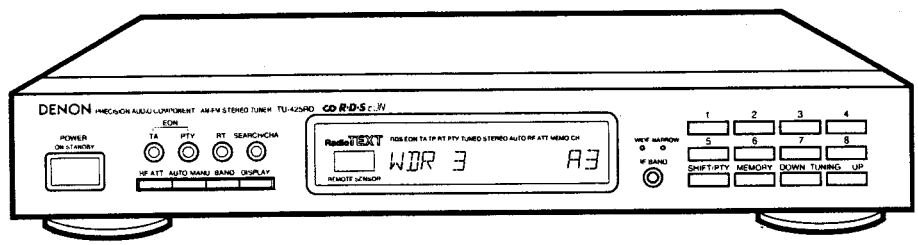
DENON

Hi-Fi AM-FM Stereo Tuner

SERVICE MANUAL

MODEL TU-425RD

AM-FM STEREO TUNER



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NIPPON COLUMBIA CO., LTD.

• SAFETY PRECAUTIONS

CAUTION

RISK OF ELECTRIC SHOCK

DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

- **DECLARATION OF CONFORMITY**
  We declare under our sole responsibility that this product, to which this declaration relates, is in conformity with the following standards:
  EN55013, EN55020, EN60555-2 and EN60555-3

- **ÜBEREINSTIMMUNGSERKLÄRUNG**
  Wir erklären unter unserer Verantwortung, daß dieses Produkt, auf das sich diese Erklärung bezieht, den folgenden Standards entspricht:
  EN55013, EN55020, EN60555-2 und EN60555-3

- **DECLARATION DE CONFORMITE**
  Nous déclarons sous notre seule responsabilité que l'appareil, auquel se réfère cette declaration, est conforme aux standards suivants:
  EN55013, EN55020, EN60555-2 et EN60555-3.

- **DICHIARAZIONE DI CONFORMITÀ**
  Dichiariamo con piena responsabilità che questo prodotto, al quale la nostra dichiarazione si riferisce, è conforme alle seguenti normative:
  EN55013, EN55020, EN60555-2 e EN60555-3.
  QUESTO PRODOTTO E' CONFORME
  AL D.M. 28/08/95 N. 548

- **DECLARACIÓN DE CONFORMIDAD**
  Declaramos bajo nuestra exclusiva responsabilidad que este producto al que hace referencia esta declaración, está conforme con los siguientes estándares:
  EN55013, EN55020, EN60555-2 y EN60555-3.

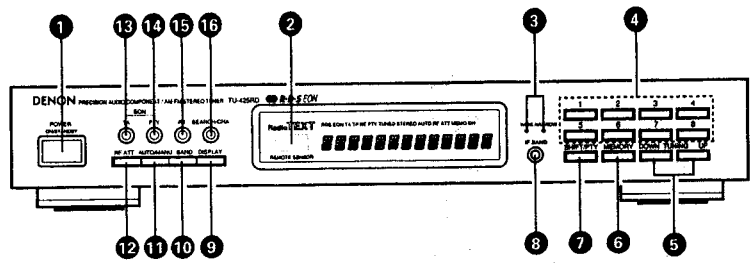
- **EENVORMIGHEIDSVERKLARING**
  Wij verklaren uitsluitend op onze verantwoordelijkheid dat dit produkt, waarop deze verklaring betrekking heeft, in overeenstemming is met de volgende normen:
  EN55013, EN55020, EN60555-2 en EN60555-3.

- **ÖVERENSSTÄMMELSESINTYG**
  Härmed intygas helt på eget ansvar att denna produkt, vilken detta intyg avser, uppfyller följande standarder:
  EN55013, EN55020, EN60555-2 och EN60555-3.

- **DECLARAÇÃO DE CONFORMIDADE**
  Declaramos sob nossa exclusiva responsabilidade que este produto, ao qual esta declaração corresponde, está em conformidade com as seguintes normas:
  EN55013, EN55020, EN60555-2 e EN60555-3.

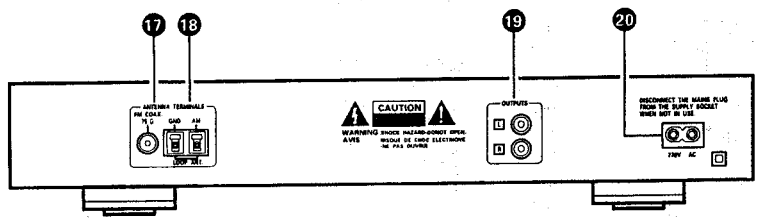
FRONT PANEL
FRONTPLATTE
PANNEAU AVANT
PANNELLO FRONTALE

TABLERO FRONTAL
VOORPANEEL
FRONT PANELEN
PAINEL FRONTAL

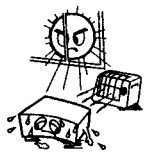


REAR PANEL
RÜCKWAND
PANNEAU ARRIERE
IL PANNELLO POSTERIORE

PANEL TRASERO
ACHTERPANEEL
BAKSIDAN
PAINEL TRAZEIRO



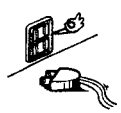
NOTE ON USE / HINWEISE ZUM GEBRAUCH / OBSERVATIONS RELATIVES A L'UTILISATION
NOTE SULL'USO / NOTAS SOBRE EL USO / ALVORENS TE GEBRUIKEN / OBSERVERA
OBSERVAÇÕES QUANTO AO USO



- Avoid high temperatures
  Allow for sufficient heat dispersion when installed on a rack.
- Vermeiden Sie hohe Temperaturen
  Beachten Sie, daß eine ausreichend Luftzirkulation gewährleistet wird, wenn das Gerät auf ein Regal gestellt wird.
- Eviter des températures élevées
  Tenir compte d'une dispersion de chaleur suffisante lors de l'installation sur une étagère.
- Evitate di esporre l'unità a temperature alte.
  Assicuratevi che ci sia un'adeguata dispersione del calore quando installate l'unità in un mobile per componenti audio.
- Evite altas temperaturas
  Permite la suficiente dispersión del calor cuando está instalado en la consola.
- Vermijd hoge temperaturen
  Zorg voor een degelijk hitteafvoer indien het apparaat op een rek wordt geplaatst.
- Undvik höga temperaturer.
  Se till att det finns möjlighet till god värmeavledning vid montering i ett rack.
- Evite temperaturas altas
  Conceda suficiente dispersão de calor quando o equipamento for instalado numa prateleira.

- Handle the power cord carefully.
  Hold the plug when unplugging the cord.
- Gehen Sie vorsichtig mit dem Netzkabel um.
  Halten Sie das Kabel am Stecker, wenn Sie den Stecker herausziehen.
- Manipuler le cordon d'alimentation avec précaution.
  Tenir la prise lors du débranchement du cordon.
- Manneggiate il filo di alimentazione con cura.
  Agite per la spina quando scollegate il cavo dalla presa.
- Maneje el cordón de energía con cuidado.
  Sostenga el enchufe cuando desconecte el cordón de energía.
- Hanteer het netsnoer voorzichtig.
  Houd het snoer bij de stekker vast wanneer deze moet worden aan- of losgekoppeld.
- Hantera nätkabeln varsamt.
  Håll i kabeln när den kopplas från el-uttaget.
- Manuseie com cuidado o fio condutor de energia.
  Segure a tomada ao desconectar o fio.

- Keep the set free from moisture, water, and dust.
- Halten Sie das Gerät von Feuchtigkeit, Wasser und Staub fern.
- Protéger l'appareil contre l'humidité, l'eau et la poussière.
- Tenete l'unità lontana dall'umidità, dall'acqua e dalla polvere.
- Mantenga el equipo libre de humedad, agua y polvo.
- Laat geen vochtigheid, water of stof in het apparaat binnendringen.
- Utsätt inte apparaten för fukt, vatten och damm.
- Mantenha o aparelho livre de qualquer umidade, água ou poeira.



- Unplug the power cord when not using the set for long periods of time.
- Wenn das Gerät eine längere Zeit nicht verwendet werden soll, trennen Sie das Netzkabel vom Netzstecker.
- Débrancher le cordon d'alimentation lorsque l'appareil n'est pas utilisé pendant de longues périodes.
- Disinnestate il filo di alimentazione quando avete l'intenzione di non usare il filo di alimentazione per un lungo periodo di tempo.
- Desconecte el cordón de energía cuando no utilice el equipo por mucho tiempo.
- Neem altijd het netsnoer uit het stopkontakt wanneer het apparaat gedurende een lange periode niet wordt gebruikt.
- Koppla ur nätkabeln om apparaten inte kommer att användas i lang tid.
- Desligue o fio condutor de força quando o aparelho não tiver que ser usado por um longo período.

*(For sets with ventilation holes)

- Do not obstruct the ventilation holes.
- Die Belüftungsöffnungen dürfen nicht verdeckt werden.
- Ne pas obstruer les trous d'aération.
- Non coprite i fori di ventilazione.
- No obstruya los orificios de ventilación.
- De ventilatieopeningen mogen niet worden geblokkeerd.
- Täpp inte till ventilationsöppningarna.
- Não obstrua os orifícios de ventilação.

- Do not let foreign objects in the set.
- Keine fremden Gegenstände in das Gerät kommen lassen.
- Ne pas laisser des objets étrangers dans l'appareil.
- E' importante che nessun oggetto è inserito all'interno dell'unità.
- No deje objetos extraños dentro del equipo.
- Laat geen vreemde voorwerpen in dit apparaat vallen.
- Se till att främmande föremål inte tränger in i apparaten.
- Não deixe objetos estranhos no aparelho.

- Do not let insecticides, benzene, and thinner come in contact with the set.
- Lassen Sie das Gerät nicht mit Insektiziden, Benzin oder Verdünnungsmitteln in Berührung kommen.
- Ne pas mettre en contact des insecticides, du benzène et un diluant avec l'appareil.
- Assicuratevi che l'unità non venga in contatto con insetticidi, benzolo o solventi.
- No permita el contacto de insecticidas, gasolina y diluyentes con el equipo.
- Laat geen insektenverdelgende middelen, benzine of verfverdunner met dit apparaat in kontakt komen.
- Se till att inte insektsmedel på spraybruk, bensen och thinner kommer i kontakt med apparatens hölje.
- Não permita que inseticidas, benzina e dissolvente entrem em contacto com o aparelho.

- Never disassemble or modify the set in any way.
- Versuchen Sie niemals das Gerät auseinander zu nehmen oder auf jegliche Art zu verändern.
- Ne jamais démonter ou modifier l'appareil d'une manière ou d'une autre.
- Non smontate mai, nè modificate l'unità in nessun modo.
- Nunca desarme o modifique el equipo de ninguna manera.
- Nooit dit apparaat demonteren of op andere wijze modifiëren.
- Ta inte isär apparaten och försök inte bygga om den.
- Nunca desmonte ou modifique o aparelho de alguma forma.

ENGLISH

Please check to make sure the following items are included with the main unit in the carton:

(1) Operating Instructions 1
(2) Connecting Cord 1
(3) AM Loop Antenna 1
(4) FM Indoor Antenna 1
(5) AC Cord 1

DEUTSCH

Bitte überprüfen Sie, ob die folgenden Teile vollständig in der Verpackung enthalten sind:

(1) Bedienungsanleitung 1
(2) Anschlußkabel 1
(3) MW-Rahmenantenne 1
(4) UKW-Zimmerantenne 1
(5) Netzkabel 1

FRANCAIS

Veuillez contrôler que les articles suivants sont bien joints à l'appareil principal dans le carton:

(1) Mode d'emploi 1
(2) Cordon de connexion 1
(3) Antenne Cadre AM 1
(4) Antenne FM Intérieure 1
(5) Cordon Secteur 1

ITALIANO

Controllare che le parti seguenti si trovino imballate con l'apparecchio nella scatola di spedizione.

(1) Istruzioni per l'uso 1
(2) Cavo di connessione 1
(3) Antenna AM a Quadro 1
(4) Antenna FM Interna 1
(5) Cavo CA 1

ESPAÑOL

Por favor verifique asegurandose de que los siguientes articulos son empacados en la caja pero separados de la unidad principal.

(1) Instrucciones de operación 1
(2) Cordón de concección 1
(3) Antena AM de Cuadro 1
(4) Antena FM Interior 1
(5) Cable de alimentacion 1

NEDERLANDS

Kontroleer of de volgende accessoires bij het hoofdtoestel in de doos zijn verpakt:

(1) Gebruiksaanwijzing 1
(2) Aansluitsnoer 1
(3) AM-Raamantenne 1
(4) FM-Binnenantenne 1
(5) Netkabel 1

SVENSKA

Kontrollera att följande, förutom huvudapparaten, finns med i kartongen.

(1) Bruksanvisning 1
(2) Anslutningskabel 1
(3) AM-Ramantenn 1
(4) FM-Inomhusantenn 1
(5) Nätsladd 1

PORTUGUÊS

Certifique-se de que as seguintes peças estão incluídas na embalagem fora da unidade principal:

(1) Instruções de operação 1
(2) Cabo de ligação 1
(3) Antena de quadro AM 1
(4) Antena de interior FM 1
(5) Cabo de ligação de corrente 1

Table of characters
The characters are input in the order shown below. Use the TUNING buttons ⑤ to select the desired characters.

Zeichentabelle
Die Zeichen werden in der unten angegebenen Reihenfolge eingegeben. Benutzen Sie die Abstimmtasten (TUNING) ⑤ um die gewünschten Zeichen auszuwählen.

Table des caractères
Les caractères sont introduits dans l'ordre indiqué ci-dessous. Utiliser les touches de syntonisation (TUNING) ⑤ pour selectionner les caractères désirés.

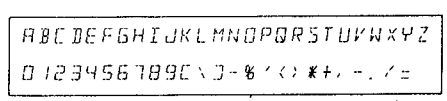
Tabella dei caratteri
I caratteri vengono immessi nell'ordine visualizzato qui sotto. Usate i tasti di sintonizzazione (TUNING) ⑤ per selezionare i caratteri desiderati.

Tabla de caracteres
Los caracteres se ingresan en el orden que se indica abajo. Use los botones de sintonización (TUNING) ⑤ para seleccionar los caracteres deseados.

Lettertabel
De letters worden in de hieronder getoonde volgorde ingevoerd. Gebruik de afstemtoetsen (TUNING) ⑤ om de gewenste letters te kiezen.

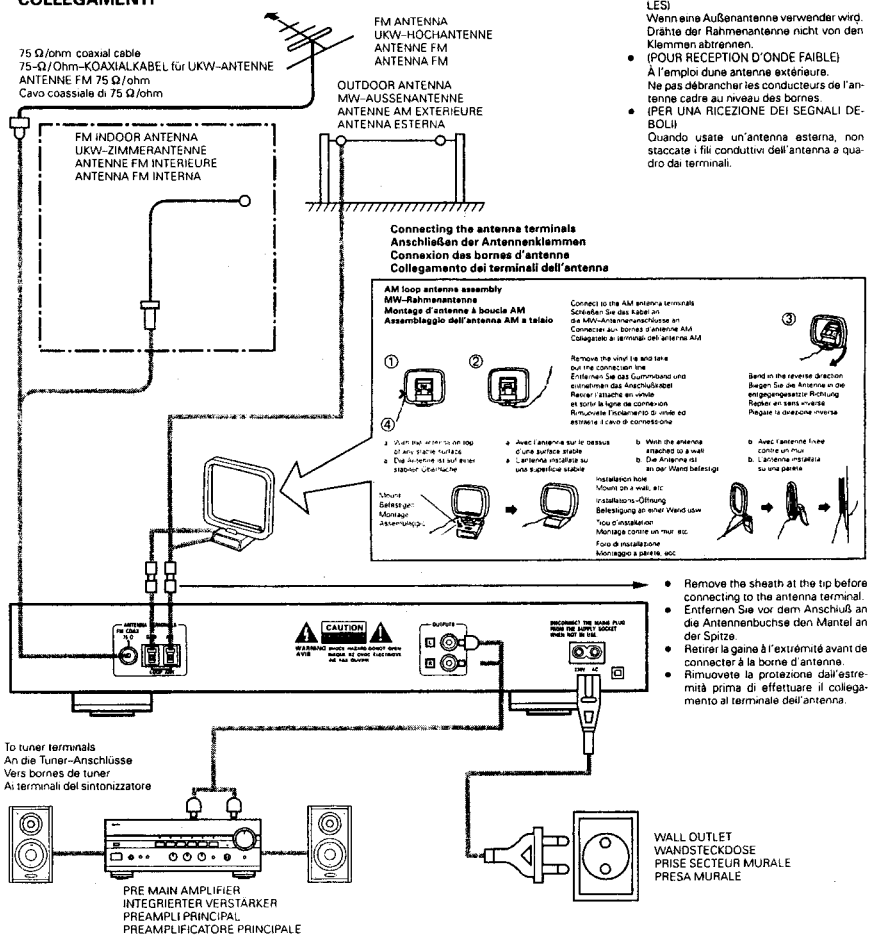
Teckentabell
Tecken kan matas in enligt ordningen nedan. Använd avstämningstangenterna (TUNING) ⑤ för att välja önskat tecken.

