring,Control Lever,Right	A A
108	92LM-ANG1505A	J	Bracket,Button Shaft, Center	A B	172	MSPRD1082AFFJ	J	Spring,Control Lever,Left	A A
109	92LM-ANG1439F	J	Bracket,Button Shaft,Side	A B	173	MSPRD1083AFFJ	J	Spring,Pinch Roller,Right	A A
110	LANGT1815AFFW	J	Bracket,Head Azimuth	A C	174	MSPRD1084AFFJ	J	Spring,Pinch Roller,Left	A A
111	LBSHZ0086AFZZ	J	Cushion,Motor	A A	175	MSPRD1085AFFJ	J	Spring,Logic	A A
112	LBSHZ0095AFZZ	J	Bushing,Head Wire	A A	176	MSPRD1086AFFJ	J	Spring,FR Joint Lever	A A
113	LCHSM0785AFZZ	J	Chassis,Main	—	177	MSPRD1087AFFJ	J	Spring,Full Auto Senser Lever	A A
114	LCHSS0288AFZZ	J	Chassis,Head Plate	A E	178	MSPRD1088AFFJ	J	Spring,FR	A A
115	LDA iH0103AF01	J	Head Base	A E	179	MSPRD1089AFFW	J	Spring,One Way Lever	A A
116	LHLDW1075AFZZ	J	Nylon Band,60mm	A A	180	MSPRD1090AFFW	J	Spring,One Cycle Lever	A A
118	LHLDW3092AFZZ	J	Wire Holder	A A	181	MSPRD1130AFFJ	J	Spring,Revers Cam	A A
120	LPLTM0252AFZZ	J	Reel Plate Ass'y	A L	182	MSPRD1144AFFJ	J	Spring,Earth F	A A
121	LPLTM0253AFZZ	J	Revers Plate Ass'y	A C	183	MSPRD1145AFFJ	J	Spring,Earth R	A A
123	LSLVM0298AFFD	J	Sleeve,Revers Cam F	A B	184	MSPRD1146AFFJ	J	Spring,Control Lever	A A
124	LSLVM0309AFFW	J	Sleeve,Guide	A B	185	MSPRP0492AFFW	J	Plate Spring,Cassette Press	A A
125	LSLVM0313AFFD	J	Sleeve,Back Joint Lever	A B	186	MSPRP0600AFFJ	J	Spring,Head Azimuth	A A
126	LSLVP0030AFZZ	J	Sleeve,Fast Forward	A B	187	MSPRT1309AFFJ	J	Spring,Holder Lock	A A
127	MCAMP0113AF01	J	Cam,Revers	A D	188	MSPRT1444AFFJ	J	Spring,OS	A A
128	MCAMP0114AFZZ	J	Cam,End	A A	189	MSPRT1448AFFJ	J	Spring,Direction Lever F	A A
129	MLEVF2280AFFW	J	Lever,FR Joint	A B	190	MSPRT1449AFFJ	J	Spring,R Cam Lever	A A
130	MLEVF2281AFFW	J	Lever,Prevention	A B	191	MSPRT1450AFFJ	J	Spring,One Cycle Action Lever	A A
131	MLEVF2283AFFW	J	Lever,Lock	A D	192	MSPRT1451AFFJ	J	Spring,killer Lever	A A
132	MLEVF2286AFFW	J	Lever,Direction F	A A	193	MSPRT1452AFFJ	J	Spring,Pause Back Lever	A A
134	MLEVF2287AFZZ	J	Lever,FR	A D	194	MSPRT1453AFFJ	J	Spring,Prevention Lever	A A
136	MLEVF2289AFFW	J	Lever,FA Senser	A B	195	MSPRT1454AFFJ	J	Spring,Lock Lever	A A
137	MLEVF2290AFFW	J	Lever,Pause Back	A D	196	NBLTK0490AFZZ	J	Belt,Drive	A B
					197	NBLTK0491AFZZ	J	Belt,FA	A B
					198	NDA iR0323AFZZ	J	Reel	A B
					199	NDA iR0323AF00	J	Reel Ass'y	A E
					200	NFLYC0215AF00	J	Flywheel,Right	A G
					201	NFLYC0216AF00	J	Flywheel,Left	A G
					202	NGERH0386AF00	J	Gear,Play Torque	A D

REF.NO.	PART NO.	★	DESCRIPTION	CODE	REF.NO.	PART NO.	★	DESCRIPTION	CODE
208	NGERH0388AFZZ	J	Gear,End Cam	A B	26	MLEVF2053AFFW	J	Lever,Pause Action	A A
209	NGERH0389AFZZ	J	Gear,Revers Cam	A B	27	MLEVF2054AFFW	J	Lever,Fast Forward/ Rewind Prevention	A A
210	NGERH0390AF00	J	Gear,FR	A E					
212	NiDR-0154AFZZ	J	Idler,Play Right	A B	28	92LM-LEV1431G	J	Lever,Head Back	A B
213	NiDR-0155AFZZ	J	Idler,Play Left	A B	29	MLEVF2056AFFW	J	Lever,Eject Action	A A
214	NPLYR0197AFZZ	J	Pulley,Drive	A B	30	MLEVF2264AFZZ	J	FA Base Ass'y	A C
215	NR0LY0133AFZZ	J	Pinch Roller,Right	A D	32	MLEVP0756AFZZ	J	Roller Ass'y,Fast Forward/ Rewind	A F
216	NR0LY0134AFZZ	J	Pinch Roller,Left	A D					
217	NSFTT0507AFFD	J	Shaft,Button	A B	33	MLEVP0760AF00	J	Lever,Erase Prevention	A A
218	PCAPR1102AF00	J	Cap,Reel	A A	34	MLEVP0761AF00	J	Lever,Holder Lock	A A
219	PGiDM0205AF00	J	Lever Guide Ass'y	A H	35	MSPRC0823AFFJ	J	Spring,Supply Reel	A A
220	QHWS-2222AGFN	J	Lug	A A	36	MLEVP0764AF00	J	Lever,Button	A A
221	RHEDF0142AFZZ	J	Head,Playback	A N	37	MLEVP0886AFZZ	J	Lever,FA Senser	A B
222	LANGT1811AFFW	J	Bracket,Reel Plate Ass'y	A D	38	MLEVP0887AFZZ	J	Lever,Senser Killer	A A
223	MSPRT1476AFFJ	J	Spring,Logic Slide Lever	A A	40	MLEVP0890AF00	J	Latch Plate	A A
224	MSPRT1488AFFJ	J	Spring,Change Release Lever	A A	41	MSPRC0458AFFJ	J	Spring,Pause Lock Lever	A A
					43	MSPRC0693AFFJ	J	Spring,Azimuth	A A
602	LX-BZ0451AFFD	J	Screw,φ2.6×1.4mm	A A	44	MSPRC0816AFFJ	J	Spring,FA Senser Lever	A A
603	LX-BZ0701AFFD	J	Screw,φ2×6mm	A A	45	MSPRD0875AFFJ	J	Spring,Fast Forward/ Rewind Lever Return	A A
604	LX-HZ0212AFFD	J	Screw,φ2.6×7.2mm	A B					
605	LX-HZ0213AFFD	J	Screw,φ2×2mm	A B	46	MSPRD0876AFFJ	J	Spring,Stop/Pause Lever Return	A A
606	LX-HZ0214AFFD	J	Screw,φ2×2mm	A B					
607	LX-JZ0105AFFN	J	Screw,φ1.7×5mm	A A	47	MSPRD0877AFFJ	J	Spring,Pinch Roller	A A
608	LX-WZ1070AFZZ	J	Washer,φ1.5×φ3.8×0.25mm	A A	48	MSPRD0878AFFJ	J	Spring,Ground	A A
609	LX-WZ1149AFZZ	J	Washer,φ1.8×φ3.4×0.5mm	A A	49	MSPRP0492AFFW	J	Plate Spring,Cassette Press	A A
610	LX-WZ9064AFZZ	J	Washer,φ1.5×φ3.8×0.5mm	A A					
611	LX-WZ9066AFZZ	J	Washer,φ1.2×φ3.2×0.5mm	A A	50	MSPRT1308AFFJ	J	Spring,Fast Forward/ Rewind Roller Ass'y	A A
612	LX-WZ9069AFZZ	J	Washer,φ1.2×φ4×0.25mm	A A					
613	LX-WZ9191AFZZ	J	Washer,φ1.6×φ3.4×0.5mm	A A	51	MSPRT1309AFFJ	J	Spring,Holder Lock Lever	A A
614	XBBSD14P06000	J	Screw,φ1.4×6mm	A A	52	MSPRT1310AFFJ	J	Spring,Overstroke	A A
615	XBPSD20P16000	J	Screw,φ2×16mm	A A	53	MSPRT1312AFFJ	J	Spring,Record Lever	A A
616	XHBSD20P03000	J	Screw,φ2×3mm	A A	55	MSPRT1315AFFJ	J	Spring,Lock Lever	A A
617	XHBSD20P04000	J	Screw,φ2×4mm	A A	56	MSPRT1364AFFJ	J	Spring,Play Gear Lever	A A
619	XHBSD20P06000	J	Screw,φ2×6mm	A A	57	MSPRT1365AFFJ	J	Spring,Play Lever	A A
620	XHBSD20P09000	J	Screw,φ2×9mm	A A	58	MSPRT1432AFFJ	J	Spring,Senser Killer Lever	A A
621	XHPSD20P04000	J	Screw,φ2×4mm	A A	61	NBLTK0462AFZZ	J	Belt,Drive	A B
622	XHPSD26P05000	J	Screw,φ2.6×5mm	A A	62	NBLTK0463AFZZ	J	Belt,Fast Forward/Rewind	A B
623	XJBSD20P05000	J	Screw,φ2×5mm	A A	63	NBLTK0484AFZZ	J	Belt,FA	A B
624	XREUJ12-03000	J	Washer"E"Type,φ2×0.3mm	A A	64	NDAiR0304AFZZ	J	Reel Ass'y,Supply	A D
625	XREUJ20-04000	J	Washer"E"Type,φ2×0.4mm	A A	66	NDAiR0321AFZZ	J	Reel Ass'y,Take-up	A D
626	XWHJZ23-05044	J	Washer,φ2.3×φ4.4×0.5mm	A A	67	NFLYC0212AFZZ	J	Flywheel	A G
627	LX-WZ9195AFZZ	J	Washer,φ3.6×φ6×0.35mm	A A	68	NGERH0245AF00	J	Gear,Play	A A
628	XHBSD20P07000	J	Screw,φ2×7mm	A A	69	NGERH0246AF00	J	Gear,Fast Forward	A A
629	XWHJZ21-01360	J	Washer,φ2.1×φ6×0.13mm	A A	71	NPLYR0193AFZZ	J	Pulley,FA	A B
630	XWHJZ26-01047	J	Washer,φ2.6×φ4.7×0.13mm	A A	72	NR0LY0090AFZZ	J	Pinch Roller Ass'y	A D
631	LX-WZ1064AFZZ	J	Washer,φ1.2×φ3.2×0.25mm	A A	73	NSFTT0507AFFD	J	Shaft,Button	A B
632	XWHJZ17-02532	J	Washer,φ1.7×φ3.2×0.25mm	A A	74	PGiDM0144AFZZ	J	Lever Guide Ass'y	A E
					75	RHEDA0125AFZZ	J	Head,Erase	A G
					76	92LM-RPH1439A	J	Head,Record/Playback	A T
					77	QCWNW4076AFZZ	J	Wire with Chip	A C
					78	LHLDW3092AFZZ	J	Wire Holder	A A
					79	LHLDW1075AFZZ	J	Nylon Band,60mm	A A
					80	MLEVF2075AFFW	J	Plate,Prevention	A A
					501	LX-BZ0451AFFD	J	Screw,φ2×6mm	A A
					502	LX-JZ0105AFFN	J	Screw,φ1.7×5mm	A A
					505	LX-WZ1149AFZZ	J	Washer,φ1.8×φ3.4×0.5mm	A A
					506	LX-WZ1152AFZZ	J	Washer,Take-up Reel	A A
					507	LX-WZ9066AFZZ	J	Washer,φ1.2×φ3.2×0.5mm	A A
					509	XHBSD20P04000	J	Screw,φ2×4mm	A A
					510	XHBSD20P05000	J	Screw,φ2×5mm	A A
					511	XHBSD20P08000	J	Screw,φ2×8mm	A A
					512	XHBSD20P09000	J	Screw,φ2×9mm	A A
					513	XJBSD20P05000	J	Screw,φ2×5mm	A A
					514	XREUJ20-04000	J	Ring,"E"Type,φ2×0.4mm	A A
					515	XWHJZ23-05044	J	Washer,φ2.3×φ4.4×0.5mm	A A
					517	XHPSD26P05000	J	Screw,φ2.6×5mm	A A
					518	XWHJZ21-02540	J	Washer,φ2.1×φ4×0.25mm	A A
					519	LX-WZ9064AFZZ	J	Washer,φ1.5×φ3.8×0.5mm	A A
					520	XHBSD20P06000	J	Screw,φ2×6mm	A A
					521	LX-WZ9069AFZZ	J	Washer,φ1.2×φ4×0.25mm	A A

