

ONKYO SERVICE MANUAL

CASSETTE TAPE DECK COMPACT DISC PLAYER MODEL KCY-707

| | |
|----|--------------------------|
| UD | 120V AC, 60Hz |
| UM | 220/230-240V AC, 50/60Hz |

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK Δ ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PARTS NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

SPECIFICATIONS

CD Player Section

| | |
|--------------------------|----------------------------------------------------|
| CD changer type: | 10 disc bank system |
| Signal readout system: | Optical non-contact |
| Reading rotation: | About 500-200 r.p.m. (constant linear velocity) |
| Linear velocity: | 1.2-1.4 m/s |
| Error correction system: | Cross Interleave Reed Solomon code |
| D/A converter: | 1 Bit D/A converter |
| Sampling frequency: | 176.4 KHz (four-times oversampling) |
| Number of channels: | 2 (stereo) |

Cassette Deck Section

| | |
|----------------------|-----------------------------------------------|
| Deck mechanism type; | Double auto reverse |
| Track format: | 4-track, 2-channels |
| Erasing system: | AC erase |
| Tape speed: | 4.8 cm/sec 9.6 cm/sec (high-speed dubbing) |
| Wow and Flutter: | 0.12 % (WRMS) |
| Motors: | DC servo motor x 2 |
| Heads: | REC/PB: 1 PB: 1 ERASE: 1 |

General

| | |
|-------------------------|----------------------------------------------------------------------------|
| Power supply rating: | U.S.A. model: AC 120V, 60Hz Asian model: AC 220/230-240V, 50/60Hz |
| Dimensions (W x H x D): | 270 x 185 x 322mm 10-5/8" x 7-5/16" x 12-11/16" |

Specifications and external appearance are subject to change without notice because of product improvements.



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CAUTION ON REPLACEMENT OF OPTIONAL PICKUP

The laser diode in the optical pickup block is so sensitive to static electricity, surge current and etc, that the components are liable to be broken down or its reliability remarkably deteriorated.

During repair, carefully take the following precautions. (The following precautions are included in the service parts.)

PRECAUTIONS

1. Ground for the work-desk.

Place a conductive sheet such as a sheet of copper (with impedance lower than 10MΩ) on the work-desk and place the set on the conductive sheet so that the chassis.

2. Grounding for the test equipment and tools.

Test equipments and toolings should be grounded in order that their ground level is the same the ground of the power source.

3. Grounding for the human body.

Be sure to put on a wrist-strap for grounding whose other end is grounded.

Be particularly careful when the workers wear synthetic fiber clothes, or air is dry.

4. Select a soldering iron that permits no leakage and have the tip of the iron well-grounded.

5. Do not check the laser diode terminals with the probe of a circuit tester or oscilloscope.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs a laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION, BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.

Laser Diode Properties

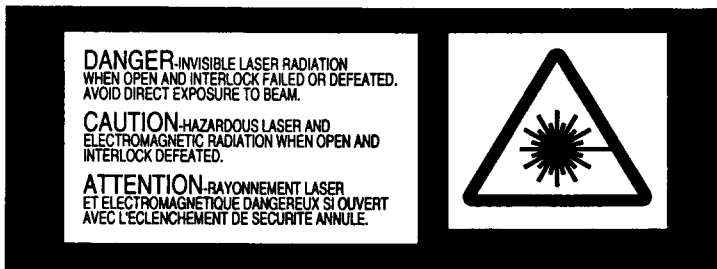
- Material: GaAS/GaAlAs
- Wavelength: 780nm
- Emission Duration: continuous
- Laser output: max. 0.5mW*

*This output is the value measured at a distance about 1.8mm from the objective lens surface on the Optical Pick-up Block.

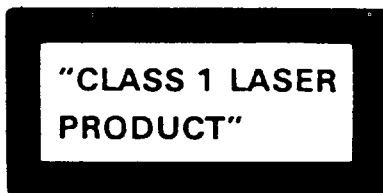
LASER WARNING LABELS

The label shown below are affixed.

1. Warning lable



2. Class 1 label



LUOKAN 1 LASERLAITE

KLASS 1 LASER APPARAT

ADVARSEL

Denna mækning er anbragt på apparatets højre side og indikerer, at apparatet arbejder med laserstråler af klasse 1, hvilket betyder, at der anvendes laserstråler af svageste klasse, og at man ikke på apparatets yderside kan blive udsat for utilsigelig kraftig stråling.

APPARATET BØ/R KUN ÅBNES AF FAGFOLK MED SERLIGT KENDSKAB TIL APPARATER MED LASERSTRÅLERI

Indvendigt i apparatet er anbragt den her gengivne advarselmærkning, som advarer imod at foretage sådanne indgreb i apparatet, at man kan komme til at udsætte sig for laserstråling.

VAROITUS! LAITTEEN KAYTTAMINEN MUULLA KUIN TASSA KAYTTOOHJEESSA MAINTULLA TAVALLA SAATTA AALTISTAA KAYTTAJAN TURVALLISUUSLUOKAN 1 YLITTAVALLE NAKYMATTOMALLE LASERSATEILYLLE

ADJUSTMENT PROCEDURES FOR CASSETTE TAPE DECK

PRECAUTION

- Before adjustment, clean the following parts with an alcohol moistend swab.
 - *record/playback head
 - *erase head
 - *pinch roller
 - *capstan
- Do not use magnetized screwdriver for adjustment.
- Demagnetized record/plaiback head with a lead demagnetizer.

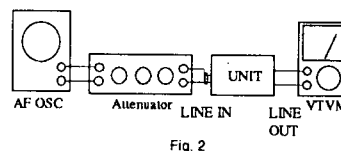
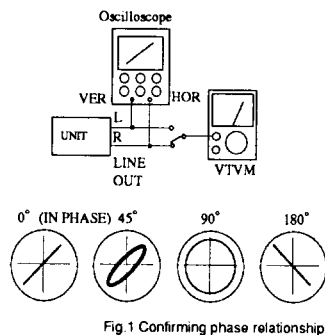
TEST EQUIPMENT / TOOL REQUIRED

