

DENON

Hi-Fi AM-FM Stereo Receiver

For Europe
And U.K. Models

SERVICE MANUAL

MODEL DRA-585RD

AM-FM STEREO RECEIVER

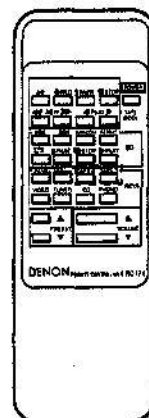
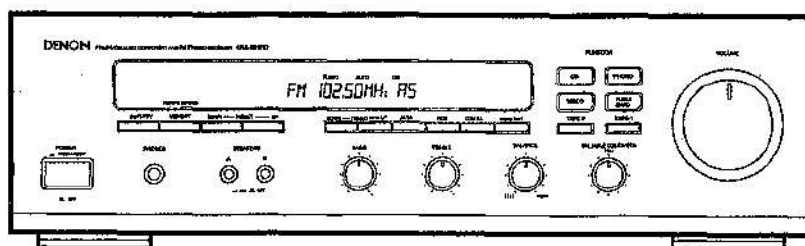


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NIPPON COLUMBIA CO., LTD.



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.

PRECAUTIONS FOR INSTALLATION

Install DRA-585RD always horizontally. And leave at least 10 cm of space between the unit and other component placed above.

VORKEHRUNGEN FÜR DIE AUFSTELLUNG

Stellen Sie den DRA-585RD stets waagrecht auf. Achten Sie ebenfalls darauf, daß ein Mindestabstand von 10 cm zwischen dem Gerät und der Komponente, die darüber gestellt wird, eingehalten wird.

PRECAUTIONS D'INSTALLATION

Le DRA-585RD doit toujours être installé horizontalement. Laisser au moins un espace de 10 cm entre cet appareil et tout autre composant qui serait placé au-dessus.

PRECAUZIONI PER L'INSTALLAZIONE

Installare il DRA-585RD sempre in posizione orizzontale, avendo cura di lasciare almeno 10 cm fra l'unità ed altri componenti posti al di sopra.

PRECAUCIONES PARA LA INSTALACION

Instale siempre el DRA-585RD en posición horizontal. Asegúrese también de dejar un espacio de por lo menos 10 cm entre esta unidad y el componente que sea colocado encima.

VOORZORGSMAATREGELEN VOOR INSTALLATIE

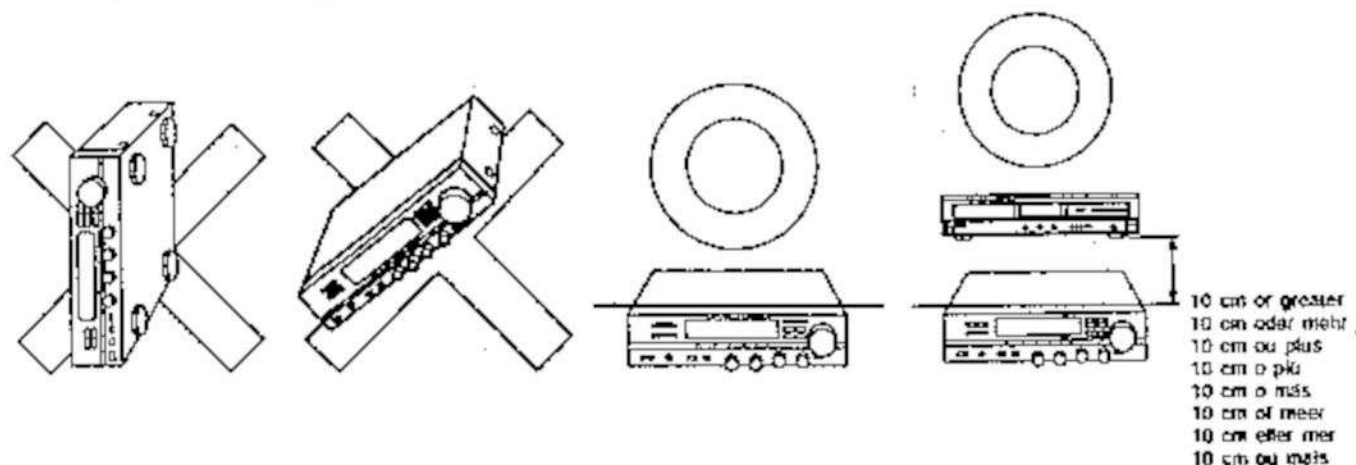
De DRA-585RD altijd horizontaal plaatsen. Laat ten minste 10 cm ruimte tussen dit apparaat en het andere component dat u erboven plaatst.

FÖRBEREDELSE FÖR INSTALLATION

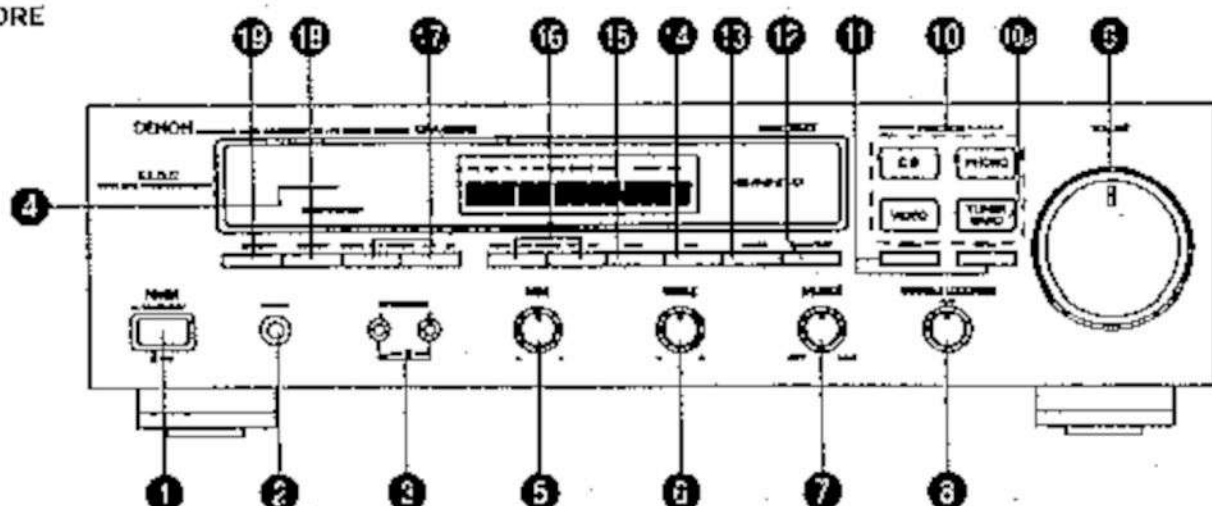
Installera alltid DRA-585RD horisontellt. Lämna åtminstone 10 cm mellan denna apparat och en annan komponent som placeras ovanpå.

PRECAUÇÕES DURANTE A INSTALAÇÃO

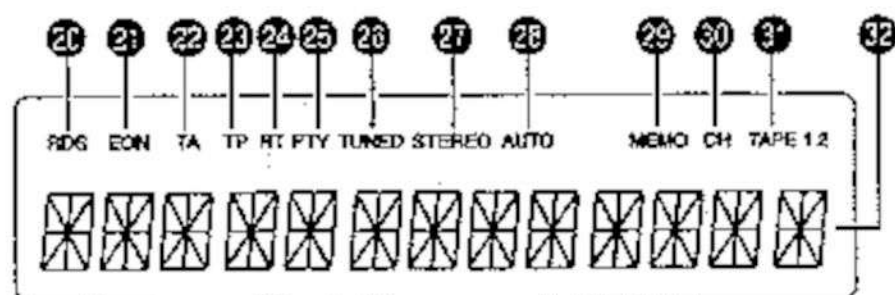
Instale sempre o DRA-585RD em posição horizontal. E deixe pelo menos 10 cm de espaço entre esta unidade e o outro componente colocado acima.



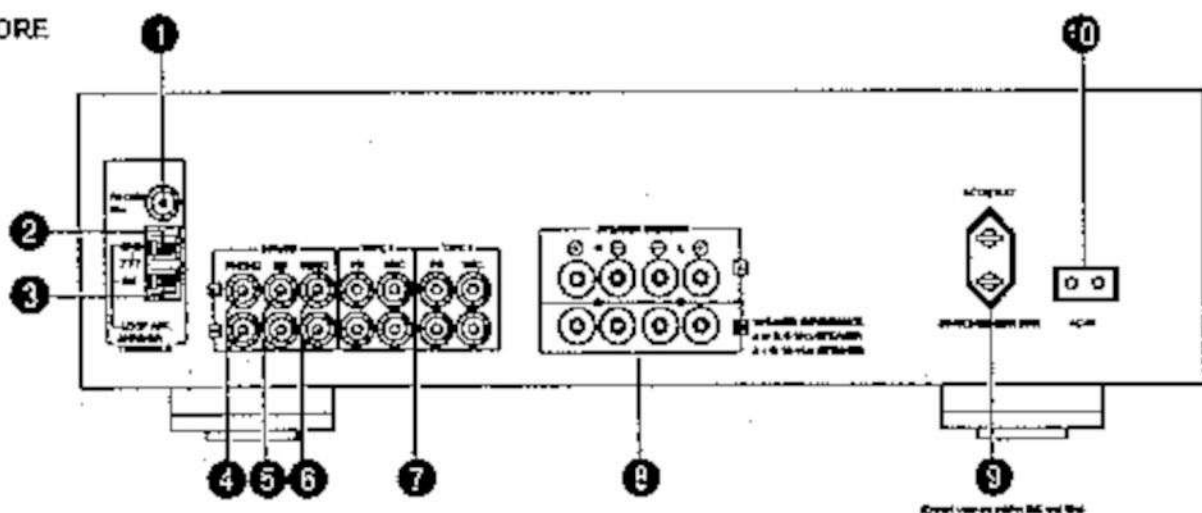
FRONT PANEL
VORDERSEITE
PANNEAU AVANT
PANNELLO ANTERIORE
PANEL ANTERIOR
VOORPANEEL
FRAMPANELEN
PAINEL FRONTAL



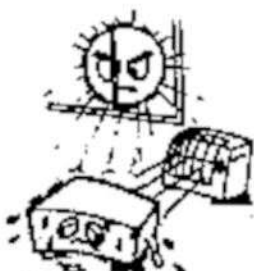
DISPLAY
ANZEIGE
AFFICHAGE
DISPLAY
VISUALIZADOR
OISPLAY
OISPLAYEN
MOSTRADOR



REAR PANEL
RÜCKSEITE
PANNEAU ARRIÈRE
PANNELLO POSTERIORE
PANEL POSTERIOR
ACHTERPANEEL
BAKSIDAN
PAINEL TRASEIRO



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



- Avoid high temperatures. Allow for sufficient heat dispersion when installed on a rack.
- Vermeiden Sie hohe Temperaturen. Beachten Sie, daß eine ausreichende Luftzirkulation gewährleistet sein muß, wenn das Gerät in einem Regal aufgestellt werden soll.
- Éviter des températures élevées. Tenir compte d'une dispersion de chaleur suffisante lors de l'installation sur une étagère.
- Evitare di esporre l'unità ad alta temperatura. Accertarsi che ci sia un'adeguata dispersione del calore quando l'unità è installata in un rack o in un mobile.
- Evite temperaturas elevadas. Asegúrese de garantizar una dispersión de calor suficiente al instalar la unidad en una consola.
- Vermijd hoge temperaturen. Zorg voor een degelijke 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. Quando instalar o equipamento numa prateleira coloque-o de modo a permitir uma dissipação suficiente do calor.



- Keep the set free from moisture, water and dust.
- Halten Sie das Gerät Feuchtigkeits, Wasser und Staub fern.
- Protéger l'appareil contre l'humidité, l'eau et la poussière.
- Mantener a unidade lontana da umidade, água e pó.
- Mantenga el equipo libre de humedad, agua y polvo.
- Laat geen vochtigheid, water of stof in het apparaat binnenvallen.
- Utsätt inte apparaten för fukt, vatten och damm.
- Mantenha o equipamento longe de humidade, água ou pó.



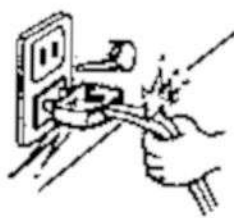
- Do not let foreign objects in the set.
- Lassen Sie keine fremden Gegenstände in das Gehäuseinnere eindringen.
- Ne pas laisser des objets étrangers dans l'appareil.
- Non far cadere alcun oggetto all'interno dell'unità.
- No inserta objetos extraños en el equipo.
- Laat geen vreemde voorwerpen in het apparaat vallen.
- Se till att främmande föremål inte tränger in i apparaten.
- Evite deixar objetos estranhos sobre o aparelho.



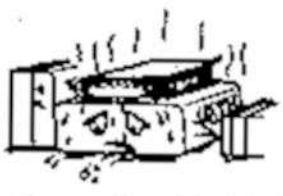
- Unplug the power cord when not using the set for long periods of time.
- Ziehen Sie das Netzkabel aus der Steckdose, wenn Sie das Gerät über einen längeren Zeitraum hinweg nicht verwenden.
- Débrancher le cordon d'alimentation lorsque l'appareil n'est pas utilisé pendant de longues périodes.
- Quando si prevede di non utilizzare l'unità per lunghi periodi di tempo, distaccare il cavo di alimentazione dalla presa.
- Desconecte el cable de alimentación cuando no utilice el equipo por mucho tiempo.
- Neem altijd het netsnoer uit het stopcontact wanneer het apparaat gedurende een lange periode niet wordt gebruikt.
- Dra urðrúðkontakten um apparaten ínta kommer allur árin á þá löngu.
- Desligue o cabo de alimentação quando não utilizar o equipamento durante períodos prolongados.



- Do not let insecticides, benzene, and thinner come in contact with the set.
- Lassen Sie das Gerät nicht mit Insektiziden, benzenthaltigen oder anderen Verdünnungsmitteln in Berührung kommen.
- Ne pas mettre en contact des insecticides, du benzène et un diluant avec l'appareil.
- Evitare di utilizzare insetticidi, benzolo e solventi sull'unità.
- No viene insecticidas, benceno o disolventes en la unidad.
- Laat geen insectenwerdende middelen, benzine of verfverdunder met dit apparaat in contact komen.
- Se till att inte insektsmedel, bensen och thinner kommer i kontakt med apparatens hölje.
- Evite que inseticidas, benzina e diluente entrem em contacto com o equipamento.



- 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 es aus der Steckdose ziehen.
- Manipuler le cordon d'alimentation avec précaution. Tenir la prise lors du débranchement du cordon.
- Maneggiare con cura il cavo di alimentazione. Quando si scollega il cavo dalla presa, non tirare il cavo.
- Maneje el cable de alimentación con cuidado. Sostenga el enchufe cuando desconecte el cable de alimentación.
- Hanteer het netsnoer voorzichtig. Hou het snoer bij de stekker vast wanneer deze moet worden aan- of losgekoppeld.
- Handleis náðlaðan vandlega. Hafi í kontakten när du drar ut dem. Dreima í kabli.
- Manuseie o cabo de alimentação com cuidado. Agarre na ficha para desligar o cabo de alimentação da tomada.



(For sets with ventilation holes)

- Do not obstruct the ventilation holes.
- Die Lüftungsschlitze dürfen nicht verdeckt werden.
- Ne pas obstruer les trous d'aération.
- Non ostruire i fori per la ventilazione.
- No tape las ranuras de ventilación.
- De ventilatöröppningarna mogen niet worden beblokkeerd.
- Tappa inte til ventilatíonsöppningarna.
- Não tape as aberturas de ventilação.



- Never disassemble or modify the set in any way.
- Versuchen Sie niemals, das Gerät selbstständig auseinanderzunehmen oder auf jegliche Art zu verändern.
- Ne jamais démonter ou modifier l'appareil d'une manière ou d'une autre.
- Non smontare o modificare in alcun modo l'unità.
- Nunca desarme o modifique el equipo de ninguna manera.
- Nook dit apparaat demonteren of op andere wijze modifieren.
- Ta inni ítt á apparaten och försök inte byggja om den.
- Nunca desmonte ou modifique o equipamento de alguma forma.

