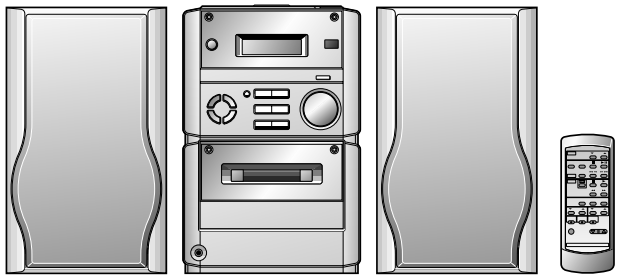
SHARP SERVICE MANUAL

No. S5046XL30HW//



COMPACT disc DIGITAL AUDIO

SAVING ENERGY STAND-BY POWER CONSUMPTION 0.6W

Illustration: XL-30H

MICRO COMPONENT SYSTEM

MODEL XL-30H

XL-30H Micro Component System consisting of XL-30H (main unit) and CP-XL40H (speaker system).

COMPACT disc DIGITAL AUDIO

SAVING ENERGY STAND-BY POWER CONSUMPTION 0.8W

Illustration: XL-30W

MODEL XL-30W

XL-30W Micro Component System consisting of XL-30W (main unit) and CP-XL40H (speaker system).

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

- **Note for users in U.K.**
  Recording and playback of any material may require consent, which SHARP is unable to give. Please refer particularly to the provisions of Copyright Act 1956, the Dramatic and Musical Performers Protection Act 1956, the Performers Protection Acts 1963 and 1972 and to any subsequent statutory enactments and orders.

CONTENTS

SHARP CORPORATION

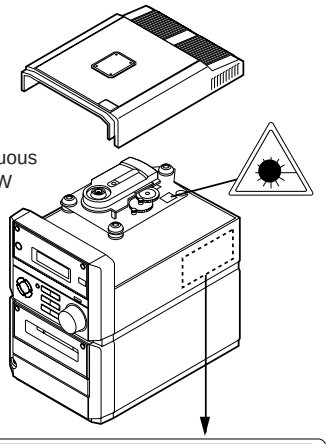
SAFETY PRECAUTION FOR SERVICE MANUAL

Precaution to be taken when replacing and servicing the Laser Pickup.

The AEL (Accessible Emission Level) of Laser Power Output for this model is specified to be lower than Class I Requirements. However, the following precautions must be observed during servicing to protect your eyes against exposure to the Laser beam

(1) When the cabinet has been removed, the power is turned on without a compact disc, and the Pickup is on a position outer than the lead-in position, the Laser will light for several seconds to detect a disc. Do not look into the Pickup Lens.
(2) The Laser Power Output of the Pickup inside the unit and replacement service parts have already been adjusted prior to shipping.
(3) No adjustment to the Laser Power should be attempted when replacing or servicing the Pickup.
(4) Under no circumstances look directly into the Pickup Lens at any time.
(5) CAUTION - Use of controls or adjustments, or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Laser Diode Properties
Material: GaAlAs
Wavelength: 780 nm
Emission Duration: continuous
Laser Output: max. 0.6 mW



CAUTION-INVISIBLE LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS.

VARNING-OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. STIRRA EJ IN I STRÅLEN OCH BETRAKTA EJ STRÅLEN MED OPTISKA INSTRUMENT.

ADVERSEL-USYNLIG LASERSTRÅLING VED ÅBNING. SE IKKE IND I STRÅLEN-HELLER IKKE MED OPTISKE INSTRUMENTER.

VARO! AVATTAESSA OLET ALTTIINA NÄKYMÄTÖN LASERSÄTEILYLLE. ÄLÄ TUIJOTA SÄTEESEEN ÄLÄKÄ KATSO SITÄ OPTISEN LAITTEEN LÄPI.

VARNING-OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. STIRRA EJ IN I STRÅLEN OCH BETRAKTA EJ STRÅLEN GENOM OPTISKT INSTRUMENT.

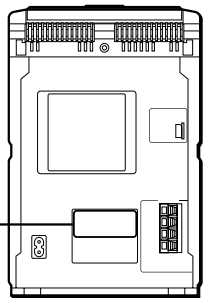
ADVERSEL-USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES. STIRR IKKE INN I STRÅLEN ELLER SE DIREKTE MED OPTISKE INSTRUMENTER.

VAROITUS! LAITTEEN KÄYTTÄMINEN MUULLA KUIN TÄSSÄ KÄYTTÖOHJEESSA MAI NI TULLA TAVALLA SAATTAA ALTI STAA KÄYTTÄJÄN TURVALLI SUUSLUOKAN 1 YLITTÄVÄLLE NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE.

VARNING - OM APPARATEN ANVÄNDS PÅ ANNAT SÄTT ÄN I DENNA BRUKSANVI SNI NG SPECI FI CERAS. KAN ANVÄNDAREN UTSÄTTAS FÖR OSYNLIG LASERSTRÅLNING, SOM ÖVERSKRIDER GRÄNSEN FÖR LASERKLASS 1.

LASER KLASSE 1
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT
LASER TŘÍDY 1
LASER TRIEDY 1

CLASS 1 LASER PRODUCT
APPAREIL À LASER DE CLASSE 1
PRODUCTO LASER DE CLASE 1



(XL-30H for Europe)

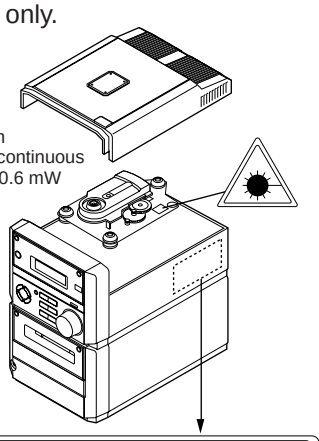
CAUTION

CLASS 1 LASER PRODUCT
APPAREIL À LASER DE CLASSE 1
PRODUCTO LASER DE CLASE 1

- This Micro Component System is classified as a CLASS 1 LASER product.
- The CLASS 1 LASER PRODUCT label is located on the rear cover.
- Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

As the laser beam used in this compact disc player is harmful to the eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.

Laser Diode Properties
Material: GaAlAs
Wavelength: 780 nm
Emission Duration: continuous
Laser Output: max. 0.6 mW



CAUTION-INVISIBLE LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS.

VARNING-OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. STIRRA EJ IN I STRÅLEN OCH BETRAKTA EJ STRÅLEN MED OPTISKA INSTRUMENT.

ADVERSEL-USYNLIG LASERSTRÅLING VED ÅBNING. SE IKKE IND I STRÅLEN-HELLER IKKE MED OPTISKE INSTRUMENTER.

VARO! AVATTAESSA OLET ALTTIINA NÄKYMÄTÖN LASERSÄTEILYLLE. ÄLÄ TUIJOTA SÄTEESEEN ÄLÄKÄ KATSO SITÄ OPTISEN LAITTEEN LÄPI.

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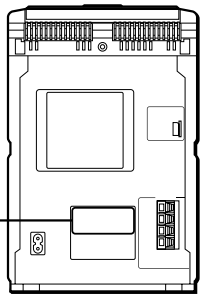
ADVERSEL-USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES. STIRR IKKE INN I STRÅLEN ELLER SE DIREKTE MED OPTISKE INSTRUMENTER.

(FOR XL-30W)

CAUTION

Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
As the laser beam used in this compact disc player is harmful to the eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.

CLASS 1 LASER PRODUCT
APPAREIL À LASER DE CLASSE 1
PRODUCTO LASER DE CLASE 1



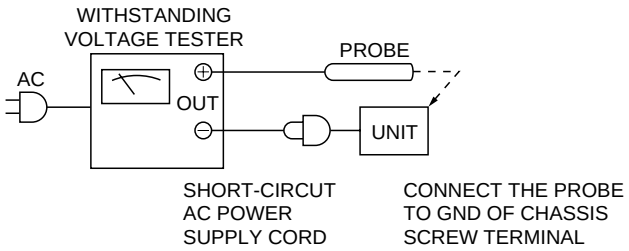
(XL-30H for U.K.)

IMPORTANT SERVICE NOTES (XL-30H FOR U.K. ONLY)

Before returning the unit to the customer after completion of a repair or adjustment it is necessary for the following withstand voltage test to be applied to ensure the unit is safe for the customer to use.

Setting of Withstanding Voltage Tester and set.

Set name	set value
Withstanding Voltage Tester	
Test voltage	4,240 VPEAK 3,000 VRMS
Set time	6 secs
Set current(Cutoff current)	4 mA
Unit	
Judgment	
OK: The “GOOD” lamp lights. NG: The “NG” lamp lights and the buzzer sounds.	



VOLTAGE SELECTION (FOR XL-30W)

The voltage selector is located on the rear panel 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.

AC POWER SUPPLY CORD AND AC PLUG ADAPTOR (FOR XL-30W)

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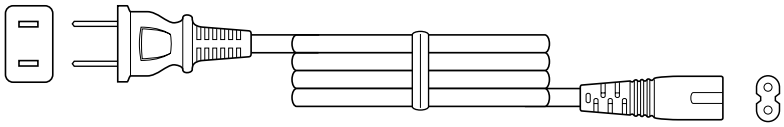

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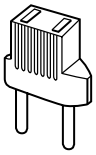

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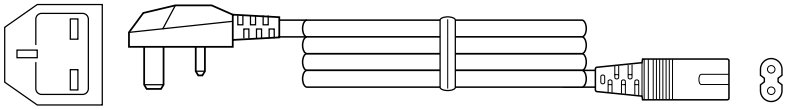

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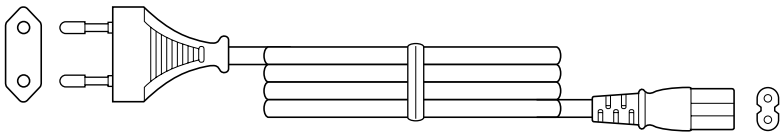
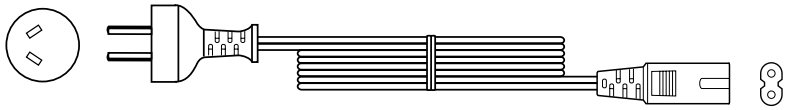


QPLGA0250AFZZ

QACCL0002AW00



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

SPECIFICATIONS

XL-30H/30W

● General

Power source: (For XL-30H)	AC 230 V, 50 Hz
Power source: (For XL-30W)	AC 110 - 127/220 - 240 V, 50/60 Hz
Power consumption: (For XL-30H)	26 W
Power consumption: (For XL-30W)	28 W
Dimensions:	Width; 160 mm (6-5/16") Height; 241 mm (9-1/2") Depth; 249 mm (9-13/16")
Weight:	2.7 kg (6.0 lbs.)

● Amplifier section

Output power: (XL-30H for Europe)	PMPO; 28 W (total) MPO; 14 W (7 W + 7 W) (DIN 45 324) RMS; 10 W (5 W + 5 W) (DIN 45 324)
Output power: (XL-30H for U.K.)	RMS; 10 W (5 W + 5 W) (10 % T.H.D.)
Output power: (For XL-30W)	MPO; 14 W (7 W + 7 W) (10 % T.H.D.) RMS; 10 W (5 W + 5 W) (10 % T.H.D.)
Output terminals:	Speakers; 4 ohms Headphones; 16-50 ohms (recommended; 32 ohms)

● Tuner section

Frequency range: (For XL-30H)	FM; 87.5-108 MHz AM; 522-1,620 kHz
Frequency range: (For XL-30W)	FM; 88-108 MHz AM; 531-1,602 kHz

● Compact disc player section

Type:	Compact disc player
Signal readout:	Non-contact, 3-beam semiconductor laser pickup
D/A converter:	1-bit D/A converter
Filter:	8-times oversampling digital filter
Frequency response:	20 - 20,000 Hz
Wow and flutter:	Unmeasurable (less than 0.001% W. peak)

● Cassette deck section

Frequency response:	50 - 14,000 Hz (Normal tape)
Signal/noise ratio:	50 dB
Wow and flutter: (XL-30H for Europe)	0.3 % (DIN 45 511)
Wow and flutter: (XL-30H for U.K./XL-30W)	0.25 % (WRMS)

CP-XL40H

Type:	Full range speaker system
Speakers:	10 cm (4") full-range speaker
Rated input power:	5 W
Maximum input power:	10 W
Impedance:	4 ohms
Dimensions:	Width; 145 mm (5-3/4") Height; 240 mm (9-1/2") Depth; 191 mm (7-1/2")
Weight:	1.3 kg (2.9 lbs.)/each

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

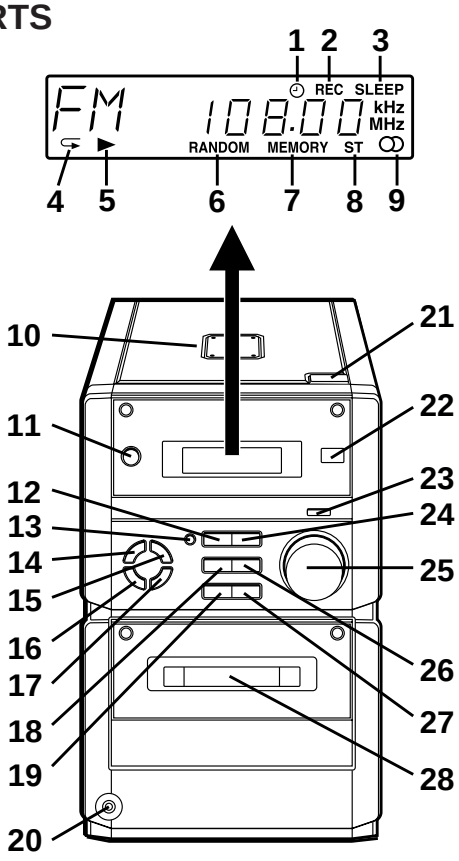
NAMES OF PARTS

XL-30H/30W

■ Front panel

1. Timer Indicator
2. Record Indicator
3. Sleep Indicator
4. (CD) Repeat Indicator
5. (CD) Play Indicator
6. (CD) Random Indicator
7. (CD/TUNER) Memory Indicator
8. FM Stereo Mode Indicator
9. FM Stereo Indicator

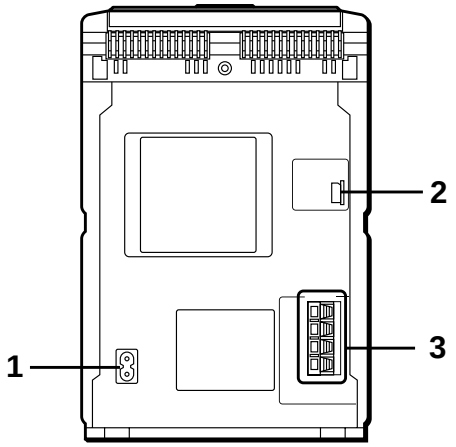
10. CD Compartment
11. On/Stand-by Button
12. (CD/TAPE) Stop Button
    (TUNER) Memory Clear Button
13. Record Pause Button
14. Bass/Treble Selector Button
15. Memory/Set Button
16. Clock/Timer/Sleep Button
17. Band Selector Button
18. (CD) Review Button
    (TAPE) Rewind Button
    (TUNER) Tuning Down Button
19. Function Selector Button
20. Headphone Socket
21. CD Eject Button
22. Remote Control Sensor
23. Volume Select Button
24. (CD) Play/Pause Button
    (TAPE) Play Button
25. Jog Dial
26. (CD) Cue Button
    (TAPE) Fast Forward Button
    (TUNER) Tuning Up Button
27. Volume/Jog Dial Selector Button
28. Cassette Compartment



XL-30H

■ Rear panel

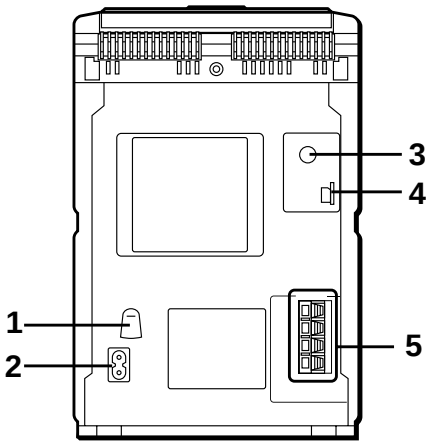
1. AC Power Input Socket
2. FM/AM Loop Aerial Socket
3. Speaker Terminals



XL-30W

■ Rear panel

1. Voltage Selector
2. AC Power Input Socket
3. FM 75 ohms Aerial Socket
4. AM Loop Aerial Socket
5. Speaker Terminals



XL-30H/30W

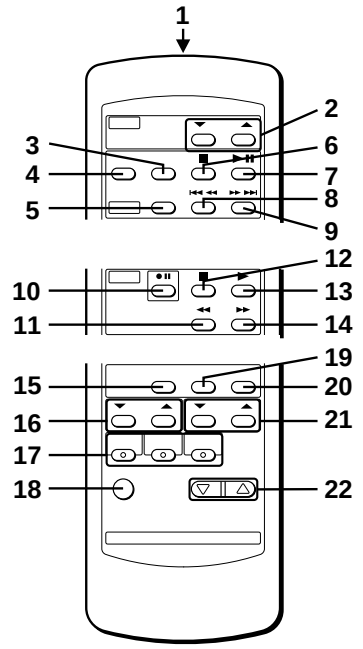
■ Remote control
1. Remote Control Transmitter LED

● Tuner control section
2. Preset Up/Down Buttons

● CD control section
3. Clear Button
4. Random/Repeat Button
5. Memory Button
6. Stop Button
7. Play/Pause Button
8. Track Down/Review Button
9. Track Up/Cue Button

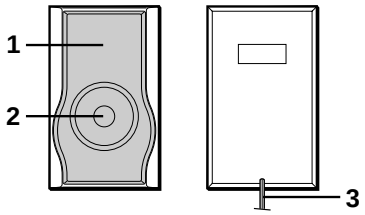
● Tape control section
10. Record Pause Button
11. Rewind Button
12. Stop Button
13. Play Button
14. Fast Forward Button

● Common section
15. Sleep Button
16. Bass Up/Down Buttons
17. Function Selector Buttons
18. On/Stand-by Button
19. Timer Button
20. Clock Button
21. Treble Up/Down Buttons
22. Volume Up/Down Buttons



CP-XL40H

1. Bass Reflex Duct
2. Full-Range Speaker
3. Speaker Wire

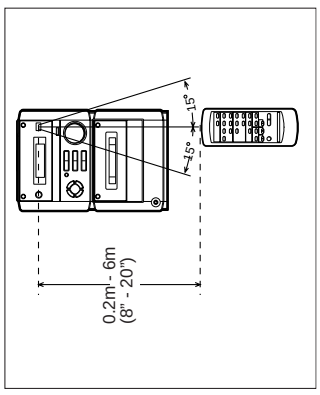


OPERATION MANUAL

PREPARATION FOR USE

■ Remote control

Notes concerning use:
- Replace the batteries if the operating distance is reduced or if the operation becomes erratic.
- Periodically clean the transmitter LED 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 may interfere with operation. Change the lighting or the direction of the unit.
- Keep the remote control away from moisture, excessive heat, shock, and vibrations.



RESETTING THE MICROCOMPUTER

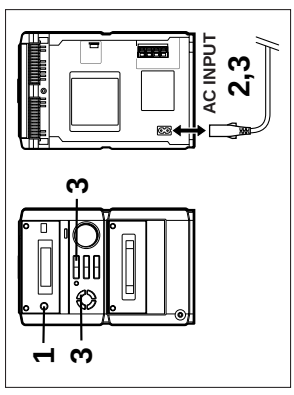
Reset the microcomputer under the following conditions:
- To erase all of the stored memory contents (clock and timer settings, and tuner and CD presets).
- If the display is not correct.
- If the operation is not correct.

1 Press the ON/STAND-BY button to enter the stand-by mode.

2 Unplug the AC power lead from the AC INPUT socket on this unit.

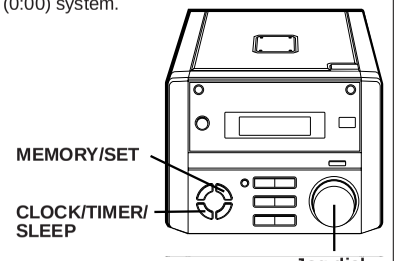
3 Whilst pressing down the MEMORY/SET button and the ▲ button, plug the AC power lead into the AC INPUT socket on this unit.

Caution:
- The operation explained above will erase all data stored in memory, such as clock and timer settings, and tuner and CD presets.



SETTING THE CLOCK

(Main unit operation)
In this example, the clock is set for the 24-hour (0:00) system.



1 Press the CLOCK/TIMER/SLEEP button to enter the time check mode.

2 Within 3 seconds, press the MEMORY/SET button.

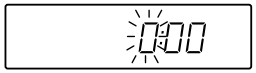
3 Turn the jog dial to select the time display mode.

0:00 ⟷ AM 12:00

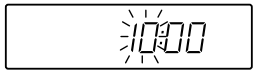
"0:00" → The 24-hour display will appear. (0:00 - 23:59)
"AM 12:00" → The 12-hour display will appear. (AM 12:00 - PM 11:59)

- Note that this can only be set when the unit is first installed or it has been reset.

4 Press the MEMORY/SET button.

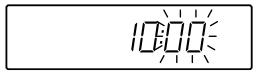


5 Adjust the hour by turning the jog dial.

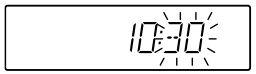


- When the jog dial is turned one click clockwise, the time will increase by 1 hour. When it is turned one click anti-clockwise, the time will decrease by 1 hour.
  Keep turning the jog dial to change the time continuously.
- When the 12-hour display is selected, "AM" will change automatically to "PM".

6 Press the MEMORY/SET button.

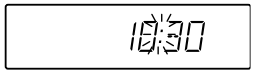


7 Adjust the minutes by turning the jog dial.



- When the jog dial is turned one click clockwise, the time will increase by 1 minute. When it is turned one click anti-clockwise, the time will decrease by 1 minute.
  Keep turning the jog dial to change the time continuously.
- The hour setting will not advance even if minutes advance from "59" to "00".

8 Press the MEMORY/SET button.



- The clock starts operating from "0" second. (Seconds are not displayed.)

Note:

- In the event of a power failure or when the AC power lead is disconnected, the clock display will go out.
  When the AC power supply is restored, the clock display will flash on and off to indicate the time when the power failure occurred or when the AC power lead was disconnected.
  If this happens, follow the procedure below to change the clock time.

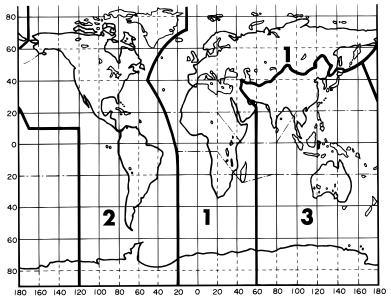
To change the clock time:
Perform steps 1, 2 and 4 - 8 above.

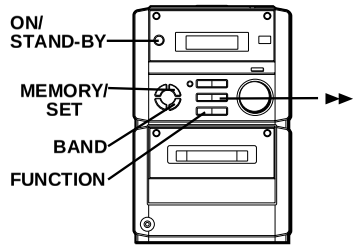
To change the time display mode:

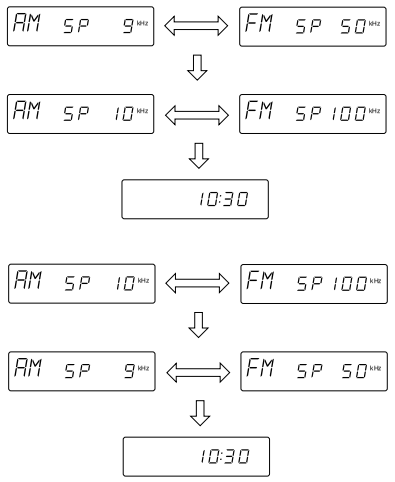
1 Perform steps 1 - 3 in the section "RESETTING THE MICROCOMPUTER",.

2 Perform steps 1 - 8 above.

PREPARATION FOR USE (FOR XL-30W Only)







■ AM/FM interval (span)

The International Telecommunication Union (ITU) has established that member countries should maintain either a 10 kHz or a 9 kHz interval between broadcasting frequencies of any AM station. The illustration shows the 9 kHz interval zones (regions 1 and 3), and the 10 kHz interval zone (region 2).

This product is not equipped with a span selector. However, it will be adjusted to 9 kHz AM interval (50 kHz FM interval) when shipped from the factory.
Before using the unit, be sure to set it for the AM tuning interval (span) used in your area.

To check the tuning span currently selected:

1 Press the ON/STAND-BY button to turn the power on.

2 Press the FUNCTION button until "FM" or "AM" appears in the display.

3 Press the BAND button to select the AM band.

- If "AM 531 kHz" is displayed, it means that the radio has been adjusted for a 9 kHz span. If "AM 530 kHz" is displayed, it means that the radio has been adjusted for a 10 kHz span.

To change from a 9 kHz AM (50 kHz FM) interval to a 10 kHz AM (100 kHz FM) interval:

1 Press the ON/STAND-BY button to enter the stand-by mode.

2 Hold down the ▶▶ button and the MEMORY/SET button for at least 4 seconds. Release the buttons when "AM SP 10 kHz" and "FM SP 100 kHz" are displayed alternately.

- The unit will return to the clock display.

To return to a 9 kHz AM (50 kHz FM) interval:

1 Press the ON/STAND-BY button to enter the stand-by mode.

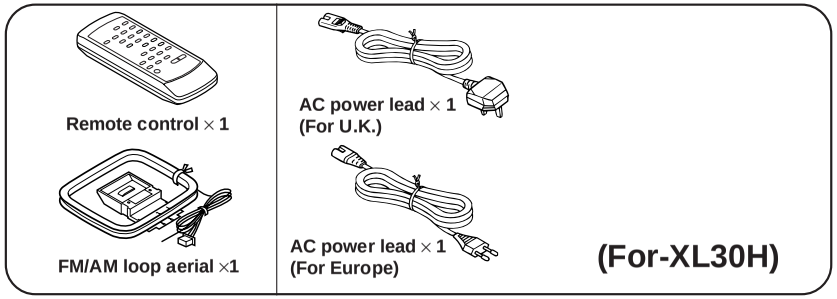
2 Hold down the ▶▶ button and the MEMORY/SET button for at least 4 seconds. Release the buttons when "AM SP 9 kHz" and "FM SP 50 kHz" are displayed alternately.

- The unit will return to the clock display.

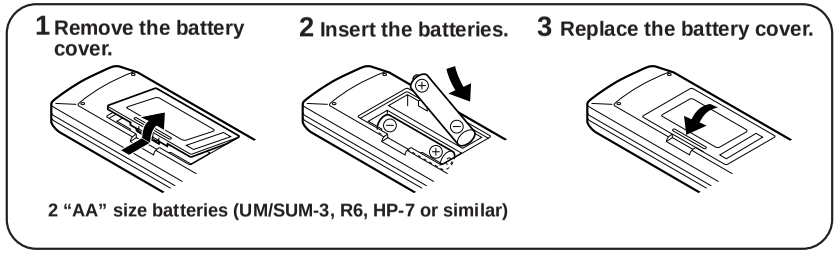
Caution:

- When the unit is left for a few hours after the span has been switched and AC power lead disconnected, it will be automatically returned to a 9 kHz span. If this happens, set the span again.
- When the span is switched, any stations that are memorised will be cancelled.

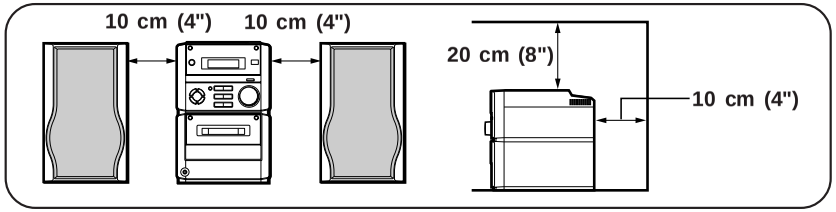
1 Check the supplied accessories



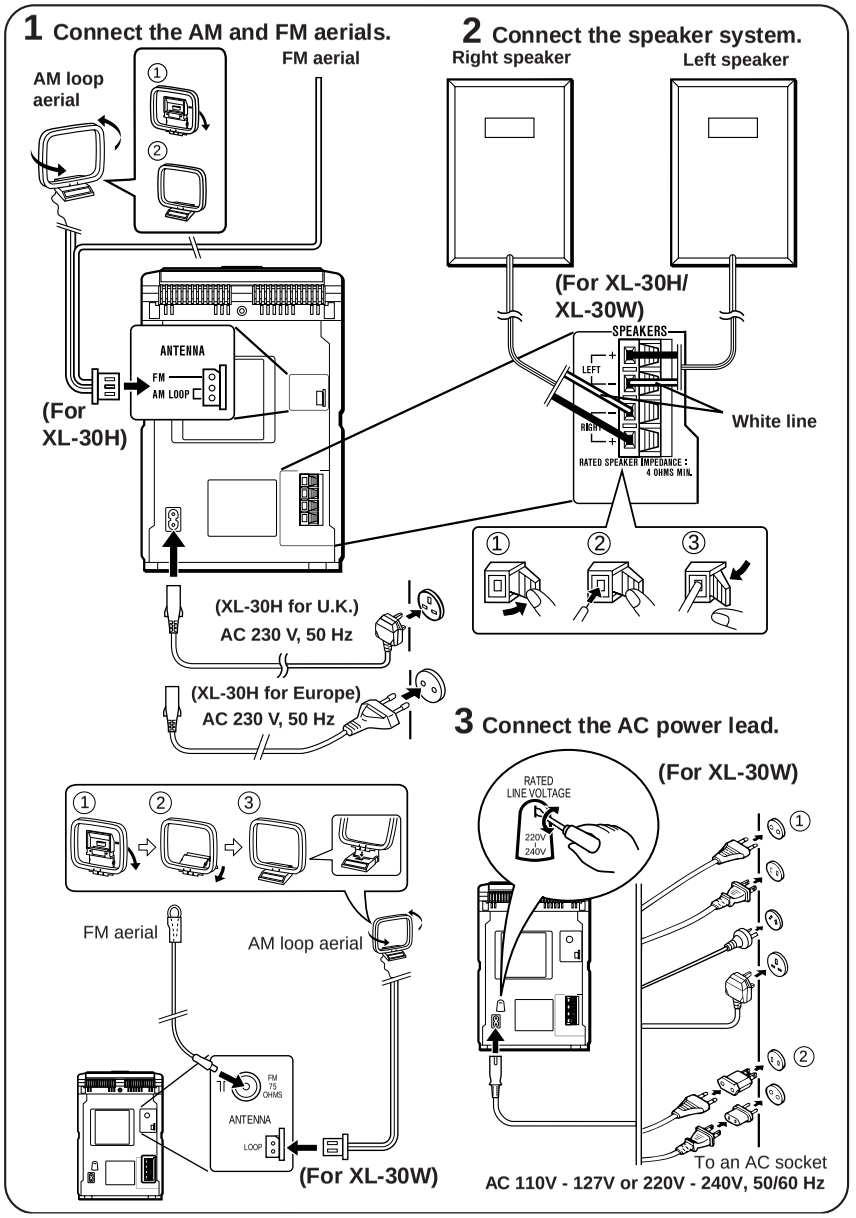
2 Putting batteries into the remote control



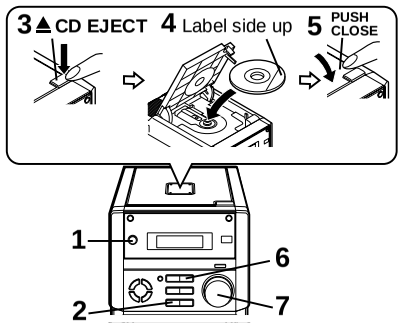
3 Placing the system



4 Connections

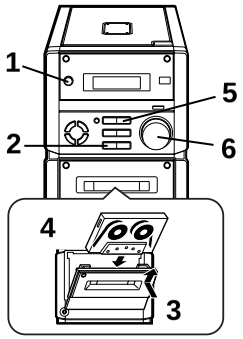


5 Listening to a CD



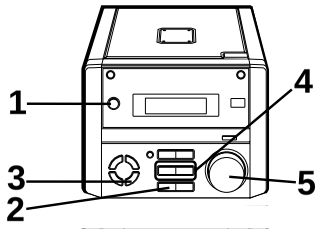
1 Press the ON/STAND-BY button to turn the power on.
2 Press the FUNCTION button until “Cd” or “no dISC” appears.
3 Press the ▲ CD EJECT button to open the CD compartment.
4 Place a CD on the spindle.
5 Close the CD compartment by pushing the corner marked “PUSH CLOSE”.
6 Press the ►/CD ❚❚ button.
7 Adjust the VOLUME control.

6 Listening to a tape



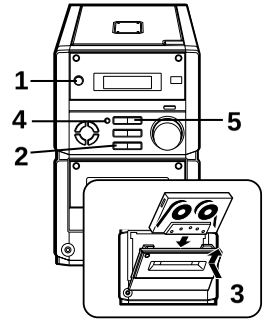
1 Press the ON/STAND-BY button to turn the power on.
2 Press the FUNCTION button until “TP” appears.
3 Open the cassette door by pushing the area marked “▲ PUSH EJECT”
4 Load a cassette.
5 Press the ► button.
6 Adjust the VOLUME control.

7 Listening to the radio



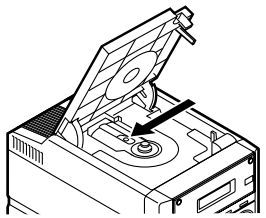
1 Press the ON/STAND-BY button to turn the power on.
2 Press the FUNCTION button until “FM” or “AM” appears.
3 Press the BAND button to select FM ST, FM or AM.
4 Press the TUNING (∨ or ∧) button to tune into a station.
5 Adjust the VOLUME control.

8 Recording from a CD



1 Press the ON/STAND-BY button to turn the power on.
2 Press the FUNCTION button until “Cd” or “no dISC” appears.
3 Load a CD and a recordable cassette.
4 Press the REC PAUSE button.
5 Press the ► button.

● CD pickup cleaning



● Do not touch the laser pickup lens. If fingerprints or dust accumulate on the pickup, clean it gently with a dry cotton swab.