- Audio oscillator
- Digiyal frequency counter
- Oscilloscope
- Attenuator
- AC voltmeter
- Non-magnetic screwdriver
- Test tapes
 - TCC-153 : 10kHz, -10dB
 - MTT-111N : 3kHz, -10dB
 - MTT-150 : Dolby level calibration 400Hz, tone 200nWb/m

| Item | Connection of instrument | Line input | Test tape | Mode | Output indicator | Adjustment point | Adjust | Remarks |
|------|--------------------------------------------------------|--------------|-------------|--------|-------------------|----------------------------------------------------------------------|------------------------------------------------|-----------------------|
| 1 | Frequency counter to TP1,2 output terminal | | MTT-111N | PB | Frequency counter | Nomal Speed VR809,811 | 3,000 to 3030Hz | |
| | | | | | | High Speed VR810,812 | 6,000 to 6060Hz | |
| 2 | AC voltmeter and oscilloscope to TP1,2 output terminal | | TCC-153 | PB | AC voltmeter | Head azimuth screw | Maximum level & same phase at channels L and R | Fig.1 |
| 3 | AC voltmeter to terminals TP1 (L) TP2 (R) | | MTT-150 | PB | AC voltmeter | A DECK VR803 (L ch) VR804 (R ch) B DECK VR806 (L ch) VR805 (R ch) | 548mV (-3dBm) | |
| 4 | Frequency counter to erase head lead loose coupling | | METAL TAPE | REC | Frequency counter | L803 | 85KHz | |
| 5 | AC voltmeter to TP1,2 output terminal | 1kHz & 12kHz | NORMAL TAPE | REC/PB | AC voltmeter | VR802 (L ch) VR801 (R ch) | Same level at REC/PB | Fig.2 |
| 6 | Fig.2 | 1kHz | NORMAL TAPE | REC | AC voltmeter | Attenuator or AF OSC output | 245mV (-10dBm) | TP3 (L ch) TP4 (R ch) |
| | | | | REC/PB | AC voltmeter | VR807 (L ch) VR808 (R ch) | Same level at REC/PB | TP1 (L ch) TP2 (R ch) |

Blank tapes

- NORMAL ··· UD-1 C-90
- HIGH ····· XL-II C-90
- METAL ··· XS C-90
- PLAY torque ····· 30~70g/cm
- FF.REW torque ····· 80~170g/cm
- Back tension ····· 2~6g/cm

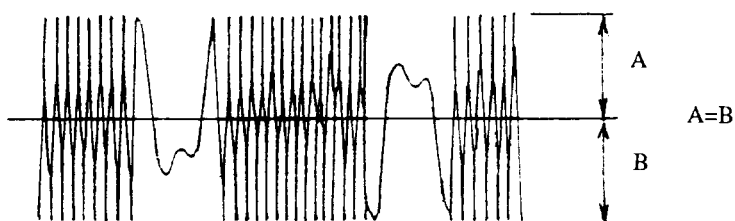


ADJUSTMENT PROCEDURES FOR COMPACT DISC PLAYER

E-F BALANCE ADJUSTMENT

PROCEDURE:

1. Connect oscilloscope to the test points TE and Vref.
2. Press and hold down the SUPER DUBBING button, then press the POWER button.
3. Press FUNCTION CD button for 4 seconds or more. (CD section is TEST MODE.)
4. Put the disc (YEDS-18) in and press PLAY button.
5. Press the MEMORY button. (Tracking servo is OFF.)
6. Adjust VR701 so that the traverse waveform becomes symmetrical above and below.
7. Press the MEMORY button. (Tracking servo is ON.)
8. Press the STOP button.
9. Turn POWER switch off.



VOLT/DIV: 0.5V
TIME/DIV: 1mSEC

FOCUS BIAS ADJUSTMENT

PROCEDURE:

1. Connect oscilloscope to test points RF and GND.
2. Turn POWER switch on.
3. Put disc (YEDS-18) in and press PLAY button.
4. Adjust VR702 for an optimum waveform eye pattern or so that the peak is maximum. Optimum eye pattern means that shape "◇" can be clearly distinguished at the center of the waveform.