Tabela de caracteres
Os caracteres são entrados pela ordem que se mostra embaixo. Utilize os botões de sintonizar (TUNING) ⑤ para seleccionar os caracteres desejados.



CONNECTIONS
ANSCHLÜSSE
CONNEXIONS
COLLEGAMENTI

DIRECTION OF BROADCASTING STATION
RICHTUNG DES SENDERS
DIRECTION DE LA STATION EMETTRICE
DIREZIONE DELLA STAZIONE TRASMITTENTE



- (FOR WEAK SIGNAL RECEPTION)
  When an outdoor antenna is used, do not detach the lead wires of the loop antenna from the terminals.
- (BEI SCHWACH EINFALLENDEN SIGNALES)
  Wenn eine Außenantenne verwender wird, Drähte der Rahmenantenne nicht von den Klemmen abtrennen.
- (POUR RECEPTION D'ONDE FAIBLE)
  À l'emploi dune antenne extérieure, Ne pas débrancher les conducteurs de l'antenne cadre au niveau des bornes.
- (PER UNA RICEZIONE DEI SEGNALI DEBOLI)
  Quando usate un'antenna esterna, non staccate i fili conduttivi dell'antenna a quadro dai terminali.

- Remove the sheath at the tip before connecting to the antenna terminal.
- Entfernen Sie vor dem Anschluß an die Antennenbuchse den Mantel an der Spitze.
- Retirer la gaine à l'extrémité avant de connecter à la borne d'antenne.
- Rimuovete la protezione dall'estremità prima di effettuare il collegamento al terminale dell'antenna.

Note:
- Please keep away AM loop antenna from the metal parts of the back panel.

Hinweis:
- Die MW-Rahmenantenne (AM) drat die Metallteile der Geräte-Rückseite nicht berühren.

Remarque:
- Eloigner l'antenne en boucle AM de toute partie métallique du panneau arrière.

Nota:
- Tenete lontana antenna AM a quadro dalle parti metalliche del pannello posteriore.

DESIGNATIONS AND FUNCTIONS OF PANEL CONTROLS (Refer to Page 3.)

FRONT PANEL

❶ POWER (Power ON / STANDBY button)
The unit works 2–3 seconds after this switch is turned on.
Whenever the power switch is in the STANDBY state, the apparatus is still connected on AC line voltage.
Please be sure to unplug the cord when you leave home for, say, a vacation.

❷ REMOTE SENSOR (Remote control sensor)
This sensor receives the infrared light transmitted from the wireless remote control unit.
For remote control, point the wireless remote control unit to the sensor.
Some of the functions can be operated with the remote control units included with DENON pre-main amplifiers and AV surround amplifiers.

❸ WIDE / NARROW indicator
This indicators whether the IF amplifier stage is wide or narrow.
The indicator remains off when receiving MW (AM) broadcast.

❹ PRESET CHANNEL (Station button)
Use these when presetting and recalling stations. Also use these with the SHIFT / PTY button to use a total of 40 preset channels, A (1 – 8), B (1 – 8), ... E (1 – 8).

❺ TUNING (Tuning buttons)
Use these to change the received frequency to a higher frequency (UP) or a lower frequency (DOWN).
When writing station names, use these buttons to select the letters. (Refer to Page 5.)

❻ MEMORY (Memory button)
Frequencies and station names can be stored in the memory.
When this button is pressed, the "MEMO" indicator on the display flashes for 10 seconds. Use the SHIFT / PTY button and the preset channel buttons during this time to designate the desired preset channel.

❼ SHIFT / PTY button
Use this button to select the memory blocks, A (1 to 8), B (1 to 8), C (1 to 8), D (1 to 8), or E (1 to 8)
For PTY search and EON PTY, use this button to select the program type. When writing station names, use this button to set the writing position.

❽ IF BAND button
Use this button to select the bandwidth of the FM intermediate frequency amplifier "WIDE" or "NARROW".
The wide or narrow position is indicated by the WIDE / NARROW indicator ❸.

❾ DISPLAY (Display mode selector button)
This button is used to select the display mode.
The mode changes as follows each time the button is pressed:
- Tuning frequency
- Input character
- Programme service name (PS)
- Programme type (PTY)
- Clock time (CT)

The following may be displayed if the signals are weak or no RDS service is available. This is not a malfunction.
"NO PS"
"NO PTY"
"NO TIME DATA"
NOTE: The programme type, programme service name and clock time are not displayed in the MW (AM) band.
"NO TIME DATA" may be displayed within the first minute after a station is tuned in, but this is not a malfunction. If time data is being broadcast, the time can be displayed after one minute has passed.

❿ BAND (Band Button)
Selects FM or MW(AM).

⓫ AUTO MUTE / MANU (Tuning Mode Button)
This switches between auto and manual tuning.
Auto tuning: When the UP button is pressed, the radio is tuned automatically to a higher frequency. Press the DOWN button to tune to a lower frequency. Use this position to eliminate noise when no signals or weak signals are being received.
Manual tuning: In this position, the radio can be tuned manually. Reception is automatically monaural when in the manual mode.

⓬ RF ATT (RF attenuator button)
This button turns the RF attenuator on and off. When the RF attenuator is on, the "RF ATT" indicator on the display lights, and the antenna input signals are attenuated before entering the front end. Turn the RF attenuator on to receive local stations and when connecting to a cable system. Turn the RF attenuator off to receive weak signals.
This mode only functions in the FM band.
This mode setting is stored in the preset memory.

⓭ EON TA button
This button is used to turn EON TA mode on or off.
(Refer to Page 11.)

⓮ EON PTY button
This button is used to turn EON PTY mode on or off.
(Refer to Page 12.)

⓯ RT (Radio Text) button
This button is used for displaying radio text messages.
When this button is pressed while the station currently tuned in is offering a radio text message service, the message scrolls on the display.
This mode turns on and off each time the button is pressed.

⓰ SEARCH / CHA (Search character mode button)
This button is used for the RDS search (refer to page 10), PTY search (refer to page 11) and TP search (refer to page 11) operations, and to input the station name (refer to page 10).

CAUTION:
1. Whenever the power switch is in the STANDBY position, the unit is still conhected on AC line voltage.
   Please be sure to unplug the cord when you leave home for, say, a vacation.
2. Noise may be generated if a near-by television set is on during MW (AM), FM broadcasting reception. The tuner should be used as far away from a television as possible.
3. Effective period of memory back-up is about a month under normal temperature.

REAR PANEL

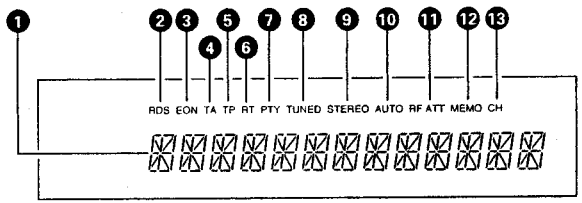
⑰ **FM ANT (FM antenna terminals)**
75-Ω/ohm coaxial cables can be connected to these terminals. For the connection procedure, see the section "CONNECTIONS". (Refer to Page 6)

⑱ **AM ANT (AM antenna terminals)**
Connect the included AM loop antenna. (Refer to page 6 for connections.)
Connect this terminal when a medium wave outdoor antenna is used.

⑲ **OUTPUT (Output terminals)**
Connect these to the TUNER input terminals on the pre-main amplifier.

⑳ **AC INLET**
Connect the included AC cord here.

DISPLAY



❶ **16-segment display**
This displays the frequency, station name, program type, etc.

❷ **RDS indicator**
This lights when receiving RDS broadcasts, and flashes during the RDS search.

❸ **EON indicator**
This lights when receiving EON information.

❹ **TA indicator**
This lights when the EON TA button is pressed and when a traffic announcement is being received.

❺ **TP indicator**
This lights when receiving a station broadcasting traffic announcements and flashes during the TP search operation.

❻ **RT indicator**
This lights when the RT button is pressed.

❼ **PTY indicator**
This lights when the EON PTY button is pressed, and flashes during the PTY search operation.

❽ **TUNED indicator**
This lights when a station is properly tuned in.

❾ **STEREO indicator**
This lights when receiving stereo broadcasts. It remains off when receiving AM broadcasts.

❿ **AUTO indicator**
This indicates the tuning mode. It lights in the auto mode, and remains off in the manual mode.

⓫ **RF ATT indicator**
This lights when the RF attenuator is turned on (RF ATT ⑫).

⓬ **MEMO indicator**
This flashes for 10 seconds when the MEMORY button ⑥ is pressed, and flashes during the auto preset memory operation.

⓭ **CH indicator**
This lights when the preset channel number is displayed, and flashes during the auto preset memory operation.

Using the Various Functions

1. Using the auto preset memory function
This function automatically stores the FM stations which can be received in the area in which the set is being used in the preset memory. Use this function so that the RDS functions can be used more effectively. Also note that the channel memories can be changed at will even after the preset stations have been stored with this function.

Operation
1. Connect the FM antenna and set it so that FM stations can be received.
2. Press the POWER button to turn on the power while holding in the MEMORY button.
3. Searching begins automatically, and stations are stored in the preset memory in order, beginning from channel A1. (The operation automatically stops once 40 stations have been set in the memory.)

2. Storing new stations at the preset channels
The reception frequency, RDS service information, Tuning mode, RF ATT mode and input characters can be stored at the different channel memories.
When this operation is performed, the station already stored in that channel memory using the auto preset memory function is cleared.

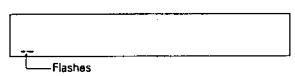
Operation
1. Press the MEMORY button. (The MEMO indicator flashes.)
2. Use the SHIFT/PTY button to select the block, A to E.
3. Use buttons 1 to 8 to select the channel at which the station is to be stored.

3. Recalling preset channels
Use the following operation to recall preset channels:

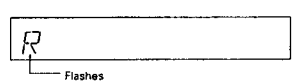
Operation
1. Use the SHIFT/PTY button to select the block, A to E.
2. Use buttons 1 to 8 to select the channel at which to store the station.

4. Inputting characters
Any characters can be input (up to 8 characters).
The input characters can be stored at the preset channels.

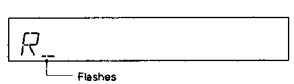
Operation
1. Press the SEARCH/CHA button four times.
(The cursor flashes at the first place.)



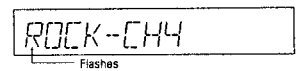
2. Use the UP or DOWN button to select the character for the first place.
(The selected character flashes.)



3. Press the SHIFT/PTY button to move the cursor to the next place.
(The cursor flashes at the second place.)



4. Repeat steps 2 and 3 above to input up to 8 characters.



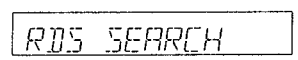
5. The characters are set five seconds after the input procedure is finished. The input characters can be stored in the memory.
To keep the input characters, be sure to store them in a channel memory.

6. Clearing characters
   1. Recall the character you want to clear.
   2. Press the SEARCH/CHA button 4 times until the character at the first place flashes.
   3. Then press the SHIFT/PTY button for at least 2 seconds.
   The current character will then be cleared.

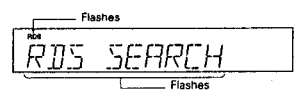
Using the RDS Functions (for FM only)

1. RDS Search
Use this to automatically search and stop at stations offering RDS services.

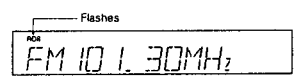
Operation
1. Press the SEARCH/CHA button once.



2. Press the UP or DOWN button.
(Searching begins.)



3. Searching begins again if the UP or DOWN button is pressed while the RDS indicator is flashing.



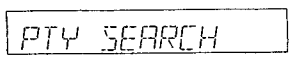
4. If no other RDS station is found when all the frequencies are searched, "NO RDS" is displayed.

2. PTY Search

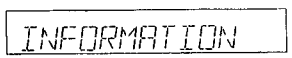
Use this to automatically search and stop at stations broadcasting the specified programme type (PTY).

Operation

1. Press the SEARCH/CHA button twice.

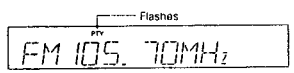


2. Use the SHIFT/ PTY button to select the programme type.



3. Press the UP or DOWN button.
(Searching begins.)

4. Searching begins again if the UP or DOWN button is pressed while the PTY indicator is flashing.



5. If no other station broadcasting the designated programme type is found when all the frequencies are searched, "NO PROGRAMME" is displayed.

List of PTY (Programme Type) Displays

1.	NEWS	9.	VARIED
2.	AFFAIRS	10.	POP MUSIC
3.	INFORMATION	11.	ROCK MUSIC
4.	SPORT	12.	M.O.R. MUSIC
5.	EDUCATION	13.	L-CLASSICS (Light classics)
6.	DRAMA	14.	S-CLASSICS (Serious classics)
7.	CULTURE	15.	OTHER MUSIC
8.	SCIENCE	31.	ALARM

NOTE: ALARM cannot be selected during the PTY search operation and when in the EON PTY mode.

3. TP Search

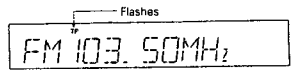
Use this to automatically search and stop at stations which broadcast traffic announcements (even if the station is not currently broadcasting a traffic announcement.)

Operation

1. Press the SEARCH/CHA button three times.

2. Press the UP or DOWN button.
(Searching begins.)

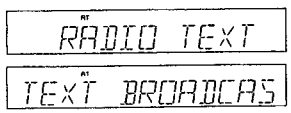
3. Searching begins again if the UP or DOWN button is pressed while the TP indicator is flashing.



4. If no other TP station is found when all the frequencies are searched, "NO PROGRAMME" is displayed.

4. Radio Text (RT)

When this button is pressed while the station currently tuned in is offering a radio text message service, the message scrolls on the display.
(The RT indicator lights when the RT button is pressed.)



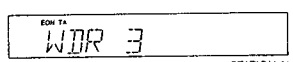
("NO TEXT DATA" is displayed if no radio text message is being broadcast.)

5. EON TA

When an RDS station is broadcasting RDS information on other stations within the same network and a traffic announcement begins on another station in the same network based on this information (EON = Enhanced Other Network), that network station is automatically tuned in. The previous station is tuned back in once the traffic announcement is over.

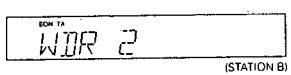
Operation

1. Press the EON TA button.
(The TA indicator lights.)



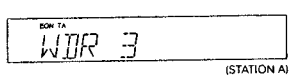
(STATION A)

(When a traffic announcement starts, that station is automatically tuned in.)



(STATION B)

(When the traffic announcement is over, the previous station is tuned back in.)