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

- | | |
|----------------------------------|---|
| (1) Operating Instructions | 1 |
| (2) AM Loop Antenna | 1 |
| (3) FM Antenna | 1 |
| (4) Remote Control RC-174 | 1 |
| (5) Batteries R6 (AA) | 2 |
| (6) AC Cord | 1 |

Vergewissern Sie sich, daß folgende Teile vollständig im Lieferumfang enthalten sind:

- | | |
|---|---|
| (1) Bedienungsanleitung | 1 |
| (2) MW-Rahmenantenne | 1 |
| (3) UKW-Antenne | 1 |
| (4) Fernbedienungsgerät RC-174 | 1 |
| (5) Trockenzellen-Batterien R6 (AA) | 2 |
| (6) Netzkabel | 1 |

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

- | | |
|-----------------------------------|---|
| (1) Mode d'emploi | 1 |
| (2) Antenne-cadre AM | 1 |
| (3) Antenne FM | 1 |
| (4) Télécommande RC-174 | 1 |
| (5) Piles de format R6 (AA) | 2 |
| (6) Cordon secteur | 1 |

Controllare che la parti seguenti si trovino imballate con l'apparecchio nella scatola di spedizione:

- | | |
|------------------------------------|---|
| (1) Istruzioni per l'uso | 1 |
| (2) Antenna AM a telaio | 1 |
| (3) Antenna FM | 1 |
| (4) Telecomando RC-174 | 1 |
| (5) Batterie a secco R6 (AA) | 2 |
| (6) Cavo d'alimentazione | 1 |

Verifique que los artículos siguientes hayan sido suministrados con la unidad principal:

- | | |
|---|---|
| (1) Instrucciones de operación | 1 |
| (2) Antena AM de cuadro | 1 |
| (3) Antena de FM | 1 |
| (4) Unidad de control remoto RC-174 | 1 |
| (5) Pilas secas R6 (AA) | 2 |
| (6) Cable de alimentación | 1 |

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

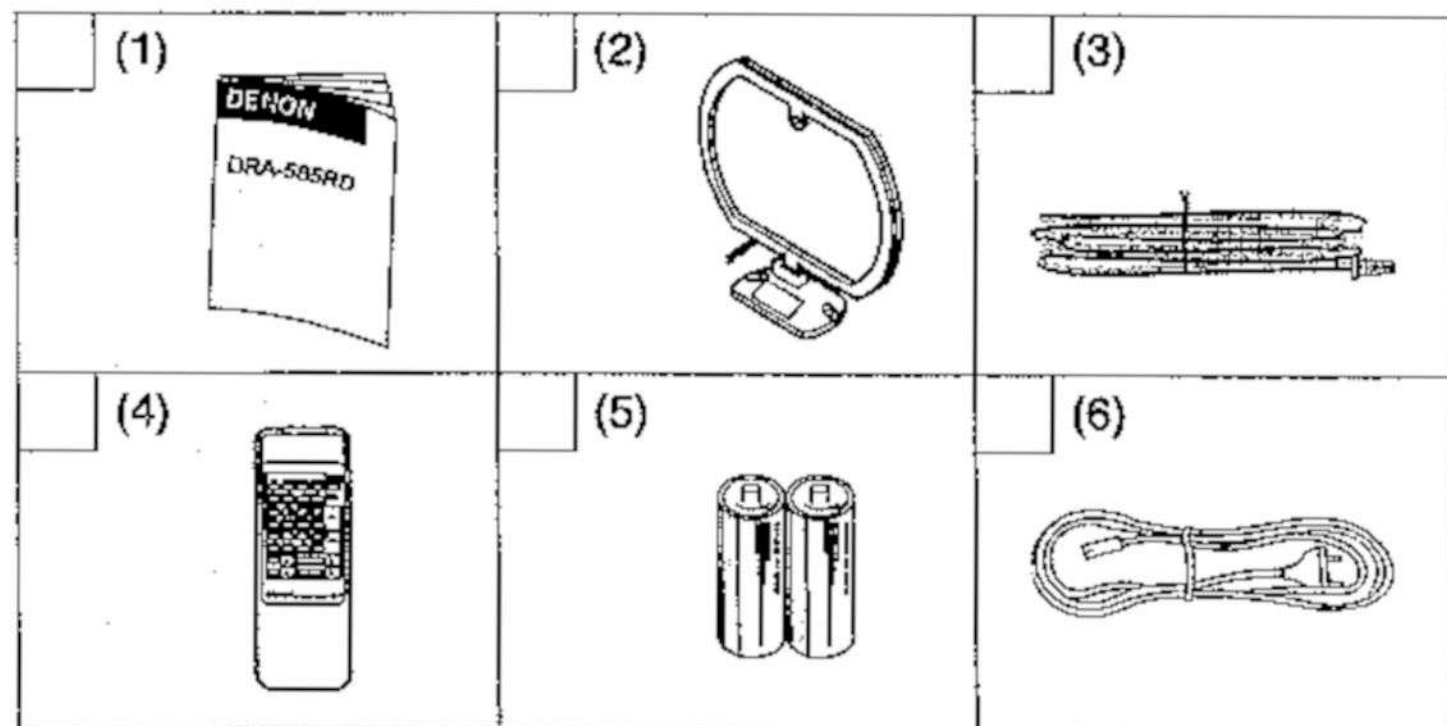
- | | |
|--------------------------------------|---|
| (1) Gebruiksaanwijzing | 1 |
| (2) AM-raamantenne | 1 |
| (3) FM-antenne | 1 |
| (4) Afstandsbediening RC-174 | 1 |
| (5) R6 (AA) droge cel batterij | 2 |
| (6) Netsnoer | 1 |

Kontrollera att följande tillbehör har packats ner i kartongen tillsammans med huvudenheten:

- | | |
|---------------------------------|---|
| (1) Bruksanvisning | 1 |
| (2) Ramantenn för AM-bruk | 1 |
| (3) FM-antenn | 1 |
| (4) Fjärrkontroll RC-174 | 1 |
| (5) R6 (AA) torrbatteri | 2 |
| (6) Nätkabeln | 1 |

Verifique se os itens que se seguem estão incluídos na caixa de cartão com a unidade principal:

- | | |
|---------------------------------------|---|
| (1) Instruções de funcionamento | 1 |
| (2) Antena de quadro AM | 1 |
| (3) Antena FM | 1 |
| (4) Telecomando RC-174 | 1 |
| (5) Pilhas R6 (AA) | 2 |
| (6) Cabo de alimentação | 1 |



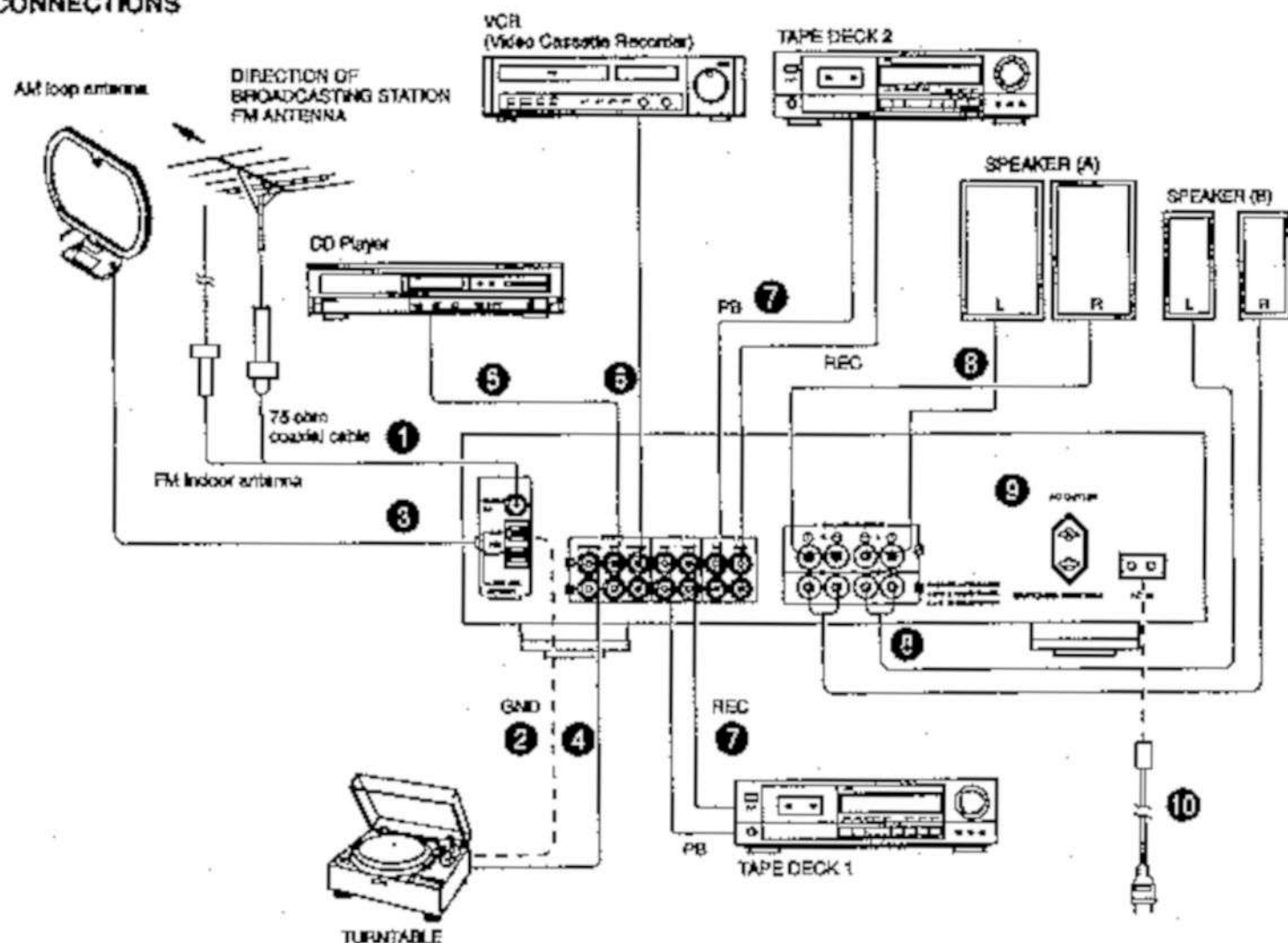
NUR FÜR EUROPÄISCHE MODELLE:

Konformitätsklärung

Die DENON Elektronik GmbH
Halskestr. 32
40680 Ratingen

erklärt als Hersteller/Importeur, daß das in dieser Bedienungsanleitung beschriebene Gerät den Technischen Vorschriften für Ton- und Fernseh-Rundfunkempfänger nach der Amtsblattverfügung 868/1989 (Amtsblatt des Bundesministers für Post und Telekommunikation vom 31.8.1989) entspricht.

CONNECTIONS



Notes on Connection

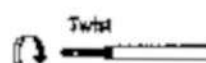
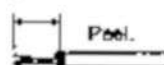
- Do not plug the power cord into the AC wall outlet until all connections have been completed.
- Make sure channels are correctly connected. Connect Left channels to Left channels and Right channels to Right channels. Follow the color markings of plugs and terminals to make sure mistakes are not made.
- Connect all pin-plugs securely, pushing them completely into the jacks. Incomplete connections will cause noise generation.
- Binding the connection cables to power cords, or running such cables close to power supply transformers will cause humming or noise, and should thus be avoided.

SPEAKER CONNECTION

Confirm polarity (+, -) and left and right channels (L, R). Connect the speaker pairs to the SPEAKER terminals A or B on the back panel. Connections must be made with power cord disconnected.

Preparing the cord

1. Peel off the sheath.
2. Twist the wires.



Connecting the front speaker terminals

1. Loosen by turning counterclockwise.
2. Insert the cord and tighten by turning clockwise.



ANTENNA INSTALLATION

FM ANTENNA

The supplied indoor FM antenna can be used inside wooden houses for receiving local FM stations and other strong FM signals. Stretch out the end of the antenna and mount the antenna on the wall or ceiling where optimum reception is achieved. An indoor FM antenna may not consistently ensure stable reception, due to environment changes. In such cases, the indoor FM antenna should only be used temporarily until an outdoor FM antenna has been installed.

When connecting an outdoor FM antenna, the use of 75 ohm coaxial cable (3C-2V, 6C-2V) is strongly recommended.

AM ANTENNA

Attach the supplied AM loop antenna even when using an outdoor AM antenna.

Connect the leads to the AM and GND terminals.

Also use the AM terminals for connecting an outdoor AM antenna (when making such a connection do not disconnect the AM loop antenna).

Adjust the loop antenna to obtain optimum reception. Where broadcast stations are distant and only weak signals are received or where signals are blocked, it is best to install an outdoor AM antenna.

Assembling the Loop Antenna



- Remove the tie fastening the loop antenna's lead and connect the lead to the antenna terminals

Notes:

- Do not connect two FM antennas simultaneously.
- Even if an external AM antenna is used, do not disconnect the AM loop antenna.
- Make sure AM loop antenna lead terminals do not touch metal parts of the panel.

REAR PANEL (Refer to page 6 and page 7.)

- 1 FM ANT (FM antenna terminals)**
75-ohm coaxial cable can be connected to this terminal. For antenna connecting procedure, see ANTENNA INSTALLATION.
- 2 GND (Grounding terminal)**
The grounding wire of the turntable is connected here.
 - Hum or noise may be generated if the grounding wire is not connected.
- 3 AM ANT (AM antenna terminals)**
Connect the attached AM loop antenna.
Connect to this terminal when a medium wave outdoor antenna is used.
- 4 PHONO (Phono input terminals)**
The output cord of the turntable is connected here.
Since the input sensitivity of "PHONO" is extremely high, do not use the unit without the input pin cord. If used without this cord, the speakers may generate hum.
- 5 CD**
The output cord of the CD player is connected here.
- 6 VIDEO**
A VIDEO, such as a VCR or Video Disc may be connected here.
- 7 TAPE-1, TAPE-2**
Two tape decks or tape deck can be connected to these jacks for full-fledged playback, recording and tape dubbing operation.
- 8 SPEAKER SYSTEMS (Speaker terminals)**
Two pairs of speakers A and B can be connected to these terminals.
- 9 AC OUTLET (AC power outlet)**
This AC outlet is controlled by the power switch.
(Except units are sold in U.K. and Eire).
- 10 AC Inlet**
Connect the included AC cord here.

CAUTION

Protective Circuit

This set is equipped with a high speed protective circuit. This circuit protects the internal circuitry from damage due to large currents flowing when the speaker jacks are not completely connected or when an output is generated by a short circuit.

This protective circuit's operation cuts off the output to the speakers. In such a case, be sure to turn the power to the set off and check the connections to the speakers. Then turn the power on again. After muting for several seconds, the set will operate normally.

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

FRONT PANEL

1 POWER (Power ON-STANDBY/OFF Switch)

This switch turns the unit ON or OFF. There is a delay of a few seconds before the unit will operate after this power switch is turned ON. If the unit is turned OFF from the remote control, the unit will be in the STANDBY mode. When in the STANDBY mode, the unit can be turned ON with the power button on the remote control. If the unit will not be used for extended period, be sure to turn the unit OFF from the front panel power switch.

NOTE: This unit includes a STANDBY protection feature. This feature is designed to prevent accidental turn-on from the STANDBY mode in the event of a power failure. Should AC power be disconnected and then reconnected when the unit is in STANDBY mode, the unit will return the STANDBY mode.

To turn the unit ON from the STANDBY mode without the remote control, operate the front panel power switch four times. The unit will then operate normally.

2 PHONES (Headphones jack)

Connect a pair of headphones (sold separately) to this Jack for private listening.

3 SPEAKERS (Speaker selector switches)

These switches are used to select speaker system A and B. No sound is heard through the speakers when both switches are reset to the (OFF) position.

4 REMOTE SENSOR (Remote control sensor)

This sensor receives the infra-red light transmitted from the wireless remote control unit.

For remote control, point the wireless remote control unit towards the sensor.

5 BASS (Bass control)

Use this control to adjust the low-range response. When the control is set to the center position, the frequency characteristic curve (below 1,000 Hz) is flat. Turn the control clockwise to increase the bass response and counterclockwise to decrease it.

6 TREBLE (Treble control)

Use this control to adjust the high-range response. When the control is set to the center position, the frequency characteristic curve (above 1,000 Hz) is flat. Turn the control clockwise to increase the treble response and counterclockwise to decrease it.

7 BALANCE (Balance control)

Use this control to balance the volume levels between left and right channels. The volume levels in both channels are equal when the control is set to the center position.

8 VARIABLE LOUDNESS (Loudness control)

At low volumes, the human ear is less sensitive to low (BASS) and high (TREBLE) frequencies. Use this control to compensate for this deficiency when listening at low volume levels. Turn this control counter-clockwise until a natural balance of bass and treble sound has been restored.

9 VOLUME (Volume control)

This knob is used to adjust the volume level of both channels. Turn the knob clockwise to raise the volume and counterclockwise to lower it.

10 Input selector (Input selector buttons)

These buttons are used to select the audio input source.

- PHONO: Press to play a record on a record player connected to the PHONO input jacks.
- CD: Press to listen to a compact disc player or another component connected to the CD input jacks.
- TUNER: Press to listen to FM or AM programs, when the set is not TUNER function.
- VIDEO: Use when playing back the audio from a Hi-Fi video, video disc player or other component connected to the VIDEO terminal.

11 BAND (Band selector button)

Press this button to select the FM or AM (MW) band, when the set is TUNER function.

12 Tape selector (Tape selector/monitor buttons)

TAPE-1: Press the button once, TAPE-1 indicator will light up and then you can play tape source on TAPE-1 terminal.

TAPE-2: Press this button once, TAPE-2 indicator will light up and then you can play tape or video source of TAPE-2 terminal.

In this state you can copy TAPE-2 source to TAPE-1 terminal. Press again the button currently accessed, to play sources selected by input selector 10, indicator goes out.

13 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. (Refer to page 13.)

14 EON TA button

When a traffic announcement begins on a station in the same network as the station currently tuned in, that network station is automatically tuned in, and the previous station is tuned back in once the traffic announcement is over.

This button is used to turn this mode on and off.

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. (Refer to page 13.)

15 RDS (RDS button)

This button is used for the RDS search (refer to page 12) and PTY search (refer to page 12) and TP search (refer to page 12) operations, and to input the station name (refer to page 11.)

- 15 AUTO (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.
- 16 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 11.)
- 17 Preset (Preset station buttons)**
These buttons are used for storing stations or recalling stations which have been preset. Using the SHIFT/PTY button you can preset a total of 40 FM or AM stations into preset channels.
Once a radio has been memorized, the same station can later be tuned in instantly simply by recalling the corresponding preset channel with PRESET UP or DOWN button.

- 18 MEMORY (Memory button)**
This switch is used to store the desired radio station to a memory.
- 19 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, use this button to select the program type.
When writing station names, use this button to set the writing position.

NOTES

- This receiver has a full back-up system. When the power is turned on, the INPUT SELECTOR buttons are set to the last mode set before the power was turned off.
- When using this receiver in close proximity to video equipment (TV, VCR, VDP, etc.) noise may be generated in AM broadcasts. To avoid this, keep the receiver as far away from other video components as possible, or place the AM loop antenna where noise is reduced. If the noise is not reduced, turn off the power of the video components when listening to AM broadcasts.