TAPE 2 MECHANISM PARTS

2	92LM-BTN1505A	J	Button,Tape Mechanism	A B
3	92LM-ANG1431C	J	Bracket,Button	A C
5	LANGK0621AFFW	J	Bracket,Switch	A A
6	LANGT1559AFFW	J	Bracket,Motor	A B
7	LANGT1560AFFW	J	Bracket,Button	A B
8	LBSHZ0086AFZZ	J	Cushion,Motor	A A
9	LCHSS0275AFFW	J	Sub Chassis	A B
10	LDAiH0070AF00	J	Head Base	A B
12	LPLTM0243AFZZ	J	Plate,Reel	A E
13	LPLTM0199AFFW	J	Plate,Back	A B
14	LRTNP0058AFZZ	J	Stopper	A A
17	MCAMP0112AFZZ	J	Cam,FA	A B
18	MLEVF2044AFZZ	J	Lever,Play Gear	A B
19	MLEVF2045AFFW	J	Lever,Record	A D
20	MLEVF2046AFFW	J	Lever,Play	A D
21	MLEVF2047AFFW	J	Lever,Rewind	A D
22	MLEVF2048AFFW	J	Lever,Fast Forward	A D
23	MLEVF2049AFFW	J	Lever,Stop	A D
24	MLEVF2050AFZZ	J	Lever,Pause	A D
25	MLEVF2051AFZZ	J	Lever,Lock	A C