(STATION A)

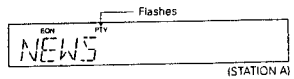
NOTE:
If the station switches from the current station to the network station when this mode is on but the network station cannot be received properly due to weak signals, the previous station is immediately tuned back in.

6. EON PTY

When an RDS station is broadcasting RDS information on other stations within the same network and a programme of the specified programme type (PTY) begins on a station in the same network, that network station is automatically tuned in. Use this function to tune in broadcasts of the desired programme type with priority.

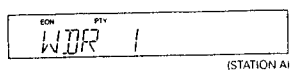
Operation

- Press the EON PTY button, and use the SHIFT/PTY button to select the programme type.



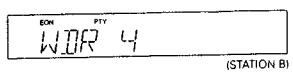
(STATION A)

This mode is set five seconds after the programme type is selected.



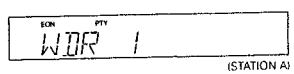
(STATION A)

(When a programme of the specified programme type begins on a station in the same network, that station is tuned in.)



(STATION B)

(The previous station is tuned back in once a programme of a different programme type begins.)



(STATION A)

- To change the programme type, first press the EON PTY button to cancel the EON PTY mode then set it again.

NOTE:
If the station switches from the current station to the network station broadcasting the specified programme type when this mode is on but the network station cannot be received properly due to weak signals, the previous station is immediately tuned back in.

NOTE:

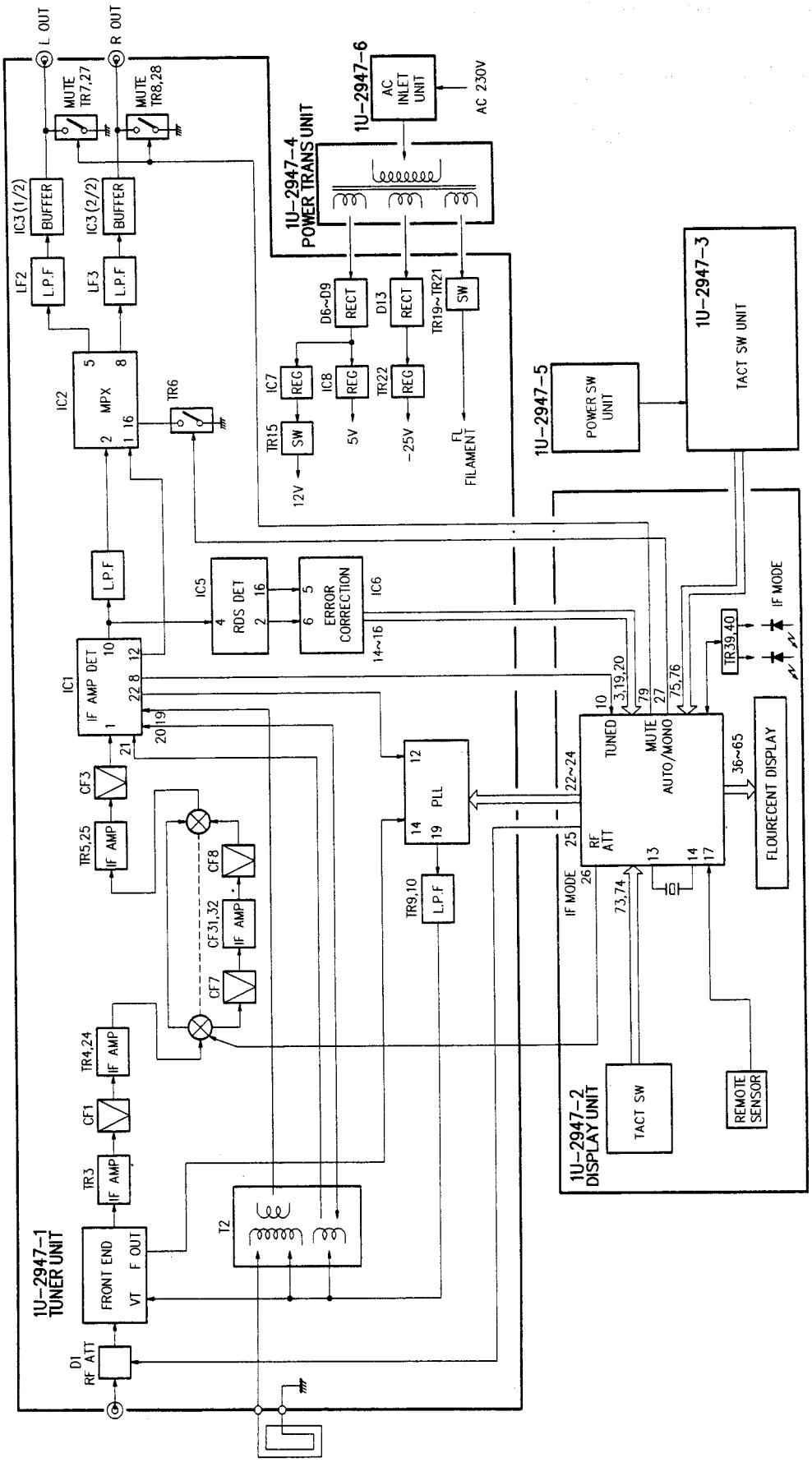
1. Be sure to turn the EON TA and EON PTY modes off when recording programmes.
2. In the EON TA and EON PTY modes, if the station is switched from the current station to another station in the network but the signals of that network station are weak and it cannot be tuned in properly, "WEAK SIGNAL" is displayed and the original station is immediately tuned back in.
3. In the EON TA mode, the station does not switch to another station in the network if the current station is broadcasting a traffic announcement.
4. In the EON PTY mode, the station does not switch to another station in the network if the current station is broadcasting a programme of the same programme type.
5. Since the RDS services offered differ from station to station, some RDS functions may not operate for some stations, but this is not a malfunction.

Technical Data (typical value)	Technische Daten (typische Werte)	Caractéristiques techniques (valeur caractéristique)	Specifiche (Valori tipici)	Datos Técnicos (Valor típico)
• **FM SECTION**	• **UKW-EMPFANGSTEIL**	• **SECTION FM**	• **SEZIONE FM**	• **SECCION DE FM**
Frequency Range	Abstimmbereich	Plage de fréquence	Gamma di frequenza	Rango de frecuencia
Antenna Terminals	Antennenklemmen	Bornes d'Antenne	Terminali d'antenna	Terminales de antena
Usable Sensitivity	Nutzbare Empfindlichkeit (DIN)	Sensibilité Pratique	Sensibilità utile	Sensibilidad de uso
S/N 50 dB Sensitivity	Empfindlichkeit bei 50 dB	Sensibilité S/B à 50 dB	Sensibilità S/R a 50 dB	Sensibilidad de S/N 50 dB
Monaural	Störabstand Mono	MONO	Mono	Monoaural
Stereo	Stereo	Stéréo	Stereo	Estéreo
(μV is at 75 Ω/ohm	(Gemessen bei 75 Ω/ohm	(μV à 75 Ω: ohms	(μV è a 75 Ω/ohm	(μV a 75 Ω/ohm
0 dBf = 10^{-15}(W)	0 dBf = 10^{-15}(W)	0 dBf = 10^{-15}(W)	0 dBf = 10^{-15}(W)	0 dBf = 10^{-15}(W)
Image Interference Ratio	Spiegelfrequenzdämpfung	Rapport d'Interference Image	Rapporto di interferenza dell'immagine	Relación de interferencia de imagen
IF Interference Ratio	ZF-Unterdrückung	Rapport d'Interference IF	Rapporto di interferenza IF	Relación de interferencia de IF
AM Suppression Ratio	AM-Unterdrückung	Rapport de Suppression AM	Rapporto di soppressione AM	Relación de supresión AM
Effective Selectivity	Effektive Selektivität	Sélectivité Effective	Selettività effettiva	Selectividad efectiva
WIDE	WEIT	WIDE	WIDE	ANCHO
NARROW	SCHMAL	NARROW	NARROW	ESTRECHO
Capture Ratio	Gleichwellenselektion	Rapport de Captage	Rapporto di cattura	Relación de captura
Frequency Characteristics	Frequenzgang	Caractéristique de Fréquence	Caratteristiche di frequenza	Características de frecuencia
Signal-to-noise Ratio	Geräuschspannungsabstand	Rapport de Signal-à Bruit	Rapporto segnale/rumore	Relación de señal a ruido
Monaural	Mono	Mono	Monoaural	Monoaural
Stereo	Stereo	Stéréo	Stereo	Estéreo
Total Harmonic Distortion (WIDE)	Klirrfaktor (WEIT)	Distorsion Harmonique Totale (WIDE)	Distorsione armonica (WIDE)	Distorsión armónica total (ANCHO)
Mono 1 kHz (at 75 kHz dev.)	Mono 1 kHz (bei 75 kHz Hub)	Mono 1 kHz (à unedev. de 75 kHz)	Mono a 1 kHz (deviazione di 75 kHz)	Mono 1 kHz (a 75 kHz dev.)
Stereo 1 kHz (at 67.5 kHz dev.)	Stereo 1 kHz (bei 67,5 kHz Hub)	Stéréo 1 kHz (à unedev. de 67,5 kHz)	Stereo a 1 kHz (deviazione di 67,5 kHz)	Estéreo 1 kHz (a 67,5 kHz dev.)
Stereo Separation 1 kHz (WIDE)	Kanaltrennung 1 kHz (WEIT)	Séparation Stéréo 1 kHz (WIDE)	Separazione stereo 1 kHz (WIDE)	Estéreo separación 1 kHz (ANCHO)
• **AM (MW) SECTION**	• **AM-EMPFANGSTEIL**	• **SECTION AM**	• **SEZIONE AM**	• **SECCION DE AM**
Frequency Range	Abstimmbereich	Plage de fréquence	Gamma di frequenza	Rango de frecuencia
Antenna Terminals	Antennenklemme	Bornes d'Antenne	Terminales de antena	Terminal de antena
Usable Sensitivity	Nutzbare Empfindlichkeit	Sensibilité Utilisable	Sensibilità utile	Sensibilidad de uso
Signal-to-noise Ratio	Geräuschspannungsabstand	Rapport de signal-à-Bruit	Rapporto segnale/rumore	Relación de señal a ruido
• **OTHERS**	• **SONSTIGES**	• **AUTRES**	• **ALTRE**	• **OTROS**
Power Supply	Netzspannung und frequenz	Alimentation	Alimentazione	Fuente de energía
Power Consumption	Leistungsaufnahme	Puissance absorbée	Consumo	Consumo de energía
Dimensions (W) × (H) × (D)	Abmessungen (B) × (H) × (T)	Dimensions (L) × (H) × (D)	Dimensioni (L) × (A) × (P)	Dimensiones (W) × (H) × (D)
Net Weight	Nettogewicht	Poids	Peso netto	Peso netto

- Design and specifications are subject to change without prior notice.
- Änderung der technischen Daten und des Design ohne vorherige Bekanntgabe vorbehalten.
- La conception et les spécifications sont susceptibles d'être modifiées sans préavis.
- Il disegno e le specificazioni sono soggetti a cambiamenti senza preavviso.
- El diseño y las especificaciones están sujetos a cambios sin previo aviso.

MEMO :

BLOCK DIAGRAM

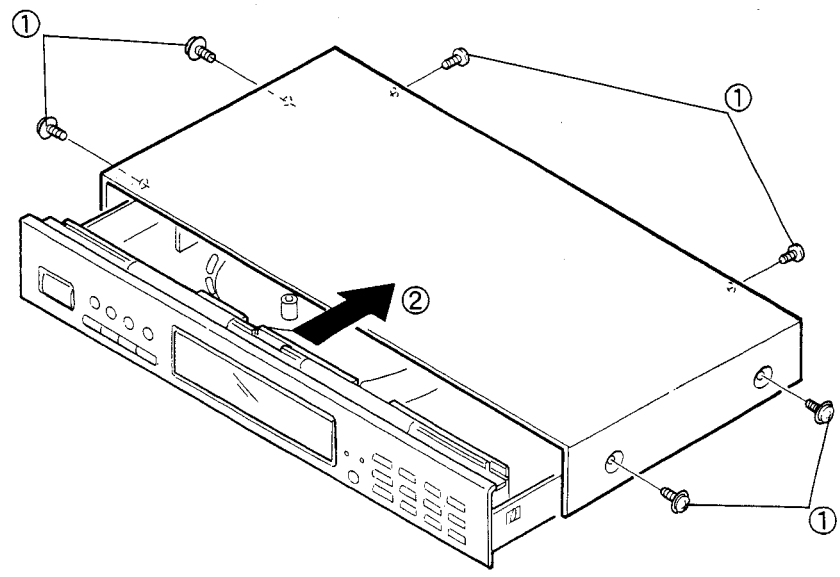


REMOVAL OF EACH SECTION

(To assemble, follow these procedures in reverse order.)

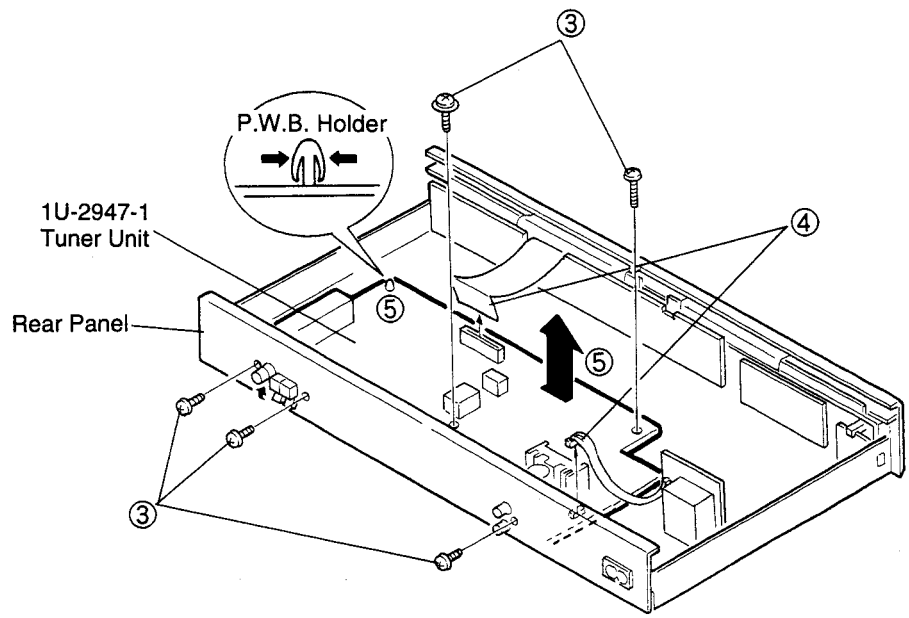
● Removing the Top Cover

1) Removing the six top cover fixing screws (four on the sides and two on the back).
2) Slide the top cover to the back and remove it.



● Removing the Tuner Unit (1U-2947-1)

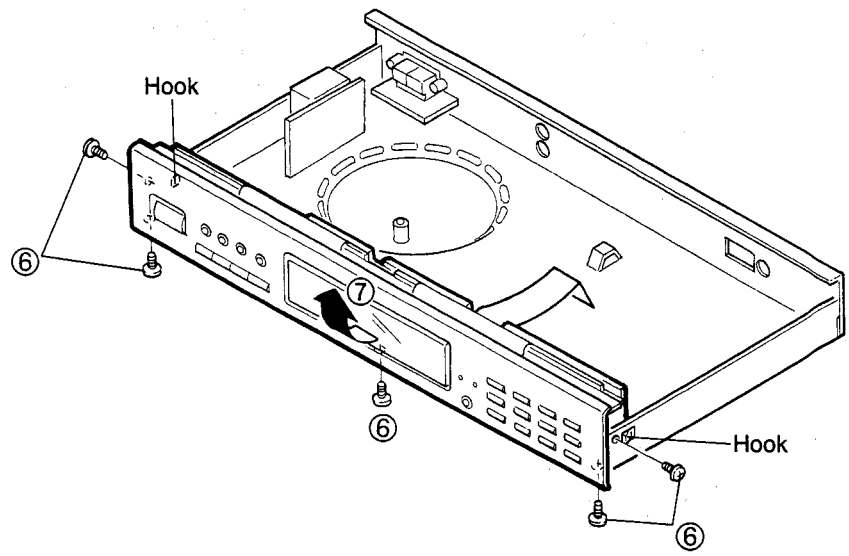
3) Removing the three screws and two screws fixing P.W.board.
4) Disconnect the two connectors.
5) Using radio pliers, grasp the circuit board holder and remove, and lift the P.W.board to arrow direction.



