XR-1800R

SERVICE MANUAL

AEP Model
UK Model

Model Name Using Similar Mechanism	XR-1800
Tape Transport Mechanism Type	MG-36SZ9-32

SPECIFICATIONS

Cassette player section

Tape track	4-track 2-channel stereo
Wow and flutter	0.13 % (WRMS)
Frequency response	30 – 15,000 Hz
Signal-to- noise ratio	55 dB

Tuner section

FM

Tuning range	87.5 – 108.0 MHz
Aerial terminal	External aerial connector
Intermediate frequency	10.7 MHz
Usable sensitivity	9 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	65 dB (stereo), 68 dB (mono)
Harmonic distortion at 1 kHz	0.7% (stereo), 0.4% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

MW/LW

Tuning range	MW:531 – 1,602 kHz LW:153 – 281 kHz
Aerial terminal	External aerial connector
Intermediate frequency	450 kHz
Sensitivity	MW:30 μV LW:50 μV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	35 W × 4 (at 4 ohms)

General

Output lead	Power aerial relay control lead
Tone controls	Bass ±8 dB at 100 Hz Treble ±8 dB at 10 kHz
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 186 × 57 × 176 mm (w/h/d) not incl. projecting parts and controls
Mounting dimension	Approx. 182 × 53 × 163 mm (w/h/d) not incl. projecting parts and controls
Mass	Approx. 1.2 kg
Supplied accessories	Parts for installation and connections (1 set)

Design and specifications are subject to change without notice.

FM/MW/LW CASSETTE CAR STEREO

MICROFILM

SONY®

TABLE OF CONTENTS

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

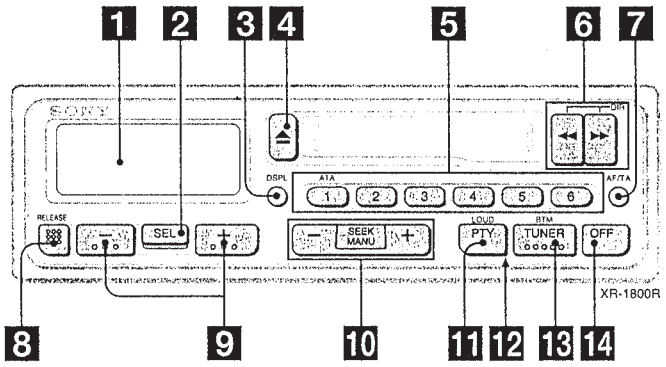
Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

SECTION 1
GENERAL

This section is extracted from instruction manual.

Button locations



EN

Refer to the pages for further details.

1 Display window
2 SEL (control mode select) button 6, 11, 13, 14
3 DSPL (display mode change/time set) button 6, 10
4 ⏏ (eject) button 6
5 During radio reception:
Preset number buttons 8, 9, 11, 12
During tape playback:
① ATA (Automatic Tuner Activation) button 7
6 ◀◀/▶▶ (fast winding)/DIR (tape transport direction change) buttons 6, 7
7 AF/TA (alternative frequency/traffic announcement) button 10, 11, 12
8 RELEASE (front panel release) button 5, 15
9 ⊖⊕ (volume/bass/treble/balance/fader control) buttons 6, 14
10 SEEK/MANU button 7, 8, 10, 13
11 PTY/LOUD (Programme type/loudness) button 13, 14
12 Reset button (located on the front side of the unit hidden by the front panel) 5
Press this button when you use this unit for the first time, when you have changed the car battery, or when the buttons of this unit do not function properly.
13 TUNER/BTM (radio on • band select/Best tuning memory function) button 7, 8, 9, 12
14 OFF button 5

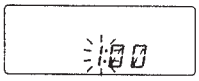
Setting the clock

The clock has a 24-hour digital indication.

For example, setting it to 10:08

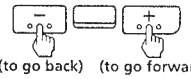
1 Display the time.
(Press DSPL during unit operation.)

2 Press DSPL for more than two seconds.

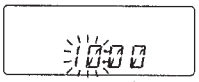


The hour digit blinks.

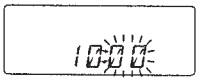
Set the hour digits.



(to go back) (to go forward)



3 Press the SEL button momentarily.

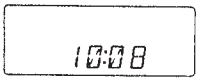


The minute digits blink.

Set the minute digits.

(to go back) (to go forward)

4 Press DSPL momentarily.



The clock starts.

Note
The clock cannot be set unless the power is turned on. Set the clock after you turn on the radio, or during tape playback.

Installation

Precautions

- Choose the installation location carefully so that the unit will not hamper the driver during driving.
- Avoid installing the unit where it would be subject to high temperatures, such as from direct sunlight or hot air from the heater, or where it would be subject to dust, dirt or excessive vibration.
- Use only the supplied mounting hardware for a safe and secure installation.

Mounting angle adjustment

Adjust the mounting angle to less than 20°.

How to detach and attach the front panel

Before installing the unit, detach the front panel.

A To detach

Before detaching the front panel, be sure to press (OFF) to turn off the unit. Then press (RELEASE), slide the front panel a little to the left, and pull it off toward you.

B To attach

Align parts Ⓐ and Ⓑ, and push the front panel until it clicks.

Instalación

Precauciones

- Elija cuidadosamente el lugar de instalación de forma que la unidad no impida la conducción.
- Evita instalar la unidad donde pueda quedar sometida a altas temperaturas. como a la luz solar directa o al aire caliente de calefacción, o a polvo, suciedad, o vibraciones excesivas.
- Para realizar una instalación segura y firme. emplee solamente la ferretería de montaje suministrada.

Ajuste del ángulo de montaje

Ajuste el ángulo de montaje a menos de 20°.

Forma de extraer e instalar el panel frontal

Antes de instalar la unidad, extraiga el panel frontal.

A Para extraerlo

Antes de extraer el panel frontal, cerciórese de presionar (OFF) para desactivar la unidad. Después, presione (RELEASE), desplace ligeramente el panel frontal hacia la izquierda y tire de él hacia usted.

B Para instalarlo

Alinee las partes Ⓐ y Ⓑ y empuje el panel hasta que quede enganchado.

Montering

Att observera

- Var noga vid valet av bilstereons monteringsläge i bilen. Välj lägetså att bilstereon inte utgör ett hinder vid bilkörning.
- Montera inte bilstereon pa platser, där den utsätts för värme, som t. ex. solsken och varmluft, eller där den utsätts för smuts, damm och/eller vibrationer.
- Använd endasr de medföljande monteringstillbehören för att vara säker pa att bilstereon monteras pa säkert och korrekt sätt.

Tillaten monteringsvinkel

Monteringsvinkeln maste vara under 20 grader.

Hur framsidan tas loss/fästs

Ta loss framsidan före bilstereons montering.

A Hur framsidan tas loss

Tryck på (OFF) för att slå av strömmen innan du tar loss frontpanelen. Tryck därefter på (RELEASE) för att öppna frontpanelen. Ta loss frontpanelen genom att lätt skjuta den åt vänster och sedan dra den mot dig.

B Hur framsidan fästs i bilstereon

Fäst delen Ⓑ pa framsidan i delen Ⓐ pa bilstereon. Tryck framsidan mot bilstereon tills det klickar till.

Instalação

Precauções

- Escolha com cuidado um local apropriado para a instalação do aparelho para que não dificulte a condução do veículo.
- Evite instalar o aparelho onde possa estar sujeito a altas temperaturas como, por exemplo, locais expostos a incidência directa dos raios solares, ao calor de um aquecedor, com muito pó, sujidade ou vibração excessiva.
- Utilize somente o jogo de montagem fornecido para efectuar uma o instalação segura.

Ajuste do ângulo de montagem

Ajuste o ângulo de montagem a monos de 20°.

Para retirar e colocar o painel frontal

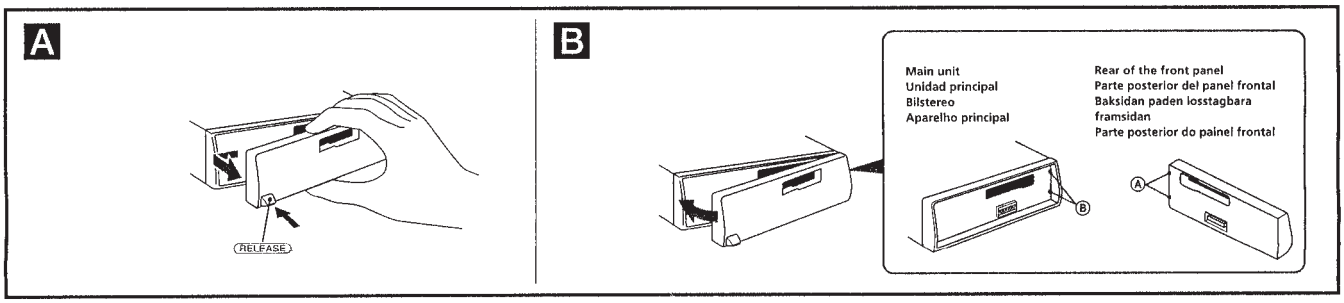
Antes de inciar a insta;ação do aparelho, remova o painel frontal.

A Para remover

Antes de retirar o painel frontal, carregue em (OFF) para desligar o aparelho. A seguir, carregue em (RELEASE), deslize o painel frontal um pouco para a esquerda e retire-o puxando para fora.

B Para colocar

Alinhe as partes Ⓐ e Ⓑ e fixe o painel frontal pressionando-o ate que encaixe.



Mounting Example

Installation in the dashboard

Ejemplo de montaje

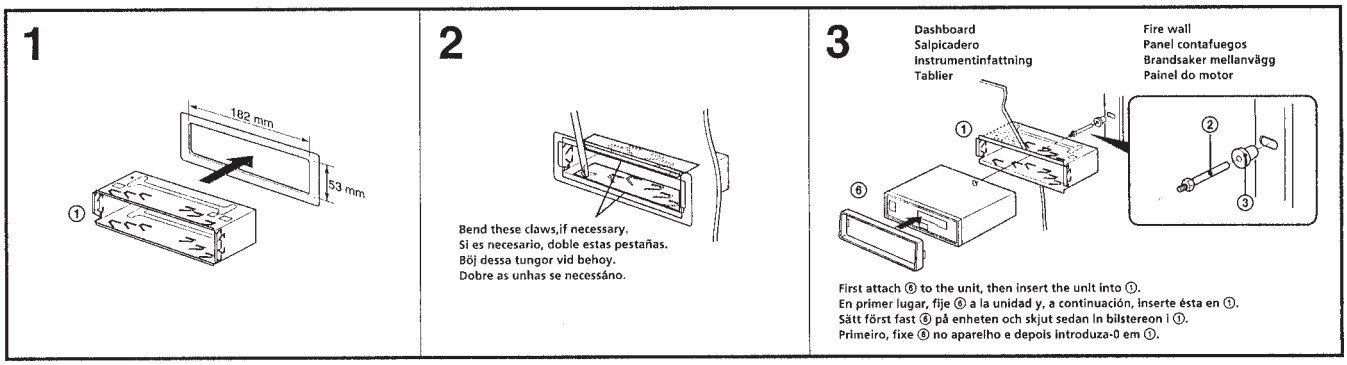
Instalación en el salpicadero

Exempel på monteringssätt

Montering i instrumentinfattning

Exemplo de instalação

Instalação no tablier



Caution

Remove the protection collar ⑥ before installing.

Precaución

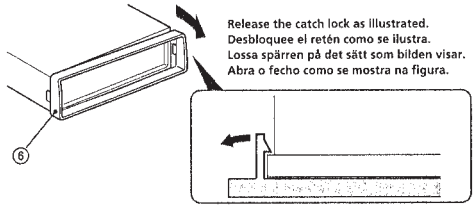
Extraiga el collar de protección ⑥ antes de realizar la instalación.

Varning

Avlägsna skyddsringen ⑥ innan du installerar enheten.

Cuidado

Antes de fazer a instalação retire a fita protectora ⑥.



Connections

Caution

- This unit is designed for negative ground 12 V DC operation only.
- Before making connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Connect the **yellow** and **red** power input leads only after all other leads have been connected.
- Be sure to connect the red power input lead to the positive 12 V power terminal which is energized when the ignition key is in the accessory position.
- **Run all ground wires to a common ground point.**
- Connect the yellow cord to a free car circuit rated higher than the unit's fuse rating. If you connect this unit in series with other stereo components, the car circuit they are connected to must be rated higher than the sum of the individual components' fuse rating. If there are no car circuits rated as high as the unit's fuse rating, connect the unit directly to the battery. If no car circuits are available for connecting this unit, connect the unit to a car circuit rated higher than the unit's fuse rating in such a way that if the unit blows its fuse, no other circuits will be cut off.

Conexiones

Precauciones

- Esta unidad ha sido diseñada para alimentarse con 12 V CC, negativo a masa, solamente.
- Antes de realizar las conexiones, desconecte el conductor de puesta a masa de la batería del automóvil a fin de evitar cortocircuitos.
- Conecte los cables conectores de alimentación **amarillo** y **rojo** solamente después de haber conectado los demás.
- Cerciórese de conectar el cable conectore de alimentación rojo a un terminal de 12 V positivo que se energice al poner la llave de encendido en la posición para accesorios.
- **Conecte todos los conductores de puesta a masa a un punto común.**
- Conecte el cable amarillo a un circuito libre del automóvil de potencia nominal superior a la del fusible de la unidad. Si conecta esta unidad en serie con otros componentes estéreo, la potencia nominal del circuito del automóvil a los que dichos componentes estén conectados debe ser superior a la suma de la potencia nominal del fusible de los componentes. Si no existen circuitos del automóvil de potencia nominal igual a la del fusible de la unidad, conecte ésta directamente a la batería. Si no hay circuitos del automóvil disponibles para conectar esta unidad, conecte la misma a un circuito del automóvil de potencia nominal superior a la del fusible de la unidad de forma que no se desactiven otros circuitos si el fusible de dicha unidad se funde.

Connection example
Conexiones de ejemplo
Kplingsdiagram enligt exempel
Ligações do exemplo

** Note for the aerial connecting*
If your car aerial is an ISO (International Organization for Standardization) type, use the supplied adapter ⑦ to connect it.
First connect the car aerial to the supplied adapter, then connect it to the aerial jack of the master unit.

** Nota sobre la conexión de la antena*
Si la antena del automóvil es del tipo ISO (International Organization for Standardization), emplee el adaptador suministrado ⑦ para conectarla.
En primer lugar, conecte la antena del automóvil al adaptador suministrado y, a continuación, a la toma de antena de la unidad principal.

** Angående antennanslutning*
Om motorantennen är av ISO-typ (International Organization for Standardization), använder du medföljande adapter ⑦ för att ansluta den.
Anslut först motorantennen till medföljande adapter och därefter till antennuttaget på huvudenheten.

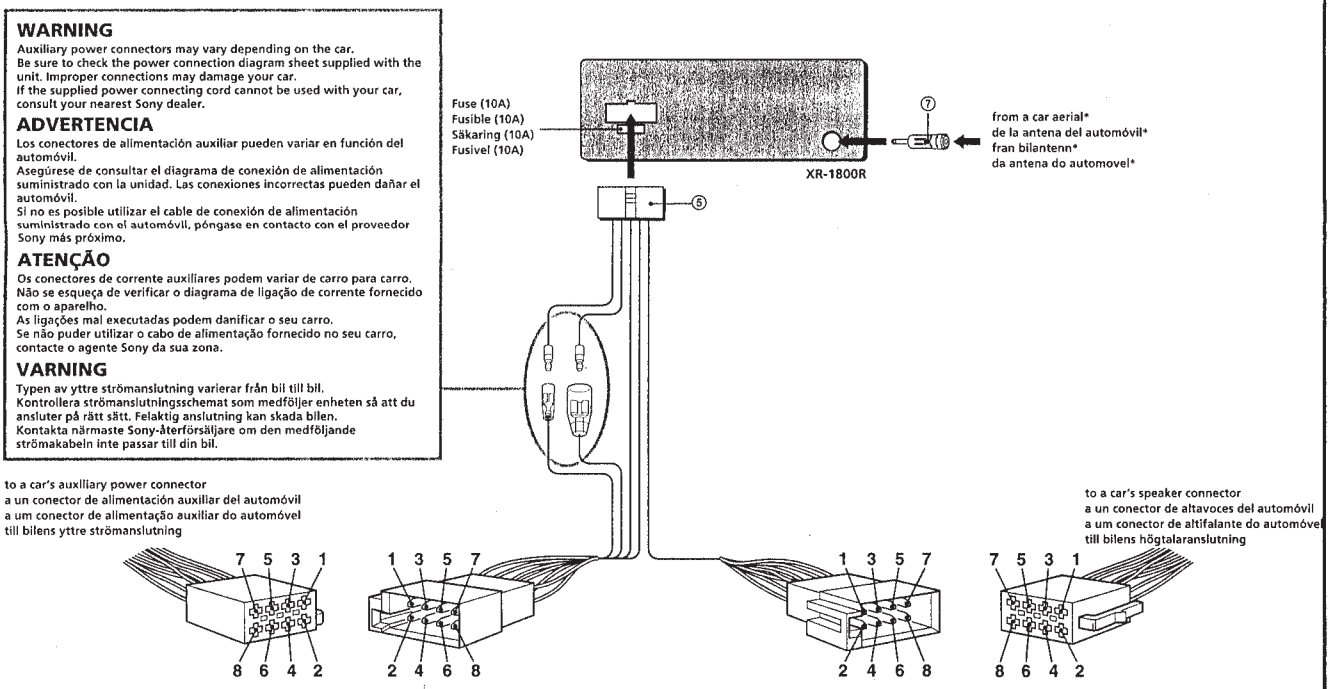
** Nota referente à ligação da antena*
Se a antena do automóvel for uma antena de tipo ISO (International Organization for Standardization), utilize o adaptador fornecido ⑦ para fazer a ligação respectiva.
Ligue primeiro a antena do automóvel ao adaptador fornecido e depois à ficha de antena do sistema principal.

WARNING
Auxiliary power connectors may vary depending on the car.
Be sure to check the power connection diagram sheet supplied with the unit. Improper connections may damage your car.
If the supplied power connecting cord cannot be used with your car, consult your nearest Sony dealer.

ADVERTENCIA
Los conectores de alimentación auxiliar pueden variar en función del automóvil.
Asegúrese de consultar el diagrama de conexión de alimentación suministrado con la unidad. Las conexiones incorrectas pueden dañar el automóvil.
Si no es posible utilizar el cable de conexión de alimentación suministrado con el automóvil, póngase en contacto con el proveedor Sony más próximo.

ATENÇÃO
Os conectores de corrente auxiliares podem variar de carro para carro.
Não se esqueça de verificar o diagrama de ligação de corrente fornecido com o aparelho.
As ligações mal executadas podem danificar o seu carro.
Se não puder utilizar o cabo de alimentação fornecido no seu carro, contacte o agente Sony da sua zona.

VARNING
Typen av yttre strömanslutning varierar från bil till bil.
Kontrollera strömanslutningsschemat som medföljer enheten så att du ansluter på rätt sätt. Felaktig anslutning kan skada bilen.
Kontakta närmaste Sony-återförsäljare om den medföljande strömkabeln inte passar till din bil.



4	Yellow Amarillo Gul Amarelo	continuous power supply suministro de alimentación continua kontinuerlig strömförsörjning alimentação de corrente contínua	7	Red Rojo Röd Vermelho	switched power supply suministro de alimentación conmutado switchad strömförsörjning alimentação de corrente comutada
5	Blue Azul Blå Azul	power aerial control antena eléctrica elektrisk antenn antena eléctrica	8	Black Negro Svart Preto	earth toma de tierra jord Terra

Positions 1, 2 ,3 and 6 do not have pins.
Las posiciones 1, 2 ,3 y 6 no disponen de pines.
As posições 1, 2, 3 e 6 não têm pinos.
Positionerna 1, 2, 3 och 6 saknar stift.

1	Purple Púrpura	+	Speaker, Rear, Right Altavoz, trasero, derecho Högtalare, bakre, höger Altifalante, Parte de trás, Direito	5	White Blanco Vit Branco	+	Speaker, Front, Left Altavoz, delantero, izquierdo Högtalare, främre, vänster Altifalante, Parte da frente, Esquerdo
2	Mörklila Violeta	–	Speaker, Rear, Right Altavoz, trasero, derecho Högtalare, bakre, höger Altifalante, Parte de trás, Direito	6		–	Speaker, Front, Left Altavoz, delantero, izquierdo Högtalare, främre, vänster Altifalante, Parte da frente, Esquerdo
3	Grey Gris Grå Cinza	+	Speaker, Front, Right Altavoz, delantero, derecho Högtalare, främre, höger Altifalante, Parte da frente, Direito	7	Green Verde Grön Verde	+	Speaker, Rear, Left Altavoz, trasero, izquierdo Högtalare, bakre, vänster Altifalante, Parte de trás, Esquerdo
4		–	Speaker, Front, Right Altavoz, delantero, derecho Högtalare, främre, höger Altifalante, Parte da frente, Direito	8		–	Speaker, Rear, Left Altavoz, trasero, izquierdo Högtalare, bakre, vänster Altifalante, Parte de trás, Esquerdo

Negative polarity positions 2, 4, 6, and 8 have striped cords.
Las posiciones de polaridad negativa 2, 4, 6 y 8 tienen cables con raya.
As posições 2, 4, 6 e 8 (polaridade negativa) têm cabos às riscas.
De negativa polpositionerna 2, 4, 6 och 8 har randiga kablar.