DISASSEMBLY

Caution on Disassembly

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

1. Take cassette tape and compact disc out of the unit.
2. Be sure to remove the power supply plug from the wall outlet before starting to disassemble the unit.
3. Take off nylon bands or wire holders where they need to be removed when disassembling the unit. After servicing the unit, be sure to rearrange the leads where they were before disassembling.
4. Take sufficient care on static electricity of integrated circuits and other circuits when servicing.

XL-30H/30W

STEP	REMOVAL	PROCEDURE	FIGURE
1	Side Panel(Left/Right)	1. Screw ..... (A1) x8	10-1
2	Top Cabinet Switch PWB	1. Screw ..... (B1) x1 2. Socket ..... (B2) x2	10-1
3	Rear Panel	1. Screw ..... (C1) x1 2. Screw ..... (C2) x1 (XL-30W ONLY)	10-1
4	Main PWB/ Headphones PWB	1. Screw ..... (D1) x3 2. Screw ..... (D2) x2 3. Bracket ..... (D3) x1 4. Socket ..... (D4) x3 5. Flat wire..... (D5) x1 6. Socket ..... (D6) x1	10-2
5	Jog Switch PWB	1. Socket ..... (E1) x1 2. Screw ..... (E2) x2 3. Knob ..... (E3) x1	10-2
6	Display PWB/ LED PWB (With Jog Motor Holder)	1. Screw ..... (F1) x2 2. Screw ..... (F2) x3 3. Bracket ..... (F3) x1 4. Socket ..... (F4) x1 5. Hook ..... (F5) x2 6. Hook ..... (F6) x2	10-2
7	Front Panel	1. Screw ..... (G1) x1 2. Socket ..... (G2) x1 3. Screw ..... (G3) x1	10-2
8	Power PWB	1. Screw ..... (H1) x4 2. Screw ..... (H2) x1 3. Screw ..... (H3) x1 4. Bracket ..... (H4) x1	10-2
9	Tape Mechanism	1. Open the cassette holder 2. Screw ..... (J1) x4	10-3
10	CD PWB/ Open Close Switch PWB (Note)	1. Screw ..... (K1) x3 2. Hook ..... (K2) x2 3. Socket ..... (K3) x3	10-4
11	CD Mechanism	1. Screw ..... (L1) x3	10-5

XL-30H/30W

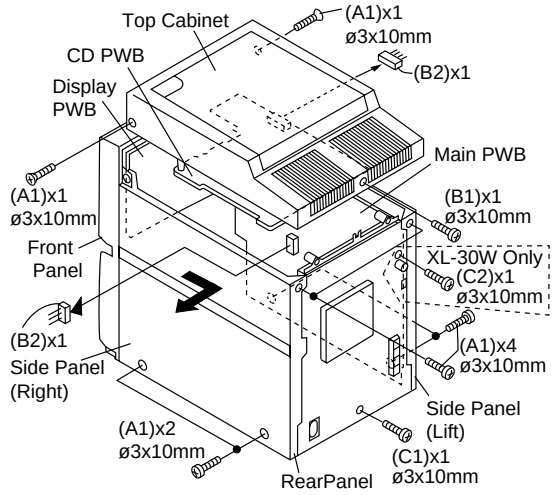


Figure 10-1

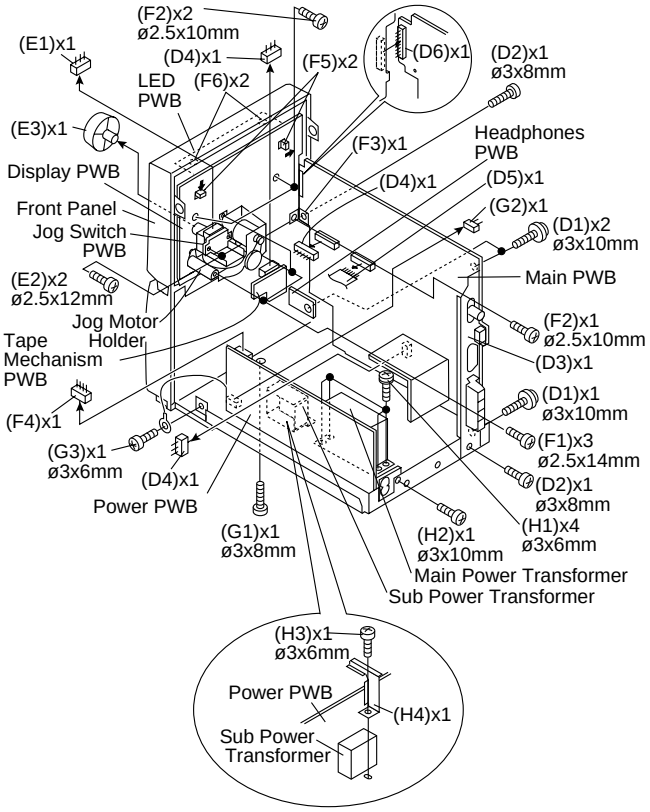


Figure 10-2

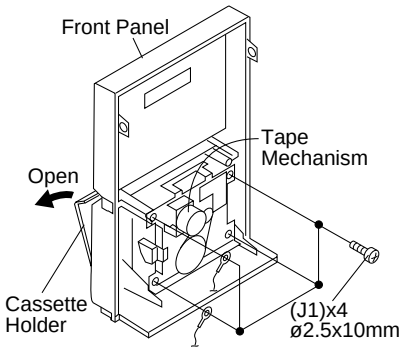


Figure 10-3

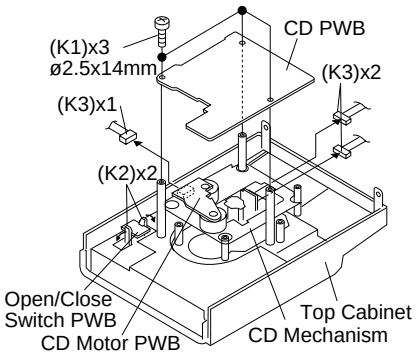


Figure 10-4

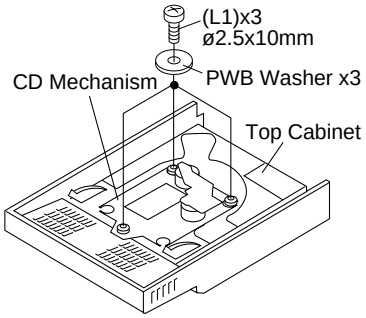


Figure 10-5

CP-XL40H			
STEP	REMOVAL	PROCEDURE	FIGURE
1	Speaker	1. Front panel ..... (A1) x1 2. Screw ..... (A2) x4	11-1

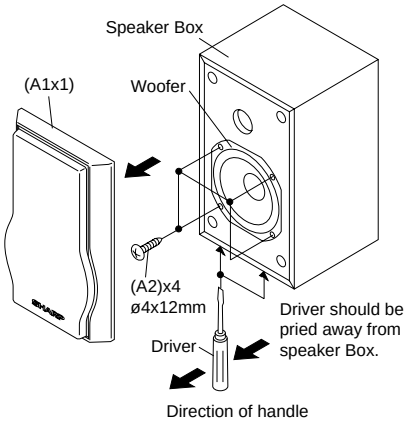


Figure 11-1

Note:
After removing the connector for the optical pickup from the connector, wrap the conductive aluminium foil around the front end of connector remove to protect the optical pickup from electrostatic damage.

REMOVING AND REINSTALLING THE MAIN PARTS

TAPE MECHANISM SECTION

Perform steps 1 to 7 and 9 of the disassembly method to remove the tape mechanism. (See page 10.)

How to remove the record / playback and erase heads (See Fig. 11-2.)

1. Remove the screws (A1) x 2 pcs., to remove the erase head.
2. Remove the screws (A2) x 2 pcs., to remove the record/ playback head.

Note:
After replacing the heads and performing the azimuth adjustment, be sure to apply screwlock.

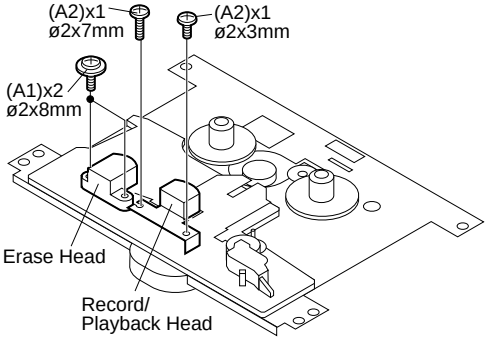


Figure 11-2

How to remove the pinch roller (See Fig. 11-3.)

1. Carefully bend the pinch roller pawl in the direction of the arrow **<A>**, and remove the pinch roller (B1) x 1 pc., upwards.

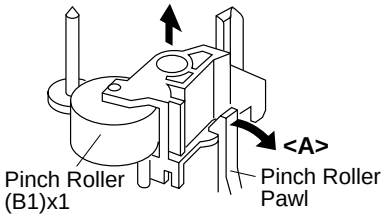


Figure 11-3

How to remove the belts (See Fig. 11-4.)

1. Remove the main belt (C1) x 1 pc., from the motor pulley.
2. Remove the FF/REW belt (C2) x 1 pc., from the REW/FF roller.
3. Put on the belts in the reverse order of removal.

Note:
When putting on the belt, ascertain that the belt is not twisted, and clean it.

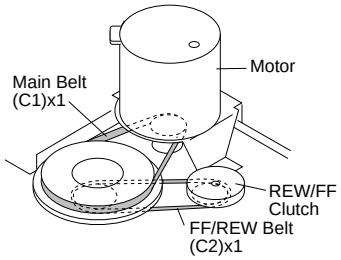


Figure 11-4

How to remove the motor (See Figs. 11-5.)

1. Remove the main belt.
2. Remove the screws (D1) x 2 pcs., to remove the motor bracket.
3. Remove the screws (D2) x 3 pcs., to remove the motor.

Note:
When mounting the motor, pay attention to the motor mounting angle.

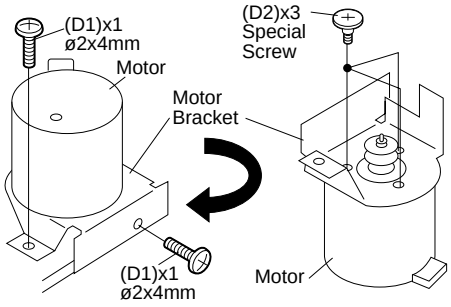


Figure 11-5

How to remove the flywheel (See Fig. 12-1.)

1. Remove the belt.
2. Remove the stop washer (E1) x 1 pc., with a small precision screwdriver to extract the flywheel from the capstan metal.

Note:
When the stop washer is deformed or damaged, replace it with a new one.

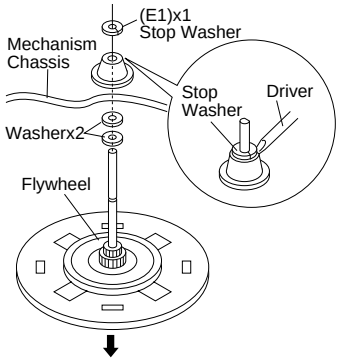


Figure 12-1

How to reinstall the parts

Install each part in the reverse order of the removal with care.

How to remove the tape mechanism PWB (See Fig. 12-2.)

1. Remove the screws (F1) x 1 pc., to remove the tape mechanism PWB.
2. Remove the screws (F2) x 1 pc.
3. Remove the solder joints (F3) x 2 pcs., to remove the tape mechanism PWB.

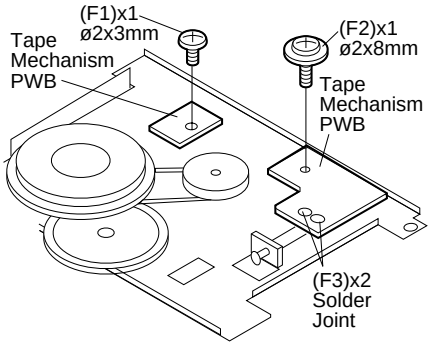


Figure 12-2

How to remove the jog motor (See Figs. 12-3.)

1. Remove the side panel and top cabinet.
2. Remove the jog belt (G1) x 1 pc., from the motor pulley.
3. Remove the screws (G2) x 2 pcs., to remove the jog motor.

Note:
When putting on the belt, ascertain that the belt is not twisted, and clean it.

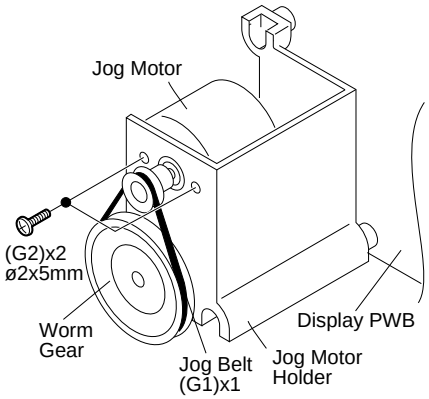


Figure 12-3

CD MECHANISM SECTION

Perform steps 1, 2 and 10, 11 of the disassembly method to remove the CD mechanism.

How to remove the pickup (See Fig. 12-4)

1. Remove the mechanism cover, paying attention to the pawls (A1) x 4 pcs.
2. Remove the screws (A2) x 2 pcs., to remove the shaft (A3) x 1 pc.
3. Remove the stop washer (A4) x 1 pc., to remove the gear (A5) x 1 pc.
4. Remove the pickup.

Note:
After removing the connector for the optical pickup from the connector, wrap the conductive aluminium foil around the front end of connector remove to protect the optical pickup from electrostatic damage.

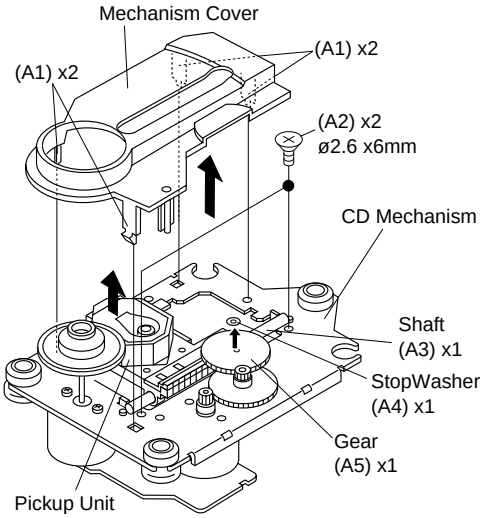


Figure 12-4

ADJUSTMENT

MECHANISM SECTION

• Driving Force Check

Torque Meter	Specified Value
Play: TW-2412	Over 80 g

• Torque Check

Torque Meter	Specified Value
Play: TW-2111	30 to 60 g. cm
Fast forward: TW-2231	55 to 140 g.cm
Rewind: TW-2231	55 to 140 g.cm

• Tape Speed

Test Tape	Adjusting Point	Specified Value	Instrument Connection
MTT-111	Variable resistor in motor.(M901)	3,000 ± 90 Hz	Headphone terminal

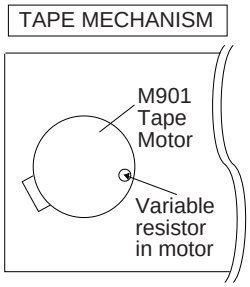


Figure 13-1 ADJUSTMENT POINT

TUNER SECTION

fL: Low-renge frequency
fH: High-renge frequency

• AM IF/RF (For XL-30H)

Signal generator: 400 Hz, 30%, AM modulated

Frequency	Frequency	Display	Setting/ Adjusting Parts	Instrument Connection
IF	450 kHz	1,620 kHz	T351	*1
AM Band Coverage	—	522 kHz	(fL): T306 1.1 ± 0.1 V	*2
AM Tracking	990 kHz	990 kHz	T302	*1

• AM IF/RF (For XL-30W)

Signal generator: 400 Hz, 30%, AM modulated

Test Stage	Frequency	Frequency Display	Setting/ Adjusting Parts	Instrument Connection
AM IF	450 kHz	1,602 kHz	T351	*1
AM Band Coverage	—	531 kHz	(fL): T306 1.1 ± 0.1 V	*2
AM Tracking	990 kHz	990 kHz	T302	*1

*1. Input: Antenna, Output: Speaker Terminal
*2. Input: Input is not connected, Output: TP301
Span selectors are to be 9 kHz (AM), 50 kHz (FM).

• Check FM VT (XL-30H/30W)

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

Frequency	Display	Check Point	Instrument Connection
87.5 MHz	87.5 MHz	3.4 V ± 1.0 V	TP301
108 MHz	108 MHz	7.8 V ± 1.0 V	TP301

• FM Mute Level (For XL-30W)

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

Frequency	Display	Adjusting Parts	Instrument Connection
98.00 MHz (25 dBμV)	98.00 MHz	VR351*1	Input: SO301 Output: Speaker Terminal

*1. Adjust so that an output signal appears.

• FM Mute Level (For XL-30H)

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

Frequency	Display	Adjusting Parts	Instrument Connection
98.00 MHz (30 dBμV)	98.00 MHz	VR351*1	Input: CNP301 Output: Speaker Terminal

*1. Adjust so that an output signal appears.

• FM Detection (XL-30H/W)

Signal generator: 10.7 MHz, FM sweep generator

Test Stage	Frequency	Frequency Display	Setting/ Adjusting Parts	Instrument Connection
FM IF	10.7 MHz	98.00 MHz	T304(Turn the core of T304 fully counter-clockwise).	Input: Pin 1 of IC301

• FM RF (XL-30H/W)

Signal generator: 1 kHz, 75 kHz dev., FM modulated

Test Stage	Frequency	Frequency Display	Setting/ Adjusting Parts	Instrument Connection
FM Band Coverage	—	87.50 MHz	(fL): L303 3.4 ± 0.1 V	*1
FM RF	98.00 MHz (10~30 dB)	98.00 MHz	L302	*2

*1. Input: Antenna, Output: TP301
*2. Input: Antenna, Output: Speaker Terminal

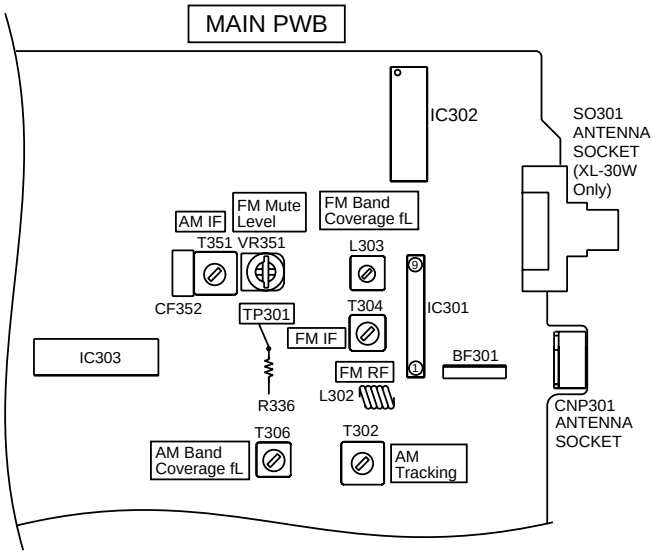


Figure 13-2 ADJUSTMENT POINTS

• Setting the Test Mode (For XL-30W)

Keeping the FF/FWD button and MEMORY button pressed, turn on POWER. Then, the frequency is initially set in the memory as shown in Table. Call it with the Jog volume button by pressing the VOLUME/JOG button to use it for adjustment and check of tuner circuit.

Preset No.	FM STEREO	Preset No.	AM
1	87.50 MHz	6	531 kHz
2	108.00 MHz	7	1,602 kHz
3	98.00 MHz	8	990 kHz
4	90.00 MHz	9	603 kHz
5	106.00 MHz	10	1,404 kHz
11~25	————		

Preset No.	FM MONO
26	106.00 MHz
27	90.00 MHz
28	98.00 MHz
29	108.00 MHz
30	87.50 MHz

• Setting the Test Mode (For XL-30H)

Keeping the FF/FWD button and MEMORY/SET button pressed, turn on POWER. Then, the frequency is initially set in the memory as shown in Table. Call it with the JOG DIAL knob to use it for adjustment and check of tuner circuit.

Preset No.	FM STEREO	Preset No.	AM
1	87.50 MHz	6	522 kHz
2	108.00 MHz	7	1,620 kHz
3	98.00 MHz	8	990 kHz
4	90.00 MHz	9	603 kHz
5	106.00 MHz	10	1,404 kHz
11~25	——		

Preset No.	FM MONO
26	106.00 MHz
27	90.00 MHz
28	98.00 MHz
29	108.00 MHz
30	87.50 MHz

TEST MODE

The test mode applied to this microcomputer has three modes, namely ordinary test mode to be used for adjustment or measurement, aging test mode to be used for aging test, and self-diagnosis test mode for self-inspection in case of final product inspection.

1. Turning on the test mode

To turn on the specific test mode, press the POWER button, holding down the following two buttons in the ordinary stand-by mode (power off state). In this case only the main unit button is valid. Even when the POWER of remote control button is set to on, the test mode is not turned on.

[Ordinary test mode]

1. CD Test Mode (TEST 1)…… Volume/JOG Dial Selector + FF/FWD
2. Tuner Test Mode (TEST 2)…… Volume/JOG Dial Selector + Volume Select
3. Electronic volume Test Mode (TEST 3)…… REW/REV + FF/FWD
4. Timer Test Mode (TEST 4)…… FUNCTION + Volume Select
5. LCD Test Mode (TEST 5)…… FUNCTION + FF/FWD

[Self-diagnosis Test Mode]

1. Button input diagnosis test mode (TEST6)…. REW/REV + Volume Select

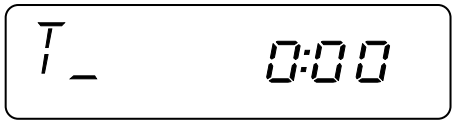
2. CD Test Mode (TEST 1)

In the CD test mode the operation of each step is enabled even when the LID-SW is off. However, if focus cannot be set in step 3 or any error processing is started, it is impossible to proceed to the next step. When the error processing is started, operations other than termination of test mode by pressing the POWER button or return to the step 1 by pressing the STOP button are inhibited.

1. Step 1 Mode

When the CD test mode is turned on, the following indication lights, the processing (until turning-off of CD STB terminal of CD initialization operation flow) is executed, and the next button input is waited.

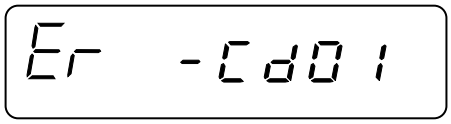
After lighting for one second



If the following operation buttons are pressed in this state, the operation is performed as follows.

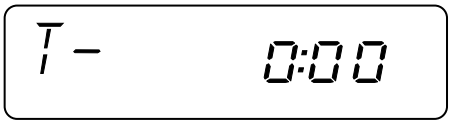
"POWER" ..... The test mode is turned off, the power is turned off, and the ordinary stand-by mode is set.
"FF/FWD" ..... After the pickup returns once to the innermost periphery, it slides toward the outer periphery while this button is held down.
"REW/REV" ..... After the pickup returns once to the innermost periphery, it slides toward the inner periphery while this button is pressed. However, if PU-IN is on, input is invalid.
"PLAY" ..... Shift to step 2
"STOP" ..... Invalid
"REC PAUSE" ..... Shift to step 5

* In case of initialization the pickup is moved toward the inner periphery. Any buttons other than "POWER" button are not accepted until the shift of pickup to the inner periphery is completed at this time. If PU-IN SW ON cannot be detected within 10 seconds, the slide motor is stopped, and the following error indication appears. Press the POWER button to end the test mode, or press the STOP button to return to step 1. Any other operations are inhibited.



2. Step 2 Mode

When the "PLAY" button is pressed in this mode, the laser lighting command LDON (8400) is sent, and the laser is turned on. Other operations are not performed.



If the following buttons are pressed in this state, the operation is performed as follows.

"POWER" ..... The test mode is turned off, the power is turned off, and the ordinary stand-by mode is set.
"FF/FWD" ..... The pickup slides toward the outer periphery while this button is held down.
"REW/REV" ..... The pickup slides toward the inner periphery while this button is held down. However, if PU-IN is on, input is invalid.
"PLAY" ..... Shift to step 3
"STOP" ..... Return to step 1
"REC PAUSE" ..... Shift to step 5

3. Step 3 Mode

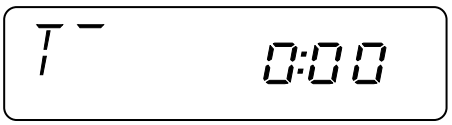
The laser is kept lighting. The processing (until turning-on of CLV servo of CD initialization operation flow) is executed, and the next button input is waited. (The focus servo is turned on, and focus search is performed.)
The focus search is repeated until the focus is set.

When the following operation buttons are pressed in this state, the operation is executed as follows.

"POWER" ..... The test mode is turned off, the power is turned off, and the ordinary standby mode is set.
"FF/FWD" ..... The pickup slides toward the outer periphery while this button is held down.
"REW/REV" ..... The pickup slides toward the inner periphery while this button is held down. However, if PU-IN is on, input is invalid.
"PLAY" ..... If the focus has been set, shift to step 4 is executed. If the focus has not been set, acceptance is inhibited.
"STOP" ..... Return to step 1
"REC PAUSE" ..... Shift to step 5
*If the focus is disturbed after it has been set, the process returns to step 1.

4. Step 4 Mode

The CLV servo ON command (8600) sending operation is performed, and the next button input is waited. (The disc is rotated to perform CLV locking.)



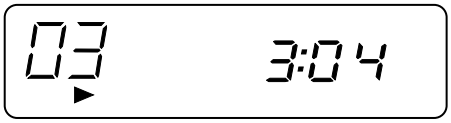
The time display indicates always "0:00".

When the following buttons are pressed in this state, the operation is executed as follows.

"POWER" ..... The test mode is turned off, the power is turned off, and the ordinary standby mode is set.
"FF/FWD" ..... The pickup slides toward the outer periphery while this button is held down.
"REW/REV" ..... The pickup slides toward the inner periphery while this button is held down. However, if PU-IN is on, input is invalid.
"PLAY" ..... Shift to step 5
"STOP" ..... Return to step 1
"REC PAUSE" ..... Shift to step 5
*If the focus is disturbed, the process returns to step 1.

5. Step 5 Mode

The CD initialization operation flow is executed to the end, the mute is set to off, and playback is started. Even when the playback reaches the outermost periphery of disc, the operation does not stop. The LCD display indicates the playback past time as in case of ordinary CD playback.



When the following operation buttons are pressed in this sate, the operation is executed as follows.

"POWER" ..... The test mode is turned off, the power is turned off, and the ordinary standby mode is set.
"FF/FWD" ..... The pickup slides toward the outer periphery while this button is held down.
"REW/REV" ..... The pickup slides toward the inner periphery while this button is held down. However, if PU-IN is on, input is invalid.
"PLAY" ..... Invalid
"STOP" ..... Return to step 1
"FUNCTION" ..... Shift to step 6
"BAND" ..... Shift to step 7
*If the focus is disturbed, the process returns to step 1.

Other cautions
• TOC IL is not executed in the test mode.
• As for button operations other than those shown above, only the sound volume operation (with JOG) is accepted.

3. Tuner Test Mode (TEST 2)

1. Outline of tuner (radio) test mode

The tuner test mode is intended to store the adjustment and measurement frequencies in the preset memory CH without frequency setting by adjusting personnel when the tuner section is adjusted in the production line.

2. Details of tuner test mode

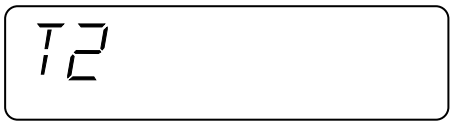
When the power is turned on by using the "POWER" button while the "Volume/JOG Dial Selector" and "Volume Select" buttons are held down in POWER OFF state, the frequency for adjustment and measurement of destination specified by the AREA terminal is preset and stored in the preset memory CH. However, Ordinary 1 and Ordinary 2 are set to the designation (destination selected by SPAN switching operation) set when the test mode is set. (As for frequencies to be preset and stored for each destination, refer to item 3.)

The tuner test mode is started from preset No.1.

The operations of test mode are identical with the ordinary operations of TUNER function. However, FUNCTION switching is invalid.

Since it is necessary to discard the content of preset memory when the tuner test mode is ended, "0000" or "1111" bits are written in the memory to be checked in case of memory check (in case of initial setting) so that memory abnormality is detected in case of initial setting so as to ensure memory initialization.

When the tuner test mode is turned on, the following indication lights for one second.



• The TUNER TEST2 mode is set as a result of Volume Select + POWER. -> IF AC is set to OFF in the TEST2 mode, the initial state is restored.

↓

When POWER is set to OFF, the memory of TEST2 mode is protected.
When the power is turned on again, the ordinary operation is enabled while the data is stored in the memory (besides TUNER).

↓

If AC OFF state is maintained in this state for about 1/2 day, start is executed in the initial state.

• To clear the whole memory, insert the AC cord, holding down MEMORY + PLAY.

3. Preset frequencies for various destinations (random preset memory)

(For XL-30H)

CH	BAND	Europe 2, 4
1	FM STEREO	FM 87.50 MHz
2		FM108.00 MHz
3		FM 98.00 MHz
4		FM 90.00 MHz
5		FM106.00 MHz

CH	BAND	Europe 2, 4
6	AM	AM 522 kHz
7		AM1620 kHz
8		AM 990 kHz
9		AM 603 kHz
10		AM1404 kHz
11-15	LW	

CH	BAND	Europe 2, 4
16-25		
26	FM MONO	FM106.00 MHz
27		FM 90.00 MHz
28		FM 98.00 MHz
29		FM108.00 MHz
30		FM 87.50 MHz

(For XL-30W)

CH	BAND	Ordinary 1,China
1	FM STEREO	FM 87.50 MHz
2		FM108.00 MHz
3		FM 98.00 MHz
4		FM 90.00 MHz
5		FM106.00 MHz
6	AM	AM 531 kHz
7		AM1602 kHz
8		AM 990 kHz
9		AM 603 kHz
10		AM1404 kHz
11-15	LW	

CH	BAND	Ordinary 1,China
16-20		
21-25		
26	FM MONO	FM106.00 MHz
27		FM 90.00 MHz
28		FM 98.00 MHz
29		FM108.00 MHz
30		FM 87.50 MHz

• The hatched sections of the table are not stored in memory.

4. Electronic volume Test Mode (TEST 3)

When the test mode is set, the following indication lights for one second.

When this mode is set, BASS/TREBLE is set to 0 (0 dB) and SURROUND mode is set to off, and start-up function is set to CD when volume is -14 dB (STEP 17). The button operations in the test mode are the same as those of ordinary operation excepting sound volume UP/DOWN.

(1) The indication is the same as that of ordinary operation excepting test mode setting.

(2) The sound volume control with the sound volume UP/DOWN button is only the following 3 steps unlike the ordinary state.

Volume- ∞ (STEP 0) <-> Volume-14 dB (STEP 23) <-> Volume-0 (STEP 30)

(3) BASS/TREBLE and SURROUND are switched when button operation is performed.

5. Timer test Mode (TEST 4)

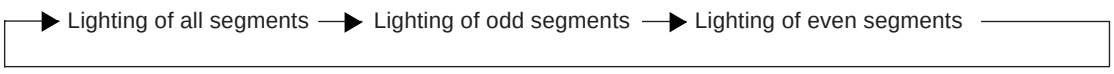
When the test mode is set, the following indication lights for one second.

The current time and timer time are set in the following procedure to perform the timer playback.

1.Set the current time to 1:00, set the timer to ON time 1:02, set the function to Tape, and set volume STEP 8. One minute is counted as one second, and the timer playback operation is performed. The fade-in (when playback is started) is executed at a rate of one step for 0.5 sec. After completion of fade-in the fade-out is executed at a rate of one step for 0.5 sec (WAIT 1 sec inserted). After completion of fade-out the power is turned off (after WAIT 1 sec), and the mode is changed to the standby mode. The indication during operation is the same as that of ordinary timer operation.

6. LCD Test Mode (TEST 5)

When the LCD test mode is set, all the LCD segments are lighted. After that the indication is changed as follows according to the "PLAY" button input.



7. Key input diagnosis Test Mode (TEST 6)

When the test mode is set, the following indication appears.

This test mode is intended to check whether all the main unit buttons can be detected. Accordingly, in this test mode checking as to whether the "POWER" button was pressed after all the buttons shown below were pressed is performed. If the result is OK, OK is indicated. Even any one of keys was not pressed, an error is indicated. In case of OK termination or error termination exit from this mode occurs when the "POWER" button is pressed next time, and the standby mode is set.

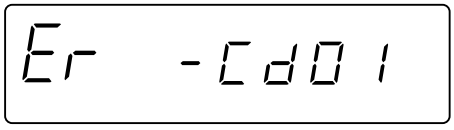
1. In case of "FF/FWD" + "REC PAUSE"

Since SURROUND and RDS are not provided, the following 11 buttons are detected as all buttons.
PLAY, JOG MODE, BAND, BASS/TREBLE, FUNCTION, MEMORY/SET, REC PAUSE, REW, FF, STOP, CLOCK/TIMER/SLEEP.

The OK/NG indication of test result is as follows.

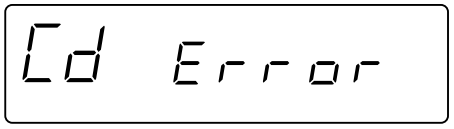
ERROR LIST

PU-IN SW detection error



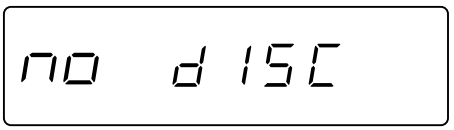
Error content ..... The detection SW cannot detect ON after a fixed period of time even if the microcomputer controls the CD pickup to return to the innermost position.
Probable cause ..... Defective or poorly connected PU-IN SW or slide motor.
Action ..... Solve the problem and turn on the power again.

CD read error



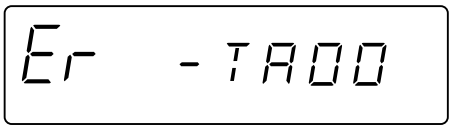
Error content ..... Disc data cannot be read properly or even if it can be read, the disc is not a playable one.
Probable cause ..... The disc is loaded upside down, not CD-DA, scratches, stains, etc.
Action ..... Open the CD lid, then reload the disc correctly. Remove the scratches or stains on the disc.

NO DISC



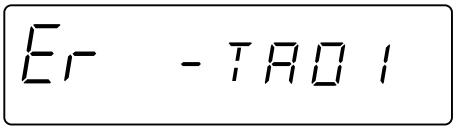
Error content ..... Focusing is impossible.
Probable cause ..... The disc is loaded upside down, not CD-DA, scratches, stains, etc.
Action ..... Open the CD lid, then reload the disc correctly. Remove the scratches or stains on the disc.