CD-320X

REF.NO.	PART NO.	★	DESCRIPTION	CODE	REF.NO.	PART NO.	★	DESCRIPTION	CODE
523	XWHJZ23-01344	J	Washer, $\phi 2.3 \times \phi 4.4 \times 0.13\text{mm}$	A A	418	92LKN0B1505D	J	Button, Play, CD	A D
524	XWHJZ21-01360	J	Washer, $\phi 2.1 \times \phi 6 \times 0.13\text{mm}$	A A	419	92LKN0B1505E	J	Button, Pause/APSS Up/ APSS Down, CD	A D
CD MECHANISM PARTS									
301	LCHSM0735AFZZ	J	Chassis	A F	420	92LKN0B1431i	J	Button, Open/Close/ Repeat/Call/Memory/ Stop/Clear, CD	A D
302	LHLDW1075AFZZ	J	Nylon Band, 60mm	A A	421	92LKN0B1505F	J	Button, Preset Tuning	A D
303	MSPRC0798AFZZ	J	Spring, Rack	A A	422	92LSUPT1431F	J	Bracket, Tuner PWB, Rear	A F
304	NGERH0363AFZZ	J	Gear, Middle	A B	423	92LKN0B1505H	J	Button, Memory/FM Mode/ Auto Scan/Tuning	A A
305	NGERH0364AFZZ	J	Gear, Drive	A B	424	92LKN0B1505B	J	Button, Function Selector	A E
306	NGERR0031AFZZ	J	Gear, Rack, Fix	A B	425	KC0UB0203AFZZ	J	Tape Counter	A G
307	NGERR0032AFZZ	J	Gear, Rack, Move	A B	426	92LSUPT1431F	J	Bracket, Tuner PWB, Rear	A F
308	NSFTM0215AFFW	J	Shaft, Guide	A E	429	LANGK0680AFZZ	J	Bracket, CD PWB, Left	A F
△309	RCTRH8112AFZZ	J	Pickup Unit	B P	430	LANGK0681AFZZ	J	Bracket, CD PWB, Right	A F
801	XBPSD17P03000	J	Screw, $\phi 1.7 \times 3\text{mm}$	A A	432	92LSUPT1468B	J	Bracket, Main PWB, Right	A E
802	XBPSD26P06J00	J	Screw, $\phi 2.6 \times 6\text{mm}$	A A	433	92LSUPT1431K	J	Bracket, Tuner PWB, Front	A E
803	XEPSD20P08000	J	Screw, $\phi 2 \times 8\text{mm}$	A A	435	92LSUPT1431B	J	Bracket, Power PWB	A C
CABINET PARTS									
401	92LMEC1505CTS1	J	Cassette Holder Ass'y [Tape 1]	A Q	436	92LSUPT1431E	J	Bracket, Terminal	A K
401-1			Holder, Cassette (Not Replacement Item)	—	437	92LSUPT1431A	J	Bracket, Tape Counter	A B
401-2	92LPANEL1505F	J	Window, Cassette Holder	A L	438	92LM-ANG1431D	J	Lever, Record	A C
402	92LMEC1505CTS2	J	Cassette Holder Ass'y [Tape 2]	A Q	△439	LBSHC0004AGZZ	J	Bushing, AC Power Supply Cord	A B
402-1			Holder, Cassette (Not Replacement Item)	—	440	LCHSM0738AFZZ	J	Chassis, Loading	A K
402-2	92LPANEL1505G	J	Window, Cassette Holder	A L	441	92LS-CHS1468A	J	Chassis, Main	—
403	92LCAB1507AS1	J	Front Panel Ass'y	B F	442	LHLDA1091AFZZ	J	Holder, Antenna	A B
403-1			Panel, Front (Not Replacement Item)	—	443	92LSUPT1431J	J	Holder, Lamp	A B
403-2	92LPANEL1505B	J	Window, CD	A K	444	LHLDW11224AFZZ	J	Nylon Band, 80mm	A A
403-3	92LPANEL1505C	J	Window, Tuner	A K	445	92LH0LD1431B	J	Holder, LED	A D
403-4	GMADM0147AFSA	J	Window, Multi Sound	A Q	446	92Li LMT1431B	J	Holder, LCD	A D
403-5	GMADZ0166AFSA	J	Window, Remote Control	A D	447	92Li LMT1431A	J	Plate, LCD	A E
403-6	92LPANEL1505E	J	Decoration Plate, Tape Selector	A F	448	LX-LZ0055AF00	J	Push Rivet	A A
403-7	92LKN0B1505i	J	Decoration Plate, Deck, Left	A B	449	MLEVF2178AFZZ	J	Lever, Record	A D
403-8	92LKN0B1505J	J	Decoration Plate, Deck, Right, Serial No.00300001~00301918	A D	450	MLEVP0873AFZZ	J	Lever, Shift	A D
403-8	92LKN0B1507B	J	Decoration Plate, Deck, Right, Serial No.00401919~	A D	451	92LLEV1431A	J	Lever, Power	A C
403-9	92LKN0B1505K	J	Decoration Plate, Deck, Center	A B	452	MLiFP0040AFZZ	J	Damper	A C
403-10	92LPANEL1431G	J	Decoration Plate, Leg, Front	A C	453	MSPRD1047AFFJ	J	Spring, Cassette Holder	A B
403-11	LX-LZ0083AF00	J	Push Rivet	A A	454	92LCSPR1505A	J	Spring, Record	A D
403-12	92LCUSN1431A	J	Felt, Front Reg, $\phi 17\text{mm}$	A A	455	NBLTK0479AF00	J	Belt, Drive	A B
403-13	92LPANEL1431L	J	Sheet, Remote Control	A A	456	NBLTK0485AFZZ	J	Belt, Tape Counter	A B
403-14	92LC0V1505A	J	Cover, LED, Right	A B	457	NGERH0370AFZZ	J	Gear, Pinion	A A
403-15	92LC0V1505B	J	Cover, LED, Left	A B	458	NGERR0033AFZZ	J	Gear, Rack	A E
404	92LCAB1431C	J	Cabinet, Top	A T	459	PC0VZ1186AFZZ	J	Cover, Magnet	A B
405	92LH0LD1431A	J	Case, Battery	A D	460	PC0VZ1200AFZZ	J	Sheet	A B
406	GC0VA1851AFSB	J	Disc Holder	A G	461	PCUSF0104AFZZ	J	Cushion, Loading Chassis	A A
407	92LWPLATE1507A	J	Board, Back	A M	462	PCUSG0419AFSA	J	Cushion, Loading Chassis	A C
408	92LCAB1431B	J	Plate, Side	A Q	463	PCUSG0420AFSA	J	Cushion, Shift Lever	A B
409	92LLEG1431A	J	Leg, Rear	A A	464	PMAGF0051AFZZ	J	Magnet	A E
410	92LPANEL1505D	J	Decoration Plate, Multi Sound	A H	465	PRDAR0633AFFW	J	Heat Sink, CD PWB	A E
411	HiNDP2179AFSA	J	Plate, Multi Sound	A K	466	92LRDAT-1468AM	J	Heat Sink, Fin Type, Large	A T
412	92LPANEL1505A	J	Panel, CD	A F	471	PSPAV0087AFZZ	J	Spacer, Antenna Terminal	A B
413	92LKN0B1505A	J	Knob, Volume	A C	472	92LSPAC1431A	J	Spacer, Heat Sink	A B
414	92LKN0B1505C	J	Knob, Balance	A C	△473	92LC0RD-1318B	J	AC Power Supply Cord	A L
415	92LKN0B1431E	J	Button, Tape/Dubbing/ Dolby	A A	△473	92LC0RD-1387A	J	AC Power Supply Cord	A M
416	92LKN0B1431D	J	Button, Power	A B	△473	92LC0RD-1393A	J	AC Power Supply Cord	A H
417	92LKN0B1431C	J	Knob, Graphic Equalizer	A B	△474	92LFSH0LD1249A	J	Holder, Fuse	A A
					△475	QLUGP0165AFZZ	J	Lug	A A
					476	92LBTML1431A	J	Terminal, Battery, Small	A A
					477	92LBTML1431B	J	Terminal, Battery, Large	A C
					480	TLABS0258AFZZ	J	Label, Laser Caution	A B
					481	TLABS0336AFZZ	J	Label, Class 1	A B
					482	92LSUPT1431M	J	Bracket, Loading Mechanism	A B
					483	LHLDW1123AFZZ	J	Wire Holder	A A
					484	LHLDW9003CEZZ	J	Wire Holder	A A
					485	LX-LZ0083AF00	J	Push Rivet	A A
					486	92LCUSN1431B	J	Cushion	A C
					489	92LRDAT-1468B	J	Heat Sink, Fin Type, Small	A E
					491	92LSUPT1468A	J	Bracket, Power PWB	A D
					492	92LSHEET1431B	J	Sheet, LCD Holder	A B

REF.NO.	PART NO.	★	DESCRIPTION	CODE
493	LHLDW1075AFZZ	J	Nylon Band,60mm	A A
494	92LCSPR1431C	J	Spring,Ring	A A
495	92LPANEL713A	J	Panel,MADE IN MALAYSIA [for other than Australia/New Zealand]	A B
701	LX-HZ0082AFZZ	J	Screw,φ4×8mm	A A
702	LX-HZ0087AFFD	J	Screw,φ3×8mm	A A
703	LX-JZ0003AFFD	J	Screw,φ3×20mm	A A
704	LX-JZ0010AFFD	J	Screw,φ3×10mm	A A
705	LX-JZ0022AFFD	J	Screw,φ3×8mm	A A
706	LX-JZ0065AFFD	J	Screw,φ3×10mm	A A
707	LX-JZ0108AFFD	J	Screw,φ3×12mm	A A
708	XBPSD20P03000	J	Screw,φ2×3mm	A A
709	XBPSD26P05J50	J	Screw,φ2.6×5mm	A A
710	XHBSD30P06000	J	Screw,φ3×6mm	A A
711	XHBSD30P08000	J	Screw,φ3×8mm	A A
712	XHBSD30P10000	J	Screw,φ3×10mm	A A
713	XHBSF40P10000	J	Screw,φ4×10mm,Black	A A
714	XJBSD30P08000	J	Screw,φ3×8mm	A A
715	XJBSD30P10000	J	Screw,φ3×10mm	A A
716	XJBSD30P14000	J	Screw,φ3×14mm	A A
717	XJBSF40P12000	J	Screw,φ4×12mm,Black	A A
718	XJSSD30P10000	J	Screw,φ3×10mm	A A
719	XJSS330P10000	J	Screw,φ3×10mm,Red	A A
720	XJTSD20P12000	J	Screw,φ2×12mm	A A
721	XJBSF30P10000	J	Screw,φ3×10mm,Black	A A
722	LX-HZ0210AFFD	J	Screw,φ3×10mm	A A
723	LX-JZ0039AFFD	J	Screw,φ3×12mm	A A
724	LX-WZ7089AFZZ	J	Washer,φ3.2×φ10×0.35mm	A A
725	XJBSD26P08000	J	Screw,φ2.6×8mm	A A
726	LX-EZ0142AFFE	J	Screw,φ3×10mm	A A
727	XJBSF30P14000	J	Screw,φ3×14mm,Black	A A
728	92L3BTS+12VWZ	J	Screw,φ3×12mm,Black	A A

ACCESSORIES/PACKING PARTS

QANTL0109AFZZ	J	Loop Antenna	A H
QANTW0104AFZZ	J	FM Antenna	A F
QPLGA0250AFZZ	J	AC Plug Adaptor	A F
QPLGA0251AFZZ	J	AC Plug Adaptor	A E
SPAKP0863AFZZ	J	Polyethylene Bag,Unit	A F
SPAKX2324AFZZ	J	Tray Add.	A E
SPAKX2332AFZZ	J	Pad,Tray	A B
TCAUZ0264AFZZ	J	Label,Tray Add.,Caution	A B
TGANE1204AFZZ	J	Warranty Card [for Australia/New Zealand]	A C
TLABJ0006AFZZ	J	Label,MADE IN MALAYSIA [for Australia/New Zealand]	A A
92LBAG1460B	J	Polyethylene Bag, Accessories	A A
92LiNST1507A	J	Operation Manual,Serial No.00300001~00301918	A P
92LiNST1507B	J	Operation Manual,Serial No.00401919~	A P
92LLABL1507B	J	Label,Packing Case,MADE IN MALAYSIA	A A
92LLABL1507C	J	Label,Feature	A E
92LP-AD1431A	J	Packing Add.,Left	A L
92LP-AD1431B	J	Packing Add.Right	A L
92LP-CASE1507A	J	Packing Case	A S
RRMCG0204AFSA	J	Remote Control	A X
95E103RRT06601	J	Lid,Remote Control Battery	A E

REF.NO.	PART NO.	★	DESCRIPTION	CODE
P.W.B. ASSEMBLY (Not Replacement Item)				
PWB-A1~5	92LPWB1507MANS	J	Main/Headphone/Switch/ Dolby Ind./Direction PWB (Combined Ass'y)	—
PWB-B1~3	92LPWB1507DPLS	J	LCD/Volume/Vol. Ind. PWB (Combined Ass'y)	—
PWB-C1,2	92LPWB1507TUNS	J	Tuner/Battery PWB (Combined Ass'y)	—
PWB-D	92LPWB1507PWRS	J	Power PWB	—
PWB-E	DCEKS0048AF24	J	CD PWB	—

CD-320X

SHARP

SHARP

SERVICE MANUAL / SERVICE-ANLEITUNG / MANUEL DE SERVICE

S3033RP320HGY



RP-320H(GY)

- In the interests of user-safety the set should be restored to its original condition and only parts identical to those specified be used.
- Im Interesse der Benutzer-Sicherheit sollte dieses Gerät wieder auf seinen ursprünglichen Zustand eingestellt und nur die vorgeschriebenen Teile verwendet werden.
- Dans l'intérêt de la sécurité de l'utilisateur, l'appareil devra être reconstitué dans sa condition première et seules des pièces identiques à celles spécifiées, doivent être utilisées.