Anslutningarna

Att observera

- Denna bilstereo är endast avsedd för anslutning till ett negativt jordat, 12 V bilbatteri.
- Allra första steget före anslutningarna: koppla ur kabeln från bilbatteriets jordpol för att förebygga kortslutningar.
- Anslut den **gula** och den **röda** strömkabeln allra sist efter anslutning av samtliga andra kablar.
- Var noga med att ansluta den röda strömkabeln till det positiva 12 volts strömuttag som blir spänningsförande när tändlåset vrids till läget ACC för tillbehörens påslag.
- **Dra samtliga jordledningar till en och samma jordningspunkt.**
- Anslut den gula kabeln till en ledig bilkrets med en högre ampere än enhetens. Om du seriekopplar enheten till andra stereokomponenter måste den bilkrets de kopplas till ha en högre ampere än summan av de enskilda delarnas amperestyrka. Om det inte finns några bilkretsar med en så hög amperestyrka som enhetens ska du ansluta enheten direkt till batteriet. Om inga bilkretsar finns för anslutning till enheten ska du ansluta enheten till en bilkrets med en högra ampere än enhetens styrka så att inga andra säkringar går om enhetens säkring smälter.

Ligações

Advertência

- Este aparelho foi projectado para funcionar somente com 12 V CC, massa negativa.
- Antes de efectuar as ligações, desligue o terminal terra da bateria do automóvel para evitar curto-circuitos.
- Ligue os fios **vermelho** e **amarelo** de ligação de alimentação somente após a ligação de todos os outros fios.
- Assegure-se de ligar o fio vermelho de ligação de alimentação ao terminal de alimentação 12 V positivo que está energizado quando a chave de ignição encontra-se na posição acessórios.
- **Ligue todos os fios terra num ponto comum na carroçaria.**
- Ligue o cabo amarelo a um circuito eléctrico livre do automóvel, cuja tensão seja superior à dos fusíveis do aparelho. Se ligar este aparelho em série com outros componentes estéreo, a tensão do circuito eléctrico do automóvel onde os ligar tem de ser superior à soma das tensões dos fusíveis de todos os componentes individuais. Se não houver nenhum circuito eléctrico do automóvel com uma tensão tão elevada como a dos fusíveis do aparelho, ligue-o directamente à bateria. Se não estiver disponível nenhum circuito eléctrico do automóvel para ligação deste aparelho, ligue-o a um circuito eléctrico do automóvel com uma tensão superior à dos fusíveis do aparelho, de tal modo que, se o aparelho rebentar os fusíveis respectivos, nenhum outro circuito seja cortado.

Notes on the control leads

- *The power aerial control lead (blue) supplies +12 V DC when you turn on the tuner or when you activate the ATA (Automatic Tuner Activation), AF (Alternative Frequency), the TA (Traffic Announcement).*
- *A power aerial without relay box cannot be used with this unit.*

Notes on speaker connections

- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.*
- *Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.*
- *Do not connect the speakers in parallel.*
- *Do not connect any active speakers (with built-in amplifiers) to the speaker terminals of the unit. Doing so may damage the active speakers. Therefore, be sure to connect passive speakers to these terminals.*

Notas sobre conductores de control

- *El conductor de control (azul) de la antena motorizada suministra + 12 V CC al activar el sintonizar o la función ATA (activación automática del sintonizador), AF (frecuencias alternativas), TA (anuncios de tráfico).*
- *Con esta unidad no podrá emplearse una antena motorizada desprovista de caja de relé.*

Notas sobre la conexión de los altavoces

- *Emplee altavoces con una impedancia de 4 a 8 ohmios, y con la capacidad máxima de potencia adecuada. De lo contrario, los altavoces podrían dañarse.*
- *No conecte los terminales del sistema de altavoces al chasis del automóvil, ni los del altavoz derecho a los del izquierdo.*
- *No intente conectar los altavoces en paralelo.*
- *No conecte altavoces activos (con amplificador incorporado) a los terminales de altavoces de la unidad. Si lo hiciese podría dañar dichos altavoces. Por lo tanto, cerciórese de conectar altavoces pasivos a estos terminales.*

Att observera angaende de olika styrkablarna

- *Motorantennens styrkabel (blå) leder + 12 volts likström när kanalväljaren slås på eller när radiomottagningsautomatik ATA, mottagning av alternativa frekvenser AF, mottagning av trafikmeddelanden TA eller uppspelning.*
- *En motorantenn utan styrreläàdosa kan inte anslutas till denna bilstereo.*

Att observera angaende högtalarnas anslutningar

- *Anslut endast högtalare. vilkas impesanser varierar fran 4 till 8 ohm och som har tillräcklig ineffektkapacitet, för att skydda högtalarna mot skador.*
- *Anslut inte något av högtalarintagen pa högtalarna till bilens underrede. Anslut inte heller intagen pa höger högtalare till intagen pa vänster högtalare.*
- *Anslut inte högtalarna parallellt.*
- *Anslut inte aktiva högtalare (med inbyggda slutsteg) till högtalaruttagen pa bilstereon. Det kan skada de aktiva högtalarna. Var därför noga med att ansluta passiva högtalare till högtalaruttagen.*

Notas sobre os fios de controlo

- *O fio de controlo da antena eléctrica (azul) fornece +12 V CC quando ligar o sintonizador ou quando activar as funções ATA (Activação automática do sintonizador), AF (frequência alternativa), TA (Informações de trânsito).*
- *Uma antena eléctrica sem um relé não pode ser utilizada com este aparelho.*

Notas quanto à ligação dos altifalantes

- *Utilize altifalantes com impedância de 4 a 8 ohm, e com capacidade máxima de potência adequada. Caso contrario, os altifalantes poderão sofrer avarias.*
- *Não ligue os terminais do sistema de altifalantes ao chassis do automovel, e não ligue os terminais dos altifalante direito aos terminais dos altifalante esquerdo.*
- *Não ligue os altifalantes em paralelo.*
- *Não ligue nenhum sistema de altifalantes activos (com amplificadorres incorporados) aos terminais dos altifalantes do aparelho. Caso o faça, poderá avariar o sistema de altifalantes activos. Portanto, assegure-se de que ligou altifalantes passivos a estes terminais.*

Reset button

When the installation and connections are complete, be sure to press the reset button with a ballpoint pen etc.

Nollställningsknappen

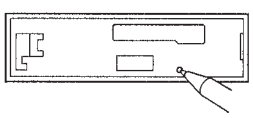
Kom ihåg att använda en penna eller något annat spetsigt föremål för att trycka på nollställningsknappen när anslutningen och monteringen är klar.

Botón de reposición

Cuando finalice la instalación y las conexiones, cerciórese de presionar el botón de reposición con un bolígrafo, etc.

Botão de reinicialização

Quando terminar a instalação e as ligações, não se esqueça de carregar no botão de reinicialização com a ponta de uma caneta, etc.



Power Connection Diagram

Auxiliary power connector may vary depending on the car. Check your car's auxiliary power connector diagram to make sure the connections match correctly. There are three basic types (illustrated below). You may need to switch the positions of the red and yellow leads in the car stereo's power connecting cord. After matching the connections and switched power supply leads correctly, connect the unit to the car's power supply. If you have any questions and problems connecting your unit that are not covered in this manual, please consult the car dealer.

Troubleshooting Guide

The following check will assist in the correction of most problems which you may encounter with your unit. Before going through the check list below, refer to the connection and operating procedures.

Problem	Cause
• Memorized stations and correct time are erased. • The fuse has blown. • Makes noise when the ignition key is the ON, ACC and OFF positions.	Leads are not matched correctly with the car's accessory power connector.
• No power is being supplied to the unit. • The power is continuously supplied to the unit.	The car doesn't have an ACC position.
The power antenna does not extend.	The power antenna does not have a relay box.

Schéma pro zapojení proudu

Pomocný konektor pro zdroj proudu může být závislý na modelu auta. Podle schéma pro zapojení pomocného konektoru pro zdroj proudu k vašemu autu zkontrolujte, jestli je zapojení správné. Existují tři základní druhy (ilustrace níže). Případně je zapotřebí, abyste zaměnili zapojení červeného a žlutého kabelu v kabelu pro přívod proudu do autorádia.
Po zakončení všech zapojení a správném zapojení kabelu pro přívod proudu zapojte přístroj na zdroj proudu. Jestliže máte další otázky nebo jestliže se vyskytnou problémy v souvislosti s vaším přístrojem, které nejsou popsány v tomto návodu, obraťte se na vaši autodílnu.

Případné poruchy a jejich odstranění

Následující přehled vám pomůže odstranit většinu závad, se kterými se případně při obsluze vašeho přístroje setkáte. Než si přečtete následující přehled, seznamte se s instrukcemi pro napojení a obsluhu.

Problém	Důvod
• Stanice, uložené do paměti a správný čas josu smazány. • Pojistka praskla. • Při otáčení klíčku od zapalování do všech třech poloh se ozývají šumy.	Kabely nedpovídají přesně konektoru pro zapojení přívodu proudu.
• Do přístroje není přiváděn žádný proud. • Přístroj je neustále pod proudem.	Auto nemá mezipolohu pro klíček od zapalování.
Elektrická anténa nefunguje.	Elektrická anténa nemá relé.

Schemat Podłączeń Zasilania

Rodzaj pomocniczego łącza zasilania zależ y od typu pojazdu. Proszę sprawdzić w samochodowym schemacie łączy zasilania, aby zapewnić właściwe dopasowanie połączeń. Poniżej zilustrowano trzy podstawowe typy (patrz ilustracja). Konieczna może być zmiana pozycji czerwonego i żółtego przewodu łączeniowego w kablu zasilania dla samochodowego zestawu stereo.
Po dopasowaniu podłączeń do przewodów zasilania prądem, proszę podłączyć sprzęt do samochodowego źródła zasilania. W przypadku ewentualnych wątpliwości lub trudności z podłączeniem sprzętu, których nie opisano w podręczniku, proszę skonsultować się z punktem sprzedaży pojazdu.

Διάγραμμα Σύνδεσης Τροφοδοσίας

Οι υποδοχές τροφοδοσίας διαφέρουν ανάλογα με το αυτοκίνητο. Ελέγξτε το διάγραμμα της υποδοχής τροφοδοσίας του αυτοκινήτου σας, για να βεβαιωθείτε ότι οι συνδέσεις ταιριάζουν απόλυτα. Υπάρχουν τρεις βασικοί τύποι (απεικονίζονται παρακάτω). Ίσως χρειαστεί να αλλάξετε τις θέσεις του κόκκινου και κίτρινου αγωγού στο καλώδιο τροφοδοσίας του στερεοφωνικού του αυτοκινήτου.
Αφού εκτελέσετε σωστά όλες τις συνδέσεις και ταιριάξετε τα καλώδια της διακοπτόμενης τροφοδοσίας, συνδέστε τη συσκευή με την τροφοδοσία του αυτοκινήτου. Εάν έχετε κάποιες απορίες και προβλήματα στη σύνδεση της συσκευής σας, τα οποία δεν αναφέρονται σε αυτό το εγχειρίδιο, απευθυνθείτε στην αντιπροσωπεία του αυτοκινήτου σας.

Usuwanie usterek

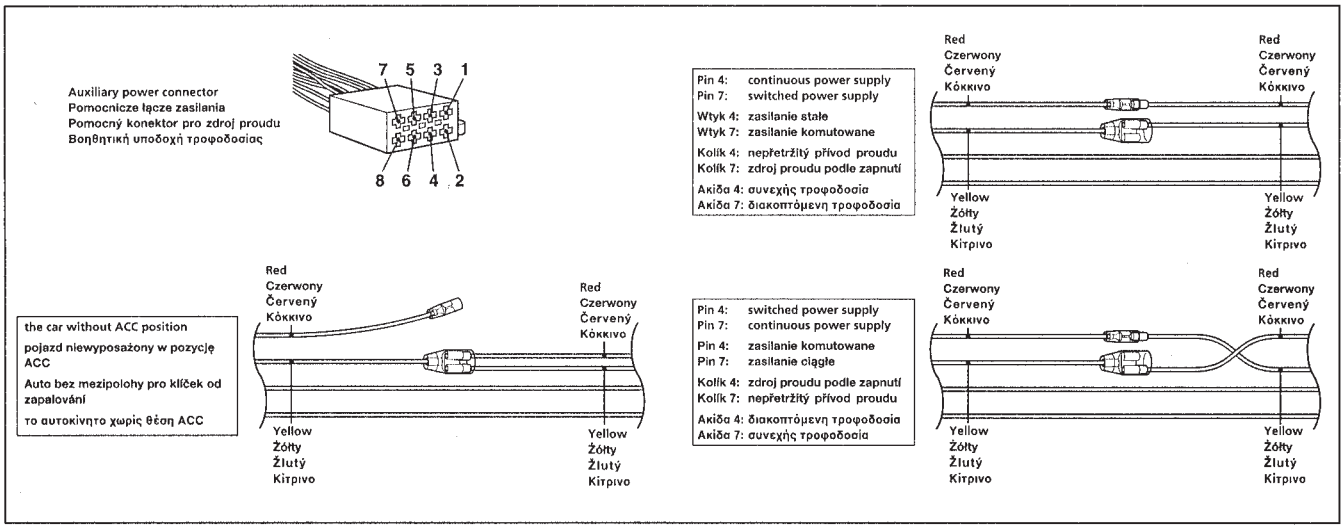
Niżej podana lista kontrolna służy jako pomoc w usuwaniu większości ewentualnych usterek, które mogą wystąpić podczas eksploatacji sprzętu. Przed skorzystaniem z listy kontrolnej, zaleca się sprawdzenie instrukcji operacyjnych sprzętu.

Usterka	Przyczyna
• Zakodowane w pamięci stacje nadawcze i godziny zostały wymazane. • Przepalił się bezpiecznik. • Występowanie szumów gdy kluczyk stacyjki znajduje się w pozycjach ON, ACC i OFF.	Nieprawidłowo dopasowane przewody do samochodowego, pomocniczego łącza zasilania.
• Do sprzętu nie dochodzi zasilanie. • Stałe zasilanie sprzętu.	Pojazd nie wyposażony w pozycję ACC.
Automatyczna antena nie wysuwa się.	Brak skrzynki przekaźnikowej przy sterowaniu automatyczą anteną.

Οδηγός αντιμετώπισης προβλημάτων

Οι επόμενοι έλεγχοι θα σας βοηθήσουν να αντιμετωπίσετε τα περισσότερα από τα προβλήματα που ενδεχομένως θα αντιμετωπίσετε με τη συσκευή σας. Πριν μελετήσετε την παρακάτω λίστα ελέγχων, ανατρέξτε στις διαδικασίες χειρισμού και συνδέσεων.

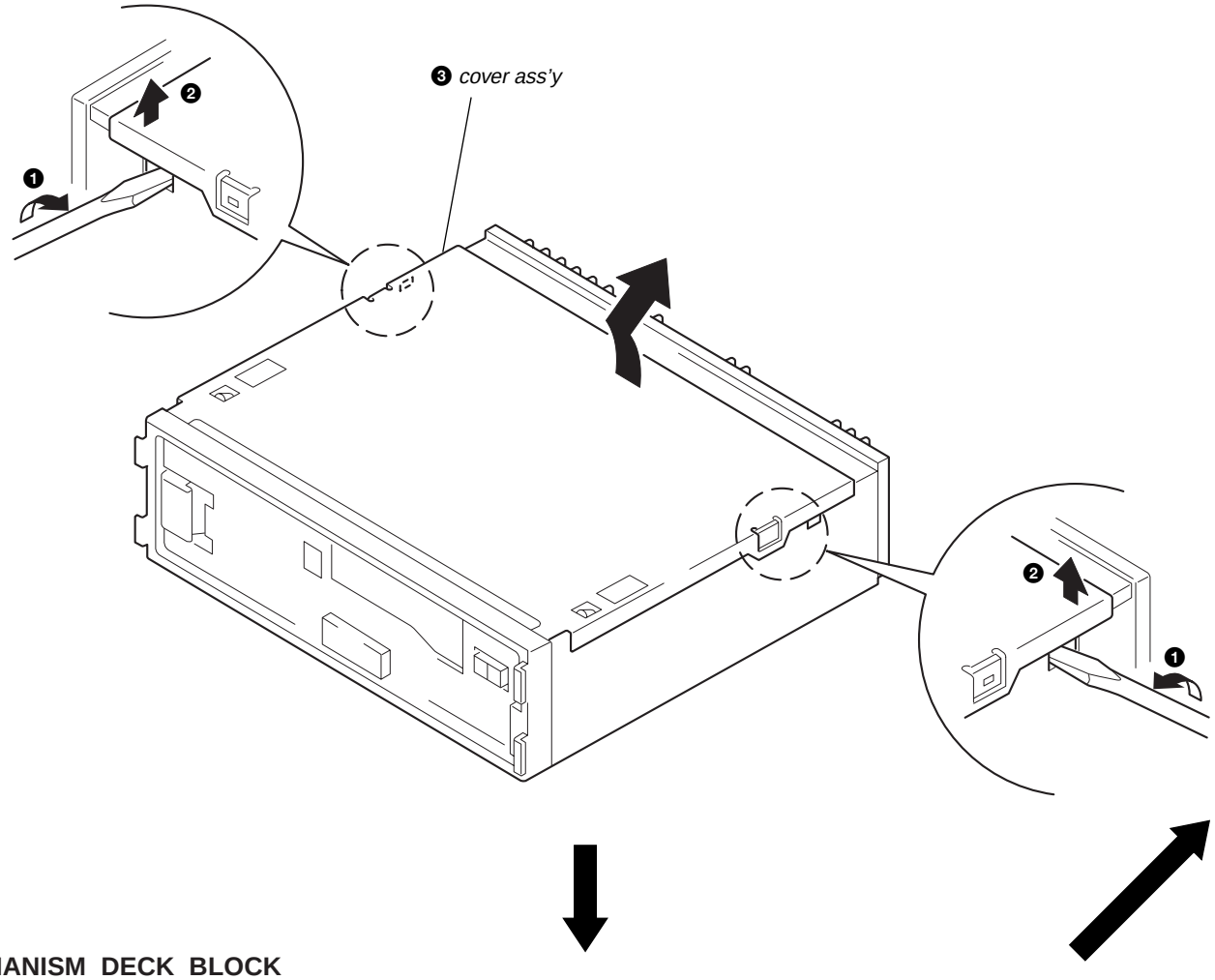
Πρόβλημα	Αιτία
• Οι αποθηκευμένοι στη μνήμη σταθμοί και η σωστή ώρα έχουν σβηστεί. • Η ασφάλεια έχει καεί. • Κάνει θόρυβο όταν το κλειδί εκκίνησης βρίσκεται στις θέσεις ON, ACC και OFF.	Τα καλώδια δεν ταιριάζουν στην υποδοχή τροφοδοσίας του αυτοκινήτου.
• Η συσκευή δεν τροφοδοτείται με ρεύμα. • Η συσκευή τροφοδοτείται συνεχώς με ρεύμα.	Το αυτοκίνητο δεν έχει θέση ACC.
Η ηλεκτρική κεραία δεν ανοίγει.	Η ηλεκτρική κεραία δεν έχει κουτί ρελέ.