Tape mechanism error 1



Error content ..... The detection SW "CAM-SW" cannot detect ON (mechanism in operation) even if the motor and solenoid are controlled to play back, fast forward, rewind, or record the tape.
Probable cause ..... Mechanism is in operation when this message appears: Defective or poorly connected CAM-SW. Mechanism stops: Defective or poorly connected motor or solenoid.
Action ..... Solve the problem and turn on the power again.

Tape mechanism error 2



Error content ..... Initialization cannot be completed when the microcomputer controls the motor and solenoid to initialize the tape mechanism (to set the mechanism to the stop mode). The detection SW "CAM-SW" cannot detect OFF While the mechanism is in operation.
Probable cause ..... Mechanism is in operation when this message appears: Defective or poorly connected CAM-SW. Mechanism stops: Defective or poorly connected motor or solenoid.
Action ..... Solve the problem and turn on the power again.

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), (TH), (RH), (UJ): Temperature compensation
  (ML): Mylar type
  (P.P.): Polypropylene type
- Schematic diagram and Wiring Side of P.W.Board for this model are subject to change for improvement without prior notice.
- The indicated voltage in each section is the one measured by Digital Multimeter between such a section and the chassis with no signal given.
  1. In the tuner section,
     ( ) indicates AM
     < > indicates FM stereo
  2. In the main section, a tape is being played back.
  3. In the deck section, a tape is being played back.
     ( ) indicates the record state.
  4. In the power section, a tape is being played back.
  5. In the CD section, the CD is stopped.
- 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
SW651	VOLTAGE SELECTOR (XL-30W Only)	220-240V
NSW801	PICKUP IN	ON—OFF
SW700	JOG	ON—OFF
SW709	ON/STAND-BY	ON—OFF
SW710	CLOCK/TIMER/SLEEP	ON—OFF
SW711	TUNING UP	ON—OFF
SW712	PLAY/CD PAUSE	ON—OFF
SW713	VOLUME SELECT	ON—OFF
SW721	MEMORY/SET	ON—OFF
SW722	BASS/TREBLE	ON—OFF

REF. NO	DESCRIPTION	POSITION
SW723	BAND	ON—OFF
SW724	REC. PAUSE	ON—OFF
SW725	STOP/CLEAR	ON—OFF
SW726	TUNING DOWN	ON—OFF
SW727	FUNCTION	ON—OFF
SW728	VOLUME JOG	ON—OFF
SW801	OPEN/CLOSE	ON—OFF
SW901	FOOL PROOF	ON—OFF
SW902	CAM	ON—OFF

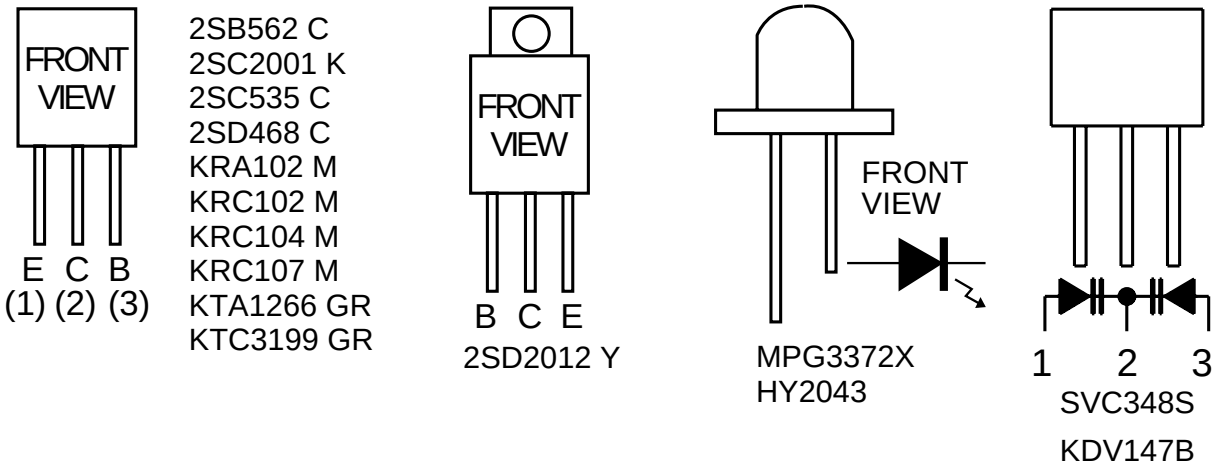


Figure 19 TYPES OF TRANSISTOR AND LED

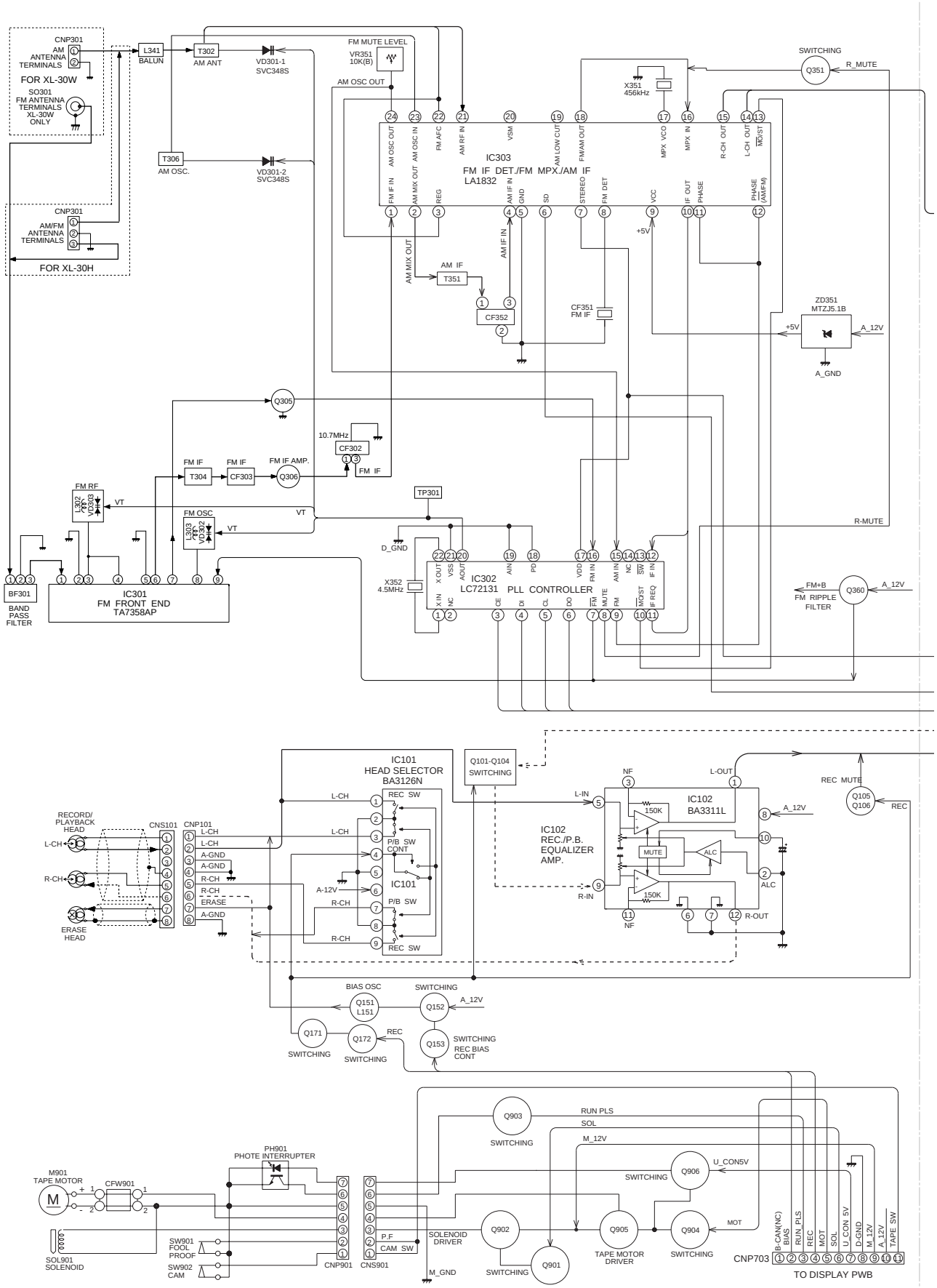


Figure 20 BLOCK DIAGRAM (1/4)

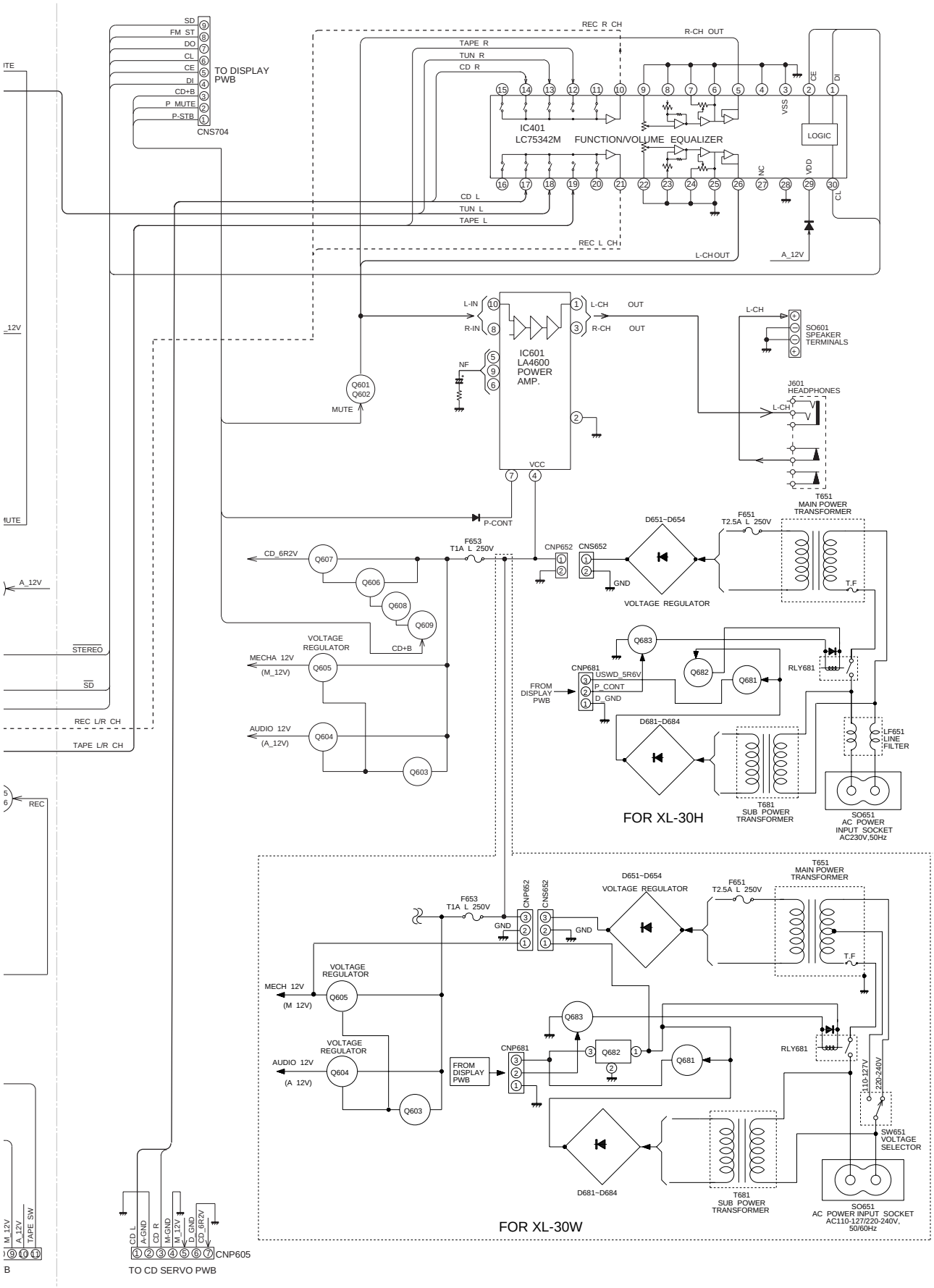


Figure 21 BLOCK DIAGRAM (2/4)

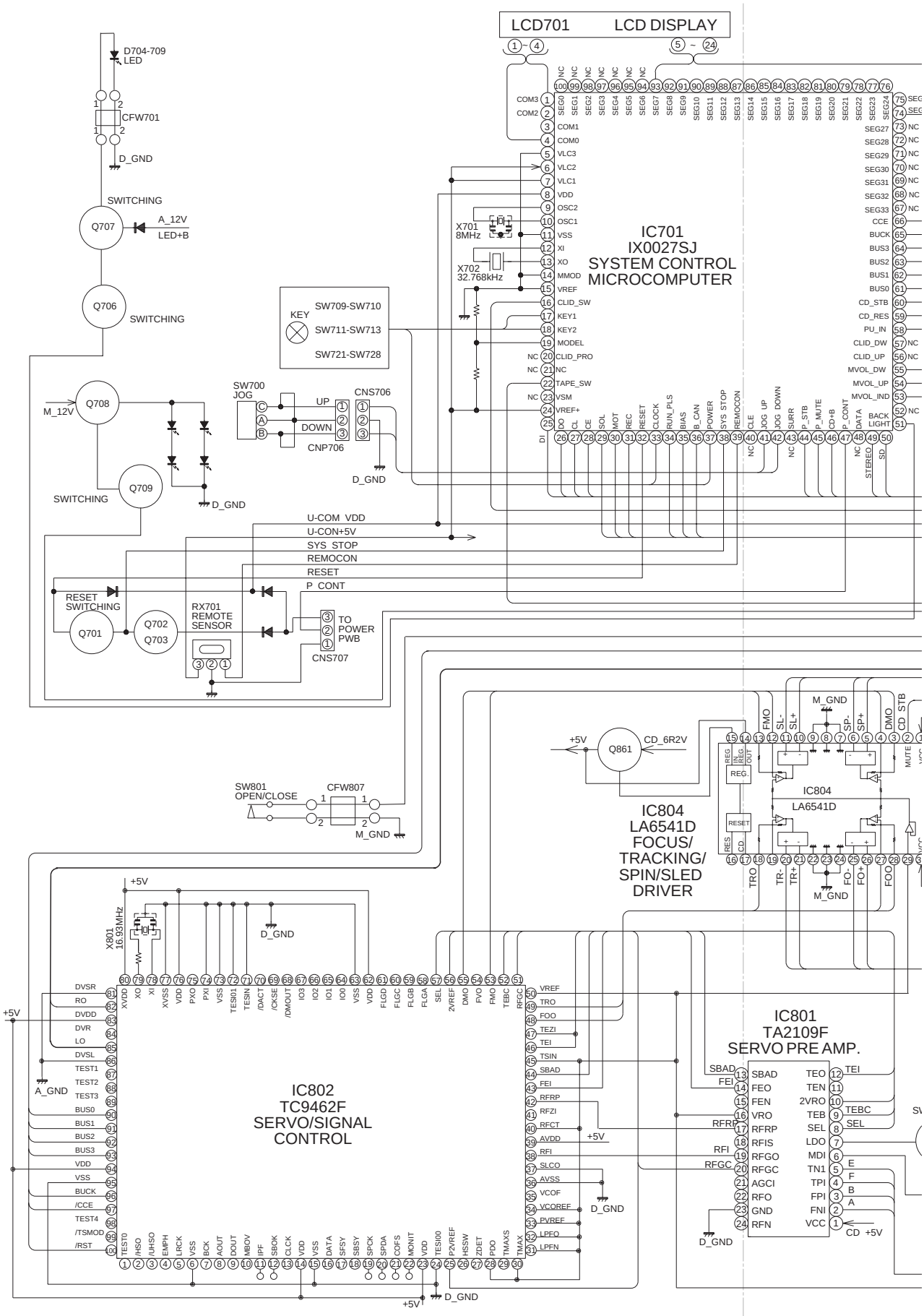


Figure 22 BLOCK DIAGRAM (3/4)

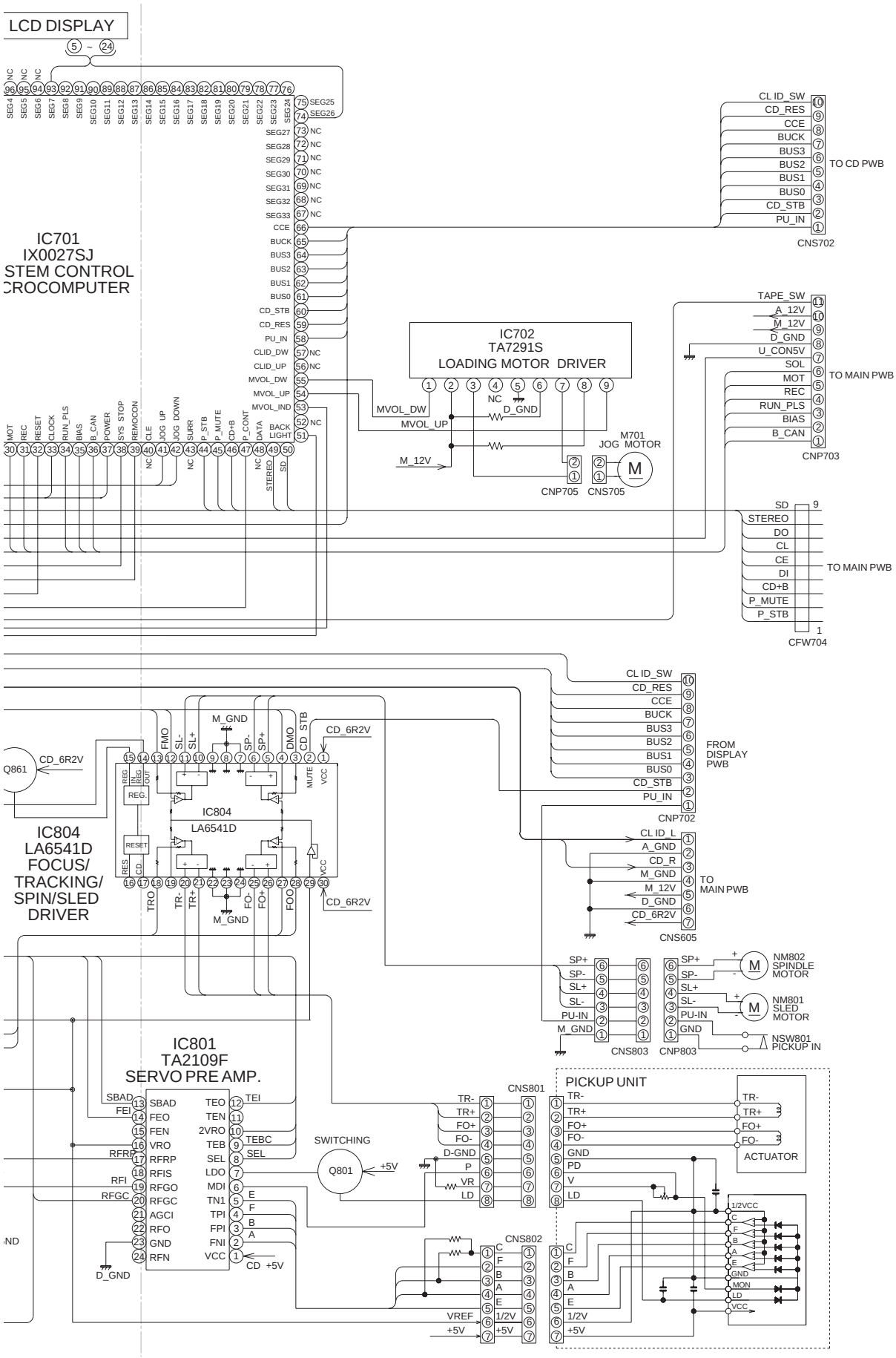
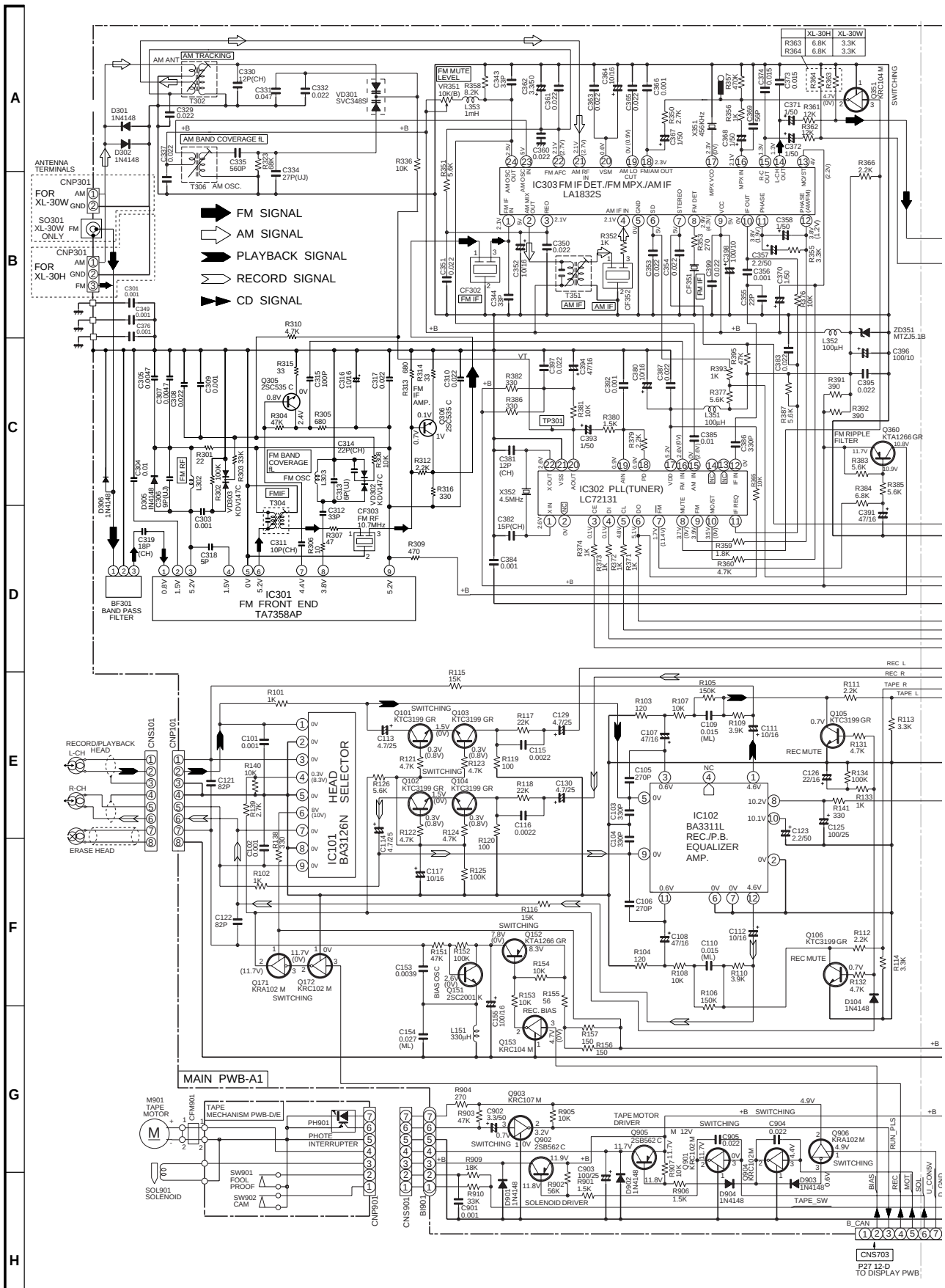
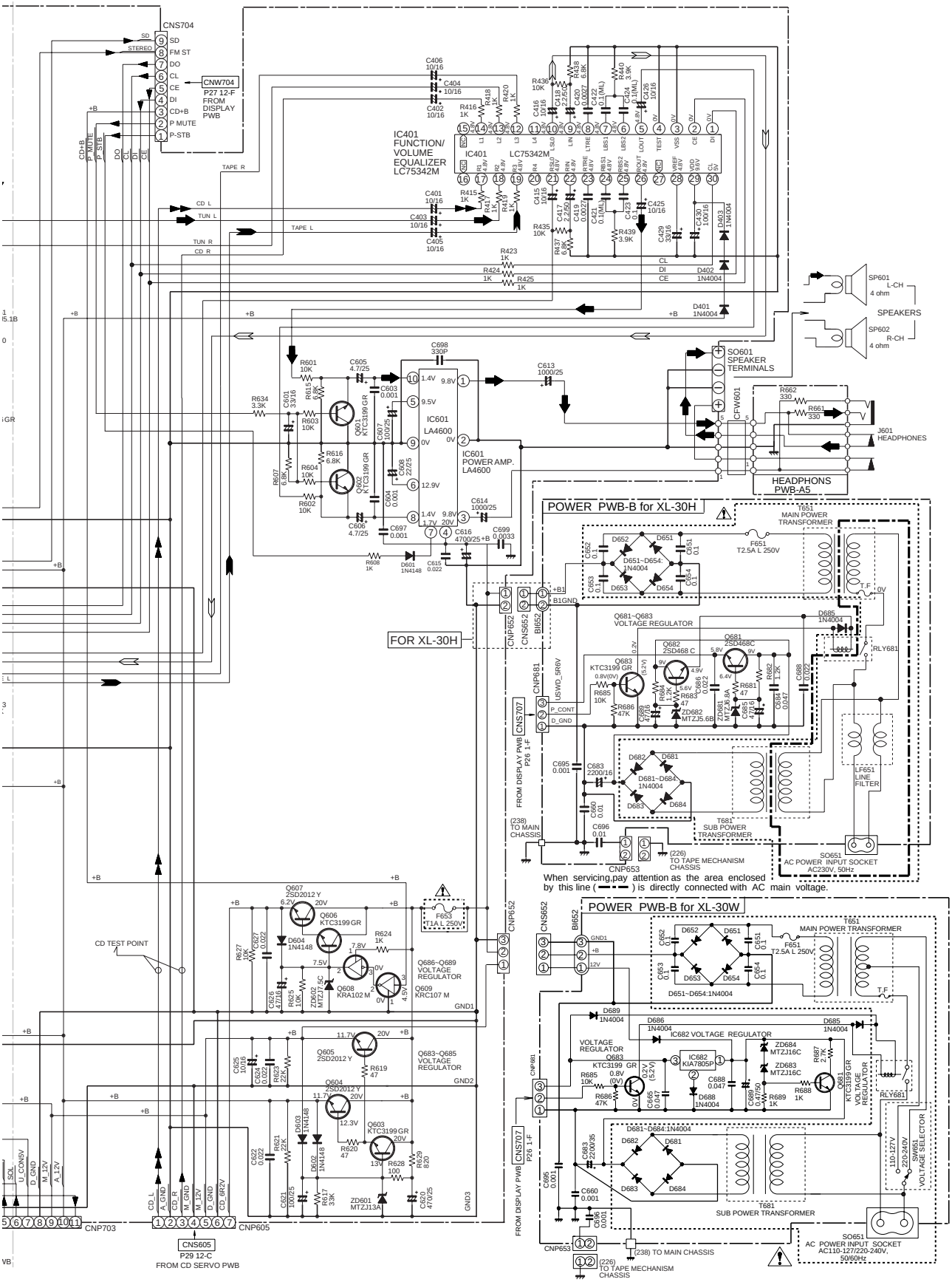


Figure 23 BLOCK DIAGRAM (4/4)



• NOTES ON SCHEMATIC DIAGRAM can be found on page 19.

Figure 24 SCHEMATIC DIAGRAM (1/6)



7	8	9	10	11	12

Figure 25 SCHEMATIC DIAGRAM (2/6)

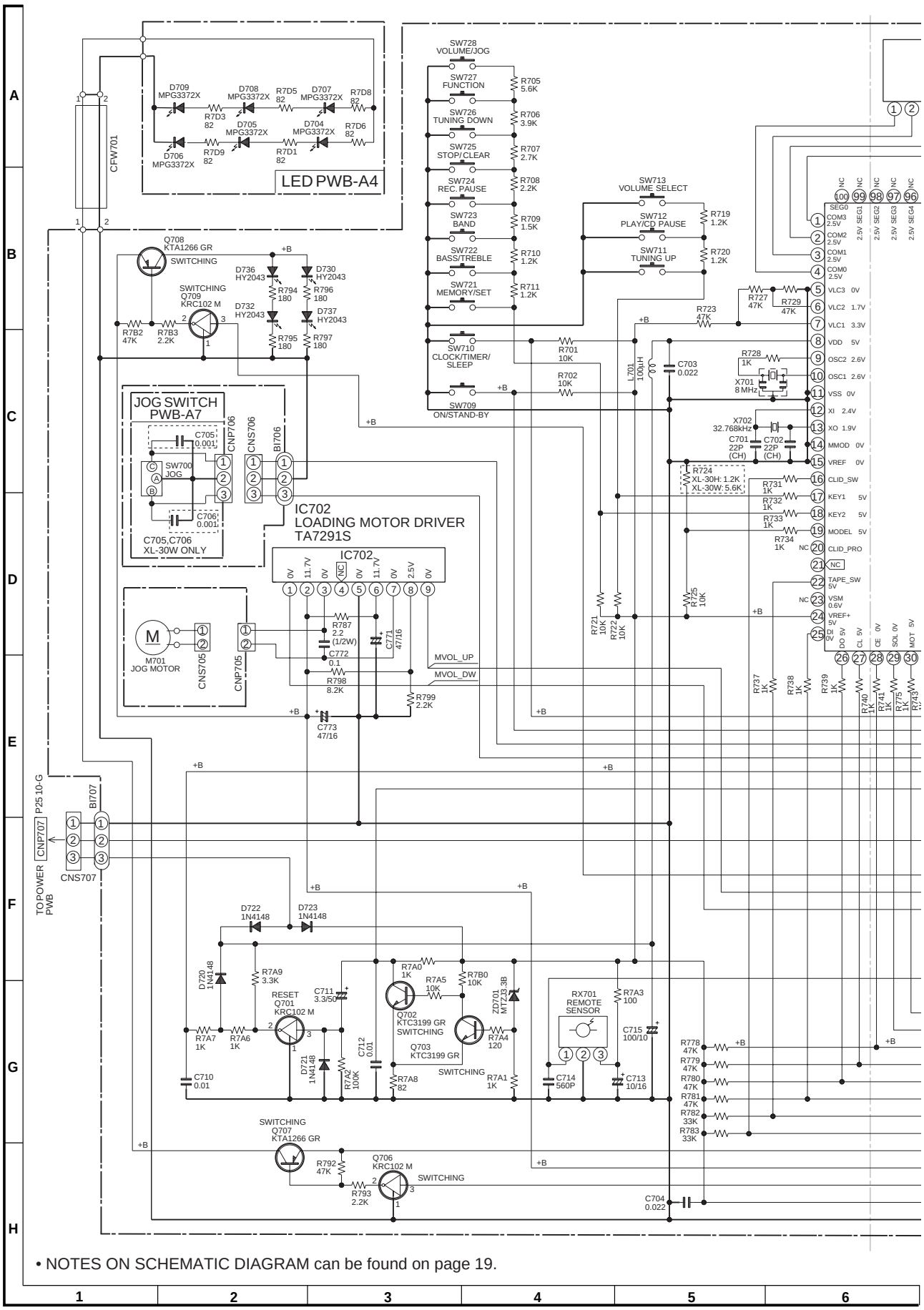
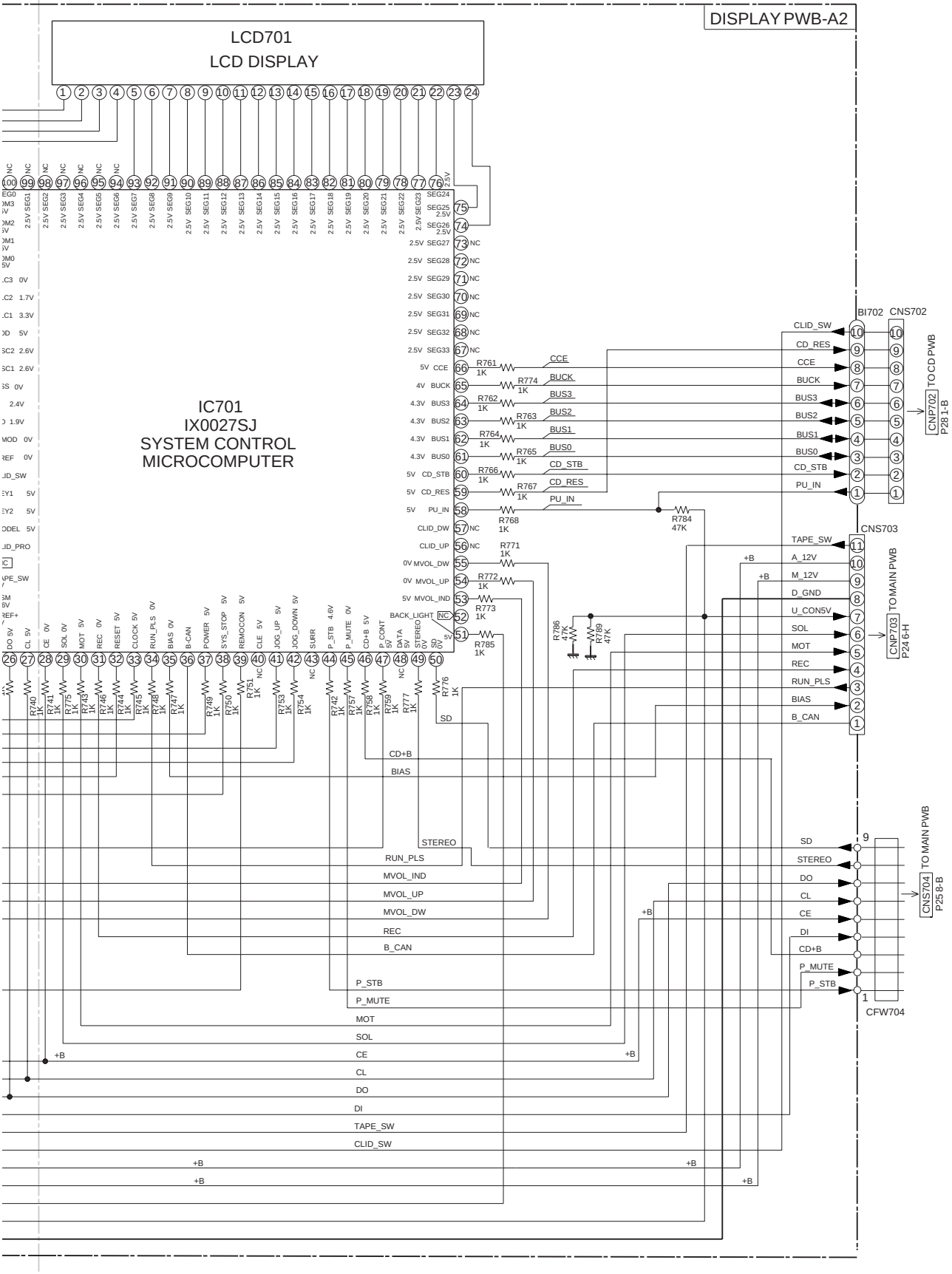


