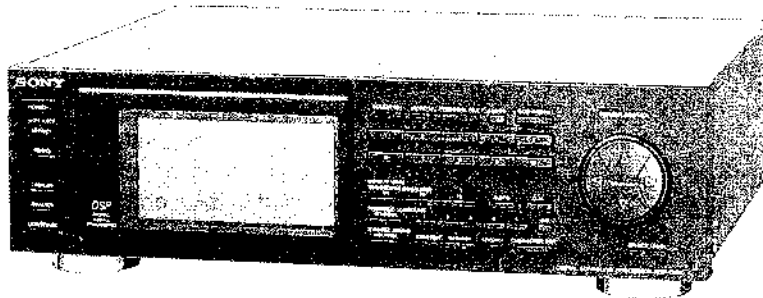


SDP-D905

SERVICE MANUAL

*AEP Model
UK Model
E Model*



This set is a Digital Surround
Processor block of the Following models.
LBT-D905CD

SPECIFICATIONS

Frequency response	2 Hz to 20 kHz \pm 0.5 dB (with digital input)
Total Harmonic Distortion	Less than 0.008% (with digital input)
Signal-to-noise ratio	More than 110 dB (with digital input)
General	
Power requirement	240V AC, 50/60 Hz (UK model) 110V-120V/220-240V AC (E, Saudi Arabia models) 220-230V AC, 50/60 Hz (AEP, Germany, Italian models)
Power consumption	18W (AEP, Germany, Italian, UK models) 19W (E, Saudi Arabia models)
AC outlet	1 unswitched, 100W
Dimensions	Approx. 355 × 107 × 315.5 mm (w/h/d, including projections)
Weight	Approx. 3.6 kg
Supplied accessories	Audio connecting cords (2) Optical cord (1)

Design and specifications subject to change without notice.

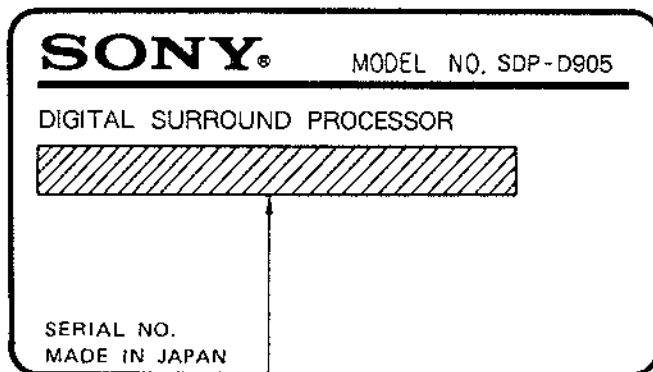
DIGITAL
SURROUND PROCESSOR
SONY[®]

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
SPECIFICATIONS		1
1. GENERAL		3
2. ADJUSTMENT		14
3. DIAGRAMS		
3-1. Circuit Boards Location		14
3-2. IC Discription		15
3-3. Brock Diagram		17
3-4. IC Brock Diagrams		19
3-5. Printed Wiring Boards - Main Section -		20
3-6. Schematic Diagram - Main Section -		23
3-7. Semiconductor Lead Layouts		27
3-8. Schematic Diagram - Panel Section -		28
3-9. Printed Wiring Boards - Panel Section -		31
4. EXPLODED VIEWS		
Overall Section		34
5. ELECTRICAL PARTS LIST		36

MODEL IDENTIFICATION

– Specification Label –



AEP, Germany, Italian models : AC220 – 230V~50/60Hz
 UK model : AC240V~50/60Hz
 E. Saudi Arabia models : AC110 – 120V/220 – 240V
 ~50/60Hz

Using the Sound Manipulation Features

This unit is equipped with three sound adjustment functions – an equalizer function, a surround function and a dynamic sound function – for improving the sound in your listening environment.

20 combinations of these three functions are already preset in the unit's memory (SELECT 10 and MORE 10) and this enables you to select your favorite sound field easily.

The equalizer function, called Digital Parametric Equalizer, can be used to raise and lower the levels of specific frequency ranges.

The surround function, called Digital Presence Surround, can be matched to the music genre or source to effectively reproduce a feeling of "being there."

The dynamic sound function, called Digital Dynamic Sound, can be used to give a powerful feeling to music when listening at low volume levels and also reduce strident noise. Making full use of these three functions allows you to create a variety of different sounds and effects and to maximize your music listening enjoyment.

Using the Sound Manipulation Features

Obtaining Digital Surround Processor Effects

Press EFFECT so that the indicator is turned on. Digital surround processor effects can not be obtained if the indicator is not turned on.

Compare the results by switching EFFECT on and off. With the indicator turned on, sounds with the processor effects can also be recorded on a tape in a cassette deck.

Adjusting the Effect Level

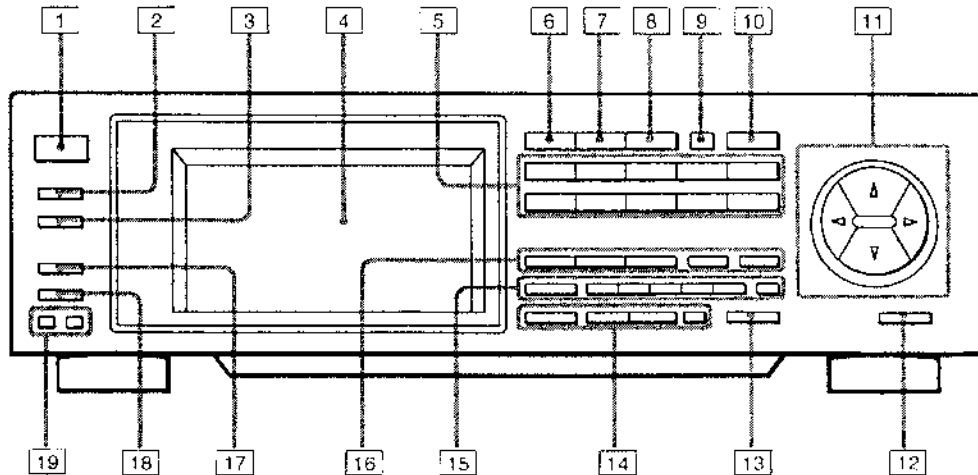
The degree of the processor effects on a selected source can be adjusted within the range of 0% to 100% in 20% intervals.

Press EFFECT LEVEL so that "EFFECT LEVEL" is indicated on the display, and then press ▲/▶ of the CURSOR CONTROL buttons to increase the effect level or ▼/◀ to decrease it.

SECTION 1 GENERAL

This section is extracted from
instruction manual.

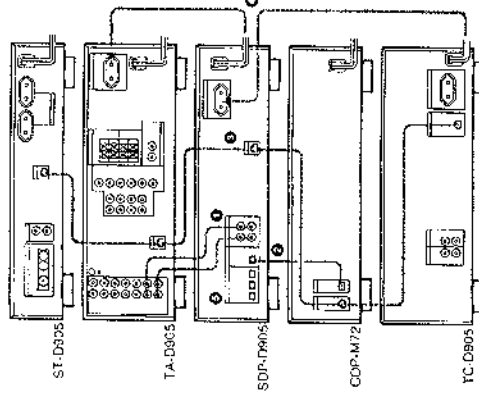
Location of Controls



Refer to the page indicated in ●.

- 1 POWER switch
- 2 EFFECT button and indicator ●
- 3 DEMO button ●
- 4 Display
- 5 Numeric buttons used with SELECT 10/MORE 10/PERSONAL FILE/SUB MENU.
- 6 SELECT 10 button and indicator ●
- 7 MORE 10 button and indicator ●
- 8 PERSONAL FILE button and indicator ●
- 9 MEMORY button ●, ●
- 10 SUB MENU button ●
- 11 CURSOR CONTROL buttons ●, ●, ●
- 12 EFFECT LEVEL button and indicator ●
- 13 CHARACTER EDIT button and indicator ●
- 14 DYNAMIC SOUND buttons
CONTROL button and indicator ●
COMPRESS button ●
EXPANDER button ●
LINEAR button ●
- 15 PRESENCE SURROUND buttons
CONTROL button and indicator ●
Numeric buttons ●
OFF button ●
- 16 PARAMETRIC EQUALIZER buttons
F1/F2/F3 (frequency) buttons and indicators ●
SLOPE button ●
FLAT button ●
- 17 DISPLAY button ●
- 18 DIMMER button ●
- 19 CONTRAST +/- buttons ●

Instalação



3 Control cord (supplied with ST-D905)
 Câble de commande (fourni avec le ST-D905)
 Cable de control (suministrado con el ST-D905)
 Cabo de control (fornecido com o ST-D905)

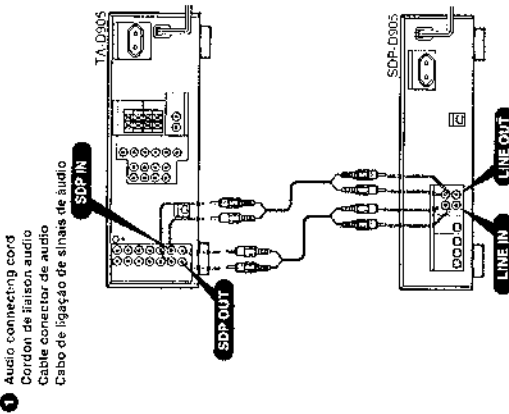
This connection allows you to control this unit with the remote commander supplied with ST-D905.

Ce branchement vous permet de piloter l'appareil avec la télécommande accompagnant le ST-D905.

Esta conexión le permitirá controlar esta unidad con el telemando suministrado con el ST-D905.

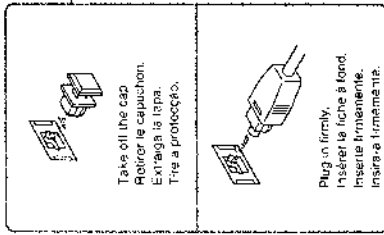
Esta ligação possibilita o controle deste aparelho com o telecomando fornecido com o ST-D905.

Instalação

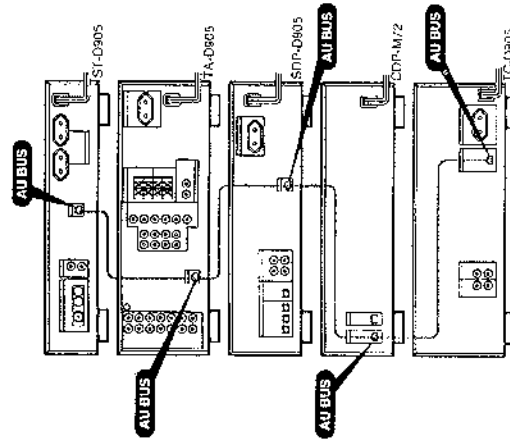


1 Audio connecting cord
 Cordon de liaison audio
 Cable conector de audio
 Cabo de ligação de sinais de áudio

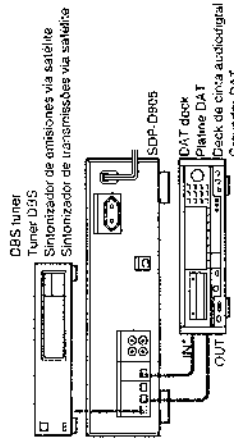
Instalação



2 Optical cord
 Cable optique
 Cable óptico
 Cabo óptico

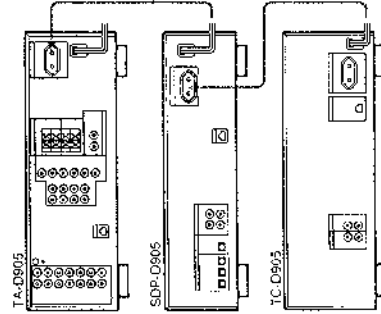


5 Optional equipment connected with optical cords
 Equipement en option raccorde avec des câbles optiques
 Equipos opcionales conectados con cables ópticos
 Equipamento opcional ligado com cabos ópticos.

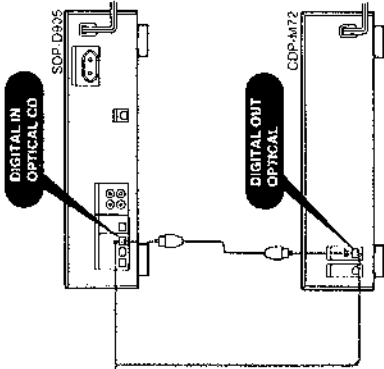


Digital surround processor effects can not be recorded with this connection.
 Les effets profonds par le traitement numérique de l'ambiance ne peuvent pas être enregistrés par cette connexion.
 Los efectos del procesador perimétrico digital no podrán grabarse con esta conexión.
 Os efeitos de processamento digital perimétricos não poderão ser gravados com esta ligação.

4 AC power cords
 Cordons d'alimentation secteur
 Cables de alimentación
 Cabos de alimentação CA



Instalação



Demonstration Mode

1 Select a source.
 Sélectionner une source.
 Selecciónne una fuente.
 Selecciona una fonte.

2 Play the source.
 Jover la source.
 Ponga la fuente en reproducción.
 Reproduza a fonte.

3

This unit is provided with a demonstration mode to allow you to get a taste of the rich variety of effects possible with the three functions mentioned above. Before using the unit to make adjustments to the sound, use the demonstration mode to experience the various effects while watching the changes on the display and listening to the differences in the quality of the sound produced by these effects.

To stop the demonstration mode
 Press DEMO again or any button other than the POWER switch.

Arrêt du mode démonstration
 Appuyer de nouveau sur la touche DEMO ou sur toute autre touche que l'interrupteur d'alimentation POWER.

Para cesar el modo de demostración
 Vuelva a presionar DEMO o cualquier otra tecla, excepto el interruptor POWER.

Para interromper o modo de demonstração
 Pressione DEMO novamente ou qualquer outra tecla, excepto POWER.

Using the Sound Manipulation Features

Utilisation des caractéristiques de manipulation du son

Empleo de las funciones de manipulación del sonido

Características do processamento de sinais

Changing the Displayed Information

Modification de l'affichage d'informations

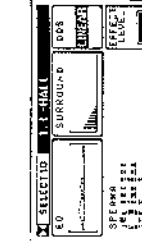
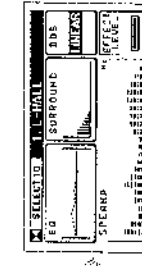
Cambio de la información visualizada

Ateração das informações indicadas

Selected function
Función seleccionada
Função selecionada

Name of each sound
Nom de chaque son
Nome de cada somido

Icon
Ícone
Representación
Símbolo



Each time DISPLAY is pressed, the display changes to show the following information:

Chaque fois que l'on appuie sur la touche DISPLAY, l'affichage change pour montrer les informations suivantes:

Cada vez que presione DISPLAY, la visualización cambiará para mostrar la información siguiente:

A cada pressionar de DISPLAY, o mostrador altera a indicação, resultando-se na exposição das seguintes informações:

- A** The spectrum analyzer is enlarged.
- B** All of the digital surround processor effects are displayed. It is convenient to check the processor effects while adjusting sound.
- C** The same as the display of **B** except that the spectrum analyzer is not displayed at this time.

- A** L'analyseur de spectre est agrandi.
- B** Tous les effets de traitement numérique de l'ambiance sont affichés. Il est pratique de vérifier ces effets en réglant le son.
- C** Même affichage que pour **B**, toutefois l'analyseur de spectre n'apparaît pas.

- A** Se agrandará el analizador de espectro.
- B** Se visualizarán todos los efectos del procesador por métrico digital. Muy útil para comprobar los efectos del procesador durante el ajuste del sonido.
- C** Igual que la visualización de **B**, excepto que en este caso no se visualizará el analizador de espectro.

- A** Cobertura maior no analisador de espectro.
- B** Indicação de todos efeitos de processamento digital por métrico.
- Conveniente para verificar os efeitos de processamento enquanto ajusta o som.
- C** O mesmo ca indicação **B**, sem a indicação do analisador de espectro.

Changing the Brightness and Contrast of the Display

To change the brightness
Press DIMMER so that the brightness switches in 2 stages.

To change the contrast
Press CONTRAST + / -.

If the DEMO button is pressed
The DIMMER button will be disengaged in demonstration mode. When the demonstration is stopped, it will be engaged again.

- Notes on the display**
- The Liquid Crystal Display (LCD), which is designed to be viewed straight on, is used for this unit. Consequently the color of the display changes according to the angles from which the display is viewed.
 - A change in temperature may change the contrast level of the display.
 - If this occurs, adjust the contrast level by pressing CONTRAST.

Modification de la luminosité et du contraste de l'affichage

Modification de la luminosité
Appuyer sur la touche DIMMER, la luminosité passe au degré suivant.

Modification du contraste
Appuyer sur la touche + / -.

Enclenchement de la touche DEMO
La touche DIMMER est libérée en mode de démonstration, mais lorsque ce mode est de nouveau hors service, l'atténuateur est de nouveau enclenché.

- Remarques concernant l'affichage**
- Un affichage à cristaux liquides (LCD), conçu pour une lecture de face, est utilisé dans cet appareil. Par conséquent la couleur de celui-ci change suivant l'angle dans lequel vous le regardez.
 - Un changement de la température peut modifier la luminosité de l'affichage. Dans ce cas, la luminosité est modifiée en appuyant sur la touche CONTRAST + / -.

Cambio del brillo y el contraste del visualizador

Para cambiar el brillo
Presionando DIMMER podrá cambiar el brillo en 2 etapas.

Para cambiar el contraste
Presione CONTRAST + / -.

Si presiona la tecla DEMO
La tecla DIMMER se desactivará en el modo de demostración. Cuando cesa la demostración, volverá a activarse.

- Notas sobre el visualizador**
- Para esta unidad se emplea un visualizador de cristal líquido (LCD) diseñado para verse perpendicularmente. Por consiguiente el color del visualizador cambiará de acuerdo con el ángulo que el que se mira.
 - Un cambio de temperatura puede producir el cambio del brillo del visualizador. Cuando ocurra esto, cambie el brillo presionando CONTRAST + / -.

Ajuste do brilho e do contraste do mostrador

Para ajustar o brilho
Pressione DIMMER, e selecione uma das duas intensidades de brilho.

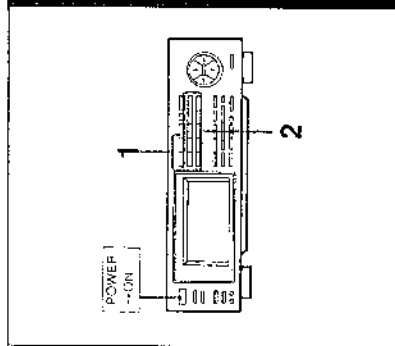
Para ajustar o contraste
Pressione CONTRAST + / -.

Se pressiona a tecla DEMO
A tecla DIMMER é desactivada no modo de demonstração. Terminada a demonstração, a tecla é activada novamente.

- Notas sobre a indicação**
- O visor de cristal líquido (LCD), projectado para ser visto de um ângulo recto, é utilizado neste aparelho. Devido a esta característica, a cor, varia de acordo com o ângulo de visão.
 - Uma mudança na temperatura poderá alterar o nível de contraste do mostrador.
 - Neste caso, ajuste o nível de contraste com CONTRAST + / -.

