

HITACHI

SERVICE MANUAL

TY

No. 405EGF

D-E4

(U,C,VK,BS,SA,W)

FZ-21A chassis

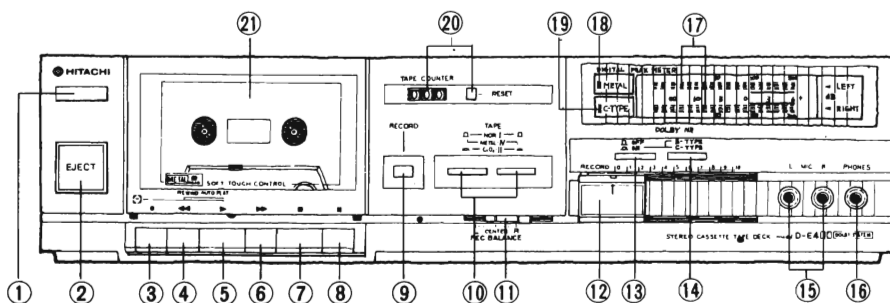
This manual indicates only those portions which differ from Service Manual No. 368EGF (D-E2), since the contents are the same as the D-E2 except the parts described below. Then this model has two colors of silver and black.

When servicing this model, it is strongly recommended that this manual be used together with Manual No. 368EGF.

Dieses Handbuch enthält nur die Teile, die sich vom Wartungs-Handbuch Nr. 368EGF (D-E2) unterscheiden. Der Inhalt gleicht dem D-E2 mit Ausnahme der unten beschriebenen Teile. Dieses Modell ist in den beiden Farben Silber und Schwarz erhältlich. Bei Wartungsarbeiten an diesem Modell wird empfohlen, dieses Handbuch zusammen mit dem Handbuch Nr. 368EGF zu verwenden.

Ce manuel n'indique que les parties qui diffèrent du Manuel de Service No. 368EGF (D-E2), car le contenu est identique à celui du D-E2, sauf les parties décrites ci-après. Ce modèle présente deux couleurs, argent et noir. Pour l'entretien de ce modèle, il est vivement conseillé d'utiliser ce manuel ensemble avec le Manuel No. 368EGF.

RECEIVED JUN 2 5 1984



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- ① POWER STAND-BY SWITCH
- ② EJECT BUTTON
- ③ RECORD BUTTON
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- ⑥ FAST FORWARD BUTTON
- ⑦ STOP BUTTON
- ⑧ PAUSE BUTTON
- ⑨ RECORDING INDICATOR
- ⑩ TAPE SELECT SWITCHES
- ⑪ RECORDING BALANCE CONTROL
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- ⑲ DOLBY* C-TYPE INDICATOR
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- ㉑ CASSETTE HOLDER

Regler und Bedienungselemente

- ① Netz/Bereitschafts-Schalter
- ② Auswurfaste
- ③ Aufnahmetaste
- ④ Rücklauftaste
- ⑤ Weidergabetaste
- ⑥ Schnellvorlauftaste
- ⑦ Stoptaste
- ⑧ Pausetaste
- ⑨ Aufnahmeanzeige
- ⑩ Bandsortenwähler
- ⑪ Aufnahme-Balanceregler
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- ⑬ Dolby*-NR-Schalter
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- ⑮ Mikrofonbuchsen
- ⑯ Kopfhörerbuchse
- ⑰ Pegelmesser
- ⑱ Metallband-Anzeige
- ⑲ Dolby C*-Anzeige
- ⑳ Bandzählwerk/Rückstellaste
- ㉑ Cassetlenhalter

Guide des illustrations

- ① Interrupteur stand-by (attente) d'alimentation
- ② Touche d'éjection
- ③ Touche d'enregistrement
- ④ Touche de rebobinage
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- ⑩ Sélecteurs de bande
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- ⑬ Interrupteur de Dolby* NR
- ⑭ Sélecteur dolby B/C NR
- ⑮ Prises de microphone
- ⑯ Prise de casque d'écoute
- ⑰ Indicateurs de niveau
- ⑱ Indicateur de bande métallique
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- ⑳ Touche de compteur de repérage/remise sur zéro
- ㉑ Trappe à cassette

SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT.

STEREO CASSETTE TAPE DECK

March 1984

TOYOKAWA WORKS

SAFETY PRECAUTIONS

The following precautions should be observed when servicing

1. Since many parts in the unit have special safety related characteristics, always use genuine Hitachi's replacement parts. Especially critical parts in the power circuit block should not be replaced with other makers. Critical parts are marked with Δ in the circuit diagram.
2. Before returning a repaired unit to the customer, the service technician must thoroughly test the unit to ascertain that it is completely safe to operate without danger of electrical shock.

SPECIFICATIONS

| | | | |
|---|---|---|--|
| Track System: | 4 track 2 channel stereo | Input Sensitivity and Impedance: | Line in: 80 mV, 50 kohms Microphone: 0.4 mV (Suitable microphone impedance 300 ohms to 5 kohms) |
| Tape: | Cassette tape | Output Level and Impedance: | Line out: 500 mV (Suitable Load Impedance 50 kohms or more) Headphone: 60 mV (8 ohms) (Suitable Load Impedance 8 ohms to 2 kohms) |
| Tape Speed: | 4.75 cm/s | Distortion: | 1% (1 kHz, 160 nWb/m) |
| Recording System and Bias Frequency: | AC bias, 85 kHz | Crosstalk: | 60 dB (at 1 kHz) or more |
| Erasing System: | AC erase | Power Supply: | AC 120 V, 60 Hz (U, C) ~ 220 V, 50 Hz (VK) ~ 240 V, 50 Hz (BS, SA) ~ 110-120 V / 200-240 V 50, 60 Hz (W) |
| Erase Ratio: | 65 dB (at 1 kHz) or more | Power Consumption: | 9.5 W (Except W) 10W (for W) |
| Frequency Response: | NOR-I: 20 Hz to 15 kHz 30 Hz to 14 kHz (± 3 dB)* CrO ₂ -II: 20 Hz to 16 kHz 30 Hz to 15 kHz (± 3 dB)* METAL-IV: 20 Hz to 17 kHz 30 Hz to 16 kHz (± 3 dB)* | Dimensions: | 435 (W) x 110 (H) x 218 (D) mm |
| Signal to Noise Ratio: | Dolby NR OFF: 58 dB Dolby B NR ON: 66 dB Dolby C NR ON: 72 dB (A weighted, Reference 3% T.H.D.) Dolby NR OFF: 57 dB* Dolby B NR ON: 65 dB* Dolby C NR ON: 71 dB* | Weight: | 3.3 kg |
| Wow and flutter: | 0.07% (WRMS) 0.2%* | | |

* According to DIN 45 500

Specifications are subject to change without notice for performance improvement.

SICHERHEITSMASSNAHMEN

Bei Wartungsarbeiten sind die folgenden Sicherheitsmaßnahmen zu beachten.

1. Da verschiedene Teile dieses Gerätes Sicherheitsfunktionen aufweisen, nur Original-Hitachi-Ersatzteile verwenden. Kritische Teile im Netzteil sollten nicht durch ähnliche Teile anderer Hersteller ersetzt werden. Alle kritischen Teile sind im Schaltplan mit dem Symbol Δ gekennzeichnet.
2. Vor der Auslieferung eines reparierten Gerätes an den Kunden muß der Wartungstechniker das Gerät einer gründlichen Prüfung unterziehen, um sicherzustellen, daß sicherer Betrieb ohne die Gefahr von elektrischen Schlägen gewährleistet ist.