Figure 26 SCHEMATIC DIAGRAM (3/6)



7	8	9	10	11	12

Figure 27 SCHEMATIC DIAGRAM (4/6)

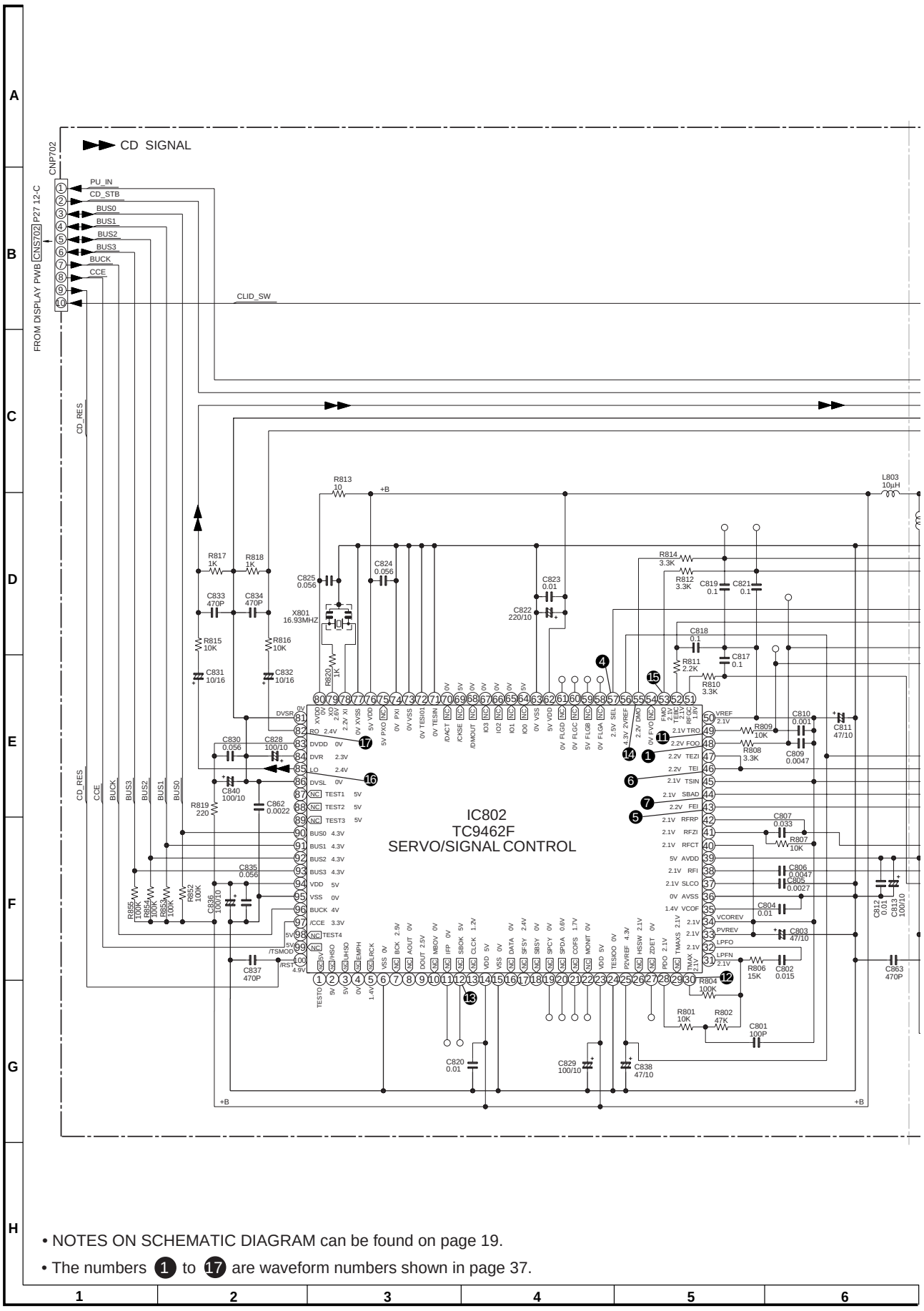
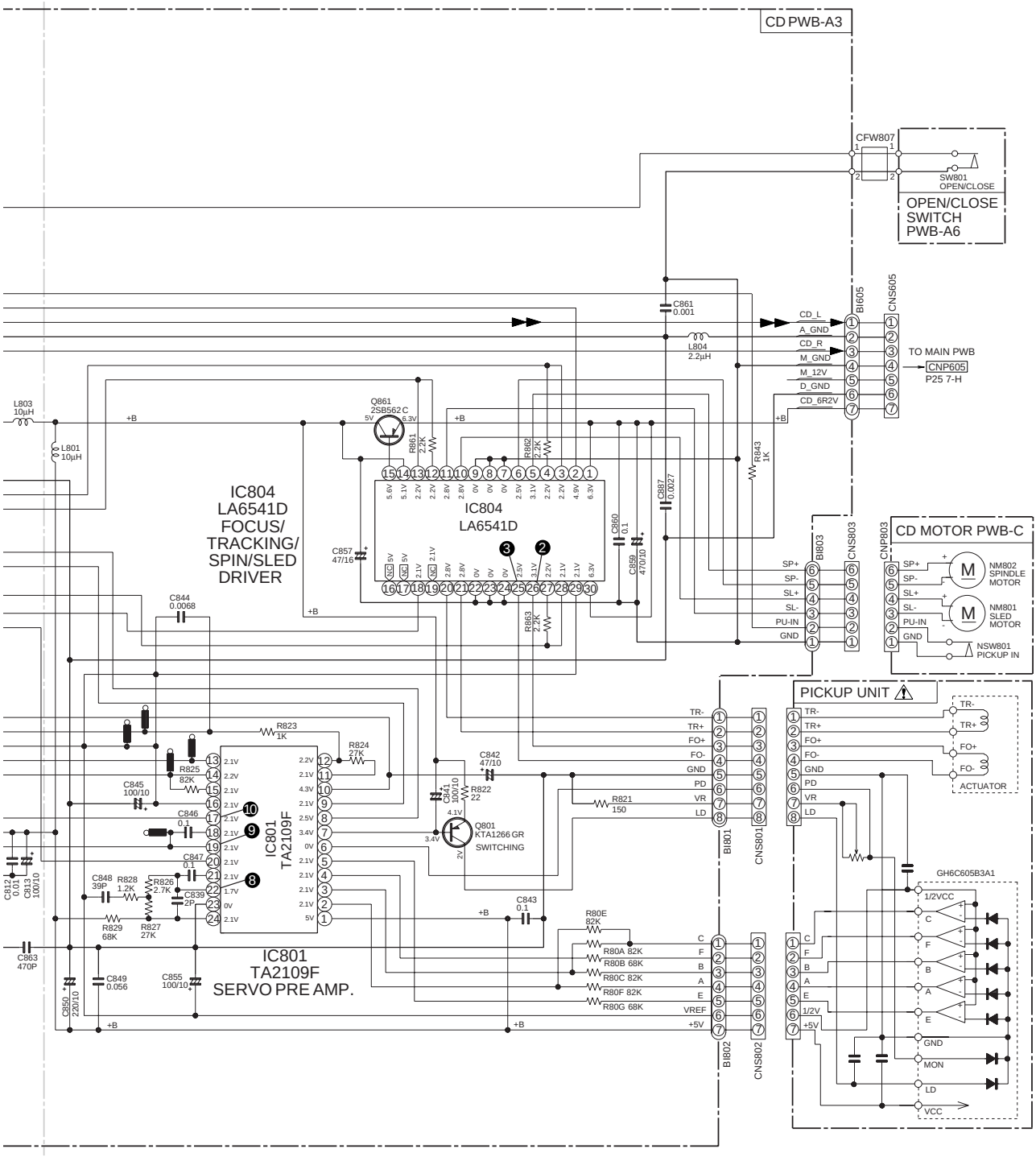


Figure 28 SCHEMATIC DIAGRAM (5/6)



7	8	9	10	11	12

Figure 29 SCHEMATIC DIAGRAM (6/6)

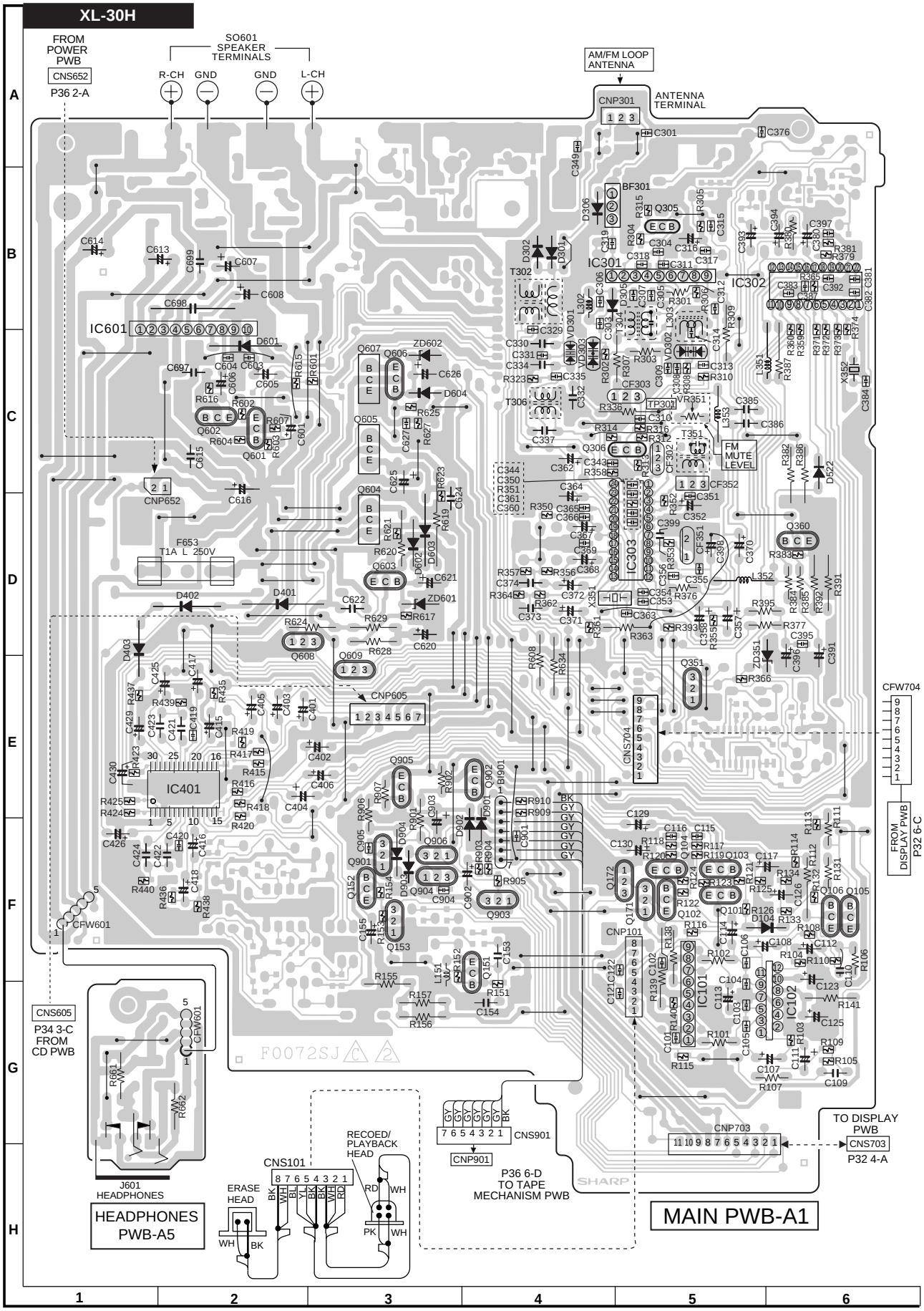


Figure 30 WIRING SIDE OF P.W.BOARD (1/7)

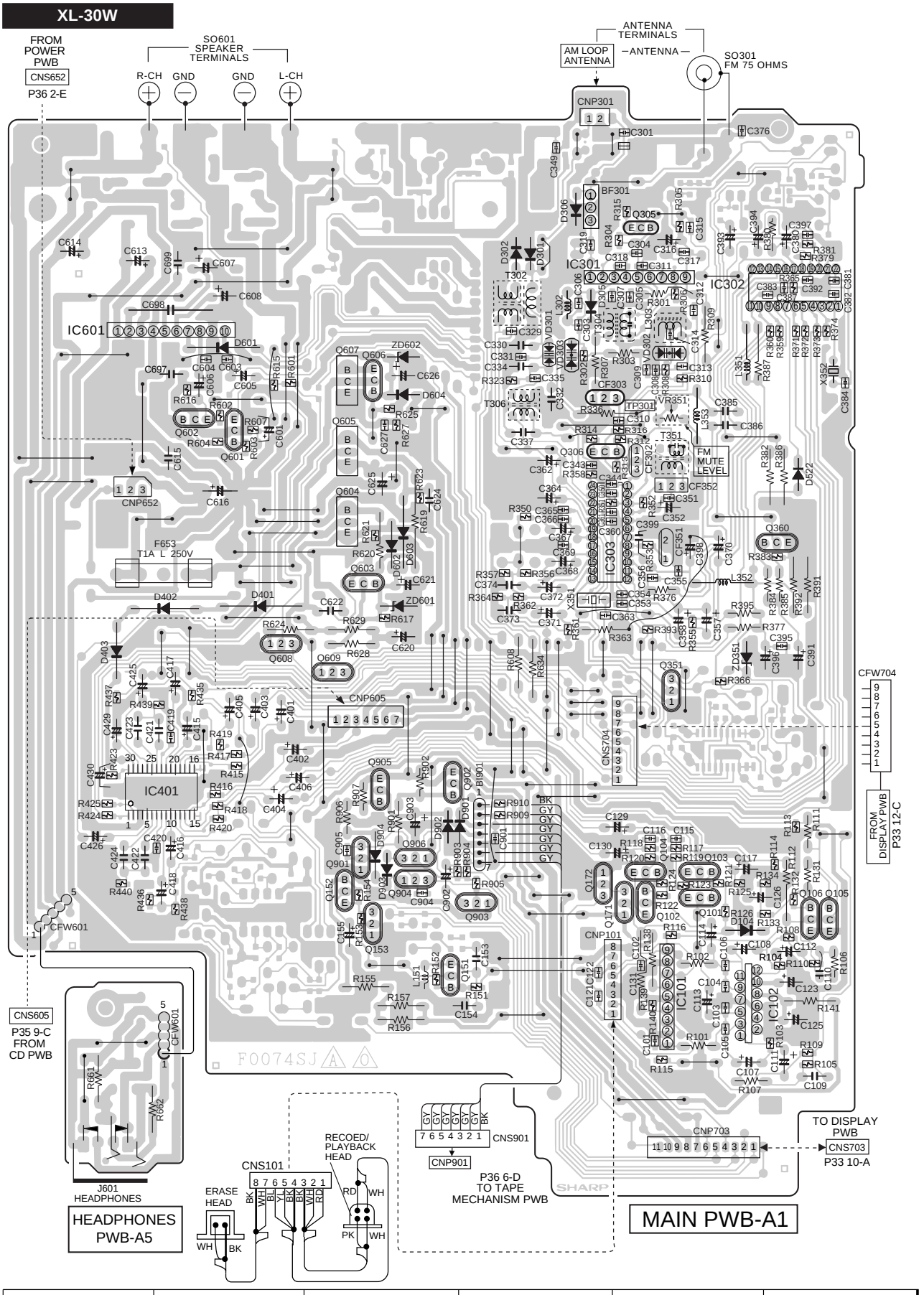


Figure 31 WIRING SIDE OF P.W.BOARD (2/7)

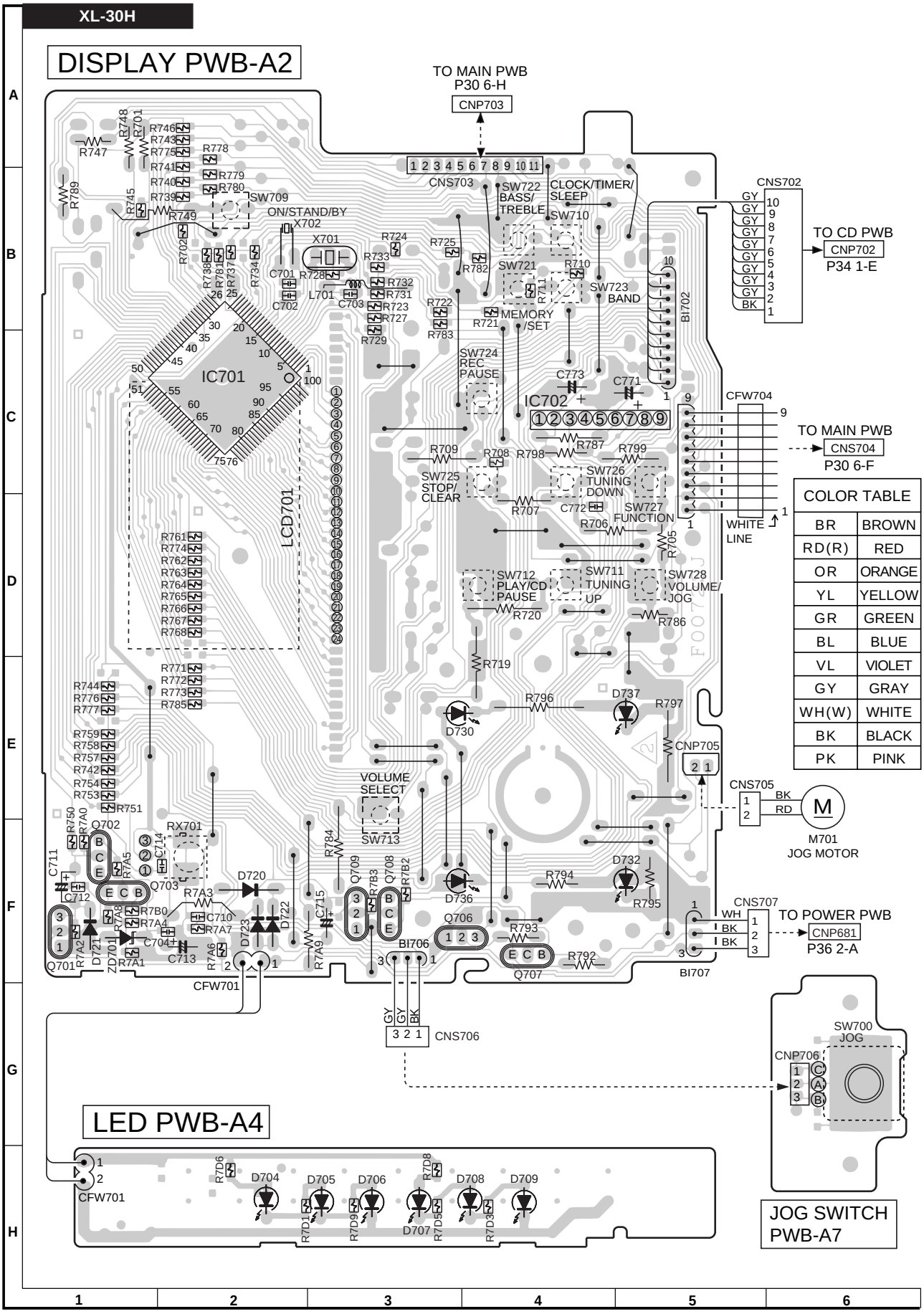
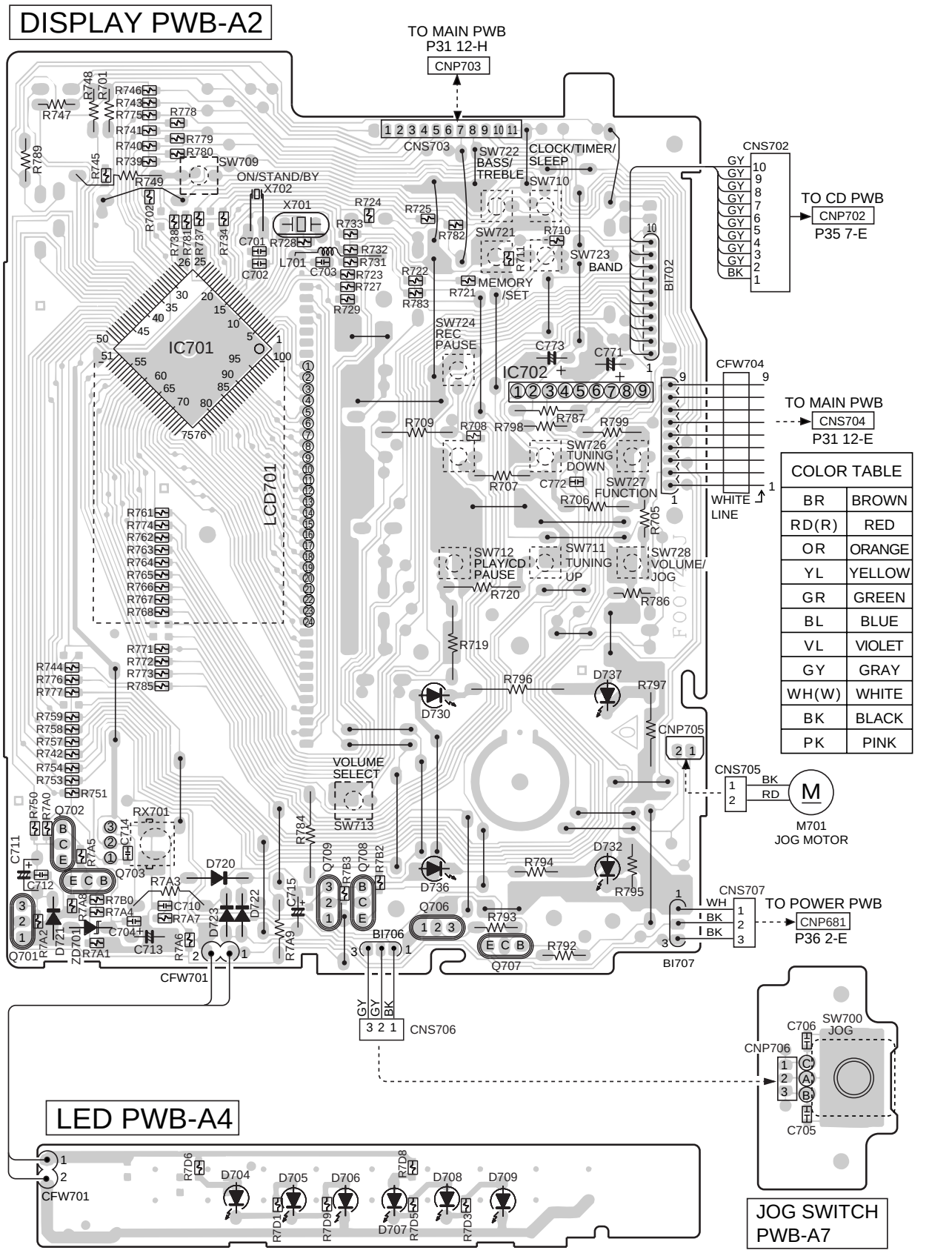


Figure 32 WIRING SIDE OF P.W.BOARD (3/7)

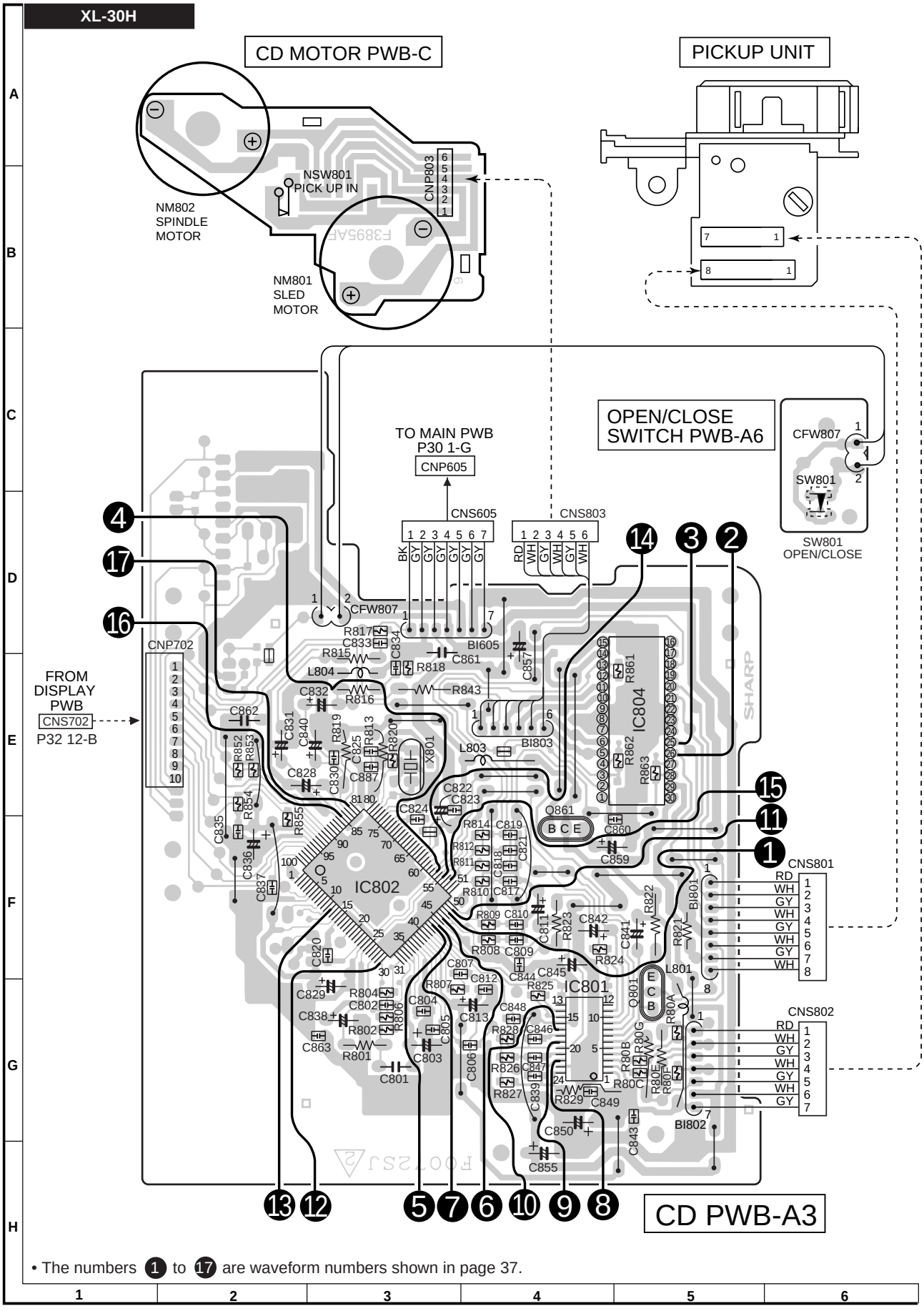
XL-30W



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

7	8	9	10	11	12

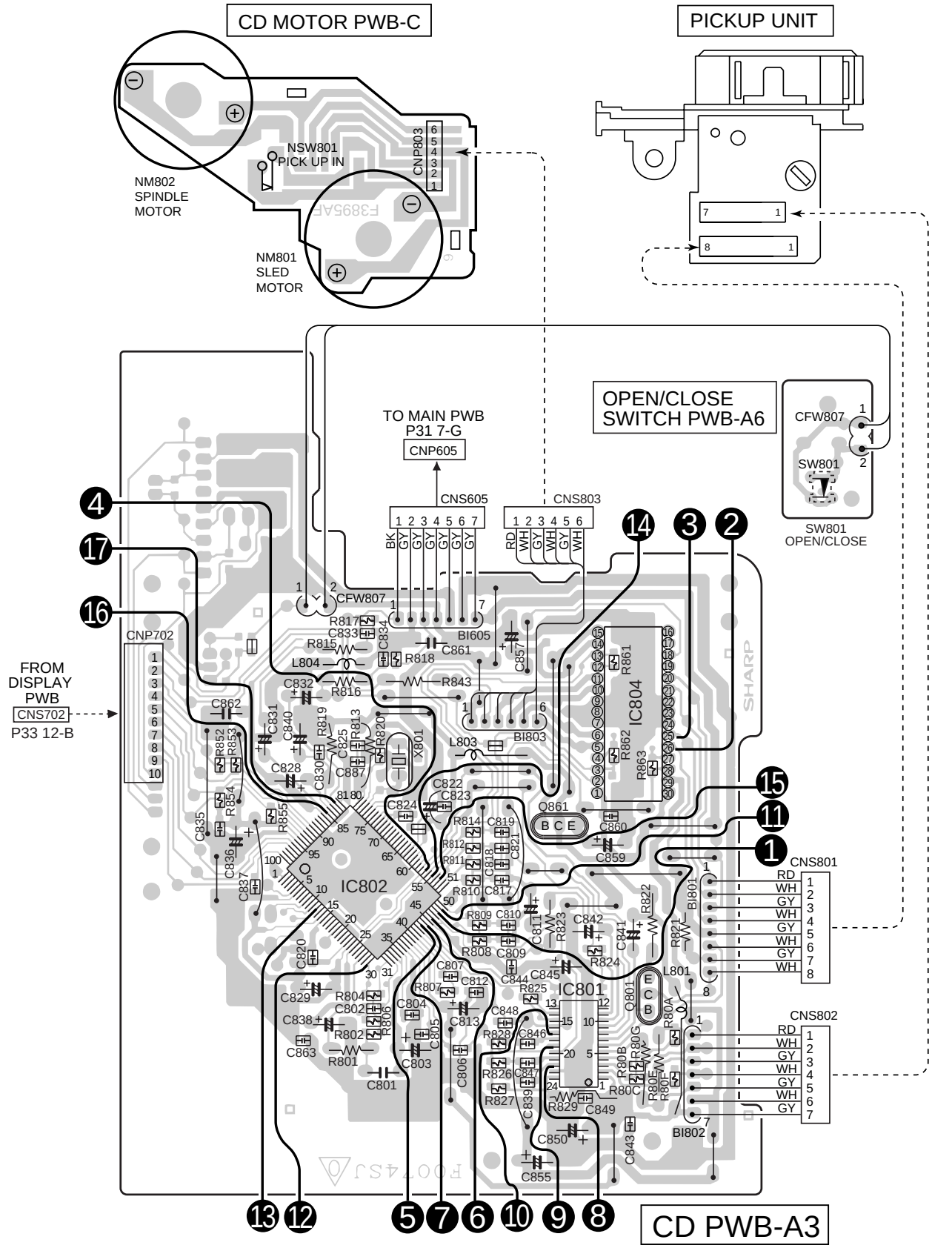
Figure 33 WIRING SIDE OF P.W.BOARD (4/7)



• The numbers ❶ to ⓱ are waveform numbers shown in page 37.

Figure 34 WIRING SIDE OF P.W.BOARD (5/7)

XL-30W



• The numbers ❶ to ⓱ are waveform numbers shown in page 37.