DISPLAY

- 20 RDS indicator**
This lights when receiving RDS broadcasts, and flashes during the RDS search operation.
- 21 EON indicator**
This lights when receiving EON information.
- 22 TA indicator**
This lights when receiving traffic announcements.
- 23 TP Indicator**
This flashes during the TP search operation and lights when TP stations are tuned in.
- 24 RT indicator**
This lights when the RADIO TEXT button is pressed.
- 25 PTY indicator**
This flashes during the PTY (Programme Type) search operation.
- 26 TUNED indicator**
This lights when a station is properly tuned in.
- 27 STEREO indicator**
This lights when receiving stereo broadcasts. It remains off when receiving AM broadcasts.
- 28 AUTO indicator**
This indicates the tuning mode. It lights in the auto mode and remains off in the manual mode.
- 29 MEMO indicator**
This indicator lights for approximately 10 seconds when the MEMORY button has been pressed and a station can be stored on a PRESET CHANNEL button.
This flashes continuously during the auto memory operation.
- 30 CH indicator**
This lights when the preset channel number and shift mode (A, B, C, D or E) are displayed.
- 31 TAPE-1/TAPE-2 indicator**
The TAPE-1 indicator lights when the TAPE-1 source is selected with the tape selector buttons. The TAPE-2 indicator lights when the TAPE-2 source is selected.
- 32 Multi function display**
This displays the frequency, station name, program type, etc.

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 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 the PRESET UP or DOWN button  to select the channel at which the station is to be stored.
4. Press the MEMORY button  again to store the station in the memory.

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 the PRESET UP or DOWN button  to recall the station stored in the memory.
If the PRESET UP or DOWN buttons are pressed without pressing the SHIFT/PTY button , the stations are recalled in the order A1 to A8, B1 to B8, and so on through E8.

Table of characters

The characters are input in the order shown to the right. Use the TUNING buttons  to select the desired characters.

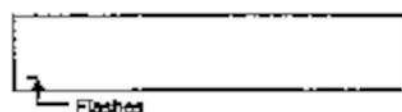
→	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	→
→	0	1	2	3	4	5	6	7	8	9	\	]	-	%	'	(	)	*	+	=	.	/	=	SPACE	→		

4. Inputting characters

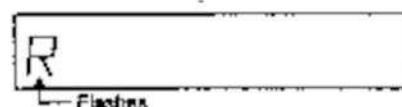
Any characters can be input (up to 8 characters). The input characters can be stored at the preset channels.

Operation

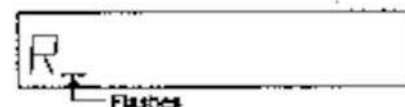
1. Press the RDS button  four times.
(The cursor flashes at the first place.)



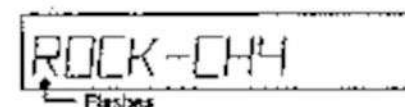
2. Use the TUNING UP or DOWN button  to select the character for the first place.
(The selected character flashes.)



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 RDS 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 RDS button  once.



RDS SEARCH

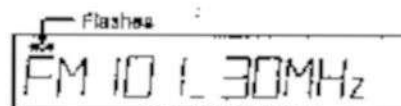
2. Press the PRESET UP or DOWN button .
(Searching begins.)



RDS SEARCH

Flashes

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



FM 101.30MHz

Flashes

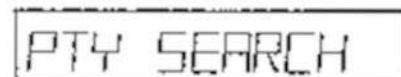
4. If no other RDS station is found when all the frequencies are searched, "NO RDS" is displayed.

2. PTY Search

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

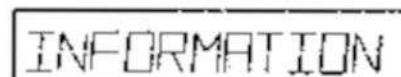
Operation

1. Press the RDS button  twice.



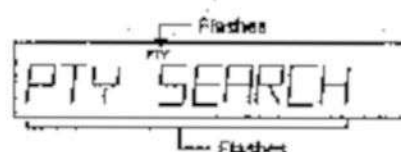
PTY SEARCH

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



INFORMATION

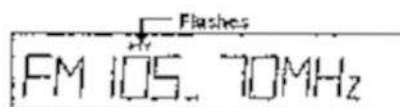
3. Press the PRESET UP or DOWN button .
(Searching begins.)



PTY SEARCH

Flashes

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



FM 105.70MHz

Flashes

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.

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 RDS button  three times.



TP SEARCH

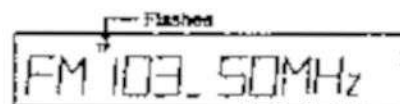
2. Press the PRESET UP or DOWN button .
(Searching begins.)



TP SEARCH

Flashes

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



FM 103.50MHz

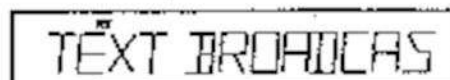
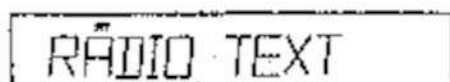
Flashes

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

4. RADIO TEXT

When the RADIO TEXT 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 RADIO TEXT button is pressed.)



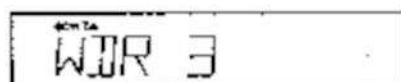
("NO TEXT DATA" is displayed if no radio text message is being broadcast.)

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.

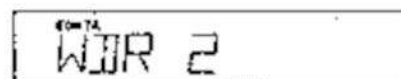
Operation

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



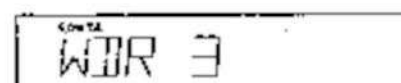
(STATION A)

(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)

RDS Emergency Alarm

"ALARM" will flash on the display when the unit receives the Emergency Programme Type Code (PTY31) from an RDS station. This feature may not operate properly if the signal from the RDS station is too weak or is subjected to interference.

It is not possible to select the "ALARM" display from the PTY search mode.

NOTE:

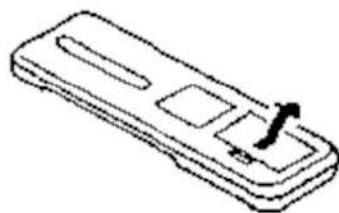
1. Be sure to turn the EON TA mode off when recording programmes.
2. In the EON TA mode, if the station is switched from the current station to another station in the network but the signals of that network station are weak and it cannot be tuned in properly, "WEAK SIGNAL" is displayed and the original 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. 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.

PLAYBACK USING THE REMOTE CONTROL

The accessory RC-174 remote control unit is used to control the RECEIVER from a distance.

(1) Inserting the dry cell batteries

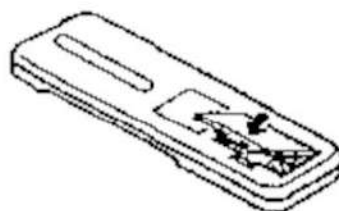
1. Remove the rear cover on the remote control unit.



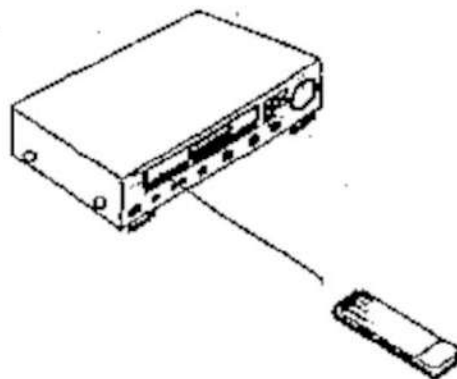
2. Insert two size "AA" (R6) dry cell batteries as shown in the diagram on the battery supply unit.



3. Replace the rear cover.



(2) Directions for use



Notes on Use of the Batteries

- The remote control unit uses size "AA" (R6) dry cell batteries.
- The batteries will need to be replaced approximately once a year. This will depend upon how often the remote control is used.
- If, in less than a year from the time new batteries were inserted, the remote control fails to operate the receiver from a near-by position, it is time to replace the batteries.
- Insert the batteries properly, following the diagram on the remote control battery supply unit, and making sure to align the plus and minus sides of each battery.
- Batteries are prone to damage and leakage. Therefore:
 - Do not combine new batteries with used ones.
 - Do not combine different types of batteries.
 - Do not jumper the opposite poles of the batteries, expose them to heat or break them open, or put them into open fire.
- When the remote control is not to be used for a long period of time, remove the batteries from the unit.
- If the batteries have leaked, remove any battery fluid from the inside of the battery supply unit by wiping it out thoroughly and insert new batteries.

- Operate the remote control unit while pointing it towards the remote control sensor on the receiver as shown in the diagram left.
- The remote control unit can be used at distances up to about 8 meters in a straight line from the receiver. This distance will decrease if there are obstructions blocking the infra-red light transmission or if the remote control unit is not directed straight at the receiver.

Note on Operation

- Do not press the operating buttons on the receiver and the remote control unit at the same time. This will cause misoperation.
- Operation of the remote control unit will become less effective or erratic if the infrared remote control sensor on the receiver is exposed to strong light or if there are obstructions between the remote control unit and the sensor.
- In case you operate your VCR, TV or other components by remote control, do not operate buttons on two different remote control units at the same time. This will cause misoperation.

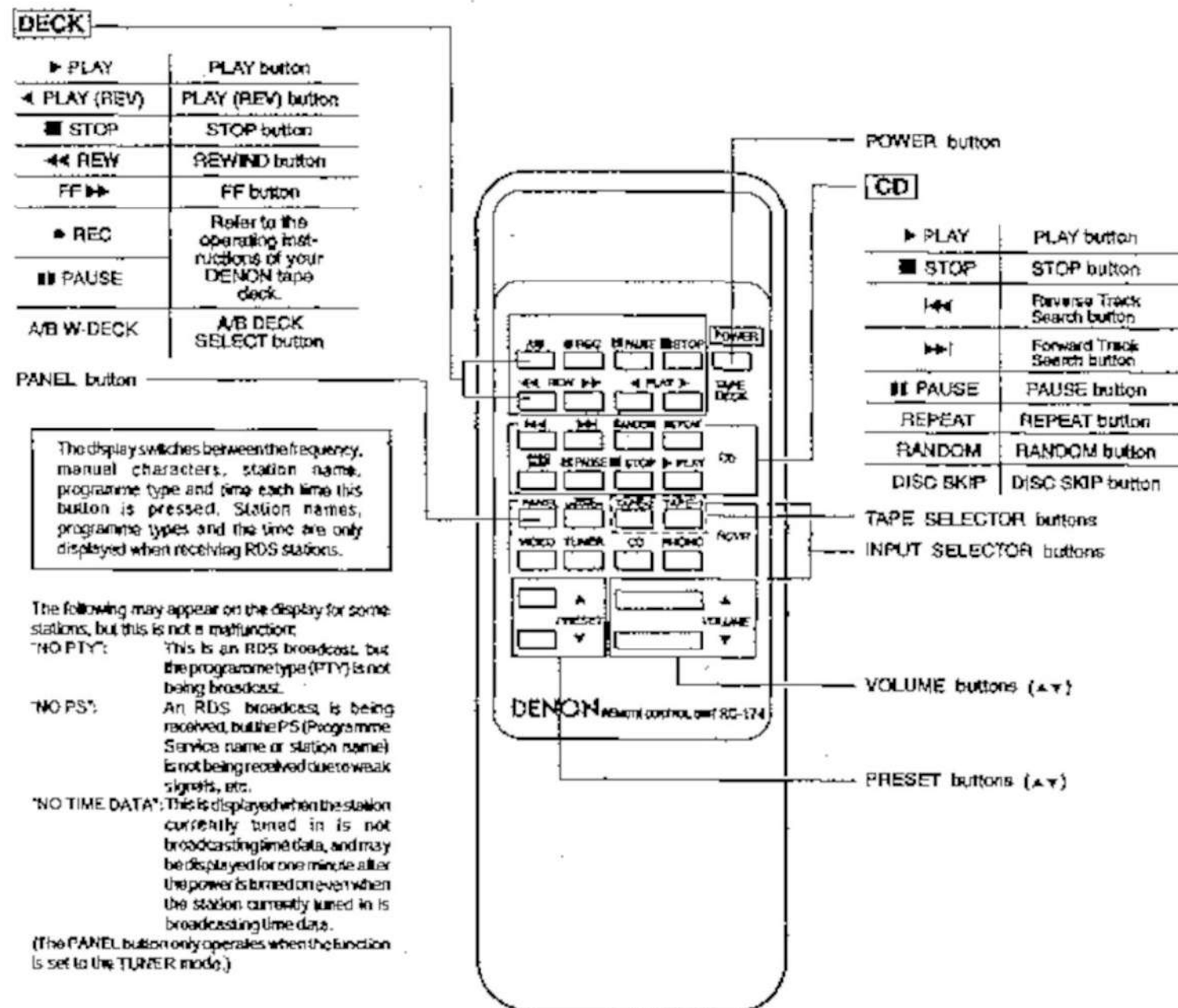
Besides being able to operate the DRA-585RD receiver with this remote control unit, you can also operate a DENON cassette deck and CD player from this handy full-system remote control unit.

Remote Control Section

Full-system Remote Control Unit

The full-system remote control unit operates all major functions of the receiver such as function switching, volume control, and preset station selection. But that's not all! The same control pad can also control the major functions of a DENON CD player and cassette deck to create a remarkably ergonomic and versatile DENON system with all the quality sound reproduction that the devoted audiophile expects.

Remote Control Unit RC-174 supplied with DRA-585RD



- The RC-174 Remote Control Unit can control CD players and cassette decks made by DENON.
- Note the operation may not be possible for some models.
- Buttons are conveniently separated into groups, each group controlling one specific component. The groups are RECEIVER, CD and DECK.

For details on operating other components, refer to the instruction manuals for the CD player and/or cassette deck.

CAUTION:

- If the power is turned off with the remote control unit, the receiver is switched to the power stand-by state. If you are to be absent for a long period of time, be sure to turn the power off using the POWER switch on the receiver.
- A part of 1st digit of fluorescent display light while the receiver is in the power stand-by state.
- You may experience erratic operation of the remote control unit if it is operated in fluorescent light and direct sunlight, in particular if this light strikes the remote control sensor on the receiver. However, this is not a malfunction, and if this should happen, protect the sensor against such light.

TROUBLESHOOTING

1. Have all connections been made PROPERLY?
2. Have you followed all operational instructions correctly?
3. Check speaker and the turntable systems for proper operation.

When your unit does not seem to be operating correctly, first check the items in the following table. If the symptom does not correspond to any of the problems as shown below, turn off the power sources immediately and contact your DENON dealer.

Problem	Cause	Remedy
FM AND AM RECEPTION		
Radio program can not be received.	• Antenna connection is wrong. • A signal strength is weak.	• Check the connection. • Check the antenna installation.
Noise is reproduced.	• A signal strength is weak. • Automobile ignition noise interferes with reception. • Other electrical equipment interferes with reception.	• Install an outdoor antenna. • Keep the antenna away from the street. • Keep the equipment away from this set, or turn off the power of the other equipment.
The preset frequencies are erased.	• The memory back-up term (about 1 month) passed.	• Preset again.
In automatic tuning, the frequency doesn't stop at the radio station.	• A signal strength is weak.	• Use manual tuning.
In automatic tuning, it stops at the one step lower or higher frequency than the radio station.	• Noise or strong signal strength is received.	• Use manual tuning for optimum reception.
PLAYBACK OF THE AUDIO EQUIPMENTS		
No sound is produced with power on.	• Input and speaker cords connection are wrong. • Speaker switch is off. • The INPUT SELECTOR buttons are in wrong position. • The protective circuit is operating. • The fuse has blown out.	• Check the connection. • Turn on speaker switch. • Check these position. • Turn the power off once, check the connections to the speakers, then turn the power on again. • Ask your dealer, or the nearest DENON representative.
Audible hum when playing records.	• The input and grounding cords connection of the turntable are wrong. • The cords connection of the cartridge are wrong. • The interference from the nearby TV or radio transmission antenna.	• Check the connection. • Check the connection. • Ask your dealer, or the nearest DENON representative.
Howling is produced when the volume control is turned up too high while playing records.	• The vibrations and sounds transmit from the speakers to the turntable.	• Insulate the vibrations, or keep the speakers away from the turntable.
Crackling noise is produced when playing records.	• The record is stained with dust. • The stylus tip of the cartridge is stained with the dust. • The cartridge is defective.	• Clean the record. • Clean the stylus tip. • Try the other cartridge.