TECHNISCHE DATEN

| | | | |
|---|---|---|---|
| Spursystem: | 4-Spur, 2-Kanal-Stereo | Eingangsempfindlichkeit und -Impedanz: | LINE IN: 80 mV, 50 kOhm oder mehr Mikrofon: 0,4 mV (Geeignete Mikrofon-Impedanz 300 Ohm bis 5 kOhm) |
| Tonband: | Cassetten-Tonband | Ausgangspegel und Impedanz: | LINE OUT: 500 mV (Geeignete Lastimpedanz 50 kOhm oder mehr) Kopfhörer: 60 mV (8 Ohm) (Geeignete Lastimpedanz 8 Ohm bis 2 kOhm) |
| Bandlaufgeschwindigkeit: | 4,75 cm/s | Klirrgrad: | Weniger als 1,0% (1 kHz, 160 nWb/m) |
| Aufnahmesystem und Vormagnetisierungsfrequenz: | HF-Vormagnetisierung, 85 kHz | Übersprechdämpfung: | 60 dB (bei 1 kHz) oder mehr |
| Löschsystem: | HF-Löschung | Spannungsversorgung: | Netz 120 V, 60 Hz (U, C) ~ 220 V, 50 Hz (VK) ~ 240 V, 50 Hz (BS, SA) ~ 110-120 V / 200-240 V, 50, 60 Hz (W) |
| Löschdämpfung: | 65 dB (bei 1 kHz) oder mehr | Leistungsaufnahme: | 9,5 W (Außer W) 10W (für W) |
| Frequenzgang: | NOR-I: 20 Hz bis 15 kHz 30 Hz bis 14 kHz (± 3 dB)* CrO ₂ -II: 20 Hz bis 16 kHz 30 Hz bis 15 kHz (± 3 dB)* METAL-IV: 20 Hz bis 17 kHz 30 Hz bis 16 kHz (± 3 dB)* | Abmessungen: | 435 (B) x 110 (H) x 218 (T) mm |
| Fremdspannungsabstand: | Ohne Dolby NR: 58 dB Mit Dolby-B-NR: 66 dB Mit Dolby-C-NR: 72 dB (A bewertet, Bezug 3% Klirrfaktor) Ohne Dolby NR: 57 dB* Mit Dolby-B-NR: 65 dB* Mit Dolby-C-NR: 71 dB* | Gewicht: | 3,3 kg |
| Gleichlaufschwankungen: | 0,07% (WRMS) 0,2%* | | |

* Nach DIN 45 500

Änderungen der technischen Daten im Sinne ständiger Verbesserung vorbehalten.

PRÉCAUTIONS DE SÉCURITÉ

Les précautions suivantes doivent être observées chaque fois qu'une réparation doit être faite.

1. Etant donné que de nombreux composants de l'appareil possèdent des caractéristiques relatives à la sécurité, utiliser uniquement des pièces de rechange d'origine Hitachi pour effectuer un remplacement. Ceci se rapporte notamment aux pièces critiques du bloc d'alimentation qui ne doivent en aucun cas être remplacées par celles d'autres fabricants. Les pièces critiques sont accompagnées du symbole Δ dans le schéma de montage.
2. Avant de retourner l'appareil répare au client, le technicien doit procéder à un essai complet pour s'assurer qu'il ne présente aucun danger de chocs électriques.

FICHE TECHNIQUE

| | | | |
|---|---|---|--|
| Système de piste: | 4 pistes, 2 canaux stéréo | Sensibilité d'entrée et impédance: | Entrée de ligne: 80 mV, 50 kohms Microphone: 0,4 mV (Impédance de microphone correcte de 300 ohms à 5 kohms) |
| Bande: | Bande en cassette | Niveau de sortie et impédance: | Sortie de ligne: 500 mV (Impédance de charge correcte de 50 kohms ou plus) Casque d'écoute: 60 mV (8 ohms) (Impédance de charge correcte de 8 ohms à 2 kohms) |
| Vitesse de défilement: | 4,75 cm/seconde | Distortion: | Moins de 1,0% (à 1 kHz, 160 nWb/m) |
| Système d'enregistrement et fréquence de polarisation: | Polarisation C.A., 85 kHz | Diaphonie: | 60 dB (à 1 kHz) ou plus |
| Système d'effacement: | Effacement C.A. | Alimentation: | CA 120 V, 60 Hz (U, C) ~ 220 V, 50 Hz (VK) ~ 240 V, 50 Hz (BS, SA) ~ 110-120 V / 200-240 V, 50, 60 Hz (W) |
| Rapport d'effacement: | 65 dB (à 1 kHz) ou plus | Consommation électrique: | 9,5 W (Sauf W) 10W(pourW) |
| Réponse en fréquence: | NOR-I: De 20 Hz à 15 kHz De 30 Hz à 14 kHz (±3 dB)* CrO ₂ -II: De 20 Hz à 16 kHz De 30 Hz à 15 kHz (±3 dB)* METAL-IV: De 20 Hz à 17 kHz De 30 Hz à 16 kHz (±3 dB)* | Dimensions: | 435 (L) x 110 (H) x 218 (P) mm |
| Rapport signal/bruit: | Avec Dolby NR OFF: 58 dB Avec Dolby B NR ON: 66 dB Avec Dolby C NR ON: 72 dB (Pondéré A, référence 3% D.H.T.) Avec Dolby NR OFF: 57 dB* Avec Dolby B NR ON: 65 dB* Avec Dolby C NR ON: 71 dB* | Poids: | 3,3 kg |
| Pleurage et scintillement: | 0,07% (WRMS) 0,2%* | | * D'après DIN 45 500 |

Ces caractéristiques peuvent être modifiées sans préavis pour amélioration des performances.

FEATURES

1. Soft touch operation by simply pressing buttons lightly.
2. Recording and playback head suitable for metal tape.
3. Built-In Dolby NR B/C circuit.
4. Rewind autoplay.
5. Timer Recording and timer play back.
6. Dolby C-type indicator.
7. Metal tape indicator.

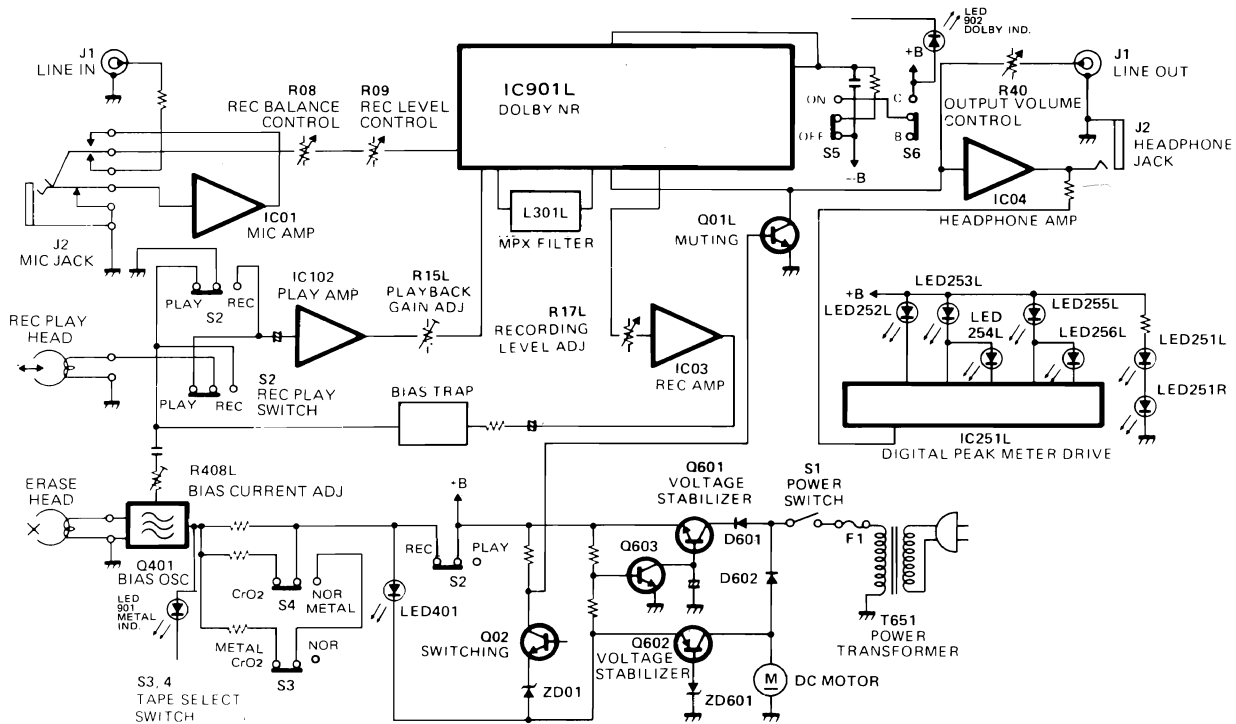
MERKMALE

1. Leichtgängige Kurzhubtasten, die auf Antippen reagieren.
2. Aufnahme/Wiedergabe-Kopf, für Metallband geeignet.
3. Eingebauter Dolby-NR-B/C-Schaltkreis.
4. Automatische Rückspul-Wiedergabe.
5. Schaltuhr-Aufnahme und Schaltuhr-Wiedergabe.
6. Dolby C-Anzeige.
7. Metallband-Anzeige.