7	8	9	10	11	12

Figure 35 WIRING SIDE OF P.W.BOARD (6/7)

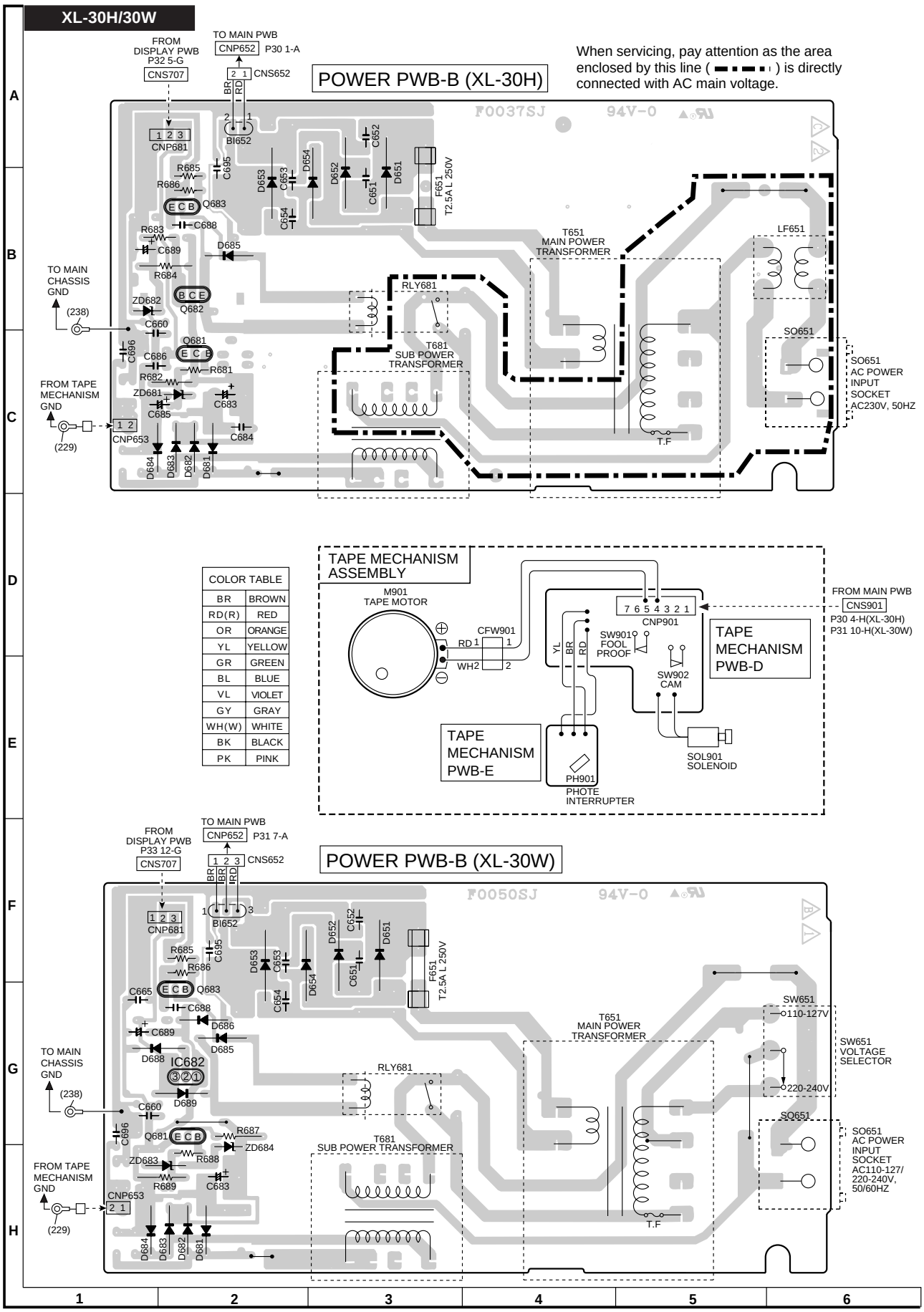
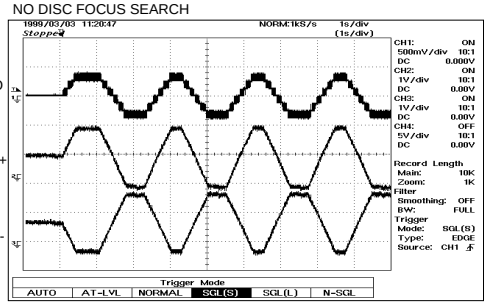


Figure 36 WIRING SIDE OF P.W.BOARD (7/7)

WAVEFORMS OF CD CIRCUIT

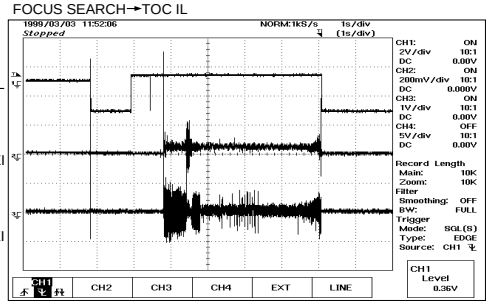
NO DISC FOCUS SEARCH

1 FOO — IC802 48pin
2 FO+ — IC804 26pin
3 FO- — IC804 25pin



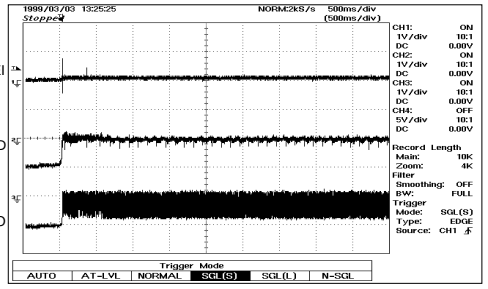
FOCUS SEARCH→TOC IL

4 SEL — IC802 57pin
5 FEI — IC802 43pin
6 TEI — IC802 46pin



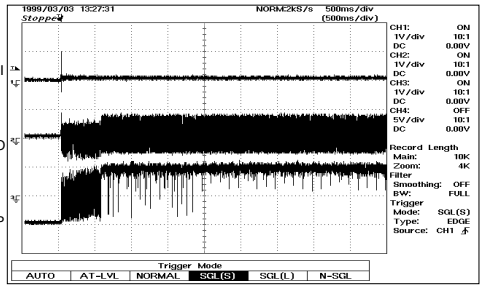
STOP→PLAY

5 FEI — IC802 43pin
7 SBAD — IC802 44pin
8 RFO — IC801 22pin



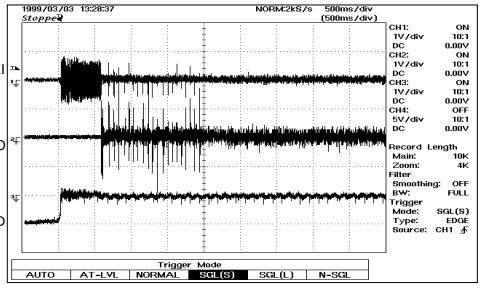
STOP→PLAY

5 FEI — IC802 43pin
9 RFGO — IC801 19pin
10 RFRP — IC801 17pin



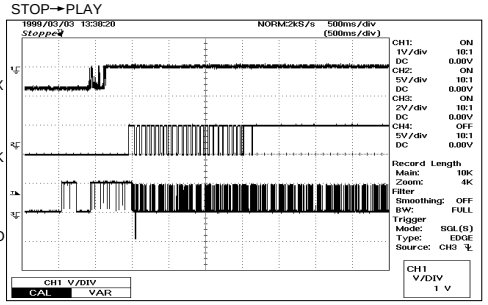
STOP→PLAY

6 TEI — IC802 46pin
11 TRO — IC802 49pin
7 SBAD — IC802 44pin



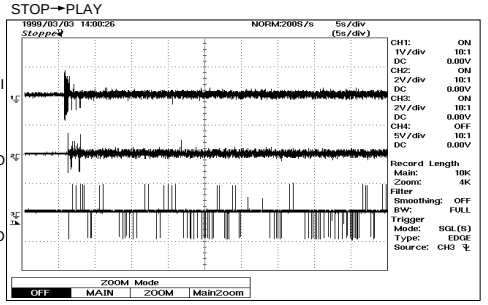
STOP→PLAY

12 TMAX — IC802 30pin
13 SBOK — IC802 12pin
14 DMO — IC802 55pin



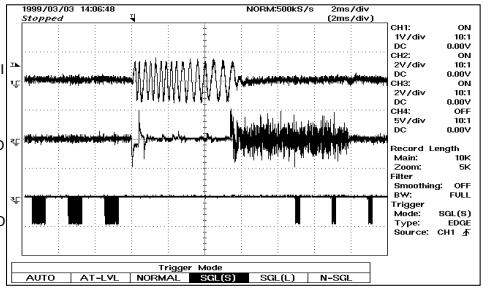
STOP→PLAY

6 TEI — IC802 46pin
11 TRO — IC802 49pin
15 FMO — IC802 53pin



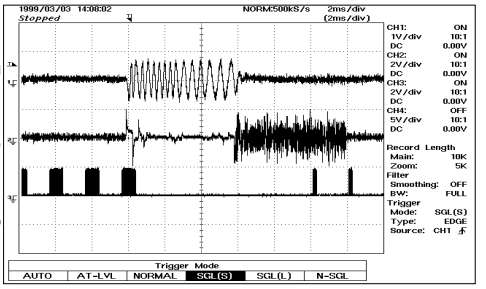
CUE

6 TEI — IC802 46pin
11 TRO — IC802 49pin
15 FMO — IC802 53pin



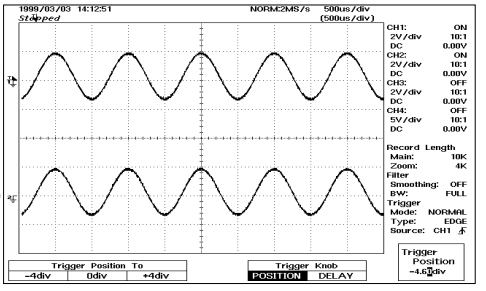
REVIEW

6 TEI — IC802 46pin
11 TRO — IC802 49pin
15 FMO — IC802 53pin



TCD-782 TNO-02 PLAYBACK

16 LO — IC802 85pin
17 RO — IC802 82pin



TROUBLESHOOTING

When the CD does not function

When the CD section does not operate when the objective lens of the optical pickup is dirty, this section may not operate. Clean the objective lens, and check the playback operation. When this section does not operate even after the above step is taken, check the following items.
Remove the cabinet and follow the troubleshooting instructions.
"Track skipping and/or no TOC (Table Of Contents) may be caused by build up of dust other foreign matter on the laser pickup lens. Before attempting any adjustment make certain that the lens is clean. If not, clean it as mentioned below."

Turn the power off.
Gently clean the lens with a lens cleaning tissue and a small amount of isopropyl alcohol.
Do not touch the lens with the bare hand.

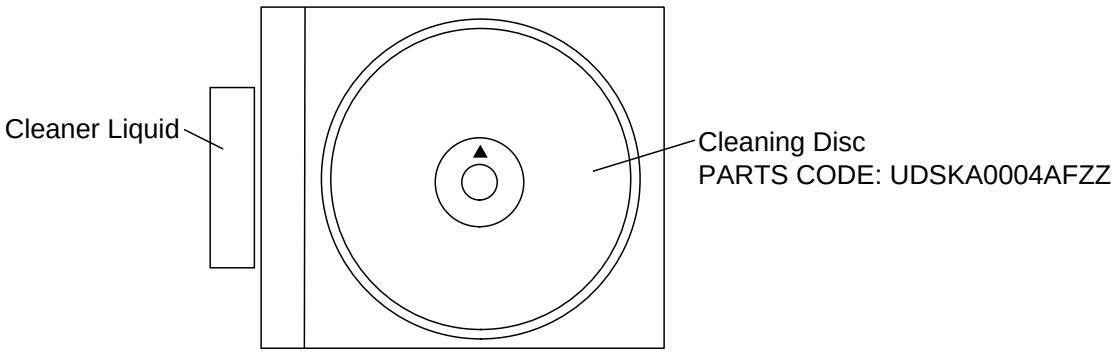
Dust gradually accumulates on the objective lens during use, and it may degrade performance. To avoid this problem, use a cleaning disc designed for CD optical pickup lenses.

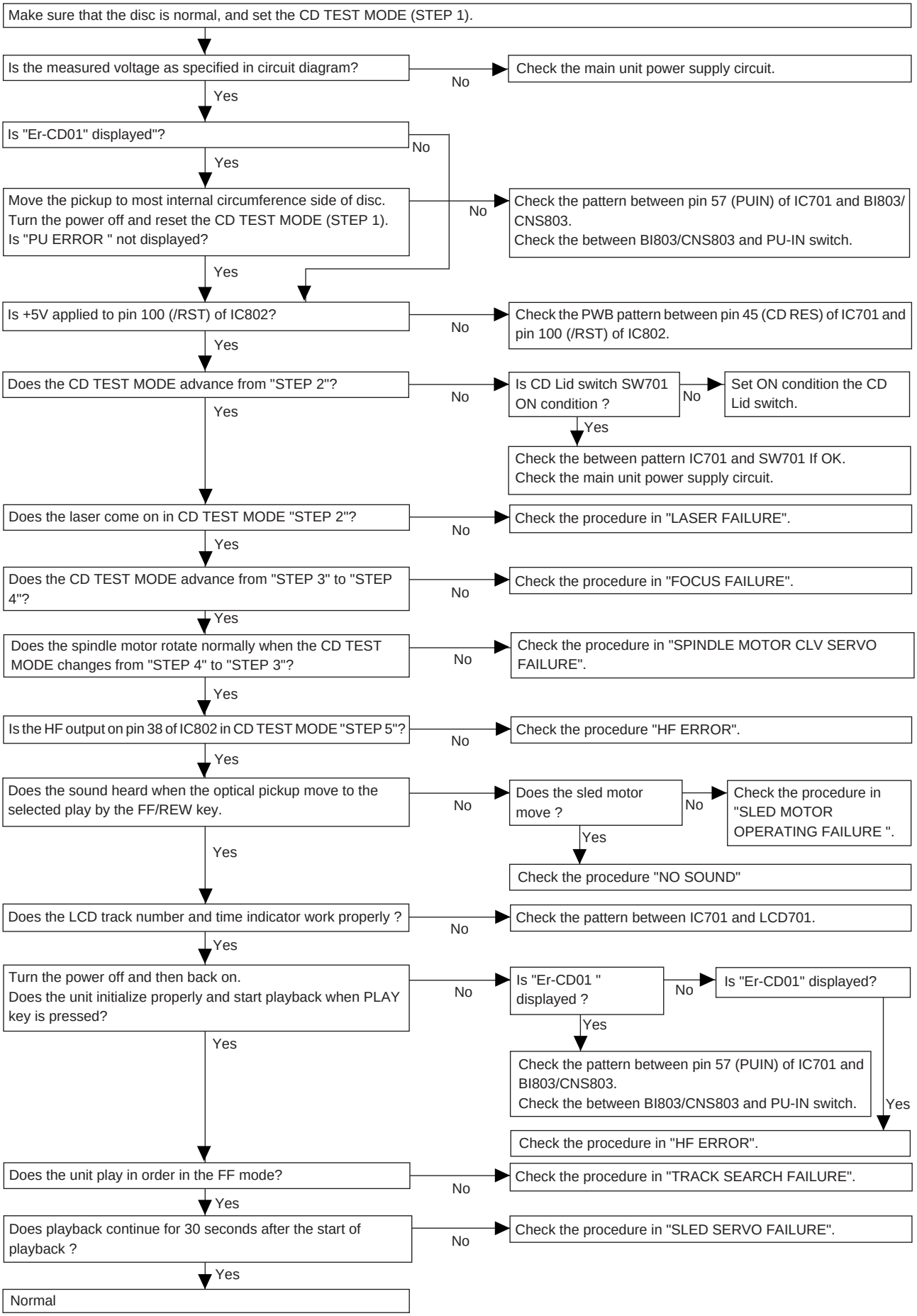
HOW TO USE

1. Using the brush in the cleaner cap, apply 1 or 2 drops of the cleaning fluid to the brush on the CD cleaner disc which has the ▲ mark next to it.
2. Place the CD cleaner disc onto the CD disc tray with the brush side down, then press the play button.
3. You will hear music for about 20 seconds and the CD player will automatically stop. If it continues to turn, press the stop button.

CAUTION

- The CD lens cleaner should be effective for 30~50 operations, however if the brushes become worn out earller then please replace the cleaner disc.
- If the CD cleaner brushes become very wet then wipe off any excess fluid with a soft cloth.
- Do not drink the cleaner fluid or allow it to come in contact with the eyes. In the event of this happening then drink and / or rinse with clean water and seek medical advice.
- The CD cleaner disc must not be used on car CD players or on computer CD ROM drives.
- All rights reserved. Unauthorized duplicating, broadcasting and renting this product is prohibited by law.





• Laser failure.

Is +6.2V applied to the emitter of Q861 ?
- No → Check the PWB pattern between pin 16 of CNS602 and emitter of Q861.
- Yes ↓

Is +5V applied to the collector of Q861 ?
- No → Check the peripheral parts of IC804 and Q861.
- Yes ↓

Is +5V applied to the pin 62 (VDD) of IC802 ?
- No → Check the PWB pattern between collector of Q861 and pin 62 of IC802.
- Yes ↓

Is +5V applied to the pin 1 (VCC) of Ic801 ?
- No → Check the PWB pattern between collector of Q861 and pin 1 of IC801.
- Yes ↓

Is 0V applied to the pin 57 (SEL) of IC802 ?
- No → Does the laser come on when pattern cut between pin 8 (SEL) of IC801 and pin 57 (SEL) of IC802 ?
  - Yes → Check the PWB pattern between IC701 and IC802 (BUCK/CCE/BUS0~3)
  - No ↓
- Yes ↓

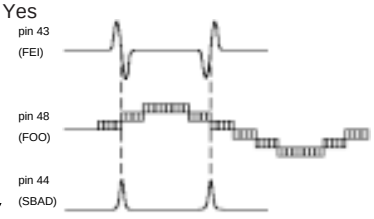
Is approx. 2V applied to the collector of Q801.
- No → Check the peripheral parts of IC801 and Q801. If it is normal, the optical pickup is faulty.
- Yes ↓

Check BI802/CNS802. If it is normal, the optical pickup is faulty.

• Focus failure.

Does the optical pickup move up and down when the disc is removed?
- No → Check as stated in item "FOCUS SERVO SAWTOOTH WAVE FAILURE".
- Yes ↓

Is the following waveform output at the pin 43 (FEI) of IC802 when the disc is set?
- No → Check the periphery of IC801 and BI802/CNS802. Is it normal?
  - Yes → The optical pickup is faulty.
- Yes ↓

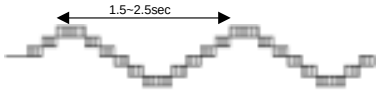


Is the waveform shown above input at the pin 44 (SBAD) of IC802?
- No → Check the pattern between pin 13 of IC801 and pin 44 of IC802. Check the periphery of IC801 and BI802/CNS802.
- Yes ↓

IC801 is faulty.

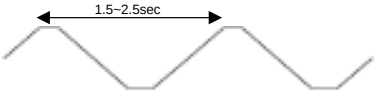
• Focus servo sawtooth wave failure.

Is sawtooh wave output to the pin 48 (FOO) of IC802 ?
- No → IC802 is faulty.
- Yes



Is +6.2V applied to the pins 1 and 30 (VCC) of IC804 ?
- No → Check the PWB pattern between pin 16 of CNS602 and IC804.
- Yes

Is sawtooth wave obtained between pins 25 and 26 of IC804 ?
- No → Is +5V applied to the pin 2 (MUTE) of IC804 ?
  - No → Check the PWB pattern between pin 2 of IC804 and pin 58 (CD STB) of IC701.
  - Yes → Check the PWB pattern between pin 48 (FOO) of IC802 and pins 27 and 28 of IC804. If OK. IC804 is faulty.
- Yes



Is sawtooth wave obtained between pins 3 and 4 of BI801/ CNS801 ? (as shown above)
- No → Check the PWB pattern between BI801/CNS801 and IC804.
- Yes

BI801/CNS801 connection failure or optical pickup failure.

• Spindle motor clv servo failure.

Is following wave output to the pin 55 (DMO) of IC802 when the CD TEST MODE "STEP 3" is changed to " STEP 4" ?
- No → Check the procedure in "HF ERROR". If OK. IC802 is faulty.
- Yes

Is above wave obtained between pins 5 and 6 of IC804 ?
- No → Check the PWB pattern between pin 55 (DMO) of IC802 and pins 5 and 6 of IC804. If OK. IC804 is faulty.
- Yes

Is above wave obtained between pins 5 and 6 of BI801/ CNS801 ?
- No → Check the PWB pattern between BI801/CNS801 and IC804.
- Yes

BI801/CNS801 connection failure or optical pickup failure.

• HF error.

Is output (tracking error signal) obtained at the pins 46 (TEI) and 47 (TEZI) of IC802 the CD TEST MODE "STEP 4" is changed to "STEP 5"?

No → Is output obtained at the pins 2 and 5 of BI802/CNS802

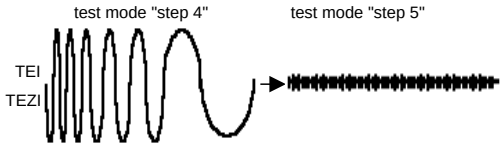
No → Optical pickup failure.

Yes → Check the periphery of IC801. Check the PWB pattern between pin 12. (TEO) of IC801 and pins 46 and 47 of IC802. Is it normal ?

No → IC801 is faulty.

Yes → Check the PWB pattern between pin 50 (TEO) of IC802 and pin 18 of IC804. Check the periphery of IC804 and BI801/CNS801. If OK. Optical pickup failure.

Yes



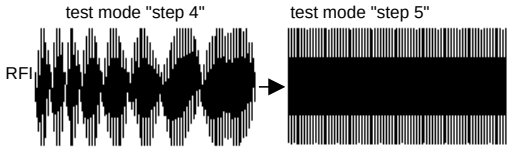
Is output (HF signal) obtained at the pin 38 (RFI) of IC802 when the CD TEST MODE "STEP 4" is changed to "STEP 5"?

No → Is output obtained at the pins 1 and 3, 4 of BI802/CNS802.

No → Optical pickup failure.

Yes → Check the periphery of IC801. Check the PWB pattern between pin 19 (RFGO) of IC801 and pins 38 (RFI) of IC802. If OK. IC801 is faulty

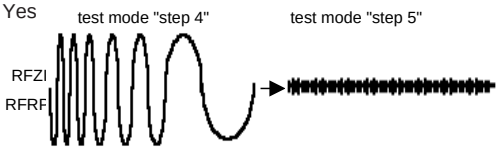
Yes



Is output (HF signal) obtained at the pins 41 (RFZI) and 42 (RFRP) of IC802 when the CD TEST MODE "STEP 4" is changed to "STEP 5"?

No → Check the periphery of IC801. Check the PWB pattern between pin17 (RFRP) of IC801 and pins 41 (RFZI) and 42 (RFRP) of IC802. If OK. IC801 is faulty.

Yes



Is the following wave output to the pin 55 (DMO) of IC802 when the CD TEST MODE "STEP 4" or "STEP 5"?

No → Check the periphery pins 28~32 of IC802. If OK. IC802 failure.

Yes

Normal.

• No sound.

No sound from both L and R-ch?

No → Check the interval between the pins 82 or 85 of IC802 and the pins 1 or 3 IC601.

Yes → Is +4.5V applied to pin 83 (DVDD) of IC802?

No → Check the PWB pattern between R819 and Q861.

Yes → Is signal of pins 82 and 85 of IC802 output?

No → Check the peripheral parts of IC802. If OK, IC802 is faulty.

Yes → The main PWB is faulty.

• Track search failure

Does the sled motor run in FF/REW state when the SERVO TEST MODE "STEP1" is set?
- No → Check as stated in item "SLED MOTOR OPERATION FAILURE".
- Yes ↓

Is the following wave output to the pin 49 (TRO) of IC802 during track search in normal playback?
- No → IC802 failure.
- Yes ↓

Is the following wave output to the pins 12 (TEO) of IC801 during track search in normal playback?
- No → Check the PWB pattern between pin 49 (TRO) of IC802 and pin 18 of IC804. Check the PWB pattern between pins 20 and 21 of IC804 and Optical pickup. If OK. Optical pickup failure.
- Yes ↓

Is the above wave output to the pins 46 (TEI) and 47 (TEZ) of IC802 during track search in normal playback?
- No → Check the PWB pattern between pin 12 (TEO) of IC801 and pins 46 and 47 of IC802. If OK. IC801 failure.
- Yes ↓

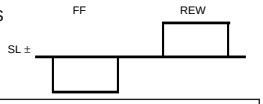
Is the following wave output to the pin 41 (RFZI) and 42 (RFRP) of IC802 during track search in normal playback?
- No → Check the PWB pattern between pin 17 (RFO) and 18 (RFIS), 19 (RFRP) of IC801 and pins 41 and 42 of IC802. If OK. IC801 failure.
- Yes ↓

Normal.

• Sled motor operation failure.

Is following sled feed signal output the pin 53 (FMO) of IC802 when FF/REW key is pressed after the CD TEST MODE "STEP 1" is seted?
- No → C801 is faulty.
- Yes ↓

Is following sled feed signal output the pins 12 and 13 of IC804 when FF/REW key is pressed after the CD TEST MODE "STEP 1" is seted?
- No → Check the PWB pattern between pin 53 of IC802 and pins 12 and 13 of IC804.
- Yes ↓



Is sled feed signal output the pins 10 and 11 of IC804?
- No → Check the peripheral parts of IC804. If OK, IC804 is faulty.
- Yes ↓

Is sled feed voltage applied between both terminals of sled motor?
- No → Check the BI803/CNS803.
- Yes ↓

Check the CD mechanism (periphery of sled motor). If the sled motor does not run when DC2.0V is applied to both terminals of sled motor, the sled motor is faulty.

• Sled servo failure.

Is following sled signal output the pin 53 (FMO) of IC802 during playback?
- No → IC802 is faulty.
- Yes ↓

Normal.

FUNCTION TABLE OF IC

IC401 VHiLC75342M-1: Function/Volume Equalizer (LC75342M)

Pin No.	Port Name	Function
1	DI	Serial data and clock input pin for control.
2	CE	Chip enable pin. Data written into an internal latch in a timing of [H] -> [L]. Each analog switch is activated. Data transfer enabled at [H] level.
3	VSS	Ground pin.
4	TEST	Electronic volume control pin. To be set to the VSS potential.
5	LOUT	Volume + equalizer output pin.
6	LBASS2	Bass-band filter comprising capacitor and resistor connection pin.
7	LBASS1	Bass-band filter comprising capacitor and resistor connection pin.
8	LTRE	Capacitor connection pin comprising treble band filter.
9	LIN	Volume + equalizer input pin.
10	LSEL0	Input selector output pin.
11*	L4	Input signal pin.
12-14	L3-L1	Input signal pin.
15*	NC	No CONNECT pin. To be open or connected to VSS.
16*	NC	No CONNECT pin. To be open or connected to VSS.
17-19	R1-R3	Input signal pin.
20*	R4	Input signal pin.
21	RSEL0	Input selector output pin.
22	RIN	Volume + equalizer input pin.
23	RTRE	Capacitor connection pin comprising treble band filter.
24	RBASS1	Bass-band filter comprising capacitor and resistor connection pin.
25	RBASS2	Bass-band filter comprising capacitor and resistor connection pin.
26	ROUT	Volume + equalizer output pin.
27*	NC	No CONNECT pin. To be open or connected to VSS.
28	Vref	0.5 x VDD voltage generation block for analog ground. Capacitor of several 10µF to be connected between Vref and AWSS (VSS) as a counter measure against power ripple.
29	VDD	Supply pin.
30	CL	Serial data and clock input pin for control.

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

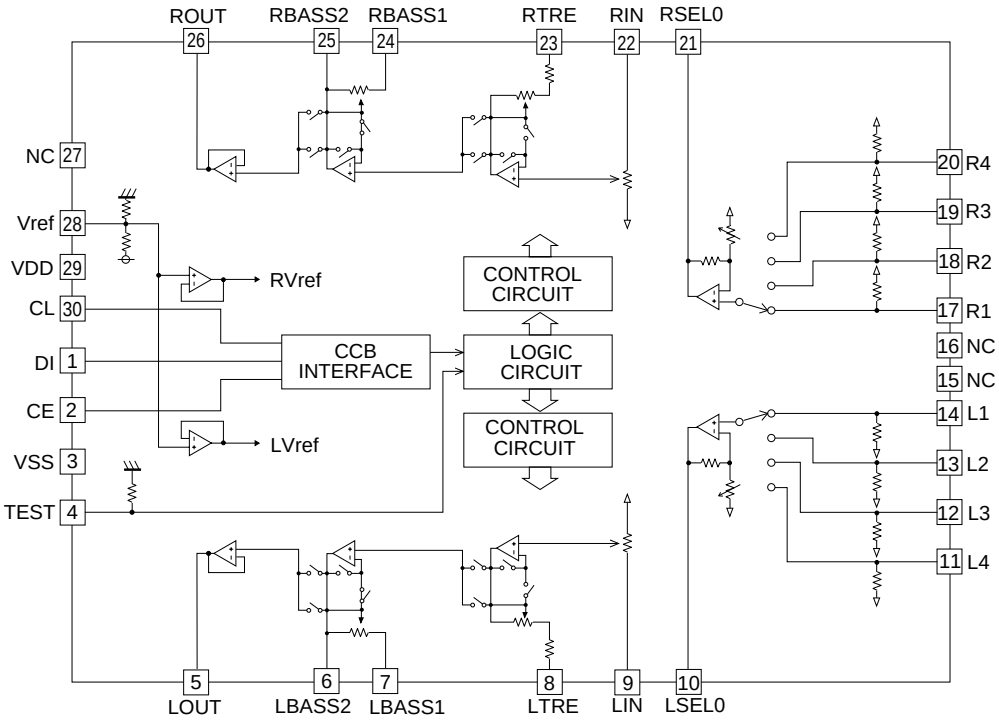


Figure 44 BLOCK DIAGRAM OF IC

IC701 RH-iX0027SJZZ: System Control Microcomputer (IX0027SJ) (1/2)

Pin No.	Terminal Name	Input/Output	Function
1-4	COM3-COM0	Output	LCD common output terminal.
5-7	VLC3-VLC1	—	LCD power supply terminal.
8	VDD	—	Microcomputer power supply +5V.
9	OSC2	Output	Oscillator ground terminal for main clock. f=8MHz
10	OSC1	Input	Oscillator ground terminal for main clock. f=8MHz
11	VSS	—	Microcomputer power supply GND.
12	XI	Input	Oscillator ground terminal for sub clock. f=32.768kHz
13	XO	Output	Oscillator ground terminal for sub clock. f=32.768kHz
14	MMOD	Input	Memory mode selection terminal.
15	VREF-	—	Power supply GND for AD converter.
16	KEY0 AN0/PA0	Input	CD lid status detection input.
17	KEY1 AN0/PA1	Input	Operation button input, Max-8 buttons.
18	KEY2 AN0/PA2	Input	Operation button input, Max-8 buttons.
19	KEY3 AN0/PA3	Input	MODEL/TUNER destination input.
20*	KEY4 AN0/PA4	Input	Current detection of CD lid control motor. Used to decide the CD lid drive error to control it.
21*	KEY5 AN0/PA5	Input	CD servo auto adjustment mode selection input.
22	KEY6 AN0/PA6	Input	Tape mechanism operating status detection input. Decides the F.P/CAM-SW status with A/D value.
23*	KEY7 AN7/PA7	Input	Tuner signal meter (S meter) voltage input terminal.
24	VREF+	—	Power supply for A/D converter +5V.
25	TXD SBO0/P00	Output	Data output terminal to TUNER PLL IC.
26	RXD SBI0/P01	Input	Data input from TUNER PLL IC
27	SBT0/P02	Output	Synchronous clock output with TUNER PLL IC
28	SBO1/P03	Output	Enable output of TUNER PLL IC. "L" = OFF, "H" = ON
29	SBI1/P04	Output	Tape mechanism solenoid drive control output.
30	SBT1/P05	Output	Tape mechanism motor drive control output.
31	DK/BZER P06	Output	Recording/playback selection output of tape circuit. "H" = Recording mode, "L" = Playback mode
32	RST/P27	Input	Reset signal input
33	RMOUT P10	Input	CLOCK/TIMER/SLEEP button input.
34	P11	Input	Tape run/END detection input. Decided as tape run if pulse is input.
35	TM2IO P12	Output	Recording bias oscillation circuit control output. "H" = Bias oscillation, "L" = oscillation stop.
36	TM3IO P13	Output	Recording bias oscillation frequency selection control output.
37	TM4IO P14	Input	Power (POWER) button input detection.
38	IRQ0 P20	Input	Switches to the HALT mode when changing to . "L" at power failure detection input.
39	SENS IRQ1/P21	Input	Remote control signal input.
40*	IRQ2 P22	Input	Synchronous clock input with RDS IC.
41	IRQ3 P23	Input	Jog dial UP pulse input.
42	IRQ4 P24	Input	Jog dial DOWN pulse input.
43*	P30	Output	SURROUND control output.
44	P31	Output	POWER IC STAND-BY terminal CONTROL.
45	P32	Output	Power mute output. "H" = MUTE ON, "L" = MUTE OFF
46	LED0 WE/P50	Output	CD servo power supply circuit control output. "H" = CD power ON, "L" = CD power OFF
47	LED1 RE/P51	Output	Main TRANS RELAY CONTROL. "H" = ON, "L" = OFF
48*	LED2 CS/P52	Input	Data input from RDS IC.
49	LDE3/S51 A16/P53	Input	Radio stereo broadcast reception detection input. "L" = During stereo broadcast reception
50	LED4/S50 A17/P54	Input	Broadcast reception status detection input. "L" = During broadcasting signal reception
51	SEG49 P60/A0	Output	LCD backlight control signal output. "H" = Backlight ON, "L" = Backlight OFF
52*	SEG48 P61/A1	Output	LCD segment output. "H" = ON, "L" = OFF
53	SEG47 P62/A2	Output	LED illumination control of electric JOG dial. "H" = ON, "L" = OFF

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

IC701 RH-iX0027SJZZ: System Control Microcomputer (IX0027SJ) (2/2)

Pin No.	Terminal Name	Input/Output	Function
54	SEG46 P63/A3	Output	Electric JOG dial UP.
55	SEG45 P64/A4	Output	Electric JOG dial DOWN.
56*	SEG44 P65/A5	Output	Electric CD lid OPEN.
57*	SEG43 P66/A6	Output	Electric CD lid CLOSE.
58	SEG42 P67/A7	Input	CD pickup position detection SW input. "L" = Innerst periphery
59	SEG41 P70/A8	Output	Reset signal output for TC9462F
60	SEG40 P71/A9	Output	ON/OFF output terminal of CD servo control IC. "H" = Servo ON, "L" = Servo stand-by
61-64	SEG39 P72/A10-SEG36 P75/A13	Input/Output	Data input/output terminal for TC9462F control.
65	SEG35 P76/A14	Output	Data synchronous clock output for TC9462F.
66	SEG34 P77/A15	Output	Chip enable terminal for TC9462F. "L" = BUS terminal active
67*	SEG33 P87/D7	—	LCD segment output.
68*	SEG32 P86/D6	—	LCD segment output.
69*-73*, 74	SEG31 P85/D5-SEG26 P80/D0	—	LCD segment output Note: Since RH-******SJZZ, SEG0 of the LCD is connected by the 24-pin LCD to SEG7 of the microcomputer output terminal, and connections are made up to the shift SEG26 in order.
75-93, 94*-99*, 100	SEG25-SEG0	—	LCD segment output Note: Since RH-******SJZZ, SEG0 of the LCD is connected by the 24-pin LCD to SEG7 of the microcomputer output terminal, and connections are made up to the shift SEG26 in order.