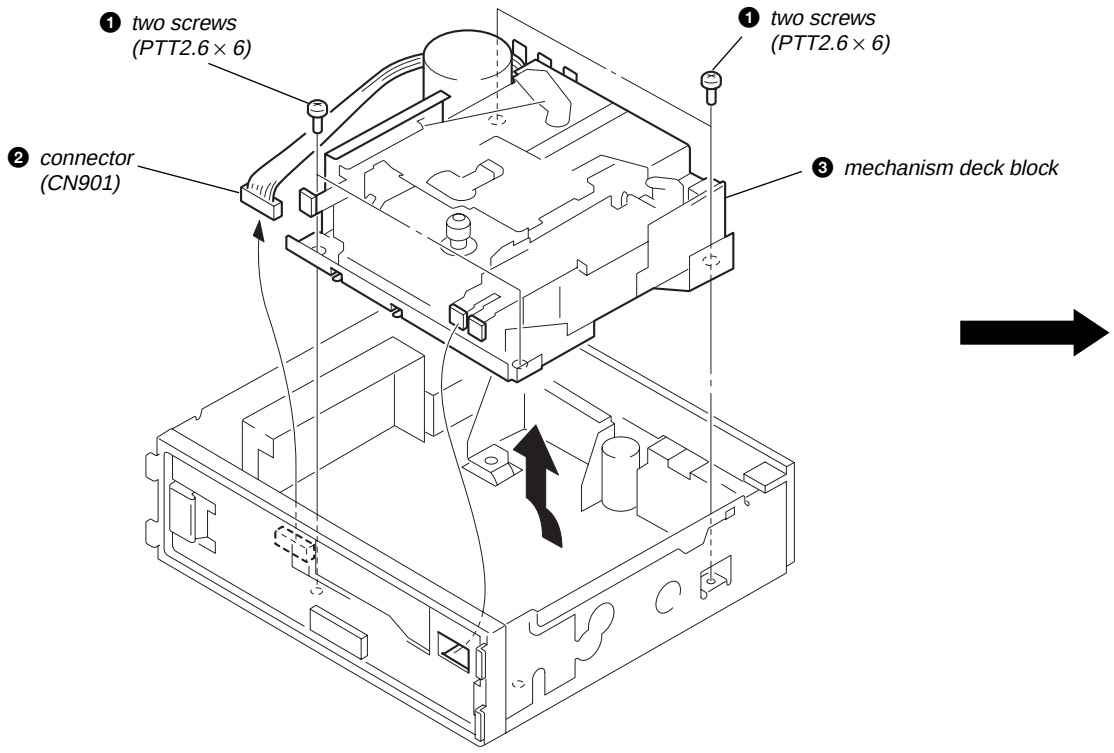
SECTION 2
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

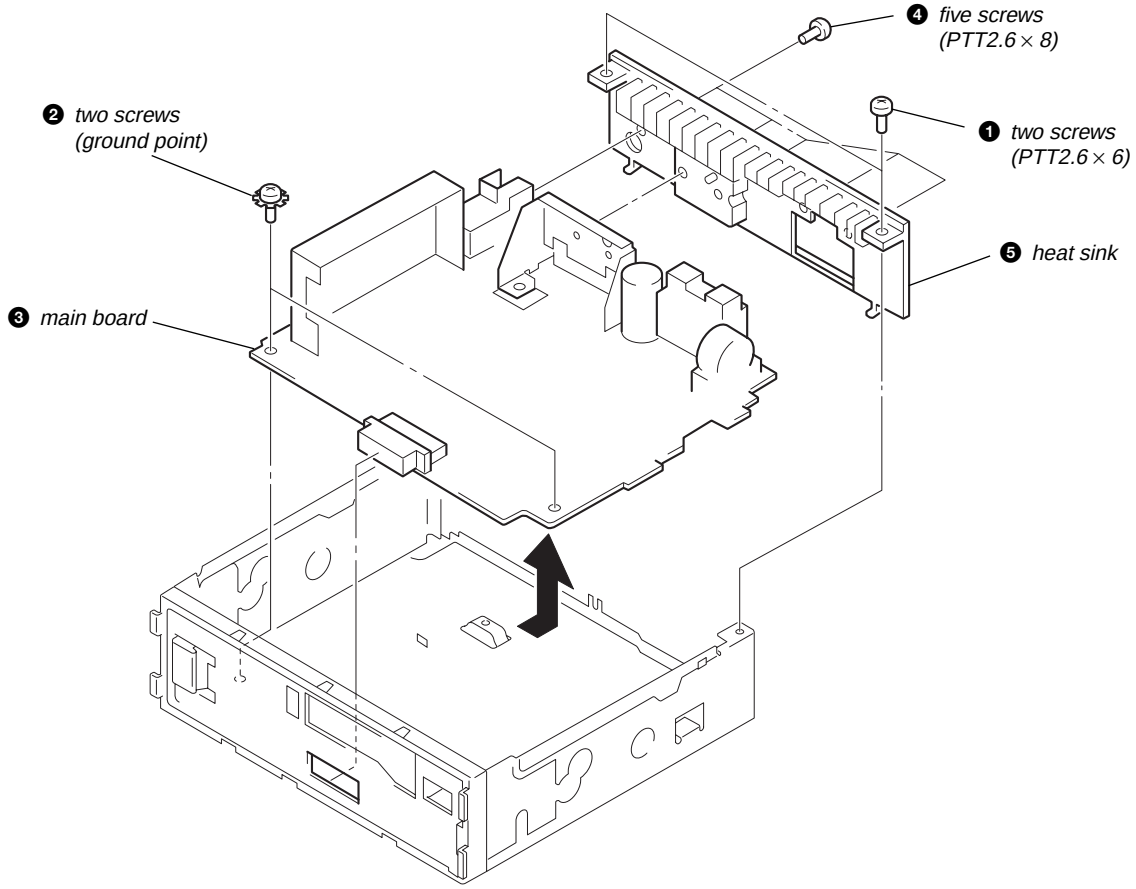
COVER ASS'Y



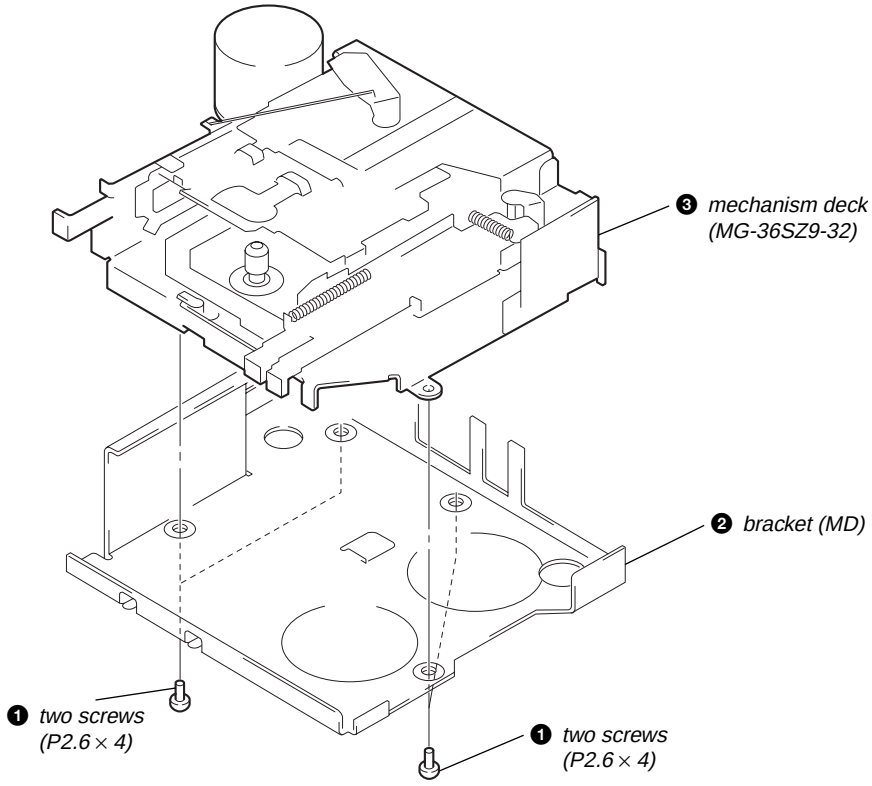
MECHANISM DECK BLOCK



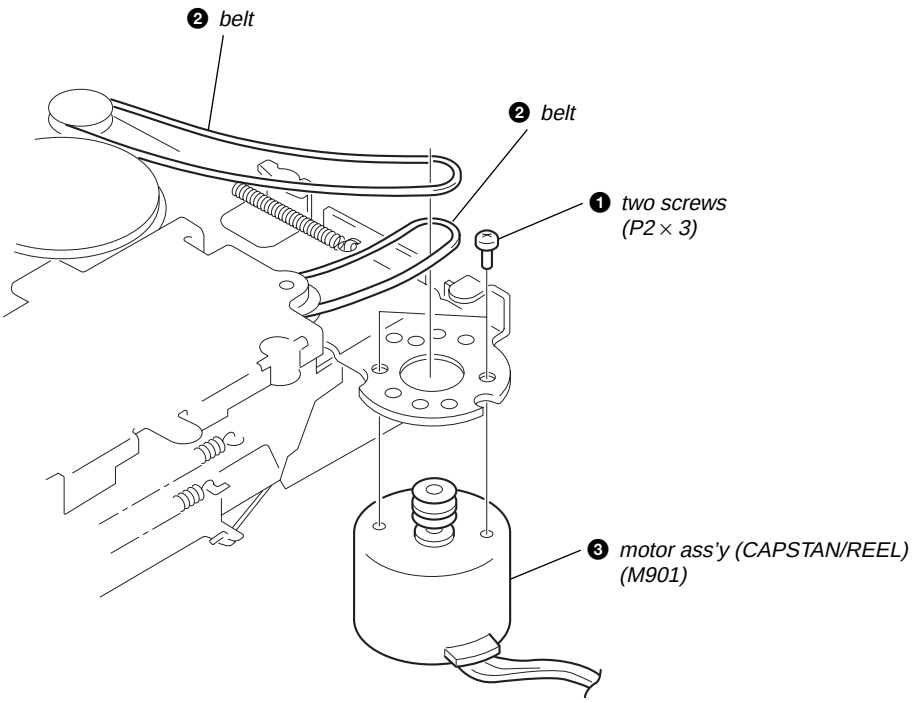
MAIN BOARD, HEAT SINK



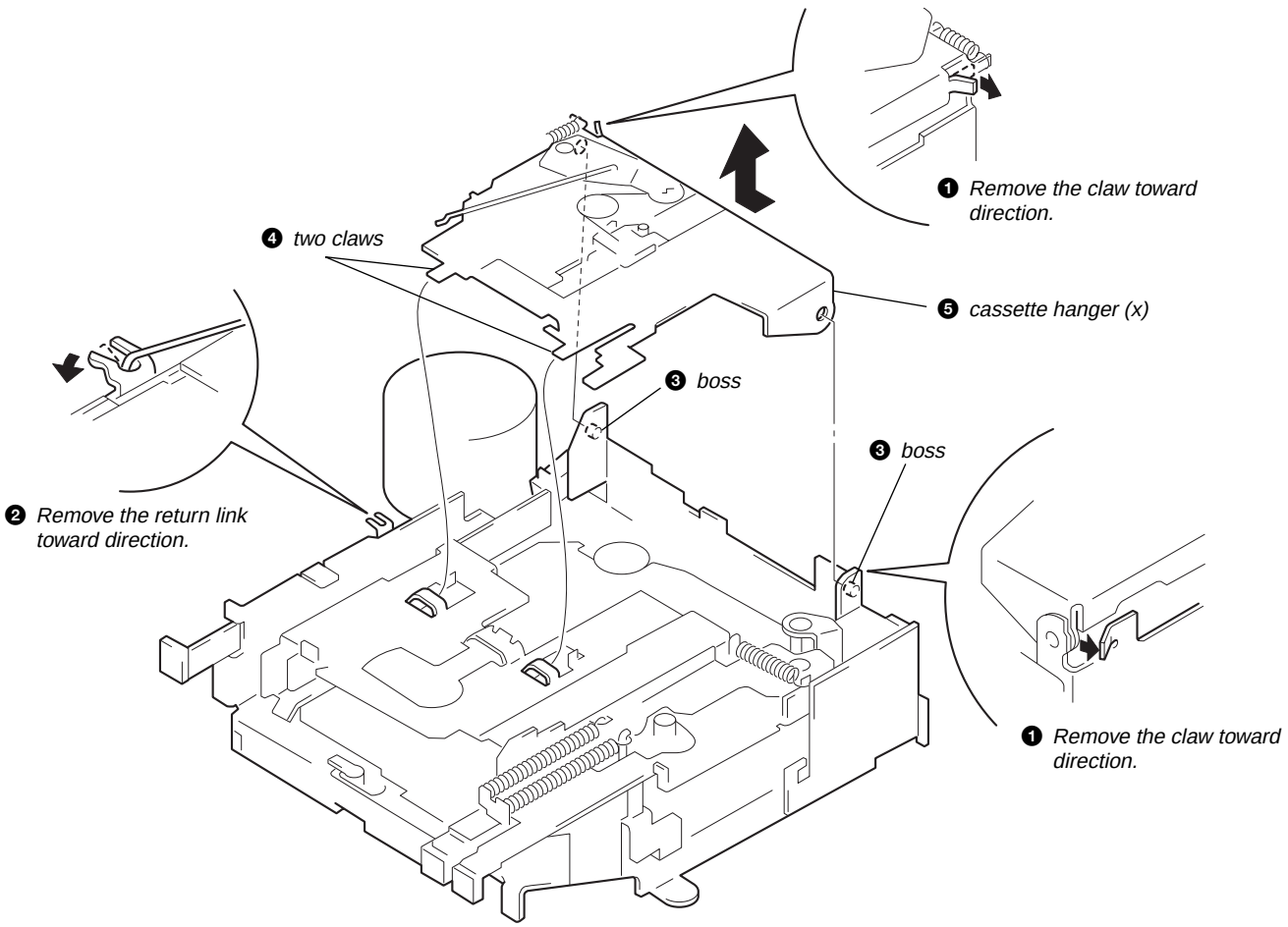
MECHANISM DECK
(MG-36SZ9-32)



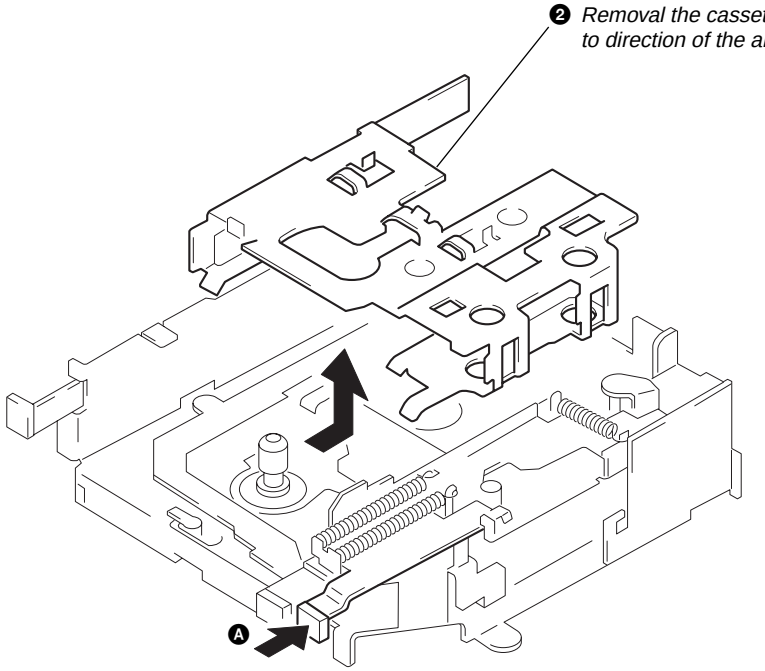
MOTOR ASS'Y (CAPSTAN/REEL) (M901)



CASSETTE HANGER (X)



CASSETTE HOLDER (X)



❶ *Push an arrow Ⓐ part.*

SECTION 3
MECHANICAL ADJUSTMENTS

1. Clean the following parts with a denatured-alcohol-moistened swab:
   playback head pinch roller
   rubber belt capstan
   idler
2. Demagnetize the playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. The adjustments should be performed with the power supply voltage (14.4 V) unless otherwise noted.

• Torque Measurement

Mode	Torque Meter	Meter Reading
Forward	CQ-102C	25 – 55 g•cm (0.35 – 0.76 oz•inch)
Forward Back Tension	CQ-102C	1.5 – 4 g•cm (0.02 – 0.06 oz•inch)
Reverse	CQ-102RC	25 – 55 g•cm (0.35 – 0.76 oz•inch)
Reverse Back Tension	CQ-102RC	1.5 – 4 g•cm (0.02 – 0.06 oz•inch)
FF, REW	CQ-201B	50 – 150 g•cm (0.69 – 2.08 oz•inch)

• Tape Tension Measurement

Mode	Tension Meter	Meter Reading
Forward	CQ-403A	more than 60 g
Reverse	CQ-403R	(more than 2.12 oz)

SECTION 4
ELECTRICAL ADJUSTMENTS

TAPE DECK SECTION | 0 dB= 0.775 V

1. The adjustments should be performed in the order given in this service manual.
2. The adjustments should be performed for both L-CH and R-CH.

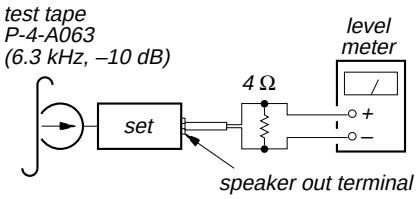
Test Tape

Type	Signal	Used for
P-4-A063	6.3 kHz, –10 dB	head azimuth adjustment
WS-48A	3 kHz, 0 dB	tape speed adjustment

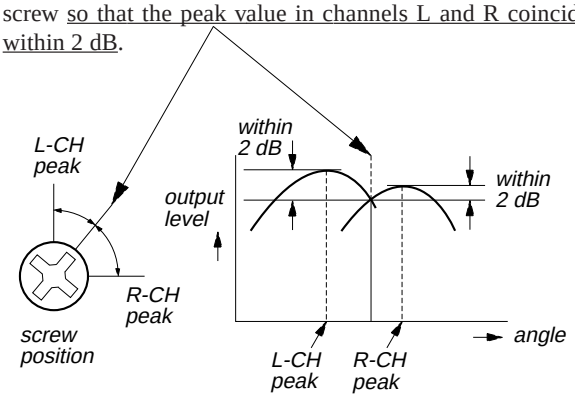
PB Head Azimuth Adjustment

Procedure:

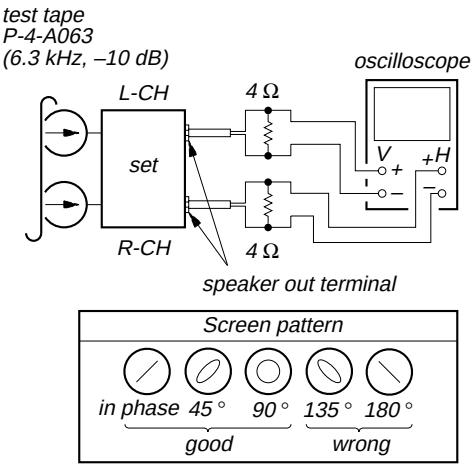
1. Put the set into the FWD PB mode.



2. Turn the screw and check the output peak value. Adjust the screw so that the peak value in channels L and R coincides within 2 dB.

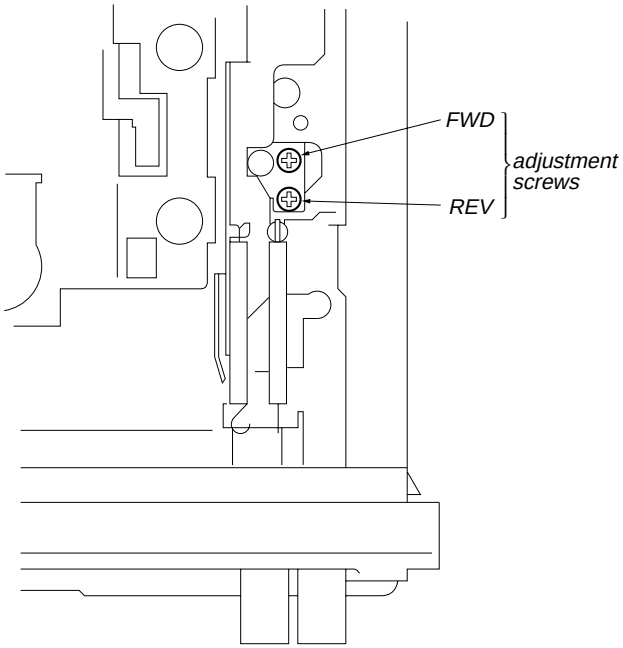


3. Check the phase in the FWD PB mode.



4. Repeat the above adjustment for the REV PB mode.
5. Check that output level difference between FWD PB mode and REV PB mode is within 4 dB.

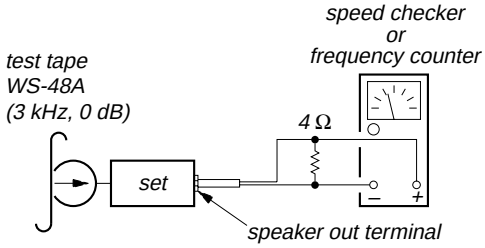
Adjustment Location: PB head



See the adjustment location from on page 16 for the adjustment.

Tape Speed Adjustment

Setting:



Procedure:

1. Put the set into the FWD PB mode.
2. Adjust adjustment resistor for inside capstan motor so that the reading on the speed checker or frequency counter becomes in specification.

Specification: Constant speed

Speed checker	Frequency counter
–2 to +3%	2,940 to 3,090 Hz

Adjustment Location: See page 16.

TUNER SECTION

0 dB=1 µV

Cautions during repair

When the tuner unit is defective, replace it by a new one because its internal block is difficult to repair.

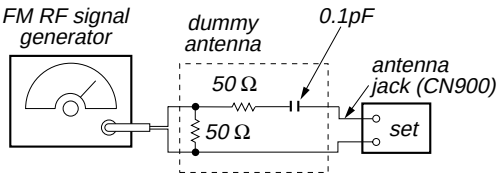
Note: Adjust the tuner section in the sequence shown below.

1. FM Auto Scan/Stop Level Adjustment
2. FM Noise Focus Adjustment
3. FM Stereo Separation Adjustment
4. FM Signal Meter Adjustment
5. MW Auto Scan/Stop Level Adjustment

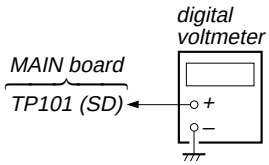
FM Auto Scan/Stop Level Adjustment

Setting:

TUNER button: FM 1



Carrier frequency : 98.0 MHz
Output level : 28 dB (25.1 µV)
Mode : mono
Modulation : 1 kHz, 22.5 kHz deviation (30%)



Procedure:

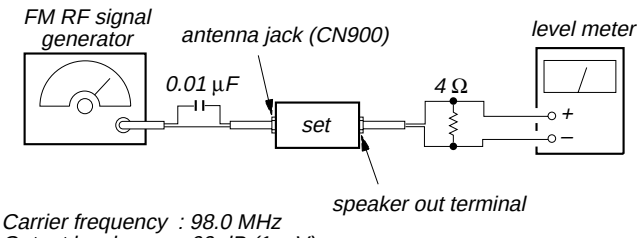
1. Tune the set to 98.0 MHz.
2. Connect the digital voltmeter to TP101 (SD) on MAIN board.
3. Adjust RV2 on TU100 so that the reading on the digital voltmeter changes point from low to high.

Adjustment Location: See page 16.

FM Noise Focus Adjustment

Setting:

TUNER button: FM1



Carrier frequency : 98.0 MHz
Output level : 60 dB (1 mV)
Mode : mono
Modulation : 1 kHz, 75 kHz deviation (100%)

Procedure:

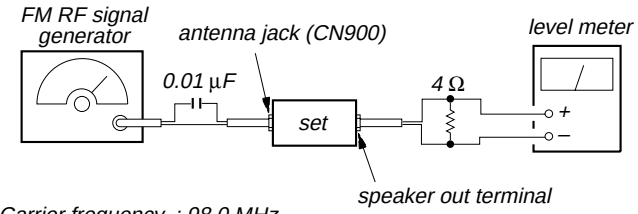
1. Tune the 98.0 MHz.
2. The then output level is supposing that (A) dB.
3. Adjust with the volume RV3 on TU100 so that the output level is (A) –31 dB then signal generator input set to –20 dB.