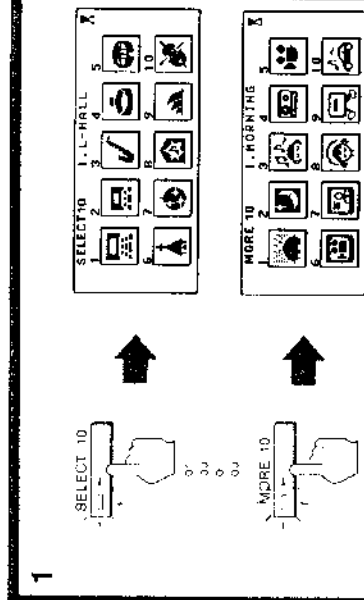
Adjusting the Sound with Preset Settings - SELECT 10/MORE 10

This function allows you to adjust the sound with 20 preset combinations of equalizer, surround, and dynamic sound effects to enable you to set the sound quality to suit your taste and listening conditions.



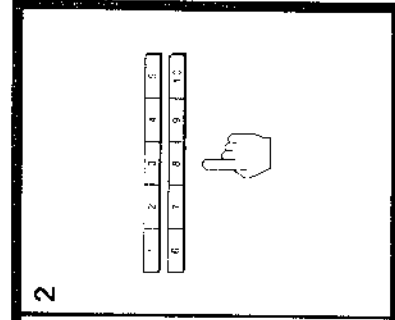
Réglage du son avec les pré-réglages - SELECT 10/MORE 10

Cette fonction vous permet de régler le son à l'aide de 20 combinaisons de pré-réglage des effets produits par l'égaliseur, le traitement de l'ambiance et les basses dynamiques pour adapter la qualité du son à votre goût particulier et à votre environnement.



Ajuste del sonido con ajustes memorizados - SELECT 10/MORE 10

Esta función le permitirá ajustar el sonido con 20 combinaciones de efectos de equalización, sonido perimétrico, y sonido dinámico para que pueda ajustar la calidad del sonido a su gusto o de acuerdo con las condiciones de escucha.



Ajustes pré-programados - SELECT 10/MORE 10

Esta função possibilita o ajuste do som com 20 combinações de ajustes no equalizador, processador perimétrico, e compressor/expansor digital. Ajuste o som de acordo com suas preferências e o ambiente do local de escuta.

SELECT 10 Preset Settings

- L-HALL**
Gives the atmosphere of a large hall of which the seating capacity is more than 2000.
- S-HALL**
Gives the atmosphere similar to an instrumental recital held in a small hall.
- JAZZ CLUB**
Reproduces stressed sounds which are most likely created in a location surrounded with solid walls.
- STADIUM**
Gives the atmosphere similar to a performance held in a stadium.
- ARENA(GYM)**
Gives the atmosphere similar to a live concert held in a gym.
- CHURCH**
Produces natural echo most likely created in surroundings such as in a church.
- DISCO**
Reproduces disco-like sounds most likely created in surroundings with a solid floor and walls.

(to be continued)

Préréglages SELECT 10

- L-HALL**
Rend l'atmosphère d'un grand hall dont la capacité dépasse 2000 places.
- S-HALL**
Rend l'atmosphère d'un récital de musique instrumentale dans une petite salle de concert.
- JAZZ CLUB**
Reproduit les sons accentués d'un orchestre de jazz dans un local construit de murs épais.
- STADIUM**
Reproduit l'atmosphère sonore d'un stade.
- ARENA(GYM)**
Rend l'atmosphère musicale d'un concert se tenant dans un stade couvert.
- CHURCH**
Produit l'écho naturel d'une église.
- DISCO**
Rend des sonorités similaires à l'ambiance créée par un lieu au sol et murs résistants.

(à suivre)

Ajustes memorizados en SELECT 10

- L-HALL (Sala grande)**
Ofrece la atmósfera de una sala grande con una capacidad de más de 2000 asientos.
- S-HALL (Sala pequeña)**
Ofrece una atmósfera similar a la de un recital instrumental celebrado en una sala pequeña.
- JAZZ CLUB (Club de jazz)**
Reproduce el sonido tenso que suele producirse en un lugar rodeado por paredes sólidas.
- STADIUM (Estadio)**
Ofrece una atmósfera similar a la de una actuación celebrada en un estadio.
- ARENA (GYM) (Gimnasio)**
Ofrece una atmósfera similar a la de un concierto en vivo celebrado en un gimnasio.
- CHURCH (Iglesia)**
Produce el eco natural que suele crearse en ambientes tales como una iglesia.
- DISCO (Discoteca)**
Reproduce sonidos semejantes a los de una discoteca que suelen crearse en ambientes con piso y paredes sólidas.

(continúa en la página siguiente)

Ajustes pré-programados SELECT 10

- L-HALL**
Simula o ambiente de uma grande sala de concertos com capacidade superior a 2000 pessoas.
- S-HALL**
Simula o ambiente de um recital de música instrumental numa pequena sala de concertos.
- JAZZ CLUB**
Reproduz sons tenhos que provavelmente seriam criados em locais com paredes sólidas.
- STADIUM**
Simula um ambiente similar a concertos ao vivo num estádio.
- ARENA**
Simula o ambiente similar a concertos ao vivo em sala de desportos.
- CHURCH**
Produz o eco natural que provavelmente seriam criados numa igreja.
- DISCO**
Reproduz características de músicas do género disco, os sons que provavelmente seriam criados em locais com paredes e pisos sólidos.

(continua)

Adjusting the Sound with the Digital Parametric Equalizer

This feature allows you to adjust the sound by raising or lowering the levels of specific frequency ranges.

Réglage du son avec l'égalisation paramétrique numérique

Cette caractéristique vous permet de régler le son en augmentant ou diminuant le niveau de gamme de fréquence particulière.

Ajuste del sonido con el equalizador paramétrico digital

Esta función le permitirá ajustar el sonido aumentando o disminuyendo los niveles de gamas de frecuencias específicas.

Ajustes com o equalizador paramétrico digital

Esta característica ajusta o som mediante o reforço ou a atenuação de uma dada gama de frequências.

1

EFFECT

Select the frequency range you wish to adjust.
Sélectionner la gamme de fréquence à régler.
Selezionare la gamma de frequências que deseja ajustar.

2

Each time the button is pressed, the slope level changes in 3 stages.
A chaque pression exercée sur la touche, le niveau de pente change selon 3 étapes.
Cada vez que pressione a tecla, o nível de pendência mudará em três etapas.
A cada presión de la tecla, el nivel de declive altera-se em 3 estadios.

SLOPE

3

4

5 Repeat steps 2 to 4 if the level of another frequency range needs to be adjusted.
Répéter les étapes 2 à 4 si le niveau d'une autre gamme de fréquence doit être ajusté.
Repete os passos 2 a 4 se necessita ajustar o nível de outra gama de frequências.
Repete os passos de 2 a 4 se necessita ajustar o nível de uma outra gama de frequências.

Approximately 10 seconds after the adjustment, the normal indication will resume.
To restore it more quickly, press the frequency button (F1/F2/F3) which is illuminated.

In step 2

Button	Frequency range
F1	Low range
F2	Middle range
F3	High range

Environ 10 secondes après le réglage, l'indication originale revient. Appuyer sur la touche de fréquence (F1/F2/F3) illuminée pour la rétablir plus rapidement.

A l'étape 2

Touche	Gamme de fréquence
F1	Gamme basse fréquence
F2	Gamme moyenne fréquence
F3	Gamme haute fréquence

Aproximadamente 10 segundos después del ajuste, se reanudará la indicación normal. Para reanudarla con mayor rapidez, presione la tecla de frecuencia (F1/F2/F3) que esté encendida.

En el paso 2

Tecla	Gama de frecuencias
F1	Gama baja
F2	Gama media
F3	Gama alta

Cerca de 10 segundos após o ajuste, retorna-se a indicação normal. Para obter mais rapidamente a indicação normal, pressione a tecla de frequências (F1/F2/F3) que estiver luminada.

No passo 2

Tecla	Gama de frequências
F1	Gama baixa
F2	Gama média
F3	Gama alta

Note
If two crests or troughs on the equalizer curve are combined and the peak of the resulting crest or trough exceeds ± 12 dB, "OVER" will be indicated in the display.

Remarque
Si les crêtes et creux de la courbe d'égalisation se combinent de telle sorte que la crête ou le creux dépasse ± 12 dB, l'indication "OVER" est allchée.

Nota
Si dos cristas o senos de la curva de equalización se combinan y el pico de la cresta o el seno resultante sobrepasa los ± 12 dB, en el visualizador se indicará "OVER".

Nota
Se dois picos na curva de equalização forem combinados, e o pico resultante exceder ± 12 dB, OVER será indicado no mostrador.

Using the Digital Presence Surround Effects

By using this unit's various surround effects, you can create a feeling of presence similar to being in a concert hall or stadium.

Utilisation des effets numériques d'ambiance

Lorsque vous utilisez les effets d'ambiance divers vous pouvez créer une atmosphère ressemblant à celle que vous auriez lors d'un concert ou dans un stade.

Empleo de los efectos perimétricos de presencia digital

Empleando los diversos efectos de sonido perimétrico de esta unidad, podrá crear una sensación de presencia similar a la experimentada en una sala de conciertos o un estadio.

Efeito perimétrico digital

Mediante o uso dos vários efeitos perimétricos, poderá-se simular a sensação de estar presente numa sala de concertos ou num estádio.

1

1 REVERB 1	Atmosphere of a large concert hall (for classical music)
2 REVERB 2	Atmosphere of a stadium (reverberations from far away)
3 REVERB 3	Atmosphere of a large stone church (long reverberations including high frequency sound)
4 EARLY REFLECTION 1	Sound of live concert
5 EARLY REFLECTION 2	Simulated stereo effect on monaural sources

2

1 REVERB 1	Atmosphère d'un grand saie de concert (pour musique classique)
2 REVERB 2	Atmosphère d'un stade (réverbération lointaine)
3 REVERB 3	Atmosphère d'une grande église de pierre (longue réverbération et son de haute fréquence)
4 EARLY REFLECTION 1	Son d'un concert en "live"
5 EARLY REFLECTION 2	Imité stéréo sur des sources monophoniques

3

1 REVERB 1	Atmosfera de una sala de conciertos grande (para música clásica)
2 REVERB 2	Atmosfera de un estadio (reverberaciones procedentes de lejos)
3 REVERB 3	Atmosfera de una iglesia grande (reverberaciones de largos que incluyen sonido de alta frecuencia)
4 EARLY REFLECTION 1	Sonido de un concierto en vivo
5 EARLY REFLECTION 2	Efecto estéreo simulado de fuentes monoaurales

3

1 REVERB 1	simula o ambiente de uma grande sala de concertos (para músicas clássicas)
2 REVERB 2	simula o ambiente de estádios (reverberação distantes)
3 REVERB 3	simula grandes igrejas com paredes de pedra (longas reverberações incluindo sons de altas frequências)
4 EARLY REFLECTION 1	som de concertos ao vivo
5 EARLY REFLECTION 2	simula o efeito estereofónico em materiais monoónicos

3

1 REVERB 1	simula o ambiente de uma grande sala de concertos (para músicas clássicas)
2 REVERB 2	simula o ambiente de estádios (reverberação distantes)
3 REVERB 3	simula grandes igrejas com paredes de pedra (longas reverberações incluindo sons de altas frequências)
4 EARLY REFLECTION 1	som de concertos ao vivo
5 EARLY REFLECTION 2	simula o efeito estereofónico em materiais monoónicos

Select the desired surround effects, referring to the table below.
 Sélectionner l'effet d'ambiance souhaité en vous reportant au tableau ci-dessous.
 Seleccione el efecto de sonido perimétrico deseado, consultando la tabla siguiente.
 Selezionare o effetto perimétrico de acconto con la tabella abaxio.



To cancel the surround effects
Press OFF.

Annulation de l'effet d'ambiance
Appuyer sur OFF.

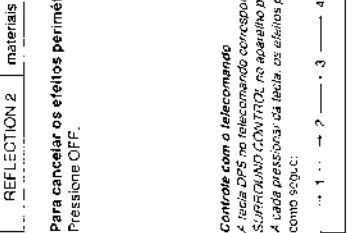
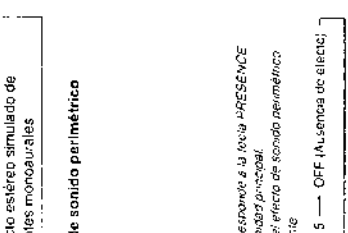
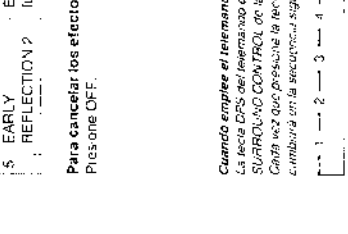
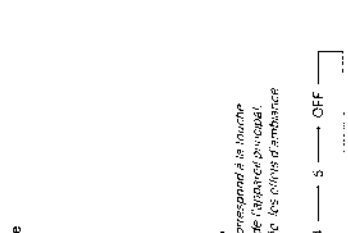
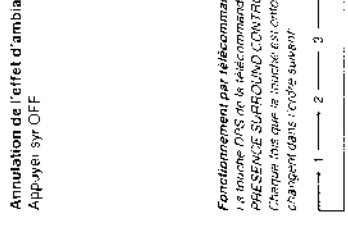
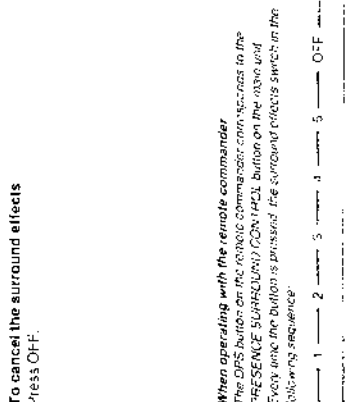
Para cancelar los efectos de sonido perimétrico
Pulsar OFF.

Para cancelar los efectos de sonido perimétrico
Pulsione OFF.

Para cancelar os efeitos perimétricos
Pressione OFF.

Quando empieze el telemando
La tecla OFF del telemando correspondiente a la tecla PRESENCE SURROUND CONTROL de la unidad principal.
Cada vez que presione la tecla, el efecto de sonido perimétrico cambiará en la secuencia siguiente:

Controlle com o telecommando
A tecla OFF do telemando correspondente à tecla PRESENCE SURROUND CONTROL na aparelho principal.
A cada pressiona da tecla, os efeitos perimétricos são alternados como segue:



Using the Digital Dynamic Sound

This unit is provided with two digital dynamic sound functions: compressor and expander. (noise reduction)
 The compressor function is especially effective for making low volume sound more powerful although it can be enjoyed at normal volume levels. Also, it is effective for recording tapes meant for playing in a Walkman or car stereo, since it has the effect of making low volume sound easier to hear over external noise.
 The expander function can reduce disturbing noise between sections recorded on a tape. Therefore it is effective for playing tapes.

Utilisation du son dynamique numérique

Cet appareil est pourvu de deux fonctions de son dynamique, les fonctions de compression et d'expansion (réduction de bruit).
 La fonction de compression est spécialement conçue pour rendre ces sons de bas volume plus puissants, tout en étant écoutés à un niveau normal. Cette fonction agit tout particulièrement lors de l'enregistrement de cassettes destinées à un Walkman ou une chaîne stéréo pour automobile, car elle rend un son de faible volume plus facile à écouter, malgré les nuisances extérieures.
 La fonction d'expansion permet de réduire les bruits gênants entre les plages d'une cassette. Elle est donc particulièrement efficace lors de la lecture de cassettes.

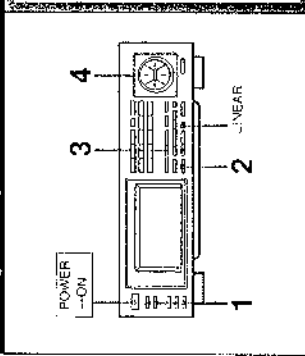
Empleo del sonido dinámico digital

Esta unidad dispone de dos funciones de sonido dinámico digital: funciones de compresión y expansión (reducción de ruido).
 La función de compresión es especialmente efectiva para hacer el sonido de bajo volumen más potente aunque pueda escucharse a niveles de volumen normal. Además, será efectiva para grabar cintas que deseen reproducirse en un Walkman o en un sistema estéreo, porque tiene el efecto de hacer que el sonido de bajo volumen pueda oírse más fácilmente sobre el ruido externo.
 La función de expansión puede reducir el ruido perturbador entre las canciones grabadas en una cinta. Por lo tanto, será efectiva para reproducir cintas.

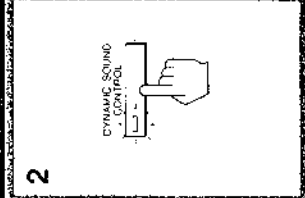
Compressor/Expansor

Este aparelho é equipado com duas funções de som digital: as "funções de compressão e de expansão".
 A função de compressão é especialmente efectiva para fazer com que sons de baixo volume sejam reforçados a um nível de volume normal. Também, é efectiva para gravação de fitas a serem escutadas em walkmans ou auto-estereos, já que esta função compensa os sons de baixo volume em relação aos sons externos.
 A função de expansão pode reduzir os ruídos de fundo entre músicas gravadas em fitas, sendo portanto efectivo para reprodução de cassetes.

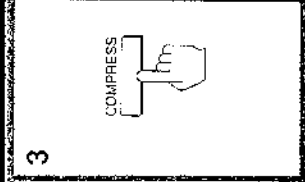
Obtaining the Compressor Function Effect



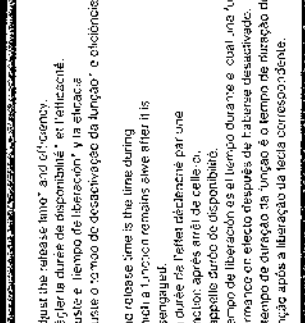
Fonction de compression



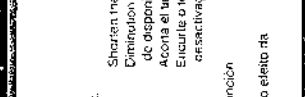
3



Obtención del efecto de la función de compresión

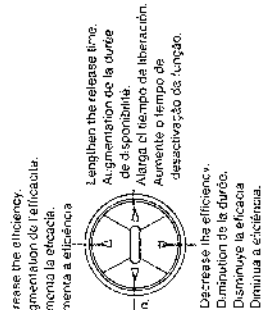


Función de compresión

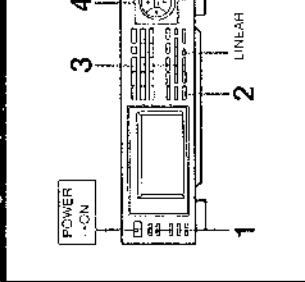


- Adjust the "release time" and efficiency. Réglez la durée de disponibilité* et l'efficacité.
- Adjust the "time of deactivation of function" and efficiency. Ajuste le temps de désactivation de la fonction* et l'efficacité.
- The release time is the time during which a function remains available after it is deprogrammed. La durée de libération est le temps de permanence d'une fonction, après arrêt de celle-ci, à l'appelle d'un bouton de disponibilité.
- Time of deactivation is the time during which a function remains available after it is performed. O tempo de desativação é o tempo de permanência do efeito de uma função após a liberação da tecla correspondente.