● Removing the Front Panel

6) Remove the five front panel fixing screws (two on the sides and three on the bottom).

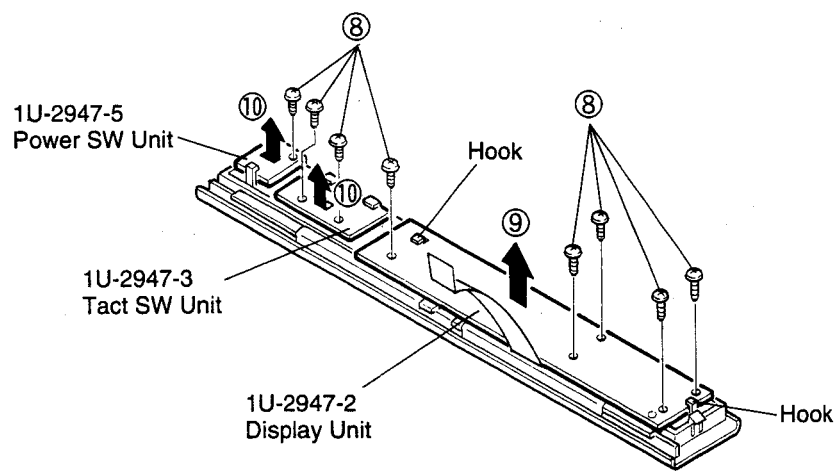
7) Release the two hooks (in the left and right sides of the chassis) and detach the front panel to arrow direction.



8) Remove the eight screw fixing the circuit boards.

9) Release the two hooks and lift the P.W.board (1U-2947-2) to arrow direction.

10) Lift the P.W.boards (1U-2947-3, 1U-2947-5) up and off.

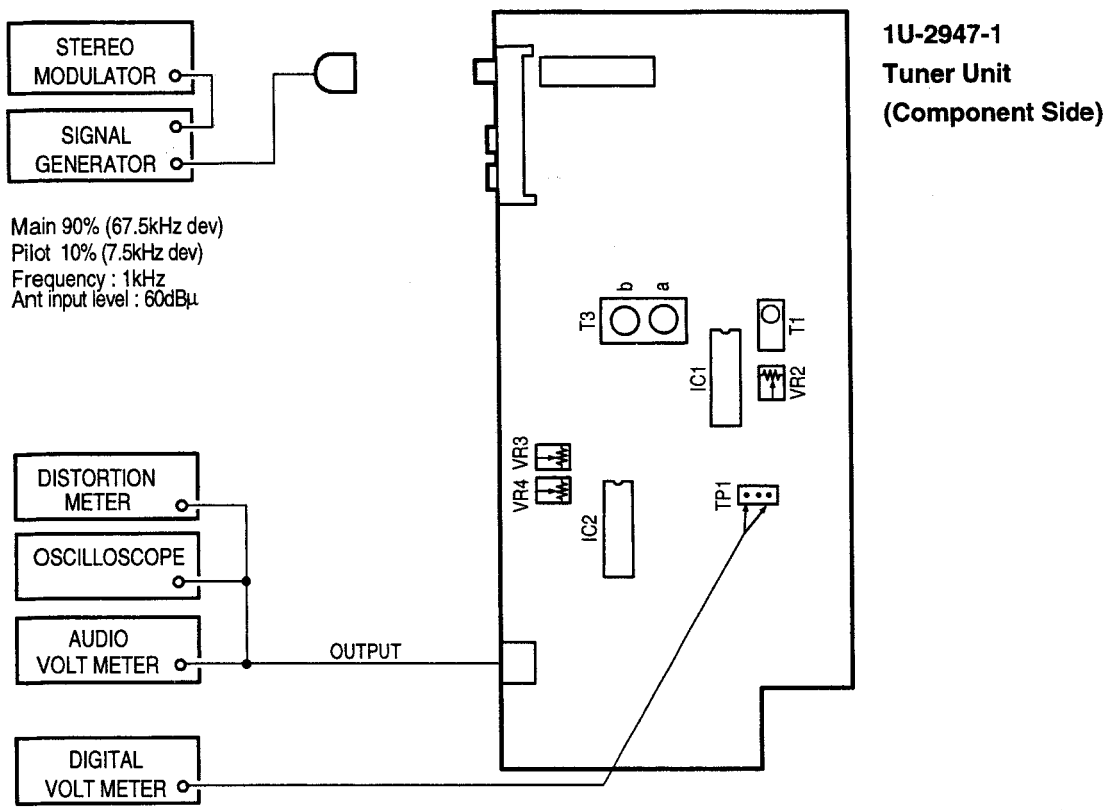


METHOD OF ADJUSTMENT

CONNECTION DIAGRAM OF MESURING INSTRUMENTS

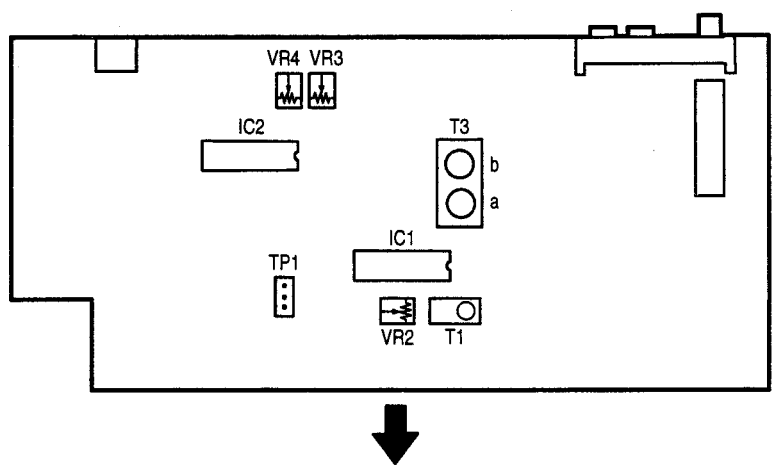
When making adjustments, be sure the power supply is at the rated voltage and the room air is on normal conditions with respect to temperature and humidity.

● **FM**



1U-2947-1
Tuner Unit
(Component Side)

1U-2947-1 TUNER UNIT FM Alignment Points (Component Side)



Front Panel Side

FM ALIGNMENT

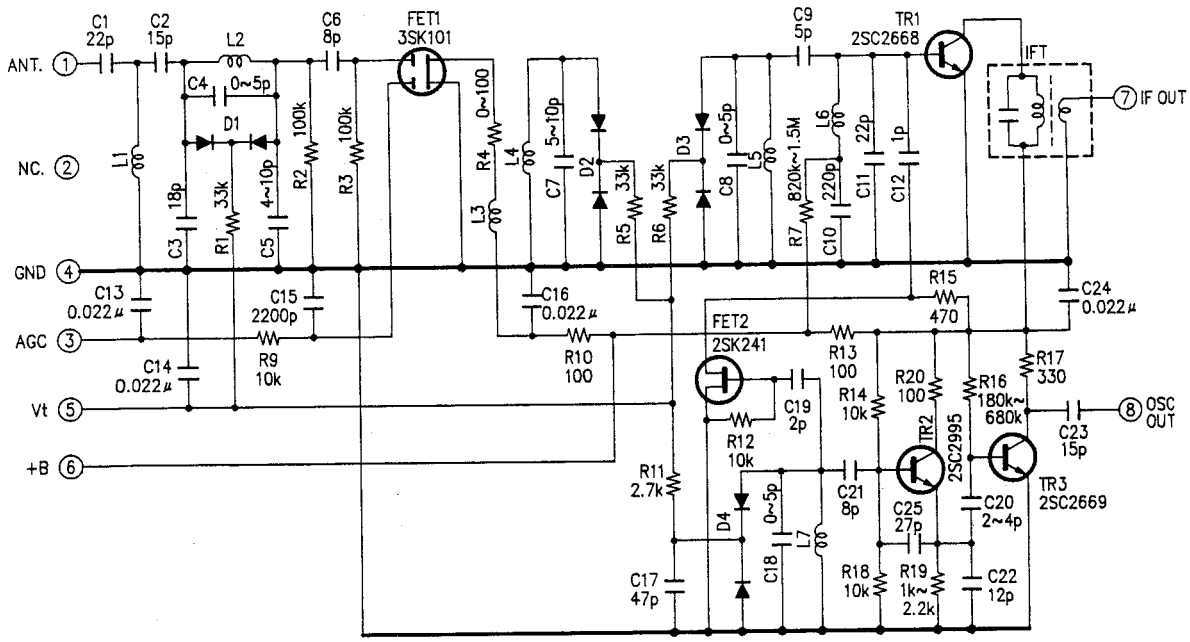
Item	Alignment Item	Tuning Frequency Setting	Input					Output		Adjustment		Remarks
			Type	Frequency	Input Level	Modulation	Coupling	Type	Connect to	Points	Adjust to	
1	Center Adjustment	98 MHz	FMSSG	98 MHz	60 dBμ	Mono 1 kHz 100%	Antenna Terminal	Digital Voltmeter	TP1	a	±50 mV	IF BAND: WIDE
2	Distortion	98 MHz	FMSSG	98 MHz	60 dBμ	Mono 1 kHz 100%	Antenna Terminal	Distortion Meter	Output Terminal (L)	b	Minimum Distortion	IF BAND: WIDE
3	Separation	98 MHz	FMSSG	98 MHz	60 dBμ	Stereo (L) 1 kHz 100%	Antenna Terminal	AC Voltmeter	Output Terminal (R)	VR4	Maximum Speration	IF BAND: WIDE
4	Separation	98 MHz	FMSSG	98 MHz	60 dBμ	Stereo (L) 1 kHz 100%	Antenna Terminal	AC Voltmeter	Output Terminal (R)	VR3	Maximum Speration	IF BAND: NARROW
5	Signal Level	98 MHz	FMSSG	98 MHz	20 dBμ	off	Antenna Terminal			VR2	Light TUNED on FL Display	IF BAND: WIDE

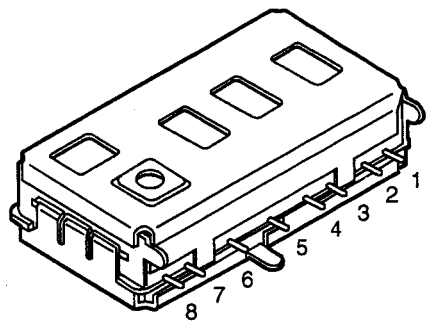
Initializing (Memory clearing) Method

To clear memory contents of microcomputer and restore to the state of shipment at the factory, take the following step.

● While pressing the Keys 1 and 7 of the front panel insert power cord into the AC outlet.

FRONT END





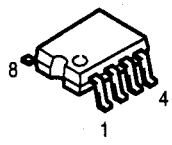
EXTERNAL TERMINALS

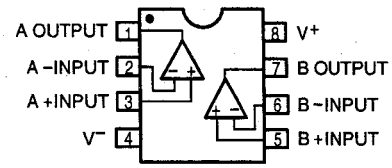
1. ANT
2. NC
3. AGC
4. GND
5. Vt
6. +B
7. IF OUT
8. OSC OUT

SEMICONDUCTORS

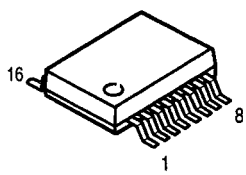
● IC's

BA4558F (IC003)



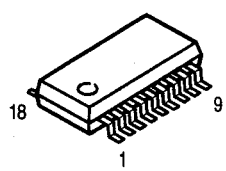


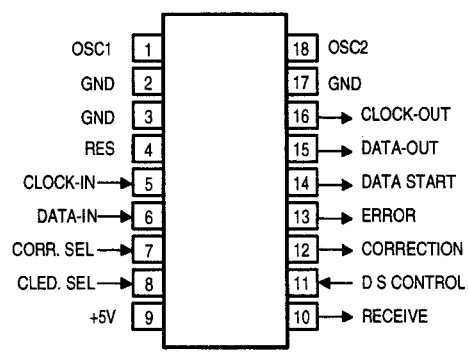
SAA6579T (IC005)



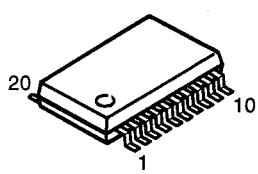
Pin No.	Symbol	Description
1	QUAL	Quality indication output.
2	R_{DDA}	RDS data output.
3	V_{ref}	Reference voltage output (0.5 V_{DDA}).
4	MUX	Multiplex signal input.
5	V_{DDA}	+5V supply voltage for analog part.
6	V_{SSA}	Ground for analog part (0V).
7	CIN	Subcarrier input to comparator.
8	SCOUT	Subcarrier output of reconstruction filter
9	TSTLD	Test control.
10	TEST	Test enable.
11	V_{SSD}	Ground for digital part (0V).
12	V_{DDD}	+5V supply voltage for digital part.
13	OSCI	Oscillator input.
14	OSCO	Oscillator output.
15	T57	57 kHz clock signal output.
16	RDCL	RDS clock output.