INDEX TO CONTENTS

(E)	Page	Page
SPECIFICATIONS	2, 3	
NAMES OF PARTS	2, 3	
DISASSEMBLY	4, 5	
ADJUSTMENT	4, 5	
		WIRING SIDE OF P.W.BOARD/ SCHEMATIC DIAGRAM..... 6
		EXPLODED VIEW
		REPLACEMENT PARTS LIST..... 8

INHALTSVERZEICHNIS

(D)	Seite	Seite
TECHNISCHE DATEN.....	2, 3	
BEZEICHNUNG DER TEILE.....	2, 3	
ZERLEGEN.....	4, 5	
EINSTELLUNG.....	4, 5	
		VERDRAHTUNGSSEITE DER LEITERPLATTE/ SCHEMATISCHER SCHALTPLAN
		EXPLOSIONSDARSTELLUNG
		ERSATZTEILLISTE

TABLE DES MATIÈRES

(F)	Page	Page
CARACTÉRISTIQUES.....	2, 3	
NOMENCLATURE	2, 3	
DÉMONTAGE.....	4, 5	
RÉGLAGE.....	4, 5	
		CÔTÉ CÂBLAGE DE LA PLAQUETTE DE MONTAGE IMPRIMÉ/ DIAGRAMME SCHÉMATIQUE
		VUE EN ÉCLATE
		LISTE DES PIÈCES DE RECHANGE

FOR A COMPLETE DESCRIPTION OF THE OPERATION OF THIS UNIT, PLEASE REFER TO THE OPERATION MANUAL.

SPECIFICATIONS

Power source: DC 12V
Drive: Belt drive, semi automatic
Speed: 33-1/3 and 45 rpm
Motor: DC motor
SN ratio: 60 dB (DIN-B)
Wow and flutter: ± 0.15 % (DIN 45 500)
 0.1 % (WRMS)
Output: 2.6 mV (1 kHz, 50 mm/sec.)
Frequency response: 20 - 20,000 Hz
Tracking force: 3.5 g
Tonearm: Dynamic balanced straight tonearm

Cartridge: Magnetic type (CART-162)
Replacement stylus: STY-162
Dimensions: Width; 360 mm (14-3/16")
 Height; 97 mm (3-7/8")
 Depth; 355 mm (14")
Weight: 2.5 kg (5.5 lbs.)

Specifications for this model are subject to change without prior notice.

NAME OF PARTS

- 17 cm (7") EP Record Adaptor
- Turntable Platter and Mat
- Dust Cover
- Tonearm
- Cartridge
- Speed Selector Button
- Cue Button
- Cue Button: ▼ ▼
- Output Leads
- DC Supply Lead

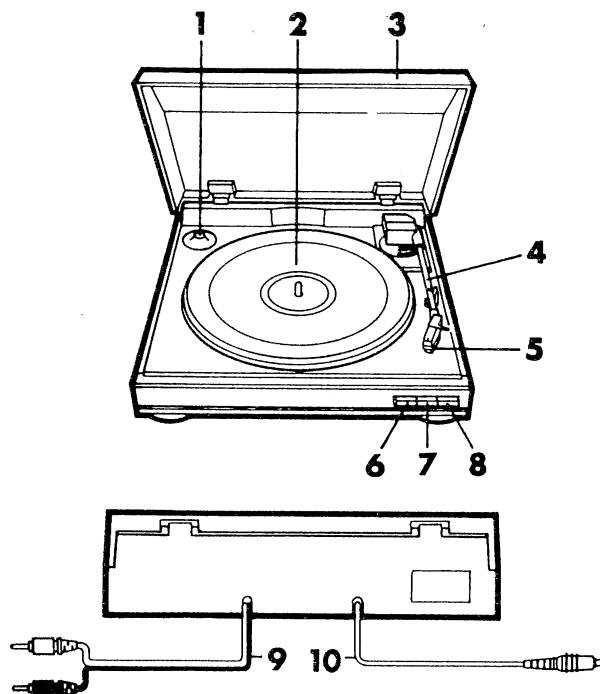


Figure 2

D

EINE VOLLSTÄNDIGE BESCHREIBUNG DER BETRIEBUNG
DIESES GERÄTES IST IN DER BETRIEBUNGSANLEITUNG
ENTHALTEN.

TECHNISCHE DATEN

Spannungsversorgung: Gleichspannung 12 V
Typ: Riemenantrieb, halbautomatisch
Drehzahl: 33-1/3 und 45 U/min
Motor: Gleichstrommotor
Rauschabstand: 60 dB (DIN-B)
Gleichlaufschwankungen:
 ± 0,15% (DIN 45 500)
 0,1 % (WRMS)
Ausgang: 2,6 mV (1 kHz, 50 mm/s)
Frequenzgang: 20 - 20 000 Hz
Auflagekraft: 3,5 g
Tonarm: Dynamisch balancierter gerader Tonarm
Tonabnehmer: Magnetischer Typ (CART-162)
Ersatznadel: STY-162
Abmessungen: Breite; 360 mm
 Höhe; 97 mm
 Tiefe; 355 mm
Gewicht: 2,5 kg

F

POUR LA DESCRIPTION COMPLÈTE DU FONCTION-
NEMENT DE CET APPAREIL, SE REPORTER AU MODE
D'EMPLOI.

CARACTÉRISTIQUES

Alimentation: 12 V CC
Type: Entraînement par courroie, semi-automatique
Vitesse: 33 1/3 et 45 tr/mn
Moteur: Moteur CC
Rapport S/B: 60 dB (DIN-B)
Pleurage et scintillement:
 ± 0,15% (DIN 45 500)
 0,1% (WRMS)
Sortie: 2,6 mV (1 kHz, 50 mm/s)
Réponse en fréquence:
 20 - 20.000 Hz
Force d'appui: 3,5 g
Bras de lecture: Bras direct à équilibrage dynamique
Cellule: Type magnétique (CART-162)
Pointe de rechange: STY-162
Dimensions: Largeur; 360 mm
 Hauteur; 97 mm
 Profondeur; 355 mm
Poids: 2,5 kg

Die technischen Daten für dieses Modell können ohne vor-
herige Ankündigung Änderungen unterworfen sein.

Les caractéristiques de ce modèle sont sujettes à modifi-
cation sans préavis.

BEZEICHNUNG DER TEILE

1. Mittelstück für 17 cm EP-Schallplatten mit großem Mittelloch
2. Plattenteller und Matte
3. Abdeckhaube
4. Tonarm
5. Tonabnehmersystem
6. Drehzahlwahltaste
7. Unterbrechungstaste
8. Tonarmlifttaste: **⏏**
9. Ausgangsleitungen
10. Gleichstromzuleitung

NOMENCLATURE

1. Adaptateur de disque 45 tours
2. Plateau et tapis
3. Capot
4. Bras de lecture
5. Cellule
6. Sélecteur de vitesse
7. Touche de rejet
8. Touche de lève-bras: **⏏**
9. Cordons de sortie
10. Cordon d'alimentation CC

DISASSEMBLY

Caution on Disassembly

Follow the below-mentioned notes when disassembling the unit and reassembling it, to keep its safety and excellent performance:

1. Take record out of the unit.
2. Be sure to remove the input/output plug from the audio unit before starting to disassemble the player unit.
3. Take off nylon bands or wire holders where they need be removed when disassembling the unit. After servicing the unit, be sure to rearrange the leads where they were before disassembling.