Adjustment Location: See page 16.

FM Stereo Separation Adjustment

Setting:

TUNER button: FM1



Carrier frequency : 98.0 MHz
Output level : 76 dB (6.3 mV)
Mode : stereo
Modulation : main: 1 kHz, 33.75 kHz deviation (45%)
sub: 1 kHz, 33.75 kHz deviation (45%)
19 kHz pilot: 7.5 kHz deviation (10%)

Procedure:

FM Stereo signal generator output channel	Level meter connection	Level meter reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV4 on TU100 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV4 on TU100 for minimum reading.

L-CH Stereo separation: Ⓐ-Ⓑ
R-CH Stereo separation: Ⓒ-Ⓓ
The separations of both channels should be equal.

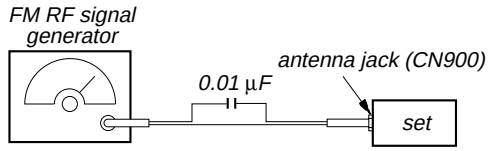
Specification: Separation more than 26 dB

Adjustment Location: See page 16.

FM Signal Meter Adjustment

Setting:

TUNER button: FM1

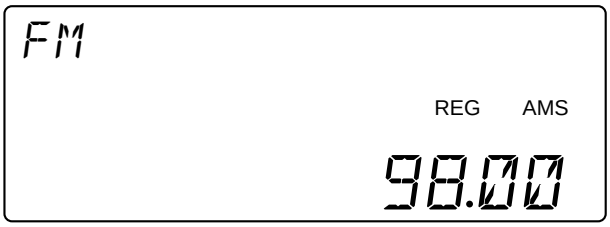


Carrier frequency : 98.00 MHz
Output level : 35 dB (56.2 µV)
Mode : mono
Modulation : no modulation

Procedure:

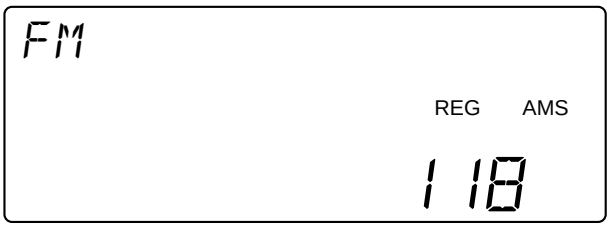
1. Press OFF button to turn the set OFF.
2. Press 4 button and 5 button.
3. Press and hold 1 button for 3 to 4 seconds.
4. Press TUNER button for 2 to 3 times.

Display



5. Press 6 button, the test mode is set.
6. Adjust RV100 so that the display indication is “118”.

Display



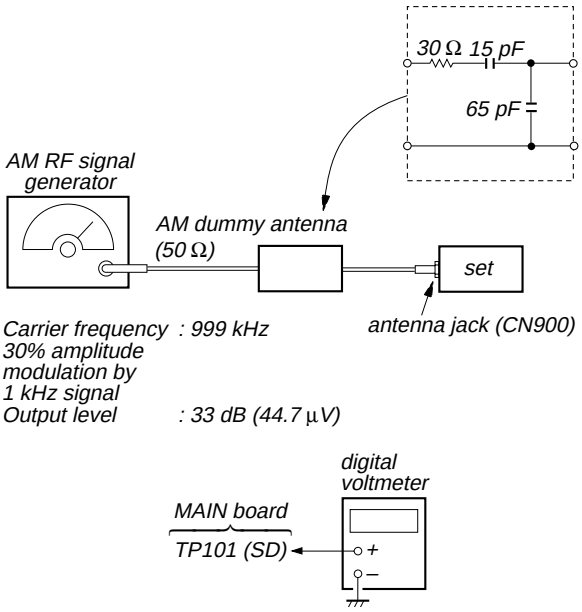
Specification: Display indication: 116 to 120

Adjustment Location: See page 16.

MW Auto Scan/Stop Level Adjustment

Setting:

TUNER button: MW



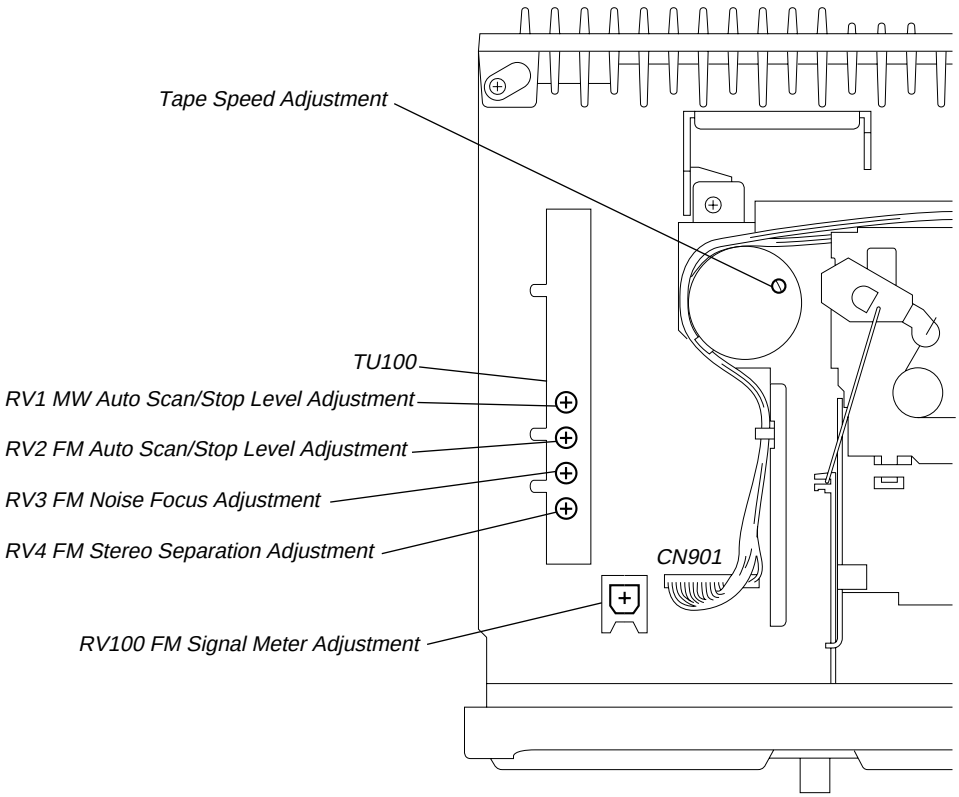
Procedure:

1. Tune the set to 999 kHz
2. Connect the digital voltmeter to TP101 (SD) on MAIN board.
3. Adjust RV1 on TU100 so that the reading on the digital voltmeter changes point from low to high.

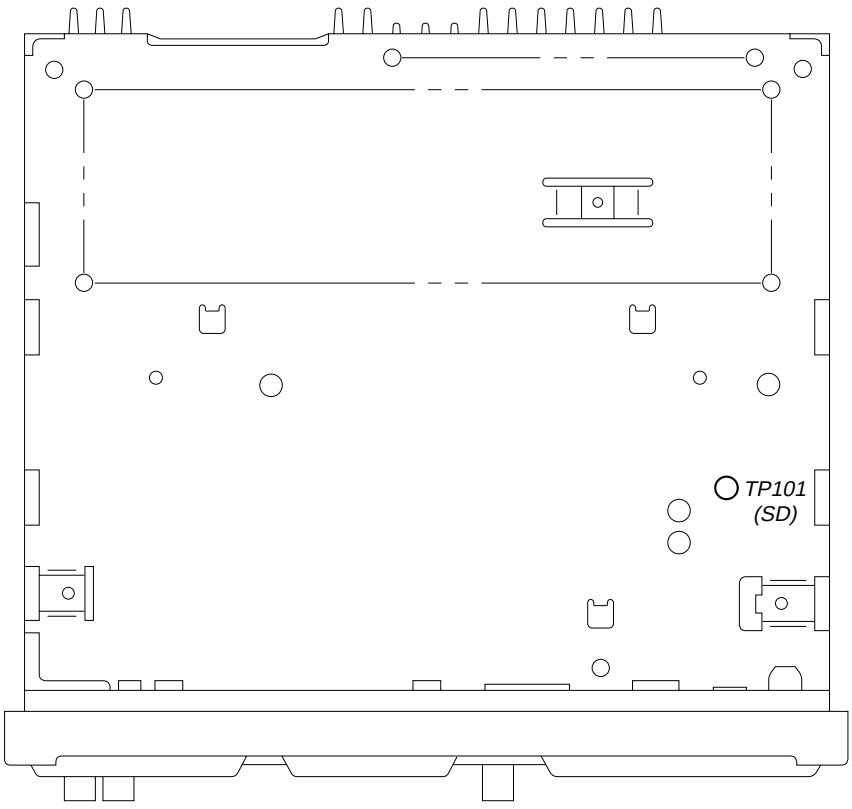
Adjustment Location: See page 16.

Adjustment Location:

– SET UPPER VIEW –



– SET BOTTOM VIEW –



SECTION 5
DIAGRAMS

5-1. NOTES FOR PRINTED WIRING BOARD AND SCHEMATIC DIAGRAM

Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.
- B+ : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : MW
  ⟨⟨ ⟩⟩ : LW
  [ ] : TAPE PLAYBACK
  ✻ : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ➡ : MW (LW)
  Σ : TAPE PLAYBACK
- Abbreviation
  G : German model.
  SE : South European model.

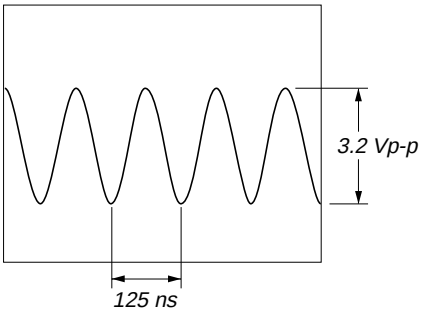
Note on Printed Wiring Board:

- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- △ : internal component.
- ▒▒ : Pattern from the side which enables seeing.

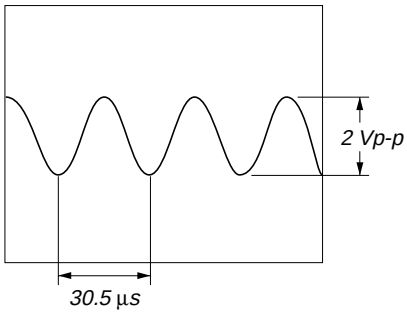
• **Waveforms**

– MAIN Board –

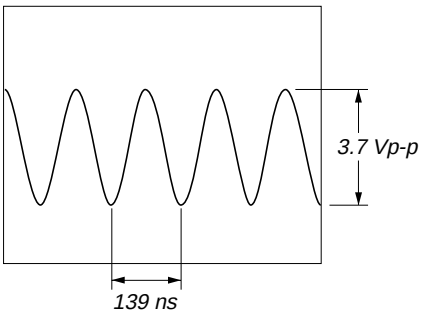
❶ IC1 ⑧ (X IN)



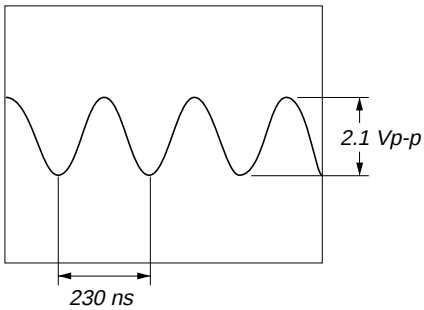
❷ IC1 ⑪ (XT IN)



❸ IC121 ⑳ (XO)

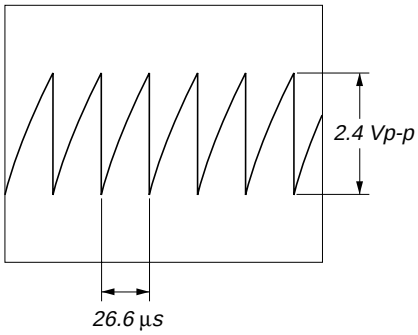


❹ IC150 ⑩ (XI)



– KEY Board –

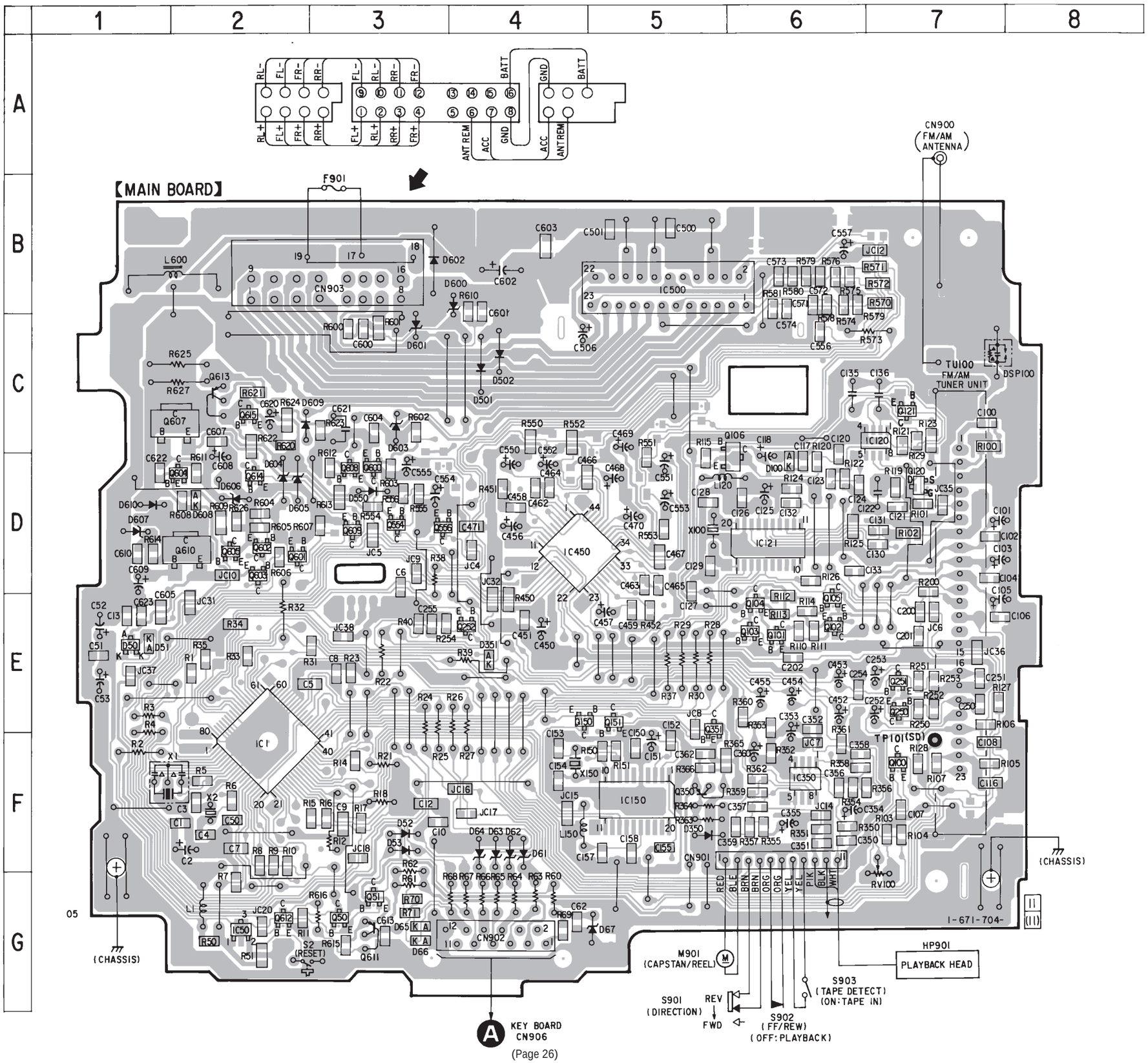
❶ IC900 ⑥⓪ (OSC)



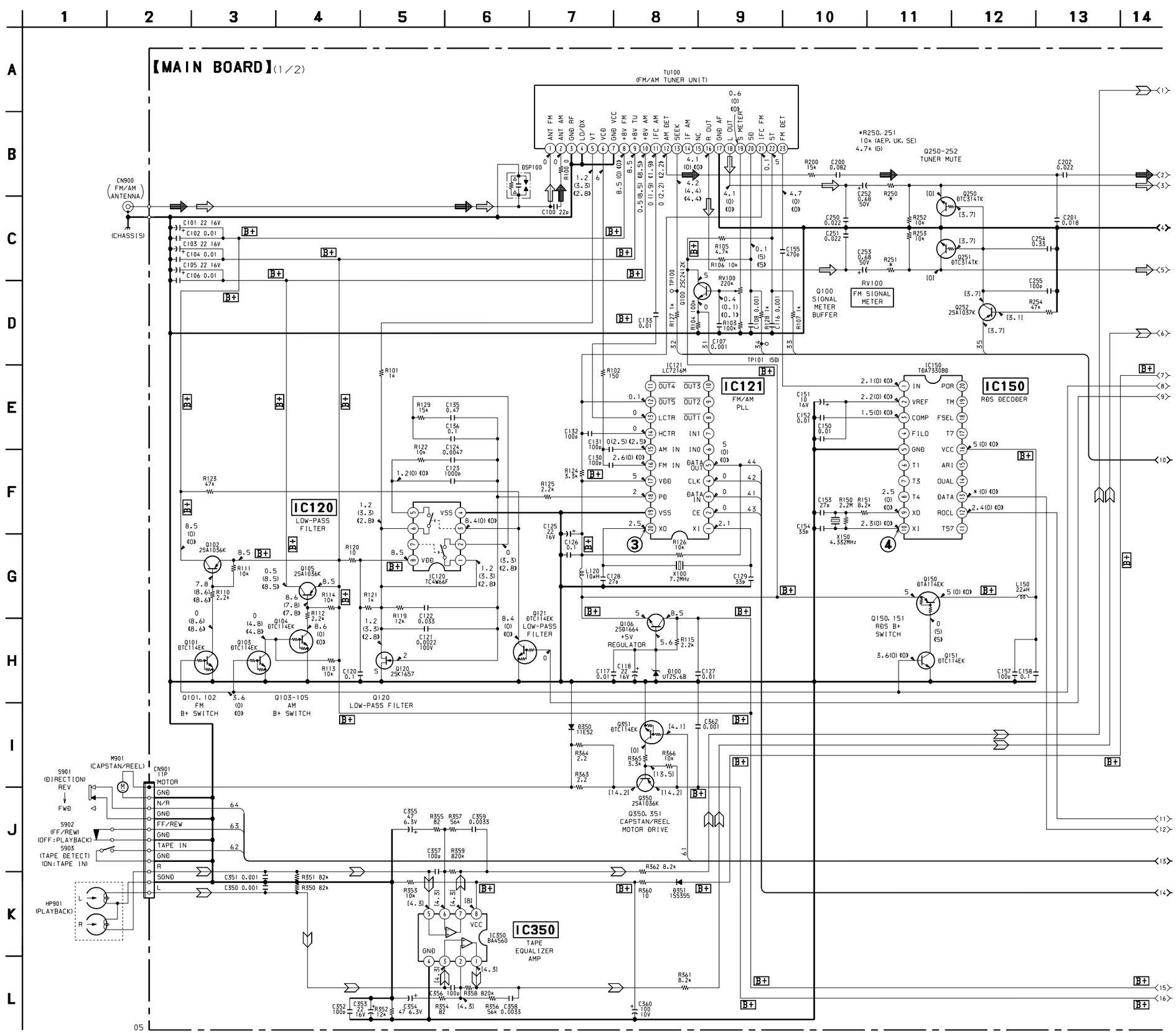
5-2. PRINTED WIRING BOARD – MAIN Section –

- **Semiconductor Location**

Ref. No.	Location
D50	E-1
D51	E-1
D52	F-3
D53	F-3
D61	F-4
D62	F-4
D63	F-4
D64	F-4
D65	G-3
D66	G-3
D67	G-5
D100	D-6
D350	F-5
D351	E-4
D501	C-4
D502	C-4
D550	D-3
D600	B-4
D601	C-3
D602	B-3
D603	C-3
D604	D-2
D605	D-2
D606	D-2
D607	D-1
D608	D-2
D609	C-2
D610	D-1
IC1	F-2
IC50	G-2
IC120	C-7
IC121	D-6
IC150	F5
IC350	F-6
IC450	D-4
IC500	B-5
Q50	G-3
Q51	G-3
Q100	F-7
Q101	E-6
Q102	E-6
Q103	E-6
Q104	E-6
Q105	E-6
Q106	D-6
Q120	D-7
Q121	C-7
Q150	E-4
Q151	E-5
Q250	E-7
Q251	E-7
Q252	E-4
Q350	F-5
Q351	E-5
Q554	D-3
Q556	D-3
Q600	D-3
Q601	D-2
Q602	D-2
Q603	D-2
Q604	D-2
Q605	D-2
Q607	C-2
Q608	D-3
Q609	D-3
Q610	D-2
Q611	G-3
Q612	G-2
Q613	C-2
Q614	D-2
Q615	C-2

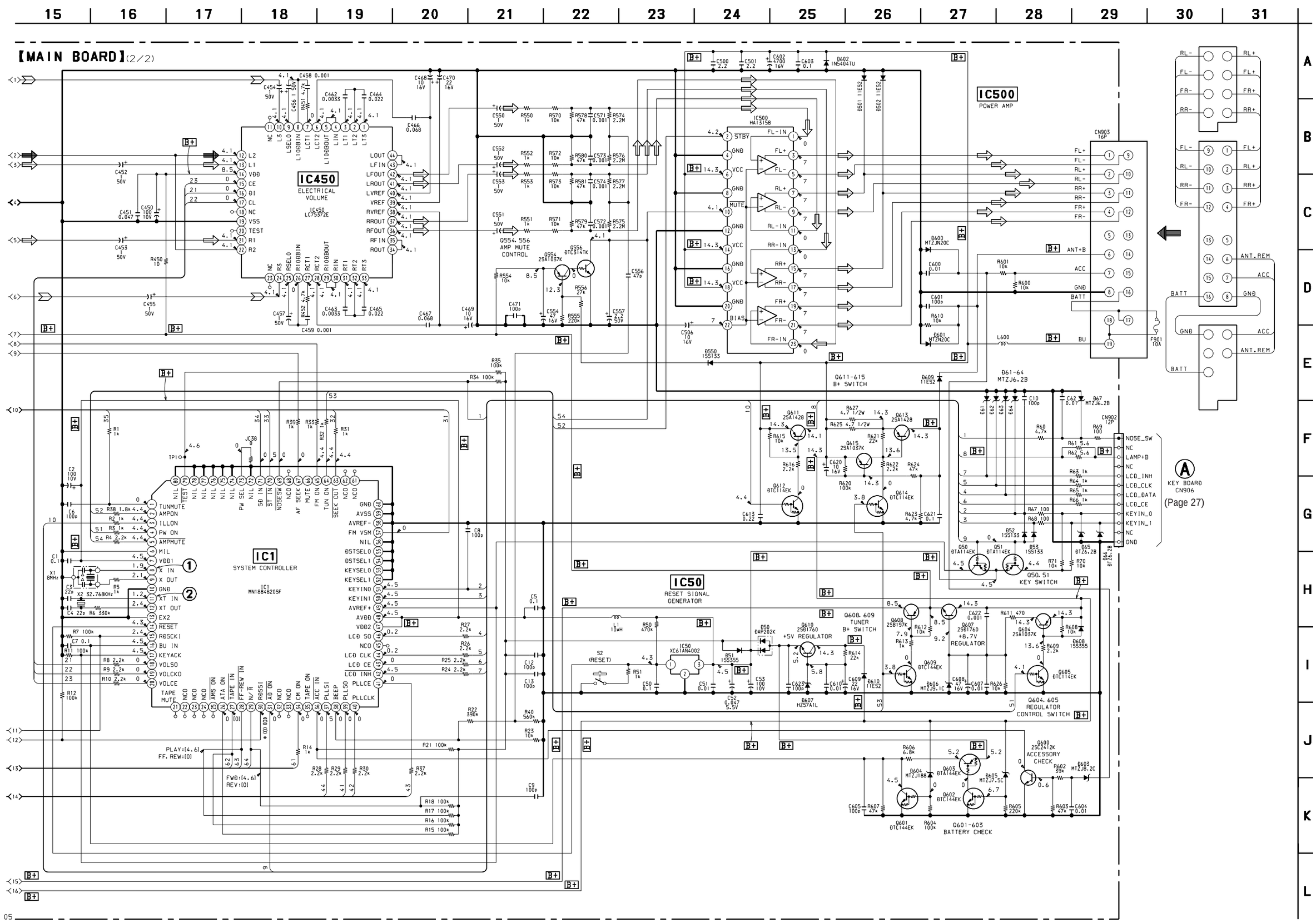


5-3. SCHEMATIC DIAGRAM – MAIN Section (1/2) – • See page 18 for Waveforms. • See page 29 for IC Block Diagrams.