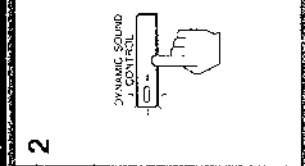
- Shorten the release time. Diminution de la durée de disponibilité. Acorta el tiempo de liberación. Encurte o tempo de desactivação da função.
- Increase the efficiency. Augmentation de l'efficacité. Aumenta a eficiência.
- Decrease the efficiency. Diminution de l'efficacité. Diminua a eficiência.



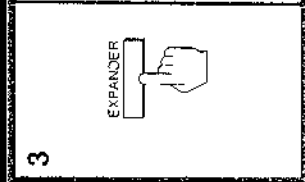
Obtaining the Expander Function



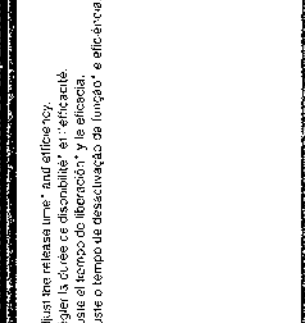
Fonction d'expansion



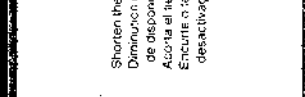
3



Obtención del efecto de la función de expansión

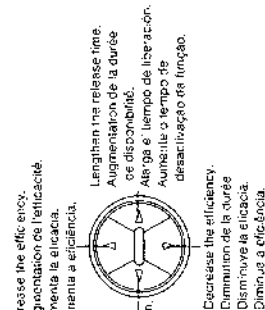


Función de expansión



- Adjust the "release time" and efficiency. Réglez la durée de disponibilité* et l'efficacité.
- Adjust the "time of deactivation of function" and efficiency. Ajuste le temps de désactivation de la fonction* et l'efficacité.

- Shorten the release time. Diminution de la durée de disponibilité. Acorta el tiempo de liberación. Encurte o tempo de desactivação da função.
- Increase the efficiency. Augmentation de l'efficacité. Aumenta a eficiência.
- Decrease the efficiency. Diminution de l'efficacité. Diminua a eficiência.



To disengage the digital dynamic sound Press LINEAR.

If the EFFECT button is pressed (so that the indicator turns off), all of this digital surround processor's effects will be disengaged.

Suppression du son dynamique numérique Appuyer sur LINEAR.

Si l'on appuie sur la touche EFFECT (de manière à éteindre l'indicateur), tous les effets de traitement numérique du son d'ambiance sont libérés.

Desactivación del sonido dinámico digital Presione LINEAR.

Si presiona la tecla EFFECT (de forma que se apague el indicador), se desactivarán todos los efectos de procesador de sonido por márm-co digital.

Desativação do compressor/expansor Pressione LINEAR.

Se EFFECT for pressionada (fazendo com que a indicação se desligue), todos os efeitos do processador por métrico digital serão desactivados.

Storing the Individually-Adjusted Sound - Personal File

By storing the individual digital surround processor effects in the memory, you can easily call up the settings at any desired time. You can store up to 10 combinations of the equalizer, surround, and dynamic sound functions, and also can give names to these individual settings by using 50 characters and a space.

Mémorisation du son réglé par l'utilisateur - Fichier personnel

En mémorisant les effets de traitement numérique d'ambiance choisis selon vos préférences, il vous est facile de rappeler ces préférences au moment voulu. Vous pouvez mémoriser jusqu'à 10 combinaisons à l'aide des fonctions d'égalisation, d'ambiance et de son dynamique. Vous pouvez aussi donner à ces combinaisons un nom en vous servant des 50 caractères et de l'espace.

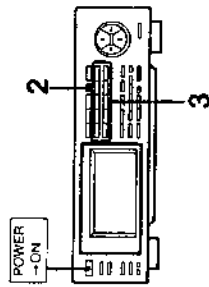
Almacenamiento de sonido individualmente ajustado - Archivo personal

Almacenando los efectos del procesador de sonido paramétrico digital en la memoria, podrá invocar fácilmente los ajustes en el momento deseado. Usted podrá almacenar hasta 10 combinaciones de funciones de equalización, de sonido paramétrico, y de sonido dinámico, y también podrá asignarles nombres empleando 50 caracteres y un espacio.

Armazenamento da combinação de ajustes - Personal File

Mediante o armazenamento de cada efeito digital na memória, poderá facilmente obter os ajustes no momento desejado. Pode-se armazenar um máximo de 10 combinações de equalização, efeito paramétrico, e compressão/expansão. Designe a cada combinação, um memorando, dispondo-se de 50 caracteres e um espaço.

Storing the Desired Adjustments



1 Adjust the Digital Parametric Equalizer (see page 18), Digital Presence Surround (see page 23), and Digital Dynamic Sound (see page 26).

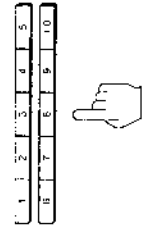
Reglez l'égaliseur paramétrique numérique (voir page 18), le son numérique d'ambiance (voir page 26), le son numérique dynamique (voir page 26).
Ajuste o equalizador paramétrico digital (consulte a página 18), el sonido paramétrico de presencia digital (consulte la página 23), y el sonido dinámico digital (consulte la página 27).
Ajuste o equalizador paramétrico digital (página 18), o efeito paramétrico digital (página 23), e compressão/expansão (página 27).

2



3

Assign a number to the individual adjustments while "MEMORY STAND BY" is indicated. Donner un nom à ces réglages personnels lorsque "MEMORY STAND BY" est affiché. Assigne un número a los ajustes individuales mientras se está indicando "MEMORY STAND BY". Designe um número para cada combinação de ajustes enquanto «MEMORY STAND BY» estiver indicada.



"P. FILE MEMORY" is indicated, and the adjustments memorized in the selected number. "P. FILE MEMORY" est affiché en le réglage est mémorisé sous le numéro sélectionné. Aparecerá "P. F. E. MEMORY", y el ajuste se memorizará en el número seleccionado. «P. FILE MEMORY» é indicado, e o ajuste é memorizado no número selecionado.

Mémorisation des réglages souhaités

Armazenamento dos ajustes desejados

Calling up the Settings

Press PERSONAL FILE* and then the numeric button in which the desired adjustment has been stored.

* When using the remote commander, press SELECT (S10/M10/P.F.) following sequence:
→ SELECT 10 (S10) → MORE 10 (M10) → PERSONAL FILE (P.F.)

Rappel des réglages

Appuyer sur "PERSONAL FILE", puis sur la touche numérique où le réglage souhaité a été mémorisé.

* Si la télécommande est utilisée, appuyer sur SELECT (S10/M10/P.F.) Les réglages mémorisés à rappeler changent dans l'ordre suivant:
→ SELECT 10 (S10) → MORE 10 (M10) → PERSONAL FILE (P.F.)

Invocación de ajustes

Presione PERSONAL FILE* y después la tecla numérica en la que haya almacenado el ajuste deseado.

* Cuando emplee el telemando, presione SELECT (S10/M10/P.F.) Los ajustes almacenados que podrán invocarse cambiarán en la siguiente secuencia:
→ SELECT 10 (S10) → MORE 10 (M10) → PERSONAL FILE (P.F.)

Reobtenção dos ajustes

Pressione PERSONAL FILE* e então a tecla numérica correspondente ao ajuste armazenado.

* Ao utilizar o telecomando, pressione SELECT (S10/M10/P.F.) Os ajustes armazenados poderão ser invocados na seguinte ordem:
→ SELECT 10 (S10) → MORE 10 (M10) → PERSONAL FILE (P.F.)

Storing the Individually-Adjusted Sound - Personal File

Mémorisation du son réglé par l'utilisateur - Fichier personnel

Almacenamiento de sonido individualmente ajustado - Archivo personal

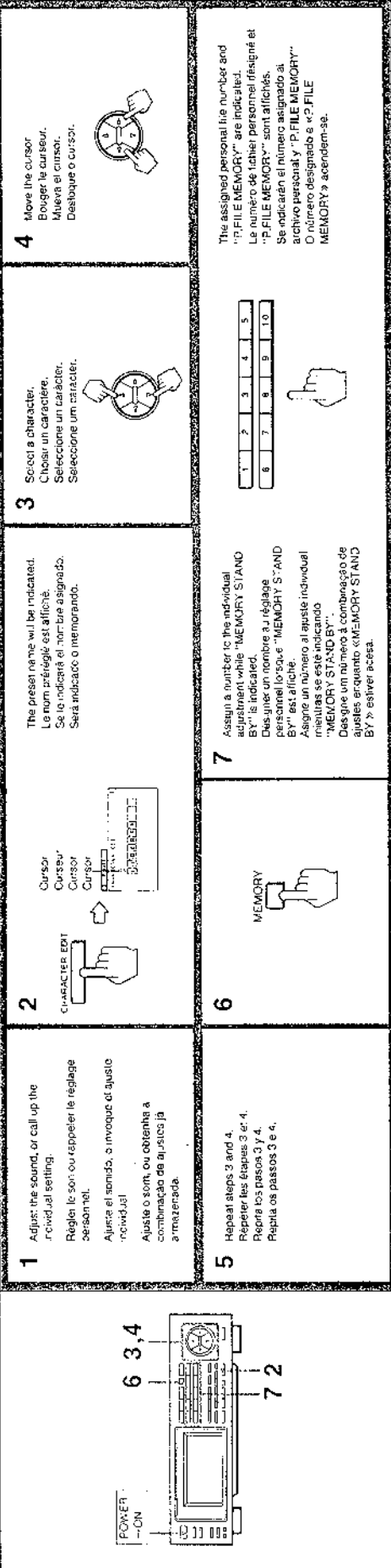
Armazenamento da combinação de ajustes - Personal File

Giving Names to the Individual Adjustments - Character Edit

Dénomination des réglages personnels - Montage de caractères

Asignación de nombres a los ajustes individualmente ajustados - Archivo personal

Designação de memorandos para a combinação de ajustes - Edição de memorandos



1 Adjust the sound, or call up the individual setting.
Régler le son, ou rappeler le réglage personnel.
Ajuste el sonido, o invoca el ajuste "personal".
Ajuste o som, ou obtenha a combinação de ajustes já ajustada.

2 Cursor
CURSOR
CHARACTER EDIT
Cursor
Cursor
Cursor
MEMORY

3 Select a character.
Choisir un caractère.
Seleccione un carácter.
Selecione um carácter.

4 Move the cursor.
Bouger le curseur.
Mueva el cursor.
Desloque o cursor.

5 Repeat steps 3 and 4.
Répéter les étapes 3 et 4.
Repetir los pasos 3 y 4.
Repetir os passos 3 e 4.

6 MEMORY

7 Assign a number to the individual adjustment while "MEMORY STAND BY" is indicated.
Designier un nombre au réglage personnel lorsque "MEMORY STAND BY" est affiché.
Atribua um número à ajuste individual enquanto se este indicando "MEMORY STAND BY".
Designie um número à combinação de ajustes enquanto «MEMORY STAND BY» estiver acesa.

The assigned personal file number and "P-FILE MEMORY" are indicated.
Le numéro de fichier personnel désigné et "P-FILE MEMORY" sont affichés.
Se indicarán el número asignado al archivo personal y "P-FILE MEMORY".
O número designado e «P-FILE MEMORY» aparecerá.

The assigned personal file number and "P-FILE MEMORY" are indicated.
Le numéro de fichier personnel désigné et "P-FILE MEMORY" sont affichés.
Se indicarán el número asignado al archivo personal y "P-FILE MEMORY".
O número designado e «P-FILE MEMORY» aparecerá.

To change the name
Repeat the above procedure from the beginning.

Modification du nom
Répéter la procédure précédente à partir du début.

Para cambiar el nombre
Repetir el procedimiento anterior desde el comienzo.

Para alterar o memorando
Repetir os procedimentos acima indicados a partir do início.

Available Characters
() * + , - / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? (space)
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
Use ▲ of the CURSOR CONTROL buttons to call up a previous character.
Keep pressing ▲ or ▼ of the CURSOR CONTROL buttons to skip characters

Caractères disponibles
() * + , - / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? (espace)
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
Utiliser ▲ des touches CURSOR CONTROL pour appeler le caractère précédent. Maintenir ▲ ou ▼ enfoncé sur les touches CURSOR CONTROL pour sauter des caractères.

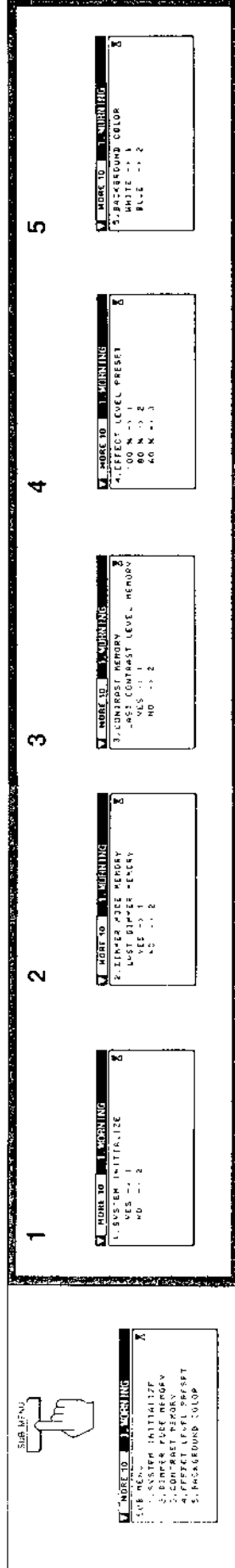
Caracteres disponibles
() * + , - / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? (espació)
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
Empree ▲ de las teclas CURSOR CONTROL para invocar un carácter anterior. Mantenga ▲ o ▼ de las teclas CURSOR CONTROL para saltar caracteres.

Caracteres disponíveis
() * + , - / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? (espaço)
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
Empregue a tecla ▲ de CURSOR CONTROL para obter o carácter anterior. Mantenha ▲ ou ▼ de CURSOR CONTROL pressionada para saltar caracteres

Using the Sub-Menu Window

The unit is equipped with 5 other essential functions which are listed in the sub-menu window.

Press SUB MENU and then a number for the desired function.



Affichage du menu secondaire

Cet appareil est équipé de 5 autres fonctions essentielles attachées sur le menu secondaire.

Appuyer sur la touche SUB MENU, puis sur un numéro de la fonction souhaitée.

Emploie de la ventanilla del submenú

La unidad dispone de otras 5 funciones esenciales indicadas en la ventanilla del submenú.

Presione SUB MENU y después el número correspondiente a la función deseada.

Mostrador sub-menu

O aparelho vem equipado com 5 outras funções essenciais que estão listadas no sub-menu.

Pressione SUB MENU e então o número da função desejada.

1 SYSTEM INITIALIZE
All of the digital surround processor effects can be initialized.

By pressing 1, the settings of following items will return to the initial factory settings:

- Digital parametric equalizer (see page 18)
- Digital presence surround (see page 22)
- Digital dynamic sound (see page 28)
- Effect level (see page 10)
- Personal file (see page 28)
- Dimmer (see page 12)
- Contrast (see page 12)
- Effect level preset (see below)

2 DIMMER MODE MEMORY

The brightness of the display, individually set, can be

memorized

To memorize it, press 1.

If you press 2, the display becomes brighter every time the power is switched on.

3 CONTRAST MEMORY

The contrast level of the display, individually set, can be memorized

To memorize it, press 1.

If you press 2, the contrast level becomes 50% every time the power is switched on.

4 EFFECT LEVEL PRESET

The effect level can be preset and memorized prior to calling up SELECT 10 or MORE 10 settings

Three preset effect levels are provided. Press 1, 2, or 3 according to the desired level.

The effect level of the setting being used cannot be changed. To change it, recall the same setting or another one after pressing 1, 2, or 3

5 BACKGROUND COLOR

The background color of the display is switchable. There are two alternatives: white and blue.
Press 1 for white or 2 for blue.

1 Initialisation du système (SYSTEM INITIALIZE)

Tous les effets de traitement numérique de l'ambiance peuvent être initialisés.

En appuyant sur 1, les réglages des paramètres suivants reviennent aux réglages initiaux effectués en usine.

- Egalisation paramétrique numérique (voir page 18)
- Environnement numérique (voir page 22)
- Son dynamique numérique (voir page 28)
- Niveau d'effet (voir page 10)
- Fichier personnel (voir page 28)
- Atténuateur (voir page 12)
- Contraste (voir page 12)
- Préréglage du niveau d'effet (voir ci-dessous)

2 Mémorisation du mode d'atténuation (DIMMER MODE MEMORY)

La luminosité de l'écran réglée individuellement peut être

mise en mémoire.

Pour cela, appuyer sur 1.

Si l'on appuie sur 2, l'affichage devient plus lumineux après la mise sous tension.

3 Mémorisation du contraste (CONTRAST MEMORY)

Le niveau de contraste de l'affichage réglé personnellement peut être mémorisé.

Pour le mémoriser, appuyer sur 1.

Si l'on appuie sur 2, le niveau de contraste est à 50% à chaque mise sous tension.

4 Préréglage du niveau d'effet (EFFECT LEVEL PRESET)

Le niveau d'effet peut être mis en mémoire avant de rappeler les préréglages SELECT 10 ou MORE 10.

Trois niveaux d'effets sont fournis. Appuyer sur 1, 2 ou 3 selon le niveau souhaité.

Pour cela, rappeler le même réglage ou tout autre en appuyant sur 1, 2 ou 3.

5 Couleurs de fond (BACKGROUND COLOR)

Vous pouvez choisir entre deux couleurs de fond de l'écran: blanc ou bleu.
Appuyer sur 1 pour obtenir le blanc et 2 pour le bleu.

1 SYSTEM INITIALIZE

Podrán inicializarse todos los efectos del procesador paramétrico digital. Al presionar 1, los ajustes de los ítemes siguientes volverán a los inicialmente realizados en fábrica.

- Igualación paramétrica digital (consulte la página 19)
- Sonido paramétrico de presencia digital (consulte la página 23)
- Sonido dinámico digital (consulte la página 27)
- Nivel del efecto (página 11)
- Nivel del efecto (página 11)
- Personal File (página 28)
- Iluminación (página 13)
- Contraste (página 13)
- Nivel de los ajustes memorizados (consulte más abajo)

2 DIMMER MODE MEMORY

El brillo del visualizador, individualmente ajustado, podrá

memorizarse. Para memorizarlo, presione 1.

Si presiona 2, el visualizador se volverá más brillante cada vez que conecte la alimentación.

3 CONTRAST MEMORY

El nivel de contraste del visualizador, individualmente ajustado, podrá memorizarse

Para memorizarlo, presione 1.

Si presiona 2, el nivel del contraste se volverá el 50% cada vez que conecte la alimentación.

4 EFFECT LEVEL PRESET

El nivel de efecto podrá preajustar y memorizarse antes de invocar los ajustes de SELECT 10 y MORE 10.

Existen tres niveles de efecto preajustados. Presione 1, 2, o 3 de acuerdo con el nivel deseado.

El nivel de efecto de un ajuste que está empleándose no podrá cambiarse. Para cambiarlo, invoque el mismo ajuste u otro después de presionar 1, 2, o 3.

5 BACKGROUND COLOR

El color de fondo del visualizador es seleccionable. Existen dos alternativas: blanco y azul.
Presione 1 para blanco o 2 para azul.

1 SYSTEM INITIALIZE

Todos os efeitos do processador paramétrico digital são apagados.

Pressionando-se 1, os ajustes dos seguintes ítemes retornam aos níveis pré-programados na fábrica.