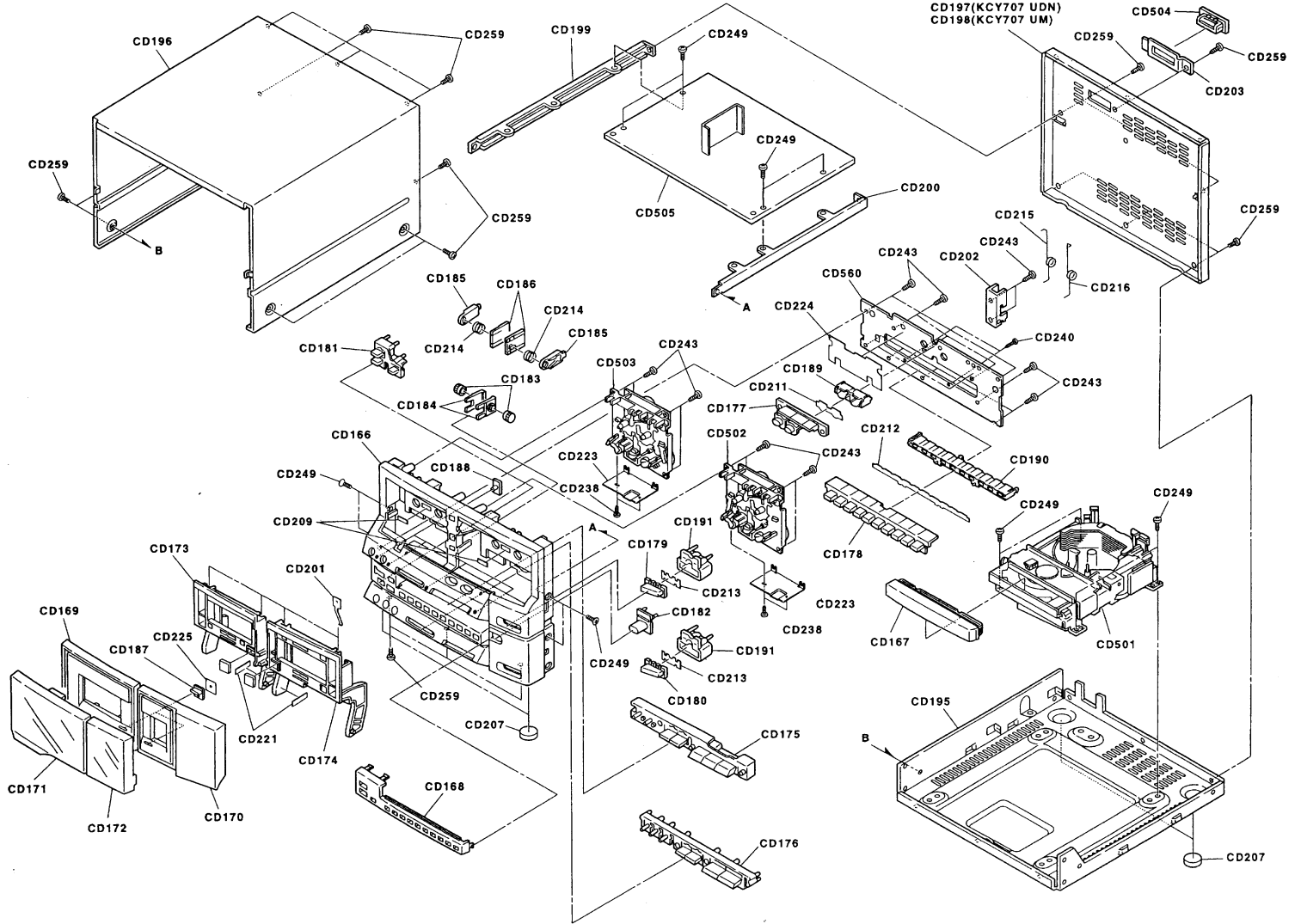


RF signal waveform

Remarks: When adjusting, set the oscilloscope AC rang and raise its vertical sensitivity so that the eye pattern can easily be seen.

MICROPROCESSOR TERMINAL DESCRIPTION

| PIN NO. | SYMBOL | I/O | DESCRIPTION | PIN NO. | SYMBOL | I/O | DESCRIPTION |
|---------|----------|-----|------------------------------------------------------------|---------|----------|-----|-----------------------------------------------------------|
| 1 | MB | O | Motor control for CD changer mechanism | 41 | SPXOE | O | Chip enable output to extended port IC |
| 2 | MC | O | | 42 | NC | O | Not used |
| 3 | PRG | O | Plunger control for CD changer mechanism | 43 | CDCLK | O | Clock output to CD servo IC |
| 4 | CD-MUTE | O | Muting control for audio signal of CD | 44 | CDXLT | O | Data latch output to CD servo IC |
| 5 | CD-POWER | O | Power supply control for CD circuit | 45 | CDDATA | O | Data output to CD servo IC |
| 6 | AUSEL2 | O | Output selector pin for CD or cassette signal | 46 | NC | I | Not used |
| 7 | AUSEL1 | O | | 47 | CDXRST | O | Reset input for CD section |
| 8 | TEST | I | Test mode setting input pin | 48 | S-CLK | I | Transfer clock signal input from main microprocessor |
| 9 | NC | O | Not used | 49 | S-IN | I | Transfer data signal input from main microprocessor |
| 10 | DOLBY | O | Dolby ON/OFF control | 50 | S-OUT | O | Transfer data signal output to main microprocessor |
| 11 | DUBBING | O | Dubbing setting signal | 51 | SQCLK | O | Data read clock output to CD DSP IC |
| 12 | L-MUTE | O | Muting control for audio signal of DECK | 52 | SQSI | I | Data input pin from CD DSP IC |
| 13 | HI-SPEED | O | Double speed dubbing control | 53 | NC | O | Not used |
| 14 | PB-SEL | O | Playback selector control for deck A/B | 54 | DISC-SEN | I | Detection input for size of CD |
| 15 | BIAS | O | Recording bias resonator control for cassette deck | 55 | TRV-DWN | I | Detection input for finish of down operation of traverse. |
| 16 | REC-MUTE | O | Recording muting control | 56 | TRV-UP | I | Detection input for finish of up operation of traverse. |
| 17 | REC/PB | O | Recording/playback control signal for deck B | 57 | TRY-CLS | I | Detection switch input for tray close |
| 18 | B-MTR | O | Motor speed control for deck B | 58 | NC | O | Not used |
| 19 | B-SOL | O | Solenoid coil control for deck B | 59 | NC | O | Not used |
| 20 | ERP-B | I | Prevention detection input for the side B of cassette tape | 60 | TRY-OPN | I | Detection switch input for tray open |
| 21 | ERP-A | I | Prevention detection input for the side A of cassette tape | 61 | LOAD-SEL | I | Detection sensor input for position of loading plate |
| 22 | B-PST | I | Detection input for cassette tape for deck B | 62 | S-RQO | O | Transfer request output to main microprocessor |
| 23 | B-END | I | Tape ending detection input for deck A | 63 | S-RQI | I | Transfer request input from main microprocessor |
| 24 | B-MODESW | I | Operation switch input for deck A | 64 | LOAD-SW | I | Position detection input for loading plate. |
| 25 | A-PST | I | Detection input for cassette tape for deck A | 65 | LEDS1 | O | Scan signal output for operation indicator. |
| 26 | A-END | I | Tape finish detection input for deck A | 66 | LEDS2 | O | |
| 27 | A-MODESW | I | Operation switch input for deck A | 67 | LEDS3 | O | |
| 28 | A-SOL | O | Solenoid coil control for deck A | 68 | KEYIN0 | I | Key matrix input |
| 29 | A-MTR | O | Motor speed control for deck A | 69 | KEYIN1 | I | |
| 30 | RESET | I | Reset input for sub microprocessor | 70 | KEYIN2 | I | |
| 31 | EXTAL | I | Resonator connection terminal for system clock | 71 | KEYIN3 | I | |
| 32 | XTAL | - | Connect the 8.0MHz ceramic resonator. | 72 | Vdd | - | Power supply pin (+5V) |
| 33 | Vss | - | Ground pin | 73 | NC | - | Connect to +5v |
| 34 | NC | - | Not used | 74 | KEYIN4 | I | Key matrix input |
| 35 | NC | I | Not used | 75 | KEYIN5 | I | |
| 36 | AVss | - | Ground pin for A/D converter | 76 | KEYIN6 | I | |
| 37 | AVref | - | Reference voltage pin for A/D converter | 77 | KEYIN7 | I | |
| 38 | SPCLK | O | Clock output to extended port IC | 78 | CASE-POS | I | Sensor input for position of disc case |
| 39 | SPDATA | O | Data output to extended port IC | 79 | CASE-RST | I | Initialize position detection for disc case |
| 40 | SPLCK | O | Data latch output to extended port IC | 80 | MA | O | Motor control for CD changer mechanism |