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

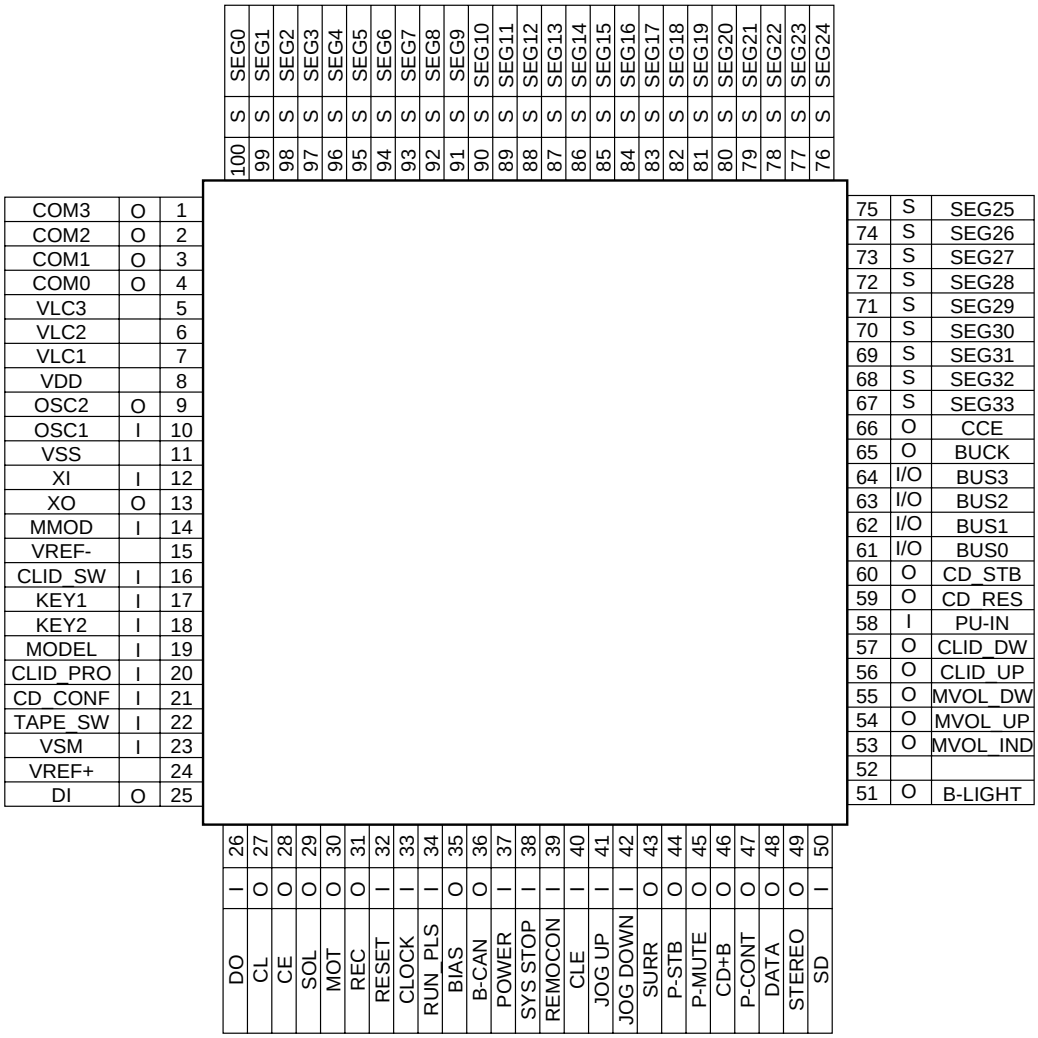
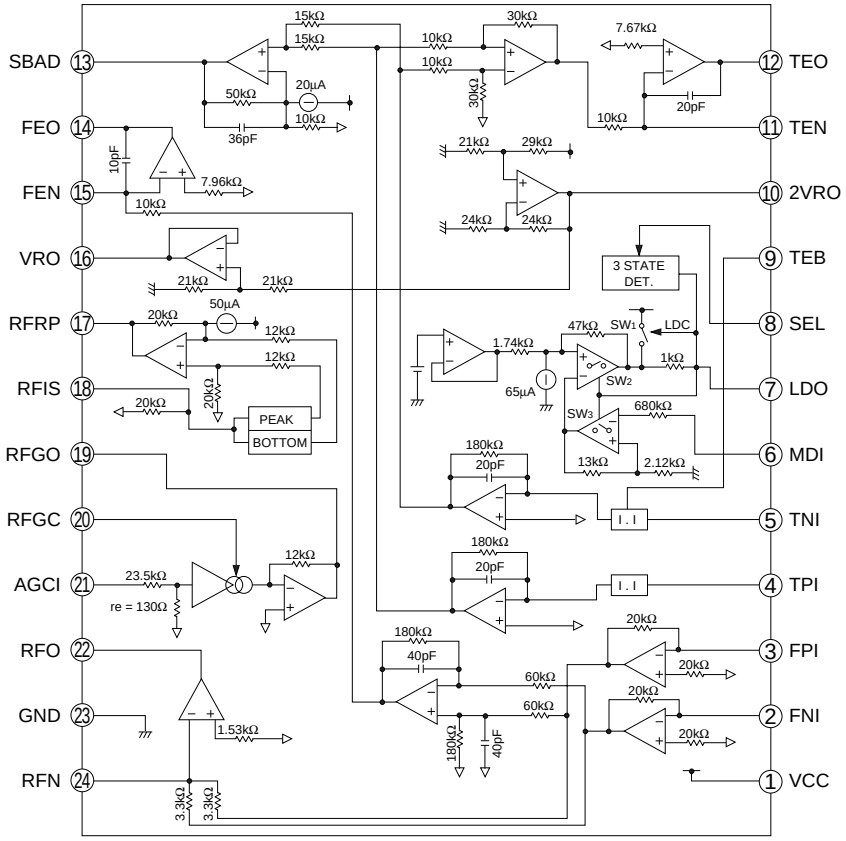


Figure 46 BLOCK DIAGRAM OF IC

IC801 VHiTA2109F/-1:Servo Pre Amp. (TA2109F)

Pin No.	Terminal Name	Input/Output	Function
1	VCC	—	Power voltage terminal
2	FNI	Input	Main beam amp input terminal
3	FPI	Input	Main beam amp input terminal
4	TPI	Input	Sub-beam amp input terminal
5	TNI	Input	Sub-beam amp input terminal
6	MDI	Input	Monitor photodiode amp input terminal
7	LDO	Output	Laser diode amp output terminal
8	SEL	Input	Laser diode control signal input and APC circuit ON/OFF signal input terminal
9	TEB	Input	Tracking error balance adjustment signal input terminal To be controlled by 3-value PWM signal. (PWM carrier = 88.2 kHz)
10	2VRO	Output	Standard voltage (2VR) output terminal. When Vcc = 5V, 2VR = 4.2V.
11	TEN	Input	Tracking error signal generation amp reversed phase input terminal
12	TEO	Output	Tracking error signal generation amp output terminal
13	SBAD	Output	Sub-beam addition signal output terminal
14	FEO	Output	Focus error signal generation amp output terminal
15	FEN	Input	Focus error signal generation amp reversed phase input terminal
16	VRO	Output	Standard voltage (VR) output terminal. When Vcc = 5V, VR = 2.1V.
17	RFRP	Output	Track count signal generation amp output terminal
18	RFIS	Input	RFRP detection circuit input terminal
19	RFGO	Output	RF signal output terminal
20	RFGC	Input	RF amplitude adjustment control signal input terminal The amplitude of RF signal can be controlled by using the 3-value PWM signal (PWM carrier = 88.2 kHz) which is output from the RFGC terminal of TC9432F.
21	AGCI	Input	RF signal amplitude adjustment amp input terminal
22	RFO	Output	RF signal generation amp output terminal
23	GND	—	GND terminal
24	RFN	Input	RF reversed phase input terminal



SEL	LDC		
	SW1	SW2	SW3
L	ON	OFF	OFF
HiZ	OFF	ON	ON
H	OFF	ON	ON

Figure 47 BLOCK DIAGRAM OF IC

IC802 VHiTC9462F/-1: Servo/Signal Control (TC9462F) (1/3)

<table>
<tr><th>Pin No.</th><th>Port Name</th><th>Input/Output</th><th>Function</th></tr>
<tr><td>1*</td><td>TEST0</td><td>Input</td><td>Test mode terminal. To be opened usually.</td></tr>
<tr><td>2*
3*</td><td>/HSO
/UHSO</td><td>Output
Output</td><td>Playback speed mode flag output terminal.
<table>
<tr><th>/UHSO</th><th>/HSO</th><th>Playback speed</th></tr>
<tr><td>H</td><td>H</td><td>x1 speed playback</td></tr>
<tr><td>H</td><td>L</td><td>x2 speed playback</td></tr>
<tr><td>L</td><td>H</td><td>x4 speed playback</td></tr>
<tr><td>L</td><td>L</td><td>—</td></tr>
</table></td></tr>
<tr><td>4*</td><td>EMPH</td><td>Output</td><td>Sub-code Q data emphasis flag output terminal. "H": Emphasis ON "L": Emphasis OFF
The output polarity can be inverted by command.</td></tr>
<tr><td>5*</td><td>LRCK</td><td>Output</td><td>Channel clock (44.1 kHz) output terminal. "L": L channel "H": R channel
The output polarity can be inverted by command.</td></tr>
<tr><td>6</td><td>VSS</td><td>—</td><td>Digital ground terminal.</td></tr>
<tr><td>7*</td><td>BCK</td><td>Output</td><td>Bit clock (1.4122 MHz) output terminal.</td></tr>
<tr><td>8*</td><td>AOUT</td><td>Output</td><td>Audio data output terminal.</td></tr>
<tr><td>9*</td><td>DOUT</td><td>Output</td><td>Digital out output terminal.</td></tr>
<tr><td>10*</td><td>MBOV</td><td>Output</td><td>Buffer memory over signal output terminal. "H": Over</td></tr>
<tr><td>11*</td><td>IPF</td><td>Output</td><td>Correction flag output terminal.
"H": When AOUT output is correction-disabled symbol in case of C2 correction output.</td></tr>
<tr><td>12*</td><td>SBOK</td><td>Output</td><td>Sub-code Q data CRCC judgment result output terminal. "H": When judgment result is OK.</td></tr>
<tr><td>13*</td><td>CLCK</td><td>Input/Output</td><td>Sub-code P-W data read clock output/input terminal. Selectable with command bit.</td></tr>
<tr><td>14</td><td>VDD</td><td>—</td><td>Digital + power terminal.</td></tr>
<tr><td>15</td><td>VSS</td><td>—</td><td>Digital ground terminal.</td></tr>
<tr><td>16*</td><td>DATA</td><td>Output</td><td>Sub-code P-W data output terminal.</td></tr>
<tr><td>17*</td><td>SFSY</td><td>Output</td><td>Playback system frame sync signal output terminal.</td></tr>
<tr><td>18*</td><td>SBSY</td><td>Output</td><td>Sub-code block sync output terminal. "H": On S1 position when the sub-code sync is detected.</td></tr>
<tr><td>19*</td><td>SPCK</td><td>Output</td><td>Processor status signal read clock (176.4 kHz) output terminal.</td></tr>
<tr><td>20*</td><td>SPDA</td><td>Output</td><td>Processor status signal output terminal.</td></tr>
<tr><td>21*</td><td>COFS</td><td>Output</td><td>Correction system frame clock (7.35 kHz) output terminal.</td></tr>
<tr><td>22*</td><td>MONIT</td><td>Output</td><td>LSI internal signal monitor terminal.
It is possible to monitor the DSP internal flag and PLL system clock with the microcomputer command. Terminal for serial output of text data according to command.</td></tr>
<tr><td>23</td><td>VDD</td><td>—</td><td>Digital + power terminal.</td></tr>
<tr><td>24</td><td>TESIO0</td><td>Input</td><td>Test input/output terminal. To be fixed to "L" usually.
Terminal to input the text data read clock according to command.</td></tr>
<tr><td>25</td><td>P2VREF</td><td>—</td><td>2VREF terminal for PLL system.</td></tr>
<tr><td>26*</td><td>HSSW</td><td>Output</td><td>VREF voltage in case of x2 speed/x4 speed.</td></tr>
<tr><td>27*</td><td>ZDET</td><td>Output</td><td>1-bit DAC zero detection flag output terminal.</td></tr>
<tr><td>28</td><td>PDO</td><td>Output</td><td>Terminal to output the phase difference between EFM signal and PLCK signal.</td></tr>
<tr><td>29*</td><td>TMAXS</td><td>Output</td><td>TMAX detection result output terminal. To be selected with command bit TMPS.</td></tr>
<tr><td>30</td><td>TMAX</td><td>Output</td><td>TMAX detection result output terminal. To be selected with command bit TMPS.
<table>
<tr><th>TMAX detection result</th><th>TMAX output</th></tr>
<tr><td>Longer than specific period</td><td>"P2VREF"</td></tr>
<tr><td>Shorter than specific period</td><td>"VSS"</td></tr>
<tr><td>Within specific period</td><td>"HIZ"</td></tr>
</table></td></tr>
<tr><td>31</td><td>LPFN</td><td>Input</td><td>Low-pass filter amp inverted input terminal.</td></tr>
<tr><td>32</td><td>LPFO</td><td>Output</td><td>Low-pass filter amp output terminal.</td></tr>
<tr><td>33</td><td>PVREF</td><td>—</td><td>VREF terminal for PLL system.</td></tr>
<tr><td>34</td><td>VCOREF</td><td>Input</td><td>VCO center frequency standard level terminal. To be fixed to PVref usually.</td></tr>
<tr><td>35</td><td>VCOF</td><td>Output</td><td>VCO filter terminal.</td></tr>
<tr><td>36</td><td>AVSS</td><td>—</td><td>Analog system ground terminal.</td></tr>
<tr><td>37</td><td>SLCO</td><td>Output</td><td>Data slice level generation DAC output terminal.</td></tr>
<tr><td>38</td><td>RFI</td><td>Input</td><td>RF signal input terminal.</td></tr>
</table>

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

IC802 VHiTC9462F/-1: Servo/Signal Control (TC9462F) (2/3)

Pin No.	Port Name	Input/Output	Function
39	AVDD	—	Analog system power terminal.
40	RFCT	Input	RFRP signal center level input terminal.
41	RFZI	Input	RFRP zero cross input terminal.
42	RFIP	Input	RF ripple signal input terminal.
43	FEI	Input	Focus error signal input terminal.
44	SBAD	Input	Sub-beam addition signal input terminal.
45	TSIN	Input	Test input terminal. To be fixed to Vref usually.
46	TEI	Input	Tacking error input terminal. (Tracking servo ON: Taking-in).
47	TEZI	Input	Tracking error, zero cross input terminal.
48	FOO	Output	Focus equalizer output terminal.
49	TRO	Output	Tracking equalizer output terminal.
50	VREF	—	Analog standard power terminal.
51	RFGC	Output	RF amplitude adjustment control signal output terminal. 3-value PWM signal is output. (PWM carrier = 88.2 kHz)
52	TEBC	Output	Tracking balance control signal output terminal. 3-value PWM signal is output. (PWM carrier = 88.2 kHz)
53	FMO	Output	Feed equalizer output terminal. 3-value PWM signal is output. (PWM carrier = 88.2 kHz)
54*	FVO	Output	Speed error signal or feed search EQ output terminal. 3-value PWM signal is output. (PWM carrier = 88.2 kHz)
55	DMO	Output	Disc equalizer output terminal. 3-value PWM signal is output. (PWM carrier = DSP system 88.2 kHz, sync with PXO)
56	2VREF	—	Analog standard power terminal (2xVREF)
57	SEL	Output	APC circuit ON/OFF signal output terminal. When laser is ON and UHS = L, "Hi-Z". When UHS = H, "H" output is obtained.
58*	FLGA	Output	Internal signal monitor external flag output terminal. TEZC, FOON, FOK and RFZC signals can be selected with command.
59*	FLGB	Output	Internal signal monitor external flag output terminal. DFCT, FOON, FMON and RFZC signals can be selected with command.
60*	FLGC	Output	Internal signal monitor external flag output terminal. TRON, TRSR, FOK, and SRCH signals can be selected with command.
61*	FLGD	Output	Internal signal monitor external flag output terminal. TRON, DMON, HYS and SHC signals can be selected with command.
62	VDD	—	Digital + power terminal.
63	VSS	—	Digital ground terminal.
64* 65* 66* 67*	IO0 IO1 IO2 IO3	Input/Output	General-use I/O port. The input port and output port can be selected with command. In case of input port the terminal state (H/L) can be read with the read command. In case of output port the terminal state (H/L/HiZ) can be controlled with command.
68*	/DMOUT	Input	Terminal to set the mode to output 2-value PWM of feed equalizer from IO0,1 terminal and 2-value PWM of disc equalizer from IO2,3 terminal. "L" active
69*	/CKSE	Input	To be opened usually.
70*	/DACT	Input	DAC test mode terminal. To be opened usually.
71	TESIN	Input	Test input terminal (externally provided VCO clock input terminal). To be fixed to "L" usually.
72	TESIO1	Input	Test input/output terminal. To be fixed to "L" usually.
73	VSS	—	Digital ground terminal.
74	PXI	Input	DSP system clock oscillation circuit input terminal. To be fixed to "L" usually.
75*	PXO	Output	DSP system clock oscillation circuit output terminal.
76	VDD	—	Digital + power terminal.
77	XVSS	—	System clock oscillation circuit ground terminal.
78	XI	Input	System clock oscillation input terminal.
79	XO	Output	System clock oscillation circuit output terminal.
80	XVDD	—	System clock oscillation circuit + power terminal.
81	DVSR	—	R channel D/A converting section power terminal.
82	RO	Output	R channel data forward rotation output terminal.

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

IC802 VHiTC9462F/-1: Servo/Signal Control (TC9462F) (3/3)

Pin No.	Port Name	Input/Output	Function
83	DVDD	—	D/A converting section power terminal.
84	DVR	—	Reference voltage terminal.
85	LO	Output	L channel data forward rotation output terminal.
86	DVSL	—	L channel D/A converting section power terminal.
87*	TEST1	Input	Test mode terminal. To be opened usually.
88*	TEST2	Input	Test mode terminal. To be opened usually.
89*	TEST3	Input	Test mode terminal. To be opened usually.
90-93	BUS0-BUS3	Input/Output	Microcomputer interface data input/output terminal.
94	VDD	—	Digital + power terminal.
95	VSS	—	Digital ground terminal.
96	BUCK	Input	Microcomputer interface clock input terminal.
97	/CCE	Input	Microcomputer interface chip enable signal input terminal. "L": BUS0 to 3 is active.
98*	TEST4	Input	Test mode terminal. To be opened usually.
99*	/TSMOD	Input	Local test mode selection terminal.
100	/RST	Input	Reset signal input terminal. "L": Reset.

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

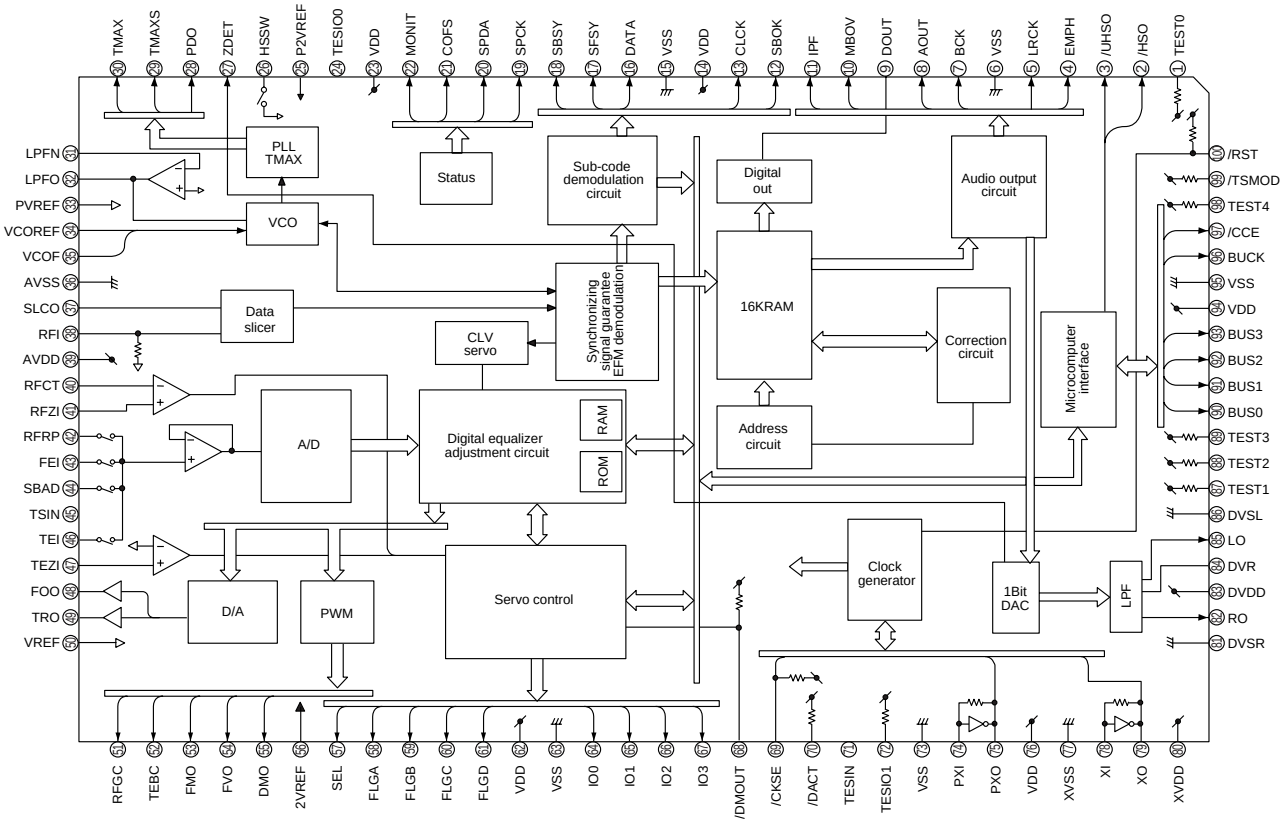


Figure 50 BLOCK DIAGRAM OF IC

IC804 VHiLA6541D/-1: Focus/Tracking/Spin/Sled Driver (LA6541D)

Pin No.	Port Name	Function
1	VCC	Power (short-circuited to pin 30)
2	MUTE	All BTL AMP output ON/OFF
3	VIN1	BTL AMP1 input terminal
4	VG1	BTL AMP1 input terminal (for gain adjustment)
5	VO1	BTL AMP1 output terminal (noninversion side)
6	VO2	BTL AMP1 output terminal (inversion side)
7	GND	GND terminal (lowest potential)
8	GND	GND terminal (lowest potential)
9	GND	GND terminal (lowest potential)
10	VO3	Output terminal of BTL AMP2 (inversion side)
11	VO4	Output terminal of BTL AMP2 (noninversion side)
12	VG2	Input terminal of BTL AMP2 (for gain adjustment)
13	VIN2	Input terminal of BTL AMP2
14	REG OUT	Connect the collector of externally provided transistor (PNP). 5V power output
15	REG IN	Connect the base of externally provided transistor (PNP).
16*	RES	Reset output
17*	CD	Reset output delay time setting (capacitor provided externally)
18	VIN3	Input terminal of BTL AMP3
19*	VG3	Input terminal of BTL AMP3 (for gain adjustment)
20	VO5	Output terminal of BTL AMP3 (noninversion side)
21	VO6	Output terminal of BTL AMP3 (inversion side)
22	GND	GND terminal (lowest potential)
23	GND	GND terminal (lowest potential)
24	GND	GND terminal (lowest potential)
25	VO7	Output terminal of BTL AMP4 (inversion side)
26	VO8	Output terminal of BTL AMP4 (noninversion side)
27	VG4	Input terminal of BTL AMP4 (for gain adjustment)
28	VIN4	Input terminal of BTL AMP4
29	VREF	Application of standard voltage of level shift circuit
30	VCC	Power (short-circuited to pin 1)

*GND (lowest potential) is connected to the frame of pin center.
In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

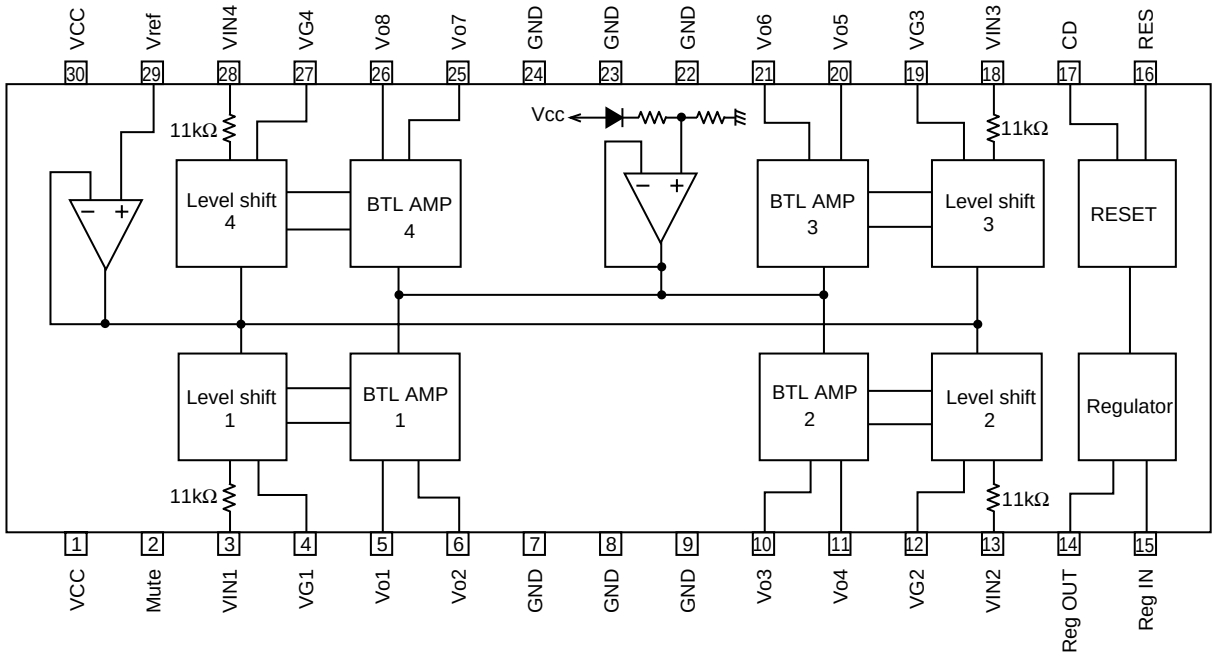
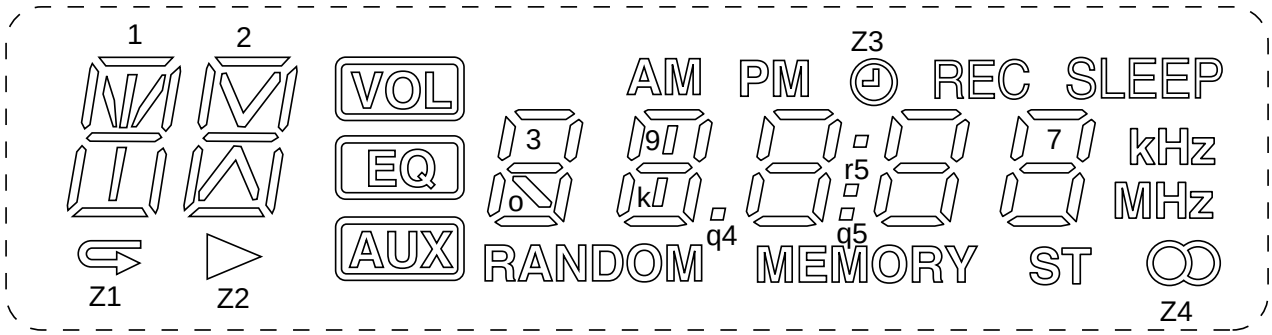
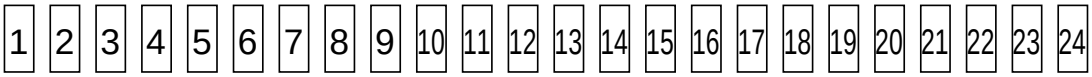


Figure 51 BLOCK DIAGRAM OF IC

LCD701: RV-LX0008SJZZ LCD Display





PinNo	com1	com2	com3	com4
1	com1			
2		com2		
3			com3	
4				com4
5	f2	e2	EQ	
6	a1	h1	b1	c1
7	g1	j1	k1	d1
8	i1	f1	e1	z1
9	a2	b2	c2	z2
10	m2	j2	n2	d2
11	VOL	b3	c3	AUX
12	a3	j3	p3	d3

PinNo	com1	com2	com3	com4
13		f3	e3	
14	a4	b4	c4	RANDOM
15	g4	j4	k4	d4
16	AM	f4	e4	q4
17	PM	b5	j5	c5
18	a5	f5	e5	d5
19	z3	r5	q5	MEMORY
20	a6	b6	j6	c6
21	REC	f6	e6	d6
22	b7	j7	c7	ST
23	a7	f7	e7	d7
24	SLEEP	kHz	MHz	z4

Figure 52 LCD SEGMENT

SHARP PARTS GUIDE

MICRO COMPONENT SYSTEM

MODEL XL-30H

XL-30H Micro Component System consisting of XL-30H (main unit) and CP-XL40H (speaker system).

MODEL XL-30W

XL-30W Micro Component System consisting of XL-30W (main unit) and CP-XL40H (speaker system).

"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

For U.S.A. only

Contact your nearest SHARP Parts Distributor to order.

For location of SHARP Parts Distributor,
Please call Toll-Free;
1-800-BE-SHARP

Explanation of capacitors/resistors parts codes

Capacitors

VCC ..... Ceramic type
VCK..... Ceramic type
VCT ..... Semiconductor type
VC • • MF ..... Cylindrical type (without lead wire)
VC • • MN..... Cylindrical type (without lead wire)
VC • • TV..... Square type (without lead wire)
VC • • TQ ..... Square type (without lead wire)
VC • • CY ..... Square type (without lead wire)
VC • • CZ ..... Square type (without lead wire)
VC • • • • • • • • • J .. The 13th character represents capacity difference.
("J" ±5%, "K" ±10%, "M" ±20%, "N" ±30%,
"C" ±0.25 pF, "D" ±0.5 pF, "Z" +80-20%.)

If there are no indications for the electrolytic capacitors, error is ±20%.

Resistors

VRD ..... Carbon-film type
VRS..... Carbon-film type
VRN ..... Metal-film type
VR • • MF ..... Cylindrical type (without lead wire)
VR • • MN..... Cylindrical type (without lead wire)
VR • • TV..... Square type (without lead wire)
VR • • TQ ..... Square type (without lead wire)
VR • • CY ..... Square type (without lead wire)
VR • • CZ ..... Square type (without lead wire)
VR • • • • • • • • • J .. The 13th character represents error.
("J" ±5%, "F" ±1%, "D" ±0.5%.)

If there are no indications for other parts, the resistors are ±5% carbon-film type.