- Equalizador paramétrico digital (página 19)
- Efeito paramétrico digital (página 23)
- Compressão/Expansão (página 27)
- Nivel do efeito (página 11)
- Personal File (página 28)
- Iluminação (página 13)
- Contraste (página 13)
- Nivel do efeito pré-programado (veja abaixo)

2 DIMMER MODE MEMORY

A iluminação do mostrador, ajustado por ítem, pode ser

armazenada.

Se pressiona 2, a iluminação do mostrador torna-se mais intensa cada vez que se liga a alimentação.

3 CONTRAST MEMORY

O nível de contraste do mostrador, ajustado por ítem, pode ser armazenado.

Para armazenar, pressione 1.

Se pressiona 2, o nível de contraste fica a 50% a cada vez que se liga a alimentação.

4 EFFECT LEVEL PRESET

O nível do efeito pode ser pré-programado e armazenado antes de obter os ajustes SELECT 10 ou MORE 10.

3 níveis de efeitos estão programados. Pressione 1, 2, ou 3 de acordo com o nível desejado.

O nível do efeito do ajuste em uso não pode ser alterado. Para alterar, reobtenha o mesmo ajuste ou um outro depois do pressionamento de 1, 2, ou 3

5 BACKGROUND COLOR

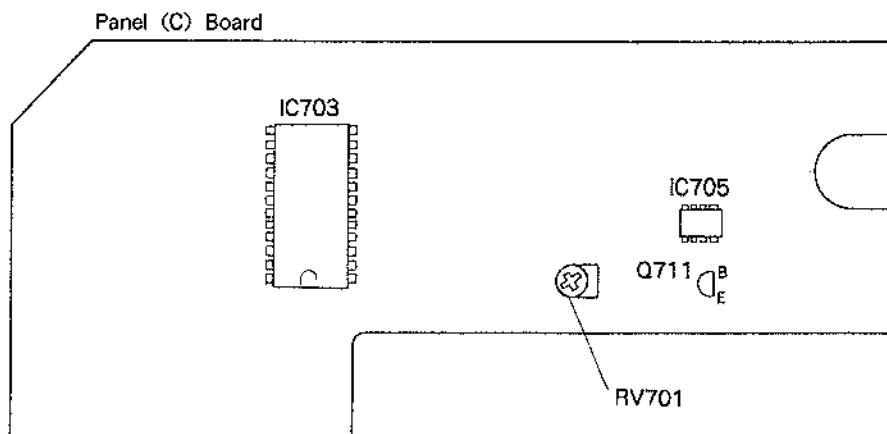
É possível selecionar a cor de fundo do mostrador, entre branco e azul.
Pressione 1 para o branco ou 2 para o azul.

SECTION 2 ADJUSTMENT

[Electrical adjustment]

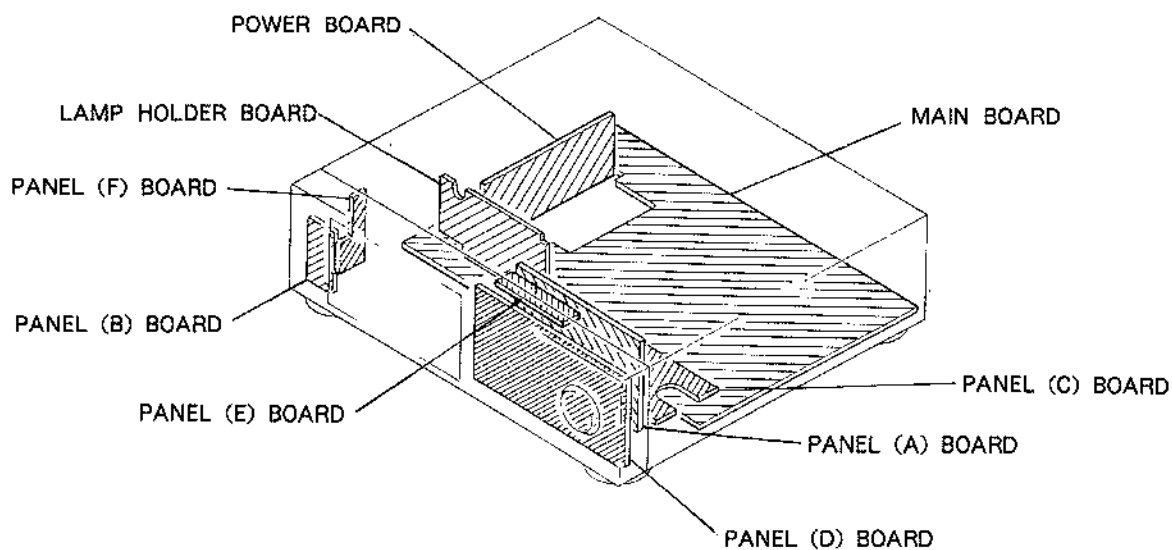
• Contrast adjustment

Adjust RV701 so that the voltage between the collector and the emitter of Q711 is set to 14.2 V in room temperature (approximately 25 °C) (Optimal condition when contrast is 50%)



SECTION 3 DIAGRAMS

3-1. CIRCUIT BOARDS LOCATION



3-2. IC DESCRIPTION

IC701 Feature Control Microcomputer (HD6435328F6)

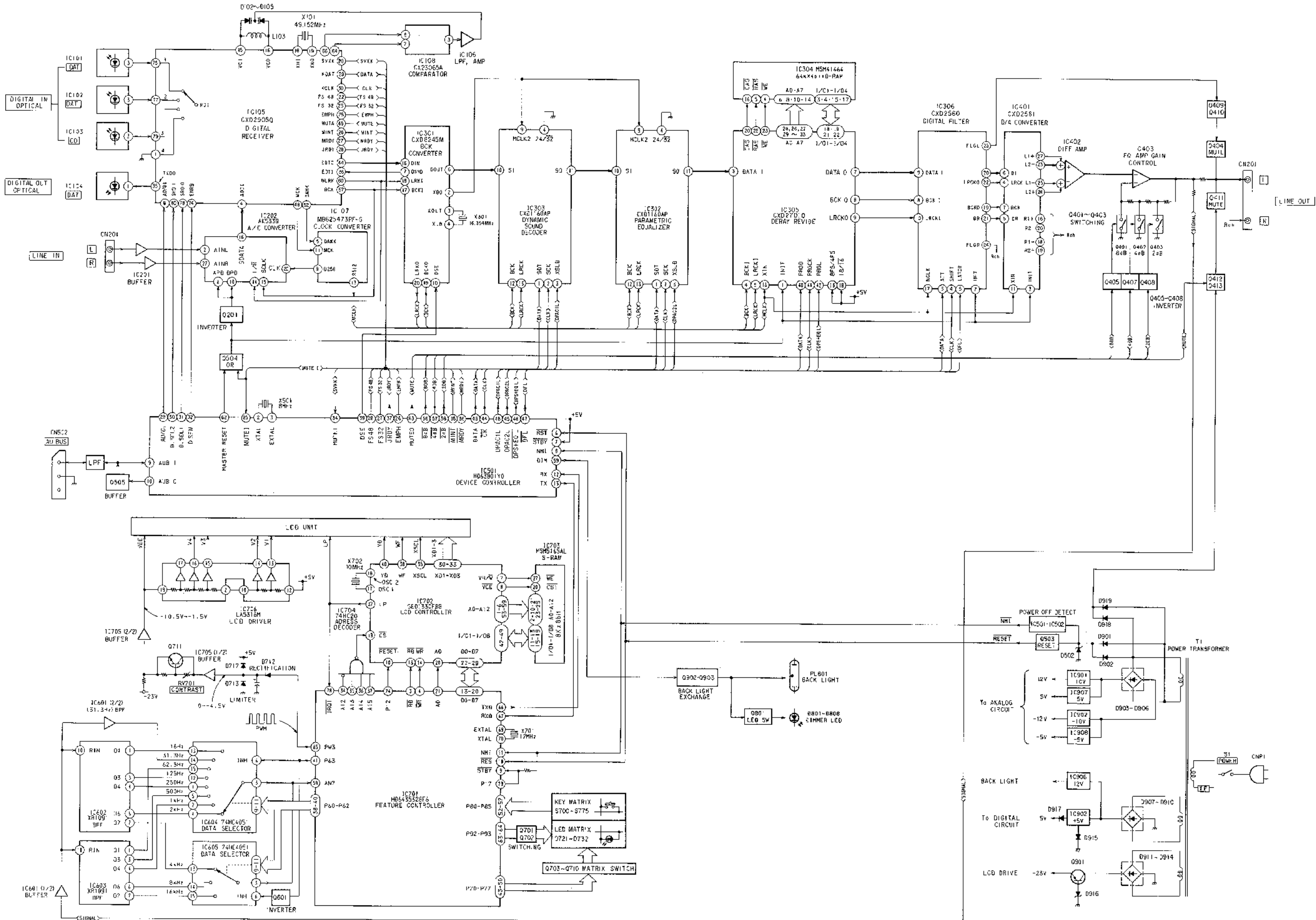
Displaying of LCD and LED is controlled in accordance with spectrum analyzer data input, key input, and audio bus input. Data of equipments' settings are transmitted to the device control microcomputer (IC501) in serial communication.

Pin No.	Pin Name	I/O	Description	
1	R/W	—	} Not used.	
2	DS	—		
3	RD	O		Data reading signal output to IC702 (LCD controller)
4	WR	O		Data writing signal output to IC702 (LCD controller)
5	Vcc	—		Power supply terminal (+5 V)
6	MD0	I	Mode setting input (Fixed to "L".)	
7	MD1	I	Mode setting input (Fixed to "H".)	
8	MD2	I	Mode setting input (Fixed to "L".)	
9	STBY	I	Hardware standby mode input	
10	RES	I	Reset input	
11	NMI	I	Power interrupt detection input. When it is set to "L", P17 (pin 79) is set to after the backup processing.	
12	V _{ss}	—	GND	
13~20	D0~D7	I/O	Data bus to IC702 (LCD controller)	
21	A0	O	IC702 (LCD controller) internal register select output	
22~28	A1~A7	O	Address output. Not used.	
29	V _{ss}	—	GND	
30~33	A8~A11	O	Address output. Not used.	
34~37	A12~A15	O	Address output to generate IC702 (LCD controller) CS signal	
38~41	P60~P63	O	BPF select for spectrum analyzer to IC604 and IC605 (multiplexer)	
42	Vcc	—	Power supply terminal (+5 V)	
43~50	P70~P77	O	Key and LED matrix output	
51	AV _{ss}	—	Analog GND.	
52~58	P80~P86	I	Key matrix input	
59	AN7	I	Spectrum analyzer data input (analog)	
60	AVcc	—	Analog system power supply terminal (+5 V)	
61	P90	—	Not used.	
62	P91	—	Not used.	
63,64	P92,P93	O	LED matrix output	
65	PW3	O	LCD contrast adjustment PWM output (Darker contrast when closer to 100%)	
66	TXD	O	Serial communication output to IC501 (device control microcomputer)	
67	RXD	I	Serial communication input to IC501 (device control microcomputer)	
68	P97	—	Not used.	
69	EXTAL	I	Clock input (12 MHz)	
70	XTAL	O	Clock output	
71	V _{ss}	—	GND	
72	CK	—	Not used.	
73	E	—	Not used.	
74	P12	O	Reset output to IC702 (LCD controller)	
75~77	P13~P15	—	Not used.	
78	IRQ1	I	LCD X driver latch pulse input	
79	P17	O	Output (STBY (pin 9) is set to "L") to physically set the backup mode when the power is set to OFF.	
80	A5	—	Not used.	

IC702 LCD controller (SED1330FBB)

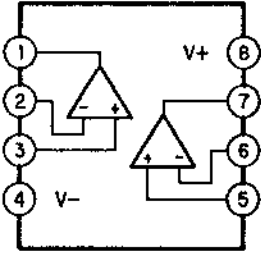
Character data transmitted from the panel microcomputer (IC701) are stored in the display memory (IC703), read out periodically, converted to LCD signal, and output.

Pin No.	Pin Name	I/O	Description
1~6	VA5~VA0	O	Address output to IC703 (display memory)
7	VR/ \overline{W}	O	Read/write signal output to IC703 (display memory)
8	\overline{VCE}	O	Chip select output to IC703 (display memory)
9	\overline{REF} NC	O	Test output. Not used.
10	\overline{RES}	I	System reset input
11	SYNC NC	O	Test output. Not used.
12	CLO NC	O	Test output. Not used.
13	\overline{RD}	I	Data read signal input from IC701 (panel microcomputer)
14	\overline{WR}	I	Data write signal input from IC701 (panel microcomputer)
15	SEL2	I	Interface bus select (Set always to GND.)
16	SEL1	I	Interface bus select (Set always to GND.)
17	XG	I	Clock input (10 MHz)
18	XD	O	Clock output
19	\overline{CS}	I	Chip select input from the address decoder (IC704)
20	A0	I	Internal register select input
21	V _{DD}	—	Power supply terminal (+5 V)
22~29	D0~D7	I/O	Data bus to IC701 (panel microcomputer)
30~33	XD3~XD0	O	Data output to LCD X driver
34	XECL	O	Enable chain clock output to LCD X driver. Not used.
35	XSCL	O	Data shift clock output to LCD X driver
36	V _{SS}	—	GND
37	LP	O	LCD X driver latch pulse output
38	WF	O	Frame signal output
39	YDIS	O	LCD display OFF output. Not used.
40	YD	O	Data output to LCD Y driver
41	YSCL	O	Data shift clock output to LCD Y driver. Not used.
42~49	VD7~VD0	I/O	Data bus to IC703 (display memory)
50~59	VA15~VA6	O	Address output (VA13 to VA15 are not used) to IC703 (display memory).
60	NC	—	