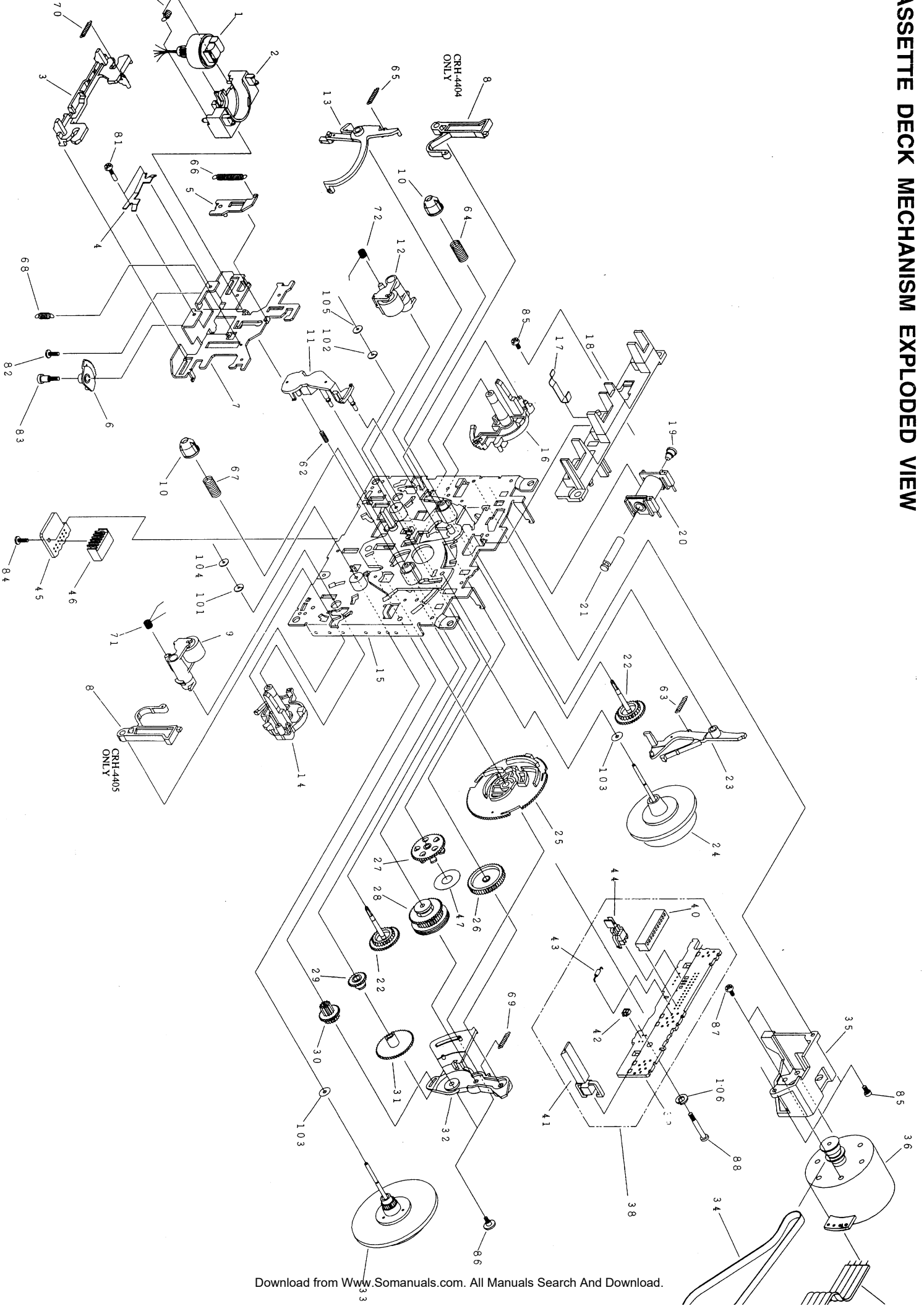


PARTS LIST

| REF. NO. | PART NO. | DESCRIPTION | REF. NO. | PART NO. | DESCRIPTION |
|----------|---------------|-----------------------|----------|---------------|----------------------------------------|
| 166 | 10-3467010101 | FRONT PANEL (A) | 202 | 20-1129010101 | TAPE HOLDER BRACKET |
| 167 | 10-3468010101 | CD DOOR | 203 | 20-1168010101 | CABLE BRACKET |
| 168 | 10-3469010101 | CD PANEL | 207 | 30-0756010101 | FOOT RUBBER |
| 169 | 10-3470010101 | TAPE COVER (A) | 209 | 46-0402-1 | REFLECTION PAPER |
| 170 | 10-3471010101 | TAPE COVER (B) | 211 | 10-3494010101 | LED FILTER (A) |
| 171 | 10-3472010101 | TAPE COVER WINDOW (A) | 212 | 10-3495010101 | LED FILTER (B) |
| 172 | 10-3473010101 | TAPE COVER WINDOW (B) | 213 | 10-3496010101 | LED FILTER (C) |
| 173 | 10-3474010101 | TAPE HOLDER (A) | 214 | 20-1136010101 | PUSH LOCK SPRING |
| 174 | 10-3475010101 | TAPE HOLDER (B) | 215 | 20-1133010101 | TAPE HOLDER SPRING (A) |
| 175 | 10-3476010101 | DECK BUTTON | 216 | 20-1134010101 | TAPE HOLDER SPRING (B) |
| 176 | 10-3482010101 | CD BUTTON | 501 | 34-0022-1 | TN-2300T-122,CD MECHANISM |
| 177 | 10-3477010101 | REC BUTTON | 502 | 31-0064-1 | CRH-44-04(REC/PB),CASSETTE MECHANISM |
| 178 | 10-3481010101 | DISC BUTTON | 503 | 31-0065-1 | CRH-44-05(PB),CASSETTE MECHANISM |
| 179 | 10-3446010101 | FUNCTION BUTTON | 504 | 10-3510010101 | FLAT CABLE BUSHING |
| 180 | 10-3446020101 | FUNCTION BUTTON | LW601 | 12P15-0003 | CFG1315-0101+FLAT,LEAD CONNECTOR ASS'Y |
| 181 | 10-3480010101 | RANDOM BUTTON | I W701 | 12-0157-1 | AWM2896 BNC-D-P1.25x18,FFC - |
| 182 | 10-3479010101 | OPEN BUTTON | LW702 | CL019 06-35 | <u>6P WHT</u> ,LEAD CONNECTOR ASS'Y |
| 183 | 10-3483010101 | DUMPER GEAR | LW703 | CL019 08-25 | 8P RED,LEAD CONNECTOR ASS'Y |
| 184 | 10-3484010101 | DUMPER CASE | LW704 | CL019 08-25 | 8P WHT,LEAD CONNECTOR ASS'Y |
| 185 | 10-3485010101 | PUSH LOCK | LW801 | CL0412 6/7-18 | 6P-7P WHT,LEAD CONNECTOR ASS'Y |
| 186 | 10-3486010101 | PUSH LOCK HOLDER | LW802 | CL041 03-18 | 3P WHT,LEAD CONNECTOR ASS'Y |
| 187 | 10-3487010101 | LIGHT GUIDE (A) | | | |
| 188 | 10-3488010101 | LIGHT GUIDE (B) | | | |
| 189 | 10-3490010101 | LED BOX (A) | | | |
| 190 | 10-3491010101 | LED BOX (B) | | | |
| 191 | 10-3492010101 | LED BOX (C) | | | |
| 195 | 20-1127010101 | BOTTOM COVER (A) | | | |
| 196 | 20-1126010101 | TOP COVER (A) | | | |
| 197 | 20-1128010101 | REAR COVER (A) <U> | | | <U> : U.S.A. model only |
| 198 | 20-1128020101 | REAR COVER (A) <A> | | | <A> : Asian model only |
| 199 | 20-1115010101 | PCB BRACKET(A) | | | |
| 200 | 20-1116010101 | PCB BRACKET(B) | | | |