SPECIFICATIONS

AMPLIFIER SECTION

Continuous Power Output (DIN):	90 W + 90 W (4 ohms, 1 kHz)			
Power Bandwidth (BIF):	10 Hz - 40 kHz (T.H.D. 0.15% both channels driven into 8 ohms)			
Total Harmonic Distortion:	0.03% (-3 dB at rated output, 8 ohms)			
Frequency Response:	PHONO RIAA Standard Curve (Recording Output)			
	MM	20 Hz - 20 kHz	± 0.5 dB	
	CD, VIDEO,	20 Hz - 50 kHz	± 1.5 dB	
	TAPE 1, TAPE 2		(at 1 W)	
Input Sensitivity and Impedance:	PHONO	MM	2.5 mV	47 kohms
	CD, VIDEO,		150 mV	25 kohms
	TAPE 1, TAPE 2			
Maximum Input Level:	PHONO MM	120 mV		
(at 1 kHz)				
Signal to Noise Ratio (THF-A):	PHONO MM	78 dB (at 5.0 mV input)		
	CD, VIDEO,	98 dB		
	TAPE 1, TAPE 2			
Tone Controls:	BASS	± 10 dB at 100 Hz		
	TREBLE	± 10 dB at 10 kHz		
Loudness Control Effect:	Variable Loudness at maximum position 60 Hz/10 kHz, ± 10 dB ± 5 dB			

TUNER SECTION

[FM] (note: μ V at 15 ohms, 0 dB - $\pm 1 \times 10^{-14}$ W)	
Receiving Range:	87.5 - 108 MHz
Usable Sensitivity:	0.9 μ V (10.3 dB)
Signal to Noise Ratio (THF-A):	MONO 82 dB
	STEREO 78 dB
Image Rejection:	65 dB
Selectivity (± 300 kHz):	55 dB
Frequency Response:	30 Hz - 75 kHz ± 0.2 dB
	-1.5
Stereo Separation (at 1 kHz):	40 dB
[AM]	
Receiving Range:	522 - 1611 kHz
Usable Sensitivity:	18 μ V
Signal to Noise Ratio:	55 dB
General	
Power Supply:	AC 230 V 50 Hz
Power Consumption:	190 W
Power Output:	SWITCHED 100 W
Dimensions:	434 mm (W) x 129 mm (H) x 310 mm (D)
Weight:	6.7 kg
REMOTE CONTROL UNIT	RC-174
Remote control system:	Infrared pulse system
Power supply:	3V DC Two size "AA" (R6) dry cell batteries
External dimensions:	60 mm (W) x 175 mm (H) x 18 mm (D)
Weight:	120 g (includes batteries)

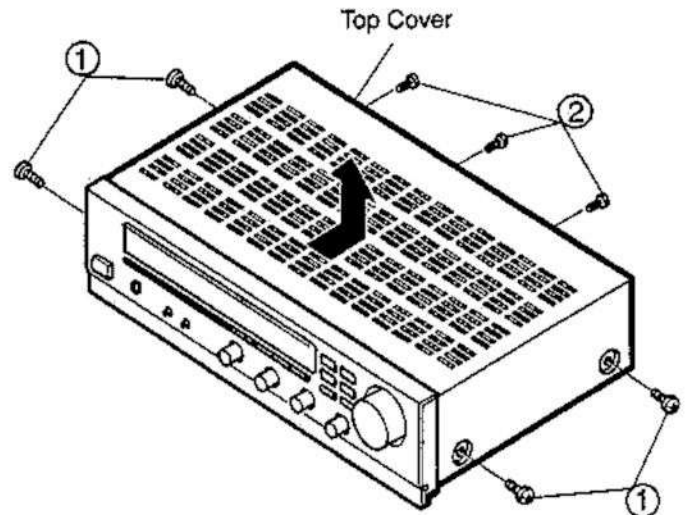
Design and specifications are subject to change without prior notice.

DISASSEMBLY

(To reassemble reverse disassembly)

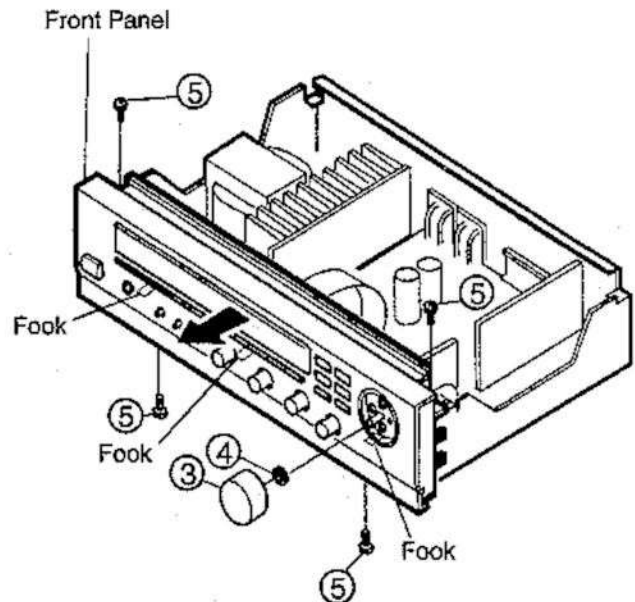
1. Top Cover

- (1) Remove 4 screws ①.
- (2) Remove 3 screws ②.



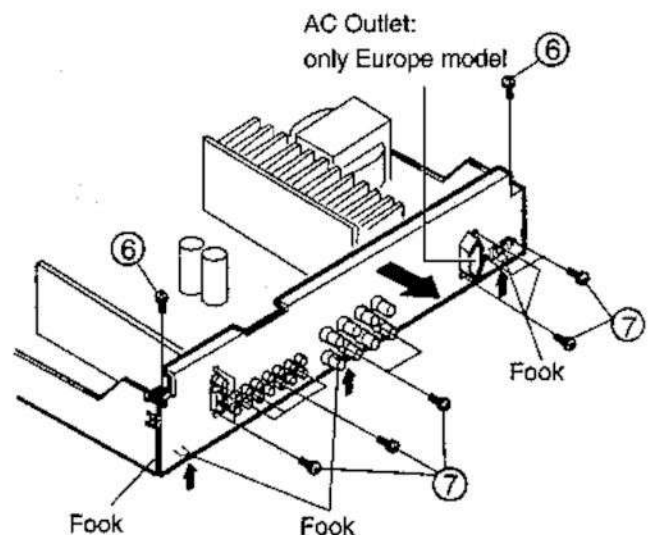
2. Front Panel

- (1) Pull out Volume knob ③.
- (2) Remove nut ④.
- (3) Remove 4 screws ⑤ and undo hooks at 3 places.

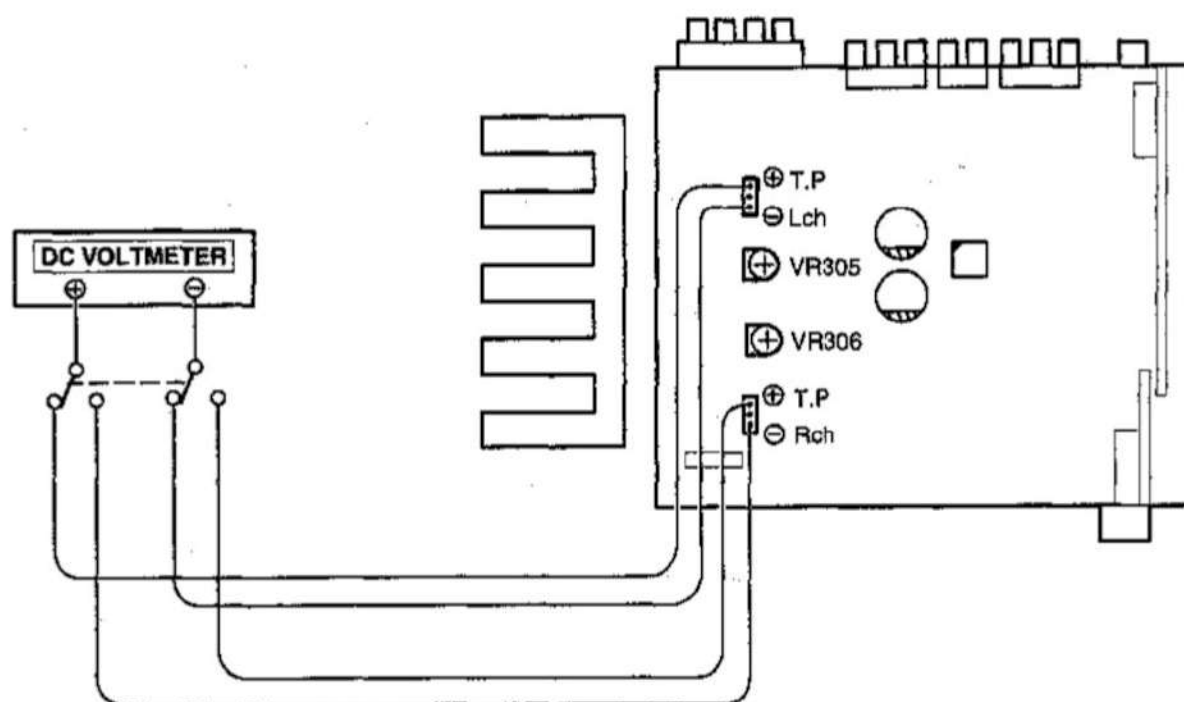


3. Rear Panel

- (1) Remove 2 screws ⑥ and 12 fixing screws ⑦.
- (2) Remove hooks at 3 places in arrow direction (↑).



METHOD OF ADJUSTMENTS



IDLING CURRENT

- (1) Set controls as follows.

POWER Switch → off (■)

VOLUME Control → 0 (min.)

SPEAKERS → off (■)

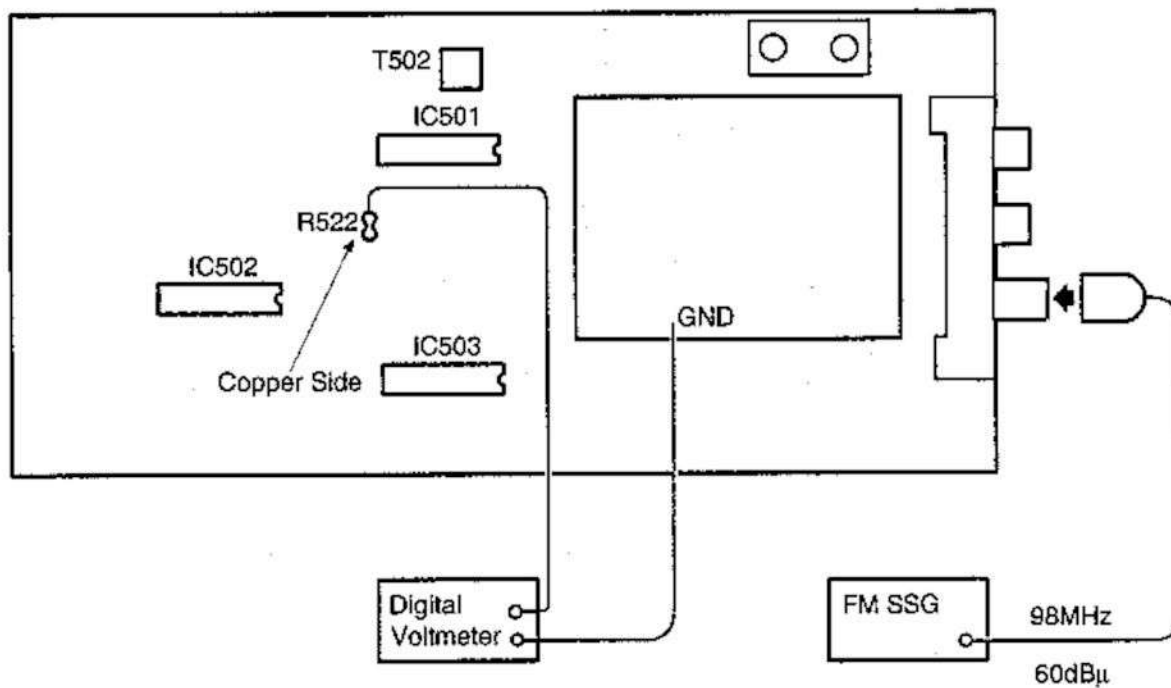
Temperature → 15°C ~ 30°C (59°F ~ 86°F)

VR305 and VR306 of the 1U-2817 (Main Unit) → MIN. (↻)

- (2) Connect DC Voltmeter to the T.P Lch and T.P Rch of the 1U-2817.
- (3) Turn the Power Switch on and rotate VR305 clockwise so that the DC Voltmeter reads 3 mV $\pm$ 0.2 mV DC at the T.P Lch. Follow the same procedure to VR306 for T.P Rch.
- (4) Warm up for three minutes, then readjust VR305 and VR306 so that the DC Voltmeter reads 3 mV $\pm$ 0.5 mV DC.
- (5) Warm up for 10 minutes, then readjust VR 305 and VR306 so that the DC Voltmeter reads 2.7 mV $\pm$ 0.5 mV DC.

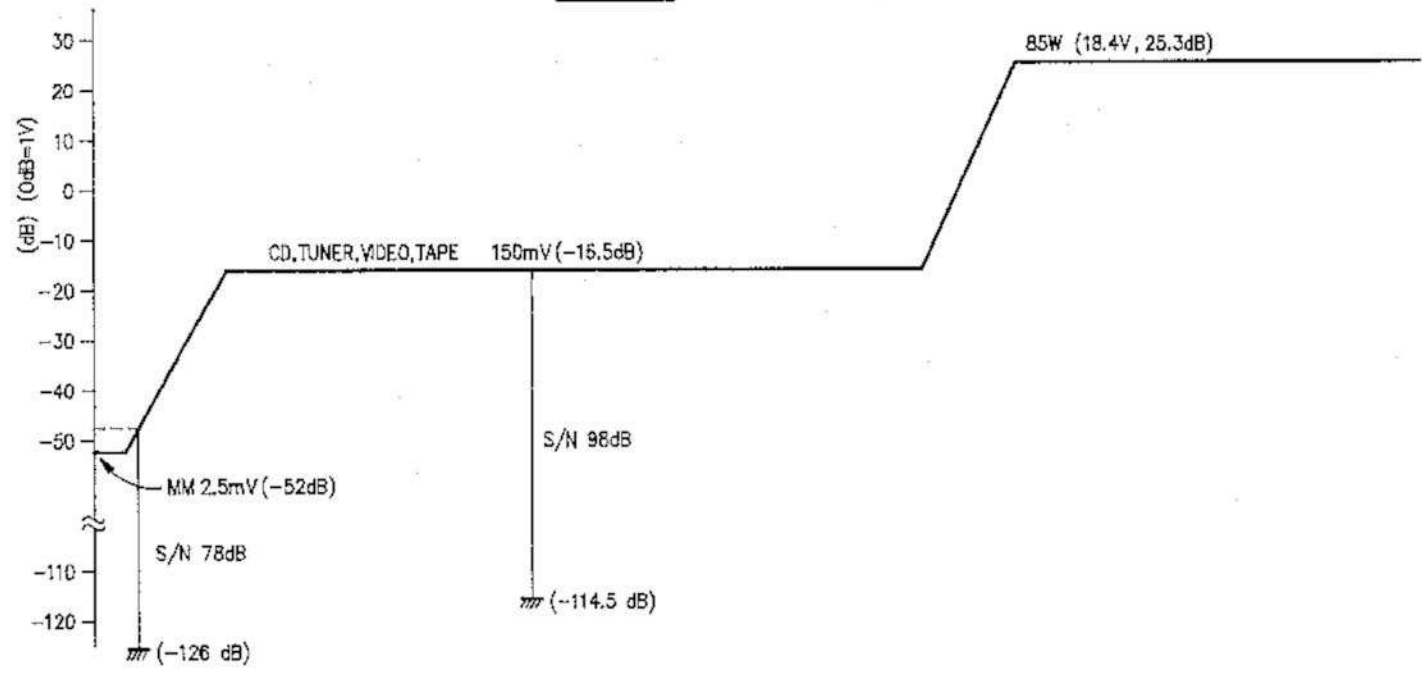
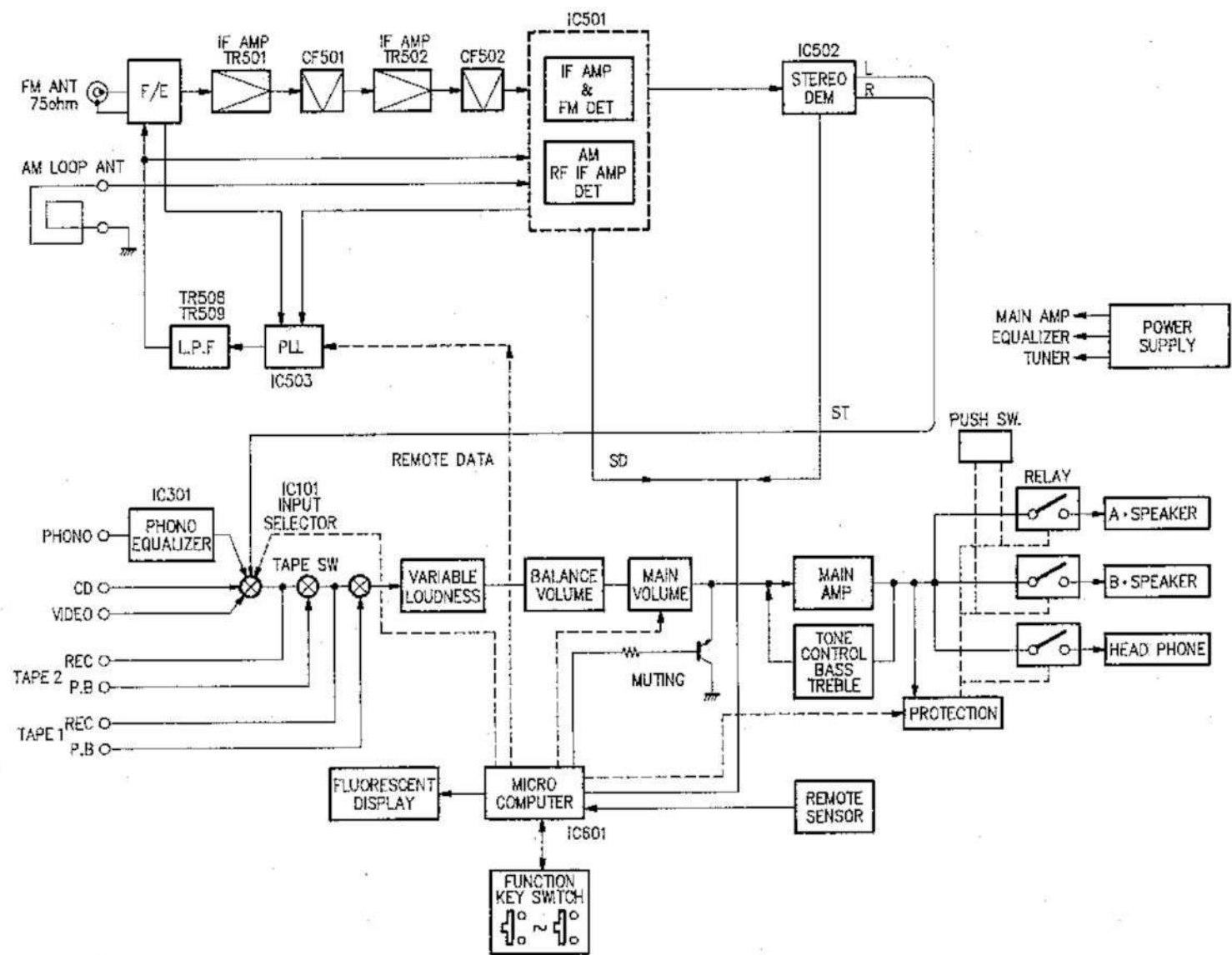
CONNECTINON DIAGRAM OF MEASURING INSTRUMENTS

● FM SECTION



Adjust T502, Potential difference across R522 should be within 50mV.