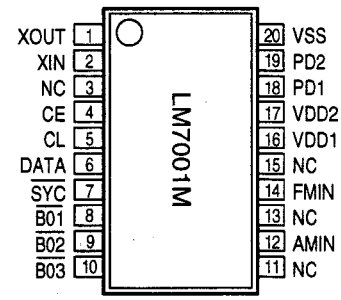
LC7074M (IC006)



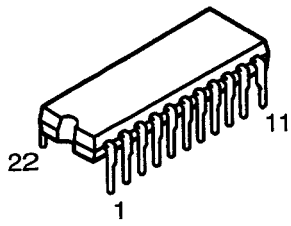


LM7001M (IC004)

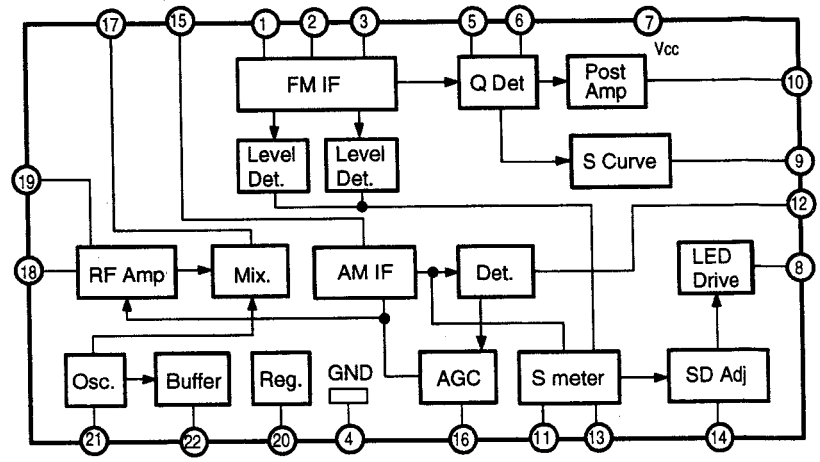




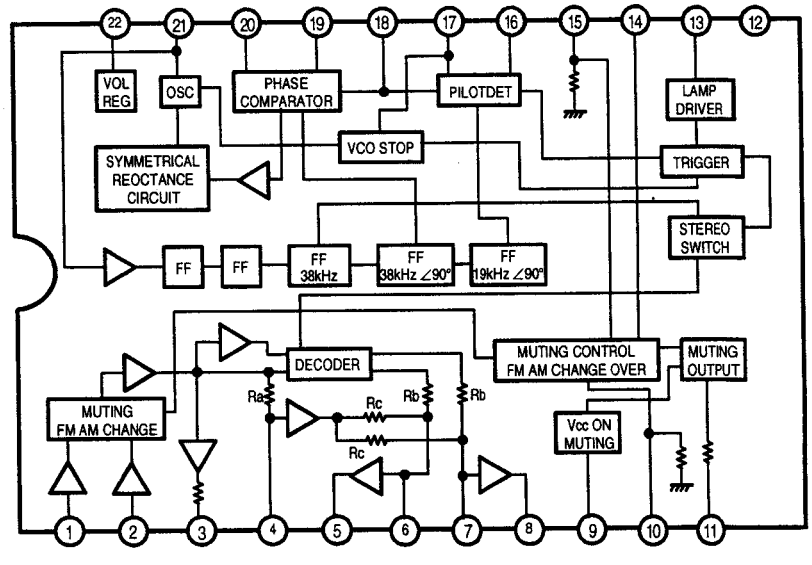
LA1265(S) (IC001)
LA3401 (IC002)



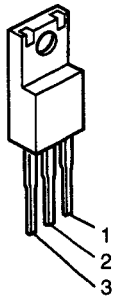
LA1265(S)



LA3401

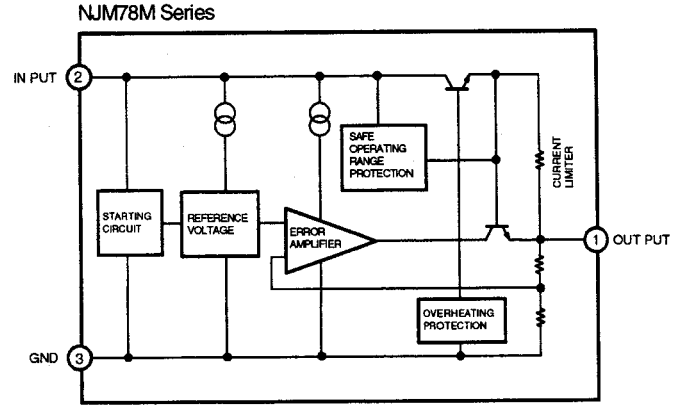


NJM78M06FA(S) (IC008)
NJM78M12FA(S) (IC007)

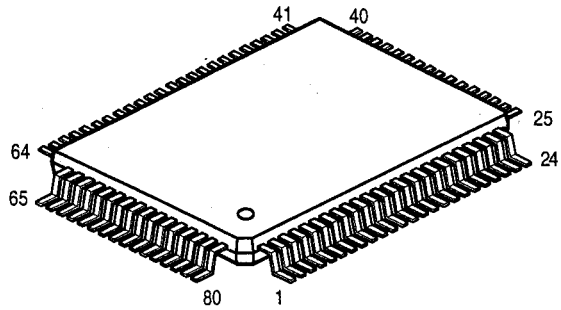


1 : Output
2 : GND
3 : Input

NJM78M Series



TMP87CM71F-6427 (IC201)



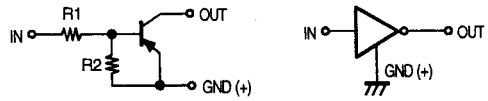
- TMP87CM71F-6427 Port Allocation Table

Pin No.	Symbol	I/O	Logic	Initial Setting	Function
1	STOP	I	L	—	Power down detection ("L"=at power down).
2	GND	I	—	—	Not used.
3	RDS ST	I	Serial	—	RDS data (start) input.
4	RES	O	L	H	LC7074 reset output.
5	GND	I	—	—	Not used.
6	GND	I	—	—	Not used.
7	GND	I	—	—	Not used.
8	GND	I	—	—	Not used.
9	GND	I	—	—	Connect to GND.
10	TUNED	I	L	—	Tuned signal input ("L"=at tuned in).
11	GND	I	—	—	Not used.
12	RESET	I	L	—	Reset input.
13	XIN	I	—	—	Oscillation circuit (4MHz).
14	XOUT	I	—	—	Oscillation circuit (4MHz).
15	Vss	PW	—	—	GND
16	GND	I	—	—	Not used.
17	REM	I	L	—	Remote control signal input.
18	STEREO	I	L	—	Stereo signal input ("L"=at stereo).
19	RDSCK	I	Serial	—	RDS data (clock) input.
20	RDSDATA	I	Serial	—	RDS data (data) input.
21	GND	I	—	—	Not used.
22	PLLCK	O	Serial	L	LM7001 control output for PLL-CK.
23	PLLDATA	O	Serial	L	LM7001 control output for PLL-DATA.
24	PLLSTB	O	H	L	LM7001 control output for PLL-STB.
25	NC	O	—	—	RF attenuat or control output.
26	IF MODE	O	H	H	IF mode switch control ("H"=wide, "L"=narrow).
27	AUTO/ MONO	O	L	L	AUTO/MANUAL control signal ("L"=AUTO).
28	GND	I	—	—	Not used.
29	POWER	O	H	L	Power supply switch control output ("H"=ON).
30	WIDE	O	H	H	Wide LED control.
31	NARROW	O	H	L	Narrow LED control.
32	GND	I	—	—	Not used.
33	V_{DD}	PW	—	—	+5V
34	NC	I	—	—	Not used.
35	NC	I	—	—	Not used.
36	1G	O	—	—	FL tube control output for 1G.
37	2G	O	—	—	FL tube control output for 2G.
38	3G	O	—	—	FL tube control output for 3G.
39	4G	O	—	—	FL tube control output for 4G.
40	5G	O	—	—	FL tube control output for 5G.

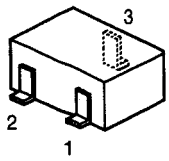
Pin No.	Symbol	I/O	Logic	Initial Setting	Function
41	6G	O	—	—	FL tube control output for 6G.
42	7G	O	—	—	FL tube control output for 7G.
43	8G	O	—	—	FL tube control output for 8G.
44	9G	O	—	—	FL tube control output for 9G.
45	10G	O	—	—	FL tube control output for 10G.
46	11G	O	—	—	FL tube control output for 11G.
47	12G	O	—	—	FL tube control output for 12G.
48	13G	O	—	—	FL tube control output for 13G.
49	14G	O	—	—	FL tube control output for 14G.
50	S0 (a)	O	—	—	FL tube control output for P(a).
51	S1 (b)	O	—	—	FL tube control output for P(b).
52	S2 (c)	O	—	—	FL tube control output for P(c).
53	S3 (d)	O	—	—	FL tube control output for P(d).
54	S4 (e)	O	—	—	FL tube control output for P(e).
55	S5 (f)	O	—	—	FL tube control output for P(f).
56	S6 (g)	O	—	—	FL tube control output for P(g).
57	S7 (h)	O	—	—	FL tube control output for P(h).
58	S8 (j)	O	—	—	FL tube control output for P(j).
59	S9 (k)	O	—	—	FL tube control output for P(k).
60	S10 (m)	O	—	—	FL tube control output for P(m).
61	S11 (n)	O	—	—	FL tube control output for P(n).
62	S12 (p)	O	—	—	FL tube control output for P(p).
63	S13 (q)	O	—	—	FL tube control output for P(q).
64	S14 (r)	O	—	—	FL tube control output for P(r).
65	S15 (s)	O	—	—	FL tube control output for P(s).
66	Vkk	PW	—	—	-25V
67	GND	I	—	—	Not used.
68	GND	I	—	—	Not used.
69	GND	I	—	—	Not used.
70	GND	I	—	—	Not used.
71	GND	I	—	—	Not used.
72	GND	I	—	—	Not used.
73	KEY1	I	—	—	Key input (A/D conversion input).
74	KEY2	I	—	—	Key input (A/D conversion input).
75	KEY3	I	—	—	Key input (A/D conversion input).
76	KEY4	I	—	—	Key input (A/D conversion input).
77	VER	I	—	—	Forwarding country setting. (5V: Europe, U.K. GND:USA, Canada)
78	VER	I	—	—	Specification setting.
79	MUTE	O	H	H	MUTE output ("H"=MUTE).
80	GND	I	—	—	Not used.

● TRANSISTORS

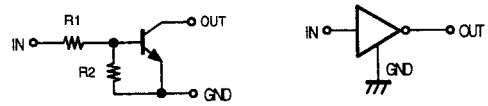
DTA114EK
DTC114EK
DTC144EK
DTC323TK



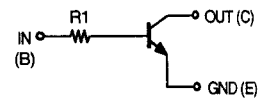
	R1	R2
DTA114EK	10 Kohm	10 Kohm



1 : GND/Emitter
2 : In/Base
3 : Out/Collector

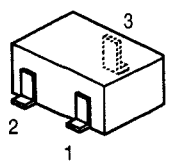


	R1	R2
DTC114EK	10 Kohm	10 Kohm
DTC144EK	47 Kohm	47 Kohm



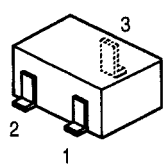
	R1
DTC323TK	2.2 Kohm

2SK209(Y/GR)



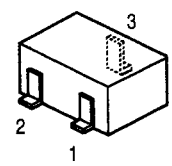
1 : Drain
2 : Source
3 : Gate

2SK211(Y/GR)



1 : Gate
2 : Drain
3 : Source

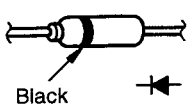
2SA1362(Y/GR)
2SC2712(Y/GR)
2SC2996(Y)
2SC3326(A/B)



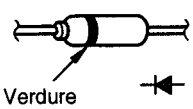
1 : Emitter
2 : Base
3 : Collector

● DIODES (including LED)

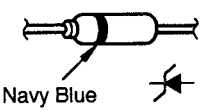
1SS252



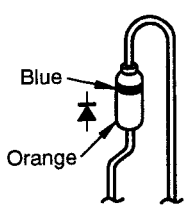
1SS110



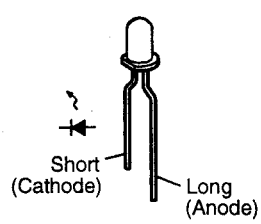
MTZJ3.3A
MTZJ6.8C
MTZJ8.2B
MTZJ27D



1SR35-200A

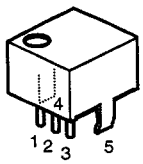


SLR-56MG70 (Green)

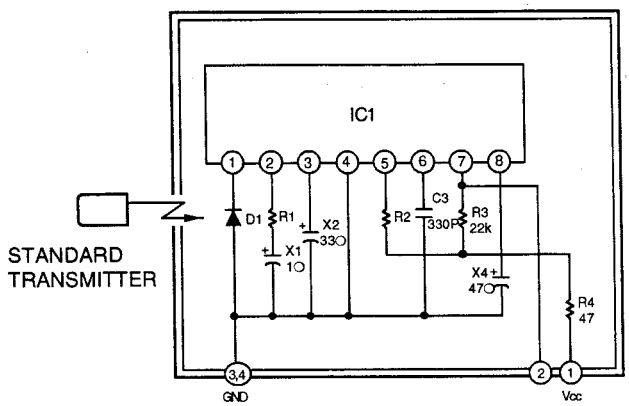


● REMOTE SENSOR

SBX1610-52 (RM201)

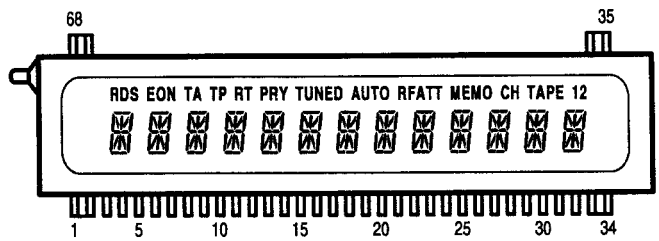


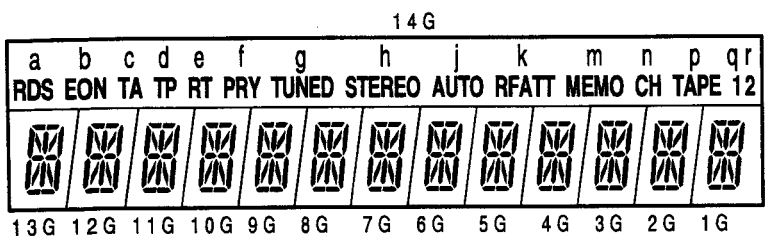
1.Vcc
2.Output
3.GND
4.Case Fin
5.Case Fin

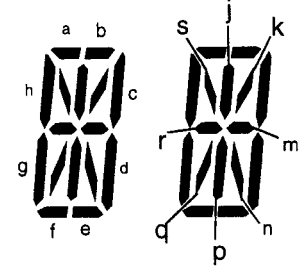


IC1	: CX20106A Chip
D1	: PIN Photo Diode Chip
C1, C2, C4	: Aluminum Electrolytic Capacitor
C3	: SL Characteristic ±5%
R1	: Gain Adjuster
R2	: fo Adjuster ±1% USE
R3, R4	: ±5%
	(fo : Carrier frequency, 38kHz)

● FLD (FIP14AM7R) (FL201)







TERMINAL CONNECTION

(UPPER)

TERMINAL NO.	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52				
ELECTRODE	F1	F1	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP				
TERMINAL NO.				51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	
ELECTRODE				NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	F2	F2	

(LOWER)

TERMINAL NO.				18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	
ELECTRODE				P	14G	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	F2	F2	
				a																	
TERMINAL NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17				
ELECTRODE	F1	F1	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P				
			s	r	q	p	n	m	k	j	h	g	f	e	d	c	b				

Notes: F: Filament NP: No. Pin
G: Grid
P: Anode

NOTE FOR PARTS LIST

- Part indicated with the mark " ◉ " are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
- When ordering of part, clearly indicate "1" and "I" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.
- Not including Carbon Film ±5%, 1/4W Type in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)

WARNING:
Parts marked with this symbol ⚠ ▓▓ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

● Resistors

Ex.: RN (Type) 14K (Shape and performance) 2E (Power) 182 (Resistance) G (Allowable error) FR (Others)

RD : Carbon RC : Composition RS : Metal oxide film RW : Winding RN : Metal film RK : Metal mixture	2B : 1/8W 2E : 1/4W 2H : 1/2W 3A : 1W 3D : 2W 3F : 3W 3H : 5W	F : ±1% G : ±2% J : ±5% K : ±10% M : ±20%	P : Pulse-resistant type NL : Low noise type NB : Non-burning type FR : Fuse-resistor F : Lead wire forming

*** Resistance**

1 8 2 ⇒ 1800 ohm = 1.8 kohm
- 2: Indicates number of zeros after effective number.
- 18: 2-digit effective number.

• Units: ohm

1 R 2 ⇒ 1.2 ohm
- 2: 1-digit effective number.
- 1R: 2-digit effective number, decimal point indicated by R.

• Units: ohm

● Capacitors

Ex.: CE (Type) 04W (Shape and performance) 1H (Dielectric strength) 2R2 (Capacity) M (Allowable error) BP (Others)

CE : Aluminum foil electrolytic CA : Aluminum solid electrolytic CS : Tantalum electrolytic CQ : Film CK : Ceramic CC : Ceramic CP : Oil CM : Mica CF : Metallized CH : Metallized	0J : 6.3V 1A : 10V 1C : 16V 1E : 25V 1V : 35V 1H : 50V 2A : 100V 2B : 125V 2C : 160V 2D : 200V 2E : 250V 2H : 500V 2J : 630V	F : ±1% G : ±2% J : ±5% K : ±10% M : ±20% Z : +80% −20% P : +100% −0% C : ±0.25pF D : ±0.5pF = : Others	HS : High stability type BP : Non-polar type HR : Ripple-resistant type DL : For charge and discharge HF : For assuring high frequency U : UL part C : CSA part W : UL-CSA type F : Lead wire forming

*** Capacity (electrolyte only)**

2 2 2 ⇒ 2200μF
- 2: Indicates number of zeros after effective number.
- 22: 2-digit effective number.