CASSETTE DECK MECHANISM EXPLODED VIEW

KCY-707 KCY-707

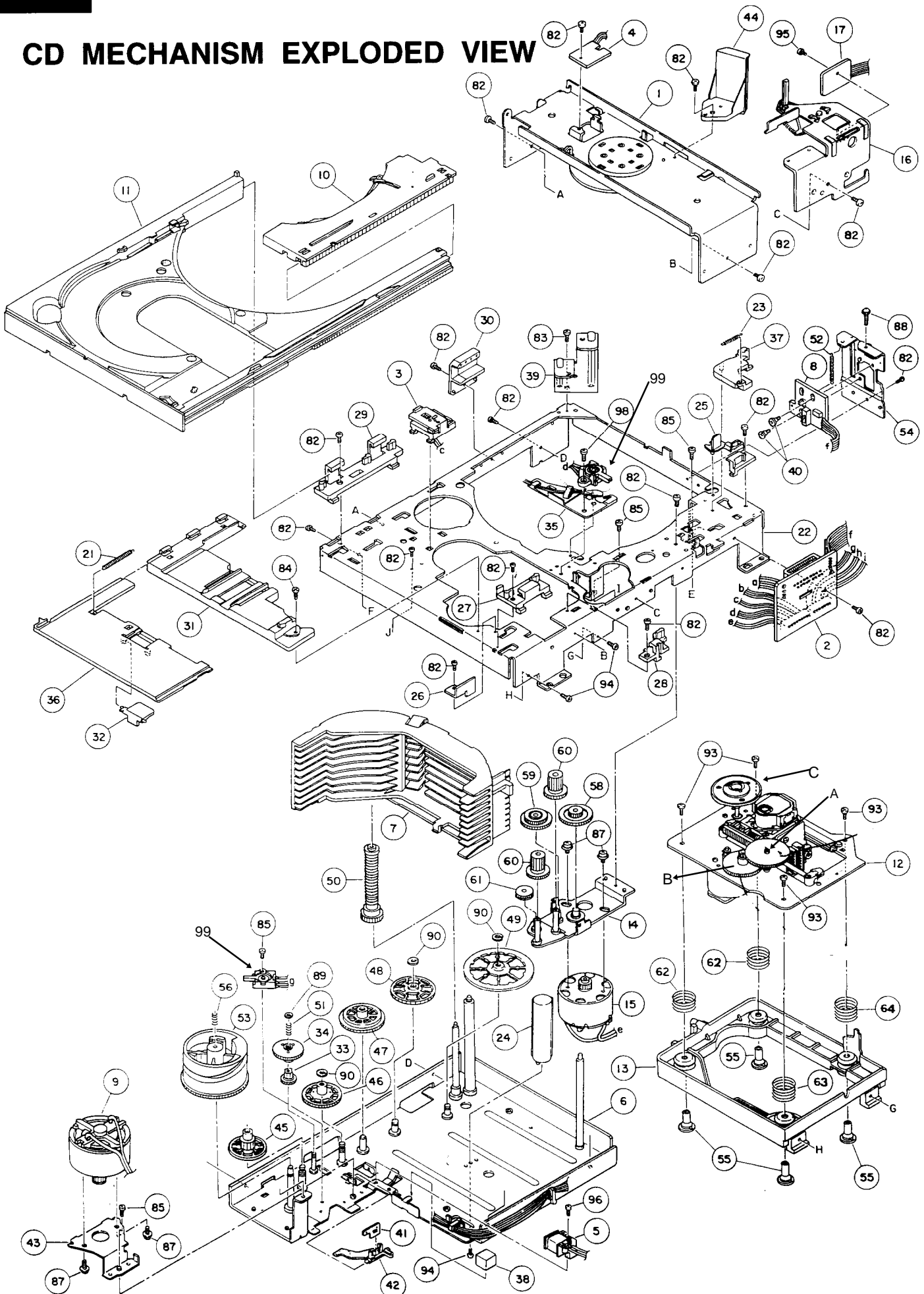


CASSETTE DECK MECHANISM PARTS LIST

| REF. NO. | PART NO. | DESCRIPTION | REF. NO. | PART NO. | DESCRIPTION |
|----------|----------------------------|-----------------------|----------|-----------------------|-------------|
| 1 | 330934148 | holder head ass'y | 47 | 330004140 | reflector |
| | 330934120 | holder head ass'y <A> | 61 | 10804535 | spring |
| 2 | 332193023 | frame head | 62 | 10814483 | spring |
| 3 | 332593015 | lever head | 63 | 10804480 | spring |
| 4 | 161604032 | spring azimuth | 64 | 10814493 | spring |
| 5 | 330934055 | lever assist ass'y | 65 | 10804482 | spring |
| 6 | 222394020 | gear arm head | /66 | 10804489 | spring |
| 7 | 33112303 | chassis head B | 67 | 10814492 | spring |
| 8 | 332394024 | eject lock | 68 | 10804478 | spring |
| 9 | 330934060 | arm pinch R ass'y | 69 | 10804543 | spring |
| 10 | 182283231 | cap reel | 70 | 10804479 | spring |
| 11 | 332393012 | arm UD | 71 | 10824485 | spring |
| 12 | 330934059 | arm pinch L ass'y | 72 | 10824486 | spring |
| 13 | 332393014 | arm brake | 81 | 33004056 | screw |
| 14 | 332113019 | frame B | 82 | GSL20A2008 | screw |
| 15 | 330933056 | chassis ass'y | 83 | 33004043 | screw |
| 16 | 332112020 | frame C | 84 | GSE10A2004 | screw |
| 17 | 331604031 | spring cassette | 85 | GSD20A2005 | screw |
| 18 | 332112021 | frame D | 86 | 33004344 | screw |
| 19 | 033194259 | K. plunger | 87 | GSP11A2605 | screw |
| 20 | 330934051 | coil ass'y | 88 | 33004368 | screw |
| 21 | 033004338 | plunger | 101 | GWN13X050040S | washer |
| 22 | 332224009 | gear reel | 102 | GWN13X060040S | washer |
| 23 | 3322683013 | arm trigger | 103 | GWP18X060050 | washer |
| 24 | 330934050 | flywheel L ass'y | 104 | GWN16X40050 | washer |
| 25 | 332212010 | gear cam | 105 | GWN15S040050 | washer |
| 26 | 332224008 | gear idl | 106 | GWS30N | washer |
| 27 | 332224007 | gear ref | | | |
| 28 | 330933045 | clutch ass'y | | | |
| 29 | 332224002 | gear P | | | |
| 30 | 332224001 | gear A | | | |
| 31 | 33222403 | gear fr | | | |
| 32 | 332393011 | arm fr | | | |
| 33 | 330934048 | flywheel R ass'y | | | |
| 34 | 020844124 | belt | | | |
| 35 | 332193025 | bracket MM | <A> : | DECK-A(CRH-4405) ONLY | |
| 36 | 330934104 | motor ass'y | : | DECK-B(CRH-4404) ONLY | |
| 37 | 160724055 | wire | | | |
| 38 | 330933100 | P.C.B. ass'y | | | |
| | 330933145 | P.C.B. ass'y <A> | | | |
| 39 | 330703035 | P.C.B. | | | |
| 40 | HBRK11R-2 | housing | | | |
| | HBRK9R-2 | housing <A> | | | |
| 41 | LSA1135 or MTS10041MVLO | switch (leaf) | | | |
| 42 | SG105 BC | photo sensor | | | |
| 43 | ERDS2TJ681 | resistor | | | |
| 44 | MSW1722NCV | mode switch | | | |
| 45 | 3307040615 | P.C.B. head | | | |
| 46 | S6BEH | housing | | | |
| | S3BEH | housing <A> | | | |