CARACTERISTIQUES

1. Fonctionnement aisé grâce à des touches sensibles.
2. Les têtes d'enregistrement et de lecture sont appropriées aux bandes METAL.
3. Incorporation d'un circuit réducteur de bruit Dolby de type B/C.
4. Lecture automatique après reboilage.
5. Enregistrement et lecture par chronomètre.
6. Indicateur Dolby de type C.
7. Indicateur de bande métallique.

BLOCK DIAGRAM · BLOCKSCHMA · SCHEMA



Test and Check Tapes: Prüf- und Meßbänder: Bandes d'essai et de vérification

for US, CS
 NORMAL alignment tape (UDtape)
 CHROME alignment tape (EXtape)
 HITACHI METAL tape (MEtape)
 except US, CS
 IEC STANDARD TAPE I (Nor.)
 IEC STANDARD TAPE II (CrO₂)
 IEC STANDARD TAPE IV (Metal)

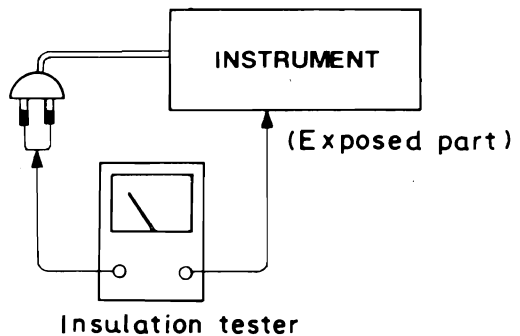
für US, CS
 Normal-Abgleichband (UD-Band)
 Chromdioxid-Abgleichband (EX-Band)
 HITACHI Reineisenband (ME-Band)
 außer US, CS
 IEC-Standard Band I (Normalband)
 IEC-Standard Band II (Chromdioxidband)
 IEC-Standard Band IV (Reineisenband)

pour US et CS
 Bande d'étalonnage NORMAL (bande UD)
 Bande d'étalonnage CHROME (bande EX)
 Bande METAL HITACHI (bande ME)
 sauf US,CS
 STANDARD IEC TAPE I (Nor.)
 STANDARD IEC TAPE II (CrO₂)
 STANDARD IEC TAPE IV (Métal)

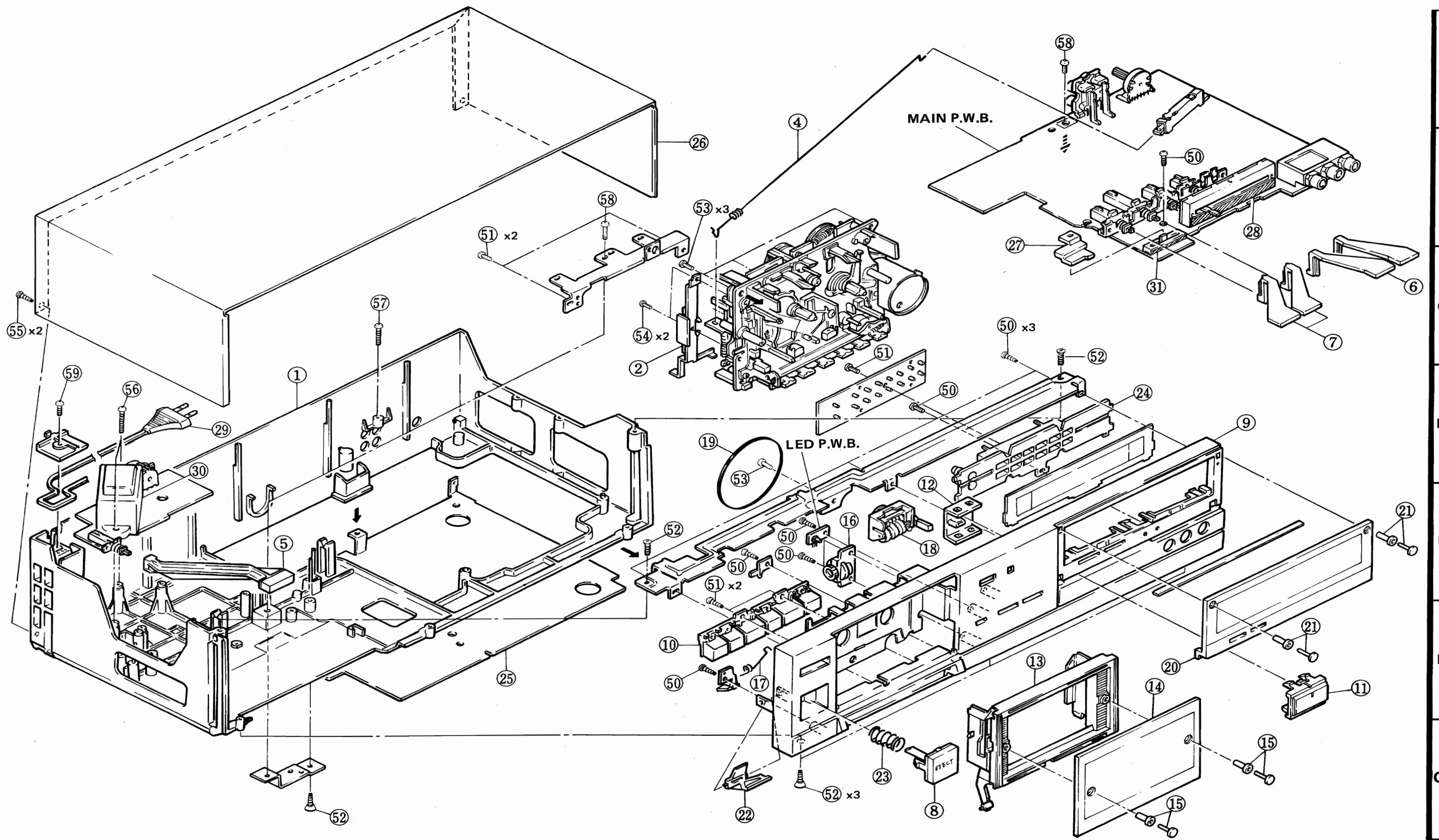
Check that exposed parts are acceptably insulated from the supply circuit before returning the instrument repaired to the customer.

• Checking method

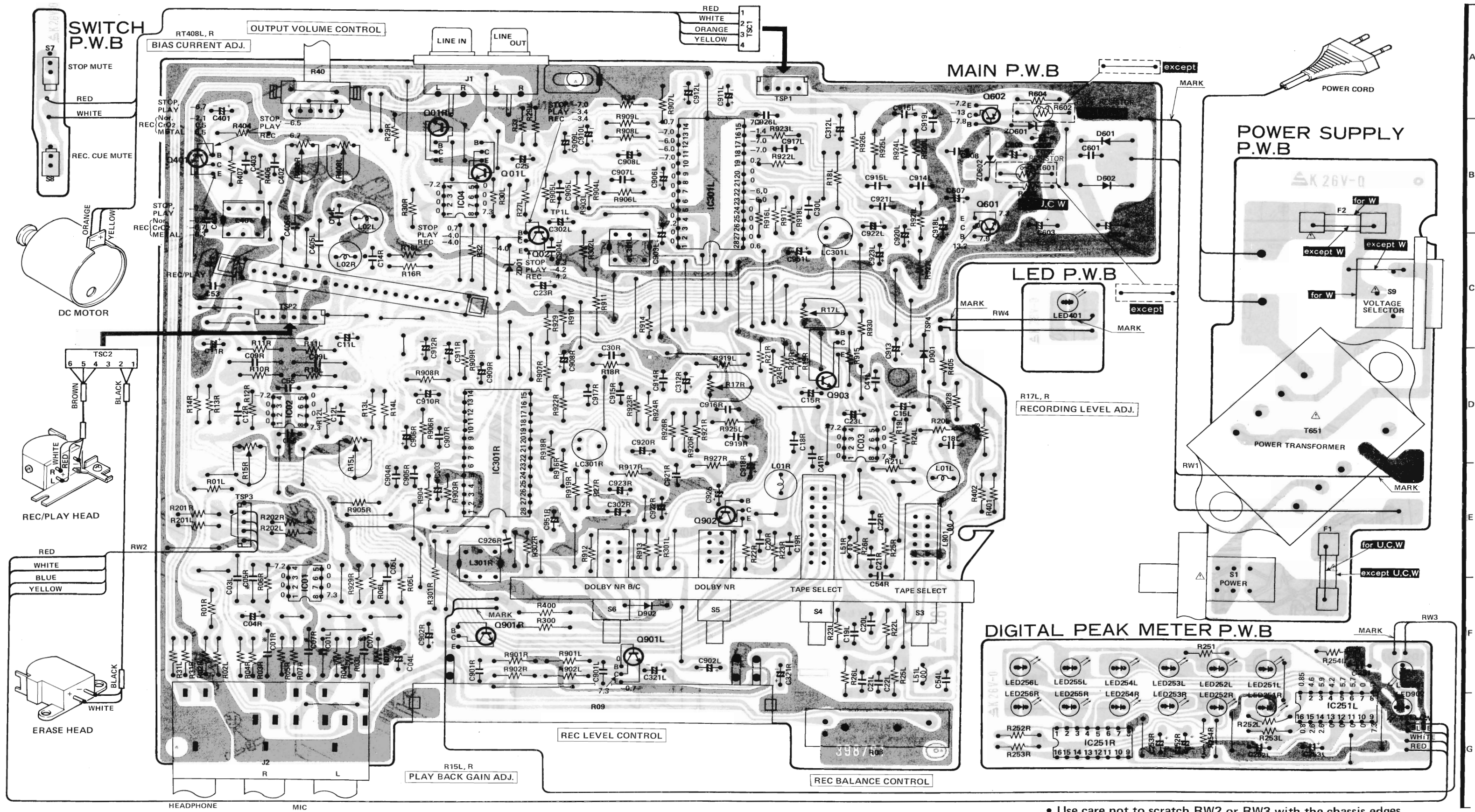
Power switch is set to ON.
 Next, measure the resistance value between the both poles of attachment cup (Power supply plug) and the exposed parts (Parts such as Knob, Cover, etc. where the customer is easy to touch.) and check that the resistance value is 500 kohms or more.