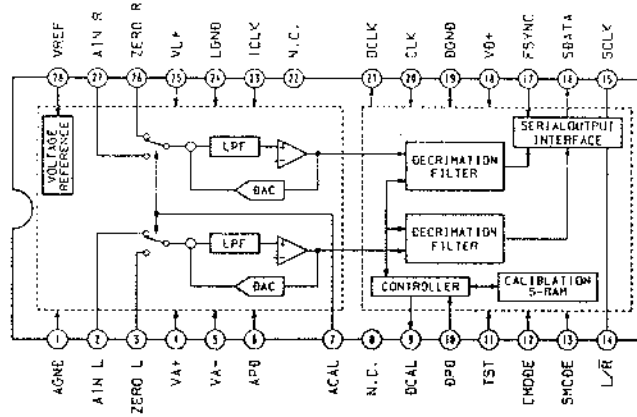


3-4. IC BROCK DIAGRAMS

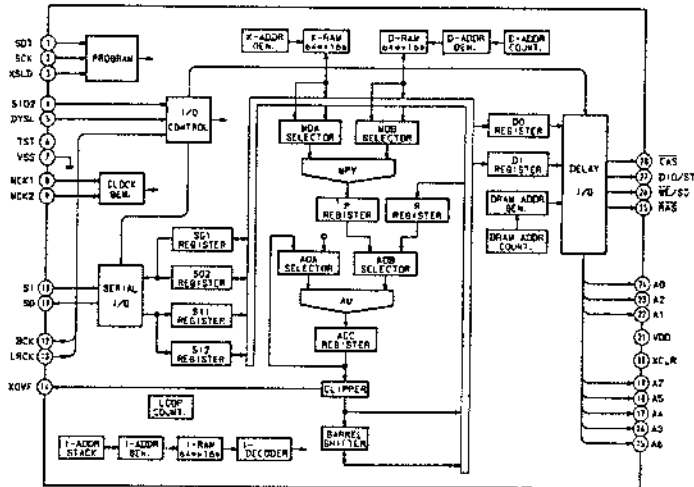
• IC201, 404, 705 M5218AP



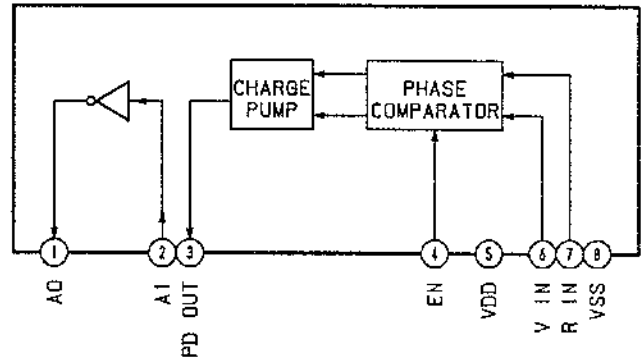
• IC202 AK53389



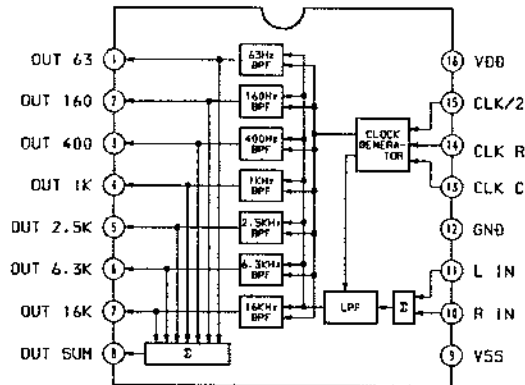
• IC302,303 CXD1160AP



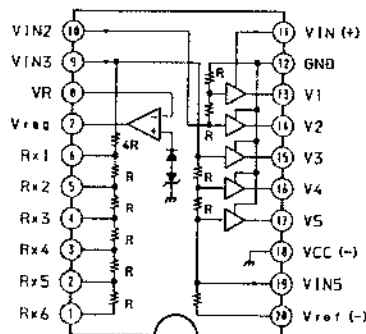
• IC108 CX23065A



• IC602,603 XR1091



• IC706 LM5316M

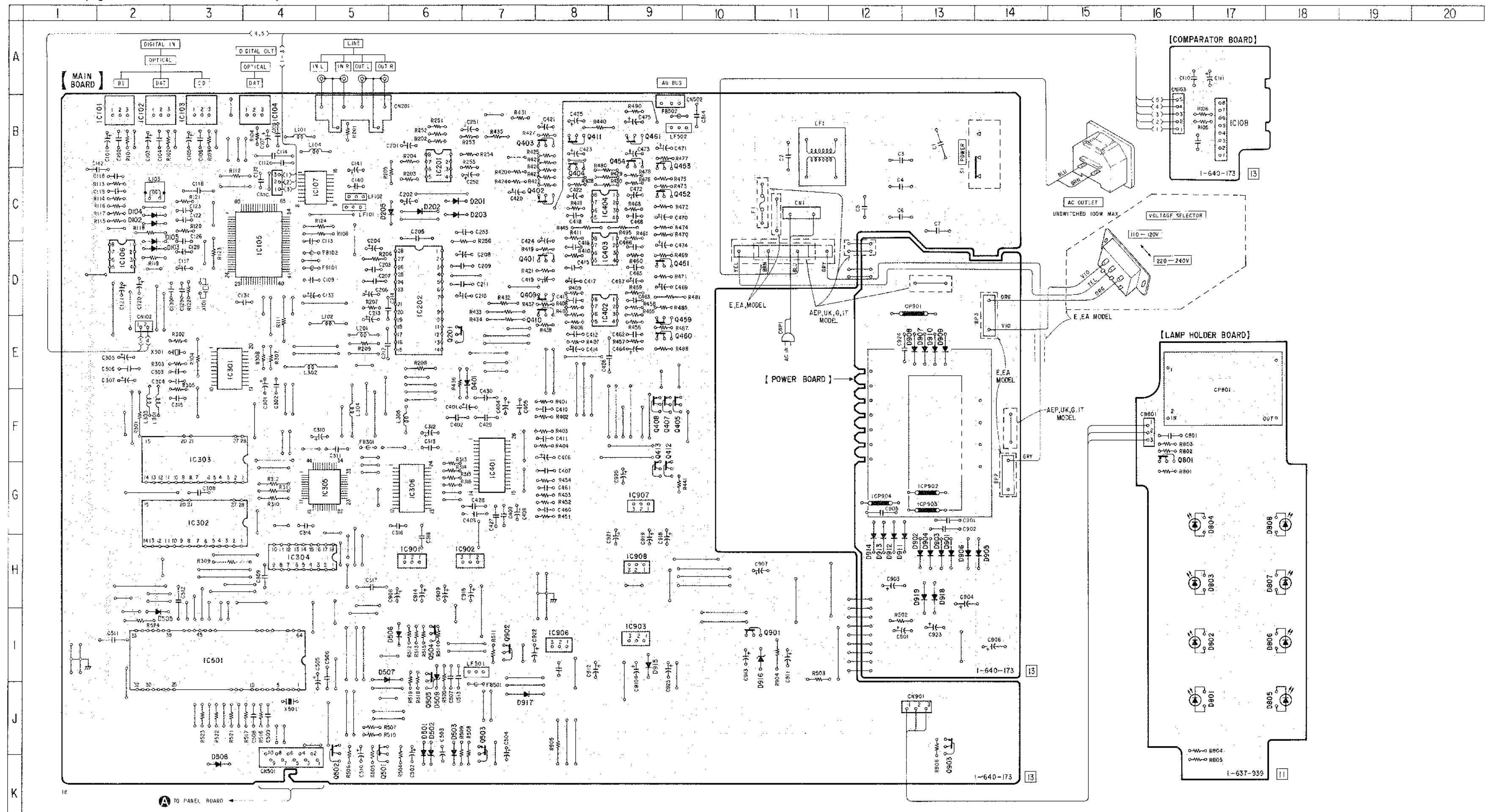


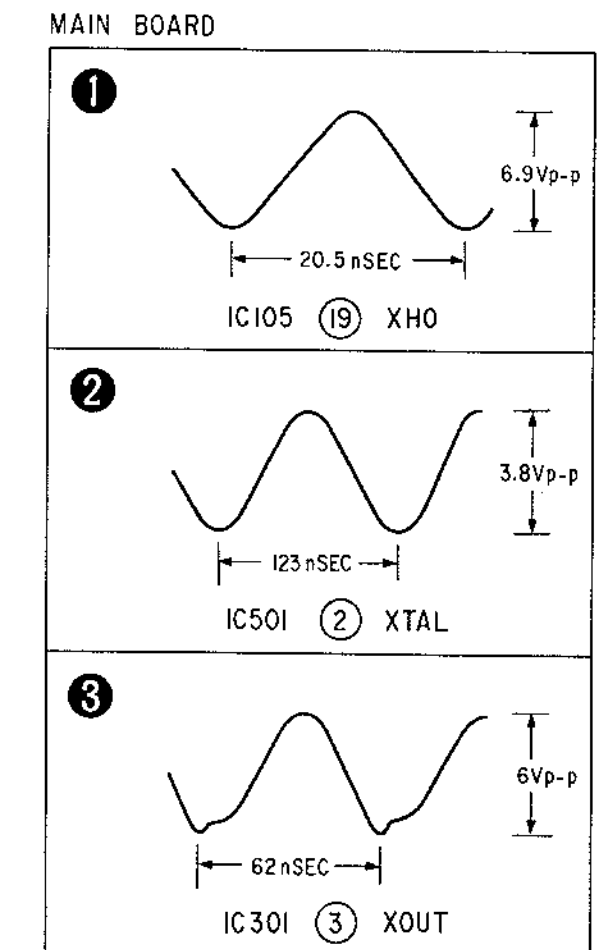
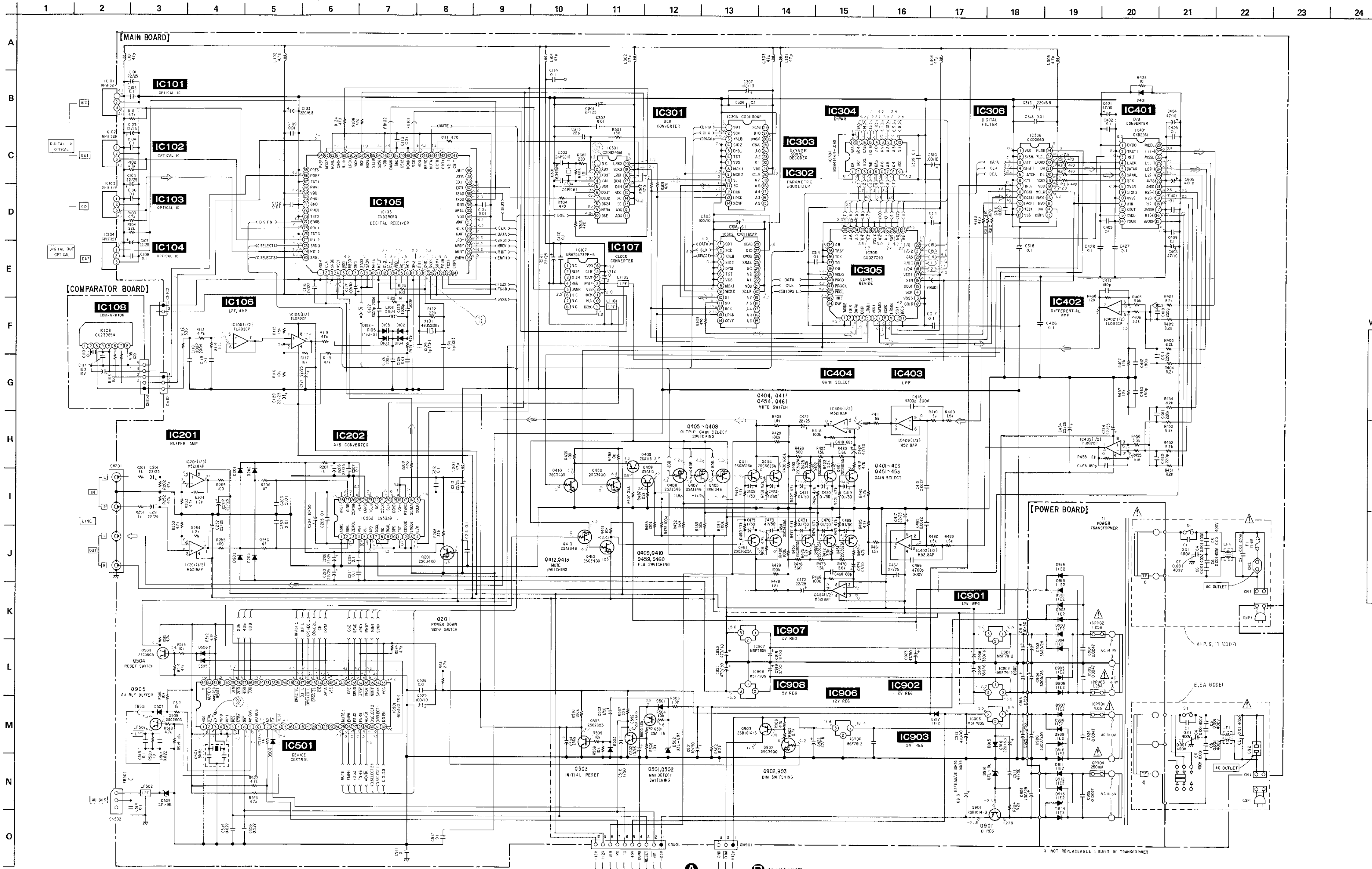
3-5. PRINTED WIRING BOARDS - MAIN SECTION - See page 27 for Semiconductor Lead Layouts.

• Semiconductor Location			
Ref. No.	Location	Ref. No.	Location
D102	C-2	IC908	H-9
D103	D-2	Q201	E-6
D104	C-2	Q401	D-8
D105	D-2	Q402	C-8
D201	C-6	Q403	B-8
D202	C-6	Q404	C-8
D203	C-6	Q405	F-9
D205	C-6	Q407	F-9
D401	E-7	Q408	F-9
D501	J-6	Q409	D-8
D502	J-6	Q410	D-8
D503	J-6	Q411	B-8
D505	I-2	Q412	G-9
D506	I-2	Q413	G-9
D507	I-5	Q451	D-9
D508	K-3	Q452	C-9
D509	J-6	Q453	B-9
D801	J-17	Q454	B-9
D802	I-17	Q459	F-9
D803	H-17	Q460	F-9
D804	G-17	Q461	B-9
D805	J-18	Q501	K-5
D806	I-18	Q502	K-5
D807	H-18	Q503	J-7
D808	G-18	Q504	I-6
D901	H-13	Q505	J-6
D902	H-13	Q801	F-16
D903	H-13	Q901	I-11
D904	H-13	Q902	I-7
D905	H-14	Q903	J-13
D906	H-13		
D907	E-13		
D908	F-13		
D909	E-13		
D910	E-13		
D911	H-13		
D912	H-12		
D913	H-12		
D914	H-12		
D915	I-9		
D916	I-11		
D917	J-7		
D918	H-13		
D919	H-13		
IC101	B-2		
IC102	B-2		
IC103	B-3		
IC104	B-4		
IC105	D-4		
IC106	D-2		
IC107	C-4		
IC108	B-17		
IC201	B-6		
IC202	D-6		
IC301	F-3		
IC302	G-3		
IC303	F-3		
IC304	H-4		
IC305	G-5		
IC306	G-6		
IC401	G-7		
IC402	D-8		
IC403	D-8		
IC404	C-8		
IC501	I-3		
IC901	H-6		
IC902	H-7		
IC903	I-9		
IC906	I-8		
IC907	G-9		

Note on Mounting Diagram:
 • : parts extracted from the component side.
 • : component side.

G : Germany
 IT : Italian
 EA : Saudi Arabia





Note on Schematic Diagram:

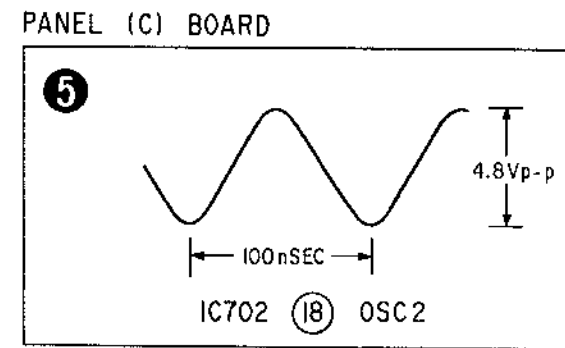
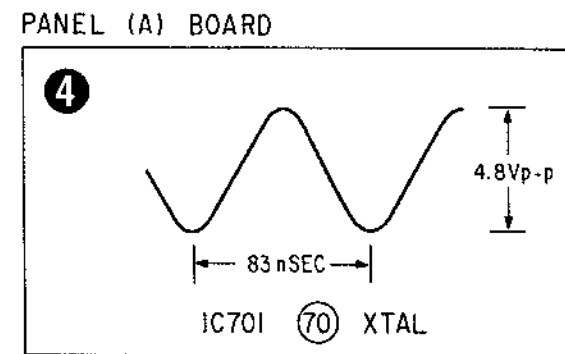
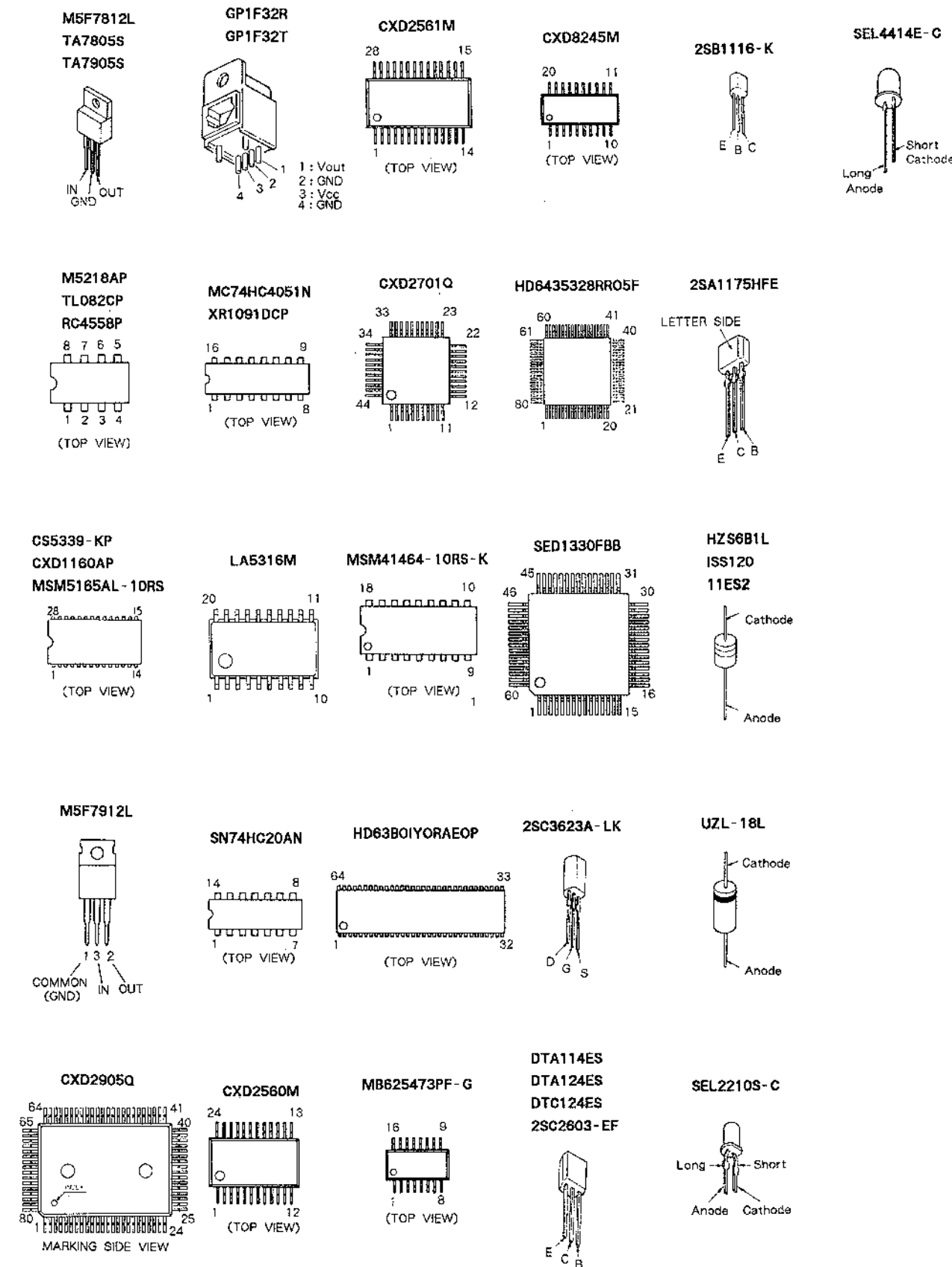
- All capacitors are in μF unless otherwise noted. μF : μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4W$ or less unless otherwise specified.
- \square : nonflammable resistor.
- \square : fusible resistor.

Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

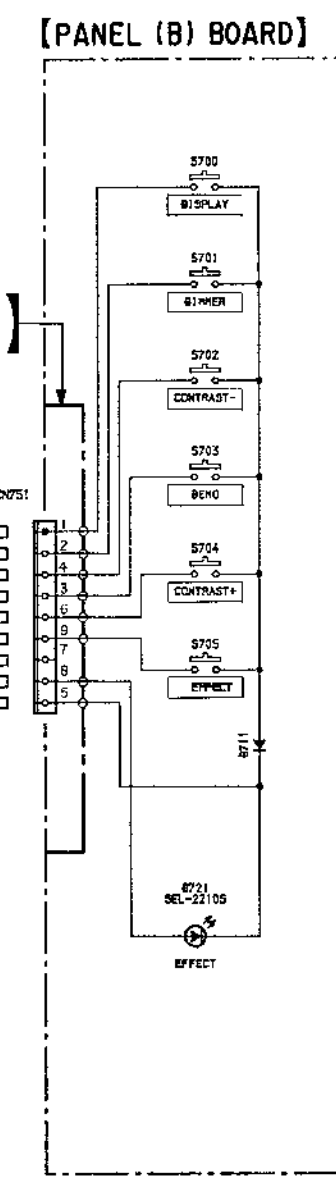
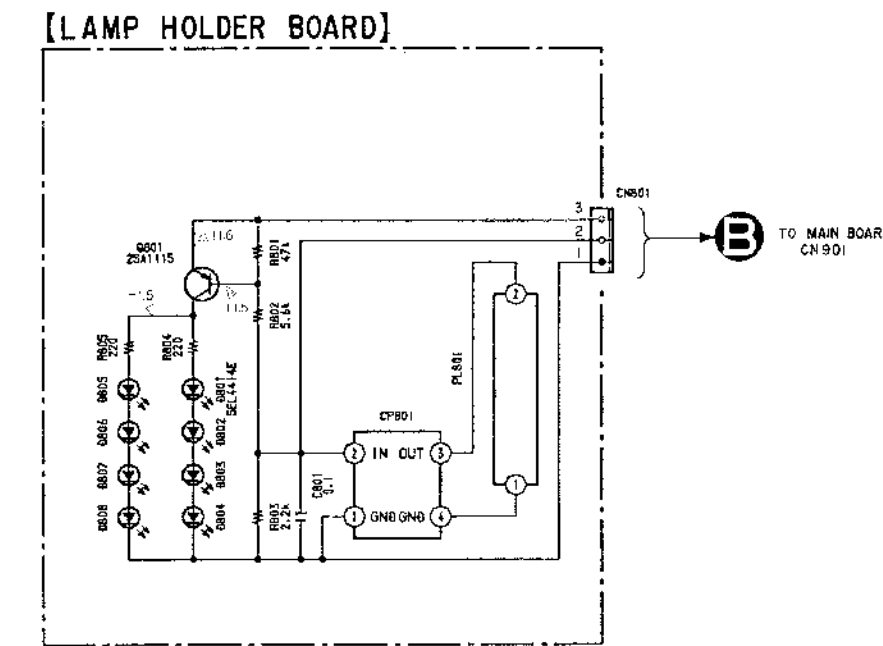
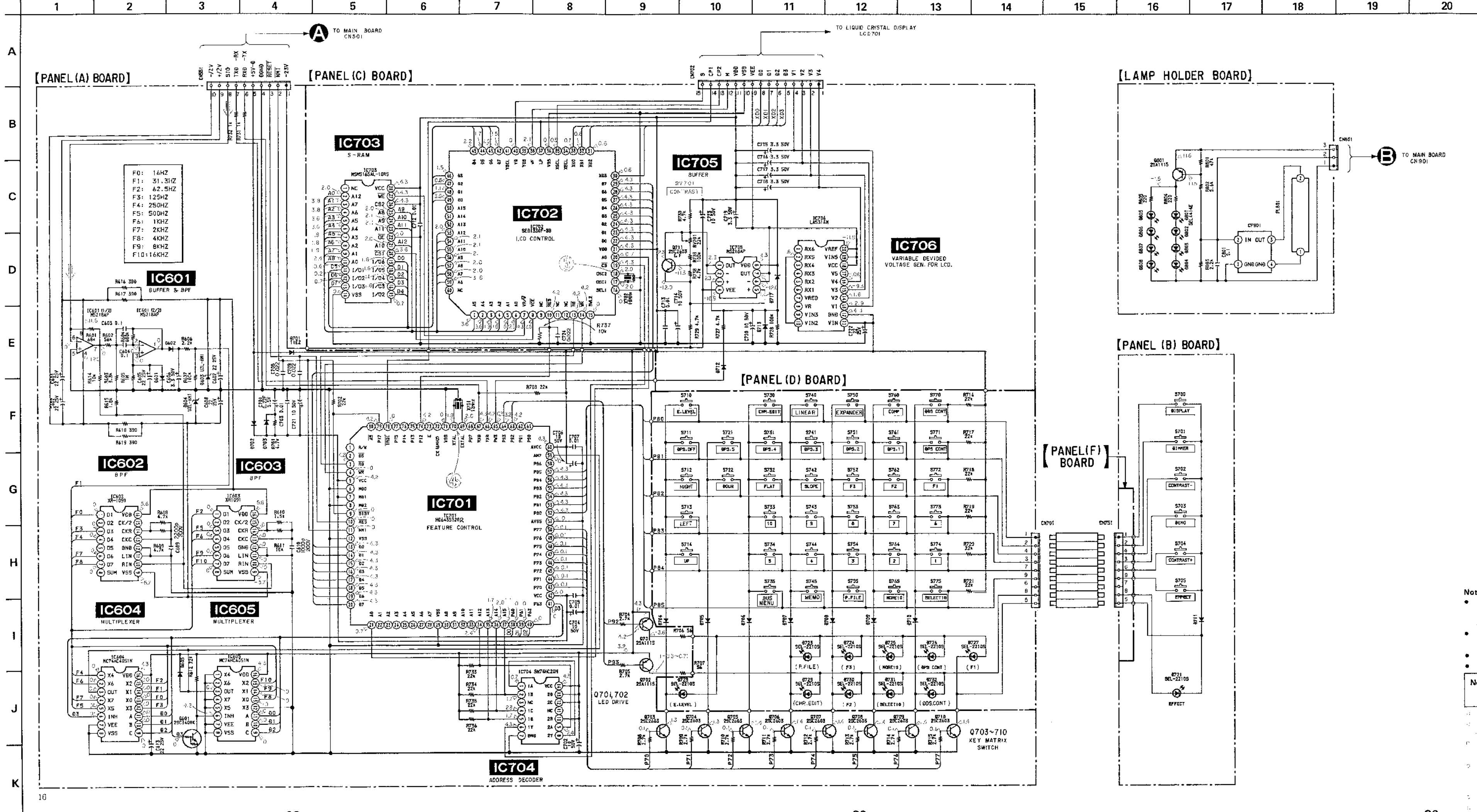
- Δ : B+ Line
- \square : B- Line
- no mark: No signal, PHONO MODE
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
- Voltages are taken with a VOM (Input impedance 10M Ω)
- Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- \rightarrow : CD