STEP	REMOVAL	PROCEDURE	FIGURE
1	Turntable	1. Dust Cover (A1)x1 2. Turntable Mat 3. Belt (A2)x1	4-1
2	Bottom Board	1. Screw (B1)x8	4-2

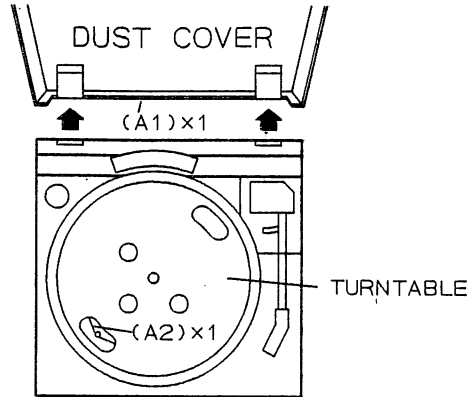


Figure 4-1

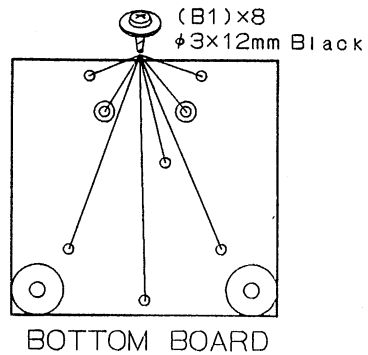


Figure 4-2

ADJUSTMENT

Auto Return

Jig	Adjusting Point	Remarks
Test record SSR-4005	Auto return adjusting screw	Direction (A): Late Direction (B): Early

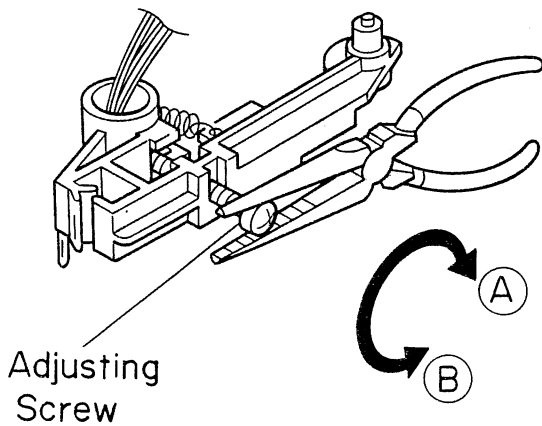


Figure 4-3

Rotational Speed of Phono Motor

Jig	Adjusting Point	Specified value
Test record SSR-4005	Fig. 4-4	2,980 ± 10 Hz

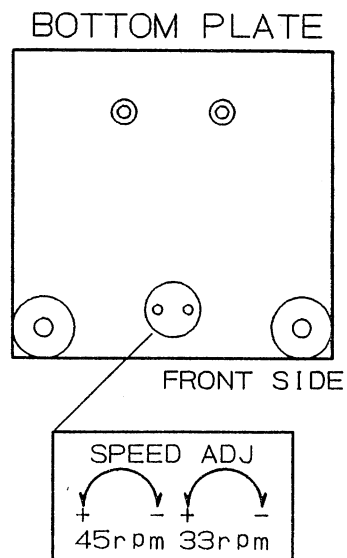


Figure 4-4

Ⓓ ZERLEGEN

Vorsichtsmassregeln Für Das Zerlegen

Beim Zerlegen und Zusammenbauen des Gerätes die folgenden Anweisungen befolgen, um dessen Betriebssicherheit und ausgezeichnete Leistung aufrechtzuerhalten.

1. Schallplatte von der Einheit abnehmen.
2. Bevor mit dem Zerlegen der Plattenspiereinheit begonnen wird, unbedingt den Ein-/Ausgangsstecker aus der Audio-Komponente ziehen.
3. Nylonbänder oder Leitungshalter entfernen, falls dies beim Zerlegen des Gerätes erforderlich ist. Nach Warten des Gerätes darauf achten, die Leitungen wieder so zu verlegen, wie sie vor den Zerlegen angeordnet waren.

SCHRITT	ENTFERNEN	VERFAHREN	ABBILDUNG
1	Plattenteller	1. Abdeckhaube (A1)x1 2. Plattentellerplatte 3. Riemen..... (A2)x1	4-1
2	Bodenbrett	1. Schraube (B1)x8	4-2

Ⓕ DÉMONTAGE

Précautions pour le démontage

Lors du démontage de l'appareil et de son remontage, suivre les précautions ci-dessous, pour maintenir la sécurité et d'excellentes performances.

1. Enlever la disque de l'unité.
2. S'assurer de retirer la fiche d'entrée/sortie de l'appareil audio prise murale avant de démarrer le démontage du lecteur l'appareil.
3. Déposer les bandes de nylon ou les serre-câbles si nécessaire lors du démontage de l'appareil. Après la réparation de l'appareil, s'assurer de redresser les fils tel qu'ils étaient avant le démontage.

ÉTAPE	DÉPOSEL	PROCÉDÉ	FIGURE
1	Plateau	1. Cachepoussière (A1)x1 2. Feuille du plateau 3. Courroie (A2)x1	4-1
2	Plateau de base	1. Vis (B1)x8	4-2

EINSTELLUNG

• **Automatischer Rücklauf**

Vorrichtung	Einstellpunkt	Bemerkungen
Testschallplatte SSR-4005	Einstellschraube für automatischen Rücklauf	Richtung (A): Spät Richtung (B): Früh

• **Drehzahl des Plattenspielmotors**

Vorrichtung	Einstellpunkt	Vorgeschriebener Wert
Testschallplatte SSR-4005	Abb. 4-4	2.980 ± 10 Hz

RÉGLAGE

• **Retour Automatique**

Outil	Point de réglage	Remarques
Disque d'essai SSR-4005	Vis de réglage de retour automatique	Direction (A): Lent Direction (B): Rapide

• **Vitesse du moteur phono**

Outil	Point de réglage	Valeur spécifiée
Disque d'essai SSR-4005	Fig. 4-4	2.980 ± 10 Hz

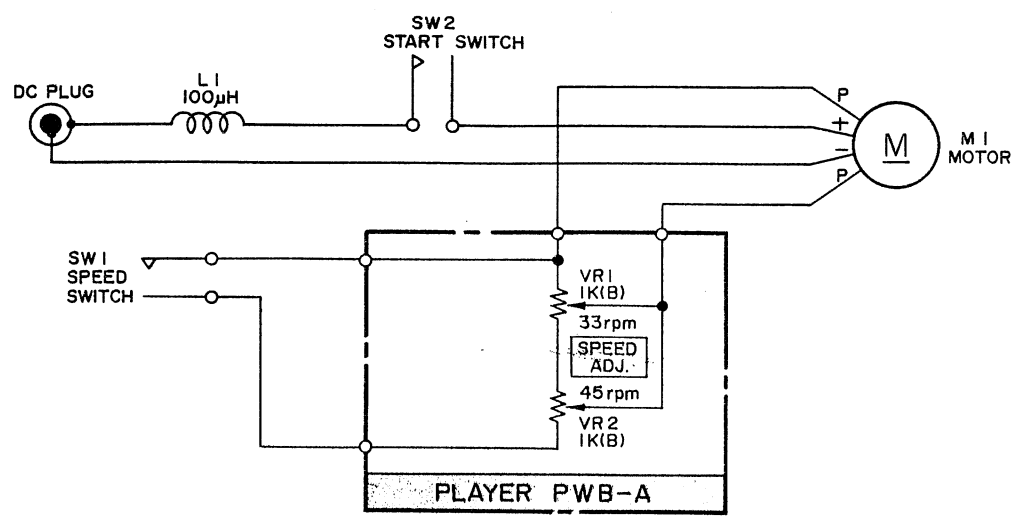
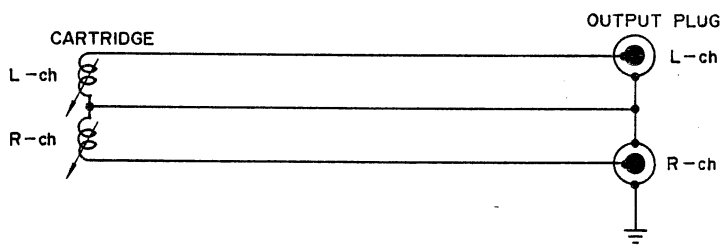
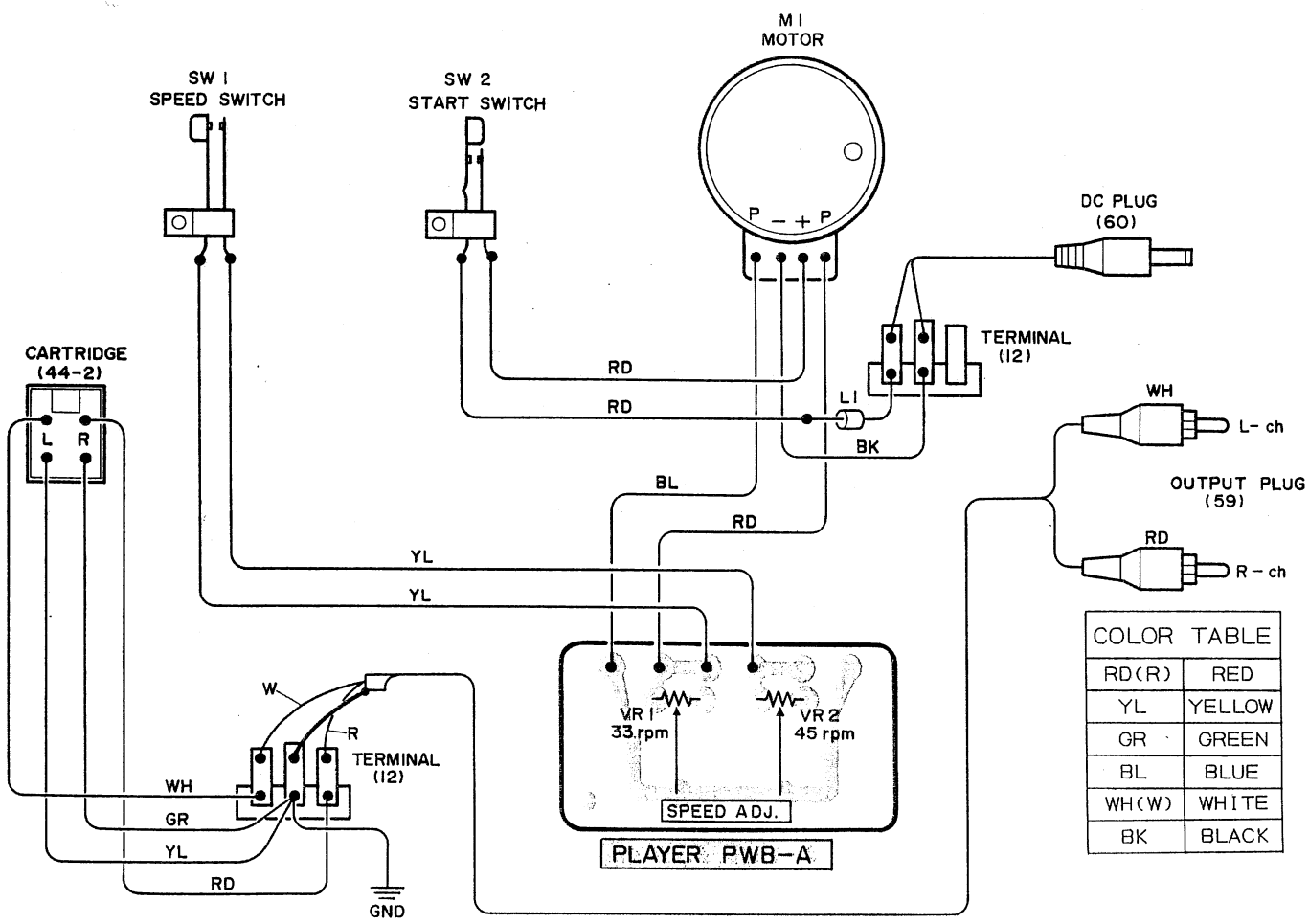