BLOCK/LEVEL DIAGRAM



Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
R401	247 0013 900	Carbon chip 220kohm 1/10W	RM73B--224J	C331,332	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M
R402	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J	C333,334	254 4260 922	Electrolytic 0.33μF/50V	CE04W1HR33M
R403	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J	C335,336	257 0004 981	Ceramic chip 100pF/50V	CC73SL1H101J
R404,405	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J	C337,338	257 0002 992	Ceramic chip 20pF/50V	CC73SL1H200J
R406	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J	C339,340	254 4254 925	Electrolytic 33μF/16V	CE04W1C330M
R407	247 0010 958	Carbon chip 20kohm 1/10W	RM73B--203J	C341,342	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J
R408	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J	△C353,354	256 1034 979	Metallized 0.1μF/50V	CF93A1H104J
R409	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J	C355,356	255 1265 978	Film 0.022F/50V	CQ93M1H223J(B)
R410	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J	C357	254 4260 948	Electrolytic 1mF/50V	CE04W1H010M
△R411	244 2051 987	Metal oxide film 4.7ohm 1W	RS14B3A4R7JNBS(S)	C358	253 9030 963	Ceramic 0.01μF/25V	CK45=1E103K
△R412	241 2377 947	Carbon 100ohm 1/4W	RD14B2E101JNBS	C359,360	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M
△R415	241 2387 908	Carbon 1ohm 1/4W	RD14B2E010JNBS	C401	254 4258 905	Electrolytic 4.7μF/35V	CE04W1V4R7M
△R451,452	244 2052 902	Metal oxide film 2.7kohm 1W	RS14B3A272JNBS(S)	C402	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z
△R453	244 2051 990	Metal oxide film 4.7kohm 1W	RS14B3A472JNBS(S)	C403	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M
R460	247 0011 944	Carbon chip 47kohm 1/10W	RM73B--473J	C404,405	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103Z
△R465,466	244 2052 902	Metal oxide film 2.7kohm 1W	RS14B3A272JNBS(S)	C406	259 0007 702	For back up 8200μF	SB CAP=822=C
△R467	244 2050 991	Metal oxide film 6.8kohm 1W	RS14B3A682JNBS(S)	C407	254 4254 909	Electrolytic 10μF/16V	CE04W1C100M
R468	244 2052 957	Metal oxide film 5.6kohm 1W	RS14B3A562JNBS(S)	C408	254 4403 734	Electrolytic 4700μF/25V	CE04W1E472MC(SMG)
R475	247 0010 929	Carbon chip 15kohm 1/10W	RM73B--153J	C409	254 4261 921	Electrolytic 100μF/50V	CE04W1H101M
R701,702	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J	C410	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M
R703,704	247 0012 969	Carbon chip 150kohm 1/10W	RM73B--154J	C451	254 4260 980	Electrolytic 10μF/50V	CE04W1H100M
R705,706	247 0011 986	Carbon chip 68kohm 1/10W	RM73B--683J	C452	254 4254 925	Electrolytic 33μF/16V	CE04W1C330M
R707,708	247 0004 922	Carbon chip 47ohm 1/10W	RM73B--470J	C453	254 4250 945	Electrolytic 330μF/6.3V	CE04W0J331M
R709,710	247 0005 992	Carbon chip 240ohm 1/10W	RM73B--241J	C456	255 1265 936	Film 0.01μF/50V	CQ93M1H103J(B)
R711,712	247 0012 956	Carbon chip 130kohm 1/10W	RM73B--134J	C459,460	253 1151 905	Ceramic 4700pF/500V	CK45E2H472P
R713,714	247 0009 998	Carbon chip 11kohm 1/10W	RM73B--113J	△C461	256 1042 903	Metallized 0.1μF/250V	CF93A2E104K
R715,716	247 0003 949	Carbon chip 22ohm 1/10W	RM73B--220J	C462	254 4254 938	Electrolytic 47μF/16V	CE04W1C470M
R717,718	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J	C549	254 4252 927	Electrolytic 47μF/10V	CE04W1A470M
R719,720	247 0012 927	Carbon chip 100kohm 1/10W	RM73B--104J	C701,702	257 0003 988	Ceramic chip 47pF/50V	CC73SL1H470J
CAPACITORS GROUP				C703,704	257 0005 944	Ceramic chip 220pF/50V	CC73SL1H221J
C101--108	257 0004 903	Ceramic chip 56pF/50V	CC73SL1H560J	C705,706	254 4254 909	Electrolytic 10μF/16V	CE04W1C100M
C109,110	253 1179 945	Ceramic 220pF/50V	CK45B1H221KT	C709,710	254 4250 929	Electrolytic 100μF/6.3V	CE04W0J101M
C111	257 0002 921	Ceramic chip 10pF/50V	CC73SL1H100D	C711,712	255 4199 999	Film 0.024μF/50V	CQ92M1H243J(MRZ)
C112,113	257 0012 982	Ceramic chip 0.022μF/50V	CK73F1H223Z	C713,714	255 1265 907	Film 6800pF/50V	CQ93M1H682J(B)
C124,125	257 0012 982	Ceramic chip 0.022μF/50V	CK73F1H223Z	C715,716	254 4254 909	Electrolytic 10μF/16V	CE04W1C100M
C127	257 0012 982	Ceramic chip 0.022μF/50V	CK73F1H223Z	C717,718	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103Z
C131--134	257 0004 903	Ceramic chip 56pF/50V	CC73SL1H560J	C724	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M
C201--204	255 1265 907	Film 6800pF/50V	CQ93M1H682J(B)	C725	257 0012 982	Ceramic chip 0.022μF/50V	CK73F1H223Z
C205,206	257 0006 985	Ceramic chip 820pF/50V	CC73SL1H821J	C801,802	257 0016 962	Ceramic chip 27pF/50V	CC73CH1H270J
C251--254	254 4258 918	Electrolytic 10μF/35V	CE04W1V100M	C803--805	254 4250 916	Electrolytic 47μF/6.3V	CE04W0J470M
△C257,258	254 6201 002	Electrolytic 7200μF/63V	CE04W--722MC(DL)	C807,808	257 0003 933	Ceramic chip 30pF/50V	CC73SL1H300J
C259	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103Z	C809	257 0012 966	Ceramic chip 0.01μF/50V	CK73F1H103Z
C307,308	257 0006 927	Ceramic chip 470pF/50V	CC73SL1H471J	C810	254 4250 916	Electrolytic 47μF/6.3V	CE04W0J470M
C311--314	253 4536 909	Ceramic 10pF/50V	CC45SL1H100D	C811	257 0006 943	Ceramic chip 560pF/50V	CC73SL1H561J
C323,324	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M				
C325,326	255 1265 936	Film 0.01μF/50V	CQ93M1H103J(B)				

1U-2818 TUNER UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
OTHERS PARTS GROUP				SEMICONDUCTORS GROUP			
CB29D	205 0990 045	29P FFC connector base		IC501	263 0891 001	IC LA1265(S)	
CB6A,6C	205 0918 001	6P bottom socket		IC502	263 0439 007	IC LA3401	
CB8A	205 0918 014	8P bottom socket		IC503	263 0791 907	IC LM7001M	
CB8B,8C	205 0806 090	8P connector base (9115)		IC504	263 0794 001	IC NJM78M12FA(S)	
CN3C	203 2377 000	2P DA-DA connector cord					
CN7A	205 0653 078	7P VH connector base		TR501	275 0074 902	Transistor 2SK211(Y/GR)	
L391,392	235 0104 007	Inductor(1MHz)		TR502	273 0438 908	Transistor 2SC2413K (Q)	
L701,702	235 9003 002	FTZ choke coil		TR503	269 0157 905	Transistor DTB123EK	Built in resistor
RL451,452	214 0167 005	Relay(G5Z-2A)		TR504	269 0083 901	Transistor DTA114EK	Built in resistor
RL453	214 0127 003	Relay(RY-12W)		TR505,506	269 0054 901	Transistor DTC144EK	Built in resistor
TH451	279 0034 087	Posistor	PTH9M04BB22TS2F333	TR507	271 0279 909	Transistor 2SA1515(R)	
TP001,002	205 0190 036	3P NH Connector base	TEST POINT	TR508	275 0075 901	Transistor 2SK209(Y/GR)	
XL601	399 0178 007	Crystal	4.332MHz	TR509	273 0403 904	Transistor 2SC2712(Y/GR)	
XT801	399 0041 901	Resonator	CSA4.00MG				
	205 0484 001	8P speaker terminal	Europe model	D501	276 0559 909	Diode DAP202K	
	203 0475 072	1P contact Ass'y					
	205 0472 013	8P speaker terminal	U.K model				
	204 8485 009	4P pin jack(S-GND)		RESISTORS GROUP (Not included carbon film $\pm 5\%$ 1/4W)			
	204 8486 008	6P pin jack(S-GND)		R001-016	247 0018 905	Chip 0ohm 1/10W	RM73B-0R0K
				R501	247 0004 906	Chip 39ohm 1/10W	RM73B-390J
				R502	247 0007 945	Chip 1kohm 1/10W	RM73B-102J
				R503	247 0009 985	Chip 10kohm 1/10W	RM73B-103J
				R504	247 0009 927	Chip 5.6kohm 1/10W	RM73B-562J
				R505	247 0006 920	Chip 330ohm 1/10W	RM73B-331J
				R506	247 0009 901	Chip 4.7kohm 1/10W	RM73B-472J
				R507	247 0005 989	Chip 220ohm 1/10W	RM73B-221J
				R508,509	247 0006 920	Chip 330ohm 1/10W	RM73B-331J
				R510	247 0006 988	Chip 560ohm 1/10W	RM73B-561J
				R511	247 0012 927	Chip 100kohm 1/10W	RM73B-104J
				R512	247 0009 914	Chip 5.1kohm 1/10W	RM73B-512J
				R513	247 0005 905	Chip 100ohm 1/10W	RM73B-101J
				R514	247 0008 986	Chip 3.9kohm 1/10W	RM73B-392J
				R515	247 0006 946	Chip 390ohm 1/10W	RM73B-391J
				R516	247 0005 947	Chip 150ohm 1/10W	RM73B-151J
				R517	247 0009 985	Chip 10kohm 1/10W	RM73B-103J
				R518	247 0018 905	Chip 0ohm 1/10W	RM73B-0R0K
				R519	247 0009 901	Chip 4.7kohm 1/10W	RM73B-472J
				R520	247 0004 980	Chip 82ohm 1/10W	RM73B-820J
				R521	247 0008 944	Chip 2.7kohm 1/10W	RM73B-272J
				R522	247 0011 902	Chip 33kohm 1/10W	RM73B-333J
				R523-525	247 0009 985	Chip 10kohm 1/10W	RM73B-103J
				R526	247 0008 957	Chip 3kohm 1/10W	RM73B-302J
				R527	247 0011 986	Chip 68kohm 1/10W	RM73B-683J
				R528	247 0009 956	Chip 7.5kohm 1/10W	RM73B-752J
				R529	247 0008 980	Chip 3.3kohm 1/10W	RM73B-332J
				R530	247 0012 927	Chip 100kohm 1/10W	RM73B-104J
				R532	247 0009 985	Chip 10kohm 1/10W	RM73B-103J
				R533	247 0007 945	Chip 1kohm 1/10W	RM73B-102J
				R534	247 0011 915	Chip 36kohm 1/10W	RM73B-363J

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
R535	247 0010 974	Chip 24kohm 1/10W	RM73B--243J	OTHERS PARTS GROUP			
R536	247 0012 985	Chip 180kohm 1/10W	RM73B--184J	CF501,502	261 0064 007	Ceramic filter	SFT10.7MS2
R537	247 0012 998	Chip 200kohm 1/10W	RM73B--204J	CF504	261 0101 009	:Ceramic filter	BFU450C4N
R538	247 0012 985	Chip 180kohm 1/10W	RM73B--184J				
R539	247 0012 998	Chip 200kohm 1/10W	RM73B--204J	CN8B,8C	205 0805 091	8P connector socket	
R540,541	247 0008 902	Chip 1.8kohm 1/10W	RM73B--182J				
R542,543	247 0009 901	Chip 4.7kohm 1/10W	RM73B--472J	FE501	216 0065 006	Front end	
R544	247 1007 986	Chip 1.5kohm 1/8W	RM73B2B152J				
R545	247 0009 985	Chip 10kohm 1/10W	RM73B--103J	T501	231 1913 004	MW antenna OSC coil	
R546	247 0012 927	Chip 100kohm 1/10W	RM73B--104J	T502	231 2099 008	FM DET trans	
CAPACITORS GROUP				T503	231 3804 008	:AM IFT	
C501--506	257 0012 968	Chip(Ceramic) 0.01μF/50V	CK73F1H103Z	T504	232 9010 009	Antibirdie filter	
C507	257 0002 947	Chip(Ceramic) 12pF/50V	CC73SL1H120J	T505,506	232 0085 004	:LPF	
C508	254 4254 909	Electrolytic 10μF/16V	CE04W1C100M				
C509	257 0004 961	Chip(Ceramic) 100pF/50V	CC73SL1H101J	XL502	261 0103 007	:Resonator	CSB456F11
C510	257 0012 968	Chip(Ceramic) 0.01μF/50V	CK73F1H103Z	XL503	399 0075 003	Crystal	7.2MHz
C511	254 4260 906	Electrolytic 0.1μF/50V	CE04W1H0R1M		205 0847 004	3P antenna terminal(PAL/F)	
C513	254 3056 917	Electrolytic 1μF/50V (Non-polar)	CE04D1H010MBP		203 0526 031	1P Contact Ass'y	
C514	257 0012 962	Chip(Ceramic) 0.022μF/50V	CK73F1H223Z				
C515,516	257 0002 976	Chip(Ceramic) 16pF/50V	CC73SL1H160J				
C517	254 4254 938	Electrolytic 47μF/16V	CE04W1C470M				
C518,519	257 0012 966	Chip(Ceramic) 0.01μF/50V	CK73F1H103Z				
C520	254 4260 922	Electrolytic 0.33μF/50V	CE04W1HR33M				
C521	257 0012 966	Chip(Ceramic) 0.01μF/50V	CK73F1H103Z				
C522	254 4256 936	Electrolytic 47μF/25V	CE04W1E470M				
C523	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M				
C524	254 4260 964	Electrolytic 3.3μF/50V	CE04W1H3R3M				
C525	257 0012 982	Chip(Ceramic) 0.022μF/50V	CK73F1H223Z				
C526	257 0012 966	Chip(Ceramic) 0.01μF/50V	CK73F1H103Z				
C527	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M				
C528	254 4254 909	Electrolytic 10μF/16V	CE04W1C100M				
C529	257 1013 951	Chip(Ceramic) 0.047μF/25V	CK73F1E473K				
C530	254 4254 912	Electrolytic 22μF/16V	CE04W1C220M				
C531	257 0004 961	Chip(Ceramic) 100pF/50V	CC73SL1H101J				
C532	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M				
C533	254 4260 919	Electrolytic 0.22μF/50V	CE04W1HR22M				
C534	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M				
C535,536	257 0012 966	Chip(Ceramic) 0.01μF/50V	CK73F1H103Z				
C537	254 4254 912	Electrolytic 22μF/16V	CE04W1C220M				
C538	254 4254 938	Electrolytic 47μF/16V	CE04W1C470M				
C539,540	257 0005 960	Chip(Ceramic) 270pF/50V	CC73SL1H271J				
C541	254 4260 951	Electrolytic 2.2μF/50V	CE04W1H2R2M				
C545	253 0012 966	Chip(Ceramic) 0.01μF/50V	CK73F1H103Z				
C548	254 4260 951	Electrolytic 2.2μF/50V	CE04W1H2R2M				
C550,551	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M				
C553,554	257 0012 966	Chip(Ceramic) 0.01μF/50V	CK73F1H103Z				
C555	256 1034 937	Metalized 0.047μF/50V	CF83A1H473J				
C561	257 0012 966	Chip(Ceramic) 0.01μF/50V	CK73F1H103Z				