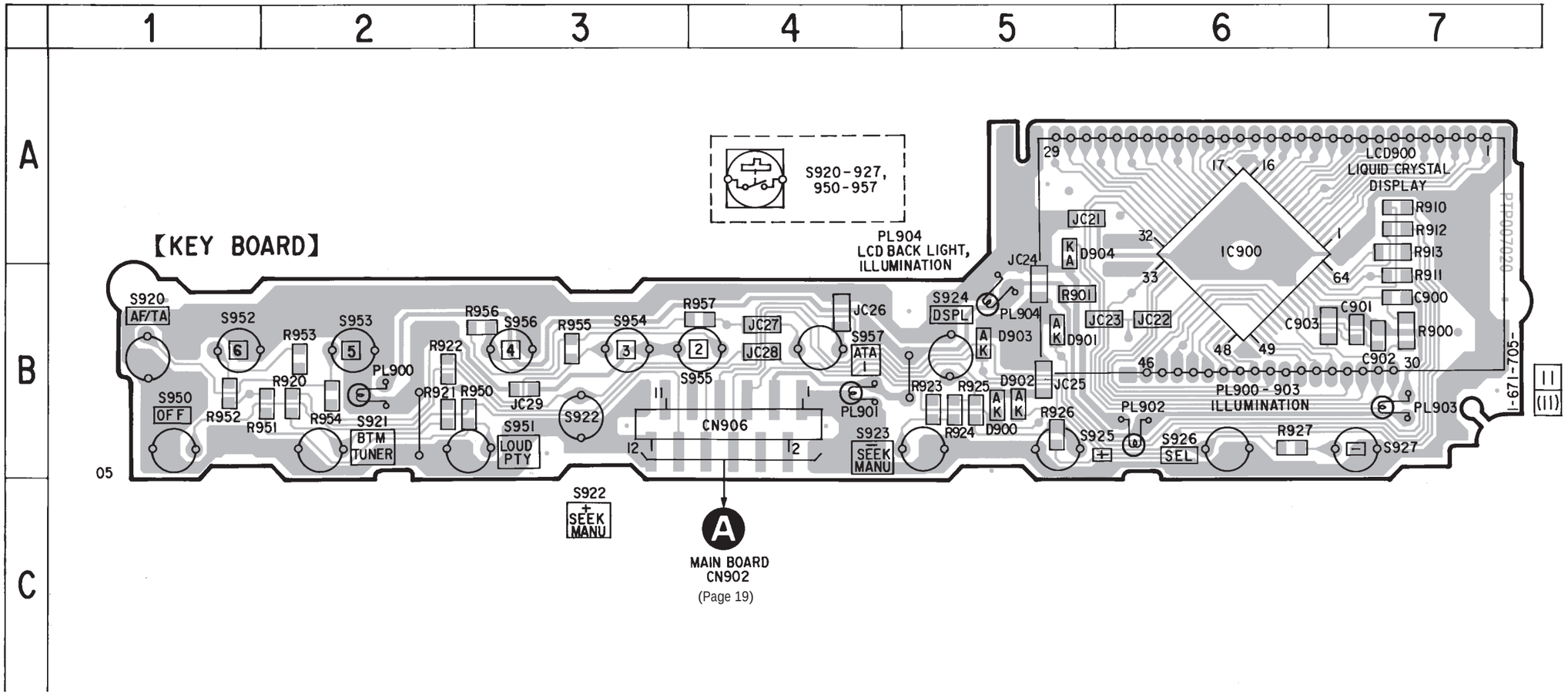


5-4. SCHEMATIC DIAGRAM – MAIN Section (2/2) –

• See page 18 for Waveforms. • See page 29 for IC Block Diagrams.



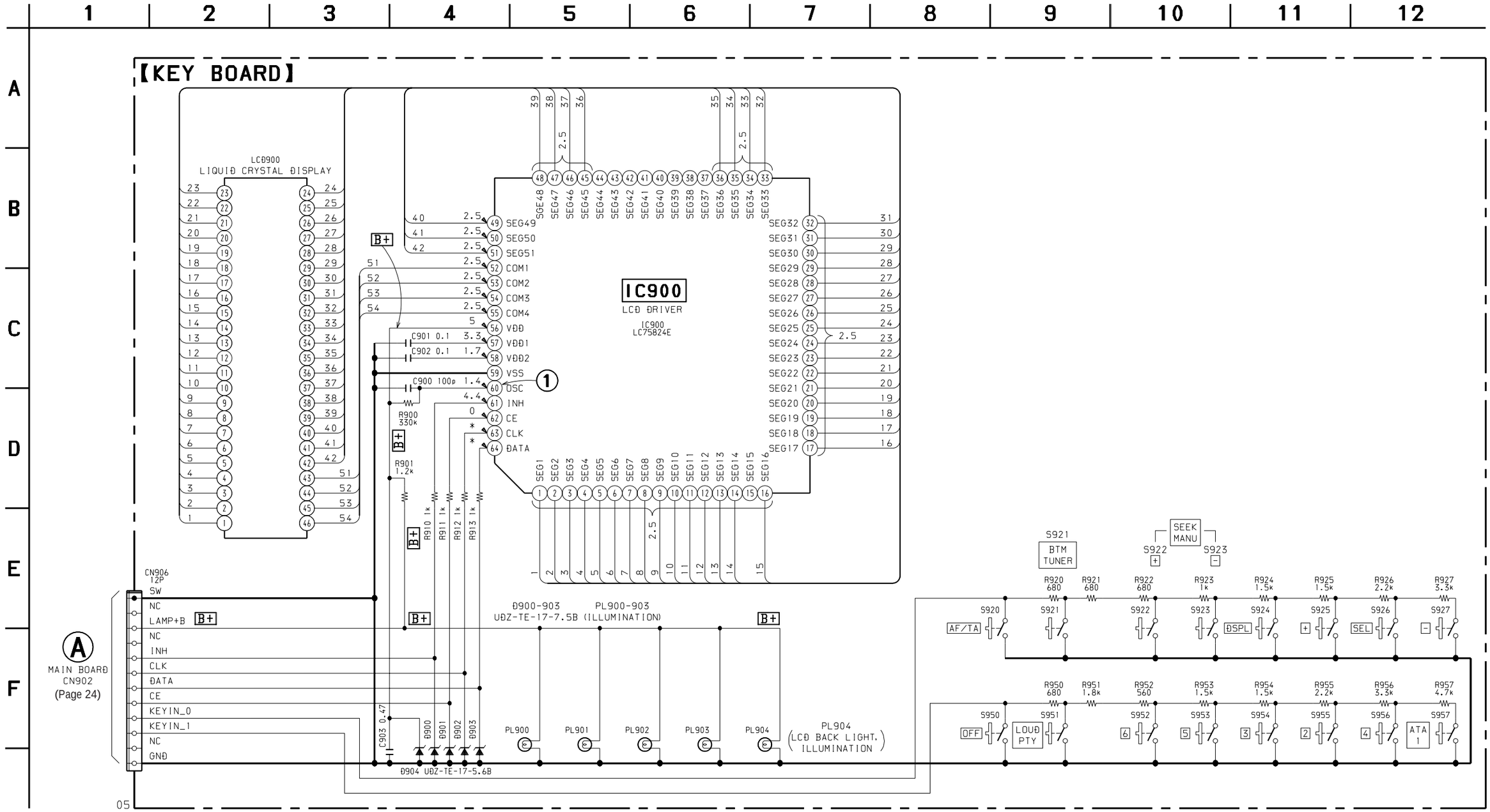
5-5. PRINTED WIRING BOARD – PANEL Section –



- **Semiconductor Location**

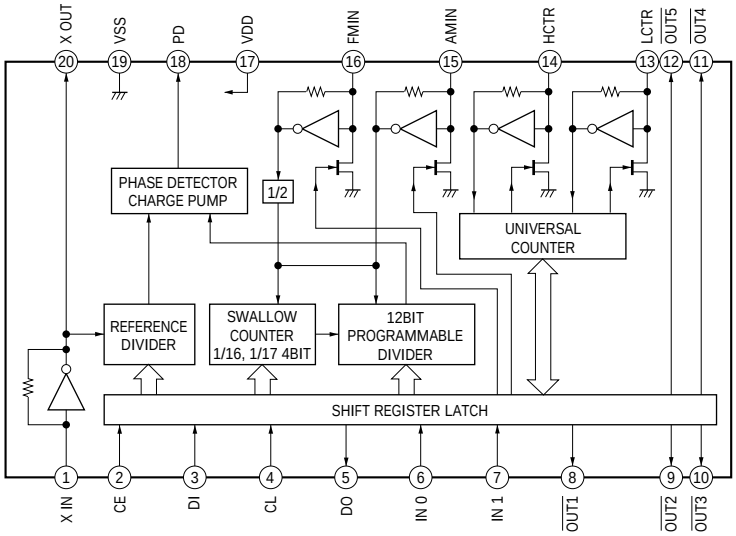
Ref. No.	Location
D900	B-5
D901	B-5
D902	B-5
D903	B-5
D904	A-5
IC900	A-6

5-6. SCHEMATIC DIAGRAM – PANEL Section – • See page 18 for Waveform.

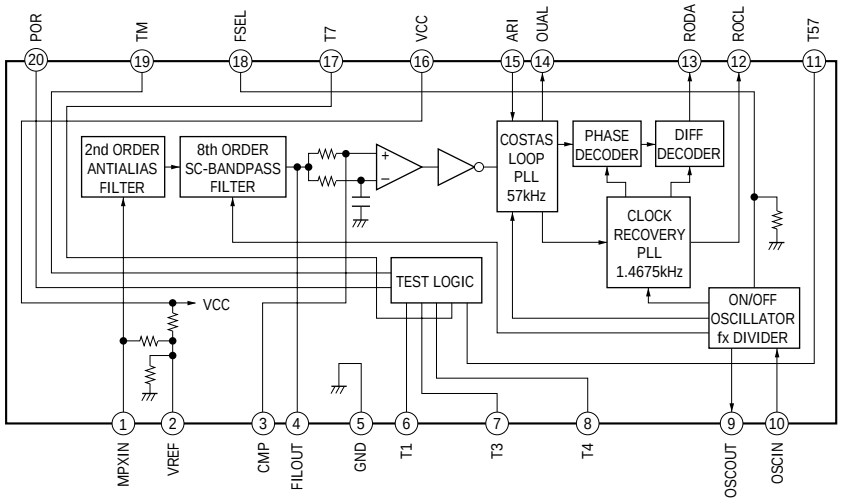


• IC Block Diagrams
– MAIN Board –

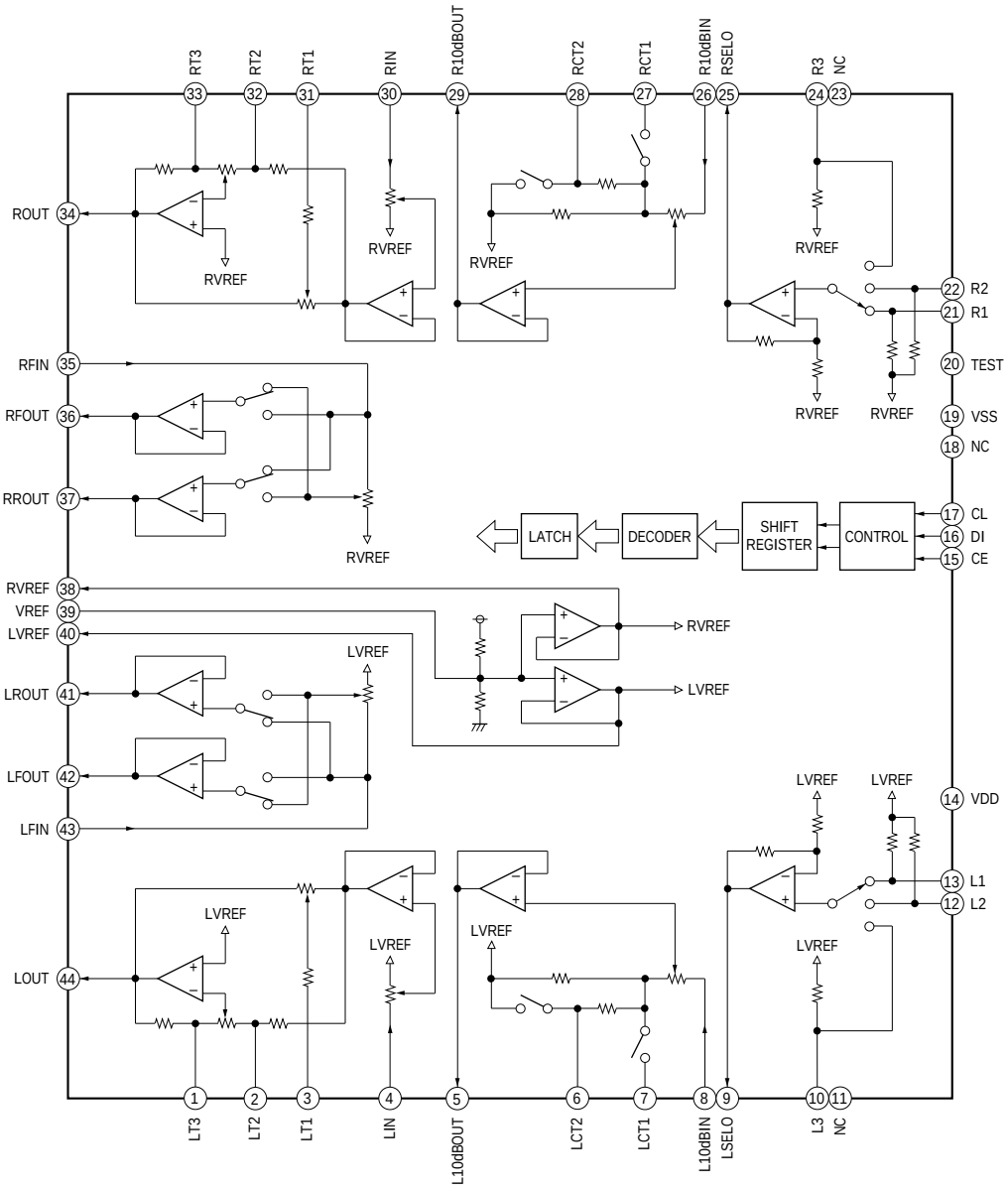
IC121 LC7216M



IC150 TDA7330BD-013TR



IC450 LC75372E



5-7. IC PIN FUNCTION DESCRIPTION

• MAIN BOARD IC1 MN1884820SF (SYSTEM CONTROLLER)

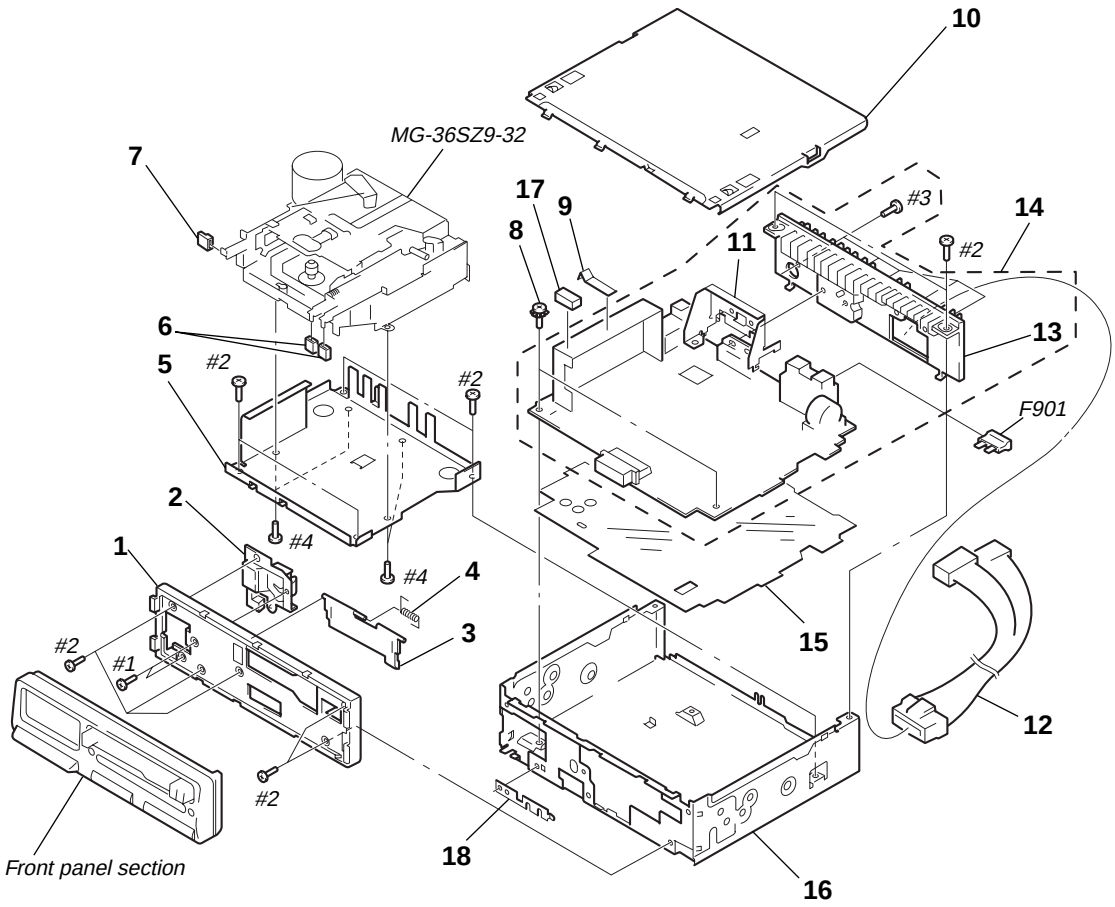
Pin No.	Pin Name	I/O	Function
1	TUNMUT	O	FM audio signal muting control output terminal "H": muting on
2	AMPON	O	Standby control signal output to the power amplifier (IC500) "L": standby
3	ILLON	O	Power supply on/off control signal output terminal at the illumination and liquid crystal display driver (IC900) "H": power on
4	PW ON	O	Main system power supply on/off control signal output terminal "H": power on
5	$\overline{\text{AMPMUTE}}$	O	Muting control signal output to the power amplifier (IC500) "L": muting on
6	NIL	I	Not used (fixed at "L")
7	VDD1	—	Power supply terminal (+5V)
8	X IN	I	Main system clock input terminal (8 MHz)
9	X OUT	O	Main system clock output terminal (8 MHz)
10	GND	—	Ground terminal
11	XT IN	I	Sub system clock input terminal (32.768 kHz)
12	XT OUT	O	Sub system clock output terminal (32.768 kHz)
13	EX2	I	Connected to ground
14	$\overline{\text{RESET}}$	I	System reset signal input from the reset signal generator (IC50) and reset switch (S2) "L" is input for several 100 msec after power on, then it changes to "H"
15	RDSCKI	I	Serial data transfer clock signal input from the RDS decoder (IC150)
16	BU IN	I	Battery detect signal input terminal "H": battery on
17	KEYACK	I	Input of acknowledge signal for the key entry Acknowledge signal is input to accept function and eject keys in the power off status On at input of "H"
18	VOLSO	O	Serial data output to the electrical volume (IC450)
19	VOLCKO	O	Serial data transfer clock signal output to the electrical volume (IC450)
20	VOLCE	O	Chip enable signal output to the electrical volume (IC450)
21	TAPE MUTE	O	Tape muting on/off control signal output terminal "H": tape muting on Not used (open)
22 to 24	NCO	O	Not used (open)
25	$\overline{\text{AMS ON}}$	O	Tape auto music sensor control signal output terminal "L" is output to lower the gain for audio level at FF/REW Not used (open)
26	ATA ON	I	Not used (fixed at "H")
27	$\overline{\text{TAPE IN}}$	I	Tape in detection switch (S903) input terminal "L": tape in
28	$\overline{\text{FF-REW IN}}$	I	FF/REW detection switch (S902) input terminal "L": FF/REW mode
29	$\overline{\text{N/R}}$	I	Tape direction switch (S901) input terminal "L: reverse direction, "H": forward direction
30	RDSSI	I	Serial data input from the RDS decoder (IC150)
31	$\overline{\text{AD ON}}$	O	Power supply on/off control signal output for the A/D converter "L": power on
32, 33	NCO	O	Not used (open)
34	CM ON	O	Capstan/reel motor (M901) drive signal output terminal "H": motor on
35	TAPE ON	O	Tape system power supply on/off control signal output terminal "H": tape on Not used (open)
36	$\overline{\text{ACC IN}}$	I	Accessory detect signal input terminal "L": accessory on
37	PLLSI	I	PLL serial data input from the FM/AM PLL (IC121)
38	BEEP	O	Beep sound signal output terminal
39	PLLSO	O	PLL serial data output to the FM/AM PLL (IC121)
40	PLLCLK	O	PLL serial data transfer clock signal output to the FM/AM PLL (IC121)
41	PLLCE	O	PLL serial chip enable output to the FM/AM PLL (IC121)
42	$\overline{\text{LCD INH}}$	O	Blank indicate control signal output to the liquid crystal display driver (IC900) "L": no display