Figure 6 WIRING SIDE OF P.W.BOARD/SCHEMATIC DIAGRAM

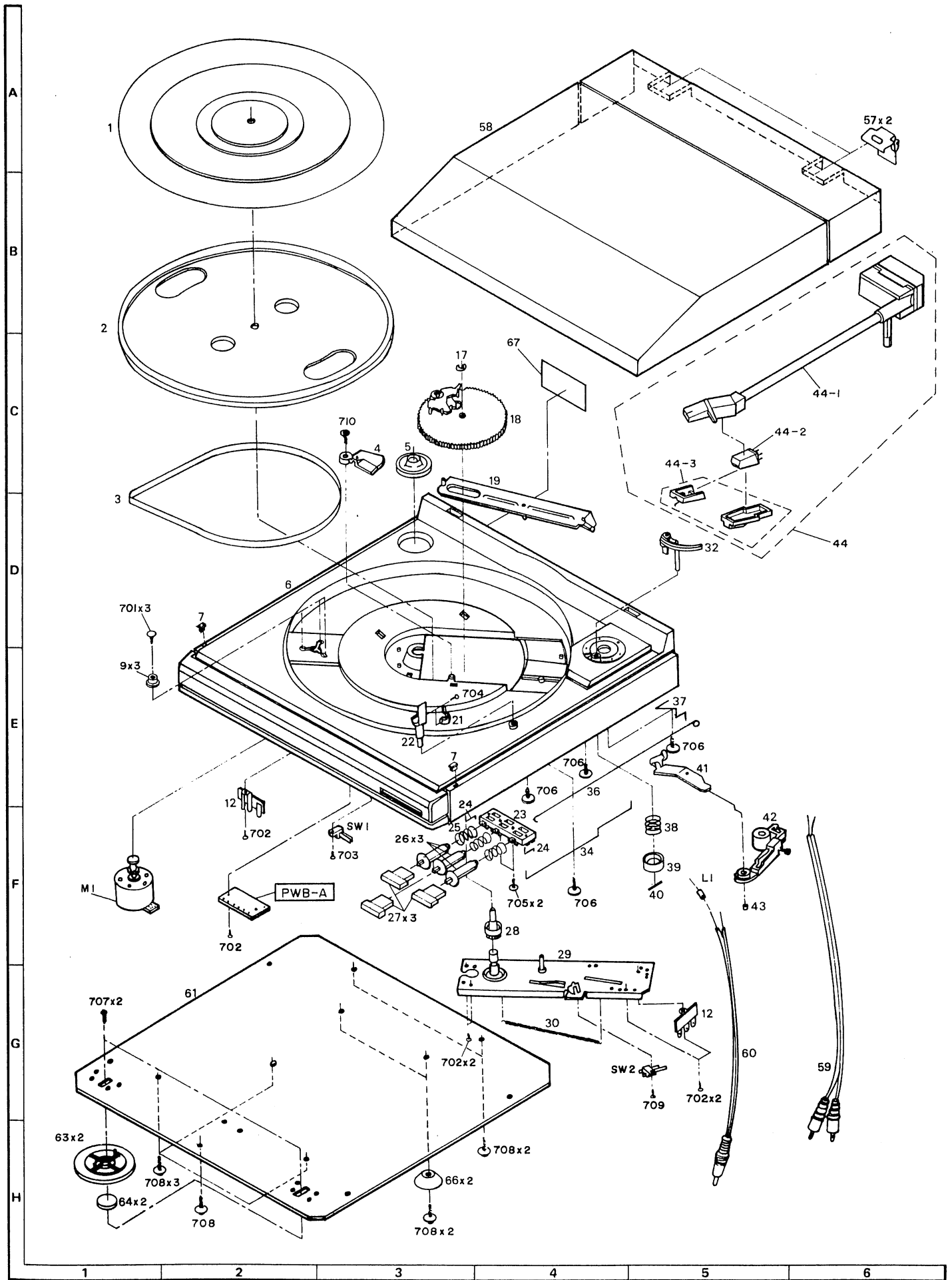


Figure 7 EXPLODED VIEW

REPLACEMENT PARTS LIST

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following information.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION

★ MARK: SPARE PARTS-DELIVERY SECTION

ERSATZTEILLISTE

"BESTELLEN VON ERSATZTEILEN"

Um Ihren Auftrag schnell und richtig ausführen zu können, bitten wir um die folgenden Angaben.

1. MODELLNUMMER
2. REF. NR.
3. TEIL NR.
4. BESCHREIBUNG

★ MARKIERUNG: ERSATZTEILE-LIEFERUNG

LISTE DES PIÈCES DE RECHANGE

"COMMENT COMMANDER DES PIÈCES DE RECHANGE"

Pour voir votre commande exécutée de manière rapide et correcte, veuillez fournir les renseignements suivants.