G : Germany
IT : Italian
EA : Saudi Arabia

3-7. SEMICONDUCTOR LEAD LAYOUTS



3-8. SCHEMATIC DIAGRAM - PANEL SECTION - See page 19 for IC Block Diagrams.

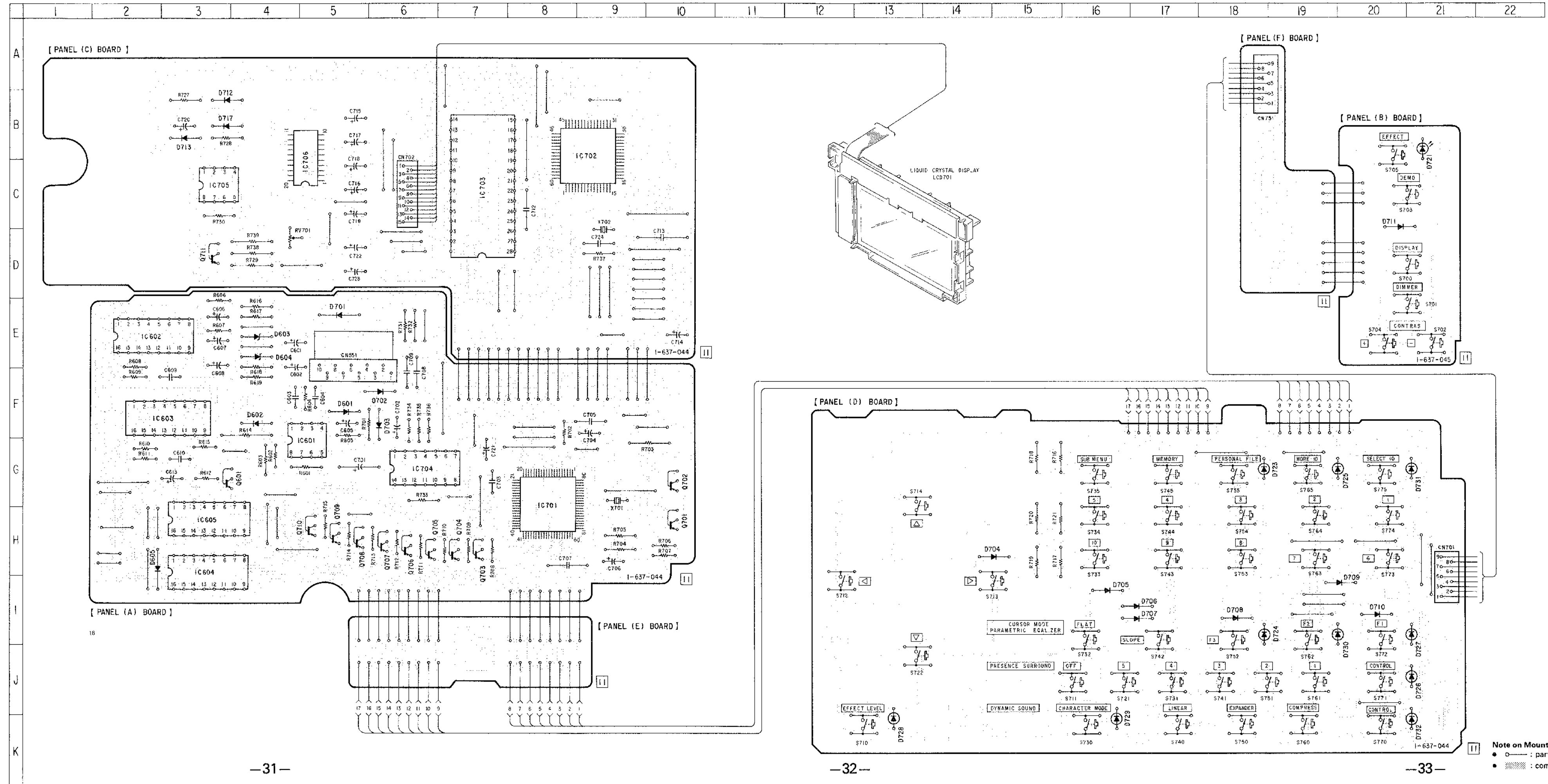


G : Germany
IT : Italian
EA : Saudi Arabia

Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF : μpF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- : nonflammable resistor.
- : fusible resistor.

Note: The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.



• Semiconductor Location

Ref. No.	Location
D601	F-5
D602	F-4
D603	E-4
D604	E-4
D605	H-2
D701	E-5
D702	F-6
D703	F-6
D704	H-14
D705	I-16
D706	I-16
D707	I-16
D708	I-18
D709	H-19
D710	I-20
D711	C-20
D712	B-3
D713	B-3
D717	B-3
D721	B-20
D723	G-18
D724	I-18
D725	G-19
D726	J-20
D727	I-20
D728	J-13
D729	J-16
D730	I-19
D731	G-20
D732	J-20
IC601	F-5
IC602	E-2
IC603	F-3
IC604	H-3
IC605	H-3
IC701	G-8
IC702	B-9
IC703	C-7
IC704	G-6
IC705	C-3
IC706	B-5
Q601	G-3
Q701	H-10
Q702	G-10
Q703	H-7
Q704	H-7
Q705	H-6
Q706	H-6
Q707	H-6
Q708	H-5
Q709	H-5
Q710	H-5
Q711	D-3

G : Germany
 IT : Italian
 EA : Saudi Arabia

Note on Mounting Diagram:
 • ○ — parts extracted from the component side.
 • ■ — component side.

SECTION 4 EXPLODED VIEWS

NOTE:

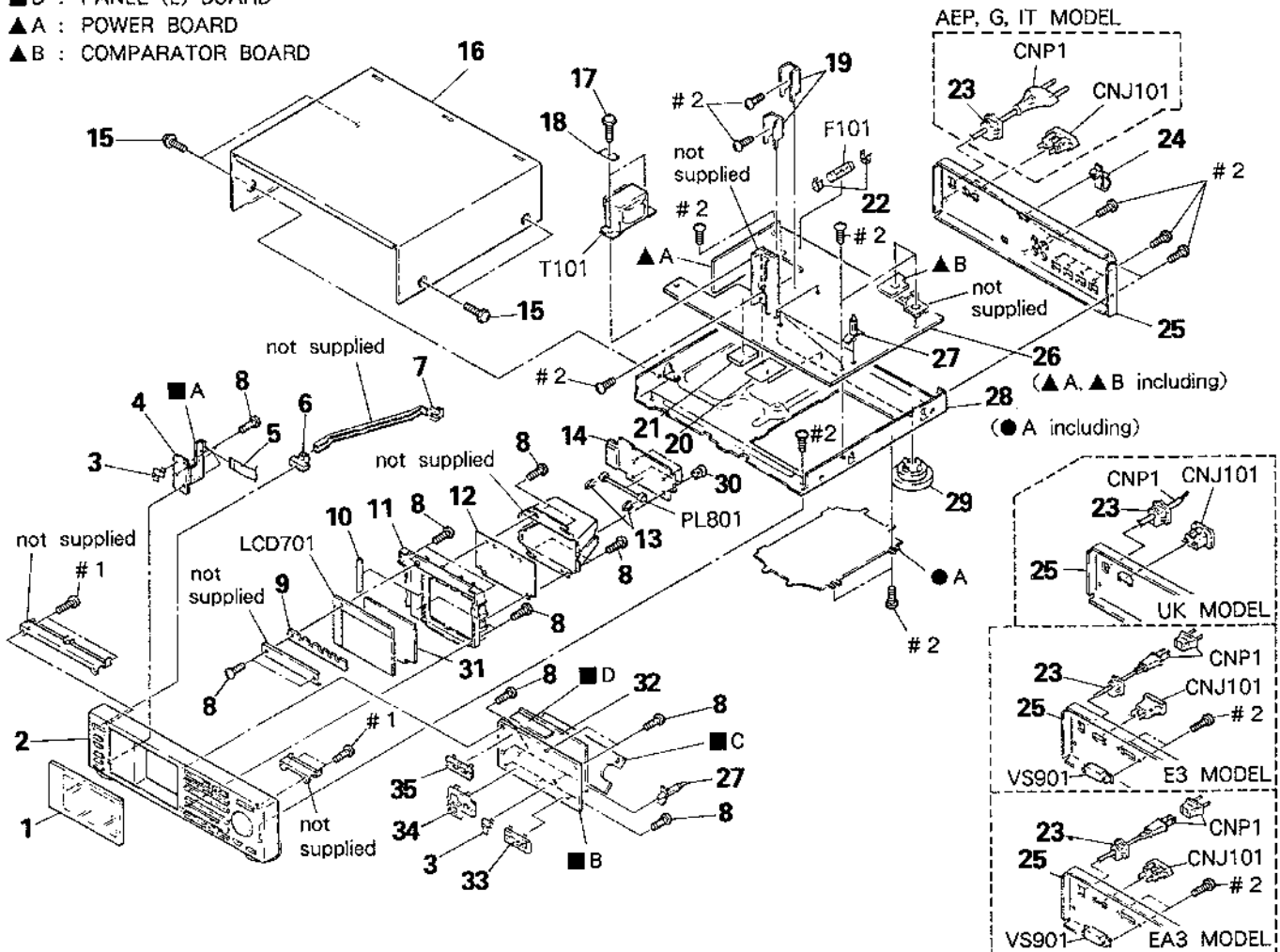
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts
Example:
KNOB, BALANCE (WHITE)...(RED)
 ↑ ↑
Parts color Cabinet's color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay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

The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

G : Germany
IT : Italian
EA : Saudi Arabia

OVERALL SECTION

- A : PANEL (F) BOARD
- B : PANEL (D) BOARD
- C : PANEL (C) BOARD
- D : PANEL (E) BOARD
- ▲ A : POWER BOARD
- ▲ B : COMPARATOR BOARD



<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>
1	4-941-523-11	WINDOW		26	* A-4345-233-A	MAIN BOARD, COMPLETE (AEP, Italian)	
2	X-4941-442-1	PANEL ASSY. FRONT			* A-4345-234-A	MAIN BOARD, COMPLETE (Germany)	
3	* 4-941-534-01	HOLDER (1), LED			* A-4345-235-A	MAIN BOARD, COMPLETE (UK)	
4	* 1-637-045-11	PANEL B BOARD			* A-4345-236-A	MAIN BOARD, COMPLETE (E, Saudi Arabia)	
5	1-575-216-11	WIRE, FLAT TYPE (9 CORE)		27	* 4-924-098-91	HOLDER, PC BOARD	
6	4-921-919-01	BUTTON (P)		28	* 4-924-520-31	CHASSIS	
7	4-866-342-00	JOINT (B), KNOB		29	4-934-864-01	FOOT	
8	4-928-636-01	SCREW, 1BV (2.6X8) TAPPING		30	4-812-134-00	RIVET NYLON, 3.5	
9	* 4-941-531-01	CUSHION		31	* 4-941-543-01	ILLUMINATOR (4)	
10	* 4-941-530-01	CUSHION		32	* A-4345-232-A	PANEL (A) BOARD, COMPLETE	
11	* 4-941-527-01	HOLDER (LCD)		33	* 4-941-536-01	HOLDER (3), LED	
12	* 4-942-168-01	PLATE, SHIELD		34	* 4-941-535-01	HOLDER (2-1), LED	
13	* 4-942-783-01	HOLDER		35	* 4-941-541-01	HOLDER (2-2), LED	
14	* 1-637-939-11	LAMP HOLDER BOARD		CNJ101	△1-526-751-00	OUTLET, AC (UK)	
15	3-704-366-01	SCREW (CASE) (M3X8)			△1-526-794-11	OUTLET, AC (AEP, Germany, Italian, Saudi Arabia)	
16	4-919-377-01	CASE			△1-526-882-00	OUTLET, AC (E)	
17	4-946-541-01	SCREW (4X8), +PWHTT		CNP1	△1-575-651-11	CORD, POWER (AEP, Germany, Italian)	
18	4-946-540-01	WASHER (SQUARE)			△1-575-654-11	CORD, POWER (Saudi Arabia)	
19	* 3-309-144-21	HEAT SINK			△1-575-656-11	CORD, POWER (E)	
20	* 4-945-761-01	SHEET (INSULATING)			△1-575-669-21	CORD, POWER (UK)	
21	9-911-841-XX	CUSHION		F101	△1-532-259-00	FUSE, TIME-LAG (AEP, UK, Germany, Italian)	(1.6A)
22	* 1-533-213-31	HOLDER, FUSE		LCD701	1-809-202-11	DISPLAY PANEL, LIQUID CRYSTAL	
23	* 3-703-244-00	BUSHING (2104), CORD (AEP, UK, Germany, Italian, Saudi Arabia)		PL801	1-519-653-11	GAS DISCHARGE TUBE, FLUORESCENT	
	* 3-703-571-11	BUSHING (S) (4516), CORD (E)		VS901	△1-570-046-21	SWITCH, VOLTAGE CHANGE (E, Saudi Arabia)	
24	* 2-379-614-01	HOOK		T101	△1-450-596-11	TRANSFORMER, POWER (AEP, Germany, Italian)	
25	* 4-943-823-11	PANEL, BACK (AEP, Germany, Italian)			△1-450-597-11	TRANSFORMER, POWER (UK)	
	* 4-943-823-21	PANEL, BACK (UK)			△1-450-598-11	TRANSFORMER, POWER (E, Saudi Arabia)	
	* 4-943-823-31	PANEL, BACK (E)					
	* 4-943-823-51	PANEL, BACK (Saudi Arabia)					

MAIN

**SECTION 5
ELECTRICAL PARTS LIST**

NOTE :

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

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

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A..., uPA..., μ PA...,
uPB..., μ PB..., uPC..., μ PC...,
uPD..., μ PD...
- CAPACITORS:
uF: μ F
- COILS
uH: μ H