EXPLODED VIEW (Cabinet) · EXPLOSIONSANSICHT (Chassis) · VUE EXPLOSEE (Doffret)



- *: Axial lead cylindrical ceramic capacitor.
- *: Zylindrischer Keramik Kondensator mit axialer Zuleitung.
- *: Condensateur céramique cylindrique à conducteur axial.

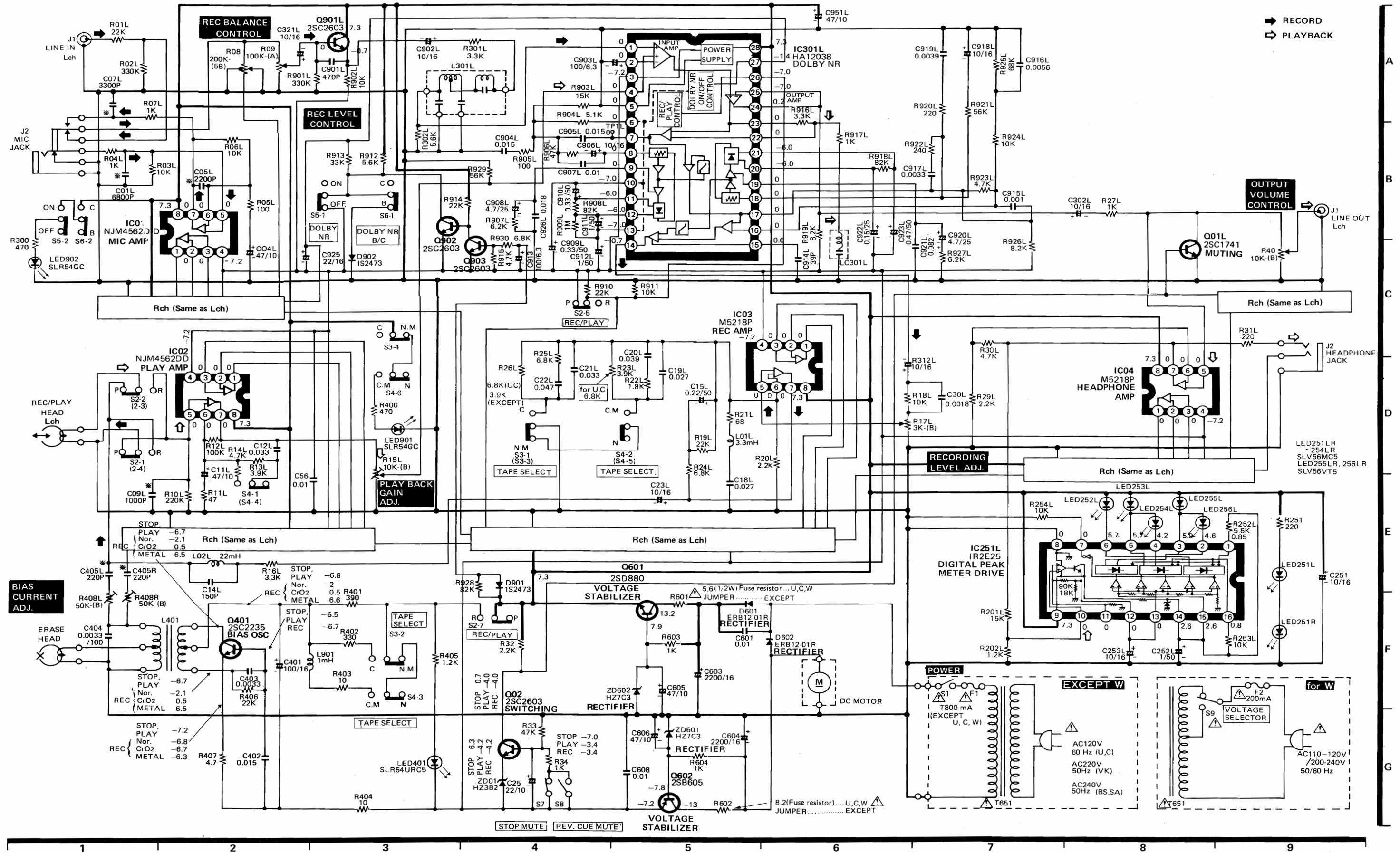


• Use care not to scratch RW2 or RW3 with the chassis edges.

CIRCUIT DIAGRAM · SCHALTPLAN · PLAN DE CIRCUIT

- *: Axial lead cylindrical ceramic capacitor.
- *: Zylindrischer Keramikkondensator mit axialer Zuleitung.
- *: Condensateur céramique cylindrique à conducteur axial.