1. NUMÉRO DU MODÈLE
2. N° DE RÉFÉRENCE
3. N° DE LA PIÈCE
4. DESCRIPTION

★ REMARQUE: Pieces de rechange-Section de livraison

REF. NO.	PART NO.	★	DESCRIPTION	CODE	REF. NO.	PART NO.	★	DESCRIPTION	CODE
	COIL								
	99G14-022-01	J	100 μH	A F	44	99GMT10-004-04 J		Tone Arm Ass'y	A L
	VARIABLE RESISTORS								
	99G13-012-01	J	1 kohm (B), Semi-VR [Speed]	A B	44-1			Tone Arm (Not Replacement Item)	—
	OTHER CIRCUITRY PARTS								
	99GMT10-008-04 J		Motor with Pulley	A Z	44-2	RCTRE5108AFZZ J		Cartridge (CART-162)	A W
	99G12-312-01	J	Switch, Leaf Type	A F	44-3	PNDLD0105AFZZ J		Stylus (STY-162) with Cover	A U
	99G12-293-01	J	Switch, Leaf Type	A D	57	99GMT10-203-05 J		Hinge, Dust Cover	A H
	PLAYER MECHANISM PARTS								
	99GMT37-297-01 J		Mat, Turntable	A T	58	99GMT37-416-01 J		Dust Cover 7A3D	BC
	99GMT36-083-01 J		Turntable	B D	59	99G17-217-02	J	Plug, Out Put	A S
	99GMT37-402-01 J		Belt, Turntable	A K	60	99G17-216-01	J	DC Plug	A K
	99GMT37-263-01 J		Lever, Cut	A B	61	99GMT27-503-01 J		Plate, Bottom	A V
	99GMT37-293-01 J		EP Adaptor	A B	63	99GMT37-418-01 J		Leg, Front	A S
	99GMT37-414-01 J		Cabinet	B A	64	99GMT37-295-02 J		Leg, Felt, Front	A C
	99GMT37-260-01 J		Cushion, Rubber	A C	66	99GMT37-420-01 J		Leg, Rear	A A
	99GHP37-506-01 J		Cushion, Motor	A B	67	99GMT28-283-01 J		Label, Specifications [For West Germany]	A C
	99G12-291-01	J	Terminal	A C	67	99GMT28-284-01 J		Label, Specifications [For other than West Germany]	A C
	99G23-180-01	J	Ring, "E" Type	A A	701	99G20-282-01	J	Screw, Special	A B
	99GMT10-006-02 J		Gear Ass'y	A H	702	99G20-189-01	J	Screw, φ3×10mm	A A
	99GXPM10-003	J	Lever, Return	A K	703	99G20-279-01	J	Screw, φ2.6×8mm	A A
	99GMT37-240	J	Lock Lever, Tone Arm	A B	704	99G20-273-02	J	Screw, φ2.3×5mm	A A
	99GMT37-241	J	Tone Arm Stand	A B	705	99G20-274-01	J	Screw, φ3×12mm	A A
	99GMT37-292-01 J		Holder, Button	A C	706	99G20-272-01	J	Screw, φ3×8mm	A A
	99GMT41-028	J	Rod, Button Holder	A A	707	99G20-266-01	J	Screw, φ3×10mm	A A
	99GMT40-123-02 J		Spring, Button	A A	708	99G20-274-02	J	Screw, φ3×12mm, Black	A A
	99GMT37-291-01 J		Lever, Button	A B	709	99G20-253-01	J	Screw, φ2×6mm	A A
	99GMT37-417-01 J		Button [Speed/Cut/Cue]	A F	710	99G20-267-01	J	Screw, φ3×8mm	A A
	99GMT10-002-03 J		Center Shaft Ass'y	A C		PACKING PARTS			
	99GMT10-001-02 J		Chassis Ass'y	A N	99GMT28-208-02 J			Styrofoam, Dust Cover	A A
	99GHP40-038	J	Spring, Return Lever	A C	99GMT28-278-01 J			Packing Add., Left	A G
	99GMT37-257-04 J		Lifter, Tone Arm	A C	99GMT28-279-01 J			Packing Add., Right	A S
	99GMT41-040-01 J		Rod, Cut Lever	A D	99GMT28-280-01 J			Packing Case	A S
	99GMT41-038-01 J		Push Rod, Cue	A E	99GMT28-286-01 J			Label, MADE IN MALAYSIA [For other than West Germany]	A B
	99GMT41-039-01 J		Rod, Cue	A E	99GMT37-293-01 J			EP Adaptor	A B
	99GHP40-064-04 J		Spring, Lifter	A A	99G43-013-01	J		Polyethylene Bag, Accessories	A A
	99GHP37-068	J	Cup, Lifter	A B	99G43-019-01	J		Polyethylene Bag, Unit	A D
	99GHP39-040	J	Pin, Lifter	A A		P.W.B. ASSEMBLY (Not Replacement Item)			
	99GMT10-009-02 J		Lever, Control	A E	PWB-A	99GMT10-013	J	Player PWB	—
	99GXPM10-007	J	Arm, Control	A D		A9003-6843NK-IY-M			
	99G22-056-01	J	Washer, Rubber	A A		Printed in Japan In Japan gedruckt Imprimé au Japon SG-SA-EX			

SHARP

SERVICE MANUAL / SERVICE-ANLEITUNG / MANUEL DE SERVICE

S2020CP-320GY

CP-320(GY)



- In the interests of user-safety the set should be restored to its original condition and only parts identical to those specified be used.
- Im Interesse der Benutzer-Sicherheit sollte dieses Gerät wieder auf seinen ursprünglichen Zustand eingestellt und nur die vorgeschriebenen Teile verwendet werden.
- Dans l'intérêt de la sécurité de l'utilisateur, l'appareil devra être reconstitué dans sa condition première et seules des pièces identiques à celles spécifiées, doivent être utilisées.

Ⓔ

SPECIFICATIONS

Speakers:	3-way, 20 cm (8") woofer, 8 cm (3") mid range and 5 cm (2") tweeter type	Impedance:	8 ohms
Maximum power handling capacity:	100 W	Dimensions:	Width; 260 mm (10-1/4") Height; 482 mm (19") Depth; 255.3 mm (10-1/16")
Rated power:	60 W	Weight:	6.3 kg (13.9 lbs./each)

Specifications for this model are subject to change without prior notice.

Ⓓ

TECHNISCHE DATEN

Lautsprecher:	3-Weg-Ausführung, 20-cm-Teftöner, 8-cm-Mitteltöner und 5-cm-Hochtöner	Impedanz:	8 Ohm
Maximale Belastbarkeit:	100 W	Abmessungen:	Breite; 260 mm Höhe; 482 mm Tiefe; 255,3 mm
Nennleistung:	60 W	Gewicht;	je 6,3 kg

Die technischen Daten für dieses Modell können ohne vorherige Ankündigung Änderungen unterworfen sein.

Ⓕ

CARACTÉRISTIQUES

Haut-parleurs:	À 3 voies, woofer de 20 cm, médium de 8 cm et tweeter de 5 cm	Impédance:	8 ohms
Puissance nominale maximale:	100 W	Dimensions:	Largeur; 260 mm Hauteur; 482 mm Profondeur; 255,3 mm
Puissance nominale:	60 W	Poids:	6,3 kg/chacune

Les caractéristiques de ce modèle sont sujettes à modification sans préavis.

FOR A COMPLETE DESCRIPTION OF THE OPERATION OF THIS UNIT, PLEASE REFER TO THE OPERATION MANUAL.

(F)

POUR LA DESCRIPTION COMPLÈTE DU FONCTIONNEMENT DE CET APPAREIL, SE REPORTER AU MODE D'EMPLOI.

NAMES OF PARTS

- Tweeter
- Mid Range
- Woofers
- Bass Reflex Port
- Speaker Wires

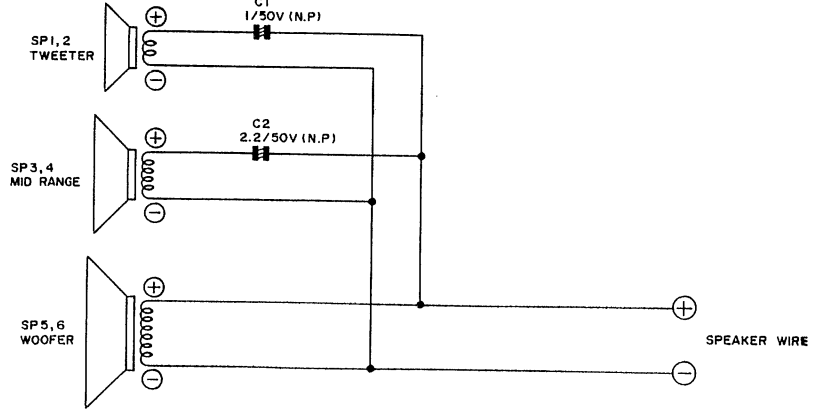
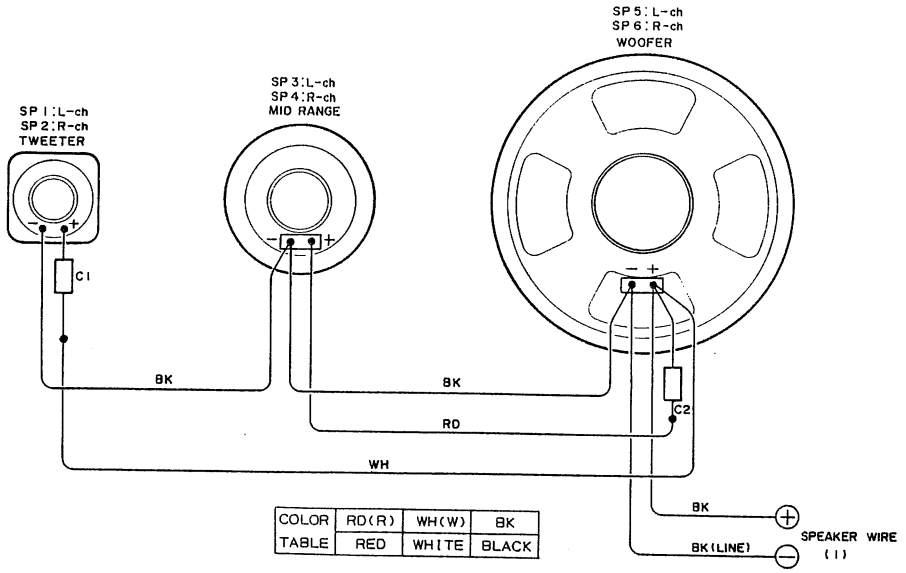
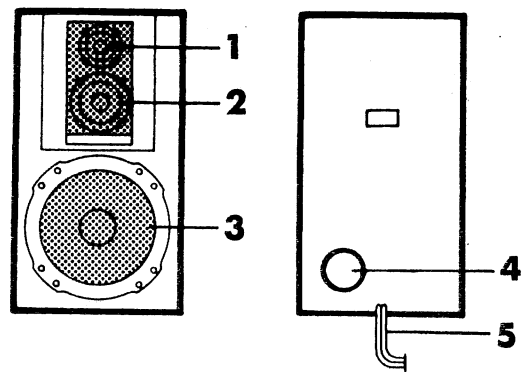
NOMENCLATURE

- 1. Tweeter
- 2. Médium
- 3. Woofer
- 4. Évent de baffle réflex
- 5. Fils d'enceinte

FÜR EINE VOLLSTÄNDIGE BESCHREIBUNG DER BEDIENUNG DES GERÄTES IST IN DER BEDIENUNGSANLEITUNG ENTHALTEN.