CASSETTE DECK MECHANISM

CD MECHANISM EXPLODED VIEW



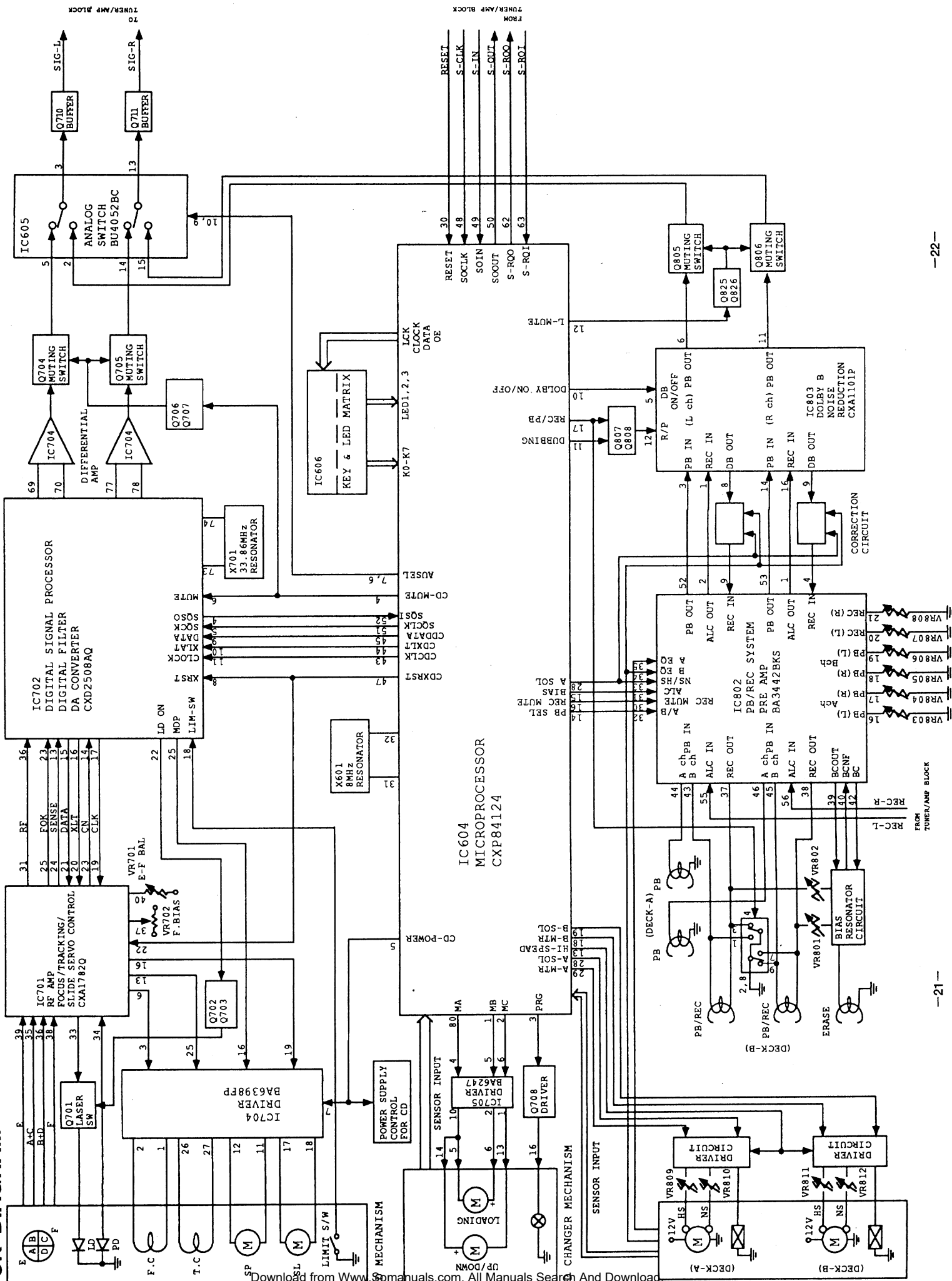
CD MECHANISM PARTS LIST

| REF. NO. | PART NO. | DESCRIPTION | REF. NO. | PART NO. | DESCRIPTION |
|----------|-----------|-------------------------|----------|--------------|-----------------------------------|
| 1 | 300701316 | clumper bracket ass'y | 55 | 30070713 | float rubber holder |
| 2 | 300701306 | connector PCB ass'y | 56 | 30070283 | E gear G4 spring |
| 3 | 300701309 | disc sensor PCB A ass'y | 58 | 300701125 | L gear B(N) |
| 4 | 300701311 | disc sensor PCB B ass'y | 59 | 300701126 | L gear C(N) |
| 5 | 300702317 | coil ass'y | 60 | 30071105 | L gear D |
| 6 | 300702512 | gear chassis ass'y | 61 | 30071106 | L gear E |
| 7 | 300702318 | disc case ass'y | 62 | 30070766 | floating spring NB |
| 8 | 300702319 | E sensor PCB ass'y | 63 | 30070768 | floating spring ND |
| 9 | 300702302 | E motor ass'y | 64 | 30070767 | floating spring NC |
| 10 | 300706316 | loading plate ass'y | 82 | 9P0420041 | tapping screw M2x4 |
| 11 | 300706317 | disc base ass'y | 83 | 9B1320041 | C tapping bind screw M2x4 |
| **12 | 69020301 | traverse KSM-2102BAM | 84 | 9P0420061 | tapping screw M2x6 |
| 13 | 300707317 | T.T. base holder ass'y | 85 | PC2020301 | tapping screw SG M2x3 |
| 14 | 300711501 | L gear bracket ass'y | 87 | 9P03026221 | cup screw M2.6x2.2 |
| 15 | 300711301 | L motor ass'y | 88 | 9P1720102 | cup screw (+-)M2x10 |
| 16 | 300711306 | guide plate aasy | 89 | 9PW0250080 | PW cut 1.85x5x0.5 |
| 17 | 300711304 | L sensor PCB ass'y | 90 | 9PW0250110 | PW cut 2.6x6x0.5 |
| 21 | 30070187 | cover plate spring(N) | 93 | 9B1220041 | P tapping bind screw M2x4 |
| 22 | 30070185 | chassis(N) | 94 | 9P0720061 | P tapping screw M2x6 |
| 23 | 30070144 | lock lever spring | 95 | 9C0320353 | camera screw M2x3.5 |
| 24 | 30070179 | disc stopper D | 96 | 9P0420101 | tapping screw M2x10 |
| 25 | 30070186 | guide R4 | 98 | 9P0420051 | tapping screw M2.6x5 |
| 26 | 30070149 | disc base bracket | 99 | 25065375 | Switch |
| 27 | 30070150 | guide R1(S) | A | 24506903 | Wheel A |
| 28 | 30070151 | guide R2(S) | B | 24506904 | Wheel B |
| 29 | 30070153 | guide L1(S) | C | 24502258-1 | Spindle Motor |
| 30 | 30070106 | guide L2 | 12 | 8-848-137-11 | Traverse Assembly (Alternate PN#) |
| 31 | 30070155 | cover plate B(S) | | | |
| 32 | 30070156 | disc stopper(S) | | | |
| 33 | 300702111 | E gear G2(P)A | | | |
| 34 | 30070256 | E gear G2(S)B | | | |
| 35 | 30070184 | switch base | | | |
| 36 | 30070162 | cover plate A(S) | | | |
| 37 | 30070163 | locker lever(S) | | | |
| 38 | 300702116 | cushion rubber(P10) | | | |
| 39 | 30070298 | worm gear bracket(P10) | | | |
| 40 | 19001204 | coller screw | | | |
| 41 | 30070296 | E control plate(P) | | | |
| 42 | 30070292 | E control lever(P) | | | |
| 43 | 300702100 | E motor bracket(P10) | | | |
| 44 | 30070175 | guide stopper(P10) | | | |
| 45 | 30070277 | E gear G3(N) | | | |
| 46 | 300702122 | gear G5(TN) | | | |
| 47 | 30070279 | gear G6(N) | | | |
| 48 | 300702113 | gear G7(P10) | | | |
| 49 | 30070293 | gear G8(P10) | | | |
| 50 | 300702112 | E gear G9(P10) | | | |
| 51 | 30070232 | E gear G2 spring | | | |
| 52 | 300702119 | E sensor spring T | | | |
| 53 | 30070259 | E gear G4(S) | | | |
| 54 | 30070297 | E sensor bracket(P10) | | | |