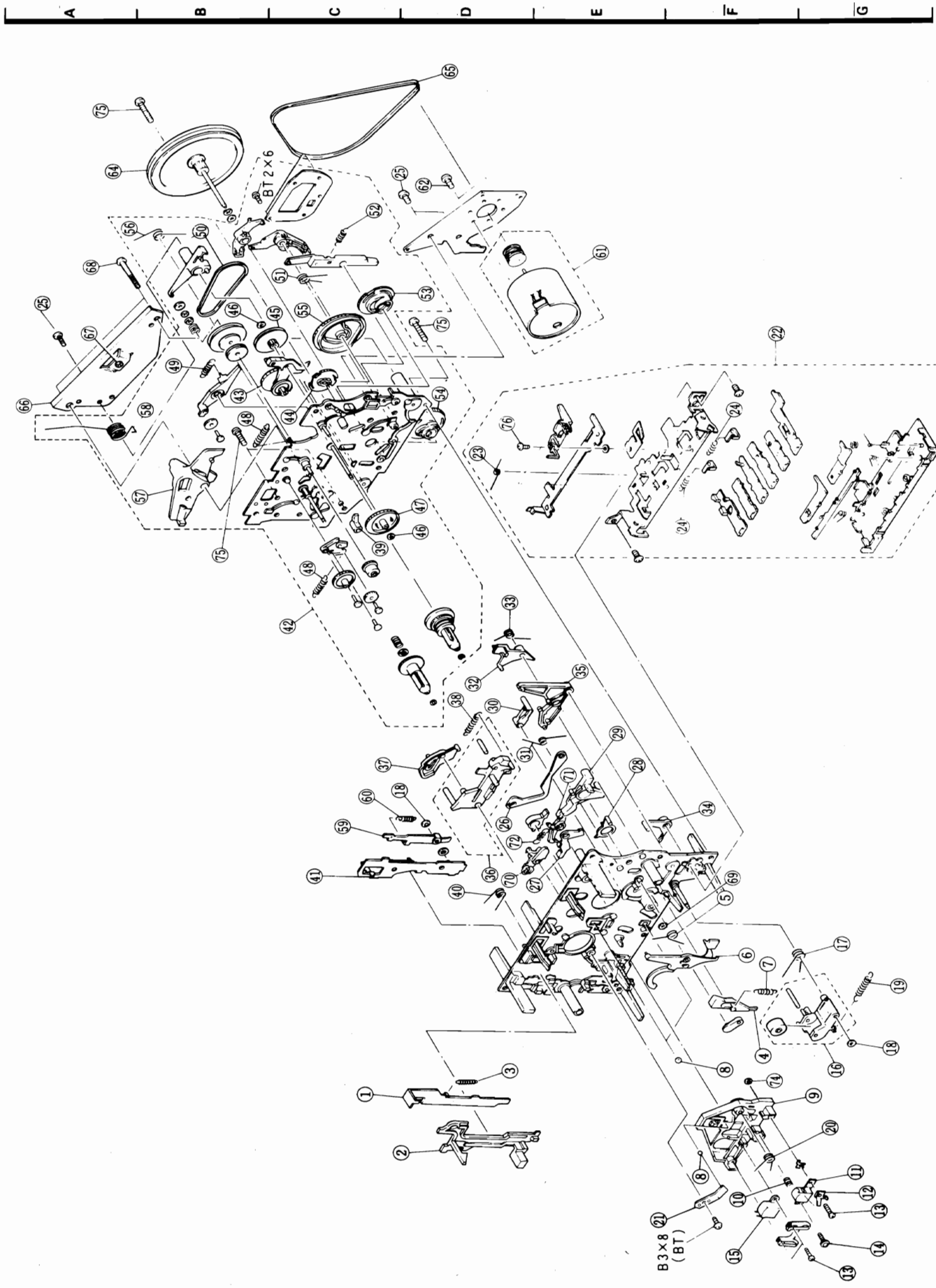
CAUTION
Use the electrolytic capacitors with explosion-proof valve when the diameter of them is more than 10 mmφ.



➔ RECORD
➔ PLAYBACK

A
B
C
D
E
F
G

EXPLODED VIEW (Cassette Chassis) · EXPLOSIONSANSICHT (Chassetten Tonbandgerät) · VUE EXPLOSÉE (Magnétophone)



REPLACEMENT PARTS LIST · ERSATZTEILLISTE · TABLEAU DES PIÈCES

CABINET CHASSIS

UB: US black model

| ITEM No. | PART No. | DESCRIPTION | ITEM No. | PART No. | DESCRIPTION |
|----------|----------|--|----------|----------|--|
| 1 | 4088743 | Mold chassis ass'y (for U, C, UB) | 21 | 4901821 | Sheet |
| | 4088741 | Mold chassis ass'y (for VK, BS, SA, ZS) | 22 | 3296701 | Eject lever |
| | 4088742 | Mold chassis ass'y (for W) | 23 | 3362631 | Eject spring |
| 2 | 4449921 | REC arm ass'y | 25 | 3161393 | Bottom cover |
| 3 | 3942385 | Leg. | 26 | 4434191 | Upper cover (except UB) |
| 4 | 4448742 | REC wire (B) | | 4434195 | Upper cover (for UB) |
| 5 | 3296634 | Power button ass'y (for U, C, UB) | 27 | 3296651 | Balance knob |
| | 3296635 | Power button ass'y (for W, ZS, VK, BS, SA) | 28 | 4701728 | Spacer A |
| 6 | 3296661 | Dolby button (Silver) (except UB) | 29 | 2718114 | Power supply cord (for U, C) |
| | 3296664 | Dolby button (Black) (for UB) | | 2749584 | Power supply cord (for BS) |
| 7 | 3296671 | T select button | | 2718092 | Power supply cord (for ZS, W) |
| 8 | 3957187 | Eject button ass'y | | 2718091 | Power supply cord (for VK) |
| 9 | 3200386 | Front panel ass'y (for U, C) | | 2717952 | Power supply cord (for SA) |
| | 3200387 | Front panel ass'y (for W, ZS, VK, BS, SA) | 30 | 2248212 | Power transformer (T65 1) (for U, C) |
| | 3200762 | Front panel ass'y (for UB) | | 2248213 | Power transformer (T65 1) (for VK, ZS) |
| 10 | 3296759 | Operation key ass'y | | 2248214 | Power transformer (T65 1) (for BS, SA) |
| 11 | 3296681 | REC knob | | 2248215 | Power transformer (T65 1) (for W) |
| 12 | 3298671 | REC body (N) | 50 | 8691408 | 3φ × 8 BT bind screw |
| 13 | 3956891 | Cassette holder (except UB) | 51 | 8699306 | 2.6φ × 6 BT bind screw |
| | 3956872 | Cassette clear (except UB) | 52 | 4577831 | 3φ × 10 BT flat head screw |
| | 3956895 | Cassette holder (for UB) | 53 | 4567411 | 3φ × 6 DT bind screw |
| | 3956879 | Cassette clear (for UB) | 54 | 8711108 | 2φ × 8 pan head screw |
| 15 | 3947541 | Nylon rivet (B) | 55 | 8698410 | 3φ × 10 BT bind screw (Silver) |
| 16 | 3900881 | Oil damper | | 8699410 | 3φ × 10 BT bind screw (Black) |
| 17 | 3365033 | Holder spring | 56 | 8691416 | 3φ × 16 BT bind screw |
| 18 | 2788254 | Tape counter | 57 | 8691412 | 3φ × 12 BT bind screw |
| 19 | 4688573 | Counter belt | 58 | 4567452 | 3φ × 8 DT bind screw |
| 20 | 3958627 | Blind (except UB) | 59 | 4567433 | 3φ × 10 BT flat head screw (Black) |
| | 3958623 | Blind (for UB) | | | |

CASSETTE CHASSIS

| ITEM No. | PART No. | DESCRIPTION | ITEM No. | PART No. | DESCRIPTION |
|----------|----------|---|----------|----------|-----------------------------|
| 1 | 7345871 | Record prevention slider | 39 | 6773333 | Search stopper |
| 2 | 6771344 | Eject slider | 40 | 6548281 | Spring |
| 3 | 6301011 | Lock lever spring | 41 | 7345807 | Record slider ass'y |
| 4 | 6773822 | Record sensor arm | 42 | 6775964 | Turntable holder ass'y |
| 5 | 6547923 | Spring | 43 | 6771365 | Take up arm ass'y |
| 6 | 6773832 | Auto stop sensor arm | 44 | 6432212 | Pause PA gear |
| 7 | 6300595 | Spring (for record sensor arm) | 45 | 6422773 | Auto stop pulley |
| 8 | 0948492 | 2φ ball | 46 | 7786115 | Auto stop cam gear |
| 9 | 6771335 | Head plate | 47 | 6432073 | Auto stop cam gear |
| 10 | 6321733 | Spring (C) (for head height adjustment) | 48 | 6301331 | Spring |
| 11 | 5449032 | Record/Playback head | 49 | 6301101 | Spring |
| 12 | 7339962 | Earth plate (C) | 50 | 6355504 | Belt |
| 13 | 7780913 | 2φ × 10 bind tapping screw | 51 | 6547561 | Spring |
| 14 | 7781004 | Record/Playback head fixing screw | 52 | 6301001 | Spring (for P lock arm) |
| 15 | 5445531 | Erase head | 53 | 6432054 | FF PA gear |
| 16 | 6771073 | Pressure roller arm ass'y | 54 | 6432061 | Rewind PA gear |
| 17 | 6547692 | Spring (for pressure roller) | 55 | 6432044 | Play PA gear |
| 18 | 7778859 | Polyslider washer | 56 | 6548121 | Spring |
| 19 | 6301101 | Spring | 57 | 6771245 | Record PA arm |
| 20 | 6547571 | Head plate spring | 58 | 6548861 | Spring |
| 21 | 7345882 | Head plate holder | 59 | 7345994 | Record lever |
| 22 | 6059763 | Button ass'y | 60 | 6300599 | Spring (for record lever) |
| 23 | 6547642 | Spring | 61 | 7043321 | Motor ass'y |
| 24 | 6300181 | Spring for lever | 62 | 7783471 | 2.6φ × 2.5 bind screw |
| 25 | 8691408 | 3φ × 8 BT bind screw | 63 | 6355841 | Belt |
| 26 | 7345892 | Timing lever | 64 | 6974174 | Flywheel ass'y |
| 27 | 7345913 | Return lever | 65 | 6357581 | Flywheel belt |
| 28 | 7345862 | Prevention lever | 66 | 7345834 | Flywheel supporting plate |
| 29 | 6774221 | Review cue arm (B) | 67 | 7788063 | Polyslider washer |
| 30 | 6771082 | Tension arm | 68 | 7781147 | 3φ × 30 BT screw |
| 31 | 6547622 | Spring | 69 | 7786623 | Polyslider washer |
| 32 | 6774211 | Pause trigger (B) | 70 | 6771102 | Brake arm (supply) L ass'y |
| 33 | 6548261 | Spring | 71 | 6771111 | Brake arm (take up) R ass'y |
| 34 | 6774201 | Auto stop arm (B) | 72 | 6543811 | Brake arm spring |
| 35 | 6771474 | Function arm | 73 | 6772843 | Arm holder |
| 36 | 6771414 | Play arm ass'y | 74 | 8821231 | 2φ nut |
| 37 | 6774231 | Review cue switch arm (B) | 75 | 8691414 | 3φ × 14 BT bind screw |
| 38 | 6301233 | Spring | 76 | 8699306 | 2φ × 8 pan head screw |