• Units: μF.

2 R 2 ⇒ 2.2μF
- 2: 1-digit effective number.
- 2R: 2-digit effective number, decimal point indicated by R.

• Units: μF.

*** Capacity (except electrolyte)**

2 2 2 ⇒ 2200pF = 0.0022μF
- 2: (More than 2) Indicates number of zeros after effective number.
- 22: 2-digit effective number.

• Units: μF.

2 2 1 ⇒ 220pF
- 1: (0 or 1) Indicates number of zeros after effective number.
- 22: 2-digit effective number.

• Units: pF.

• When the dielectric strength is indicated in AC, "AC" is included after the dieelectric strength value.

NOTE

- RC-176 (499 0277 004) is remote controller which is usable for this unit. It is supplied with the Pre-main amplifier that is produced by our company.

PARTS LIST OF P.W. BOARD

1U-2947 MAIN UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC001	263 0891 001	IC LA1265(S)	
IC002	263 0439 007	IC LA3401	
IC003	263 0672 903	IC BA4558F	
IC004	263 0791 907	IC LM7001M	
IC005	262 1701 906	IC :SAA6579T	
IC006	262 1929 908	IC LC7074M	
IC007	263 0794 001	IC NJM78M12FA(S)	Regulator +12V
IC008	263 0792 003	IC NJM78M06FA(S)	Regulator +6V
IC201	262 2297 008	IC TMP87CM71F-6427	μ-com
TR001	269 0083 901	Transistor DTA114EK	Built in resistor
TR002	269 0054 901	Transistor DTC144EK	Built in resistor
TR003	275 0074 902	Transistor 2SK211(Y/GR)	N type FET
TR004,005	273 0411 909	Transistor 2SC2996(Y)	
TR006	269 0054 901	Transistor DTC144EK	Built in resistor
TR007,008	269 0066 902	Transistor DTC323TK	Built in resistor
TR009	275 0075 901	Transistor 2SK209(Y/GR)	N type FET
TR010	273 0403 904	Transistor 2SC2712(Y/GR)	
TR011~013	269 0083 901	Transistor DTA114EK	Built in resistor
TR014	269 0054 901	Transistor DTC144EK	Built in resistor
TR015	271 0264 901	Transistor 2SA1362(Y/GR)	
TR016,017	269 0054 901	Transistor DTC144EK	Built in resistor
TR018	269 0083 901	Transistor DTA114EK	Built in resistor
TR019~021	273 0348 904	Transistor 2SC3326(A/B)	
TR022	271 0264 901	Transistor 2SA1362(Y/GR)	
TR023	269 0054 901	Transistor DTC144EK	Built in resistor
TR024,025	273 0411 909	Transistor 2SC2996(Y)	
TR027,028	269 0066 902	Transistor DTC323TK	Built in resistor
TR029,030	275 0075 901	Transistor 2SK209(Y/GR)	N type FET
TR031,032	273 0411 909	Transistor 2SC2996(Y)	
TR033,024	269 0083 901	Transistor DTA114EK	Built in resistor
TR035~037	269 0054 901	Transistor DTC144EK	Built in resistor
TR038	273 0403 904	Transistor 2SC2712(Y/GR)	
TR039,040	269 0082 902	Transistor DTC114EK	Built in resistor
D001	276 0546 909	Diode 1SS110	
D002	276 0616 907	Diode 1SS252	
D004	276 0616 907	Diode 1SS252	
D005~009	276 0553 905	Diode 1SR35-200A	
D010	276 0616 907	Diode 1SS252	
D011	276 0553 905	Diode 1SR35-200A	
D012	276 0616 907	Diode 1SS252	
D013	276 0553 905	Diode 1SR35-200A	
D014	276 0616 907	Diode 1SS252	
D017~023	276 0616 907	Diode 1SS252	
ZD002	276 0634 905	Zener diode MTZJ3.3A	3.3V
ZD003	276 0636 903	Zener diode MTZJ8.2B	8.2V
ZD004	276 0632 907	Zener diode MTZJ27D	27V
ZD025	276 0633 906	Zener diode MTZJ6.8C	6.8V
LD027,028	393 9516 905	LED SLR-56MG70	Green

Ref No.	Part No.	Part Name	Remarks
RESISTORS GROUP			
VR002	211 6093 941	Semi fixed resistor 10 kohm	V06PB103
VR003,004	211 6093 967	Semi fixed resistor 47 kohm	V06PB473
R001	247 0005 999	Carbon chip 240 ohm 1/10W	RM73B--241J
R002	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J
R003	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J
R004	247 0010 929	Carbon chip 15 kohm 1/10W	RM73B--153J
R005~007	247 0006 920	Carbon chip 330 ohm 1/10W	RM73B--331J
R008	247 0005 905	Carbon chip 100 ohm 1/10W	RM73B--101J
R009	247 0006 920	Carbon chip 330 ohm 1/10W	RM73B--331J
R010	247 0008 902	Carbon chip 1.8 kohm 1/10W	RM73B--182J
R011	247 0006 920	Carbon chip 330 ohm 1/10W	RM73B--331J
R012	247 0007 961	Carbon chip 1.2 kohm 1/10W	RM73B--122J
R013	247 0006 920	Carbon chip 330 ohm 1/10W	RM73B--331J
R014	247 0005 905	Carbon chip 100 ohm 1/10W	RM73B--101J
R016,017	247 0008 960	Carbon chip 3.3 kohm 1/10W	RM73B--332J
R018	247 0011 928	Carbon chip 39 kohm 1/10W	RM73B--393J
R019	247 0008 960	Carbon chip 3.3 kohm 1/10W	RM73B--332J
R020,021	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J
R022	247 0009 901	Carbon chip 4.7 kohm 1/10W	RM73B--472J
R022,023	247 0009 927	Carbon chip 5.6 kohm 1/10W	RM73B--562J
R024	247 0011 986	Carbon chip 68 kohm 1/10W	RM73B--683J
R025	247 0009 927	Carbon chip 5.6 kohm 1/10W	RM73B--562J
R026~028	247 0012 927	Carbon chip 100 kohm 1/10W	RM73B--104J
R029,030	247 0012 998	Carbon chip 200 kohm 1/10W	RM73B--204J
R031	247 0011 915	Carbon chip 36 kohm 1/10W	RM73B--363J
R032	247 0012 985	Carbon chip 180 kohm 1/10W	RM73B--184J
R033,034	247 0008 960	Carbon chip 3.3 kohm 1/10W	RM73B--332J
R035	247 0010 929	Carbon chip 15 kohm 1/10W	RM73B--153J
R036	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J
R037	247 0010 958	Carbon chip 20 kohm 1/10W	RM73B--203J
R038	247 0010 929	Carbon chip 15 kohm 1/10W	RM73B--153J
R039	247 0010 958	Carbon chip 20 kohm 1/10W	RM73B--203J
R040,041	247 0004 906	Carbon chip 39 ohm 1/10W	RM73B--390J
R042,043	247 0008 960	Carbon chip 3.3 kohm 1/10W	RM73B--332J
R044	247 0005 905	Carbon chip 100 ohm 1/10W	RM73B--101J
R045	247 0009 969	Carbon chip 8.2 kohm 1/10W	RM73B--822J
R046	247 0008 986	Carbon chip 3.9 kohm 1/10W	RM73B--392J
R047	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J
R051	247 0010 961	Carbon chip 22 kohm 1/10W	RM73B--223J
R052	247 0007 987	Carbon chip 1.5 kohm 1/10W	RM73B--152J
R053	247 0012 927	Carbon chip 100 kohm 1/10W	RM73B--104J
R054	247 0013 900	Carbon chip 220 kohm 1/10W	RM73B--224J
R055	247 0008 928	Carbon chip 2.2 kohm 1/10W	RM73B--222J
R056	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J
R058	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J
R059~061	241 2400 953	Carbon film 6.8 kohm 1/4W	RD14B2E682J(5)
R062	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J
R063,064	247 0009 901	Carbon chip 4.7 kohm 1/10W	RM73B--472J

Ref. No.	Part No.	Part Name	Remarks
R065	247 0010 945	Carbon chip 18 kohm 1/10W	RM73B--183J
R066	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J
R067	247 0010 945	Carbon chip 18 kohm 1/10W	RM73B--183J
R068	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J
R070	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J
R071	247 0006 946	Carbon chip 390 ohm 1/10W	RM73B--391J
R072	247 0005 947	Carbon chip 150 ohm 1/10W	RM73B--151J
R073	247 0010 929	Carbon chip 15 kohm 1/10W	RM73B--153J
R074	247 0005 905	Carbon chip 100 ohm 1/10W	RM73B--101J
R075,076	247 0009 927	Carbon chip 5.6 kohm 1/10W	RM73B--562J
R077	247 0009 901	Carbon chip 4.7 kohm 1/10W	RM73B--472J
R078,079	247 0012 927	Carbon chip 100 kohm 1/10W	RM73B--104J
R081	247 0010 916	Carbon chip 13 kohm 1/10W	RM73B--133J
R083,084	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J
R085,086	247 0004 906	Carbon chip 39 ohm 1/10W	RM73B--390J
R087~090	247 0012 927	Carbon chip 100 kohm 1/10W	RM73B--104J
R091	247 0009 927	Carbon chip 5.6 kohm 1/10W	RM73B--562J
R092	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J
R093	247 0005 905	Carbon chip 100 ohm 1/10W	RM73B--101J
R094	247 0006 920	Carbon chip 330 ohm 1/10W	RM73B--331J
R095	247 0007 961	Carbon chip 1.2 kohm 1/10W	RM73B--122J
R096	247 0006 920	Carbon chip 330 ohm 1/10W	RM73B--331J
R097	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J
R098	247 0005 905	Carbon chip 100 ohm 1/10W	RM73B--101J
R099	247 0006 920	Carbon chip 330 ohm 1/10W	RM73B--331J
R100,101	247 0005 905	Carbon chip 100 ohm 1/10W	RM73B--101J
R102	247 0009 927	Carbon chip 5.6 kohm 1/10W	RM73B--562J
R103	247 0005 905	Carbon chip 100 ohm 1/10W	RM73B--101J
R104	247 0009 927	Carbon chip 5.6 kohm 1/10W	RM73B--562J
R105	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J
R106	247 0010 945	Carbon chip 18 kohm 1/10W	RM73B--183J
⚠ R107,108	244 2055 970	Metal oxide 56 ohm 1W(NB)	RS14B3A560JNBS(S)
R109	247 0009 927	Carbon chip 5.6 kohm 1/10W	RM73B--562J
⚠ R110	244 2055 938	Metal oxide 6.8 ohm 1W(NB)	RS14B3A6R8JNBS(S)
R111	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J
R112	247 0009 901	Carbon chip 4.7 kohm 1/10W	RM73B--472J
R113	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J
R114	247 0010 958	Carbon chip 20 kohm 1/10W	RM73B--203J
R115	247 0018 905	Carbon chip 0 ohm 1/10W	RM73B--0R0K
R120,121	247 1018 904	Carbon chip 0 ohm 1/8W	RM73B2B0R0K
R201,202	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J
R203	247 0006 975	Carbon chip 510 ohm 1/10W	RM73B--511J
R204	247 0006 917	Carbon chip 300 ohm 1/10W	RM73B--301J
R205	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J
R206	247 0005 976	Carbon chip 200 ohm 1/10W	RM73B--201J
R207	247 0006 917	Carbon chip 300 ohm 1/10W	RM73B--301J
R208	247 0006 975	Carbon chip 510 ohm 1/10W	RM73B--511J
R209	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J

Ref No.	Part No.	Part Name	Remarks
R210	247 0005 976	Carbon chip 200 ohm 1/10W	RM73B--201J
R211	247 0006 917	Carbon chip 300 ohm 1/10W	RM73B--301J
R212	247 0006 975	Carbon chip 510 ohm 1/10W	RM73B--511J
R213	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J
R214	247 0008 957	Carbon chip 3 kohm 1/10W	RM73B--302J
R215	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J
R216	247 0005 976	Carbon chip 200 ohm 1/10W	RM73B--201J
R217	247 0006 917	Carbon chip 300 ohm 1/10W	RM73B--301J
R218	247 0006 975	Carbon chip 510 ohm 1/10W	RM73B--511J
R219	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J
R220	247 0008 957	Carbon chip 3 kohm 1/10W	RM73B--302J
R221	247 0005 976	Carbon chip 200 ohm 1/10W	RM73B--201J
R222	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J
R223	247 0006 920	Carbon chip 330 ohm 1/10W	RM73B--331J
R229,230	247 0018 905	Carbon chip 0 ohm 1/10W	RM73B--0R0K
R233~247	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J
R248	247 0009 927	Carbon chip 5.6 kohm 1/10W	RM73B--562J
R249	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J
R250~252	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J

CAPACITORS GROUP

C001,002	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K
C003	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z
C004	254 4254 909	Electrolytic 10μF/16V	CE04W1C100M
C006~012	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z
C013	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J
C014	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z
C015	254 4260 935	Electrolytic 0.47μF/50V	CE04W1HR47M
C016	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M
C017	257 0012 982	Ceramic chip 0.022VF/50V	CK73F1H223Z
C018	254 4254 909	Electrolytic 10μF/16V	CE04W1C100M
C019	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J
C020	254 4313 921	Electrolytic 22μF/50V	CE04W1H220M(ASF)
C021	254 4260 922	Electrolytic 0.33μF/50V	CE04W1HR33M
C023	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M
C024	254 4260 919	Electrolytic 0.22μF/50V	CE04W1HR22M
C025	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M
C026	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z
C027	256 1034 940	Metalizde 0.056μF/50V	CF93A1H563J
C028	254 4313 921	Electrolytic 22μF/50V	CE04W1H220M(ASF)
C030,031	255 4237 932	Film cap. 510pF/100V	CQ93P2A511J(NH)
C034,035	255 4232 982	Film cap. 2200pF/100V	CQ93P2A222J(NH)
C036	254 4492 907	Electrolytic 47μF/25V	CE04W1E470M(ASF)
C037,038	254 4313 918	Electrolytic 10μF/50V	CE04W1H100M(ASF)
C039,040	257 0009 953	Ceramic chip 3900pF/50V	CK73B1H392K
C041	254 4260 906	Electrolytic 0.1μF/50V	CE04W1H0R1M
C042	254 3056 917	Electrolytic 1μF/50V	CE04D1H010MBP(bipole)
C043	257 0012 982	Ceramic chip 0.022μF/50V	CK73F1H223Z