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

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION

XL-30H/30W

INTEGRATED CIRCUITS

IC101	VHIBA3126N/-1	J	AF	Head Selector,BA3126N
IC102	VHIBA3311L/-1	J	AK	REC./P.B.Equalizer Amp., BA3311L
IC301	VHITA7358AP-1	J	AG	FM Front End,TA7358AP
IC302	VHILC72131/-1	J	AP	PLL (Tuner),LC72131
IC303	VHILA1832S/-1	J	AN	FM IF Det./FM Mpx./AM IF, LA1832S
IC401	VHILC75342M-1	J	AN	Function/Volume Equalizer, LC75342M
IC601	VHILA4600//-1	J	AN	Power Amp.,LA4600
IC682	VHIKIA7805P-1	J	AF	Voltage Regulator,KIA7805P [XL-30W Only]
IC701	RH-IX0027SJZZ	J	AW	System Control Microcomputer, IX0027SJ
IC702	VHITA7291S/-1	J	AH	Loading Motor Driver,TA7291S
IC801	VHITA2109F/-1	J	AL	Servo Pre Amp.,TA2109F
IC802	VHITC9462F/-1	J	AZ	Servo/Signal Control,TC9462F
IC804	VHILA6541D/-1	J	AW	Focus/Tracking/Spin/Sled Driver, LA6541D

TRANSISTORS

Q101~106	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q151	VS2SC2001-K-1	J	AD	Silicon,NPN,2SC2001 K
Q152	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q153	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
Q171	VSKRA102M//-1	J	AC	Digital,PNP,KRA102 M
Q172	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q305,306	VS2SC535-C/-1	J	AC	Silicon,NPN,2SC535 C
Q351	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
Q360	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q601~603	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q604,605	VS2SD2012Y/-1	J	AF	Silicon,NPN,2SD2012 Y
Q606	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q607	VS2SD2012Y/-1	J	AF	Silicon,NPN,2SD2012 Y
Q608	VSKRA102M//-1	J	AC	Digital,PNP,KRA102 M
Q609	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
Q681	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR [XL-30W]
Q681	VS2SD468-C/-1	J	AD	Silicon,NPN,2SD468 C [XL-30H]
Q682	VS2SD468-C/-1	J	AD	Silicon,NPN,2SD468 C [XL-30H Only]
Q683	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q701	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q702,703	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q706	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q707,708	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q709	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q801	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q861	VS2SB562-C/-1	J	AD	Silicon,PNP,2SB562 C
Q901	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q902	VS2SB562-C/-1	J	AD	Silicon,PNP,2SB562 C
Q903	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
Q904	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q905	VS2SB562-C/-1	J	AD	Silicon,PNP,2SB562 C
Q906	VSKRA102M//-1	J	AC	Digital,PNP,KRA102 M

DIODES

D104	VHD1N4148//-1	J	AA	Silicon,1N4148
D301,302	VHD1N4148//-1	J	AA	Silicon,1N4148
D305,306	VHD1N4148//-1	J	AA	Silicon,1N4148
D401~403	VHD1N4004//-1	J	AB	Silicon,1N4004
D601~604	VHD1N4148//-1	J	AA	Silicon,1N4148
⚠ D651~654	VHD1N4004//-1	J	AB	Silicon,1N4004
⚠ D681~684	VHD1N4004//-1	J	AB	Silicon,1N4004
D685	VHD1N4004//-1	J	AB	Silicon,1N4004
D686	VHD1N4004//-1	J	AB	Silicon,1N4004 [XL-30W Only]
D688,689	VHD1N4004//-1	J	AB	Silicon,1N4004 [XL-30W Only]
D704~709	VHPMPG3372X-V	J	AD	LED,Green,MPG3372X
D720~723	VHD1N4148//-1	J	AA	Silicon,1N4148
D730	VHPHY2043//-1	J	AD	LED,Orange,HY2043
D732	VHPHY2043//-1	J	AD	LED,Orange,HY2043
D736,737	VHPHY2043//-1	J	AD	LED,Orange,HY2043
D901~904	VHD1N4148//-1	J	AA	Silicon,1N4148
ZD351	VHEMTZJ5R1B-1	J	AC	Zener,5.1V,MTZJ5.1B
ZD601	VHEMTZJ130A-1	J	AC	Zener,13V,MTZJ13A
ZD602	VHEMTZJ7R5C-1	J	AC	Zener,7.5V,MTZJ7.5C
ZD681	VHEMTZJ6R8A-1	J	AA	Zener,6.8V,MTZJ6.8A [XL-30H Only]
ZD682	VHEMTZJ5R6B-1	J	AD	Zener,5.6V,MTZJ5.6B [XL-30H Only]
ZD683,684	VHEMTZJ160C-1	J	AB	Zener,16V,MTZJ16C [XL-30W Only]
ZD701	VHEMTZJ3R3B-1	J	AA	Zener,3.3V,MTZJ3.3B

FILTERS

BF301	RFILR0008AWZZ	J	AE	Band Pass Filter
CF302,303	RFILF0004SJZZ	J	AG	FM RF,10.7 MHz
CF351	RFILF0003AWZZ	J	AK	FM IF
⚠ LF651	RCILZ0002SJZZ	J	AG	Line Filter [XL-30H Only]

TRANSFORMERS

CF352	RFILA0003SJZZ	J	AF	AM IF
T304	RCILI0005SJZZ	J	AF	FM IF
T351	RCILI0004SJZZ	J	AF	AM IF
⚠ T651	RTRNP0024SJZZ	J	BC	Power,Main [XL-30H]
⚠ T651	RTRNP0027SJZZ	J	AZ	Power,Main [XL-30W]
⚠ T681	RTRNP0025SJZZ	J	AU	Power,Sub [XL-30H]
⚠ T681	RTRNP0028SJZZ	J	AU	Power,Sub [XL-30W]

COILS

L151	VP-MK331K0000	J	AB	330 µH,Choke
L302	RCILR0003SJZZ	J	AD	FM RF
L303	RCILB0010SJZZ	J	AG	FM Oscillation
L351,352	VP-DH101K0000	J	AB	100 µH,Choke
L353	VP-DH102K0000	J	AB	1 mH,Choke
L701	VP-DH101K0000	J	AB	100 µH,Choke
L801	VP-DH100K0000	J	AB	10 µH,Choke
L803	VP-DH100K0000	J	AB	10 µH,Choke
L804	VP-DH2R2K0000	J	AB	2.2 mmH,Peaking
T302	RCILA0007SJZZ	J	AG	AM Antenna
T306	RCILB0009SJZZ	J	AG	AM Oscillation

VARIABLE RESISTOR

VR351	RVR-M0999AFZZ	J	AB	10 kohm (B),Semi-VR [FM Mute Level]

VARIABLE CAPACITORS

VD301	VHCSVC348S/-1	J	AK	Variable Capacitance,SVC348S
VD302,303	VHCKDV147B/-1	J	AH	Variable Capacitance, KDV147B

VIBRATORS

X351	RCRM-0007SJZZ	J	AG	Ceramic,456 kHz
X352	RCRSP0006SJZZ	J	AF	Crystal,4.5 MHz
X701	RCRM-0008SJZZ	J	AG	Ceramic,8 MHz
X702	RCRSP0011AWZZ	J	AC	Crystal,32.768 kHz
X801	RCRM-0002SJZZ	J	AE	Ceramic,16.93 MHz

CAPACITORS

C101,102	VCKYTV1HB102K	J	AA	0.001 µF,50V
C103,104	VCKYTV1HB331K	J	AA	330 pF,50V
C105,106	VCKYTV1HB271K	J	AA	270 pF,50V
C107,108	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C109,110	VCQYKA1HM153J	J	AB	0.015 µF,50V,Mylar
C111,112	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C113,114	RC-GZA475AF1E	J	AB	4.7 µF,25V,Electrolytic
C115,116	VCKYTV1HB222K	J	AA	0.0022 µF,50V
C117	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C121,122	VCCSTV1HL820J	J	AA	82 pF,50V
C123	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
C125	RC-GZA107AF1E	J	AB	100 µF,25V,Electrolytic
C126	RC-GZA226AF1C	J	AB	22 µF,16V,Electrolytic
C129,130	RC-GZA475AF1E	J	AB	4.7 µF,25V,Electrolytic
C153	VCQPKA2AA392J	J	AB	0.0039 µF,100V,Polypropylene
C154	VCQYKA1HM273J	J	AB	0.027 µF,50V,Mylar
C155	RC-GZA107AF1C	J	AB	100 µF,16V,Electrolytic
C301	VCKYTV1HB102K	J	AA	0.001 µF,50V

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
C303	VCKYTV1HB102K	J	AA	0.001 µF,50V
C304	VCKYTV1EF103Z	J	AA	0.01 µF,25V
C305	VCKYTV1HB472K	J	AA	0.0047 µF,50V
C306	VCCUTV1HJ9R0D	J	AD	9 pF (UJ),50V
C307	VCKYTV1HB472K	J	AA	0.0047 µF,50V
C308	VCKYTV1EF223Z	J	AA	0.022 µF,25V
C309	VCKYTV1HB102K	J	AA	0.001 µF,50V
C310	VCKYTV1EF223Z	J	AA	0.022 µF,25V
C311	VCCCTV1HH100J	J	AA	10 pF (CH),50V
C312	VCCSTV1HL330J	J	AA	33 pF,50V
C313	VCCUTV1HJ6R0D	J	AA	6 pF (UJ),50V
C314	VCCCTV1HH220J	J	AA	22 pF (CH),50V
C315	VCKYTV1HB101K	J	AA	100 pF,50V
C316	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C317	VCKYTV1EF223Z	J	AA	0.022 µF,25V
C318	VCCSTV1HL5R0J	J	AA	5 pF,50V
C319	VCCCTV1HH180J	J	AA	18 pF (CH),50V
C329	VCKYTV1EF223Z	J	AA	0.022 µF,25V
C330	VCCCPA1HH120J	J	AA	12 pF (CH),50V
C331	VCKYTV1EF473Z	J	AB	0.047 µF,25V
C332	VCKYPA1HF223Z	J	AB	0.022 µF,50V
C334	VCCUPA1HJ270J	J	AA	27 pF (UJ),50V
C335	VCKYTV1HB561K	J	AA	560 pF,50V
C337	VCKYPA1HF223Z	J	AB	0.022 µF,50V
C343,344	VCCSTV1HL330J	J	AA	33 pF,50V
C349	VCKYTV1HB102K	J	AA	0.001 µF,50V
C350,351	VCKYTV1EF223Z	J	AA	0.022 µF,25V
C352	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C353,354	VCKYTV1EF223Z	J	AA	0.022 µF,25V
C355	VCCSTV1HL220J	J	AA	22 pF,50V
C356	VCKYTV1HB102K	J	AA	0.001 µF,50V
C357	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
C358	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C360,361	VCKYTV1EF223Z	J	AA	0.022 µF,25V
C362	RC-GZA335AF1H	J	AB	3.3 µF,50V,Electrolytic
C363	VCKYTV1EF223Z	J	AA	0.022 µF,25V
C364	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C365	VCKYTV1EF223Z	J	AA	0.022 µF,25V
C366	VCKYTV1HB102K	J	AA	0.001 µF,50V
C367,368	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C369	VCCSTV1HL560J	J	AA	56 pF,50V
C370~372	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C373,374	VCTYPA1CX153K	J	AA	0.015 µF,16V
C376	VCKYTV1HB102K	J	AA	0.001 µF,50V
C380	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C381	VCCCTV1HH120J	J	AA	12 pF (CH),50V
C382	VCCCTV1HH150J	J	AA	15 pF (CH),50V
C383	VCKYTV1EF223Z	J	AA	0.022 µF,25V
C384	VCKYTV1HB102K	J	AA	0.001 µF,50V
C385	VCTYPA1CX103K	J	AA	0.01 µF,16V
C386	VCKYPA1HB331K	J	AA	330 pF,50V
C387	VCKYTV1EF223Z	J	AA	0.022 µF,25V
C391	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C392	VCKYTV1HB102K	J	AA	0.001 µF,50V
C393	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C394	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C395	VCKYTV1EF223Z	J	AA	0.022 µF,25V
C396	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C397	VCKYTV1EF223Z	J	AA	0.022 µF,25V
C398	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C399	VCKYPA1HF223Z	J	AB	0.022 µF,50V
C401~406	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C415,416	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C417,418	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
C419,420	VCKYTV1HB272K	J	AA	0.0027 µF,50V
C421~424	RC-QZA104AFYJ	J	AC	0.1 µF,50V,Mylar
C425,426	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C429	RC-GZA336AF1C	J	AB	33 µF,16V,Electrolytic
C430	RC-GZA107AF1C	J	AB	100 µF,16V,Electrolytic
C601	RC-GZA336AF1C	J	AB	33 µF,16V,Electrolytic
C603,604	VCKYTV1HB102K	J	AA	0.001 µF,50V
C605,606	RC-GZA475AF1E	J	AB	4.7 µF,25V,Electrolytic
C607	RC-GZA107AF1E	J	AB	100 µF,25V,Electrolytic
C608	RC-GZA226AF1E	J	AB	22 µF,25V,Electrolytic
C613,614	RC-GZV108AF1E	J	AD	1000 µF,25V,Electrolytic
C615	VCKYPA1HF223Z	J	AB	0.022 µF,50V
C616	RC-GZW478AF1E	J	AG	4700 µF,25V,Electrolytic
C620	RC-GZV477AF1E	J	AC	470 µF,25V,Electrolytic
C621	RC-GZA107AF1E	J	AB	100 µF,25V,Electrolytic
C622	VCKYPA1HF223Z	J	AB	0.022 µF,50V
C624	VCKYPA1HF223Z	J	AB	0.022 µF,50V
C625	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C626	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C627	VCKYTV1EF223Z	J	AA	0.022 µF,25V
îC651~654	VCFYFA1HA104J	J	AC	0.1 µF,50V,Thin Film
C660	VCKYPA1HB102K	J	AA	0.001 µF,50V [XL-30W]
C660	VCKYPA1HF103Z	J	AB	0.01 µF,16V [XL-30H]
C665	VCFYFA1HA473J	J	AB	0.047 µF,50V,Thin Film [XL-30W Only]
C683	RC-GZV228AF1C	J	AG	2200 µF,16V,Electrolytic [XL-30H]
C683	RC-GZW228AF1V	J	AF	2200 µF,35V,Electrolytic [XL-30W]
C684	VCFYFA1HA473J	J	AB	0.047 µF,50V,Thin Film
C685	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic [XL-30H Only]
C686	VCKYPA1HF223Z	J	AB	0.022 µF,50V [XL-30H Only]
C688	VCFYFA1HA473J	J	AB	0.047 µF,50V,Thin Film [XL-30W]
C688	VCKYPA1HF223Z	J	AB	0.022 µF,50V [XL-30H]
C689	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic [XL-30W]
C689	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic [XL-30H]
C695	VCKYPA1HB102K	J	AA	0.001 µF,50V
C696	VCKYPA1HB102K	J	AA	0.001 µF,50V [XL-30W]
C696	VCKYPA1HF103Z	J	AB	0.01 µF,16V [XL-30H]
C697	VCKYPA1HB102K	J	AA	0.001 µF,50V
C698	VCKYBT1HB331K	J	AA	330 pF,50V
C699	VCKYPA1HB332K	J	AA	0.0033 µF,50V
C701,702	VCCCTV1HH220J	J	AA	22 pF (CH),50V
C703,704	VCKYTV1EF223Z	J	AA	0.022 µF,25V
C705,706	VCKYTV1HB102K	J	AA	0.001 µF,50V [XL-30W Only]
C710	VCKYTV1EB103K	J	AA	0.01 µF,25V
C711	RC-GZA335AF1H	J	AB	3.3 µF,50V,Electrolytic
C712	VCKYTV1EB103K	J	AA	0.01 µF,25V
C713	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C714	VCKYTV1HB561K	J	AA	560 pF,50V
C715	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C771	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C772	VCKYTV1EB104K	J	AA	0.1 µF,25V
C773	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C801	VCCSPA1HL101J	J	AA	100 pF,50V
C802	VCKYTV1EB153K	J	AB	0.015 µF,25V
C803	RC-GZA476AF1A	J	AB	47 µF,10V,Electrolytic
C804	VCKYTV1EB103K	J	AA	0.01 µF,25V
C805	VCKYTV1HB272K	J	AA	0.0027 µF,50V
C806	VCKYTV1HB472K	J	AA	0.0047 µF,50V
C807	VCKYTV1EB333K	J	AB	0.033 µF,25V
C809	VCKYTV1HB472K	J	AA	0.0047 µF,50V
C810	VCKYTV1HB102K	J	AA	0.001 µF,50V
C811	RC-GZA476AF1A	J	AB	47 µF,10V,Electrolytic
C812	VCKYTV1EF103Z	J	AA	0.01 µF,25V
C813	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C817~819	VCKYTV1EB104K	J	AA	0.1 µF,25V
C820	VCKYTV1EF103Z	J	AA	0.01 µF,25V
C821	VCKYTV1EB104K	J	AA	0.1 µF,25V
C822	RC-GZA227AF1A	J	AB	220 µF,10V,Electrolytic
C823	VCKYTV1EF103Z	J	AA	0.01 µF,25V
C824,825	VCKYTV1EB563K	J	AA	0.056 µF,25V
C828,829	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C830	VCKYTV1EB563K	J	AA	0.056 µF,25V
C831,832	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C833,834	VCKYTV1HB471K	J	AA	470 pF,50V
C835	VCKYTV1EB563K	J	AA	0.056 µF,25V
C836	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C837	VCKYTV1HB471K	J	AA	470 pF,50V
C838	RC-GZA476AF1A	J	AB	47 µF,10V,Electrolytic
C839	VCCSTV1HL2R0C	J	AA	2 pF,50V
C840,841	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C842	RC-GZA476AF1A	J	AB	47 µF,10V,Electrolytic
C843	VCKYTV1EF104Z	J	AA	0.1 µF,25V
C844	VCKYTV1HB682K	J	AA	0.0068 µF,50V
C845	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C846,847	VCKYTV1EF104Z	J	AA	0.1 µF,25V
C848	VCCSTV1HL390J	J	AA	39 pF,50V
C849	VCKYTV1EB563K	J	AA	0.056 µF,25V
C850	RC-GZA227AF1A	J	AB	220 µF,10V,Electrolytic
C855	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C857	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C859	RC-GZA477AF1A	J	AC	470 µF,10V,Electrolytic
C860	VCKYTV1EF104Z	J	AA	0.1 µF,25V
C861	VCKYPA1HB102K	J	AA	0.001 µF,50V
C862	VCKYPA1HB222K	J	AA	0.0022 µF,50V
C863	VCKYTV1HB471K	J	AA	470 pF,50V

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
C887	VCKYTV1HB272K	J	AA	0.0027 µF,50V
C901	VCKYTV1HB102K	J	AA	0.001 µF,50V
C902	RC-GZA335AF1H	J	AB	3.3 µF,50V,Electrolytic
C903	RC-GZA107AF1E	J	AB	100 µF,25V,Electrolytic
C904,905	VCKYTV1HF223Z	J	AA	0.022 µF,50V

RESISTORS

	VRS-TV2AB000J	J	AA	0 ohm,Jumper,1.25×2mm,Green
R7A0	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R7A1	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R7A2	VRS-TV2AB104J	J	AA	100 kohm,1/10W
R7A3	VRD-ST2EE101J	J	AA	100 ohm,1/4W
R7A4	VRS-TV2AB121J	J	AA	120 ohms,1/10W
R7A5	VRS-TV2AB103J	J	AA	10 kohm,1/10W
R7A6	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R7A7	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R7A8	VRS-TV2AB820J	J	AA	82 ohms,1/10W
R7A9	VRD-ST2CD332J	J	AA	3.3 kohms,1/6W
R7B0	VRS-TV2AB103J	J	AA	10 kohm,1/10W
R7B2	VRS-TV2AB473J	J	AA	47 kohms,1/10W
R7B3	VRS-TV2AB222J	J	AA	2.2 kohms,1/10W
R7D1	VRS-TV2AB820J	J	AA	82 ohms,1/10W
R7D3	VRS-TV2AB820J	J	AA	82 ohms,1/10W
R7D5	VRS-TV2AB820J	J	AA	82 ohms,1/10W
R7D6	VRS-TV2AB820J	J	AA	82 ohms,1/10W
R7D8	VRS-TV2AB820J	J	AA	82 ohms,1/10W
R7D9	VRS-TV2AB820J	J	AA	82 ohms,1/10W
R80A	VRS-TV2AB823J	J	AA	82 kohms,1/10W
R80B	VRS-TV2AB683J	J	AA	68 kohms,1/10W
R80C	VRS-TV2AB823J	J	AA	82 kohms,1/10W
R80E	VRD-ST2CD823J	J	AA	82 kohms,1/6W
R80F	VRS-TV2AB823J	J	AA	82 kohms,1/10W
R80G	VRD-ST2CD683J	J	AA	68 kohms,1/6W
R101,102	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R103,104	VRS-TV2AB121J	J	AA	120 ohms,1/10W
R105	VRS-TV2AB154J	J	AA	150 kohms,1/10W
R106	VRD-ST2CD154J	J	AA	150 kohms,1/6W
R107	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R108	VRS-TV2AB103J	J	AA	10 kohm,1/10W
R109,110	VRS-TV2AB392J	J	AA	3.9 kohms,1/10W
R111,112	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R113,114	VRS-TV2AB332J	J	AA	3.3 kohms,1/10W
R115,116	VRS-TV2AB153J	J	AA	15 kohms,1/10W
R117,118	VRS-TV2AB223J	J	AA	22 kohms,1/10W
R119,120	VRS-TV2AB101J	J	AA	100 ohm,1/10W
R121~124	VRS-TV2AB472J	J	AA	4.7 kohms,1/10W
R125	VRS-TV2AB104J	J	AA	100 kohm,1/10W
R126	VRS-TV2AB562J	J	AA	5.6 kohms,1/10W
R131	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R132	VRS-TV2AB472J	J	AA	4.7 kohms,1/10W
R133	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R134	VRS-TV2AB104J	J	AA	100 kohm,1/10W
R138	VRD-ST2EE331J	J	AA	330 ohms,1/4W
R139	VRD-ST2CD272J	J	AA	2.7 kohms,1/6W
R140	VRS-TV2AB103J	J	AA	10 kohm,1/10W
R141	VRD-ST2CD331J	J	AA	330 ohms,1/6W
R151	VRS-TV2AB473J	J	AA	47 kohms,1/10W
R152	VRS-TV2AB104J	J	AA	100 kohm,1/10W
R153,154	VRS-TV2AB103J	J	AA	10 kohm,1/10W
R155	VRD-ST2EE560J	J	AA	56 ohms,1/4W
R156,157	VRD-ST2EE151J	J	AA	150 ohms,1/4W
R301	VRD-ST2EE220J	J	AA	22 ohms,1/4W
R302	VRS-TV2AB104J	J	AA	100 kohm,1/10W
R303	VRD-ST2CD333J	J	AA	33 kohms,1/6W
R304	VRS-TV2AB473J	J	AA	47 kohms,1/10W
R305	VRS-TV2AB681J	J	AA	680 ohms,1/10W
R306	VRS-TV2AB100J	J	AA	10 ohm,1/10W
R307	VRD-ST2EE470J	J	AA	47 ohms,1/4W
R308	VRS-TV2AB103J	J	AA	10 kohm,1/10W
R309	VRD-ST2EE471J	J	AA	470 ohms,1/4W
R310	VRS-TV2AB472J	J	AA	4.7 kohms,1/10W
R312	VRS-TV2AB222J	J	AA	2.2 kohms,1/10W
R313	VRS-TV2AB681J	J	AA	680 ohms,1/10W
R314,315	VRS-TV2AB330J	J	AA	33 ohms,1/10W
R316	VRS-TV2AB331J	J	AA	330 ohms,1/10W
R323	VRS-TV2AB683J	J	AA	68 kohms,1/10W
R336	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R350	VRS-TV2AB272J	J	AA	2.7 kohms,1/10W
R351	VRS-TV2AB562J	J	AA	5.6 kohms,1/10W
R352	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R353	VRS-TV2AB271J	J	AA	270 ohms,1/10W
R355	VRS-TV2AB332J	J	AA	3.3 kohms,1/10W
R356	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R357	VRS-TV2AB474J	J	AA	470 kohms,1/10W
R358	VRS-TV2AB822J	J	AA	8.2 kohms,1/10W
R359	VRS-TV2AB182J	J	AA	1.8 kohms,1/10W
R360	VRS-TV2AB472J	J	AA	4.7 kohms,1/10W
R361,362	VRS-TV2AB123J	J	AA	12 kohms,1/10W
R363	VRD-ST2CD332J	J	AA	3.3 kohms,1/6W [XL-30W]
R363	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W [XL-30H]
R364	VRS-TV2AB332J	J	AA	3.3 kohms,1/10W [XL-30W]
R364	VRS-TV2AB682J	J	AA	6.8 kohms,1/10W [XL-30H]
R365	VRS-TV2AB103J	J	AA	10 kohm,1/10W
R366	VRS-TV2AB222J	J	AA	2.2 kohms,1/10W
R371~374	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R376	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R377	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
R379	VRS-TV2AB222J	J	AA	2.2 kohms,1/10W
R380	VRD-ST2CD152J	J	AA	1.5 kohms,1/6W
R381	VRS-TV2AB103J	J	AA	10 kohm,1/10W
R382	VRD-ST2EE331J	J	AA	330 ohms,1/4W
R383	VRS-TV2AB562J	J	AA	5.6 kohms,1/10W
R384	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W
R385	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
R386	VRD-ST2EE331J	J	AA	330 ohms,1/4W
R387	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
R391,392	VRD-ST2EE391J	J	AA	390 ohms,1/4W
R393	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R395	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R415~420	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R423~425	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R435,436	VRS-TV2AB103J	J	AA	10 kohm,1/10W
R437,438	VRS-TV2AB682J	J	AA	6.8 kohms,1/10W
R439,440	VRS-TV2AB392J	J	AA	3.9 kohms,1/10W
R601~604	VRS-TV2AB103J	J	AA	10 kohm,1/10W
R607	VRS-TV2AB682J	J	AA	6.8 kohms,1/10W
R608	VRD-ST2EE102J	J	AA	1 kohm,1/4W
R615,616	VRS-TV2AB682J	J	AA	6.8 kohms,1/10W
R617	VRS-TV2AB333J	J	AA	33 kohms,1/10W
R619,620	VRD-ST2EE470J	J	AA	47 ohms,1/4W
R621	VRS-TV2AB223J	J	AA	22 kohms,1/10W
R623	VRS-TV2AB223J	J	AA	22 kohms,1/10W
R624	VRD-ST2EE102J	J	AA	1 kohm,1/4W
R625	VRS-TV2AB103J	J	AA	10 kohm,1/10W
R627	VRS-TV2AB103J	J	AA	10 kohm,1/10W
R628	VRD-ST2EE101J	J	AA	100 ohm,1/4W
R629	VRD-ST2EE821J	J	AA	820 ohms,1/4W
R634	VRD-ST2EE332J	J	AA	3.3 kohms,1/4W
R661,662	VRD-ST2EE331J	J	AA	330 ohms,1/4W
R681	VRD-ST2CD470J	J	AA	47 ohms,1/6W [XL-30H Only]
R682	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W [XL-30H Only]
R683	VRD-ST2CD470J	J	AA	47 ohms,1/6W [XL-30H Only]
R684	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W [XL-30H Only]
R685	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R686	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R687	VRD-ST2EE272J	J	AA	2.7 kohms,1/4W [XL-30W Only]
R688	VRD-ST2CD102J	J	AA	1 kohm,1/6W [XL-30W Only]
R689	VRD-ST2EE102J	J	AA	1 kohm,1/4W [XL-30W Only]
R701	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R702	VRS-TV2AB103J	J	AA	10 kohm,1/10W
R705	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
R706	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
R707	VRD-ST2CD272J	J	AA	2.7 kohms,1/6W
R708	VRS-TV2AB222J	J	AA	2.2 kohms,1/10W
R709	VRD-ST2CD152J	J	AA	1.5 kohms,1/6W
R710,711	VRS-TV2AB122J	J	AA	1.2 kohms,1/10W
R719,720	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W
R721,722	VRS-TV2AB103J	J	AA	10 kohm,1/10W
R723	VRS-TV2AB473J	J	AA	47 kohms,1/10W
R724	VRS-TV2AB122J	J	AA	1.2 kohms,1/10W [XL-30H]
R724	VRS-TV2AB562J	J	AA	5.6 kohms,1/10W [XL-30W]
R725	VRS-TV2AB103J	J	AA	10 kohm,1/10W
R727	VRS-TV2AB473J	J	AA	47 kohms,1/10W
R728	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R729	VRS-TV2AB473J	J	AA	47 kohms,1/10W
R731~734	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R737~746	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R747~749	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R750,751	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R753,754	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R757~759	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R761~768	VRS-TV2AB102J	J	AA	1 kohm,1/10W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
R771~777	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R778~781	VRS-TV2AB473J	J	AA	47 kohms,1/10W
R782,783	VRS-TV2AB333J	J	AA	33 kohms,1/10W
R784	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R785	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R786	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R787	VRD-RT2HD2R2J	J	AA	2.2 ohms,1/2W
R789	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R792	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R793	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R794~797	VRD-ST2CD181J	J	AA	180 ohms,1/6W
R798	VRD-ST2CD822J	J	AA	8.2 kohms,1/6W
R799	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R801	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R802	VRS-TV2AB473J	J	AA	47 kohms,1/10W
R804	VRS-TV2AB104J	J	AA	100 kohm,1/10W
R806	VRS-TV2AB153J	J	AA	15 kohms,1/10W
R807	VRS-TV2AB103J	J	AA	10 kohm,1/10W
R808	VRS-TV2AB332J	J	AA	3.3 kohms,1/10W
R809	VRS-TV2AB103J	J	AA	10 kohm,1/10W
R810	VRS-TV2AB332J	J	AA	3.3 kohms,1/10W
R811	VRS-TV2AB222J	J	AA	2.2 kohms,1/10W
R812	VRS-TV2AB332J	J	AA	3.3 kohms,1/10W
R813	VRD-ST2EE100J	J	AA	10 ohm,1/4W
R814	VRS-TV2AB332J	J	AA	3.3 kohms,1/10W
R815,816	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R817,818	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R819	VRD-ST2CD221J	J	AA	220 ohms,1/6W
R820	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R821	VRD-ST2CD151J	J	AA	150 ohms,1/6W
R822	VRD-ST2EE220J	J	AA	22 ohms,1/4W
R823	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R824	VRS-TV2AB273J	J	AA	27 kohms,1/10W
R825	VRS-TV2AB823J	J	AA	82 kohms,1/10W
R826	VRS-TV2AB272J	J	AA	2.7 kohms,1/10W
R827	VRS-TV2AB273J	J	AA	27 kohms,1/10W
R828	VRS-TV2AB122J	J	AA	1.2 kohms,1/10W
R829	VRD-ST2CD683J	J	AA	68 kohms,1/6W
R843	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R852~855	VRS-TV2AB104J	J	AA	100 kohm,1/10W
R861~863	VRS-TV2AB222J	J	AA	2.2 kohms,1/10W
R901	VRD-ST2CD152J	J	AA	1.5 kohms,1/6W
R902	VRD-ST2CD563J	J	AA	56 kohms,1/6W
R903	VRS-TV2AB473J	J	AA	47 kohms,1/10W
R904	VRS-TV2AB271J	J	AA	270 ohms,1/10W
R905	VRS-TV2AB103J	J	AA	10 kohm,1/10W
R906	VRD-ST2CD152J	J	AA	1.5 kohms,1/6W
R907	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R909	VRS-TV2AB183J	J	AA	18 kohms,1/10W
R910	VRS-TV2AB333J	J	AA	33 kohms,1/10W

OTHER CIRCUITRY PARTS

BI605/CNS605	QCNWN0179SJZZ	J	AF	Connector Ass'y,7/7Pin
BI652/CNS652	QCNWN0178SJZZ	J	AC	Connector Ass'y,2/2Pin [XL-30H]
BI652/CNS652	QCNWN0195SJZZ	J		Connector Ass'y,3/3Pin [XL-30W]
BI702/CNS702	QCNWN0180SJZZ	J	AE	Connector Ass'y,10/10Pin
BI706/CNS706	QCNWN0185SJZZ	J	AC	Connector Ass'y,3/3Pin
BI707/CNS707	QCNWN0125SJZZ	J	AE	Connector Ass'y,3/3Pin
BI801/CNS801	QCNWN0186SJZZ	J	AF	Connector Ass'y,8/8Pin
BI802/CNS802	QCNWN0187SJZZ	J	AE	Connector Ass'y,7/7Pin
BI803/CNS803	QCNWN0188SJZZ	J	AE	Connector Ass'y,6/6Pin
BI901/CNS901	QCNWN0176SJZZ	J	AE	Connector Ass'y,7/7Pin
CFM901	————		—	Flat Wire,2Pin (Supplies at REF.No.PWB-D)
CFW601	QCNWN0201SJZZ	J	AB	Flat Wire,5Pin
CFW701	QCNWN0192SJZZ	J		Flat Wire,2Pin
CFW704	QCNWN0190SJZZ	J	AE	Flat Wire,9Pin
CFW807	QCNWN0182SJZZ	J	AB	Flat Wire,2Pin
CNP101	QCNCM931HAFZZ	J	AC	Plug,8Pin
CNP301	QCNCM602BAFZZ	J	AA	Plug,2Pin [XL-30W]
CNP301	QCNCM603CAFZZ	J	AB	Plug,3Pin [XL-30H]
CNP605	QCNCM705GAFZZ	J	AB	Plug,7Pin
CNP652	QCNCM998BAFZZ	J	AC	Plug,2Pin [XL-30H]
CNP652	QCNCM998CAFZZ	J	AE	Plug,3Pin [XL-30W]
CNP653	QCNCM998BAFZZ	J	AC	Plug,2Pin
CNP681	QCNCM603CAFZZ	J	AB	Plug,3Pin
CNP702	QCNCM004KSJZZ	J	AC	Plug,10Pin
CNP703	QCNCM010LAWZZ	J	AC	Plug,11Pin
CNP705	QCNCM932BAFZZ	J	AA	Plug,2Pin
CNP706	QCNCM932CAFZZ	J	AA	Plug,3Pin
CNP803	QCNCM932FAFZZ	J	AC	Plug,6Pin
CNP901	————		—	Plug,7Pin (Supplies at REF.No.PWB-D)
CNS101	QCNWN0175SJZZ	J	AG	Connector Ass'y,8Pin
CNS703	QCNCW010LAWZZ	J	AD	Socket,11Pin
CNS704	QCNCW623JAFZZ	J	AC	Socket,9Pin
CNS705	QCNWN0184SJZZ	J		Connector Ass'y,2Pin
⚠F651	QFS-C252ASJNI	J	AH	Fuse,T2.5A L 250V
⚠F653	QFS-C102ASJNI	J	AE	Fuse,T1A L 250V
J601	QJAKM0001SJZZ	J	AG	Jack,Headphones
LCD701	RV-LX0008SJZZ	J	AM	LCD Display
M701	RMOTV0409AFZZ	J	AL	Motor [JOG]
M901(237-9)	9GD192112344	J	AY	Motor with Pulley [Tape]
NM801	RMOTV0409AFM1	J	AN	Motor with Gear [Sled]
NM802	RMOTV0408AFM3	J	AN	Motor with Chassis [Spindle]
NSW801	QSW-F9001AWZZ	J	AE	Switch,Push Type [Pickup In]
PH901	————		—	Photo Interrupter (Supplies at REF.No.PWB-E)
⚠RLY681	RRLYD0004SJZZ	J	AG	Relay
RX701	VHLN64H380A-1	J	AK	Remote Sensor,N64H380A
SO301	QTANC0001SJZZ	J	AF	Socket,FM Antenna [XL-30W Only]
SO601	QTANA0007SJZZ	J	AF	Terminal,Speaker
⚠SO651	QSOCA0004SJZZ	J	AH	Socket,AC Power Input
SOL901(237-4)	9GD19212118	J	AP	Solenoid Ass'y
⚠SW651	QSOCE0002SJZZ	J	AH	Switch,Slide Type [Voltage Selector] [XL-30W Only]
SW700	QSW-Z0001SJZZ	J	AF	Switch,Push Type [JOG]
SW709	QSW-K0002SJZZ	J	AC	Switch,Key Type [ON/STAND-BY]
SW710	QSW-K0002SJZZ	J	AC	Switch,Key Type [CLOCK/TIMER/SLEEP]
SW711	QSW-K0002SJZZ	J	AC	Switch,Key Type [TUNING UP]
SW712	QSW-K0002SJZZ	J	AC	Switch,Key Type [PLAY/CD PAUSE]
SW713	QSW-K0002SJZZ	J	AC	Switch,Key Type [VOLUME SELECT]
SW721	QSW-K0002SJZZ	J	AC	Switch,Key Type [MEMORY/SET]
SW722	QSW-K0002SJZZ	J	AC	Switch,Key Type [BASS/TREBLE]
SW723	QSW-K0002SJZZ	J	AC	Switch,Key Type [BAND]
SW724	QSW-K0002SJZZ	J	AC	Switch,Key Type [REC.PAUSE]
SW725	QSW-K0002SJZZ	J	AC	Switch,Key Type [STOP/CLEAR]
SW726	QSW-K0002SJZZ	J	AC	Switch,Key Type [TUNING DOWN]
SW727	QSW-K0002SJZZ	J	AC	Switch,Key Type [FUNCTION]
SW728	QSW-K0002SJZZ	J	AC	Switch,Key Type [VOLUME/JOG]
SW801	QSW-P0004AWZZ	J	AE	Switch,Push Type [Open/Close]
SW901(237-7)	9GD640101210	J	AE	Switch,Leaf Type [Fool Proof]
SW902(237-8)	9GD640101210	J	AE	Switch,Leaf Type [Cam]