KU-9328 DISPLAY UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC601	262 2249 001	IC TMP87CM71F-6348	
IC602	263 0905 900	IC BA6208F	
ZD651	276 0654 901	Zener diode DTZ8.2B	
RESISTORS GROUP (Not included carbon film $\pm 5\%$ 1/4W)			
VR301	211 0841 018	Variable 100kohm	V14P22FW104K
VR302	211 0831 002	Variable 100kohm	V1620V25FB104(MG)
VR303	211 0842 017	Variable 250kohm	V14P22FC254K
VR304	211 0843 016	Variable 50kohm	V14P22FC503K
VR307	211 9131 004	Variable 100kohm	V14P22FB104K
R301,302	247 0011 928	Chip 39kohm 1/10W	RM73B-393J
R303,304	247 0009 943	Chip 6.8kohm 1/10W	RM73B-682J
R361,362	247 0011 973	Chip 62kohm 1/10W	RM73B-623J
R363,364	247 0009 998	Chip 11kohm 1/10W	RM73B-113J
R365,366	247 0008 931	Chip 2.4kohm 1/10W	RM73B-242J
R367,368	247 0013 984	Chip 470kohm 1/10W	RM73B-474J
R369,370	247 0010 945	Chip 18kohm 1/10W	RM73B-183J
R371,372	247 0009 943	Chip 6.8kohm 1/10W	RM73B-682J
R373,374	247 0006 917	Chip 300ohm 1/10W	RM73B-301J
R375,376	247 0011 944	Chip 47kohm 1/10W	RM73B-473J
R379,380	247 0009 901	Chip 4.7kohm 1/10W	RM73B-472J
R651	247 1009 900	Chip 4.7kohm 1/8W	RM73B2B472J
R652-657	247 0009 985	Chip 10kohm 1/10W	RM73B-103J
R665	247 0007 945	Chip 1kohm 1/10W	RM73B-102J
R666	247 0005 976	Chip 200ohm 1/10W	RM73B-201J
R667	247 0006 917	Chip 300ohm 1/10W	RM73B-301J
R668	247 0007 945	Chip 1kohm 1/10W	RM73B-102J
R669	247 0005 976	Chip 200ohm 1/10W	RM73B-201J
R670	247 0006 917	Chip 300ohm 1/10W	RM73B-301J
R671	247 0007 945	Chip 1kohm 1/10W	RM73B-102J
R672	247 0005 976	Chip 200ohm 1/10W	RM73B-201J
R673	247 0006 917	Chip 300ohm 1/10W	RM73B-301J
R674	247 0006 975	Chip 510ohm 1/10W	RM73B-511J
R675	247 0007 945	Chip 1kohm 1/10W	RM73B-102J
R676	247 0007 945	Chip 1kohm 1/10W	RM73B-102J
R677	247 0005 976	Chip 200ohm 1/10W	RM73B-201J
R678	247 0006 917	Chip 300ohm 1/10W	RM73B-301J
R679	247 0006 975	Chip 510ohm 1/10W	RM73B-511J
R680	247 0007 945	Chip 1kohm 1/10W	RM73B-102J
R681	247 0009 985	Chip 10kohm 1/10W	RM73B-103J
R682,683	247 0009 985	Chip 10kohm 1/10W	RM73B-103J
R685	247 0008 957	Chip 3kohm 1/10W	RM73B-302J

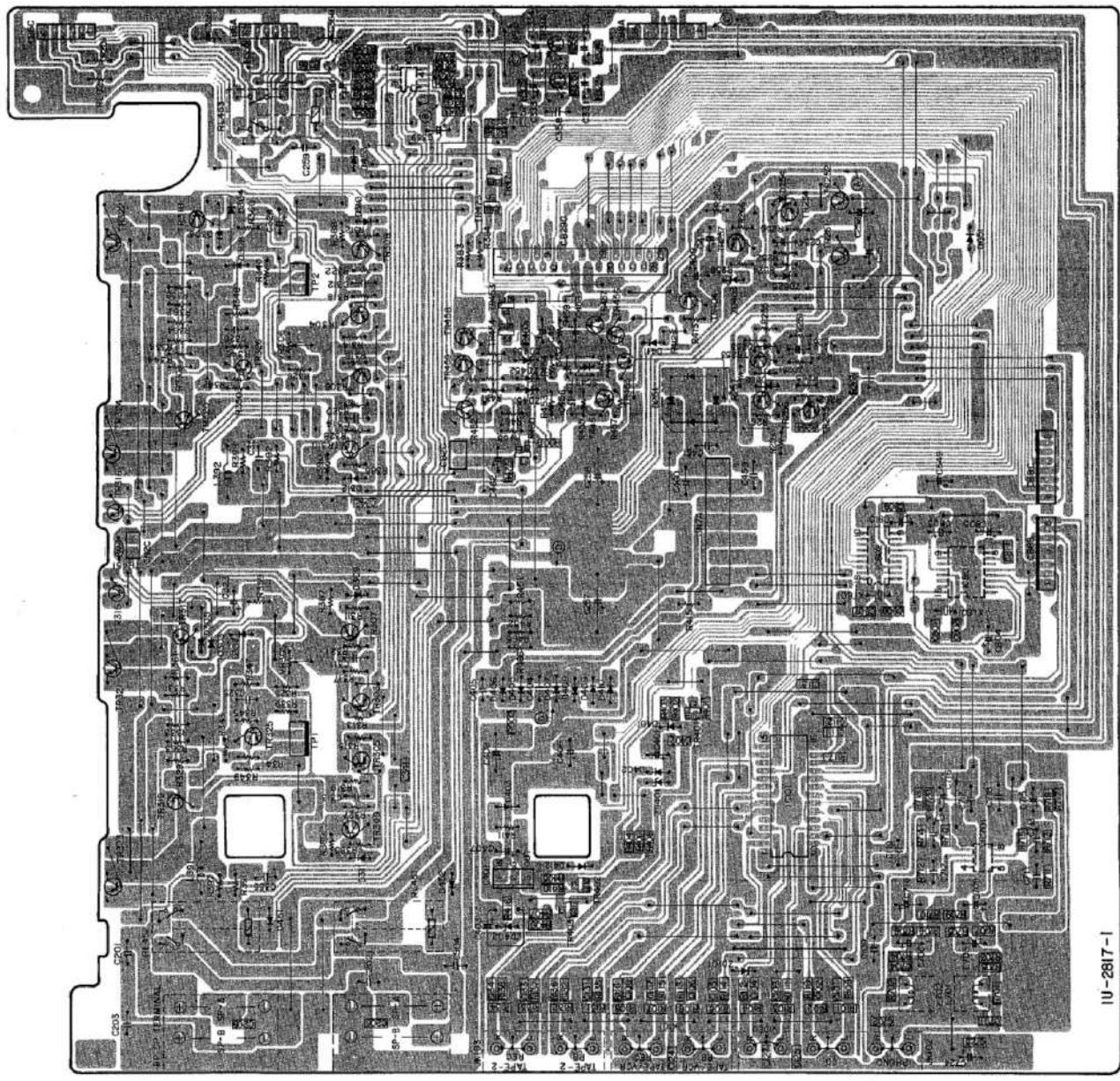
Ref. No.	Part No.	Part Name	Remarks
CAPACITORS GROUP			
C300	257 0012 966	Chip(Ceramic) 0.01 μ F/50V	CK73F1H103Z
C301,302	257 0006 943	Ceramic 560pF/50V	CC73SL1H561J
C303,304	255 1265 978	Film 0.022 μ F/50V	CQ93M1H223J(B)
C361,362	257 0004 961	Ceramic 100pF/50V	CC73SL1H101J
C363,364	255 1265 981	Film 0.027 μ F/50V	CQ93M1H273J(B)
C365,366	256 1034 982	Metalized 0.12 μ F/50V	CF93A1H124J
C367,368	255 1264 924	Film 1500pF/50V	CQ93M1H152J(B)
C369,370	255 1265 936	Film 0.01 μ F/50V	CQ93M1H103J(B)
C651	257 0012 966	Chip(Ceramic) 0.01 μ F/50V	CK73F1H103Z
C652	254 4300 963	Electrolytic 100 μ F/6.3V	CE04W0J101M(SRE)
C653	257 0012 966	Chip(Ceramic) 0.01 μ F/50V	CK73F1H103Z
C655	254 4299 964	Electrolytic 47 μ F/16V	CE04W1C470M(SRE)
C657	257 0012 982	Chip(Ceramic) 0.022 μ F/50V	CK73F1H223Z
C666	257 0004 961	Ceramic 100pF/50V	CC73SL1H101J
OTHERS PARTS GROUP			
CB8D	205 0919 026	8P JQ socket(Side)	
CN29D	205 0990 045	29P FFC connector base	
CN6A,6C	205 0917 002	6P bottom plug	
CN8A	205 0917 015	8P bottom plug	
CN8D	205 0408 045	8P JQ socket	
FL401	393 4155 002	FL tube	FIP14AM7R
JK201	204 8354 017	Head phone jack	Black model
JK201	204 8355 003	Head phone jack	Gold model
RM601	499 0150 008	Remote sensor	SBX1610-52
SW302,303	212 1140 009	Push switch(ESB6440)	
SW601-617	212 5604 910	Tact switch	
XL651	399 0261 901	Resonator	DCRH4.00M
	414 0740 006	Shield plate	

1U-2915 POWER UNIT ASS'Y

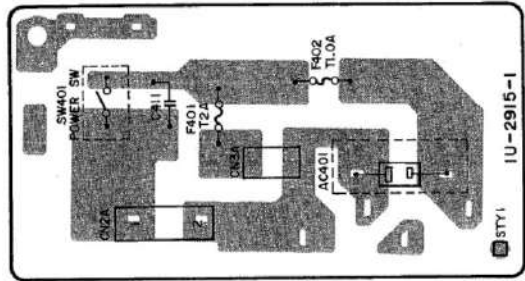
Ref. No.	Part No.	Part Name	Remarks
CAPACITORS GROUP			
△C411	253 8014 702	Ceramic 0.01μF/400V AC	CK45F2GA103MC
OTHERS PARTS GROUP			
			CK45=1E103K
△AC401	203 3851 004	1P AC outlet	Except to U.K.
△CN2A	203 2349 009	2P inlet	
CN3A	205 0581 001	2P VH connector base	
△F401	206 1075 030	Fuse(2.0A)	
△F402	206 1075 001	Fuse(1A)	Except to U.K.
△SW401	212 1031 006	Power switch(TV-5)	
	415 0299 000	Condenser cover	
	202 0040 909	Fuse clip	
			26

1 2 3 4 5 6 7 8

1U-2817 MAIN UNIT ASS'Y



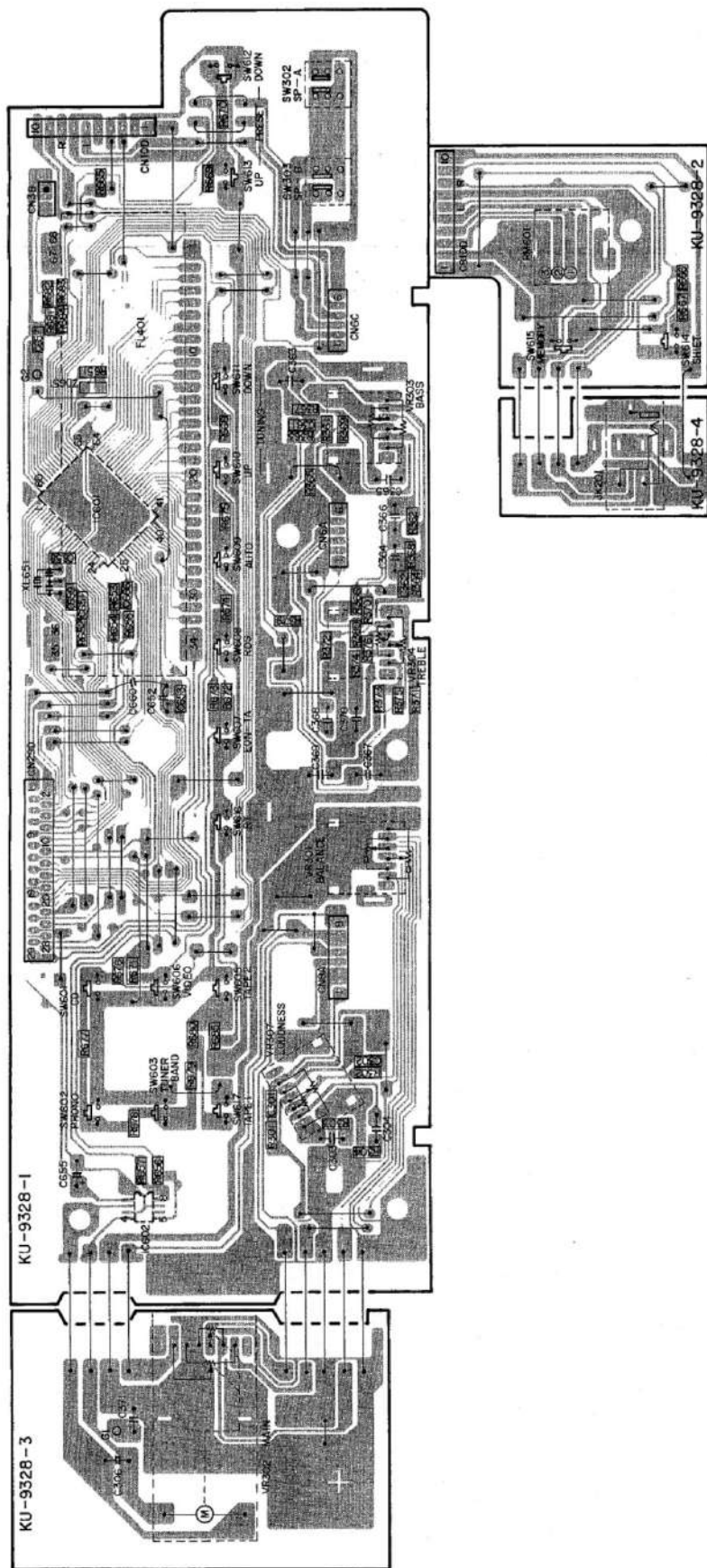
1U-2915 POWER UNIT ASS'Y



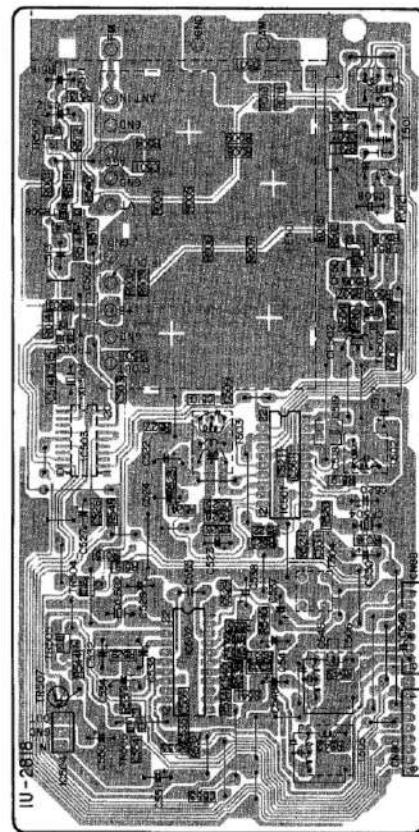
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A B C D E