BEZEICHNUNG DER TEILE

- Hochtöner
- Mitteltöner
- Tieftöner
- Bassreflexausgang
- Lautsprecherkabel



1 2 3 4 5 6

Figure 2 WIRING SIDE OF P.W.BOARD/SCHEMATIC DIAGRAM

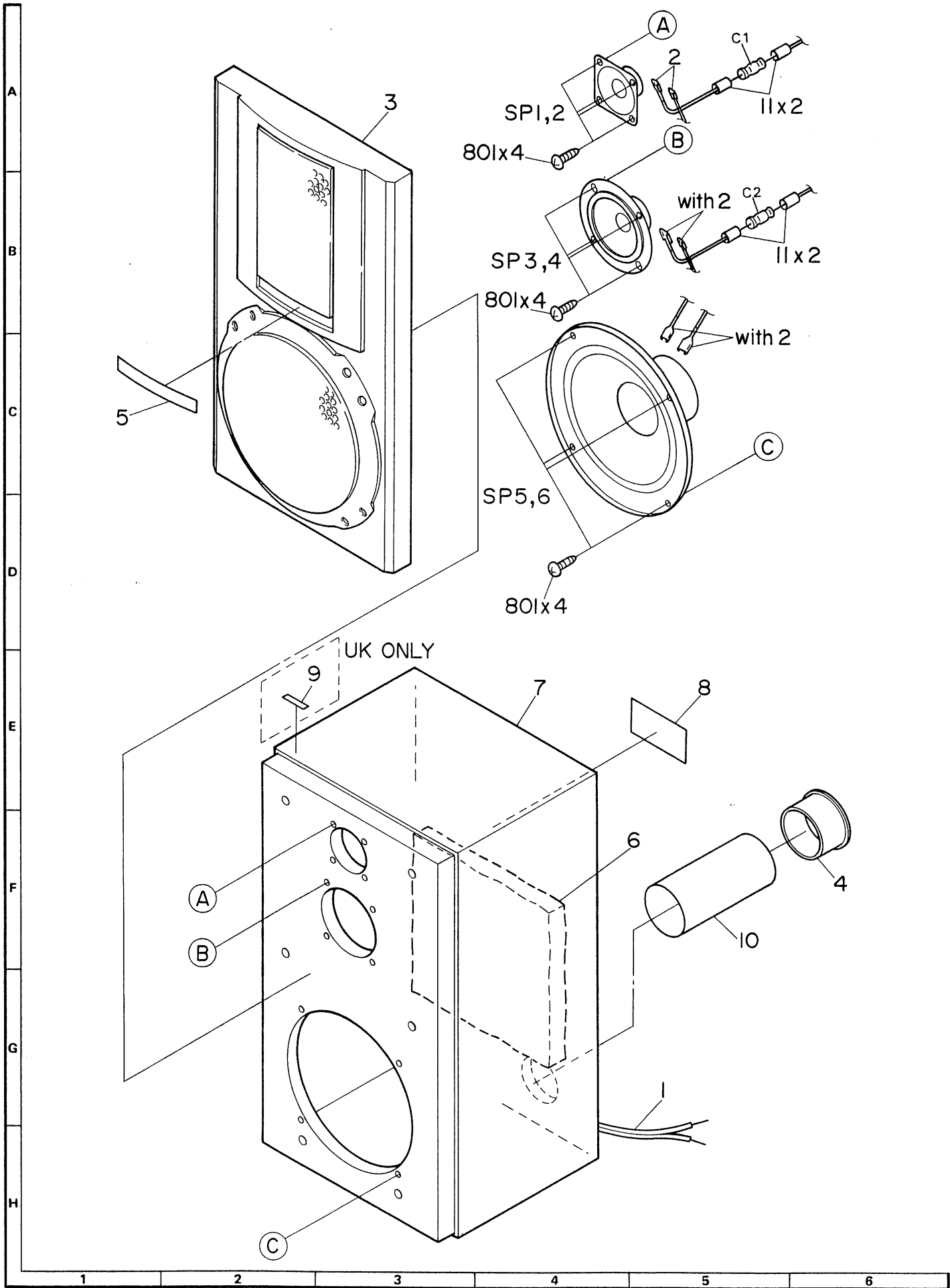
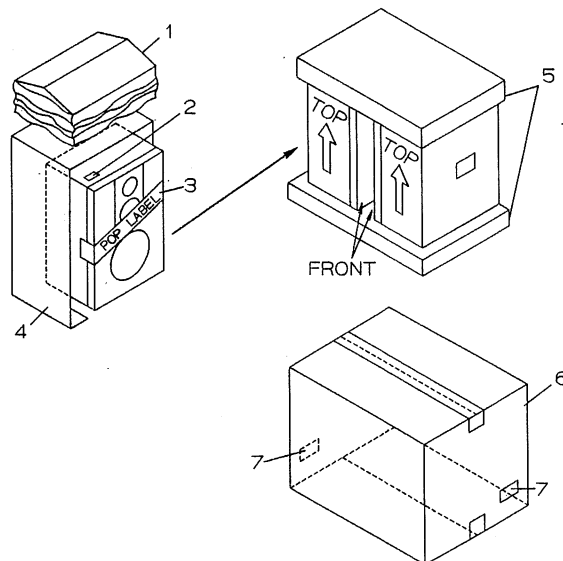


Figure 3 EXPLODED VIEW

PACKING METHOD (for UK ONLY)

- Polyethylene Bag, Unit
- Label, MADE IN MALAYSIA
- Label, Pop
- Protection Sheet, Unit
- Packing Add., Unit
- Packing Case
- Label, MADE IN MALAYSIA,
- Packing Case

- 97K402CP320GY
- 97K610MCP320GY
- 97K610PCP320GY
- 97K434CP320GY
- 97K404CP320GY
- 97K600CP320GY
- 97K610MCP320



REPLACEMENT PARTS LIST

ERSATZTEILLISTE

LISTE DES PIÈCES DE RECHANGE

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following information.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION

★MARK: SPARE PARTS-DELIVERY SECTION

"BESTELLEN VON ERSATZTEILEN"

Um Ihren Auftrag schnell und richtig ausführen zu können, bitten wir um diefolgenden Angaben.

1. MODELLNUMMER
2. REF. NR.
3. TEIL NR.
4. BESCHREIBUNG

★MARKIERUNG: ERSATZTEILE-LIEFERUNG

"COMMENT COMMANDER DES PIÈCES DE RECHANGE"

Pour voir votre commande exécutée de manière rapide et correcte, veuillez fournir les renseignements suivants.

1. NUMÉRO DU MODÈLE
2. N° DE RÉFÉRENCE
3. N° DE LA PIÈCE
4. DESCRIPTION

★REMARQUE: Pieces de rechange-Section de livraison

REF.NO.	PART NO.	★	DESCRIPTION	CODE
CAPACITORS				
	97K121641054	J 1	μF,50V,±20%, Electrolytic,Non-polar	A D
	97K121642254	J 2.2	μF,50V,±20%, Electrolytic,Non-polar	A D
OTHER CIRCUITRY PARTS				
2	VSP0050TBC08A	J	Speaker,Tweeter	A S
4	VSP0080SBF78A	J	Speaker,Mid Range	AV
6	VSP0020WB718A	J	Speaker,Woofe	BH
SPEAKER BOX PARTS				
	97K180080003	J	Wire,Speaker	A K
	97K190CP320GY	J	Wire with Chip	A D
	97K401CP320GY	J	Front Panel Ass'y	B A
	97K401949018	J	Port	A D
	97K410CP320GY	J	Plate,Decoration	A E
	97K436SSV550AV	J	Sound Absorber	A D
	97K505CP320GY	J	Speaker Box	BC
	97K610CP320DV	J	Label,Specifications,for West Germany	A C

REF.NO.	PART NO.	★	DESCRIPTION	CODE
8	97K610CP320GY	J	Label,Specifications,for other than West Germany	A C
9	97K610MCP320GY	J	Label,MADE IN MALAYSIA,for UK Only	AB
10	97K625CP320GY	J	Tube,Paper	A D
11	97K410300023	J	Tube	A C
801	97K300108044	J	Screw,φ3.5×16mm	A C
PACKING PARTS				
	97K402CP320GY	J	Polyethylen Bag,Unit	A C
	97K404CP320GY	J	Packing Add.,Unit	A K
	97K434CP320GY	J	Protection Sheet,Unit	A E
	97K600CP320GY	J	Packing Case	A K
	97K610CP320SJ	J	Label,Pop,for other than UK	A C
	97K610MCP320	J	Label,MADE IN MALAYSIA,Packing Case,for other than West Germany	AB
	97K610PCP320GY	J	Label,Pop,for UK	A C

9003-9853NK-IY·M