Pin No.	Pin Name	I/O	Function
43	LCD CE	O	Chip enable output to the liquid crystal display driver (IC900)
44	LCD CLK	O	Serial data transfer clock signal output to the liquid crystal display driver (IC900)
45	NCO	O	Not used (open)
46	LCD SO	O	Serial data output to the liquid crystal display driver (IC900)
47	VDD2	—	Power supply terminal (+5V)
48	AVDD	—	Power supply terminal (+5V) (for A/D converter)
49	AVREF+	I	Reference voltage input terminal (+5V) (for A/D converter)
50	KEYIN1	I	Key input terminal (A/D input) OFF, PTY, LOUD, 6/5/3/2/4/1 ATA keys input (S950 to 957)
51	KEYIN0	I	Key input terminal (A/D input) AF/TA, TUNER BTM, SEEK MANU +/–, DSPL, LEVEL +, SEL, LEVEL – keys input (S920 to 927)
52	KEYSEL1	I	Setting terminal for the key function (fixed at "L")
53	KEYSEL0	I	Setting terminal for the key function (fixed at "L")
54	DSTSEL1	I	Destination setting terminal (fixed at "L")
55	DSTSEL0	I	Destination setting terminal (fixed at "L")
56	NIL	I	Not used (fixed at "L")
57	FM VSM	I	FM and AM signal meter voltage detection input from the FM/AM tuner unit (TU100)
58	AVREF–	I	Reference ground terminal
59	AVSS	—	Ground terminal (for A/D converter)
60	GND	—	Ground terminal
61, 62	NCO	O	Not used (open)
63	$\overline{\text{SEEK OUT}}$	O	Seek control signal output to the FM/AM tuner unit (TU100)
64	TUN ON	O	Tuner system power supply on/off control signal output terminal "H": tuner on
65	FM ON	O	FM system power supply on/off control signal output terminal "H": FM on
66	MUTE	O	Line muting control signal output terminal "H": line muting on Not used (open)
67	AF SEEK	O	PLL low-pass filter time constant selection signal output at AF seek "H" is output when AF seek
68	NCO	O	Not used (open)
69	$\overline{\text{NOSESW}}$	I	Detects the removal of the attaching and removing type front panel block "L": attaching
70	$\overline{\text{ST IN}}$	I/O	Input of FM stereo detection signal from FM/AM tuner unit (TU100), and output of forced monaural control signal to FM/AM tuner unit (TU100) (Commonly used for stereo display input and forced monaural output) FM stereo detection at input of "L", forced monaural at output of "L"
71	SD IN	I	Station detector detect input from the FM/AM tuner unit (TU100) Stop level for SEEK, BTM, etc. is determined SD is present at input of "H"
72	NIL	I	Not used (fixed at "L")
73	PW SEL	I	Power select switch input terminal "L": halt mode, "H": operation mode Not used (fixed at "L" in this set)
74 to 78	NIL	I	Not used (fixed at "L")
79	$\overline{\text{TEST}}$	I	Setting terminal for the test mode "L": test mode (normally fixed at "H")
80	NIL	I	Not used (fixed at "L")

SECTION 6
EXPLODED VIEWS

NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.
- Abbreviation
  G : German
  SE : South European

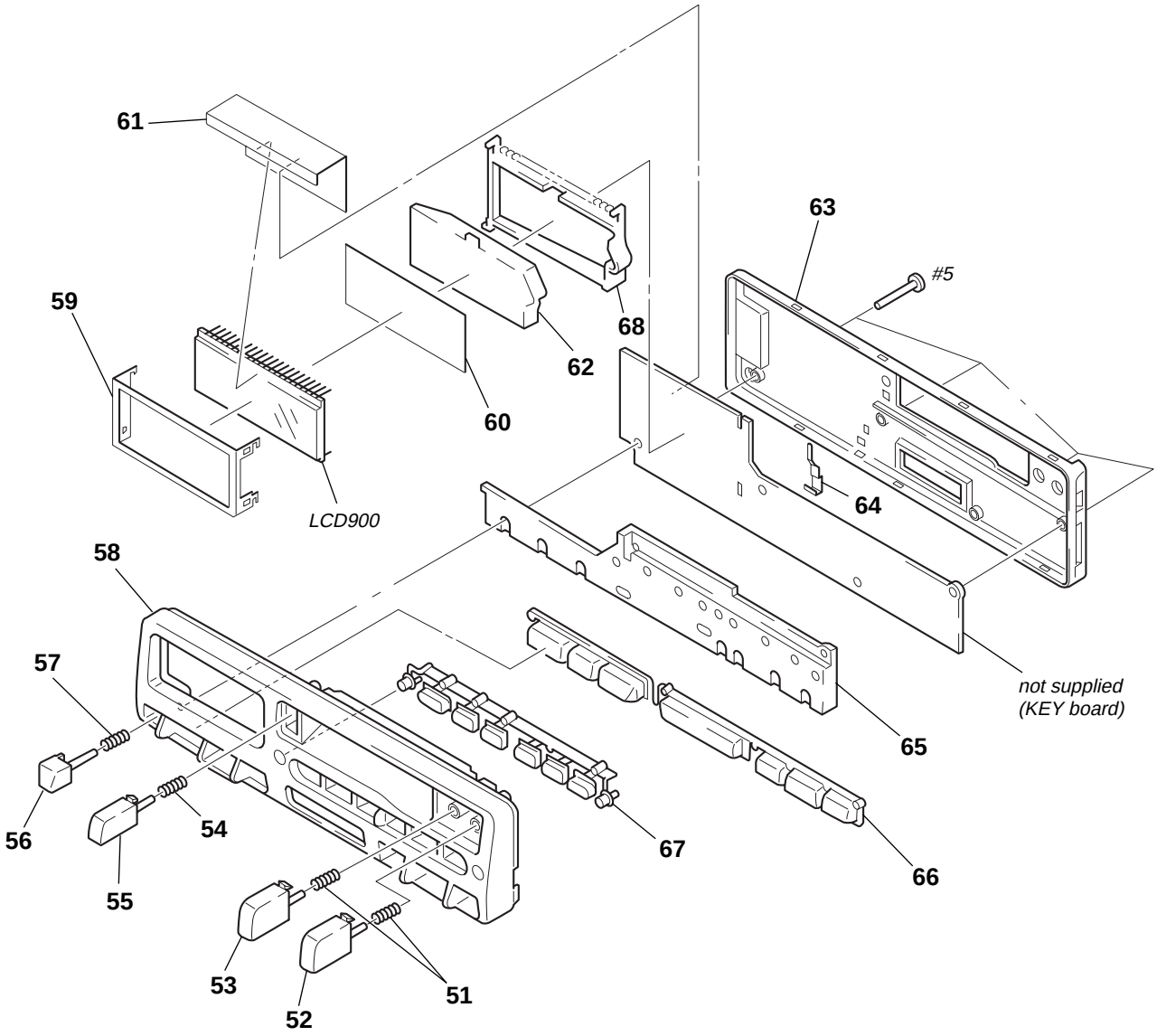
(1) GENERAL SECTION



Ref. No.	Part No.	Description	Remark
1	3-022-475-01	PANEL, SUB	
2	X-3367-636-1	LOCK ASSY	
3	3-924-404-11	DOOR, CASSETTE	
4	3-377-892-01	SPRING (C DOOR), TORSION	
* 5	3-022-479-01	BRACKET (MD)	
6	3-937-529-01	COVER (FF/REW)	
7	3-937-528-01	COVER (EJECT)	
8	3-376-464-11	SCREW(+PTT 2.6X6),GROUND POINT	
9	3-029-047-01	PLATE (C), GROUND	
* 10	X-3375-529-1	COVER ASSY	

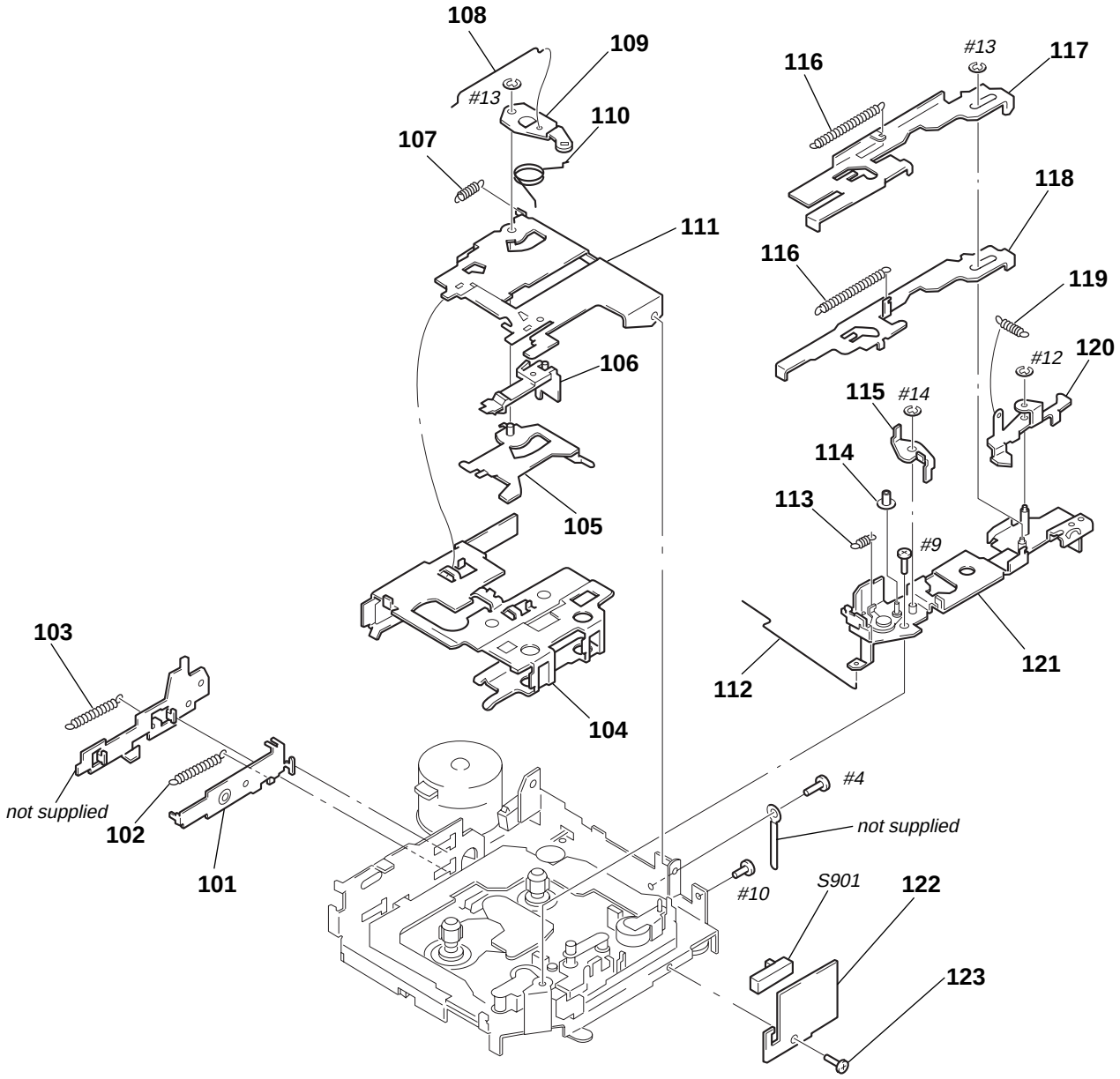
Ref. No.	Part No.	Description	Remark
* 11	3-022-470-01	BRACKET (IC)	
12	1-776-527-31	CORD (WITH CONNECTOR) (ISO) (POWER)	
* 13	3-022-477-01	HEAT SINK	
* 14	A-3317-253-A	MAIN BOARD, COMPLETE (AEP, UK, SE)	
* 14	A-3317-255-A	MAIN BOARD, COMPLETE (G)	
* 15	3-022-487-01	SHEET, INSULATING	
* 16	3-022-476-01	CHASSIS, MAIN	
17	3-338-263-01	CUSHION (U)	
* 18	3-022-469-01	SPRING GROUND	
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) (10A)	

(2) FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	3-375-372-01	SPRING (F/R)	
52	3-022-485-01	BUTTON (FF) (►►)	
53	3-022-486-01	BUTTON (REW) (◄◄)	
54	3-029-327-01	SPRING (EJECT)	
55	3-022-483-01	BUTTON (EJECT) (⏏)	
56	3-022-484-01	BUTTON (RELEASE)	
57	3-029-328-01	SPRING (RELEASE)	
58	3-022-473-41	PANEL, FRONT	
* 59	3-029-527-01	PLATE (LCD), GROUND	
* 60	3-029-528-01	ILLUMINATOR	
* 61	3-027-172-01	INSULATED PLATE (L)	
* 62	3-029-526-01	PLATE, LIGHT GUIDE	
63	3-022-474-01	PANEL, FRONT BACK	
* 64	3-022-468-01	PLATE, GROUND	
* 65	3-022-478-01	PLATE, LIGHT GUIDE	
66	3-022-480-01	BLOCK (A), BUTTON (–. SEL. +. –. SEEKMANU. +. LOUD. TUNER. OFF)	
67	3-029-524-01	BLOCK (C), BUTTON (DSPL. 1. 2. 3. 4. 5. 6. AF/TA)	
* 68	3-029-525-01	HOLDER (LCD)	
LCD900	1-801-232-11	DISPLAY PANEL, LIQUID CRYSTAL	

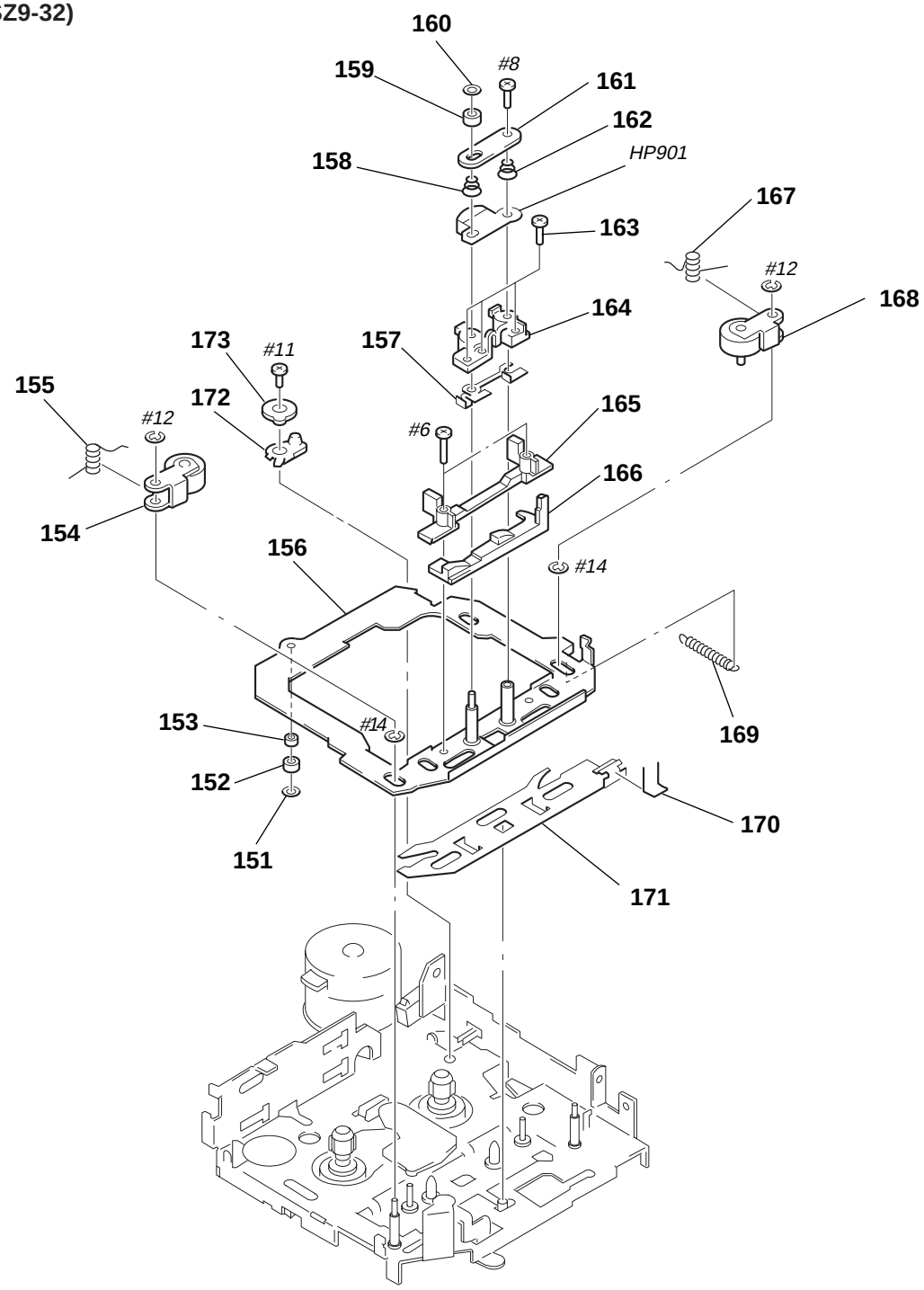
(3) MECHANISM DECK SECTION-1 (MG-36SZ9-32)



Ref. No.	Part No.	Description	Remark
101	3-938-660-01	LEVER, EJECT	
102	3-392-950-01	SPRING	
103	3-392-951-01	SPRING	
104	3-375-384-01	HOLDER (X), CASSETTE	
* 105	3-392-921-01	LOCK ASSY, EJECT CAM	
106	3-392-972-01	HOOKER, TAPE	
107	3-392-953-01	SPRING	
108	3-392-969-01	LINK, RETURN	
* 109	3-392-932-01	PLATE, CENTER	
110	3-392-961-01	SPRING (B)	
111	3-375-383-01	HANGER (X), CASSETTE	
112	3-372-243-01	LINK (B), SELECTOR	
113	3-392-954-01	SPRING	

Ref. No.	Part No.	Description	Remark
114	3-392-994-01	ROLLER, PROGRAM	
* 115	3-392-933-01	LEVER (B), CHANGE	
116	3-392-948-01	SPRING	
117	3-938-658-01	LEVER, FF	
118	3-938-659-01	LEVER, REW	
119	3-392-917-01	SPRING	
* 120	3-392-935-01	ARM, LOCK	
* 121	3-372-242-01	BRACKET ASSY (D), LEVER	
122	3-392-970-01	CHASSIS, SWITCH (DIRECTION SWITCH BOARD)	
* 123	4-908-792-11	SCREW (B2)	
S901	1-692-502-11	SWITCH, SLIDE (DIRECTION)	