REPLACEMENT PARTS LIST · ERSATZTEILLISTE · TABLEAU DES PIÈCES

| SYMBOL No. | PART No. | DESCRIPTION | | | SYMBOL No. | PART No. | DESCRIPTION | | |
|-------------------|----------|---------------------|---------------------|------|------------------|----------|--------------------------------|---------------|----------|
| CAPACITORS | | | | | RESISTORS | | | | |
| C01 L,R | 0240105 | Cylindrical ceramic | 6800pF ±30% | 25V | C910 L,R | 0252803 | Electrolytic | 0.33μF | 50V |
| C04 L,R | 0252325 | Electrolytic | 47μF | 10V | C911 L,R | 0252811 | Electrolytic | 1μF | 50V |
| C05 L,R | 0240102 | Cylindrical ceramic | 2200pF ±30% | 50V | C912 L,R | 0252811 | Electrolytic | 1μF | 50V |
| C07 L,R | 0240103 | Cylindrical ceramic | 3300pF ±30% | 50V | C913 | 0252231 | Electrolytic | 100μF | 6.3V |
| C09 L,R | 0240012 | Cylindrical ceramic | 1000pF ±10% | 50V | C914 L,R | 0208674 | Ceramic, discal | 39pF ±5% | 50V |
| C11 L,R | 0252325 | Electrolytic | 47μF | 10V | C915 L,R | 0274011 | Mylar, film | 0.001μF ±10% | 50V |
| C12 L,R | 0275014 | Mylar, film | 0.033μF ±10% | 50V | C916 L,R | 0274035 | Mylar, film | 0.0056μF ±10% | 50V |
| C14 L,R | 0208688 | Ceramic, discal | 150pF ±5% | 50V | C917 L,R | 0274014 | Mylar, film | 0.0033μF ±10% | 50V |
| C15 L,R | 0252802 | Electrolytic | 0.22μF | 50V | C918 L,R | 0252571 | Electrolytic | 10μF | 16V |
| C18 L,R | 0275033 | Mylar, film | 0.027μF ±10% | 50V | C919 L,R | 0274234 | Mylar, film | 0.0039μF ±10% | 50V |
| C19 L,R | 0275033 | Mylar, film | 0.027μF ±10% | 50V | C920 L,R | 0252615 | Electrolytic | 4.7μF | 25V |
| C20 L,R | 0275034 | Mylar, film | 0.039μF ±5% | 50V | C921 L,R | 0275036 | Mylar, film | 0.082μF ±10% | 50V |
| C21 L,R | 0275014 | Mylar, film | 0.033μF ±10% | 50V | C922 L,R | 0252804 | Electrolytic | 0.15μF | 50V |
| C22 L,R | 0275015 | Mylar, film | 0.047μF ±5% | 50V | C923 L,R | 0252805 | Electrolytic | 0.47μF | 50V |
| C23 L,R | 0252521 | Electrolytic | 10μF | 16V | C925 | 0252522 | Electrolytic | 22μF | 16V |
| C25 | 0252322 | Electrolytic | 22μF | 10V | C926 L,R | 0275032 | Mylar, film | 0.018μF ±10% | 50V |
| C30L,R | 0274032 | Mylar, film | 0.0018μF | 50V | C951 L,R | 0252325 | Electrolytic | 4.7μF | 10V |
| C41L,R | 0209723 | Ceramic, discal | 47pF ±10% | 80V | RESISTORS | | | | |
| C56 | 0244171 | Ceramic, discal | 0.01μF +80% -20% | 50V | R01 L,R | 0129635 | Carbon film | 22kΩ ±5% | SRD 1/4P |
| C251 | 0252521 | Electrolytic | 10μF | 16V | R02 L,R | 0129673 | Carbon film | 330kΩ ±5% | SRD 1/4P |
| C252 L,R | 0252811 | Electrolytic | 1μF | 50V | R03 L,R | 0129617 | Carbon film | 10 kΩ ±5% | SRD 1/4P |
| C253 L,R | 0252521 | Electrolytic | 10μF | 16V | R04 L,R | 0129601 | Carbon film | 1kΩ ±5% | SRD 1/4P |
| C302 L,R | 0252521 | Electrolytic | 10μF | 16V | R05 L,R | 0129561 | Carbon film | 100Ω ±5% | SRD 1/4P |
| C321 L,R | 0252521 | Electrolytic | 10μF | 16V | R06 L,R | 0129631 | Carbon film | 10kΩ ±5% | SRD 1/4P |
| C401 | 0252531 | Electrolytic | 100μF | 16V | R07 L,R | 0129601 | Carbon film | 1kΩ ±5% | SRD 1/4P |
| C402 | 0275012 | Mylar, film | 0.015μF ±10% | 50V | R10 L,R | 0129669 | Carbon film | 220kΩ ±5% | SRD 1/4P |
| C403 | 0274014 | Mylar, film | 3300pF ±10% | 50V | R11 L,R | 0129547 | Carbon film | 47Ω ±5% | SRD 1/4P |
| C404 | 0279324 | Mylar, film | 3300pF ±5% | 100V | R12 L,R | 0129661 | Carbon film | 100kΩ ±5% | SRD 1/4P |
| C405 L,R | 0240004 | Cylindrical ceramic | 220pF ±10% | 50V | R13 L,R | 0129615 | Carbon film | 3.9kΩ ±5% | SRD 1/4P |
| C601 | 0244171 | Ceramic, discal | 0.01μF +80% -20% | 50V | R14 L,R | 0129617 | Carbon film | 4.7kΩ ±5% | SRD 1/4P |
| C603 | 0252542 | Electrolytic | 2200μF | 16V | R16 L,R | 0129613 | Carbon film | 3.3kΩ ±5% | SRD 1/4P |
| C604 | 0252542 | Electrolytic | 2200μF | 16V | R18 L,R | 0129639 | Carbon film | 22kΩ ±5% | SRD 1/4P |
| C605 | 0252325 | Electrolytic | 47μF | 10V | R19 L,R | 0129661 | Carbon film | 100kΩ ±5% | SRD 1/4P |
| C606 | 0252325 | Electrolytic | 47μF | 10V | R20 L,R | 0129609 | Carbon film | 2.2kΩ ±5% | SRD 1/4P |
| C608 | 0244171 | Ceramic, discal | 0.01μF +80% -20% | 50V | R21 L,R | 0129551 | Carbon film | 68Ω ±5% | SRD 1/4P |
| C901 L,R | 0209723 | Ceramic, discal | 470pF ±10% | 50V | R22 L,R | 0129607 | Carbon film | 1.8kΩ ±5% | SRD 1/4P |
| C902 L,R | 0252521 | Electrolytic | 10μF | 16V | R23 L,R | 0129615 | Carbon film | 3.9kΩ ±5% | SRD 1/4P |
| C903 L,R | 0252231 | Electrolytic | 100μF | 6.3V | R24 L,R | 0129621 | Carbon film | 6.8kΩ ±5% | SRD 1/4P |
| C904 L,R | 0275012 | Mylar, film | 0.015μF ±10% | 50V | R25 L,R | 0129621 | Carbon film | 6.8kΩ ±5% | SRD 1/4P |
| C905 L,R | 0275012 | Mylar, film | 0.015μF ±10% | 50V | R26 L,R | 0129621 | Carbon film | 6.8kΩ ±5% | SRD 1/4P |
| C906 L,R | 0252571 | Electrolytic | 10μF | 16V | | 0129615 | Carbon film (except U,C,UB) | 3.9 kΩ ±5% | SRD1/4 P |
| C907 L,R | 0275011 | Mylar, film | 0.01μF ±10% | 50V | R27 L,R | 0129601 | Carbon film | 1kΩ ±5% | SRD 1/4P |
| C908 L,R | 0252615 | Electrolytic | 4.7μF | 25V | R29 L,R | 0129609 | Carbon film | 2.2kΩ ±5% | SRD 1/4P |
| C909 L,R | 0252803 | Electrolytic | 0.33μF | 50V | R30 L,R | 0129617 | Carbon film | 47kΩ ±5% | SRD 1/4P |
| | | | | | R31 L,R | 0129569 | Carbon film | 220Ω ±5% | SRD 1/4P |
| | | | | | R32 | 0129609 | Carbon film | 2.2kΩ ±5% | SRD 1/4P |
| | | | | | R33 | 0129647 | Carbon film | 47kΩ ±5% | SRD 1/4P |
| | | | | | R34 | 0129601 | Carbon film | 1kΩ ±5% | SRD 1/4P |
| | | | | | R201 L,R | 0129635 | Carbon film | 15kΩ ±5% | SRD 1/4P |
| | | | | | R202 L,R | 0129603 | Carbon film | 1.2kΩ ±5% | SRD 1/4P |
| | | | | | R251 | 0129569 | Carbon film | 220Ω ±5% | SRD 1/4P |