PRINTED CIRCUIT BOARD PART LIST

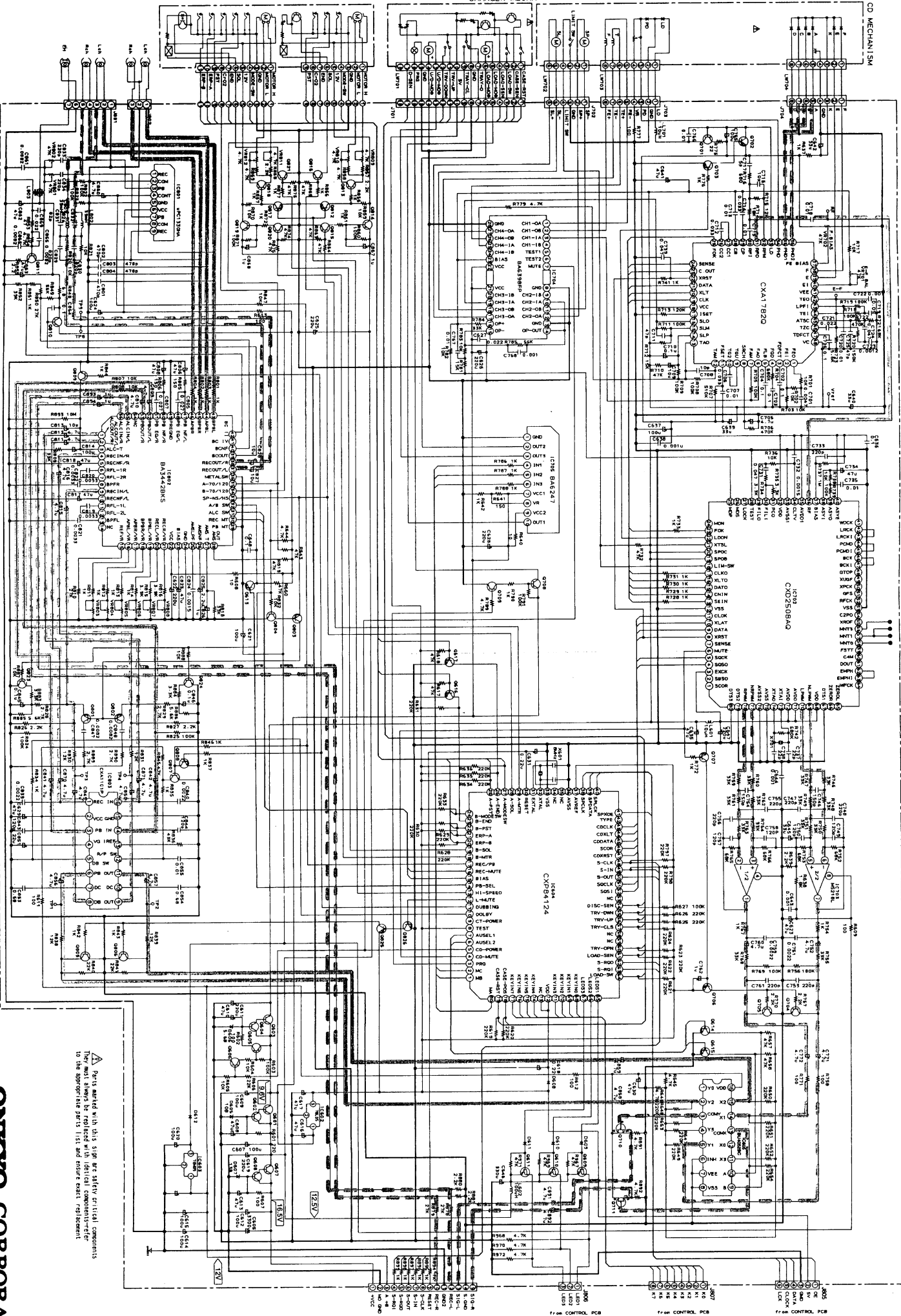
| CIRCUIT NO. | PART NO. | DESCRIPTION | CIRCUIT NO. | PART NO. | DESCRIPTION |
|-----------------------------------------------------------------------------|-----------------------------|-------------------|---------------------------------|-------------------------|-------------------------------|
| MAIN CIRCUIT PC BOARD | | | | | |
| | IC | | C605 | 354753329 | 25V3300 μ F |
| IC602 | 222780053 or 1-0185-1 | NJM78L05 | C618 | 3000079 | 5.5V0.22F |
| IC603 | 222780091 or 1-0138-1 | NJM78M09 | VR701,702,801,802 | TRIMER RESISTOR | |
| IC604 | 1-0311-1 | CXP84124-136Q | VR803-806 | 5210068 | 47K Ω |
| IC605 | 22240328 or 1-0207-1 | BU4052BC | VR807,808 | 5210064 | 10K Ω |
| IC701 | 1-0302-1 | CXA1782BQ | VR809,811-812 | 5210066 | 22K Ω |
| IC702 | 1-0303-1 | CXD2508AQ | | 5210062 | 4.7K Ω |
| IC703 | 222652 or 1-0281-1 | M5218L | J701 | SOCKET | |
| IC704 | 1-0304-1 | BA6398FP | J702 | 12-0151-1 | CFF1118-0101 or HILEM18S-1 |
| IC705 | 1-0306-1 | BA6247 | J703,704 | 12S6-J0001 | B6B-PH |
| IC801 | 22240147 or 1-0309-1 | μ PC1330HA | J801 | 12S8-J0001 | B8B-PH |
| IC802 | 1-0307-1 | BA3442BKS | J802 | 12S7-J0001 | B7B-EH |
| IC803 | 22240086 or 1-0308-1 | CXA1101P | J805 | 12S3-J0001 | B3B-EH |
| | TRANSISTOR | | J806 | 12S6-C0002 | 52147-0610 |
| Q601,603,607 | 2202705 or 2-2SD2394E-7 | 2SD2394E | J807 | 12S3-C0002 | 52147-0310 |
| Q602,604,606,608, Q704,705,709,804, Q805,806,807,815, Q820,823,824 | 2213284 or 2-2SC1740S-S7 | 2SC1740SR | | 12S8-C0002 | 52147-0810 |
| Q605 | 2213355 or 2-2SA933S-S7 | 2SA933AS | LW803 | FLAT CABLE | |
| Q609,610,611 | 2-2SB1333-7 | 2SB1333 | LW804 | 12-0177-1 | UL2651#26 \times 9 |