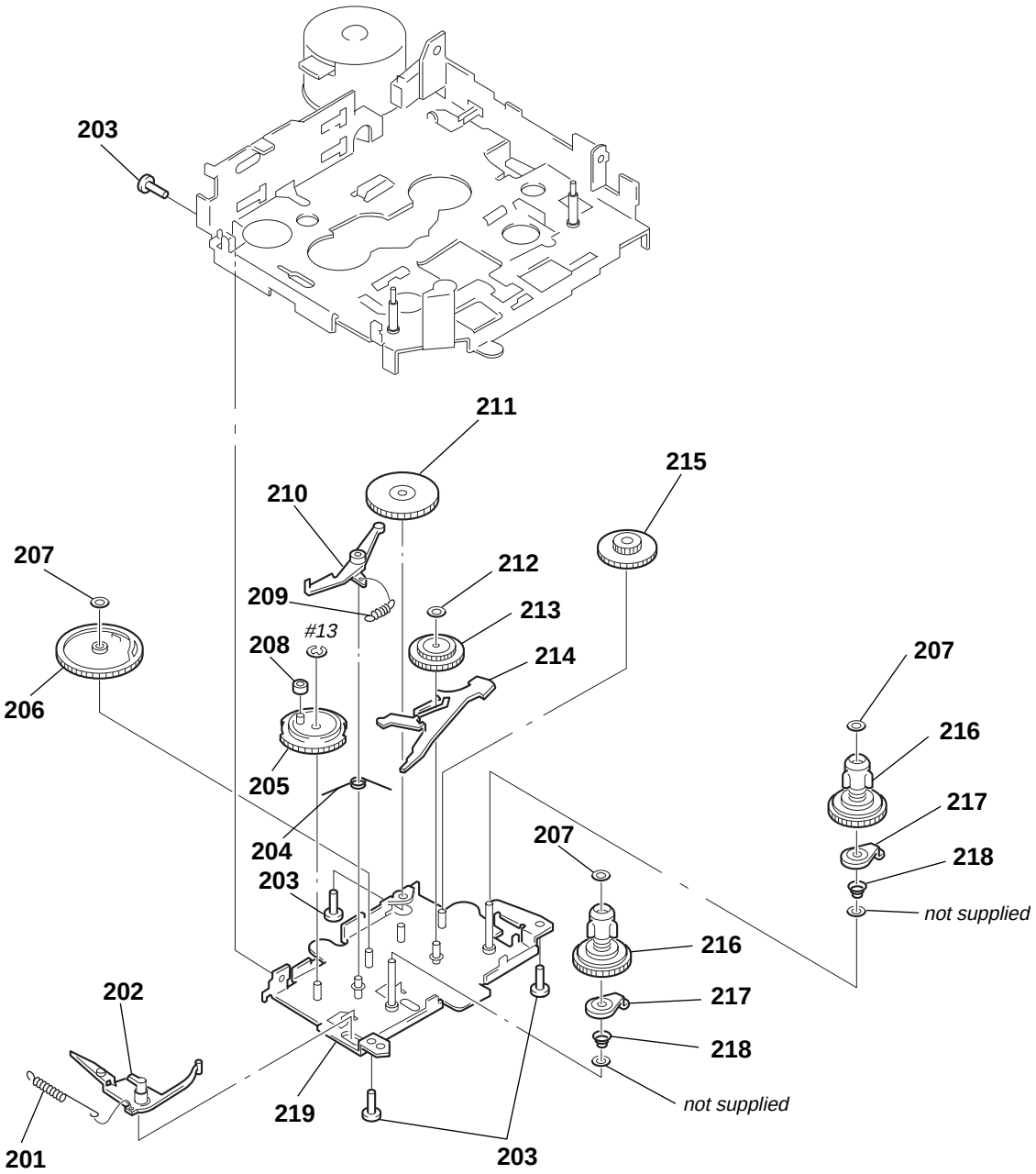
(4) MECHANISM DECK SECTION-2 (MG-36SZ9-32)



Ref. No.	Part No.	Description	Remark
151	3-570-615-02	POLY-WASHER (DIA.1.2)	
152	3-392-945-01	ROLLER (A), H.P	
153	3-392-942-01	ROLLER (B), H.P	
154	3-375-378-01	ARM (R) ASSY, PINCH	
155	3-392-958-01	SPRING (R)	
* 156	3-392-975-05	PLATE ASSY (S), HEAD	
157	3-377-908-01	SHIM (X), ADJUSTOR	
158	3-392-956-01	SPRING (A)	
159	3-392-943-01	ROLLER, FF	
160	3-676-387-00	POLY-SLIDER (DIA.1.6)	
* 161	3-392-930-01	RETAINER, SPRING	
162	3-392-955-01	SPRING (A)	

Ref. No.	Part No.	Description	Remark
163	3-375-379-01	SCREW, AZIMUTH	
* 164	3-379-142-01	ARM (B), ADJUSTOR	
165	3-392-984-02	GUIDE, TAPE	
166	3-377-909-02	LINK (X), ADJUSTOR	
167	3-392-957-01	SPRING (F)	
168	3-375-377-01	ARM (F) ASSY, PINCH	
169	3-392-952-01	SPRING	
170	3-392-962-01	SPRING	
* 171	3-392-919-01	ARM ASSY, F,R SELECTION	
172	3-372-244-01	ARM (N), MUTE	
* 173	3-397-427-01	COLLAR, MUTE ARM	
HP901	1-543-717-11	HEAD, MAGNETIC (PLAYBACK)	

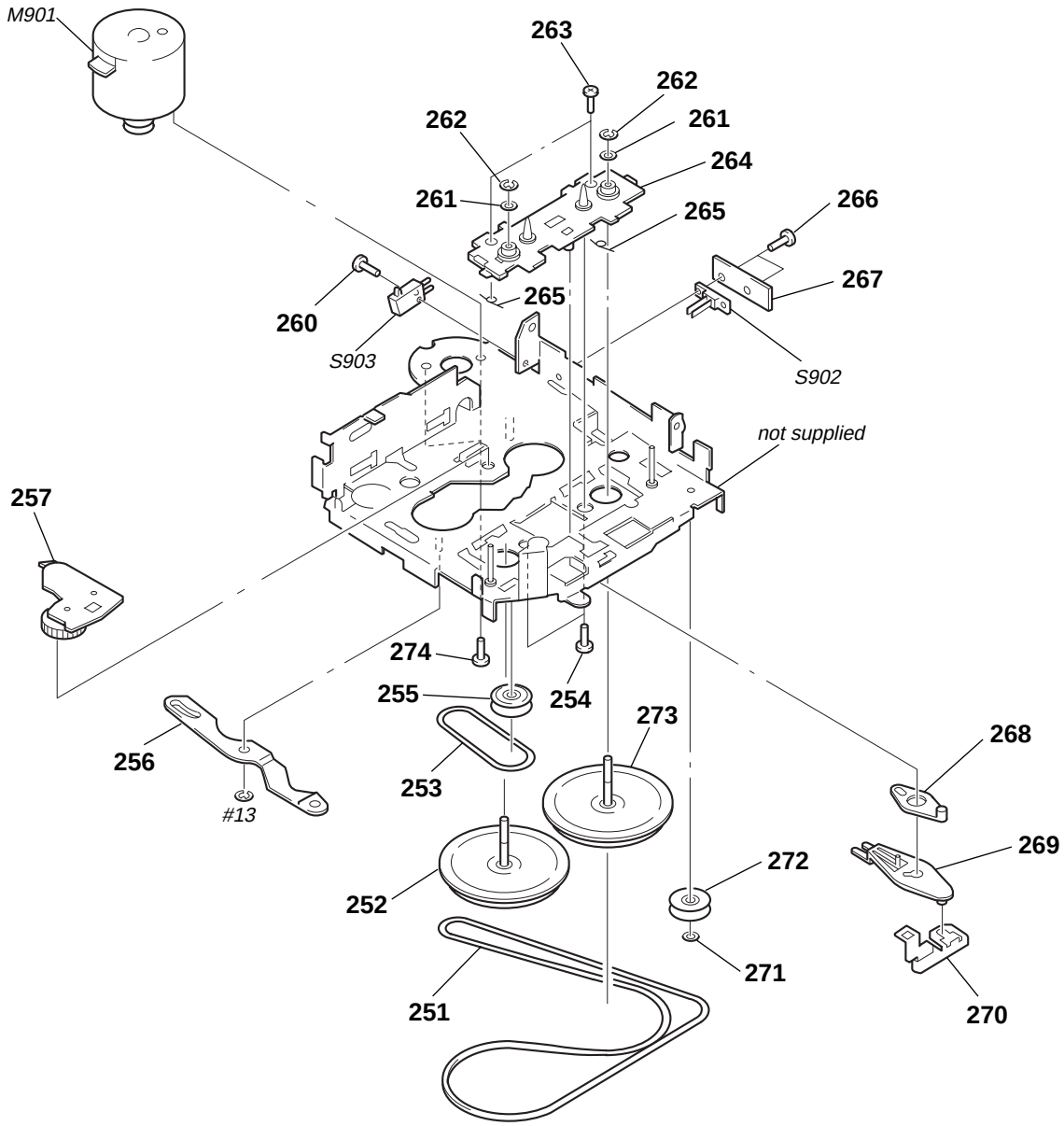
(5) MECHANISM DECK SECTION-3 (MG-36SZ9-32)



Ref. No.	Part No.	Description	Remark
201	3-392-959-01	SPRING	
202	3-392-985-02	RATCHET	
* 203	4-908-792-11	SCREW (B2)	
204	3-392-960-01	SPRING	
205	3-392-987-01	GEAR, SELECTOR	
206	3-392-990-01	GEAR, DETECTION	
207	3-676-387-00	POLY-SLIDER (DIA.1.6)	
208	3-392-944-01	COLLAR (SELECTOR GEAR)	
209	3-375-131-01	SPRING, GEAR LOCK ARM	
210	3-392-989-02	ARM, GEAR LOCK	

Ref. No.	Part No.	Description	Remark
211	3-392-937-01	GEAR (B)	
212	3-570-615-02	POLY-WASHER (DIA.1.2)	
213	3-392-915-01	GEAR, IDLE	
214	3-392-986-01	ARM, SENSOR	
215	3-392-936-01	GEAR (A)	
216	3-376-196-01	SPINDLE ASSY (S), REEL	
217	3-375-380-01	CAM ASSY, DETECTION	
218	3-370-619-01	SPRING, BACK TENSION	
* 219	3-392-976-01	BASE ASSY, REEL	

(6) MECHANISM DECK SECTION-4 (MG-36SZ9-32)



Ref. No.	Part No.	Description	Remark
251	3-392-967-01	BELT, MAIN	
252	3-392-995-02	FLYWHEEL ASSY (BR)	
253	3-375-375-02	BELT (C), SUB	
254	3-392-918-01	SCREW, EJECT HOOK	
255	3-392-938-01	GEAR, PULLY	
* 256	3-392-979-01	LEVER, REVERSE	
257	3-392-916-01	ARM ASSY, TU GEAR	
260	3-318-203-11	SCREW (B1.7X6), TAPPING	
261	3-701-437-11	POLY-SLIDER (A)	
262	3-590-768-00	RING (A), E	
263	3-318-204-81	SCREW (M1.7X3), TAPPING	
* 264	3-375-381-01	BRACKET ASSY (X), CM	
265	3-392-963-01	SPRING (R)	

Ref. No.	Part No.	Description	Remark
266	3-318-204-91	SCREW (M1.7X4), TAPPING	
267	3-375-376-01	MUTE (PWB) (MUTE SWITCH BOARD)	
* 268	3-392-925-01	ARM (A) ASSY, F.R	
* 269	3-392-939-01	ARM, FF	
* 270	3-392-934-01	ARM (B), F.R	
271	3-570-615-02	POLY-WASHER (DIA.1.2)	
272	3-392-941-01	PULLEY (A), IDLE	
273	3-392-926-02	FLYWHEEL ASSY (BF)	
274	3-713-786-51	SCREW +P 2X3	
M901	X-3364-496-1	MOTOR ASSY (CAPSTAN/REEL)	
S902	1-692-065-11	SWITCH, LEAF (FF/REW)	
S903	1-554-790-21	SWITCH, POWER (TAPE DETECT)	

SECTION 7
ELECTRICAL PARTS LIST

KEY

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH
- Abbreviation
  G : German
  SE : South European

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
		KEY BOARD			
		*********			
*	3-029-525-01	HOLDER (LCD)			
*	3-029-526-01	PLATE, LIGHT GUIDE			
*	3-029-527-01	PLATE (LCD), GROUND			
*	3-029-528-01	ILLUMINATOR			
		< CAPACITOR >			
C900	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C901	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C902	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C903	1-164-005-11	CERAMIC CHIP	0.47uF		25V
		< CONNECTOR >			
CN906	1-764-422-11	PLUG, CONNECTOR 12P			
		< DIODE >			
D900	8-719-056-84	DIODE UDZ-TE-17-7.5B			
D901	8-719-056-84	DIODE UDZ-TE-17-7.5B			
D902	8-719-056-84	DIODE UDZ-TE-17-7.5B			
D903	8-719-056-84	DIODE UDZ-TE-17-7.5B			
D904	8-719-056-81	DIODE UDZ-TE-17-5.6B			
		< IC >			
IC900	8-759-366-34	IC LC75824E			
		< SHORT >			
JC21	1-216-296-00	SHORT	0		
JC22	1-216-296-00	SHORT	0		
JC23	1-216-296-00	SHORT	0		
JC24	1-216-296-00	SHORT	0		
JC25	1-216-296-00	SHORT	0		
JC26	1-216-296-00	SHORT	0		
JC27	1-216-296-00	SHORT	0		
JC28	1-216-296-00	SHORT	0		
JC29	1-216-295-00	SHORT	0		
		< LIQUID CRYSTAL DISPLAY >			
LCD900	1-801-232-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< PILOT LAMP >			
PL900	1-517-534-11	LAMP, PILOT (GREEN) (ILLUMINATION)			
PL900	1-517-535-11	LAMP, PILOT (AMBER) (ILLUMINATION)			
PL901	1-517-534-11	LAMP, PILOT (GREEN) (ILLUMINATION)			
PL901	1-517-535-11	LAMP, PILOT (AMBER) (ILLUMINATION)			
PL902	1-517-534-11	LAMP, PILOT (GREEN) (ILLUMINATION)			
PL902	1-517-535-11	LAMP, PILOT (AMBER) (ILLUMINATION)			
PL903	1-517-534-11	LAMP, PILOT (GREEN) (ILLUMINATION)			
PL903	1-517-535-11	LAMP, PILOT (AMBER) (ILLUMINATION)			
PL904	1-517-534-11	LAMP, PILOT (GREEN) (LCD BACK LIGHT, ILLUMINATION)			
PL904	1-517-535-11	LAMP, PILOT (AMBER) (LCD BACK LIGHT, ILLUMINATION)			
		< RESISTOR >			
R900	1-216-186-00	RES,CHIP	330	5%	1/8W
R901	1-216-200-11	RES,CHIP	1.2K	5%	1/8W
R910	1-216-049-11	RES,CHIP	1K	5%	1/10W
R911	1-216-049-11	RES,CHIP	1K	5%	1/10W
R912	1-216-049-11	RES,CHIP	1K	5%	1/10W
R913	1-216-198-00	RES,CHIP	1K	5%	1/8W
R920	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R921	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R922	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R923	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R924	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R925	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R926	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R927	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R950	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R951	1-216-657-11	METAL CHIP	1.8K	0.5%	1/10W
R952	1-208-776-11	RES,CHIP	560	0.5%	1/10W
R953	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R954	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R955	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R956	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R957	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W
		< SWITCH >			
S920	1-771-484-11	SWITCH, TACTILE (AF/TA)			
S921	1-771-484-11	SWITCH, TACTILE (TUNER, BTM)			
S922	1-771-484-11	SWITCH, TACTILE (+, SEEK MANU)			
S923	1-771-484-11	SWITCH, TACTILE (–, SEEK MANU)			
S924	1-771-484-11	SWITCH, TACTILE (DSPL)			
S925	1-771-484-11	SWITCH, TACTILE (+)			
S926	1-771-484-11	SWITCH, TACTILE (SEL)			
S927	1-771-484-11	SWITCH, TACTILE (–)			

KEY **MAIN**

Ref. No.	Part No.	Description	Remark
S950	1-771-484-11	SWITCH, TACTILE (OFF)	
S951	1-771-484-11	SWITCH, TACTILE (PTY, LOUD)	
S952	1-771-484-11	SWITCH, TACTILE (6)	
S953	1-771-484-11	SWITCH, TACTILE (5)	
S954	1-771-484-11	SWITCH, TACTILE (3)	
S955	1-771-484-11	SWITCH, TACTILE (2)	
S956	1-771-484-11	SWITCH, TACTILE (4)	
S957	1-771-484-11	SWITCH, TACTILE (1, ATA)	
**********			
*	A-3317-253-A	MAIN BOARD, COMPLETE (AEP, UK, SE)	
*	A-3317-255-A	MAIN BOARD, COMPLETE (G)	
		**********	
*	3-022-470-01	BRACKET (IC)	
*	3-022-477-01	HEAT SINK	
	7-685-793-09	SCREW +PTT 2.6X8 (S)	
		< CAPACITOR >	
C1	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C2	1-124-584-00	ELECT 100uF 20% 10V	
C3	1-163-235-11	CERAMIC CHIP 22PF 5% 50V	
C4	1-163-235-11	CERAMIC CHIP 22PF 5% 50V	
C5	1-163-077-00	CERAMIC CHIP 0.1uF 10% 25V	
C6	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C7	1-126-623-11	CERAMIC CHIP 0.1uF 10% 25V	
C8	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C9	1-163-181-00	CERAMIC CHIP 100PF 5% 50V	
C10	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C12	1-163-181-00	CERAMIC CHIP 100PF 5% 50V	
C13	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C50	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C51	1-163-021-11	CERAMIC CHIP 0.01uF 10% 50V	
C52	1-125-701-11	DOUBLE LAYER 0.047F 5.5V	
C53	1-124-584-00	ELECT 100uF 20% 10V	
C62	1-163-021-11	CERAMIC CHIP 0.01uF 10% 50V	
C100	1-163-235-11	CERAMIC CHIP 22PF 5% 50V	
C101	1-126-565-11	ELECT 22uF 20% 16V	
C102	1-163-021-11	CERAMIC CHIP 0.01uF 10% 50V	
C103	1-126-565-11	ELECT 22uF 20% 16V	
C104	1-163-021-11	CERAMIC CHIP 0.01uF 10% 50V	
C105	1-126-565-11	ELECT 22uF 20% 16V	
C106	1-163-021-11	CERAMIC CHIP 0.01uF 10% 50V	
C107	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C108	1-163-205-00	CERAMIC CHIP 0.001uF 5% 50V	
C116	1-163-205-00	CERAMIC CHIP 0.001uF 5% 50V	
C117	1-163-021-11	CERAMIC CHIP 0.01uF 10% 50V	
C118	1-126-565-11	ELECT 22uF 20% 16V	
C120	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C121	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V	
C122	1-136-159-00	FILM 0.033uF 5% 50V	
C123	1-163-275-11	CERAMIC CHIP 0.001uF 5% 50V	
C124	1-163-017-00	CERAMIC CHIP 0.0047uF 5% 50V	
C125	1-126-565-11	ELECT 22uF 20% 16V	
C126	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C127	1-163-021-11	CERAMIC CHIP 0.01uF 10% 50V	
C128	1-163-237-11	CERAMIC CHIP 27PF 5% 50V	
C129	1-163-239-11	CERAMIC CHIP 33PF 5% 50V	
C130	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	

Ref. No.	Part No.	Description	Remark
C131	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C132	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C133	1-163-021-11	CERAMIC CHIP 0.01uF 10% 50V	
C135	1-137-194-11	FILM 0.47uF 5% 50V	
C136	1-136-165-00	FILM 0.1uF 5% 50V	
C150	1-163-021-11	CERAMIC CHIP 0.01uF 10% 50V	
C151	1-126-157-11	ELECT 10uF 20% 16V	
C152	1-163-021-11	CERAMIC CHIP 0.01uF 10% 50V	
C153	1-163-237-11	CERAMIC CHIP 27PF 5% 50V	
C154	1-163-239-11	CERAMIC CHIP 33PF 5% 50V	
C155	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C157	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C158	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C200	1-164-345-11	CERAMIC CHIP 0.082uF 10% 25V	
C201	1-163-024-00	CERAMIC CHIP 0.018uF 10% 50V	
C202	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C250	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C251	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C252	1-124-254-00	ELECT 0.68uF 20% 50V	
C253	1-124-254-00	ELECT 0.68uF 20% 50V	
C254	1-110-501-11	CERAMIC CHIP 0.33uF 10% 16V	
C255	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C350	1-163-275-11	CERAMIC CHIP 0.001uF 5% 50V	
C351	1-163-275-11	CERAMIC CHIP 0.001uF 5% 50V	
C352	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C353	1-126-565-11	ELECT 22uF 20% 16V	
C354	1-126-154-11	ELECT 47uF 20% 6.3V	
C355	1-126-154-11	ELECT 47uF 20% 6.3V	
C356	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C357	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C358	1-164-182-11	CERAMIC CHIP 0.0033uF 10% 50V	
C359	1-164-182-11	CERAMIC CHIP 0.0033uF 10% 50V	
C360	1-124-584-00	ELECT 100uF 20% 10V	
C362	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C450	1-124-584-00	ELECT 100uF 20% 10V	
C451	1-104-760-11	CERAMIC CHIP 0.047uF 10% 50V	
C452	1-126-301-11	ELECT 1uF 20% 50V	
C453	1-126-301-11	ELECT 1uF 20% 50V	
C454	1-126-301-11	ELECT 1uF 20% 50V	
C455	1-126-301-11	ELECT 1uF 20% 50V	
C456	1-126-301-11	ELECT 1uF 20% 50V	
C457	1-126-301-11	ELECT 1uF 20% 50V	
C458	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C459	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C462	1-164-182-11	CERAMIC CHIP 0.0033uF 10% 50V	
C463	1-164-182-11	CERAMIC CHIP 0.0033uF 10% 50V	
C464	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C465	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C466	1-164-157-11	CERAMIC CHIP 0.068uF 10% 25V	
C467	1-164-157-11	CERAMIC CHIP 0.068uF 10% 25V	
C468	1-126-157-11	ELECT 10uF 20% 16V	
C469	1-126-157-11	ELECT 10uF 20% 16V	
C470	1-126-565-11	ELECT 22uF 20% 16V	
C471	1-163-181-00	CERAMIC CHIP 100PF 5% 50V	
C500	1-164-505-11	CERAMIC CHIP 2.2uF 16V	
C501	1-164-505-11	CERAMIC CHIP 2.2uF 16V	
C506	1-126-157-11	ELECT 10uF 20% 16V	