| SYMBOL No. | PART No. | DESCRIPTION | | | |
|------------|----------|--|----------------|-----------|----------|
| R252 L,R | 0129619 | Carbon film | 5.6 k Ω | $\pm 5\%$ | SRD 1/4P |
| R253 L,R | 0129631 | Carbon film | 10 k Ω | $\pm 5\%$ | SRD 1/4P |
| R254 L,R | 0129631 | Carbon film | 10k Ω | $\pm 5\%$ | SRD 1/4P |
| R300 | 0129571 | Carbon film | 270 Ω | $\pm 5\%$ | SRD 1/4P |
| R301 L,R | 0129631 | Carbon film | 3.3 k Ω | $\pm 5\%$ | SRD 1/4P |
| R302 L,R | 0129619 | Carbon film | 5.6 k Ω | $\pm 5\%$ | SRD 1/4P |
| R400 | 0129571 | Carbon film | 270 Ω | $\pm 5\%$ | SRD 1/4P |
| R401 | 0129575 | Carbon film | 330 Ω | $\pm 5\%$ | SRD 1/4P |
| R402 | 0129573 | Carbon film | 330 Ω | $\pm 5\%$ | SRD1/4P |
| R403 | 0100631 | Carbon film | 10 Ω | $\pm 5\%$ | SRD1/4P |
| R404 | 0100631 | Carbon film | 10 Ω | $\pm 5\%$ | SRD1/4P |
| R405 | 0129603 | Carbon film | 1.2 k Ω | $\pm 5\%$ | SRD1/4P |
| R406 | 0129639 | Carbon film | 22 k Ω | $\pm 5\%$ | SRD 1/4P |
| R407 | 0129517 | Carbon film | 4.7 Ω | $\pm 5\%$ | SRD 1/4P |
| R601 | 0170427 | Carbon film (for U, C) | 10 Ω | $\pm 5\%$ | SRD 1/2P |
| R601 | 0113827 | Metal (Fuse resistor) (for U, C) | 6.8 Ω | $\pm 5\%$ | RN 1/2B |
| R602 | 0100633 | Carbon film (for U, C) | 12 Ω | $\pm 5\%$ | SRD1/4P |
| R602 | 0118448 | Metal (Fuse resistor) (for W) | 8.2 Ω | $\pm 5\%$ | RN 1/4B |
| R603 | 0129601 | Carbon film | 1 k Ω | $\pm 5\%$ | SRD 1/4P |
| R604 | 0129601 | Carbon film | 1 k Ω | $\pm 5\%$ | SRD 1/4P |
| R901 L,R | 0129673 | Carbon film | 330 k Ω | $\pm 5\%$ | SRD 1/4P |
| R902 L,R | 0129631 | Carbon film | 10 k Ω | $\pm 5\%$ | SRD 1/4P |
| R903 L,R | 0129635 | Carbon film | 15 k Ω | $\pm 5\%$ | SRD 1/4P |
| R904 L,R | 0129618 | Carbon film | 5.1 k Ω | $\pm 5\%$ | SRD 1/4P |
| R905 L,R | 0129561 | Carbon film | 100 Ω | $\pm 5\%$ | SRD 1/4P |
| R906 L,R | 0129647 | Carbon film | 47 k Ω | $\pm 5\%$ | SRD 1/4P |
| R907 L,R | 0129620 | Carbon film | 6.2 k Ω | $\pm 5\%$ | SRD 1/4P |
| R908 L,R | 0129653 | Carbon film | 82 k Ω | $\pm 5\%$ | SRD 1/4P |
| R909 L,R | 0129701 | Carbon film | 1 M Ω | $\pm 5\%$ | SRD 1/4P |
| R910 | 0129639 | Carbon film | 22 k Ω | $\pm 5\%$ | SRD 1/4P |
| R911 | 0129631 | Carbon film | 10 k Ω | $\pm 5\%$ | SRD 1/4P |
| R912 | 0129619 | Carbon film | 5.6 k Ω | $\pm 5\%$ | SRD 1/4P |
| R913 | 0129643 | Carbon film | 33 k Ω | $\pm 5\%$ | SRD 1/4P |
| R914 | 0129639 | Carbon film | 22 k Ω | $\pm 5\%$ | SRD 1/4P |
| R915 | 0129617 | Carbon film | 4.7 k Ω | $\pm 5\%$ | SRD 1/4P |
| R916 L,R | 0129613 | Carbon film | 3.3 k Ω | $\pm 5\%$ | SRD 1/4P |
| R917 L,R | 0129601 | Carbon film | 1k Ω | $\pm 5\%$ | SRD 1/4P |
| R918 L,R | 0129653 | Carbon film | 82 k Ω | $\pm 5\%$ | SRD 1/4P |
| R919 L,R | 0129623 | Carbon film | 8.2 k Ω | $\pm 5\%$ | SRD 1/4P |
| R920 L,R | 0129569 | Carbon film | 220 Ω | $\pm 5\%$ | SRD 1/4P |
| R921 L,R | 0129649 | Carbon film | 56 k Ω | $\pm 5\%$ | SRD 1/4P |
| R922 L,R | 0129570 | Carbon film | 240 Ω | $\pm 5\%$ | SRD 1/4P |
| R923 L,R | 0129617 | Carbon film | 4.7 k Ω | $\pm 5\%$ | SRD 1/4P |
| R924 L,R | 0129631 | Carbon film | 10 k Ω | $\pm 5\%$ | SRD 1/4P |
| R925 L,R | 0129651 | Carbon film | 68 k Ω | $\pm 5\%$ | SRD 1/4P |
| R926 L,R | 0129623 | Carbon film | 8.2 k Ω | $\pm 5\%$ | SRD 1/4P |
| R927 L,R | 0129620 | Carbon film | 6.2 k Ω | $\pm 5\%$ | SRD 1/4P |
| R928 | 0129653 | Carbon film | 82 k Ω | $\pm 5\%$ | SRD 1/4P |
| R929 L,R | 0129649 | Carbon film | 56 k Ω | $\pm 5\%$ | SRD 1/4P |
| R930 | 0129621 | Carbon film | 6.8k Ω | $\pm 5\%$ | SRD 1/4P |