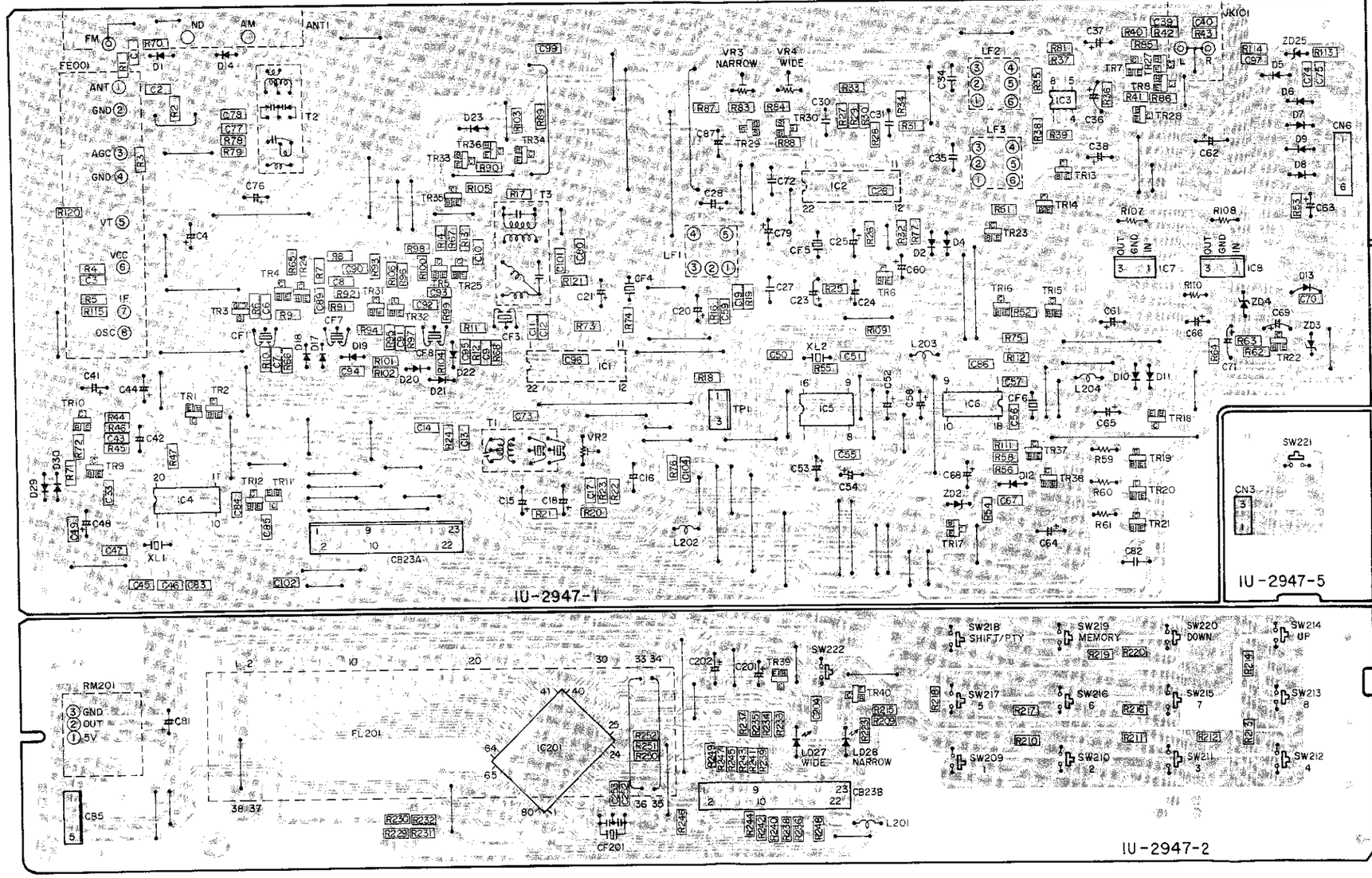
Ref. No.	Part No.	Part Name	Remarks
C044	254 4254 938	Electrolytic 47µF/16V	CE04W1C470M
C045,046	257 0002 989	Ceramic chip 18pF/50V	CC73SL1H180J
C047	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C048	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C049	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J
C050,051	257 0016 962	Ceramic chip 27pF/50V	CC73CH1H270J(temp.)
C052	254 4250 916	Electrolytic 47µF/6.3V	CE04W0J470M
C053	254 4260 951	Electrolytic 2.2µF/50V	CE04W1H2R2M
C054	254 4250 916	Electrolytic 47µF/6.3V	CE04W0J470M
C055	257 0006 943	Ceramic chip 560pF/50V	CC73SL1H561J
C056,057	257 0003 933	Ceramic chip 30pF/50V	CC73SL1H300J
C058	254 4250 916	Electrolytic 47µF/6.3V	CE04W0J470M
C059	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J
C060	254 4260 951	Electrolytic 2.2µF/50V	CE04W1H2R2M
C061	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C062	254 4504 701	Electrolytic 2200µF/35V	CE04W1V222MC(ASF)
C063	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C064	259 0007 702	Super cap. 8200µF/5.5V	SB CAP==822=C
C065	254 4250 958	Electrolytic 470µF/6.3V	CE04W0J471M
C066	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C067	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C068	254 4260 977	Electrolytic 4.7µF/50V	CE04W1H4R7M
C069	254 4258 950	Electrolytic 100µF/35V	CE04W1V101M
C070	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C071	254 4258 918	Electrolytic 10µF/35V	CE04W1V100M
C072	256 1034 937	Metalizde 0.047µF/50V	CF93A1H473J
C073~075	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C076	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C077	257 0002 921	Ceramic chip 10pF/50V	CC73SL1H100D
C078	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C079	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C080	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C081	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C082	256 1034 979	Metalizde 0.1µF/50V	CF93A1H104J
C083~085	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J
C086	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K
C087	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C089~097	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C099	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C101	257 0012 982	Ceramic chip 0.022µF/50V	CK73F1H223Z
C104	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C201	254 4258 950	Electrolytic 100µF/35V	CE04W1V101M
C202	254 4250 929	Electrolytic 100µF/6.3V	CE04W0J101M
C204	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z

Ref No.	Part No.	Part Name	Remarks	Q'ty
OTHER PARTS				
	—	(P.W.board)		(1)
L201	235 0060 950	Inductor 10µH		1
L202,203	235 0060 905	Inductor 2.2µH		2
CF001	261 0085 002	Ceramic filter SFE10.7MXH-A		1
CF003	261 0078 006	Ceramic filter SFE10.7MM(25 kHz)		1
CF004	261 0101 009	Ceramic filter BFU450C4N		1
CF005	261 0103 007	:Ceramic resonator CSB456F11		1
CF006	399 0041 901	Ceramic resonator CSA4.00MG		1
CF007,008	261 0067 004	Ceramic filter SFE10.7MS3G-A		1
CF201	399 0191 903	Ceramic resonator CST4.00MGW		1
LF001	232 0159 008	:Anti birdie filter		1
LF002,003	232 0148 006	:MPX filter		2
T001	231 1132 005	AM IFT (SFL450J3)		1
T002	231 2096 001	MW Ant-Osc. coil		1
T003	231 2097 000	FM IF Det. trans		1
⚠ T201	233 6092 007	Power transformer		1
⚠ CB201	209 2349 009	2 P inlet		1
XL001	399 0075 003	Crystal 7.2 MHz		1
XL002	399 0178 007	Crystal 4.332 MHz		
RM201	499 0150 008	Remocon sensor SBX1610-52		1
FL201	393 4155 002	FLD (FIP14AM7R)		1
	216 0079 005	FM front end (U)		1
	205 0847 004	3 P antenna terminal (PAL/F)		1
JK101	205 0274 004	2 P connector base		1
SW201~222	212 5604 910	Tact switch		22
CN006	204 0265 065	6 P KR-DA connector cord		1
CN003	203 4808 027	3 P KR-DA connector cord		1
CN005	203 8357 011	5 P KR-DA connector cord		1
CB006	205 0343 061	6 P connector base (KR-PH)		1
CB003	205 0343 032	3 P connector base (KR-PH)		1
CB005	205 0343 058	5 P connector base (KR-PH)		1
CN23A,B	205 0990 003	23 P connector base		2
T.P.1	205 0190 036	3 P NH connector base		1
	203 0598 001	1 P SIN cord Ass'y	White	1
	203 0598 014	1 P SIN cord Ass'y	Yellow	1
	417 0307 008	Heat sink		1
	471 3304 015	Bind screw 3x8		2

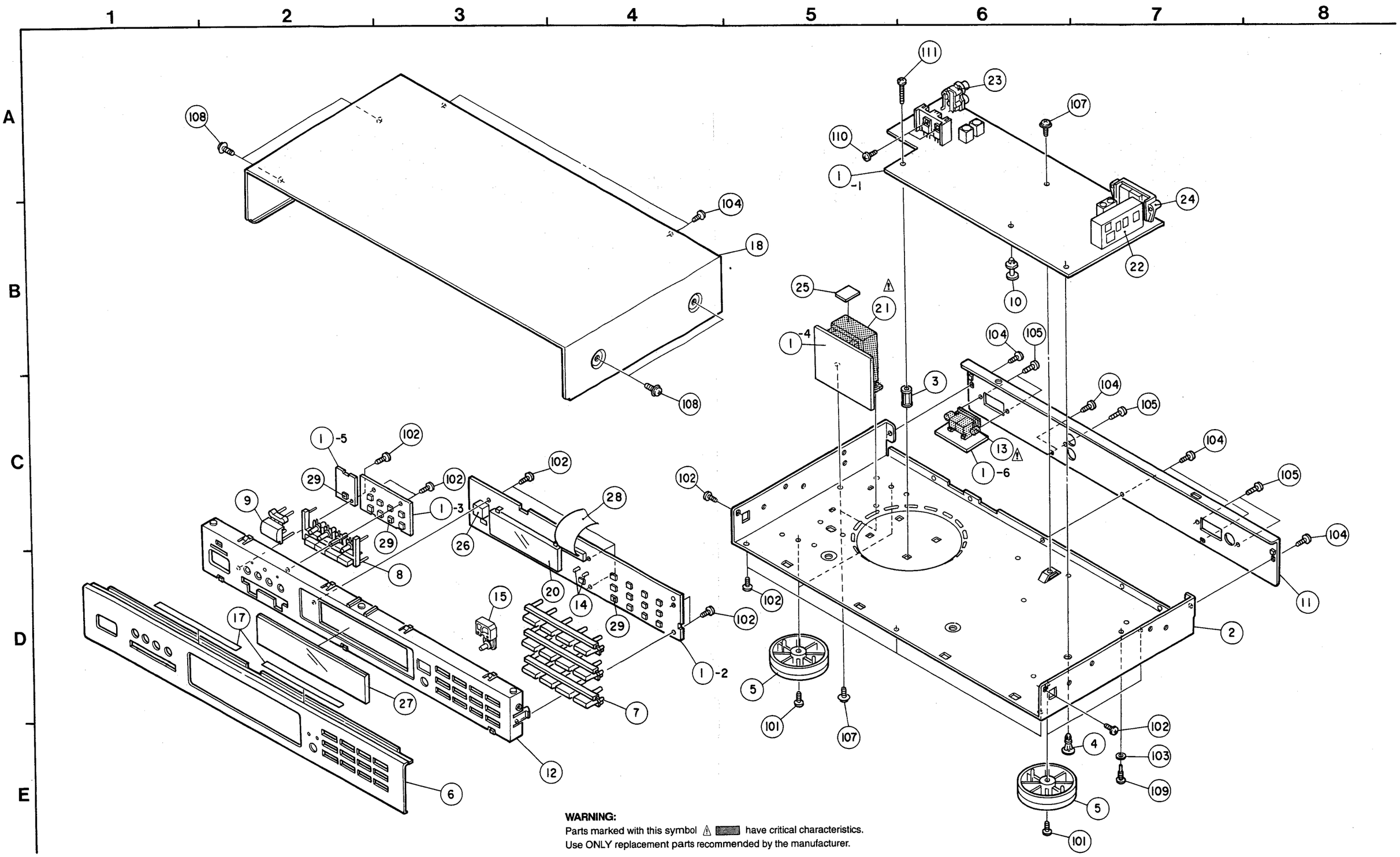
PRINTED WIRING BOARD

1U-2947 MAIN UNIT ASS'Y

1U-2947 MAIN UNIT ASS'Y	
— 1	Tuner Unit
— 2	Display Unit
— 3	Tact Switch Unit
— 4	Power Trans Unit
— 5	Power Switch Unit
— 6	Inlet Unit



EXPLODED VIEW



WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

PARTS LIST OF EXPLODED VIEW

Ref. No.	Part No.	Part Name	Remarks	Q'ty
◉ 1	1U- 2947	Main unit Ass'y		1s
1-1	—	Tuner unit		(1)
1-2	—	Display unit		(1)
1-3	—	Tact switch unit		(1)
1-4	—	Power trans unit		(1)
1-5	—	Power switch unit		(1)
1-6	—	Inlet unit		(1)
◉ 2	411 0942 708	::Chassis		1
◉ 3	412 2762 002	P.W.B. holder		1
◉ 4	412 2741 007	P.W.B. holder (H=8)		1
5	104 0208 308	Foot Ass'y		4
◉ 6	144 2511 004	Front panel Ass'y	Black model	1
◉ 6	144 2511 017	Front panel Ass'y	Gold model	1
7	113 1740 005	:Tact button -A	Black model	3
7	113 1740 018	Tact button -A	Gold model	3
8	113 1741 020	:Tact button -B	Black model	1
8	113 1741 033	Tact button -B	Gold model	1
9	113 1292 207	Push button (P)	Black model	1
9	113 1292 223	Push button (P)	Gold model	1
10	412 2814 002	Card spacer (L=8)		1
◉ 11	105 1115 095	:Rear panel		1
◉ 12	146 1484 206	::Inner panel	Black model	1
◉ 12	146 1484 219	::Inner panel	Gold model	1
⚠ 13	203 2349 009	2 P inlet	CB201	1
14	393 9516 905	LED SLR-56MG70	Green D027,028	2
15	113 1784 003	Tact button	Black model	1
15	113 1784 016	Tact button	Gold model	1
16	—	—		
◉ 17	461 0577 000	Rubber sheet	Front panel 100x15xT1	2
◉ 18	102 0413 207	Top cover	Black model	1
◉ 18	102 0413 210	Top cover	Gold model	1
20	393 4155 002	F.L.tube (FIP14AM7R)	FL201	1
⚠ 21	233 6092 007	Power transformer	T201	1
22	216 0079 005	FM front end (U)		1
23	205 0274 004	2 P connector base	JK101	1
24	205 0847 004	3 P antenna terminal (PAL/F)		1
◉ 25	461 0551 026	Rubber sheet	Power trans	1
26	499 0150 008	Remocon sensor SBX1610-52	RM201	1
27	143 0877 239	Window		1
28	009 0128 015	23 P FF Cable	CN23	1
29	212 5604 910	Tact switch	SW201~222	22
★ 30	254 4504 701	Electrolytic cap.2200μF/35V	C062	1
★ 31	001 0066 005	Earth wire		1
★ 32	513 1642 002	No. sheet		1
★ 33	513 1144 005	Masking sheet		1
★ 34	445 8004 007	Wire clamper		1

Ref No.	Part No.	Part Name	Remarks	Q'ty
SCREWS				
101	473 7002 021	Screw 3x8 (S) BK	CBTS(S)-B	4
102	473 7508 017	Screw 3x10 (P) BK	CBTS(P)-B	13
103	475 2003 034	Spring washer ϕ 3 BKNI		1
104	473 7015 018	Screw 3x8 (S) BK	CBTS(S)-B	7
105	477 0064 107	Fixing screw 3x10		5
106	—	—		
107	473 8007 025	Cup screw 3x8		2
108	473 0263 005	3 P swelling screw	Black model	4
108	473 0263 018	3 P swelling screw	Gold model	4
109	477 0276 018	Earth screw		1
110	471 3304 015	Screw 3x8	CBS-Z	2
111	473 7501 030	Screw 3x20 (P)	CBTS(P)-Z	1