Ref. No.	Part No.	Description			Remark
C550	1-126-301-11	ELECT	1uF	20%	50V
C551	1-126-301-11	ELECT	1uF	20%	50V
C552	1-126-301-11	ELECT	1uF	20%	50V
C553	1-126-301-11	ELECT	1uF	20%	50V
C554	1-124-589-11	ELECT	47uF	20%	16V
C556	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C557	1-124-257-00	ELECT	2.2uF	20%	50V
C571	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C572	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C573	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C574	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C600	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C601	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C602	1-126-937-11	ELECT	4700uF	20%	16V
C603	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C604	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C605	1-163-181-00	CERAMIC CHIP	100PF	5%	50V
C607	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C608	1-124-589-11	ELECT	47uF	20%	16V
C609	1-126-565-11	ELECT	22uF	20%	16V
C610	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C613	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C620	1-126-157-11	ELECT	10uF	20%	16V
C621	1-136-165-00	FILM	0.1uF	5%	50V
C622	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C623	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
		< CONNECTOR >			
CN900	1-764-808-21	JACK (ANT) (FM/AM ANTENNA)			
CN901	1-573-489-11	PIN, CONNECTOR (PC BOARD) 11P			
CN902	1-764-423-11	PIN, CONNECTOR 12P			
CN903	1-774-701-11	PIN, CONNECTOR 16P			
		< DIODE >			
D50	8-719-914-44	DIODE DAP202K			
D51	8-719-988-62	DIODE 1SS355			
D52	8-719-991-33	DIODE 1SS133T-77			
D53	8-719-991-33	DIODE 1SS133T-77			
D61	8-719-109-93	DIODE RD6.2ESB2			
D62	8-719-109-93	DIODE RD6.2ESB2			
D63	8-719-109-93	DIODE RD6.2ESB2			
D64	8-719-109-93	DIODE RD6.2ESB2			
D65	8-719-105-99	DIODE RD6.2M-B1			
D66	8-719-105-99	DIODE RD6.2M-B1			
D67	8-719-109-93	DIODE RD6.2ESB2			
D100	8-719-977-03	DIODE DTZ5.6B			
D350	8-719-200-82	DIODE 11ES2			
D351	8-719-988-62	DIODE 1SS355			
D501	8-719-200-82	DIODE 11ES2			
D502	8-719-200-82	DIODE 11ES2			
D550	8-719-991-33	DIODE 1SS133T-77			
D600	8-719-110-53	DIODE RD20ES-B2			
D601	8-719-110-53	DIODE RD20ES-B2			
D602	8-719-049-38	DIODE 1N5404TU			
D603	8-719-110-09	DIODE RD8.2ES-B3			
D604	8-719-110-49	DIODE RD18ES-B2			
D605	8-719-110-03	DIODE RD7.5ESB2			
D606	8-719-110-14	DIODE RD9.1ES-B3			

Ref. No.	Part No.	Description	Remark
D607	8-719-933-43	DIODE HZS7AIL	
D608	8-719-988-62	DIODE 1SS355	
D609	8-719-200-82	DIODE 11ES2	
D610	8-719-200-82	DIODE 11ES2	
		< DISCHARGE GAP >	
DSP100	1-519-504-11	GAP, DISCHARGE	
		< IC >	
IC1	8-759-549-48	IC MN1884820SF	
IC50	8-759-363-81	IC XC61AN4002PR	
IC120	8-759-242-66	IC TC4W66F	
IC121	8-759-823-81	IC LC7216M	
IC150	8-759-163-63	IC TDA7330BD-013TR	
IC350	8-759-924-46	IC BA4560F	
IC450	8-759-368-11	IC LC75372E	
IC500	8-759-490-48	IC HA13158	
		< SHORT >	
JC4	1-216-295-00	SHORT 0	
JC5	1-216-296-00	SHORT 0	
JC6	1-216-295-00	SHORT 0	
JC7	1-216-295-00	SHORT 0	
JC8	1-216-295-00	SHORT 0	
JC9	1-216-295-00	SHORT 0	
JC10	1-216-296-00	SHORT 0	
JC12	1-216-296-00	SHORT 0	
JC14	1-216-295-00	SHORT 0	
JC15	1-216-296-00	SHORT 0	
JC16	1-216-296-00	SHORT 0	
JC17	1-216-295-00	SHORT 0	
JC18	1-216-295-00	SHORT 0	
JC20	1-216-295-00	SHORT 0	
JC31	1-216-296-00	SHORT 0	
JC32	1-216-296-00	SHORT 0	
JC35	1-216-295-00	SHORT 0	
JC36	1-216-296-00	SHORT 0	
JC37	1-216-295-00	SHORT 0	
JC38	1-216-295-00	SHORT 0	
		< COIL >	
L1	1-410-509-11	INDUCTOR 10uH	
L120	1-410-509-11	INDUCTOR 10uH	
L150	1-410-513-11	INDUCTOR 22uH	
L600	1-411-669-21	INDUCTOR 0uH	
		< TRANSISTOR >	
Q50	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q51	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q100	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q101	8-729-900-53	TRANSISTOR DTC114EK	
Q102	8-729-901-98	TRANSISTOR 2SA1036K-R	
Q103	8-729-900-53	TRANSISTOR DTC114EK	
Q104	8-729-900-53	TRANSISTOR DTC114EK	
Q105	8-729-901-98	TRANSISTOR 2SA1036K-R	
Q106	8-729-106-68	TRANSISTOR 2SD1615A-GP	
Q120	8-729-021-94	FET 2SK1657-T1B	

MAIN

Ref. No.	Part No.	Description		Remark
Q121	8-729-900-53	TRANSISTOR	DTC114EK	
Q150	8-729-027-23	TRANSISTOR	DTA114EKA-T146	
Q151	8-729-900-53	TRANSISTOR	DTC114EK	
Q250	8-729-920-21	TRANSISTOR	DTC314TKH04	
Q251	8-729-920-21	TRANSISTOR	DTC314TKH04	
Q252	8-729-216-22	TRANSISTOR	2SA1162-G	
Q350	8-719-901-97	TRANSISTOR	2SA1036K-Q	
Q351	8-729-900-53	TRANSISTOR	DTC114EK	
Q554	8-729-216-22	TRANSISTOR	2SA1162-G	
Q556	8-729-920-21	TRANSISTOR	DTC314TKH04	
Q600	8-729-620-06	TRANSISTOR	2SC3052-EF	
Q601	1-801-806-11	TRANSISTOR	DTC144EK-T146	
Q602	1-801-806-11	TRANSISTOR	DTC144EK-T146	
Q603	8-729-027-23	TRANSISTOR	DTA114EKA-T146	
Q604	8-729-216-22	TRANSISTOR	2SA1162-G	
Q605	8-729-900-53	TRANSISTOR	DTC114EK	
Q607	8-729-921-48	TRANSISTOR	2SD1760F5-TRPQR	
Q608	8-729-904-86	TRANSISTOR	2SB1197K-Q	
Q609	8-729-900-53	TRANSISTOR	DTC114EK	
Q610	8-729-921-48	TRANSISTOR	2SD1760F5-TRPQR	
Q611	8-729-205-95	TRANSISTOR	2SA1428-Y	
Q612	8-729-900-53	TRANSISTOR	DTC114EK	
Q613	8-729-205-95	TRANSISTOR	2SA1428-Y	
Q614	8-729-900-53	TRANSISTOR	DTC114EK	
Q615	8-729-216-22	TRANSISTOR	2SA1162-G	

< RESISTOR >

R1	1-216-049-11	RES,CHIP	1K	5%	1/10W
R2	1-249-417-11	CARBON	1K	5%	1/4W
R3	1-249-417-11	CARBON	1K	5%	1/4W
R4	1-249-421-11	CARBON	2.2K	5%	1/4W
R5	1-216-049-11	RES,CHIP	1K	5%	1/10W
R6	1-216-109-00	METAL CHIP	330K	5%	1/10W
R7	1-216-097-00	RES,CHIP	100K	5%	1/10W
R8	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R9	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R10	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R11	1-216-097-00	RES,CHIP	100K	5%	1/10W
R12	1-249-441-11	CARBON	100K	5%	1/4W
R14	1-216-049-11	RES,CHIP	1K	5%	1/10W
R15	1-216-097-00	RES,CHIP	100K	5%	1/10W
R16	1-216-097-00	RES,CHIP	100K	5%	1/10W
R17	1-216-097-00	RES,CHIP	100K	5%	1/10W
R18	1-249-441-11	CARBON	100K	5%	1/4W
R21	1-249-441-11	CARBON	100K	5%	1/4W
R22	1-247-893-11	CARBON	390K	5%	1/4W
R23	1-216-073-00	METAL CHIP	10K	5%	1/10W
R24	1-249-421-11	CARBON	2.2K	5%	1/4W
R25	1-249-421-11	CARBON	2.2K	5%	1/4W
R26	1-249-421-11	CARBON	2.2K	5%	1/4W
R27	1-249-421-11	CARBON	2.2K	5%	1/4W
R28	1-249-421-11	CARBON	2.2K	5%	1/4W
R29	1-249-421-11	CARBON	2.2K	5%	1/4W
R30	1-249-421-11	CARBON	2.2K	5%	1/4W
R31	1-216-049-11	RES,CHIP	1K	5%	1/10W
R32	1-249-417-11	CARBON	1K	5%	1/4W
R33	1-216-049-11	RES,CHIP	1K	5%	1/10W
R34	1-216-246-00	RES,CHIP	100K	5%	1/8W

Ref. No.	Part No.	Description			Remark
R35	1-216-097-00	RES,CHIP	100K	5%	1/10W
R37	1-249-421-11	CARBON	2.2K	5%	1/4W
R38	1-249-420-11	CARBON	1.8K	5%	1/4W
R39	1-249-417-11	CARBON	1K	5%	1/4W
R40	1-216-115-00	METAL CHIP	560K	5%	1/10W
R50	1-216-113-00	METAL CHIP	470K	5%	1/10W
R51	1-216-198-00	RES,CHIP	1K	5%	1/8W
R60	1-249-425-11	CARBON	4.7K	5%	1/4W
R61	1-249-390-11	CARBON	5.6	5%	1/4W
R62	1-249-390-11	CARBON	5.6	5%	1/4W
R63	1-249-417-11	CARBON	1K	5%	1/4W
R64	1-249-417-11	CARBON	1K	5%	1/4W
R65	1-249-417-11	CARBON	1K	5%	1/4W
R66	1-249-417-11	CARBON	1K	5%	1/4W
R67	1-247-807-31	CARBON	100	5%	1/4W
R68	1-247-807-31	CARBON	100	5%	1/4W
R69	1-216-025-00	RES,CHIP	100	5%	1/10W
R70	1-208-806-11	RES,CHIP	10K	0.5%	1/10W
R71	1-208-806-11	RES,CHIP	10K	0.5%	1/10W
R100	1-216-296-00	SHORT	0		
R101	1-216-049-11	RES,CHIP	1K	5%	1/10W
R102	1-216-178-00	RES,CHIP	150	5%	1/8W
R103	1-216-097-00	RES,CHIP	100K	5%	1/10W
R104	1-216-097-00	RES,CHIP	100K	5%	1/10W
R105	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R106	1-216-073-00	METAL CHIP	10K	5%	1/10W
R107	1-216-049-11	RES,CHIP	1K	5%	1/10W
R110	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R111	1-216-073-00	METAL CHIP	10K	5%	1/10W
R112	1-216-206-00	RES,CHIP	2.2K	5%	1/8W
R113	1-216-073-00	METAL CHIP	10K	5%	1/10W
R114	1-216-073-00	METAL CHIP	10K	5%	1/10W
R115	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R119	1-216-075-00	METAL CHIP	12K	5%	1/10W
R120	1-216-001-00	METAL CHIP	10	5%	1/10W
R121	1-216-049-11	RES,CHIP	1K	5%	1/10W
R122	1-216-073-00	METAL CHIP	10K	5%	1/10W
R123	1-216-238-91	RES,CHIP	47K	5%	1/8W
R124	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R125	1-216-206-00	RES,CHIP	2.2K	5%	1/8W
R126	1-216-073-00	METAL CHIP	10K	5%	1/10W
R127	1-216-049-11	RES,CHIP	1K	5%	1/10W
R128	1-216-049-11	RES,CHIP	1K	5%	1/10W
R129	1-216-077-00	METAL CHIP	15K	5%	1/10W
R150	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R151	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R200	1-216-077-00	METAL CHIP	15K	5%	1/10W
R250	1-216-065-00	RES,CHIP	4.7K	5%	1/10W (G)
R250	1-216-073-00	METAL CHIP	10K	5%	1/10W (AEP, UK, SE)
R251	1-216-065-00	RES,CHIP	4.7K	5%	1/10W (G)
R251	1-216-073-00	METAL CHIP	10K	5%	1/10W (AEP, UK, SE)
R252	1-216-073-00	METAL CHIP	10K	5%	1/10W
R253	1-216-073-00	METAL CHIP	10K	5%	1/10W
R254	1-216-089-00	RES,CHIP	47K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R350	1-216-095-00	METAL CHIP	82K	5%	1/10W
R351	1-216-095-00	METAL CHIP	82K	5%	1/10W
R352	1-216-075-00	METAL CHIP	12K	5%	1/10W
R353	1-216-073-00	METAL CHIP	10K	5%	1/10W
R354	1-216-023-00	METAL CHIP	82	5%	1/10W
R355	1-216-023-00	METAL CHIP	82	5%	1/10W
R356	1-216-091-00	METAL CHIP	56K	5%	1/10W
R357	1-216-091-00	METAL CHIP	56K	5%	1/10W
R358	1-216-119-00	METAL CHIP	820K	5%	1/10W
R359	1-216-119-00	METAL CHIP	820K	5%	1/10W
R360	1-216-001-00	METAL CHIP	10	5%	1/10W
R361	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R362	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R363	1-249-385-11	CARBON	2.2	5%	1/4W
R364	1-249-385-11	CARBON	2.2	5%	1/4W
R365	1-216-210-00	RES,CHIP	3.3K	5%	1/8W
R366	1-216-073-00	METAL CHIP	10K	5%	1/10W
R450	1-216-150-00	RES,CHIP	10	5%	1/8W
R451	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R452	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R550	1-216-198-00	RES,CHIP	1K	5%	1/8W
R551	1-216-049-11	RES,CHIP	1K	5%	1/10W
R552	1-216-198-00	RES,CHIP	1K	5%	1/8W
R553	1-216-049-11	RES,CHIP	1K	5%	1/10W
R554	1-216-073-00	METAL CHIP	10K	5%	1/10W
R555	1-216-105-00	RES,CHIP	220K	5%	1/10W
R556	1-216-083-00	METAL CHIP	27K	5%	1/10W
R570	1-216-222-00	RES,CHIP	10K	5%	1/8W
R571	1-216-222-00	RES,CHIP	10K	5%	1/8W
R572	1-216-222-00	RES,CHIP	10K	5%	1/8W
R573	1-249-429-11	CARBON	10K	5%	1/4W
R574	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R575	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R576	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R577	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R578	1-216-089-00	RES,CHIP	47K	5%	1/10W
R579	1-216-089-00	RES,CHIP	47K	5%	1/10W
R580	1-216-089-00	RES,CHIP	47K	5%	1/10W
R581	1-216-089-00	RES,CHIP	47K	5%	1/10W
R600	1-216-073-00	METAL CHIP	10K	5%	1/10W
R601	1-216-222-00	RES,CHIP	10K	5%	1/8W
R602	1-216-689-11	METAL CHIP	39K	0.5%	1/10W
R603	1-216-089-00	RES,CHIP	47K	5%	1/10W
R604	1-216-097-00	RES,CHIP	100K	5%	1/10W
R605	1-216-105-00	RES,CHIP	220K	5%	1/10W
R606	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R607	1-216-089-00	RES,CHIP	47K	5%	1/10W
R608	1-216-073-00	METAL CHIP	10K	5%	1/10W
R609	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R610	1-216-073-00	METAL CHIP	10K	5%	1/10W
R611	1-216-041-00	METAL CHIP	470	5%	1/10W
R612	1-216-073-00	METAL CHIP	10K	5%	1/10W
R613	1-216-198-00	RES,CHIP	1K	5%	1/8W
R614	1-216-081-00	METAL CHIP	22K	5%	1/10W
R615	1-216-073-00	METAL CHIP	10K	5%	1/10W
R616	1-249-421-11	CARBON	2.2K	5%	1/4W
R620	1-216-097-00	RES,CHIP	100K	5%	1/10W
R621	1-216-081-00	METAL CHIP	22K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R622	1-216-206-00	RES,CHIP	2.2K	5%	1/8W
R623	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R624	1-216-089-00	RES,CHIP	47K	5%	1/10W
R625	1-249-482-11	CARBON	4.7	5%	1/2W
R626	1-216-073-00	METAL CHIP	10K	5%	1/10W
R627	1-249-482-11	CARBON	4.7	5%	1/2W
		< VARIABLE RESISTOR >			
RV100	1-241-768-11	RES, ADJ, CARBON 220K			
		< SWITCH >			
S2	1-771-531-11	SWITCH, TACTILE (RESET)			
		< TUNER >			
TU100	1-693-423-21	FM/AM TUNER UNIT			
		< VIBRATOR >			
X1	1-579-952-21	VIBRATOR, CERAMIC (8MHz)			
X2	1-567-098-61	VIBRATOR, CRYSTAL (32.768kHz)			
X100	1-567-848-11	VIBRATOR, CRYSTAL (7.2MHz)			
X150	1-579-242-41	VIBRATOR, CRYSTAL (4.332MHz)			
**********					
		MISCELLANEOUS			
		**********			
12	1-776-527-31	CORD (WITH CONNECTOR) (ISO) (POWER)			
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) (10A)			
HP901	1-543-717-11	HEAD, MAGNETIC (PLAYBACK)			
M901	X-3364-496-1	MOTOR ASSY (CAPSTAN/REEL)			
S901	1-692-502-11	SWITCH, SLIDE (DIRECTION)			
S902	1-692-065-11	SWITCH, LEAF (FF/REW)			
S903	1-554-790-21	SWITCH, POWER (TAPE DETECT)			
**********					
		ACCESSORIES & PACKING MATERIALS			
		**********			
	3-864-874-11	MANUAL, INSTRUCTION (ENGLISH, SPANISH, SWEDISH, PORTUGUESE) (AEP, UK)			
	3-864-874-31	MANUAL, INSTRUCTION (ENGLISH, POLISH, CZECK, GREEK,TURKISH) (AEP, SE)			
	3-864-874-41	MANUAL, INSTRUCTION (GERMAN) (G)			
	3-864-875-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, SPANISH, SWEDISH, PORTUGUESE) (AEP, UK)			
	3-864-875-21	MANUAL, INSTRUCTION, INSTALL (FRENCH, ITALIAN, GERMAN, DUTCH) (AEP, G, SE)			
	3-864-875-31	MANUAL, INSTRUCTION, INSTALL (ENGLISH, POLISH, CZECK, GREEK, TURKISH) (AEP, SE)			
	X-3372-595-1	CASE ASSY (for FRONT PANEL) (SE)			
**********					
		**********			
		HARDWARE LIST			
		**********			
#1	7-621-772-10	SCREW +B 2X4			
#2	7-685-792-09	SCREW +PTT 2.6X6 (S)			
#3	7-685-793-09	SCREW +PTT 2.6X8 (S)			
#4	7-685-790-01	SCREW +PTT 2.6X4 (S)			
#5	7-685-105-19	TPG +P 2X8 TYPE2, NON-SLIT			

Ref. No.	Part No.	Description	Remark
#6	7-627-553-88	SCREW, PRECISION +P 2X7	
#8	7-621-255-20	SCREW +P 2X4	
#9	7-685-781-09	SCREW +PTT 2X4 (S)	
#10	7-621-555-10	SCREW +K 2X3	
#11	7-621-591-00	SCREW +K 2X4	
#12	7-624-102-04	STOP RING 1.5, TYPE -E	
#13	7-624-104-04	STOP RING 2.0, TYPE -E	
#14	7-624-118-01	RING, RETAINING E-2.5	

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PARTS FOR INSTALLATION AND CONNECTIONS

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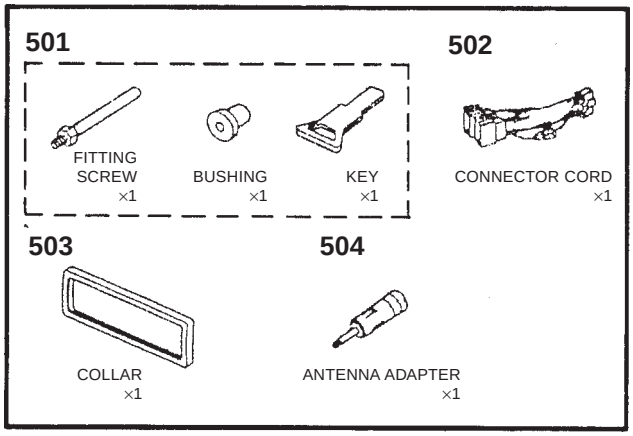
501	X-3370-077-1	SCREW ASSY (AE.KEY), FITTING	
502	1-776-527-31	CORD (WITH CONNECTOR) (ISO) (POWER)	
503	3-018-384-01	COLLAR	
504	1-465-459-21	ADAPTER, ANTENNA	



98I057542-1
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