KU-9328 DISPLAY UNIT ASS'Y

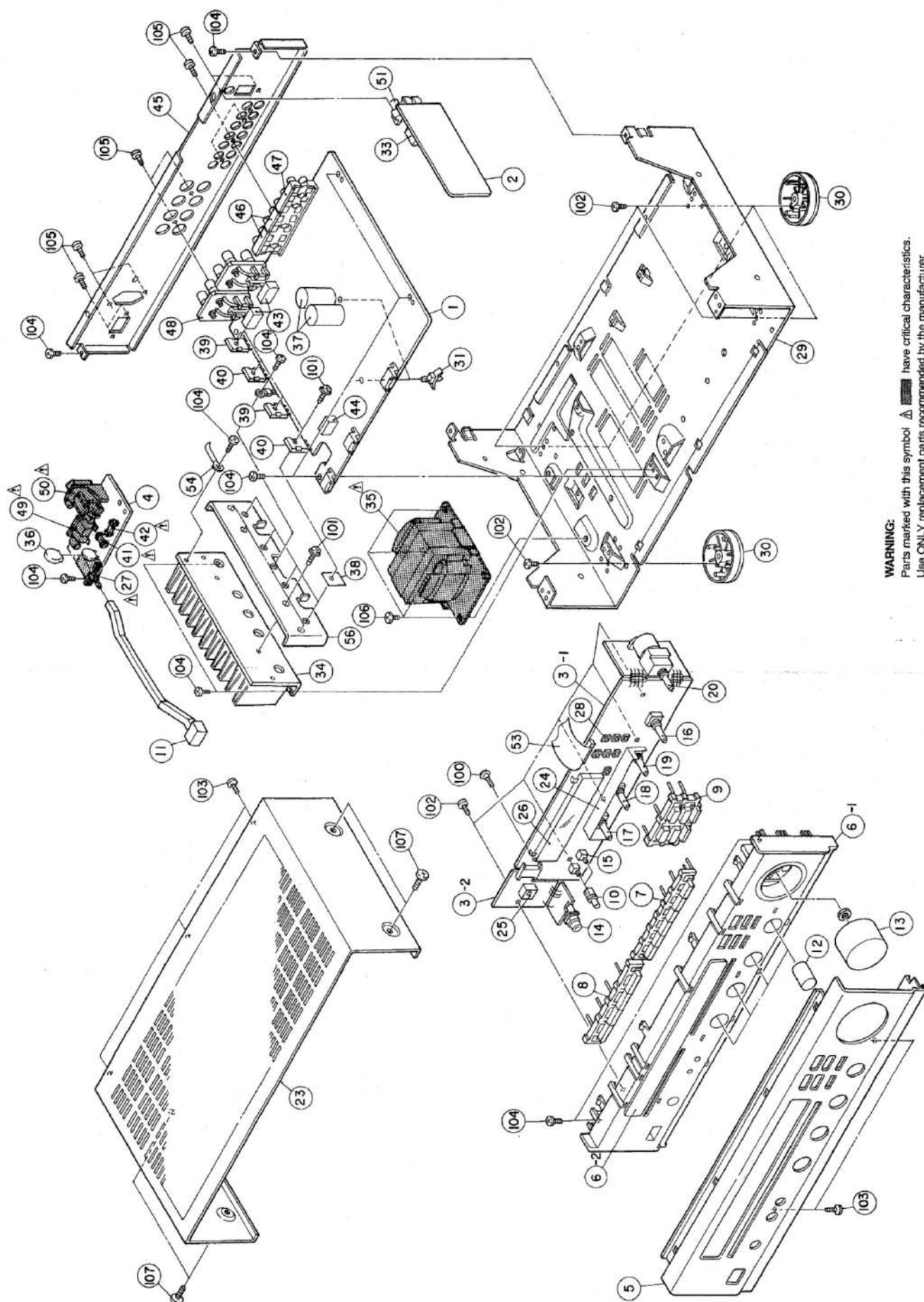


1U-2818 TUNER UNIT ASS'Y



EXPLODED VIEW OF CHASSIS AND CABINET

1 2 3 4 5 6 7 8



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

PARTS LIST EXPLODED VIEW

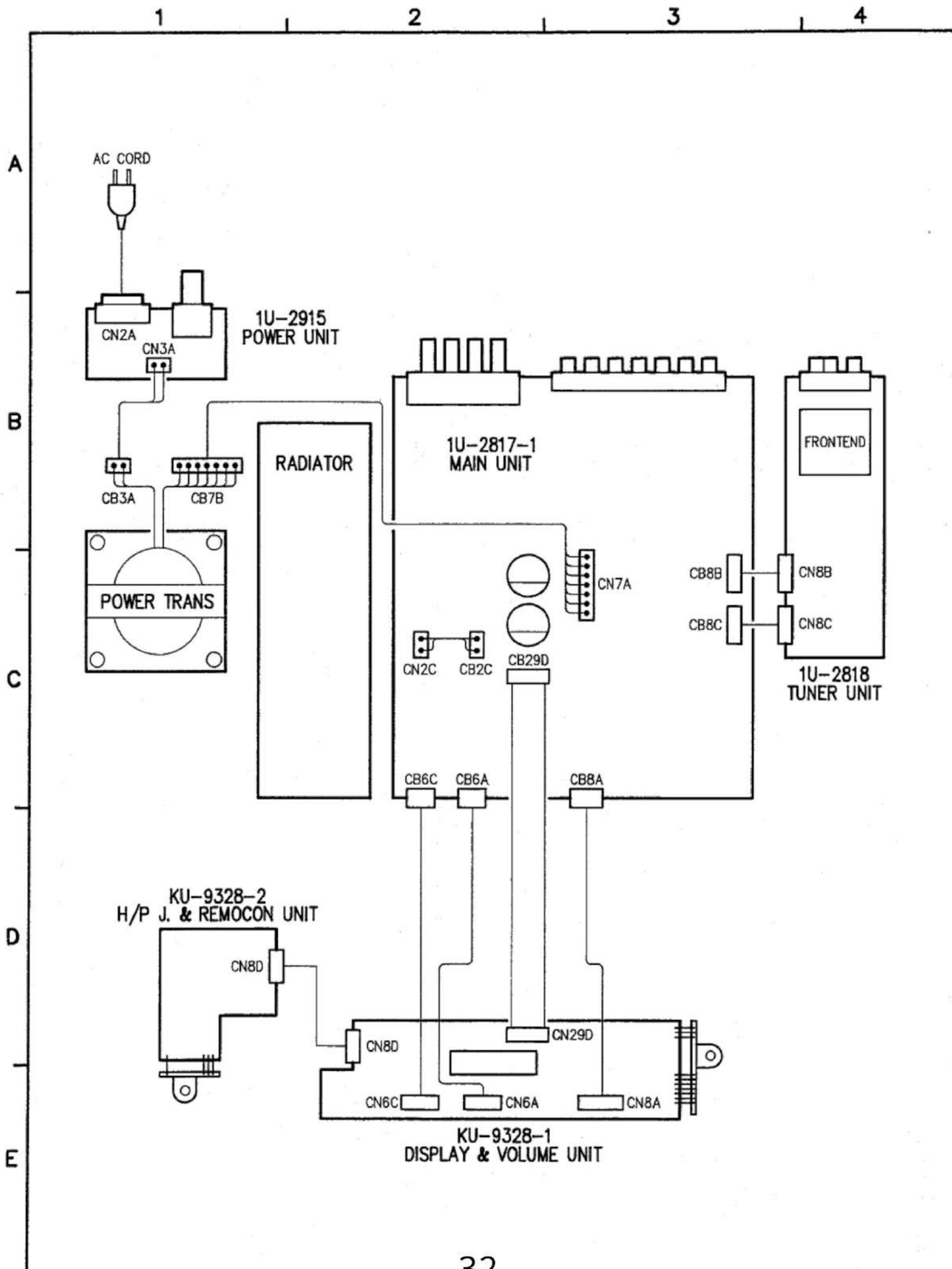
* Gold model = Except to U.K.

Ref. No.	Part No.	Part Name	Remarks	Q'ty	Ref. No.	Part No.	Part Name	Remarks	Q'ty
● 1	1U- 2817 E	Main unit Ass'y	Europe model	1	● 36	415 0299 000	Capacitor cover		1
● 1	1U- 2817 F	Main unit Ass'y	U.K. model	1	37	254 6201 002	Electrolytic capacitor	C257,258	2
● 2	1U- 2818	Tuner unit Ass'y		1	38	415 0234 007	Insulating sheet		4
● 3	KU- 9328	Display unit Ass'y		1	39	271 0240 006	Transistor 2SA1491(O/P/Y)	TR323,324	2
3-1	—	Display & Volume unit			40	273 0389 002	Transistor 2SC3855(O/P/Y)	TR321,322	2
3-2	—	H/P J. & Remocon unit			△ 41	206 1075 030	Fuse (2.0A)	F401	1
4	1U- 2915	Power unit Ass'y		1	△ 42	206 1075 001	Fuse (1A)	Except to U.K.	1
● 5	144 2487 002	Front panel	Black model	1	43	214 0167 005	Relay(G5Z-2A)	RL451,452	2
● 5	144 2487 015	Front panel	Gold model	1	44	214 0127 003	Relay(RY-12W)	RL453	1
● 6-1	146 1602 004	Inner panel Ass'y	Black model	1	● 45	105 1187 104	:Rear panel	Europe model	1
6-2	143 9187 001	(Window)			● 45	105 1187 117	:Rear panel	U.K. model	1
● 6-1	146 1602 017	Inner panel Ass'y	Gold model	1	46	204 8485 009	4P pin jack(S-GND)		2
6-2	143 9187 001	(Window)			47	204 8486 008	6P pin jack(S-GND)		1
7	113 9325 008	Series button (A)	Black model	1	48	205 0484 001	8P speaker terminal	Europe model	1
7	113 9325 011	Series button (A)	Gold model	1	48	205 0472 013	8P speaker terminal	U.K. model	1
8	113 9326 007	Series button (B)	Black model	1	△ 49	203 2349 009	2P inlet	CN2A	1
8	113 9326 010	Series button (B)	Gold model	1	△ 50	203 3961 004	1P AC outlet	Except to U.K.	1
9	113 9324 229	Function button	Black model	1	● 51	205 0847 004	3P antenna terminal(PAL/F)		1
9	113 9324 232	Function button	Gold model	1	53	009 0134 009	29P FFC cable		1
10	113 9323 000	Push button (SP)	Black model	2	54	445 0048 003	Cord holder(L=76)		1
10	113 9323 013	Push button (SP)	Gold model	2	56	417 0520 102	Sub radiator		1
11	113 1721 105	Power button Ass'y	Black model	1	SCREWS				
11	113 1721 011	Power button Ass'y	Gold model	1	100	477 0262 006	Special screw		1
12	112 0739 001	:*Knob (Maru)	Black model	4	101	473 8007 009	Cup screw 3×12		8
12	112 0739 014	:*Knob (Maru)	Gold model	4	102	473 7500 044	Screw 3×8 (P) BK		9
13	112 0737 029	:*Volume knob	Black model	1	103	473 7015 018	Screw 3×8 (S) BK		5
13	112 0737 032	:*Volume knob	Gold model	1	104	473 7002 018	Screw 3×8 (S)		12
14	204 8354 017	Head phone jack	Black model	1	105	477 8057 004	Fixing screw 3×10 BK		11
14	204 8355 003	Head phone jack	Gold model	1	106	473 7004 016	Screw 4×6 (S)		4
15	212 1140 009	Push switch(ESB6440)	SW3002,303	2	107	473 7007 013	Screw 4×10 (S) BK	Black model	4
16	211 9131 004	Variable resistor	VR307	1	107	473 4801 005	Screw 4×8	Gold model	4
17	211 0842 017	Variable resistor	VR303	1					
18	211 0843 016	Variable resistor	VR304	1					
19	211 0841 018	Variable resistor	VR301	1					
20	211 0831 002	Variable resistor	VR302	1					
● 23	102 0571 013	Top cover	Gold model	1					
● 23	102 0571 000	Top cover	Black model	1					
● 24	414 0740 006	Shield plate		1					
25	499 0150 008	Remote sensor	SBX1610-52	1					
26	393 4155 002	FL tube	FIP14AM7R	1					
△ 27	212 1031 008	Power switch (TV-5)		1					
28	212 5604 910	Tact switch	SW601-603,605-617	16					
● 29	411 1323 300	Chassis		1					
● 30	104 0230 101	:Foot Ass'y		4					
● 31	449 0033 049	Locking card spacer		2					
33	216 0065 006	Front end		1					
● 34	417 0529 006	:Power radiator		1					
△ 35	233 6194 002	Power Transformer		1					

PACKING & ACCESSORIES

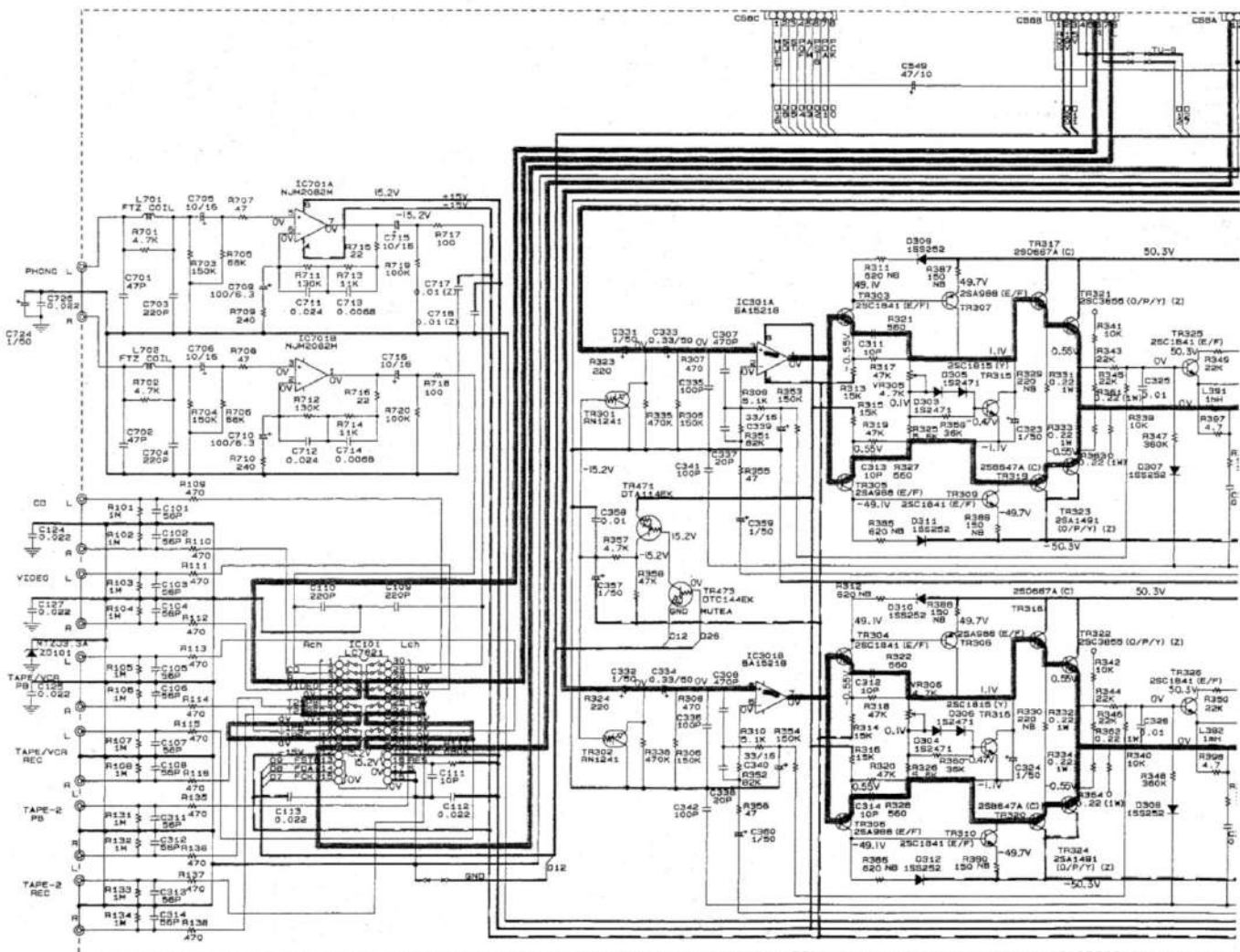
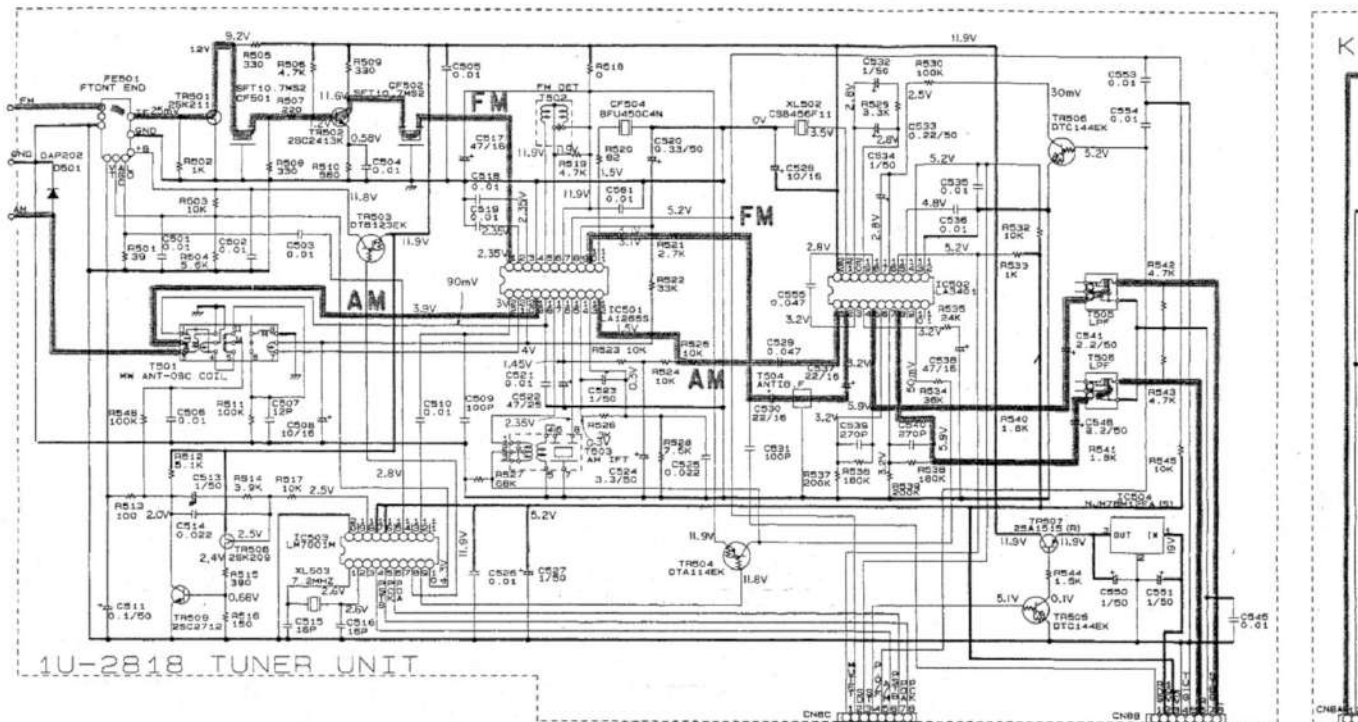
Ref. No.	Part No.	Part Name	Remarks	Q'ty
●	505 0283 018	:Envelope		1
●	511 2840 001	Operating instructions		1
	231 1914 003	AM loop antenna		1
	395 0023 008	:*FM antenna Ass'y		1
	399 0242 001	Remote control unit	RC-174	1
⚠	206 2108 003	:AC connectorWith plug	Europe model	1
⚠	206 2113 001	:AC cordWith connector	U.K model	1
●	505 0131 050	Cabinet cover		1
●	503 1140 109	:Cushion		2
●	501 1871 045	Carton case		1