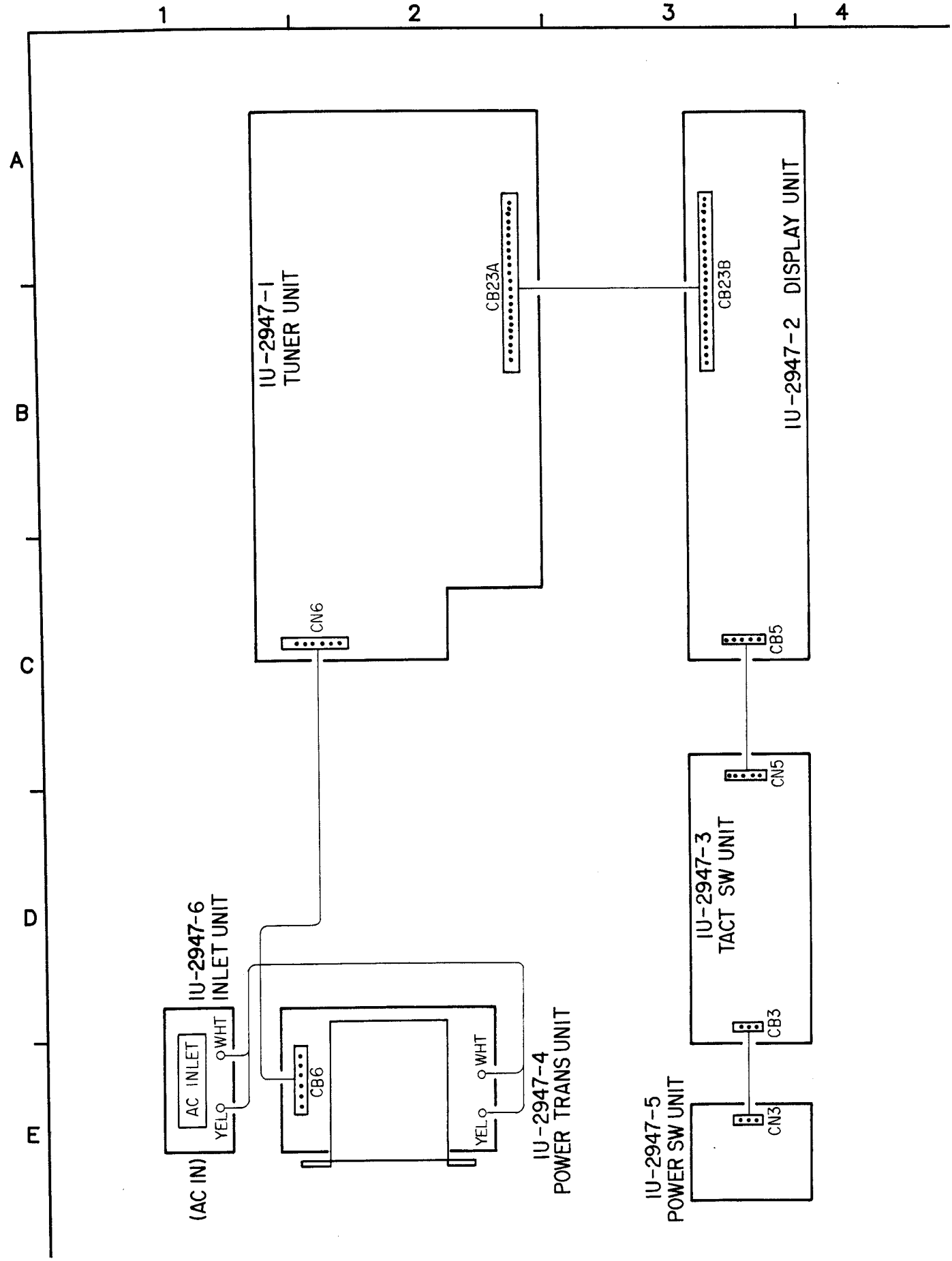
PACKING & ACCESSORIES

Ref No.	Part No.	Part Name	Remarks	Q'ty
◉ 151	GEN 2723 -2	Envelope sub. Ass'y		1s
◉ 151-1	505 0283 018	:Poly cover		(1)
151-2	511 2916 003	Inst. manual		(1)
151-3	203 2310 009	2 p pin cord		(1)
151-4	231 0922 009	Loop antenna		(1)
151-5	395 0023 008	:*FM antenna Ass'y		(1)
⚠ 151-6	206 2108 003	::AC cord with plug		(1)
◉ 152	505 0131 050	Cabinet cover		1
◉ 153	503 0859 006	:Cushion		2
◉ 154	501 1775 060	Carton case		1
◉ 155	513 9111 001	Color label(Gold)	Gold model only	2

WARNING

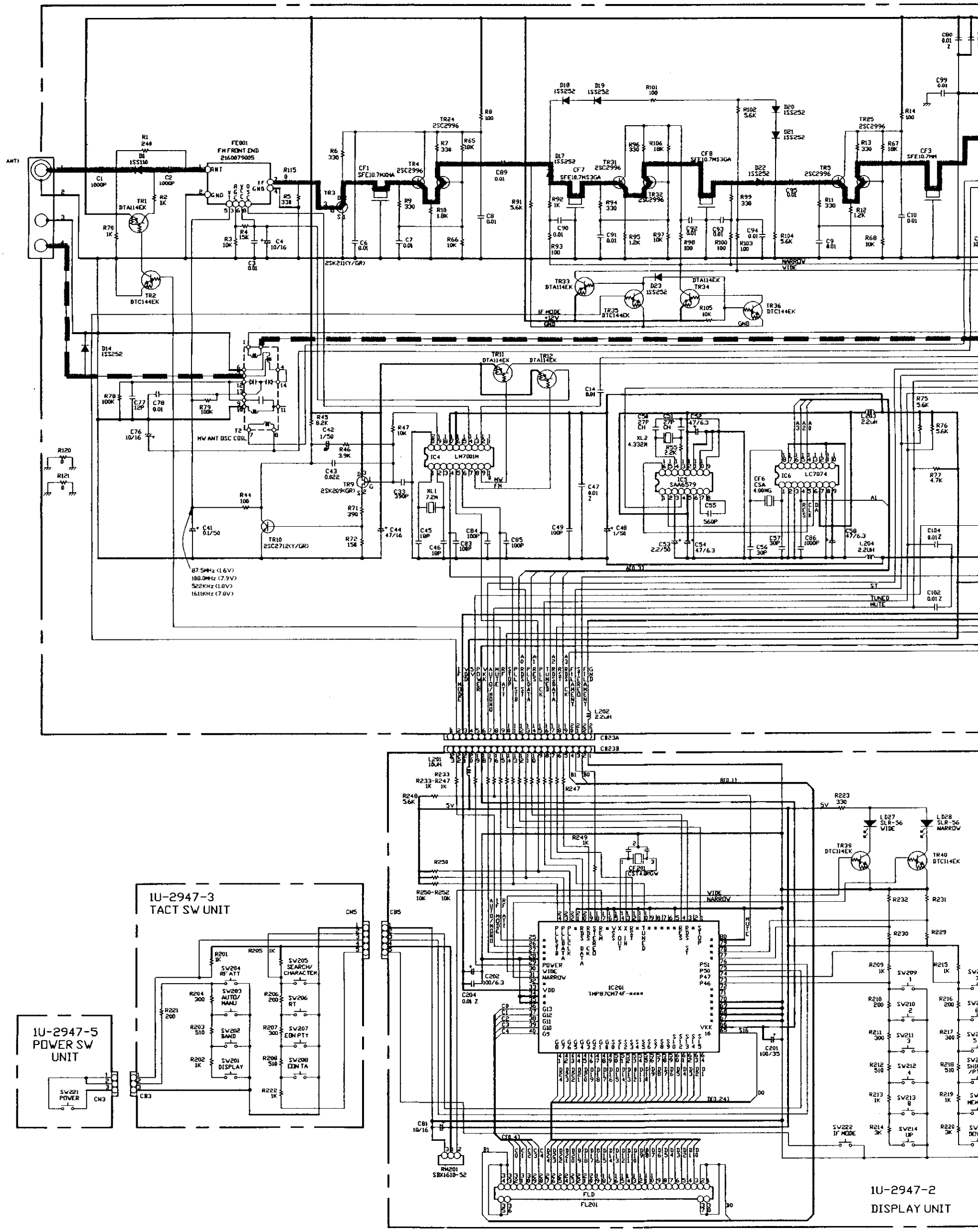
- Parts marked with ⚠ and shading have special characteristics important to safety.
  Be sure to use the specified parts for replacement.
- Part indicated with the mark ◉ are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.

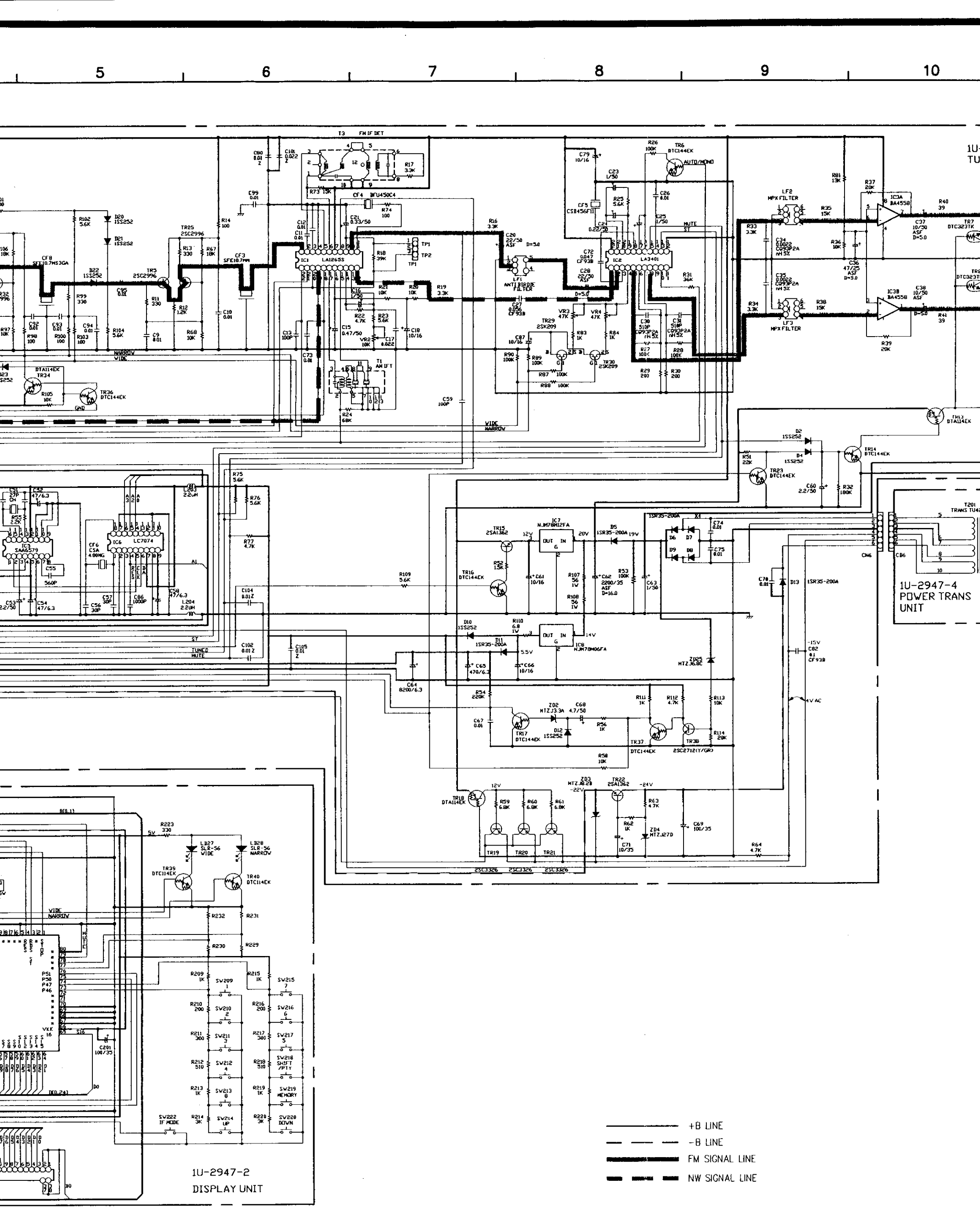
WIRING DIAGRAM



SCHEMATIC DIAGRAM

1 2 3 4 5 6



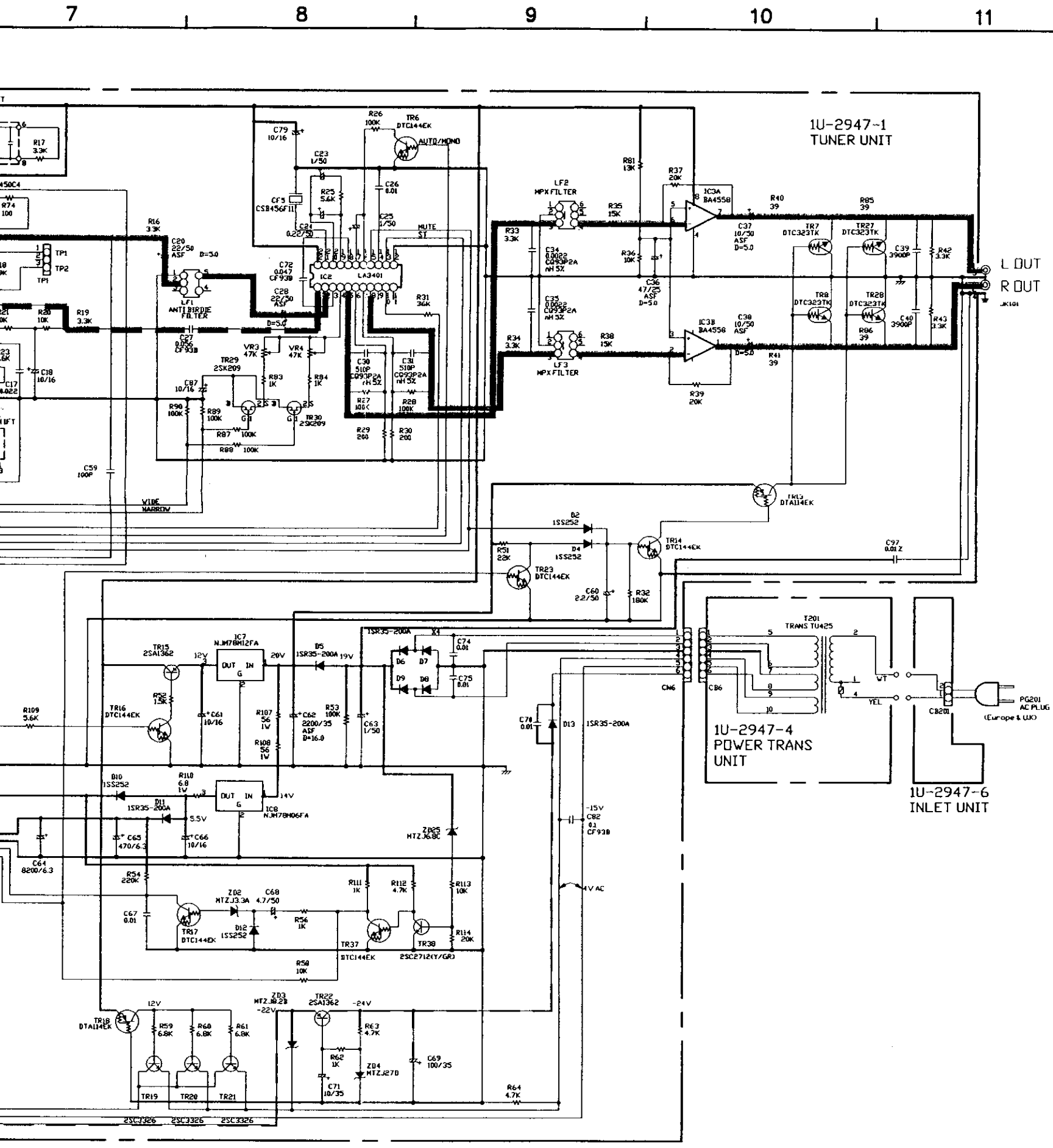


NOTES
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING:
Parts marked with this symbol ⚠ ▒▒ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.



+B LINE
-B LINE
FM SIGNAL LINE
NW SIGNAL LINE

ALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM
VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
D CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.
S ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

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