| SYMBOL No. | PART No. | DESCRIPTION |
|------------------------------|----------|-------------------------------------|
| ICs & TRANSISTORS | | |
| IC01 | 2387281 | NJM4562DD |
| IC02 | 2387281 | NJM4562DD |
| IC03 | 2387301 | M5218P |
| IC04 | 2387301 | M5218P |
| IC251 L,R | 2387291 | IR2E25 |
| IC301 L,R | 2369401 | HA12038 |
| Q01 L,R | 2329316 | 2SC1741-QR |
| Q02 | 2328652 | 2SC1740-LN |
| Q401 | 2317782 | 2SC2235-Y |
| Q601 | 2317803 | 2SP880 |
| Q602 | 232873 | 2SB605-LA |
| Q901 L,R | 2328652 | 2SC1740-LN |
| Q902 | 2328652 | 2SC1742-LN |
| Q903 | 2328652 | 2SC1742-LN |
| DIODES | | |
| D601 | 233762 | ERB12-01R |
| D602 | 233762 | ERB12-01R |
| D901 | 2338081 | 1S2473 |
| D902 | 2338081 | 1S2473 |
| ZD01 | 2337615 | HZ-3B-2 |
| ZD601 | 2337549 | HZ-7C-3 |
| ZD602 | 2337549 | HZ-7C-3 |
| LED251 L,R | 2397188 | SLV56MC5 |
| LED254 L,R | 2397188 | SLV56MC5 |
| LED255 L,R | 2397189 | SLV56VT5 |
| LED256 L,R | 2397189 | SLV56VT5 |
| LED401 | 2338505 | SLR-54URC5 |
| LED901 | 2338501 | SLR-54GC |
| LED902 | 2338501 | SLA-54GC |
| VARIABLE RESISTORS | | |
| R08 | 0166541 | 200 k Ω -(B) (REC BALANCE) |
| R09 | 0166612 | 100 k Ω -(A) (REC LEVEL) |
| R15 L,R | 0158955 | 10 k Ω -(B) (PLAYBACK LEVEL) |
| R17 L,R | 0158953 | 2 k Ω -(B) (REC LEVEL) |

| SYMBOL No. | PART No. | DESCRIPTION |
|------------------------|----------|------------------------------------|
| R40 | 0199511 | 10 k Ω -(B) (OUTPUT VOLUME) |
| R408 L,R | 0158957 | 50 k Ω -(B) (BIAS CURRENT) |
| COILS | | |
| L01 L,R | 2227991 | Choke coil 3.3 mH (REC PEAK) |
| L02 L,R | 2228004 | Trap coil 22 mH (BIAS TRAP) |
| L301 L,R | 2228021 | Dolby filter |
| LC301 L,R | 2135624 | Trap coil 19 mH |
| L401 | 2136441 | Bias OSC coil (BIAS OSC) |
| L901 | 2227355 | Choke coil |
| MISCELLANEOUS | | |
| J1 | 2678348 | 4P US pin jack |
| J2 | 2678026 | Jack (for MIC, HEADPHONE) |
| S1 | 2638778 | Power switch |
| S2 | 2627484 | Slide switch |
| S3 to S6 | 2639895 | Push switch |
| S9 | 2618741 | Voltage selector switch (for W) |
| S7 | 2639151 | Push switch (STOP MUTE) |
| S8 | 2639152 | Push switch (REV CUE MUTE) |
| F1 | 2727198 | Fuse T800 mA (for VK, BS, SA) |
| F2 | 2727812 | Fuse T200 mA (for W) |
| for ACCESSORIES | | |
| | 2703111 | Patch cord |
| | 2658361 | E socket adaptor (for W) |

**HITACHI SALES EUROPA GmbH**

Postfach 801060 Rungedamm 2, 2050 Hamburg 80,
West Germany
Tel. 040-734 11-0

HITACHI SALES (U.K.) Ltd.

Hitachi House, Station Road, Hayes, Middlesex UB3
4DR, England
Tel. 01-848-8787

HITACHI SALES SCANDINAVIA AB

Rissneleden 8, Box 7138, 172-07 Sundbyberg, Sweden
Tel. 08-98 52 80

HITACHI SALES NORWAY A/S

Oerebekk 1620, Gressvik, P.O. Box 46, N-1601,
Fredrikstad, Norway
Tel. 032-28255

SUOMEN HITACHI OY

Takojankatsu 5, 15800 Lahti 80, Finland
Tel. Lahti 44 241

HITACHI SALES A/S

Kuldysen 13, DK-2630, Taastrup, Denmark
Tel. 02-999200

HITACHI SALES A.G.

Bahnhofstrasse, 19, 5600 Lenzburg, Switzerland
Tel. 064-513621

HITACHI SALES WARENHANDELS GMBH

A-1180/Wien, Kreuzgasse 27, Austria
Tel. 0222-439367

HITACHI SALES ITALIANA, S.P.A.

Via Cristoforo Colombo 49, Trezzano sul naviglio
(Milano), Italy
Tel. 02-44 59 031

HITACHI SALES BELGIUM S.A.

56, Chaussee de Namur B-1400 Nivelles, Belgium
Tel. (003267) 227181

HITACHI SALES IBERICA, S.A.

Gran Via Carlos Tercero, 101, 1-1, Barcelona-28,
Spain
Tel. 330-8652

HITACHI MAROC (RADIO TV ELECTRO-MANAGER), S.A.

Rue du Havre, Casablanca, Morocco
Tel. 30-73-68, 30-73-57

HITACHI CANARIAS S.A.

Calle San-Francisco No. 19, Santa Cruz de Tenerife
Canary Islands
Tel. 24-64-98

HITACHI SALES (HELLAS) LTD.

110 Syngrou St., Athens, Greece
Tel. 9219082, 9233469

HITACHI SALES (MALAYSIA) SDN. BHD.

17, Jalan 20/16, Petaling Jaya, Selangor, Malaysia
Tel. 762523, 769918, 769836, 762594

HITACHI (SINGAPORE) PTE., LTD.

Room B, C & D, 15th Floor, Yen San Building
268 Orchard Road, Singapore 9, Singapore
Tel. 7378244, 7379826

HITACHI SALES (THAILAND) LTD.

2242-48, New Petchburi Road, Bangkapi, Hueykuang
Bangkok, Thailand
Tel. 314-2741

HITACHI ELECTRIC SERVICE CO., (HONG KONG) LTD.

4th Floor Leun Tai Industrial Bldg., 72-76 Kwai Cheong
Road Kwai Chung N.T., Hong Kong
Tel. 240126

HITACHI SALES AUSTRALIA PTY LTD.

153 Keys Road, Moorabbin, Victoria 3189 Australia
Tel. 555-8722

HITACHI SALES CORPORATION OF AMERICA

Eastern Regional Office
1290 Wall Street West, Lyndhurst, New Jersey 07071, U.S.A.
Tel. 201-935-8980

Mid-Western Regional Office

1400 Morse Ave., Elk Grove Village, Ill. 60007, U.S.A.
Tel. 312-593-1550

Southern Regional Office

510 Plaza Drive, College Park, Georgia 30349, U.S.A.
Tel. 404-763-0360

Western Regional Office

401 West Artesia Boulevard, Compton, California 90220 U.S.A.
Tel. 213-537-8383

HITACHI SALES CORPORATION OF HAWAII, INC.

3219 Koapaka Street, Honolulu, Hawaii 96819, U.S.A.
Tel. 808-836-3621

HITACHI (HSC) CANADA INC.

3300 Trans-Canada Highway, Pointe Claire, Quebec,
H9R 1B1, Canada
Tel. 514-697-9150

Hitachi Sales Centroamericana, S.A.

San Rafael de Escazu, (Apartado 10272), San Jose,
Costa Rica
Tel. 28-20-11, 28-00-37

Hitachi Sales Corporation de Panama, S.A.

Nuevo Reparto E1 Carmen, Calle Ramon Arias y Calle B
Edificio Brasil 100, (Apartado 7657) Panama 5
Panama City, Rep. of Panama
Tel. 61-3100, 61-4305

Hitachi Sales de Chile Cia., Ltda.

Av. Mexico, 0183, Casilla 9793, Correo Central
Santiago, Chile
Tel. 774165

HITACHI-FRANCE S.A.

95-101 Rue Charles Michels,
93200 SAINT-DENIS,
France
Tel. 821 6015

HITACHI LTD. TOKYO JAPAN

Head Office: THE HITACHI ATAGO BLDG.
No. 15-12, 2-Chome Nishi-Shinbashi
Minato-Ku, Tokyo 105, Japan
Tel. Tokyo (03) 502-2111