WIRING DIAGRAM



SCHEMATIC DIAGRAM

1 2 3 4 5 6



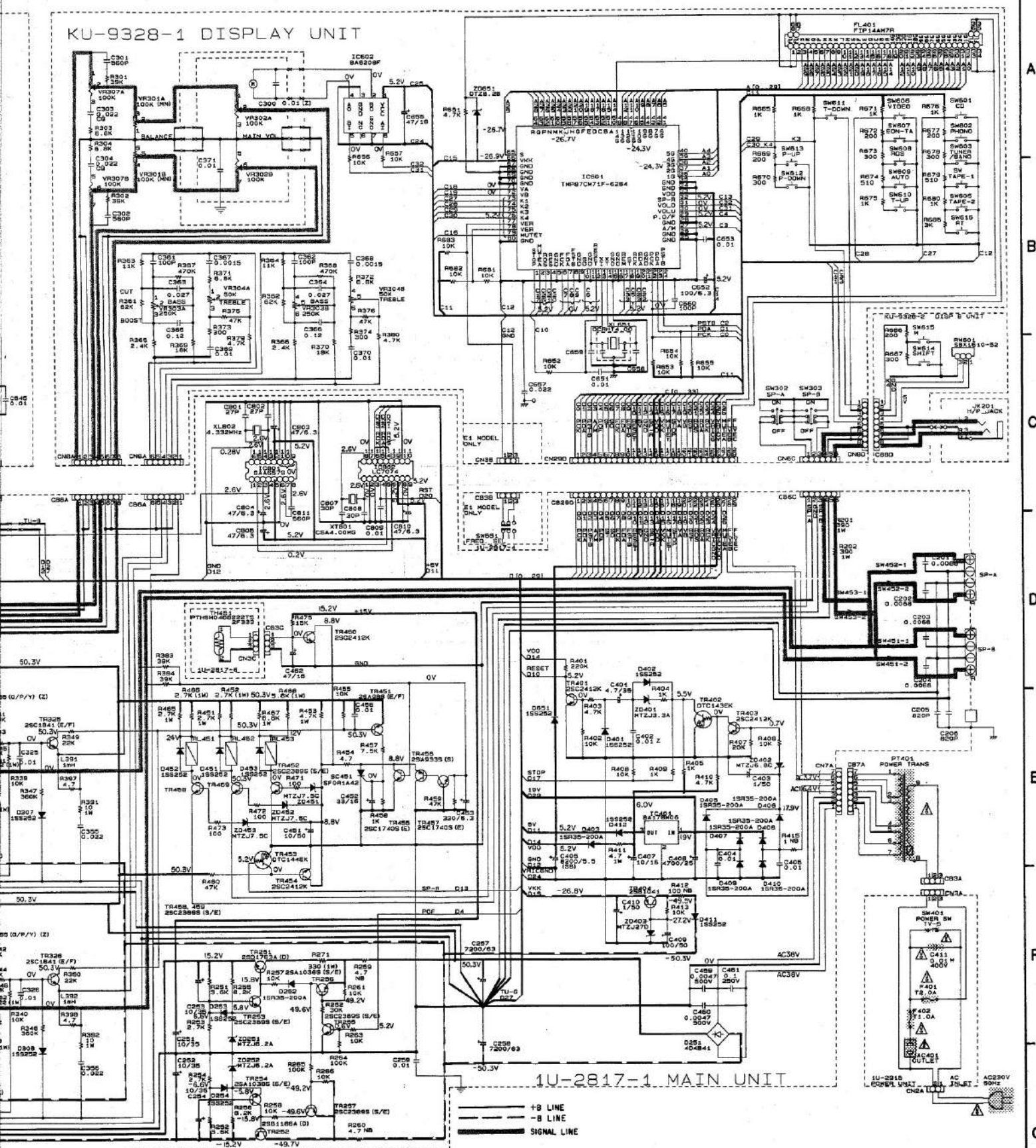
WARNING:
Parts marked with this symbol
Use ONLY replacement parts

CAUTION:
Before returning the unit to service
current check or (2) a line that
exceeds 0.5 millamps, or if
cord is less than 240 ohms

WARNING:
DO NOT return the unit to service
until the fault is corrected

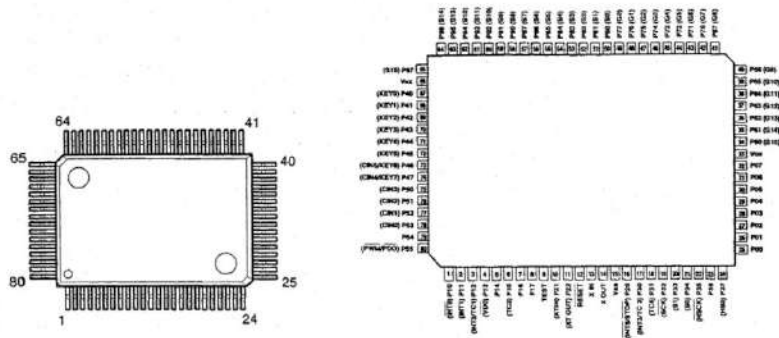
NOTES:
Circuit and parts are subject to change without notice

KU-9328-1 DISPLAY UNIT



● IC's

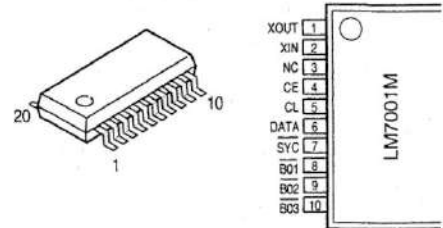
TMP87CM71F-6348 (IC601)



TMP87CM71F Port Allocation Table

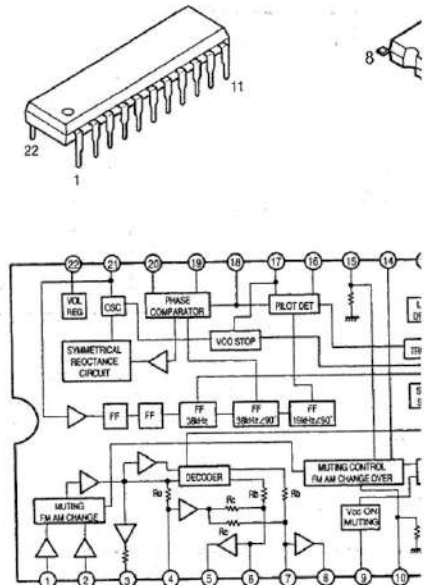
Pin No.	Symbol	I/O	Logic	Initial Setting	Function
1	STOP	I	L	---	Power down detection ("L" = at power down).
2	MUTE (A)	I	---	---	MUTE (A) output ("H" = MUTE).
3	RDS	I	Serial	---	RDS data (serial) input.
4	RES	O	L	H	LCT074 reset output.
5	GND	I	Serial	---	Not used.
6	PCX	O	Serial	L	Function control output (LC7051) for F-CK.
7	PPA	O	Serial	L	Function control output (LC7051) for F-DATA.
8	F-STB	O	H	L	Function control output (LC7051) for F-STB.
9	GND	I	---	---	Connect to GND.
10	SD	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	Vin	I	PW	---	GND.
16	GND	I	---	---	GND.
17	REM	I	L	---	Remote control signal input.
18	ST	I	L	---	Stereo signal input ("L" = at stereo).
19	RCK	I	Serial	---	RDS data (clock) input.
20	RDA	I	Serial	---	RDS data (data) input.
21	GND	I	---	---	Not used.
22	PCX	O	Serial	L	LM7001 control output for PLL-CK (CL).
23	PPA	O	Serial	L	LM7001 control output for PLL-DATA (DATA).
24	PPSTB	O	H	L	LM7001 control output for PLL-STB (CE).
25	GND	I	---	---	GND.
26	GND	I	---	---	GND.
27	AM	O	L	L	AUTOMANUAL control.
28	GND	I	---	---	Not used.
29	P-OF	O	H	L	Power control output ("H" = ON).
30	VOL-UP	O	H	L	Power volume control output (LS1639 ON = at "H").
31	VOL-D	O	H	L	Power volume control output (LS1639 ON = at "H").
32	SP-FL	O	H	L	Speaker relay control output (ON = at "H").
33	VDD	I	PW	---	+5V.
34	GND	I	---	---	GND.
35	GND	I	---	---	GND.
36	1G	O	---	---	PL tube control output for 1G.
37	2G	O	---	---	PL tube control output for 2G.
38	3G	O	---	---	PL tube control output for 3G.
39	4G	O	---	---	PL tube control output for 4G.
40	5G	O	---	---	PL tube control output for 5G.
41	6G	O	---	---	PL tube control output for 6G.
42	7G	O	---	---	PL tube control output for 7G.
43	8G	O	---	---	PL tube control output for 8G.
44	9G	O	---	---	PL tube control output for 9G.
45	10G	O	---	---	PL tube control output for 10G.
46	11G	O	---	---	PL tube control output for 11G.
47	12G	O	---	---	PL tube control output for 12G.
48	13G	O	---	---	PL tube control output for 13G.
49	14G	O	---	---	PL tube control output for 14G.
50	50 (a)	O	---	---	PL tube control output for P1(a).
51	51 (b)	O	---	---	PL tube control output for P1(b).
52	52 (a)	O	---	---	PL tube control output for P2(a).
53	53 (b)	O	---	---	PL tube control output for P2(b).
54	54 (a)	O	---	---	PL tube control output for P3(a).
55	55 (b)	O	---	---	PL tube control output for P3(b).
56	56 (a)	O	---	---	PL tube control output for P4(a).
57	57 (b)	O	---	---	PL tube control output for P4(b).
58	58 (a)	O	---	---	PL tube control output for P5(a).
59	59 (b)	O	---	---	PL tube control output for P5(b).
60	60 (a)	O	---	---	PL tube control output for P6(a).
61	61 (b)	O	---	---	PL tube control output for P6(b).
62	62 (a)	O	---	---	PL tube control output for P7(a).
63	63 (b)	O	---	---	PL tube control output for P7(b).
64	64 (a)	O	---	---	PL tube control output for P8(a).
65	65 (b)	O	---	---	PL tube control output for P8(b).
66	Vin	I	PW	---	-15V.
67	GND	I	---	---	GND.
68	GND	I	---	---	GND.
69	GND	I	---	---	GND.
70	70	O	L	H	Voice In/Out control ("L" = at selectors SW4066).
71	71	O	L	H	Voice In/Out control ("L" = at selectors SW4066).
72	72	O	L	H	Voice In/Out control ("L" = at selectors SW4066).
73	73	I	---	---	Key input (A/D conversion input).
74	74	I	---	---	Key input (A/D conversion input).
75	75	I	---	---	Key input (A/D conversion input).
76	76	I	---	---	Key input (A/D conversion input).
77	77	I	---	---	Forwarding country setting.
78	78	I	---	---	Specification setting.
79	MUTE (T)	O	H	H	MUTE output ("H" = MUTE).
80	GND	I	---	---	GND.

LM7001 (IC503)



LA3401 (IC502)

BA6201



● TRANSISTORS

2SA988(E/F)
2SA1515(R)
2SC1815(Y)
2SC1841(E/F)

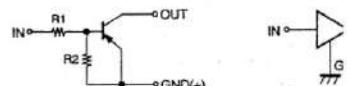
2SB647A(C)
2SB1041(R)
2SD667A(C)

2SA933S(S)
2SA1038S(S/E)
2SC1740S(E)
2SC2389S(S/E)

2SB1328(P)
2SD2004(P)

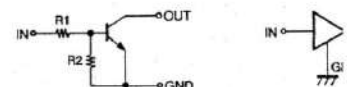
Digital Transistor
(Built in Resistors)

DTA · DTBEK Series



	R1	R2
DTA114EK	10kohm	10koh
DTB123EK	2.2kohm	2.2koh

DTCEK Series



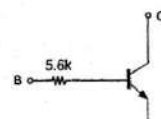
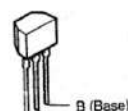
	R1	R2
DTC114EK	10kohm	10koh
DTC143EK	4.7kohm	4.7koh
DTC144EK	47kohm	47koh

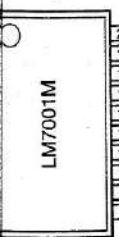
2SA1491 (O/P/Y) (TR323,324)
2SC3855 (O/P/Y) (TR321,322)

2SB1186A (D)
2SD1763A (D)

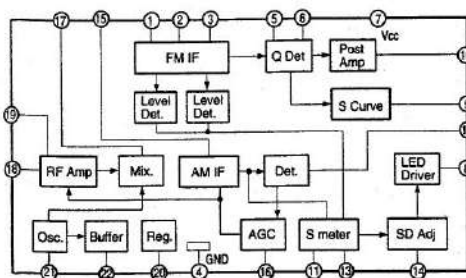
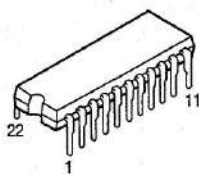
RN-1241(A/B)

RN-1241

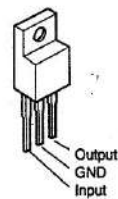




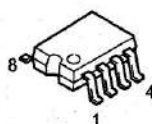
LA1265 (S)
(IC501)



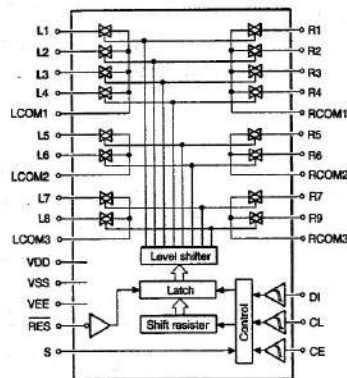
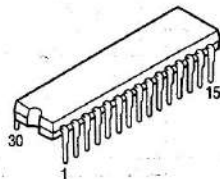
NJM78M12FA (IC504)
BA178M06 (IC401)



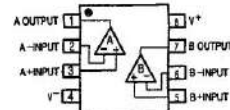
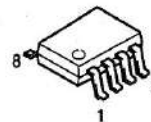
BA6208F (IC602)



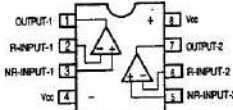
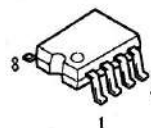
LC7821 (IC101)



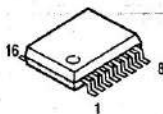
NJM2082MD (IC701)



BA15218F (IC301)

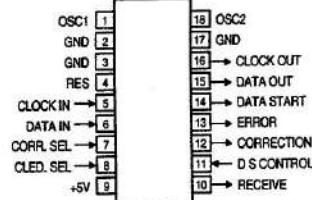
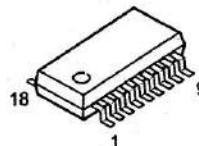


SAA6579T (IC801)

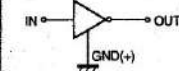


Pin No.	Symbol	Description
1	QUAL	Quality indication output.
2	RDDA	RDS data output.
3	V _{ref}	Reference voltage output (0.5 V _{DDA}).
4	MUX	Multiplex signal input.
5	V _{DDA}	+5 V supply voltage for analog part.
6	V _{SSA}	Ground for analog part (0 V).
7	CIN	Subcarrier input to comparator.
8	SCOUT	Subcarrier output of reconstruction filter.
9	TSTLD	Test control.
10	TEST	Test enable.
11	V _{SSD}	Ground for digital part (0 V).
12	V _{DDO}	+5 V supply voltage for digital part.
13	OSC1	Oscillator input.
14	OSCO	Oscillator output.
15	T57	57 kHz clock signal output.
16	RDCL	RDS clock output.

LC7074M (IC802)



2SK Series



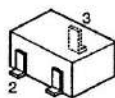
R1	R2
10kohm	10kohm
2kohm	2.2kohm

Series



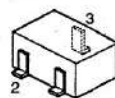
R1	R2
10kohm	10kohm
1kohm	4.7kohm
1kohm	47kohm

2SK209 (Y/GR)



1: Drain
2: Source
3: Gate

2SA1037 (S/R)
2SC2412 (S)
2SC2413K (Q)
2SC2712 (Y/GR)
DTB123EK



1: Emitter
2: Base
3: Collector

● DIODES (included LED)

1SS252

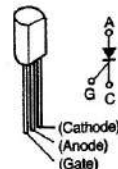
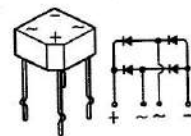
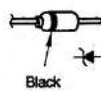
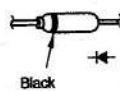
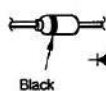
1S2471

MTZJ3.3A
MTZJ6.2A
MTZJ6.8C

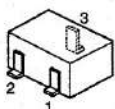
MTZJ7.5C
MTZJ27D

4D4B42

SF0R1A42

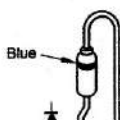


2SK211 (Y/RG)

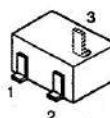


1: Gate
2: Drain
3: Source

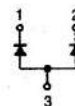
1SR35-200 (A)



DAP202K
(Chip)



DAP202K



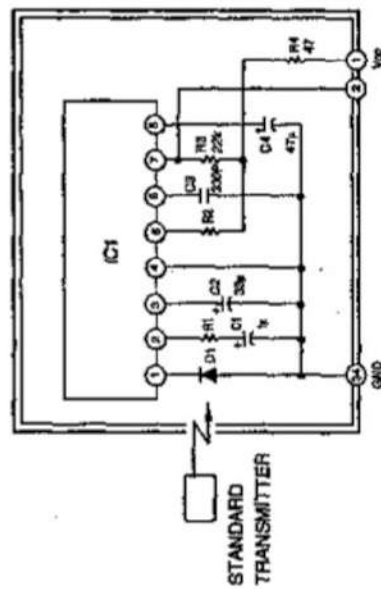
DTZ8.2B



SBX1610-52 (Remote Control Sensor)



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



- IC1 : CX20106A Chip
- D1 : PIN Photodiode Chip
- C1, C2, C4 : Aluminum Electrolytic Capacitor
- C3 : SL Characteristic $\pm 5\%$
- R1 : Gain control resistor
- R2 : fo control resistor (Using $\pm 1\%$)
- R (Other than above items) : $\pm 5\%$