CD MECHANISM PARTS

301	NGERH0586AFZZ	J	AC	Gear,Middle
302	NGERH0587AFZZ	J	AC	Gear,Drive
303	MLEVP1054AFZZ	J	AC	Rail,Guide
304	NSFTM0291AFFW	J	AD	Shaft,Guide
305	PCUSG0613AFZZ	J	AC	Cushion
⚠306	DCTRH8004SJ01	J	BC	Pickup Unit ass'y
306- 1	————		—	Pickup unit (Not Replacement Item)
306- 2	NGERR0043AFZZ	J	AC	Gear,Rack
306- 3	MSPRC0961AFZZ	J	AA	Spring,Rack
307	PCOVP1333AFSA	J	AF	Cover,Mechanism
701	XBSSD26P06000	J	AA	Screw,ø2.6×6mm
702	XHBSD20P05000	J	AA	Screw,ø2×5mm
703	XBBSD20P03000	J	AA	Screw,ø2×3mm
704	LX-WZ1070AFZZ	J	AA	Washer,ø1.5×ø3.8×0.25mm
NM801	RMOTV0409AFM1	J	AN	Motor with Gear [Sled]
NM802	RMOTV0408AFM3	J	AN	Motor with Chassis [Spindle]
NSW801	QSW-F9001AWZZ	J	AE	Switch,Push Type [Pickup In]

CABINET PARTS

201	CPNLC1046SJ01	J	AN	Front Panel Ass'y
201- 1	————		—	Front Panel (Not Replacement Item)
201- 2	JKNBZ0038SJSA	J	AE	Button,Volume Select

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
201- 3	PCOVS3004SJFW	J	AC	Shield Cover
201- 4	PCUSG0003SJZZ	J	AC	Cushion,Leg
201- 5	QCNWN0219SJZZ	J	AC	Lead Wire with Lug
201- 6	GDORF0011SJSA	J	AG	Cassette Holder
201- 7	HDECP0003SJSA	J	AF	Decoration Plate,LCD Display
201- 8	HDECP0002SJSA	J	AF	Decoration Plate,Cassette Holder
201- 9	HDECQ0028SJSA	J	AE	LCD Window
201-10	HDECQ0029SJSA	J	AE	Cassette Holder Window
201-11	JKNBZ0035SJSA	J	AE	Button,Operation A
201-12	MSPRD0006SJFJ	J	AC	Spring,Cassette Holder
201-13	LX-EZ0001SJFN	J	AB	Screw,ø2.5×10mm
203	CGERH0001SJ01	J	AF	Cassette Holder Damper Gear Ass'y
208	HDECQ0033SJSA	J	AD	Ring,JOG Dial Knob
209	JKNBK0025SJSA	J	AC	Knob,JOG Dial
210	GCABC1039SJSA	J	AH	Top Cabinet
211	MLEVP0001SJSA	J	AL	Lever,CD Eject Button
212	GDORT0003SJSA	J	AF	CD Lid
213	CHLDZ1003SJ01	J	AG	CD Lid Damper Gear Ass'y
214	JKNBZ0029SJSC	J	AC	Button,CD Eject
215	MSPRD0013SJFJ	J	AC	Spring,CD Lid
216	CHLDM1002SJ01	J	AH	Stabilizer Ass'y
216- 1	————		—	Stabilizer (Not Replacement Item)
216- 2	PMAGF0002AWZZ	J	AE	Magnet
217	GITAS0003SJSA	J	AG	Side Panel,Left
218	GITAS0004SJSA	J	AG	Side Panel,Right
219	TLABS0003SJZZ	J	AD	Label,Class 3A
220	TLABS0004SJZZ	J	AC	Label,Laser
221	GCABB1021SJSB	J	AG	Rear Panel [XL-30H]
221	GCABB1023SJSB	J		Rear Panel [XL-30W]
222	PCOVS3001SJFW	J	AG	Bracket,FM/AM Socket/Speaker Terminal
223	LCHSM0004SJFW	J	AN	Main Chassis
224	LANGF0023SJFW	J	AD	Bracket,Sub Transformer
225	LHLDW1001SJZZ	J	AD	Nylon Band
226	QCNWN0148SJZZ	J	AD	Lead Wire with Lug
⚠227	QFSHD0001AWZZ	J	AB	Holder,Fuse
228	LANGK0019SJFW	J	AB	Bracket,Display PWB/Main PWB
230	PRDAR0016SJFW	J	AF	Heat Sink,Main PWB
231	PCOVS3003SJFW	J	AD	Shield Cover,Main PWB
232	PSHEP0002SJZZ	J	AH	Sheet,LCD Display
233	LHLDZ1012SJSA	J	AG	Holder,LCD Display
234	LHLDZ1020SJSA	J	AF	Holder,LED
237	CMECB0004SJ01	J	BC	Tape Mechanism Ass'y
237- 1	94R19210703	J	AE	Belt,FF/REW
237- 2	9GD19210943	J	AG	Belt,Main
237- 3	94R192104309	J	AG	Pinch Roller Arm Ass'y
237- 4(SOL901)	9GD19212118	J	AP	Solenoid Ass'y
237- 5	9GD62161401	J	AN	Head,Erase
237- 6	94R62010111	J	AT	Head,Record/Playback
237- 7(SW901)	9GD640101210	J	AE	Switch,Leaf Type [Fool Proof]
237- 8(SW902)	9GD640101210	J	AE	Switch,Leaf Type [Cam]
237- 9(M901)	9GD192112344	J	AY	Motor with Pulley [Tape]
237-10(PWB-D)	9GD192121303	J	AZ	Tape Mechanism PWB Ass'y
237-11(PWB-E)	9GD192121304	J	AW	Tape Mechanism PWB Ass'y
238	QCNWN0147SJZZ	J	AC	Lead Wire with Lug
239	PRDAR0005SJZZ	J	AH	Heat Sink,Power PWB [XL-30W Only]
240	LHLDZ1023SJZZ	J	AD	Holder,JOG Motor
241	LHLDZ1024SJZZ	J	AC	Holder,JOG Motor Tray
242	LHLDZ1026SJZZ	J	AC	Holder,JOG Motor Guide
243	NBLTK0001SJZZ	J	AA	Belt,JOG Motor
244	NGERW0001SJZZ	J	AD	Gear,Worm
245	NGERW0002SJZZ	J	AD	Wheel,JOG Worm
246	NPLYP0001SJZZ	J	AB	Pulley,JOG Motor
247	PCOVU9001SJZZ	J	AC	Sheet,JOG Motor Guide Holder
248	TSPC-0104SJZZ	J		Label,Specifications [XL-30H for Europe]
248	TSPC-0105SJZZ	J	AD	Label,Specifications [XL-30H for U.K.]
248	TSPC-0106SJZZ	J		Label,Specifications [XL-30W for Central & South America]
601	XEBSD25P10000	J	AA	Screw,ø2.5×10mm
603	XEBSF25P08000	J	AA	Screw,ø2.5×8mm
604	XJBSD30P08000	J	AA	Screw,ø3×8mm
605	LX-JZ0001SJFD	J	AA	Screw,ø3×10mm
608	XHBSD20P05000	J	AA	Screw,ø2×5mm
609	XEBSD25P14000	J	AA	Screw,ø2.5×14mm
610	XESSD25P12000	J	AA	Screw,ø2.5×12mm
611	XESSD30P10000	J	AA	Screw,ø3×10mm
612	XHBSD30P06000	J	AA	Screw,ø3×6mm
613	XJBSD30P10000	J	AA	Screw,ø3×10mm
614	XJBSD30P10000	J	AA	Screw,ø3×10mm [XL-30W Only]

ACCESSORIES/PACKING PARTS (For XL-30H)

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
⚠	QACCE0001SJZZ	J	AH	AC Power Supply Cord [For Europe]
	SPAKA0030SJZZ	J	AF	Packing Add.,Side [Europe Only]
	SPAKA0038SJZZ	J	AF	Packing Add.,Top [Europe Only]
	SPAKA0039SJZZ	J	AF	Packing Add.,Bottom [Europe Only]
	SPAKC0099SJZZ	J		Packing Case [For Europe]
	SPAKP0005SJZZ	J	AC	Polyethylene Bag,Unit [Europe Only]
	SPAKZ0019SJZZ	J	AC	Protection Sheet,Top/Bottom [Europe Only]
	TINSZ0054SJZZ	J	AK	Operation Manual [For Europe]
⚠1	QACCB0001SJ00	J	AW	AC Power Supply Cord[For U.K.]
2	QANTL0003SJZZ	J	AM	AM/FM Loop Antenna
3	TLABZ0030SJZZ	J	AC	Label,Ecology
4	RRMCG0012SJSB	J	AR	Remote Control
4- 1	GFTAB1021AWSB	J		Battery Lid,Remote Control
5	SPAKA0042SJZZ	J		Packing Add.,Left/Right [U.K. Only]
6	SPAKC0109SJZZ	J	AL	Packing Case [For U.K.]
7	SPAKP0002SJZZ	J	AD	Polyethylene Sheet,Unit [U.K. Only]
8	SPAKP0003SJZZ	J	AC	Polyethylene Sheet,AC Power Supply Cord [U.K. Only]
9	SSAKA0002SJZZ	J	AE	Polyethylene Bag,Accessories
10	TINSE0035SJZZ	J	AE	Operation Manual [For U.K.]
11	TLABM0021SJZZ	J		Label,Feature
12	TINSE0041SJZZ	J	AD	Quick Guide [U.K. Only]
13	CLABE0054SJ09	J		Label,Bar Code/Serial No.
14	TCADN0001SJZZ	J	AE	R-Card [U.K. Only]

ACCESSORIES/PACKING PARTS (For XL-30W)

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
⚠	QACCA0001SJ00	J	AS	AC Power Supply Cord [For Saudi Arabia]
⚠	QACCB0001SJ00	J	AW	AC Power Supply Cord [For Hong Kong]
⚠	QACCE0001SJZZ	J	AH	AC Power Supply Cord [Except for Saudi Arabia/Hong Kong]
⚠	QACCL0002AW00	J	AN	AC Power Supply Cord [For Australia/New Zealand]
	QANTL0002SJZZ	J	AM	AM Loop Antenna
	QANTW0002SJZZ	J	AH	FM Antenna [XL-30W Only]
⚠	QPLGA0250AFZZ	J	AF	Adaptor,AC Plug [Central & South America Only]
⚠	QPLGA0253AFZZ	J	AE	Adaptor,AC Plug [Saudi Arabia Only]
	SPAKA0042SJZZ	J		Packing Add.,Left/Right
	SPAKC0100SJZZ	J		Packing Case
	SPAKP0002SJZZ	J	AD	Polyethylene Sheet,Unit
	SPAKP0003SJZZ	J	AC	Polyethylene Sheet,AC Power Supply Cord
	SSAKA0002SJZZ	J	AE	Polyethylene Bag,Accessories
	TINSZ0012SJZZ	J		SPAN Caution [Central & South America Only]
	TINSZ0055SJZZ	J	AH	Operation Manual
	TLABE0060SJZZ	J		Label,Bar Code [Union of Arab Emirates/Hong Kong Only]
	TLABG0001SJZZ	J	AB	Label,Hong Kong [Hong Kong Only]
	TLABG0027SJZZ	J		Label,Rated Input [Hong Kong Only]
	TLABM0039SJZZ	J		Label,Feature
	TLABN0069SJZZ	J		Label,Serial No. [Except for Asia M & N East Africa/Union of Arab Emirates/Hong Kong]
	TLABR1156SJZZ	J		Label,Bar Code [Central & South America Only]
	TLABZ0009SJZZ	J	AD	Label,Made in China [For Australia/New Zealand]
	TLABZ0010SJZZ	J	AD	Label,Made in China [For Australia/New Zealand]

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
	TLABZ0011SJZZ	J	AD	Label,SHARP Japan [Syria/Union of Arab Emirates Only]
	TLABZ0012SJZZ	J	AC	Label,SHARP Corporation [Syria/Union of Arab Emirates Only]
	TLABZ0015SJZZ	J	AC	Label,VJ No.
	TLABZ0019SJZZ	J	AC	Panel,Made in China [Egypt/ Kuwait Bahrain Cyprus/Jordan Reunion/Saudi Arabia Only]
	RRMCG0012SJSB	J	AR	Remote Control
	GFTAB1021AWSB	J		Battery Lid,Remote Control

P.W.B. ASSEMBLY (Not Replacement Item)

PWB-A1~8	DCECL0004SJ03	J	—	Main/Display/CD/LED/ Headphones/Open•Close Switch/JOG Switch/Washer (Combined Ass'y)[XL-30H]
PWB-A1~8	DCECL0005SJ03	J	—	Main/Display/CD/LED/ Headphones/Open•Close Switch/JOG Switch/Washer (Combined Ass'y)[XL-30W]
⚠PWB-B	DCECA0002SJ06	J	—	Power [XL-30W]
⚠PWB-B	DCEKA0001SJ06	J	—	Power [XL-30H]
PWB-C	QPWBF3895AFZZ	J	AC	CD Motor (PWB Only)
PWB-D	9GD192121303	J	—	Tape Mechanism
PWB-E	9GD192121304	J	—	Tape Mechanism

OTHER SERVICE PART

	UDSKA0004AFZZ	J	AZ	CD Pickup Lens Cleaner Disc

CP-XL40H

SPEAKER BOX PARTS

	GBOXS0001SJZZ	J	BC	Speaker Ass'y
701	9GDYFY090B001	J	AM	Front Panel Ass'y
702	9GDYFY090B003	J	AM	Speaker Box Ass'y
703	9GDYFY978B008	J	AF	Duct Pipe
704	9GDYFY910Q013	J	AE	Screw,ø4×12mm
705	9GDYFY910Q020	J	AD	Cushion,Speaker
706	9GDYFY978B010	J	AH	Cord,Speaker
707	9GDYFY090B008	J	AF	Label,Specifications
SP601,602	VSD0010PBY24N	J		Speaker,Full-Range

PACKING PARTS

	SPAKA0031SJZZ	J		Pad,Speaker [XL-30H for Europe Only]
	SPAKC0088SJZZ	J		Packing Case,Speaker [XL-30H for Europe Only]
	SPAKP0006SJZZ	J		Polyethylene Bag,Speaker [XL-30H for Europe]
	SPAKZ0008SJZZ	J		Pad,Bottom,Speaker [XL-30H for Europe Only]
	SPAKZ0009SJZZ	J		Pad,Center,Speaker [XL-30H for Europe Only]
1	9GDYFY978B013	J	AD	Polyethylene Bag,Speaker [XL-30W/XL-30H for U.K.]
2	SPAKA0044SJZZ	J		Packing Add.,Top/ Bottom,Speaker [XL-30W/XL-30H for U.K. Only]

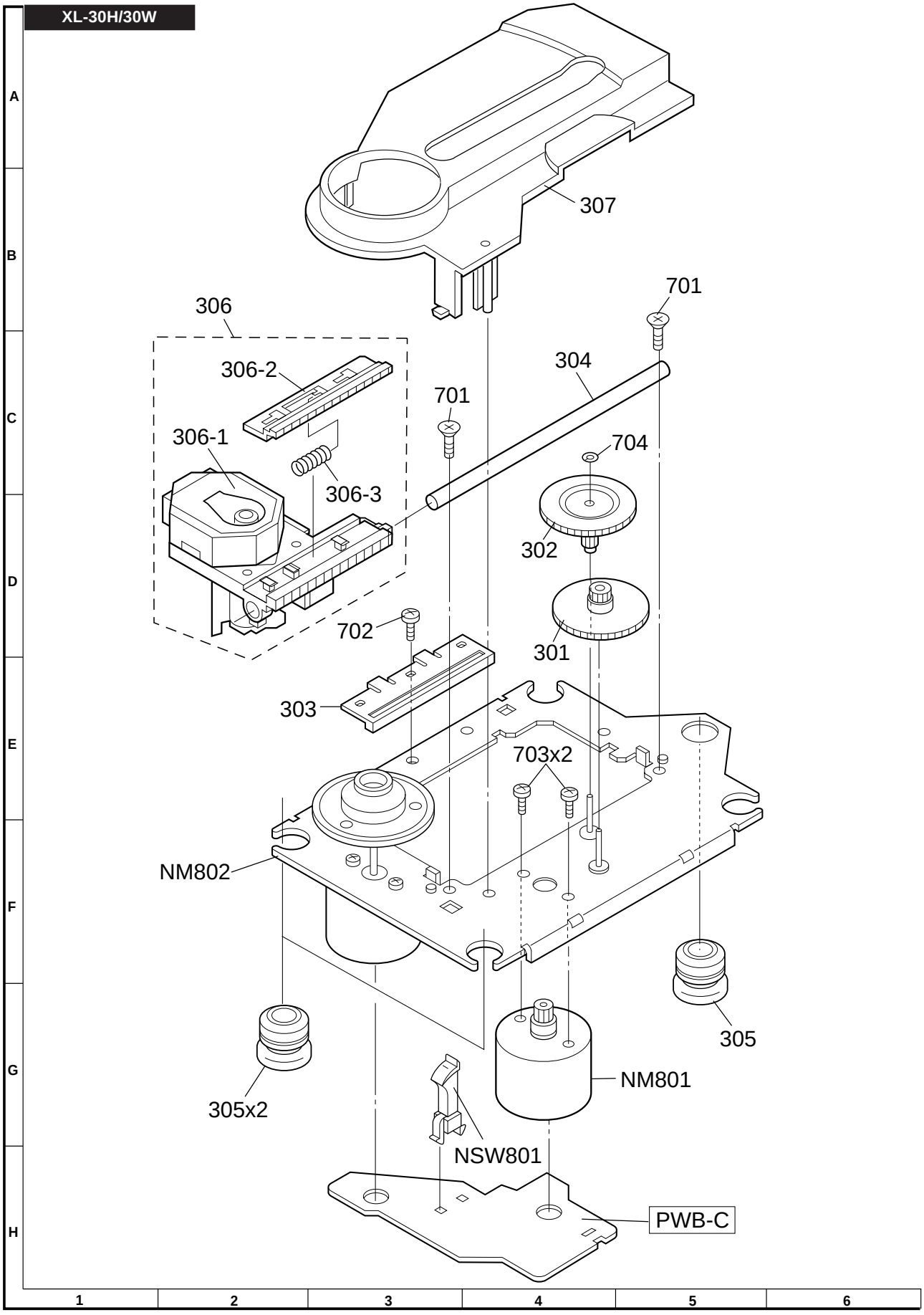
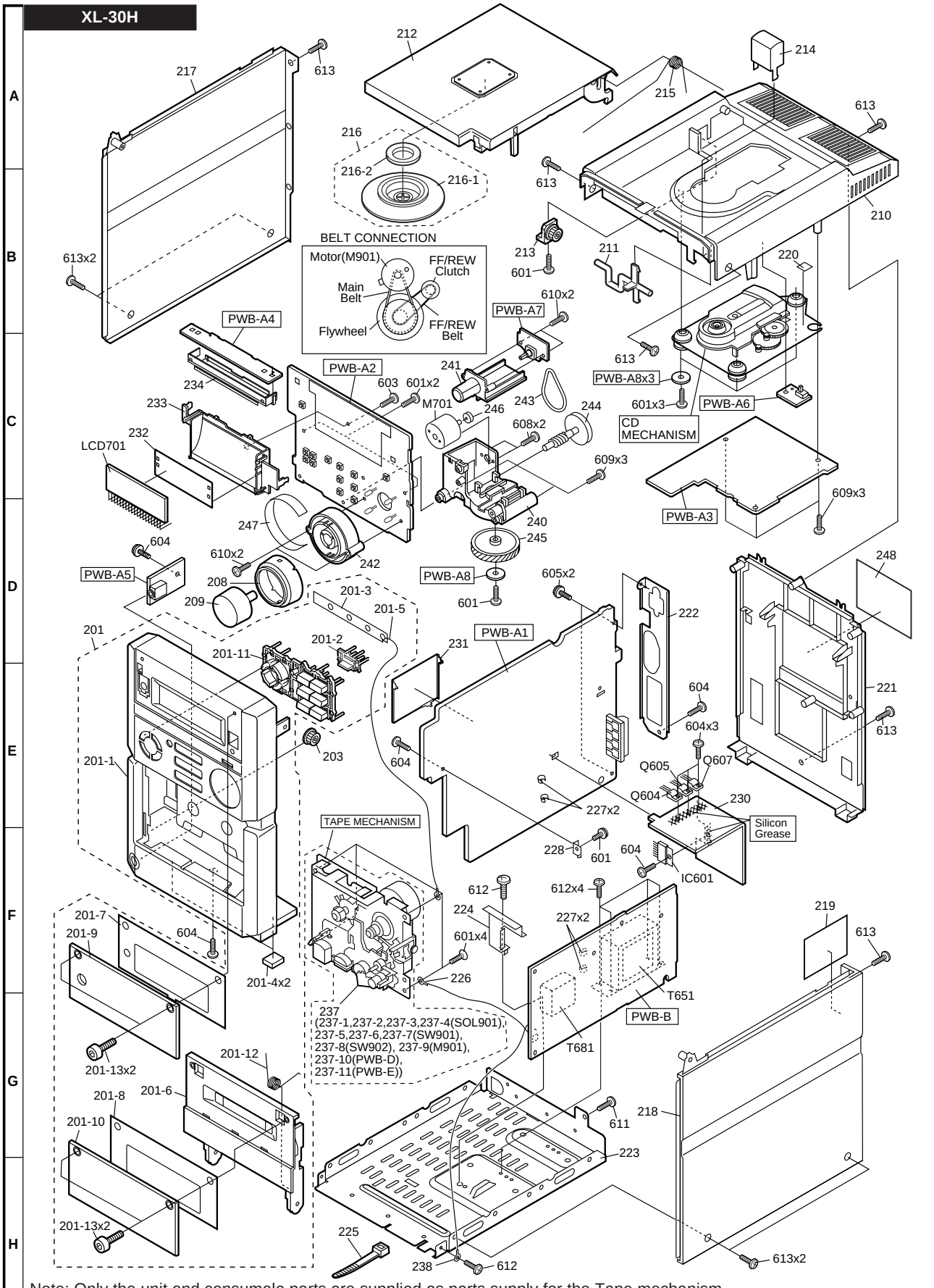


Figure 7 CD MECHANISM EXPLODED VIEW



Note: Only the unit and consumale parts are supplied as parts supply for the Tape mechanism.

Figure 8 CABINET EXPLODED VIEW (1/2)

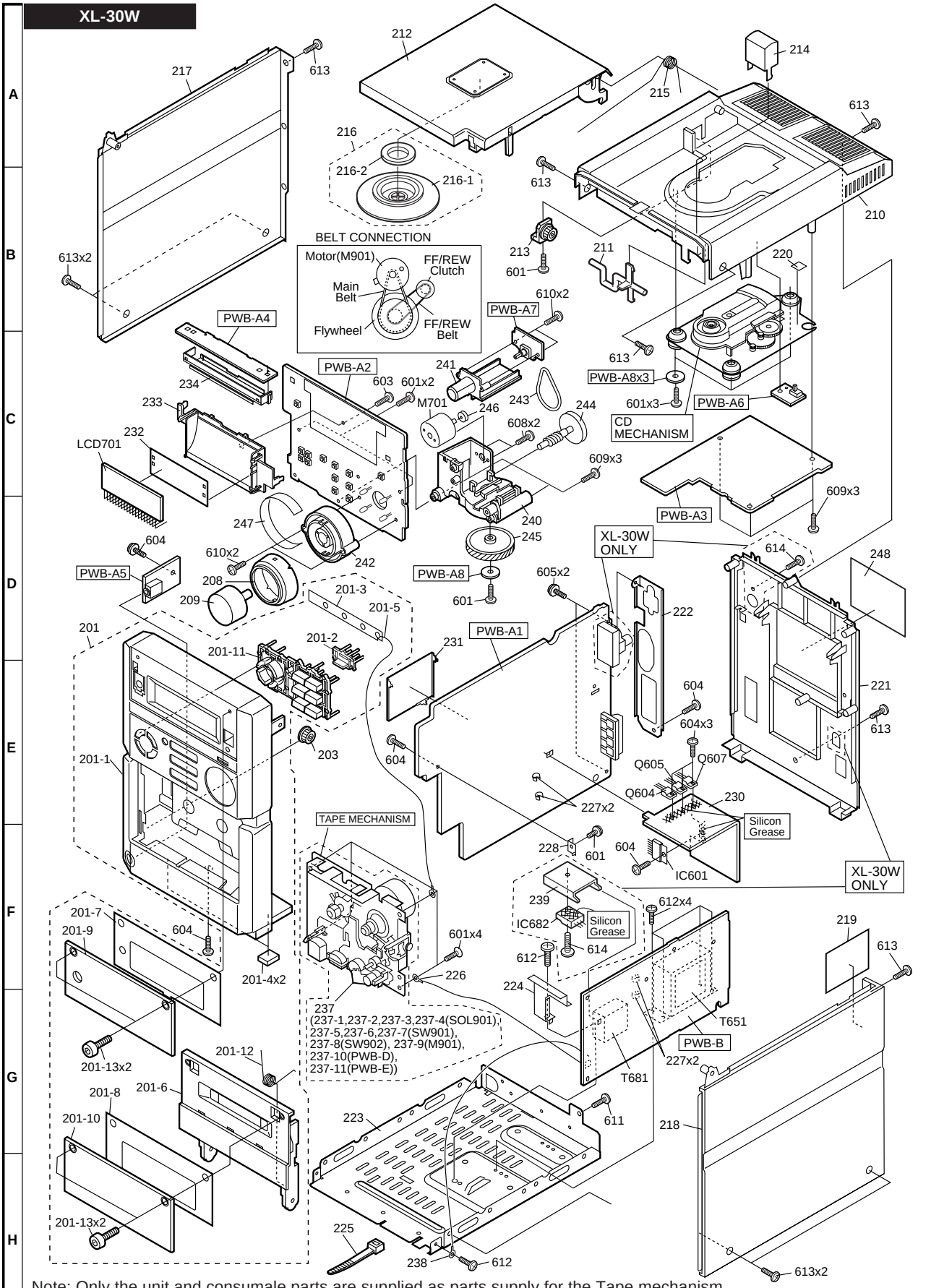


Figure 9 CABINET EXPLODED VIEW (2/2)

CP-XL40H

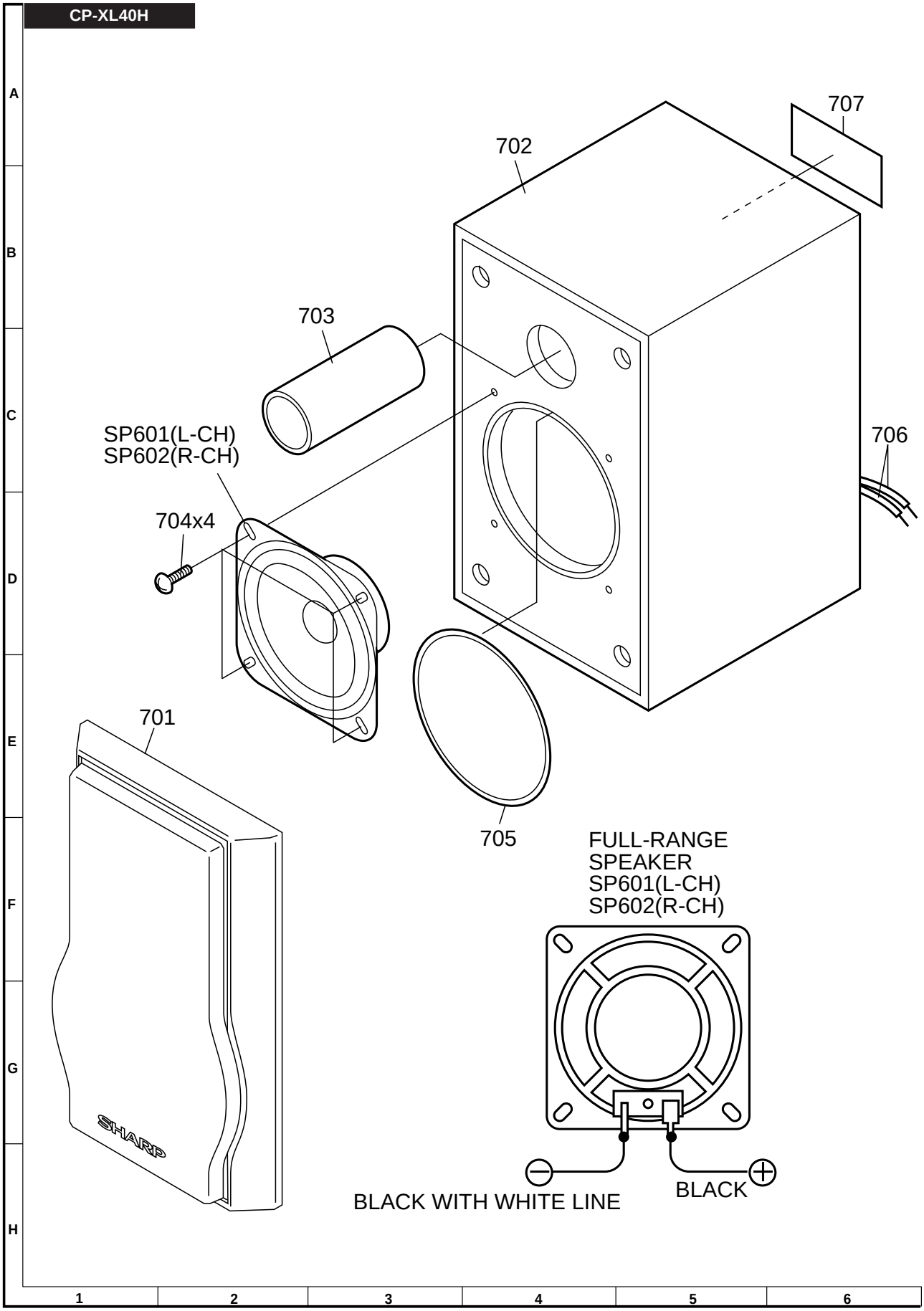


Figure 10 SPEAKER EXPLODED VIEW

PACKING OF METHOD (XL-30H FOR U.K. ONLY)

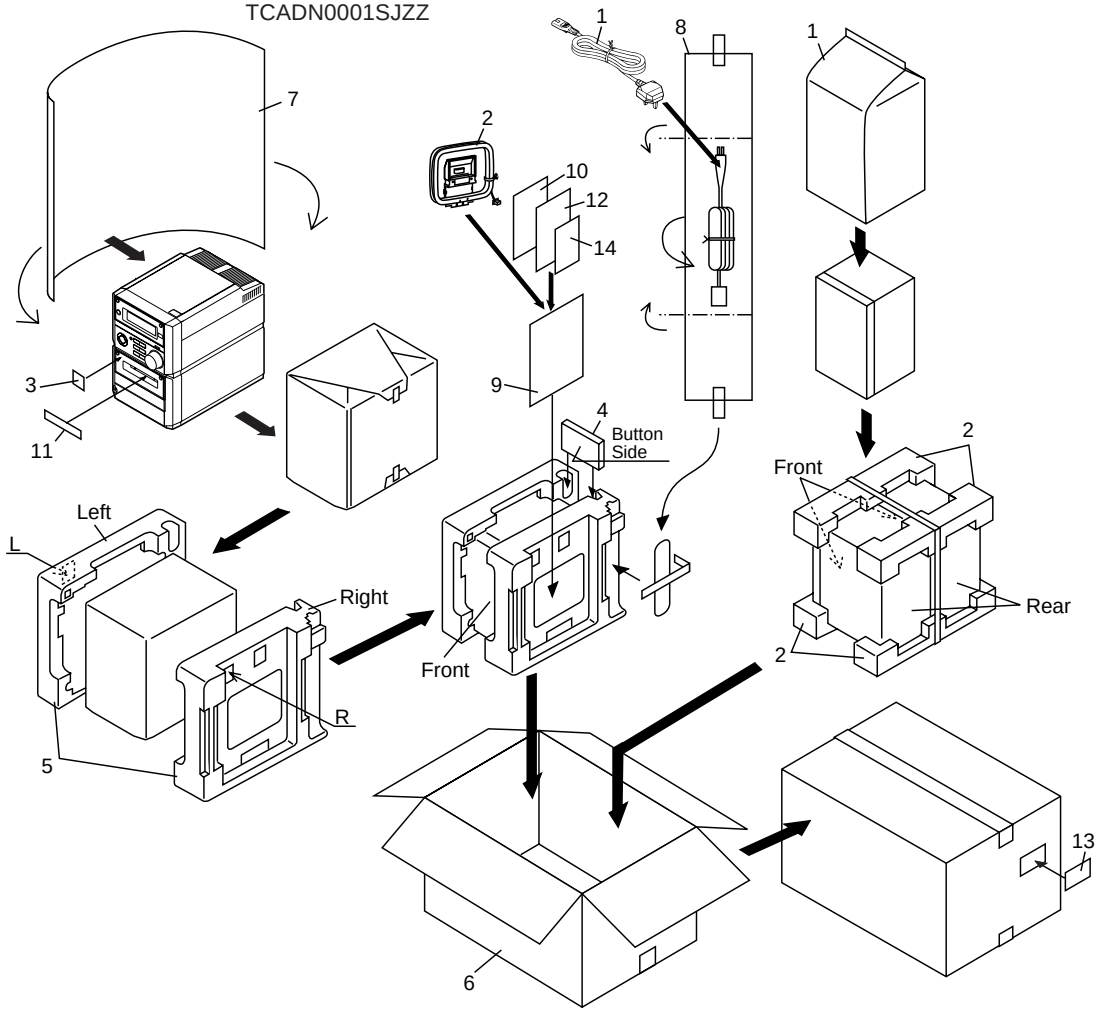
XL-30H

1. AC Power Supply Cord	QACCB0001SJ00
2. AM/FM Loop Antenna	QANTL0003SJZZ
3. Ecology Label	TLABZ0030SJZZ
4. Remote Control	RRMCG0012SJSB
5. Packing Add., Left/Right	SPAKA0042SJZZ
6. Packing Case	SPAKC0109SJZZ
7. Polyethylene Sheet, Unit	SPAKP0002SJZZ
8. Polyethylene Sheet, AC Power Supply Cord	SPAKP0003SJZZ
9. Polyethylene Bag, Accessories	SSAKA0002SJZZ
10. Operation Manual	TiNSE0035SJZZ
11. Feature Label	TLABM0021SJZZ
12. Quick Guide	TiNSE0041SJZZ
13. Bar Code Label, Packing Case	TLABE0054SJ09
14. R-Card	TCADN0001SJZZ

CP-XL40H

1. Polyethylene Bag, Speaker	9GDYFY978B013
2. Packing Add., Top/Bottom, Speaker	SPAKA0044SJZZ

Setting position of switches and knobs	
Tape Mechanism	STOP
Cassette Holder	CLOSE
CD Lid	CLOSE



SHARP

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