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
* A-4345-234-A		MAIN BOARD, COMPLETE (Germany)		C120	1-126-049-11	ELECT 22uF 20% 25V	
*****				C121	1-126-049-11	ELECT 22uF 20% 25V	
* A-4345-233-A		MAIN BOARD, COMPLETE (AEP, Italian)		C122	1-106-343-00	MYLAR 1000PF 5% 200V	
*****				C123	1-106-343-00	MYLAR 1000PF 5% 200V	
* A-4345-235-A		MAIN BOARD, COMPLETE (UK)		C126	1-164-070-11	CERAMIC 100PF 5% 50V	
*****				C128	1-136-153-00	FILM 0.01uF 5% 50V	
* A-4345-236-A		MAIN BOARD, COMPLETE (E, Saudi Arabia)		C129	1-164-014-11	CERAMIC 5PF 0.25PF 50V	
*****				C130	1-164-014-11	CERAMIC 5PF 0.25PF 50V	
* 1-533-213-31		HOLDER, FUSE (AEP, UK, Germany, Italian)		C131	1-136-153-00	FILM 0.01uF 5% 50V	
* 3-309-144-21		HEAT SINK		C132	1-136-153-00	FILM 0.01uF 5% 50V	
7-685-646-79		SCREW +BVTP 3X3 TYPE2 N-S		C133	1-124-587-11	ELECT 220uF 20% 6.3V	
(CAPACITOR)				C140	1-136-165-00	FILM 0.1uF 5% 50V	
C1	Δ 1-161-744-00	CERAMIC 0.01uF	400V	C141	1-126-049-11	ELECT 22uF 20% 25V	
C2	Δ 1-161-744-00	CERAMIC 0.01uF	400V	C142	1-164-159-11	CERAMIC 0.1uF 50V	
C3	Δ 1-161-741-00	CERAMIC 0.001uF 10%	400V	C143	1-136-165-00	FILM 0.1uF 5% 50V	
C4	Δ 1-161-741-00	CERAMIC 0.001uF 10%	400V	C201	1-126-049-11	ELECT 22uF 20% 25V	
C5	Δ 1-161-741-00	CERAMIC 0.001uF 10%	400V	C202	1-126-049-11	ELECT 22uF 20% 25V	
C6	Δ 1-161-741-00	CERAMIC 0.001uF 10%	400V	C203	1-136-153-00	FILM 0.01uF 5% 50V	
C7	Δ 1-161-741-00	CERAMIC 0.001uF 10%	400V	C204	1-126-059-11	ELECT 10uF 20% 50V	
C101	1-126-049-11	ELECT 22uF 20%	25V	C205	1-164-159-11	CERAMIC 0.1uF 50V	
C102	1-164-159-11	CERAMIC 0.1uF	50V	C206	1-126-049-11	ELECT 22uF 20% 25V	
C103	1-126-049-11	ELECT 22uF 20%	25V	C207	1-164-159-11	CERAMIC 0.1uF 50V	
C104	1-164-159-11	CERAMIC 0.1uF	50V	C208	1-126-049-11	ELECT 22uF 20% 25V	
C105	1-126-049-11	ELECT 22uF 20%	25V	C209	1-164-159-11	CERAMIC 0.1uF 50V	
C106	1-164-159-11	CERAMIC 0.1uF	50V	C210	1-126-049-11	ELECT 22uF 20% 25V	
C107	1-126-049-11	ELECT 22uF 20%	25V	C211	1-164-159-11	CERAMIC 0.1uF 50V	
C108	1-164-159-11	CERAMIC 0.1uF	50V	C212	1-164-159-11	CERAMIC 0.1uF 50V	
C109	1-136-153-00	FILM 0.01uF 5%	50V	C213	1-126-049-11	ELECT 22uF 20% 25V	
C110	1-136-165-00	FILM 0.1uF 5%	50V	C214	1-164-159-11	CERAMIC 0.1uF 50V	
C111	1-124-443-00	ELECT 100uF 20%	10V	C251	1-126-049-11	ELECT 22uF 20% 25V	
C112	1-164-159-11	CERAMIC 0.1uF	50V	C252	1-126-049-11	ELECT 22uF 20% 25V	
C113	1-136-153-00	FILM 0.01uF 5%	50V	C253	1-136-153-00	FILM 0.01uF 5% 50V	
C114	1-164-159-11	CERAMIC 0.1uF	50V	C301	1-126-049-11	ELECT 22uF 20% 25V	
C116	1-161-494-00	CERAMIC 0.022uF	25V	C302	1-136-153-00	FILM 0.01uF 5% 50V	
C117	1-124-443-00	ELECT 100uF 20%	10V	C303	1-102-960-00	CERAMIC 24PF 5% 50V	
C118	1-164-079-11	CERAMIC 330PF 10%	50V				
C119	1-136-165-00	FILM 0.1uF 5%	50V				

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
C304	1-102-960-00	CERAMIC	24PF 5% 50V	C460	1-164-077-11	CERAMIC	220PF 10% 50V
C305	1-124-443-00	ELECT	100uF 20% 10V	C461	1-164-077-11	CERAMIC	220PF 10% 50V
C308	1-164-159-11	CERAMIC	0.1uF 50V	C462	1-164-076-11	CERAMIC	180PF 10% 50V
C307	1-124-443-00	ELECT	100uF 20% 10V	C463	1-164-076-11	CERAMIC	180PF 10% 50V
C308	1-164-159-11	CERAMIC	0.1uF 50V	C464	1-126-049-11	ELECT	22uF 20% 25V
C309	1-164-159-11	CERAMIC	0.1uF 50V	C465	1-130-472-00	MYLAR	0.0012uF 5% 50V
C310	1-124-443-00	ELECT	100uF 20% 10V	C466	1-106-359-00	MYLAR	4700PF 5% 200V
C311	1-164-159-11	CERAMIC	0.1uF 50V	C467	1-126-049-11	ELECT	22uF 20% 25V
C312	1-124-587-11	ELECT	220uF 20% 6.3V	C468	1-164-066-11	CERAMIC	68PF 5% 50V
C313	1-136-153-00	FILM	0.01uF 5% 50V	C469	1-124-463-00	ELECT	0.1uF 20% 50V
C314	1-136-165-00	FILM	0.1uF 5% 50V	C470	1-124-463-00	ELECT	0.1uF 20% 50V
C315	1-164-027-11	CERAMIC	22PF 5% 50V	C471	1-124-463-00	ELECT	0.1uF 20% 50V
C316	1-161-494-00	CERAMIC	0.022uF 25V	C472	1-126-049-11	ELECT	22uF 20% 25V
C317	1-164-159-11	CERAMIC	0.1uF 50V	C473	1-126-163-11	ELECT	4.7uF 20% 50V
C318	1-164-159-11	CERAMIC	0.1uF 50V	C474	1-126-022-11	ELECT	47uF 20% 10V
C401	1-126-022-11	ELECT	47uF 20% 10V	C475	1-126-301-11	ELECT	1uF 20% 50V
C402	1-164-159-11	CERAMIC	0.1uF 50V	C501	1-126-059-11	ELECT	10uF 20% 50V
C403	1-164-159-11	CERAMIC	0.1uF 50V	C502	1-126-157-11	ELECT	10uF 20% 16V
C404	1-126-022-11	ELECT	47uF 20% 10V	C503	1-126-301-11	ELECT	1uF 20% 50V
C405	1-136-165-00	FILM	0.1uF 5% 50V	C504	1-126-301-11	ELECT	1uF 20% 50V
C406	1-126-022-11	ELECT	47uF 20% 10V	C505	1-126-177-11	ELECT	100uF 20% 10V
C407	1-136-165-00	FILM	0.1uF 5% 50V	C506	1-161-379-00	CERAMIC	0.01uF 20% 25V
C408	1-126-022-11	ELECT	47uF 20% 10V	C507	1-161-494-00	CERAMIC	0.022uF 25V
C409	1-164-159-11	CERAMIC	0.1uF 50V	C508	1-161-494-00	CERAMIC	0.022uF 25V
C410	1-164-077-11	CERAMIC	220PF 10% 50V	C509	1-161-494-00	CERAMIC	0.022uF 25V
C411	1-164-077-11	CERAMIC	220PF 10% 50V	C510	1-126-301-11	ELECT	1uF 20% 50V
C412	1-164-076-11	CERAMIC	180PF 10% 50V	C511	1-164-159-11	CERAMIC	0.1uF 50V
C413	1-164-076-11	CERAMIC	180PF 10% 50V	C512	1-164-159-11	CERAMIC	0.1uF 50V
C414	1-126-049-11	ELECT	22uF 20% 25V	C513	1-164-159-11	CERAMIC	0.1uF 50V
C415	1-130-472-00	MYLAR	0.0012uF 5% 50V	C514	1-164-159-11	CERAMIC	0.1uF 50V
C416	1-106-359-00	MYLAR	4700PF 5% 200V	C901	1-161-377-00	CERAMIC	0.0047uF 20% 50V
C417	1-126-049-11	ELECT	22uF 20% 25V	C902	1-161-377-00	CERAMIC	0.0047uF 20% 50V
C418	1-164-066-11	CERAMIC	68PF 5% 50V	C903	1-126-029-11	ELECT	3300uF 20% 25V
C419	1-124-463-00	ELECT	0.1uF 20% 50V	C904	1-126-029-11	ELECT	3300uF 20% 25V
C420	1-124-463-00	ELECT	0.1uF 20% 50V	C905	1-161-377-00	CERAMIC	0.0047uF 20% 50V
C421	1-124-463-00	ELECT	0.1uF 20% 50V	C906	1-126-029-11	ELECT	3300uF 20% 25V
C422	1-126-049-11	ELECT	22uF 20% 25V	C907	1-124-478-11	ELECT	100uF 20% 25V
C423	1-126-163-11	ELECT	4.7uF 20% 50V	C908	1-126-025-11	ELECT	330uF 20% 16V
C424	1-126-022-11	ELECT	47uF 20% 10V	C909	1-126-025-11	ELECT	330uF 20% 16V
C425	1-126-301-11	ELECT	1uF 20% 50V	C910	1-124-587-11	ELECT	220uF 20% 6.3V
C426	1-164-159-11	CERAMIC	0.1uF 50V	C911	1-124-910-11	ELECT	47uF 20% 50V
C427	1-164-159-11	CERAMIC	0.1uF 50V	C912	1-124-472-11	ELECT	470uF 20% 10V
C428	1-164-159-11	CERAMIC	0.1uF 50V	C913	1-124-482-11	ELECT	33uF 20% 35V
C429	1-164-159-11	CERAMIC	0.1uF 50V				(E, Saudi Arabia)
C430	1-164-159-11	CERAMIC	0.1uF 50V	C913	1-124-242-00	ELECT	33uF 20% 25V
							(AEP, UK, Germany, Italian)

MAIN

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
C914	1-126-059-11	ELECT 10uF 20% 50V		D508	8-719-912-20	DIODE 1SS120	
C915	1-126-059-11	ELECT 10uF 20% 50V		D509	8-719-000-75	DIODE UZL-7L1-TP	
C918	1-126-059-11	ELECT 10uF 20% 50V		D901	8-719-200-82	DIODE 11ES2	
C919	1-126-059-11	ELECT 10uF 20% 50V		D902	8-719-200-82	DIODE 11ES2	
				D903	8-719-200-82	DIODE 11ES2	
C920	1-124-472-11	ELECT 470uF 20% 10V					
C921	1-124-472-11	ELECT 470uF 20% 10V		D904	8-719-200-82	DIODE 11ES2	
C922	1-126-022-11	ELECT 47uF 20% 16V		D905	8-719-200-82	DIODE 11ES2	
C923	1-124-910-11	ELECT 47uF 20% 50V		D906	8-719-200-82	DIODE 11ES2	
C924	1-161-377-00	CERAMIC 0.0047uF 20% 50V		D907	8-719-200-82	DIODE 11ES2	
				D908	8-719-200-82	DIODE 11ES2	
C925	1-126-059-11	ELECT 10uF 20% 50V					
		(CONNECTOR)		D909	8-719-200-82	DIODE 11ES2	
BP1	1-535-139-00	BASE POST 22MM (10MM PITCH) 2P (AEP, UK, Germany, Italian)		D910	8-719-200-82	DIODE 11ES2	
	* 1-535-141-00	BASE POST 22MM (10MM PITCH) 4P (E, Saudi Arabia)		D911	8-719-200-82	DIODE 11ES2	
BP2	* 1-560-595-00	TERMINAL (WITH BASE) (E, Saudi Arabia)		D912	8-719-200-82	DIODE 11ES2	
				D913	8-719-200-82	DIODE 11ES2	
BP3	* 1-560-595-00	TERMINAL (WITH BASE) (E, Saudi Arabia)		D914	8-719-200-82	DIODE 11ES2	
CN1	* 1-564-321-00	PIN, CONNECTOR 2P		D915	8-719-912-20	DIODE 1SS120	
CN101	* 1-564-506-11	PLUG, CONNECTOR 3P		D916	8-719-002-06	DIODE UZL-18L	
CN102	* 1-564-505-11	PLUG, CONNECTOR 2P		D917	8-719-200-82	DIODE 11ES2	
CN103	* 1-564-508-11	PLUG, CONNECTOR 5P		D918	8-719-200-82	DIODE 11ES2	
CN201	1-573-520-11	JACK, PIN 4P (LINE)				(FERRITE BEAD)	
CN501	1-569-406-11	SOCKET, CONNECTOR 10P		FB101	1-410-396-41	FERRITE BEAD INDUCTOR	
CN502	* 1-565-561-11	PIN, CONNECTOR 3P (AU BUS)		FB102	1-410-397-21	FERRITE BEAD INDUCTOR	
CN901	* 1-564-506-11	PLUG, CONNECTOR 3P		FB301	1-410-397-21	FERRITE BEAD INDUCTOR	
		(DIODE)		FB501	1-410-397-21	FERRITE BEAD INDUCTOR	
D102	8-713-300-88	DIODE 1T33C-01		FB502	1-410-397-21	FERRITE BEAD INDUCTOR	
D103	8-713-300-88	DIODE 1T33C-01				(IC)	
D104	8-713-300-88	DIODE 1T33C-01		IC101	8-749-921-11	IC GP1F32R (IN/BS)	
D105	8-713-300-88	DIODE 1T33C-01		IC102	8-749-921-11	IC GP1F32R (IN/DAT)	
D201	8-719-912-20	DIODE 1SS120		IC103	8-749-921-11	IC GP1F32R (IN/CD)	
				IC104	8-749-921-12	IC GP1F32T (OUT/DAT)	
D202	8-719-912-20	DIODE 1SS120		IC105	8-759-512-96	IC CXD2905Q	
D203	8-719-912-20	DIODE 1SS120					
D205	8-719-912-20	DIODE 1SS120		IC106	8-759-990-82	IC TL082CP	
D401	8-719-912-20	DIODE 1SS120		IC107	8-759-517-14	IC MB625473PF-G	
D501	8-719-912-20	DIODE 1SS120		IC108	8-752-306-51	IC CX23065A	
				IC201	8-759-634-51	IC M5218AP	
D502	8-719-933-36	DIODE HZS681L		IC202	8-759-504-36	IC CS5339-KP	
D503	8-719-912-20	DIODE 1SS120					
D505	8-719-912-20	DIODE 1SS120		IC301	8-759-511-68	IC CXD8245M	
D506	8-719-912-20	DIODE 1SS120		IC302	8-752-331-87	IC CXD1160AP	
D507	8-719-912-20	DIODE 1SS120		IC303	8-752-331-87	IC CXD1160AP	
				IC304	8-759-973-04	IC MSM41464-10RS-K	
				IC305	8-752-341-99	IC CXD2701Q	

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
IC306	8-752-342-65	IC	CXD2560M	Q410	8-729-900-36	TRANSISTOR	DTC124ES
IC401	8-752-343-01	IC	CXD2561M	Q411	8-729-141-30	TRANSISTOR	2SC3623A-LK
IC402	8-759-990-82	IC	TL082CP	Q412	8-729-900-36	TRANSISTOR	DTC124ES
IC403	8-759-634-51	IC	M5218AP	Q413	8-729-900-61	TRANSISTOR	DTA114ES
IC404	8-759-634-51	IC	M5218AP	Q451	8-729-141-30	TRANSISTOR	2SC3623A-LK
IC501	8-759-323-77	IC	HD63B01Y0RAE0P	Q452	8-729-141-30	TRANSISTOR	2SC3623A-LK
IC901	8-759-604-33	IC	M5F7812L	Q453	8-729-141-30	TRANSISTOR	2SC3623A-LK
IC902	8-759-604-51	IC	M5F7912L	Q454	8-729-141-30	TRANSISTOR	2SC3623A-LK
IC903	8-759-231-53	IC	TA7805S	Q459	8-729-119-76	TRANSISTOR	2SA1175-HFE
IC906	8-759-604-33	IC	M5F7812L	Q460	8-729-900-36	TRANSISTOR	DTC124ES
IC907	8-759-231-53	IC	TA7805S	Q461	8-729-141-30	TRANSISTOR	2SC3623A-LK
IC908	8-759-245-79	IC	TA7905S	Q501	8-729-119-76	TRANSISTOR	2SA1175-HFE
ICP901	△1-532-845-41	IC, LINK		Q502	8-729-620-05	TRANSISTOR	2SC2603-EF
ICP902	△1-532-840-41	IC, LINK		Q503	8-729-620-05	TRANSISTOR	2SC2603-EF
ICP903	△1-532-840-41	IC, LINK		Q504	8-729-620-05	TRANSISTOR	2SC2603-EF
ICP904	△1-532-833-41	IC, LINK		Q505	8-729-620-05	TRANSISTOR	2SC2603-EF
		(COIL)		Q901	8-729-118-01	TRANSISTOR	2SB1116-K
L101	1-410-517-11	INDUCTOR	47uH	Q902	8-729-900-36	TRANSISTOR	DTC124ES
L102	1-410-324-11	INDUCTOR	4.7uH	Q903	8-729-118-01	TRANSISTOR	2SB1116-K
L103	1-406-416-11	COIL (OSC)				(RESISTOR)	
L104	1-410-517-11	INDUCTOR	47uH	R101	1-249-425-11	CARBON	4.7K 5% 1/4W
L201	1-410-517-11	INDUCTOR	47uH	R102	1-249-425-11	CARBON	4.7K 5% 1/4W
L301	1-410-517-11	INDUCTOR	47uH	R103	1-249-425-11	CARBON	4.7K 5% 1/4W
L302	1-410-517-11	INDUCTOR	47uH	R104	1-249-433-11	CARBON	22K 5% 1/4W
L303	1-410-517-11	INDUCTOR	47uH	R105	1-249-405-11	CARBON	100 5% 1/4W
L304	1-410-517-11	INDUCTOR	47uH	R106	1-249-405-11	CARBON	100 5% 1/4W
L305	1-410-324-11	INDUCTOR	4.7uH	R108	1-249-413-11	CARBON	470 5% 1/4W
		(FILTER)		R111	1-249-413-11	CARBON	470 5% 1/4W
LF1	1-424-117-11	FILTER, LINE		R112	1-249-411-11	CARBON	330 5% 1/4W
LF101	1-424-543-21	FILTER, NOISE		R113	1-249-425-11	CARBON	4.7K 5% 1/4W
LF102	1-424-544-21	FILTER, NOISE		R114	1-249-421-11	CARBON	2.2K 5% 1/4W
LF501	1-424-543-21	FILTER, NOISE		R115	1-249-431-11	CARBON	15K 5% 1/4W
LF502	1-424-543-21	FILTER, NOISE		R116	1-249-429-11	CARBON	10K 5% 1/4W
		(TRANSISTOR)		R117	1-249-429-11	CARBON	10K 5% 1/4W
Q201	8-729-900-36	TRANSISTOR	DTC124ES	R118	1-249-437-11	CARBON	47K 5% 1/4W
Q401	8-729-141-30	TRANSISTOR	2SC3623A-LK	R119	1-249-437-11	CARBON	47K 5% 1/4W
Q402	8-729-141-30	TRANSISTOR	2SC3623A-LK	R120	1-247-903-00	CARBON	1M 5% 1/4W
Q403	8-729-141-30	TRANSISTOR	2SC3623A-LK	R121	1-249-437-11	CARBON	47K 5% 1/4W
Q404	8-729-141-30	TRANSISTOR	2SC3623A-LK	R122	1-249-433-11	CARBON	22K 5% 1/4W
Q405	8-729-900-63	TRANSISTOR	DTA124ES	R123	1-249-413-11	CARBON	470 5% 1/4W
Q407	8-729-900-63	TRANSISTOR	DTA124ES	R124	1-249-413-11	CARBON	470 5% 1/4W
Q408	8-729-900-63	TRANSISTOR	DTA124ES	R201	1-249-417-11	CARBON	1K 5% 1/4W
Q409	8-729-119-76	TRANSISTOR	2SA1175-HFE	R202	1-249-437-11	CARBON	47K 5% 1/4W
				R203	1-249-425-11	CARBON	4.7K 5% 1/4W
				R204	1-249-418-11	CARBON	1.2K 5% 1/4W

Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

MAIN

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
R205	1-249-405-11	CARBON	100 5% 1/4W	R426	1-249-414-11	CARBON	560 5% 1/4W
R206	1-249-401-11	CARBON	47 5% 1/4W	R427	1-249-425-11	CARBON	4.7K 5% 1/4W
R207	1-249-393-11	CARBON	10 5% 1/4W	R428	1-249-420-11	CARBON	1.8K 5% 1/4W
R208	1-249-433-11	CARBON	22K 5% 1/4W	R429	1-249-441-11	CARBON	100K 5% 1/4W
R209	1-249-413-11	CARBON	470 5% 1/4W	R430	1-249-441-11	CARBON	100K 5% 1/4W
R251	1-249-417-11	CARBON	1K 5% 1/4W	R431	1-249-425-11	CARBON	4.7K 5% 1/4W
R252	1-249-437-11	CARBON	47K 5% 1/4W	R432	1-249-441-11	CARBON	100K 5% 1/4W
R253	1-249-425-11	CARBON	4.7K 5% 1/4W	R433	1-249-441-11	CARBON	100K 5% 1/4W
R254	1-249-418-11	CARBON	1.2K 5% 1/4W	R434	1-249-441-11	CARBON	100K 5% 1/4W
R255	1-249-405-11	CARBON	100 5% 1/4W	R435	1-249-441-11	CARBON	100K 5% 1/4W
R256	1-249-401-11	CARBON	47 5% 1/4W	R436	1-249-393-11	CARBON	10 5% 1/4W
R301	1-249-407-11	CARBON	150 5% 1/4W	R437	1-249-433-11	CARBON	22K 5% 1/4W
R302	1-249-409-11	CARBON	220 5% 1/4W	R438	1-249-429-11	CARBON	10K 5% 1/4W
R303	1-247-903-00	CARBON	1M 5% 1/4W	R440	1-249-425-11	CARBON	4.7K 5% 1/4W
R304	1-249-413-11	CARBON	470 5% 1/4W	R441	1-249-429-11	CARBON	10K 5% 1/4W
R305	1-249-413-11	CARBON	470 5% 1/4W	R445	1-249-425-11	CARBON	4.7K 5% 1/4W
R307	1-249-413-11	CARBON	470 5% 1/4W	R451	1-249-428-11	CARBON	8.2K 5% 1/4W
R308	1-249-413-11	CARBON	470 5% 1/4W	R452	1-249-428-11	CARBON	8.2K 5% 1/4W
R309	1-249-413-11	CARBON	470 5% 1/4W	R453	1-249-428-11	CARBON	8.2K 5% 1/4W
R310	1-249-413-11	CARBON	470 5% 1/4W	R454	1-249-428-11	CARBON	8.2K 5% 1/4W
R311	1-249-413-11	CARBON	470 5% 1/4W	R455	1-249-423-11	CARBON	3.3K 5% 1/4W
R312	1-249-413-11	CARBON	470 5% 1/4W	R456	1-249-423-11	CARBON	3.3K 5% 1/4W
R313	1-249-413-11	CARBON	470 5% 1/4W	R457	1-249-430-11	CARBON	12K 5% 1/4W
R314	1-249-413-11	CARBON	470 5% 1/4W	R458	1-249-430-11	CARBON	12K 5% 1/4W
R315	1-249-413-11	CARBON	470 5% 1/4W	R459	1-249-419-11	CARBON	1.5K 5% 1/4W
R316	1-249-413-11	CARBON	470 5% 1/4W	R460	1-249-419-11	CARBON	1.5K 5% 1/4W
R401	1-249-428-11	CARBON	8.2K 5% 1/4W	R461	1-249-419-11	CARBON	1.5K 5% 1/4W
R402	1-249-428-11	CARBON	8.2K 5% 1/4W	R468	1-249-441-11	CARBON	100K 5% 1/4W
R403	1-249-428-11	CARBON	8.2K 5% 1/4W	R469	1-249-425-11	CARBON	4.7K 5% 1/4W
R404	1-249-428-11	CARBON	8.2K 5% 1/4W	R470	1-249-426-11	CARBON	5.6K 5% 1/4W
R405	1-249-423-11	CARBON	3.3K 5% 1/4W	R471	1-249-425-11	CARBON	4.7K 5% 1/4W
R406	1-249-423-11	CARBON	3.3K 5% 1/4W	R472	1-249-423-11	CARBON	3.3K 5% 1/4W
R407	1-249-430-11	CARBON	12K 5% 1/4W	R473	1-249-419-11	CARBON	1.5K 5% 1/4W
R408	1-249-430-11	CARBON	12K 5% 1/4W	R474	1-249-425-11	CARBON	4.7K 5% 1/4W
R409	1-249-419-11	CARBON	1.5K 5% 1/4W	R475	1-249-421-11	CARBON	2.2K 5% 1/4W
R410	1-249-419-11	CARBON	1.5K 5% 1/4W	R476	1-249-414-11	CARBON	560 5% 1/4W
R411	1-249-419-11	CARBON	1.5K 5% 1/4W	R477	1-249-425-11	CARBON	4.7K 5% 1/4W
R418	1-249-441-11	CARBON	100K 5% 1/4W	R478	1-249-420-11	CARBON	1.8K 5% 1/4W
R419	1-249-425-11	CARBON	4.7K 5% 1/4W	R479	1-249-441-11	CARBON	100K 5% 1/4W
R420	1-249-426-11	CARBON	5.6K 5% 1/4W	R480	1-249-441-11	CARBON	100K 5% 1/4W
R421	1-249-425-11	CARBON	4.7K 5% 1/4W	R481	1-249-425-11	CARBON	4.7K 5% 1/4W
R422	1-249-423-11	CARBON	3.3K 5% 1/4W	R485	1-249-441-11	CARBON	100K 5% 1/4W
R423	1-249-419-11	CARBON	1.5K 5% 1/4W	R487	1-249-433-11	CARBON	22K 5% 1/4W
R424	1-249-425-11	CARBON	4.7K 5% 1/4W	R488	1-249-429-11	CARBON	10K 5% 1/4W
R425	1-249-421-11	CARBON	2.2K 5% 1/4W	R490	1-249-425-11	CARBON	4.7K 5% 1/4W

MAIN	PANEL A
------	---------

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
R495	1-249-425-11	CARBON 4.7K 5% 1/4W		* 4-941-541-01	HOLDER (2-2), LED		
R502	1-249-428-11	CARBON 8.2K 5% 1/4W		* 4-942-783-01	HOLDER		
R503	1-249-420-11	CARBON 1.8K 5% 1/4W					
R504	1-249-429-11	CARBON 10K 5% 1/4W			< CAPACITOR >		
R505	1-249-429-11	CARBON 10K 5% 1/4W		C601	1-126-049-11	ELECT 22uF 20% 25V	
R506	1-249-429-11	CARBON 10K 5% 1/4W		C602	1-126-049-11	ELECT 22uF 20% 25V	
R507	1-249-433-11	CARBON 22K 5% 1/4W		C603	1-136-165-00	FILM 0.1uF 5% 50V	
R508	1-249-429-11	CARBON 10K 5% 1/4W		C604	1-136-165-00	FILM 0.1uF 5% 50V	
R509	1-249-429-11	CARBON 10K 5% 1/4W		C605	1-126-049-11	ELECT 22uF 20% 25V	
R510	1-249-441-11	CARBON 100K 5% 1/4W		C606	1-126-162-11	ELECT 3.3uF 20% 50V	
R511	1-249-422-11	CARBON 2.7K 5% 1/4W		C607	1-126-049-11	ELECT 22uF 20% 25V	
R512	1-249-425-11	CARBON 4.7K 5% 1/4W		C608	1-126-049-11	ELECT 22uF 20% 25V	
R513	1-249-429-11	CARBON 10K 5% 1/4W		C609	1-106-351-00	MYLAR 2200PF 5% 200V	
R514	1-249-437-11	CARBON 47K 5% 1/4W		C610	1-106-343-00	MYLAR 1000PF 5% 200V	
R515	1-249-425-11	CARBON 4.7K 5% 1/4W		C613	1-126-049-11	ELECT 22uF 20% 25V	
R516	1-249-429-11	CARBON 10K 5% 1/4W		C701	1-125-486-11	DUBLE LAYERS 0.22F 5.5V	
R517	1-249-417-11	CARBON 1K 5% 1/4W		C702	1-126-059-11	ELECT 10uF 20% 50V	
R518	1-249-425-11	CARBON 4.7K 5% 1/4W		C703	1-161-379-00	CERAMIC 0.01uF 20% 25V	
R519	1-249-429-11	CARBON 10K 5% 1/4W		C704	1-126-059-11	ELECT 10uF 20% 50V	
R520	1-249-393-11	CARBON 10 5% 1/4W		C705	1-161-379-00	CERAMIC 0.01uF 20% 25V	
R521	1-249-417-11	CARBON 1K 5% 1/4W		C706	1-126-059-11	ELECT 10uF 20% 50V	
R522	1-249-425-11	CARBON 4.7K 5% 1/4W		C707	1-161-379-00	CERAMIC 0.01uF 20% 25V	
R523	1-249-425-11	CARBON 4.7K 5% 1/4W		C708	1-161-494-00	CERAMIC 0.022uF 25V	
R524	1-249-425-11	CARBON 4.7K 5% 1/4W		C709	1-161-494-00	CERAMIC 0.022uF 25V	
R904	1-249-428-11	CARBON 8.2K 5% 1/4W		C712	1-161-379-00	CERAMIC 0.01uF 20% 25V	
R905	1-249-422-11	CARBON 2.7K 5% 1/4W		C713	1-161-379-00	CERAMIC 0.01uF 20% 25V	
R906	1-249-437-11	CARBON 47K 5% 1/4W		C714	1-126-059-11	ELECT 10uF 20% 50V	
		< SWITCH >		C715	1-126-162-11	ELECT 3.3uF 20% 50V	
S1	△1-572-716-11	SWITCH, PUSH (AC POWER)		C716	1-126-162-11	ELECT 3.3uF 20% 50V	
		< VIBRATOR >		C717	1-126-162-11	ELECT 3.3uF 20% 50V	
X101	1-579-069-11	VIBRATOR, CRYSTAL 48.152MHz		C718	1-126-162-11	ELECT 3.3uF 20% 50V	
X301	1-577-614-11	VIBRATOR, CRYSTAL 16.345MHz		C719	1-126-162-11	ELECT 3.3uF 20% 50V	
X501	1-579-125-11	VIBRATOR, CERAMIC 8MHz		C720	1-126-059-11	ELECT 10uF 20% 50V	
		*****		C721	1-126-059-11	ELECT 10uF 20% 50V	
	* A-4345-232-A	PANEL A BOARD, COMPLETE		C722	1-126-049-11	ELECT 22uF 20% 25V	
		*****		C723	1-126-059-11	ELECT 10uF 20% 50V	
	* 1-637-045-11	PANEL B BOARD		C724	1-161-494-00	CERAMIC 0.022uF 25V	
	* 1-637-939-11	LAMP HOLDER BOARD		C801	1-164-159-11	CERAMIC 0.1uF 50V	
	* 4-941-534-01	HOLDER (1), LED			< CONNECTOR >		
	* 4-941-535-01	HOLDER (2-1), LED		CN551	1-569-400-11	PLUG, CONNECTOR 10P	
	* 4-941-536-01	HOLDER (3), LED		CN701	* 1-568-828-11	SOCKET, CONNECTOR 9P	
				CN702	* 1-580-409-11	SOCKET, CONNECTOR 15P	
				CN751	* 1-568-828-11	SOCKET, CONNECTOR 9P	
				CN801	* 1-564-506-11	PLUG, CONNECTOR 3P	

Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

PANEL A

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
		(TRANSFORMER)				(IC)	
CP801	1-239-021-11	ENCAPSULATED COMPONENT		IC601	8-759-945-58	IC RC4558P	
		(DIODE)		IC602	8-759-991-11	IC XR1091DCP	
D601	8-719-912-20	DIODE 1SS120		IC603	8-759-991-11	IC XR1091DCP	
D602	8-719-912-20	DIODE 1SS120		IC604	8-759-007-19	IC MC74HC4051N	
D603	8-719-933-36	DIODE HZS681L		IC605	8-759-007-19	IC MC74HC4051N	
D604	8-719-933-36	DIODE HZS681L		IC701	8-759-323-78	IC HD6435328RR05F	
D605	8-719-912-20	DIODE 1SS120		IC702	8-759-502-88	IC SED1330FBB	
D701	8-719-200-82	DIODE 11ES2		IC703	8-759-502-08	IC MSM5165AL-10RS	
D702	8-719-912-20	DIODE 1SS120		IC704	8-759-916-21	IC SN74HC20AN	
D703	8-719-912-20	DIODE 1SS120		IC705	8-759-945-58	IC RC4558P	
D704	8-719-912-20	DIODE 1SS120		IC706	8-759-823-29	IC LA5316M	
D705	8-719-912-20	DIODE 1SS120				(FLUORESCENT TUBE)	
D706	8-719-912-20	DIODE 1SS120		PL801	1-519-653-11	GAS DISCHARGE TUBE, FLUORESCENT	
D707	8-719-912-20	DIODE 1SS120				(TRANSISTOR)	
D708	8-719-912-20	DIODE 1SS120		Q601	8-729-900-36	TRANSISTOR DTC124ES	
D709	8-719-912-20	DIODE 1SS120		Q701	8-729-119-76	TRANSISTOR 2SA1175-HFE	
D710	8-719-912-20	DIODE 1SS120		Q702	8-729-119-76	TRANSISTOR 2SA1175-HFE	
D711	8-719-912-20	DIODE 1SS120		Q703	8-729-620-05	TRANSISTOR 2SC2603-EF	
D712	8-719-912-20	DIODE 1SS120		Q704	8-729-620-05	TRANSISTOR 2SC2603-EF	
D713	8-719-912-20	DIODE 1SS120		Q705	8-729-620-05	TRANSISTOR 2SC2603-EF	
D717	8-719-912-20	DIODE 1SS120		Q706	8-729-620-05	TRANSISTOR 2SC2603-EF	
D721	8-719-301-38	DIODE SEL2210S-C (EFFECT)		Q707	8-729-620-05	TRANSISTOR 2SC2603-EF	
D723	8-719-301-38	DIODE SEL2210S-C (PERSONAL FILE)		Q708	8-729-620-05	TRANSISTOR 2SC2603-EF	
D724	8-719-301-38	DIODE SEL2210S-C (F3)		Q709	8-729-620-05	TRANSISTOR 2SC2603-EF	
D725	8-719-301-38	DIODE SEL2210S-C (MORE 10)		Q710	8-729-620-05	TRANSISTOR 2SC2603-EF	
D726	8-719-301-38	DIODE SEL2210S-C (CONTROL)		Q711	8-729-620-05	TRANSISTOR 2SC2603-EF	
D727	8-719-301-38	DIODE SEL2210S-C (F1)		Q801	8-729-119-76	TRANSISTOR 2SA1175-HFE	
D728	8-719-301-38	DIODE SEL2210S-C (EFFECT LEVEL)				(RESISTOR)	
D729	8-719-301-38	DIODE SEL2210S-C (CHARACTER EDIT)		R601	1-249-439-11	CARBON 68K 5% 1/4W	
D730	8-719-301-38	DIODE SEL2210S-C (F2)		R602	1-249-438-11	CARBON 56K 5% 1/4W	
D731	8-719-301-38	DIODE SEL2210S-C (SELECT 10)		R603	1-249-423-11	CARBON 3.3K 5% 1/4W	
D732	8-719-301-38	DIODE SEL2210S-C (CONTROL)		R604	1-247-899-11	CARBON 680K 5% 1/4W	
D801	8-719-304-37	DIODE SEL4414E-C		R605	1-247-903-00	CARBON 1M 5% 1/4W	
D802	8-719-304-37	DIODE SEL4414E-C		R606	1-249-421-11	CARBON 2.2K 5% 1/4W	
D803	8-719-304-37	DIODE SEL4414E-C		R607	1-249-441-11	CARBON 100K 5% 1/4W	
D804	8-719-304-37	DIODE SEL4414E-C		R608	1-249-425-11	CARBON 4.7K 5% 1/4W	
D805	8-719-304-37	DIODE SEL4414E-C		R609	1-249-425-11	CARBON 4.7K 5% 1/4W	
D806	8-719-304-37	DIODE SEL4414E-C		R610	1-249-419-11	CARBON 1.5K 5% 1/4W	
D807	8-719-304-37	DIODE SEL4414E-C					
D808	8-719-304-37	DIODE SEL4414E-C					

PANEL A

Ref. No.	Part No.	Description	Remarks
S764	1-554-303-21	SWITCH, TACTILE (2)	
S765	1-554-303-21	SWITCH, TACTILE (MORE 10)	
S770	1-554-303-21	SWITCH, TACTILE (CONTROL)	
S771	1-554-303-21	SWITCH, TACTILE (CONTROL)	
S772	1-554-303-21	SWITCH, TACTILE (F1)	
S773	1-554-303-21	SWITCH, TACTILE (6)	
S774	1-554-303-21	SWITCH, TACTILE (1)	
S775	1-554-303-21	SWITCH, TACTILE (SELECT 10)	
		(VIBRATOR)	
X701	1-577-364-11	VIBRATOR, CERAMIC 12MHz	
X702	1-579-175-11	VIBRATOR, CERAMIC 10MHz	

		MISCELLANEOUS	



5	1-575-216-11	WIRE, FLAT TYPE (9 CORE)	
CNJ101	△1-526-751-00	OUTLET, AC (UK)	
	△1-526-794-11	OUTLET, AC (AEP, Germany, Italian, Saudi Arabia)	
	1-526-882-00	OUTLET, AC (E)	
CNP1	△1-575-651-11	CORD, POWER (AEP, Germany, Italian)	
	△1-575-654-11	CORD, POWER (Saudi Arabia)	
	△1-575-656-11	CORD, POWER (E)	
	△1-575-669-21	CORD, POWER (UK)	
F101	△1-532-259-00	FUSE, TIME-LAG (AEP, UK, Germany, Italian) (1.5A)	
LCD901	1-809-202-11	DISPLAY PANEL, LIQUID CRYSTAL	
SV701	△1-570-046-21	SWITCH, VOLTAGE CHANGE (E, Saudi Arabia)	
T101	△1-450-596-11	TRANSFORMER, POWER (AEP, Germany, Italian)	
	△1-450-597-11	TRANSFORMER, POWER (UK)	
	△1-450-598-11	TRANSFORMER, POWER (E, Saudi Arabia)	

Ref. No.	Part No.	Description	Remarks
		ACCESSORY & PACKING MATERIAL	

	1-558-271-11	CORD, CONNECTION (AEP, Germany, Italian)	
	1-559-533-11	CORD, CONNECTION (AEP, Germany, Italian)	
	1-574-264-11	CORD, LIGHT PLUG (AEP, Germany, Italian)	
	3-701-630-00	BAG, POLYETHYLENE (Germany, Italian)	
	3-753-428-11	MANUAL, INSTRUCTION (English, French, Spanish, Portuguese) (AEP)	
	3-753-428-41	MANUAL, INSTRUCTION (Germany, Dutch, Swedish, Italian) (AEP, Germany, Italian)	
*	4-941-928-01	CUSHION (FRONT) (UK, E, Saudi Arabia)	
*	4-941-929-01	CUSHION (REAR) (UK, E, Saudi Arabia)	
*	4-944-163-01	CUSHION (AEP, Germany, Italian)	
*	4-946-091-01	INDIVIDUAL CARTON (AEP, Germany, Italian)	

		HARDWARE LIST	

# 1	7-685-134-19	SCREW #BTP 2.6X8 TYPE2 N-S	
# 2	7-685-646-79	SCREW #BVTP 3X8 TYPE2 N-S	

Note: The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.