| Q613-617,703,707, Q801,802,808,809, Q812,817 | 2213160 or 2-DTC124ES-7 | DTC124ES | LW808 | 12-0178-1 | UL2651#26 \times 11 |
| Q701,810 | 2-2SA1585SQ-7 | 2SA1585SQ | E600 | 12-0171-1 | UL2651#26 \times 6 |
| Q702,706,803,825 | 2212600 or 2-DTA124ES-7 | DTA124ES | OTHERS | | |
| Q708,814,819 | 2-2SB1374Q-7 | 2SB1374Q | 20-1132010101 HEAT SINK(C) | | |
| Q811 | 2-2SD2172-7 | 2SD2172 | CONTROL CIRCUIT PC BOARD | | |
| Q813,816,818,821 | 2-2SC1741S-7 | 2SC1741S | IC | | |
| Q710,711 | 2212195 | 2SK241GR | IC606 | 1-0319-1 | BU2092F |
| | FET | | D614,615,616,617 | DIODE | |
| D605 | 3-Z-MTZJ10B-8 | MTZJ10B | | 223163 or 3-1SS133-1 | 1SS133 |
| D606 | 3-Z-MTZJ5.6B8 | MTZJ5.6B | LED601,602 | LED | |
| D607 | 3-Z-MTZJ13B-8 | MTZJ13B | LED603,604,607,608, | 28-0063-1 | SLR332MG |
| D609,610,611 | 3-Z-MTZJ8.2B8 | MTZJ8.2B | LED611-613,615,617, | 28-0057-1 | SLV-312VC |
| | DIODE | | LED619,621,623,625, | | |
| D608 | 3-RB100A | RB100A | LED627,629,631,633, | | |
| D612 | 223839 | 1N4002 | LED634 | 28-0062-1 | SLR332VR |
| | CERAMIC RESONATOR | | LED605,606 | 28-0058-1 | SLV-312MC |
| X601 | 29-0069-1 | CST8MTW | LED609,610,614,616, | | |
| X701 | 29-0085-1 | CSA33.86MXZ040 | LED618,620,622,624, | | |
| | COIL | | LED626,628,630,632, | | |
| L801,802 | 6-0310-1 | 10RB type,39mH | LED635,636 | | |
| L803 | CHNS-6010 | 10PA type | TACT SWITCH | | |
| | MICRO INDUCTOR | | SW601-611,614-632 | 8-0263-2 | SKHHAM |
| L601,701 | 26-0012-2 | LAL03,10 μ H | SW612,613 | 8-0269-1 | SKHHAR |
| L602 | 26-0056-1 | LAL03,100 μ H | LW805 | FLAT CABLE | |
| | | | LW806 | 12-0174-1 | UL2651#26 \times 6 |
| | | | LW807 | 12-0163-1 | UL2651#26 \times 3 |
| | | | | 12-0176-1 | UL2651#26 \times 8 |

LOCK DIAGRAM



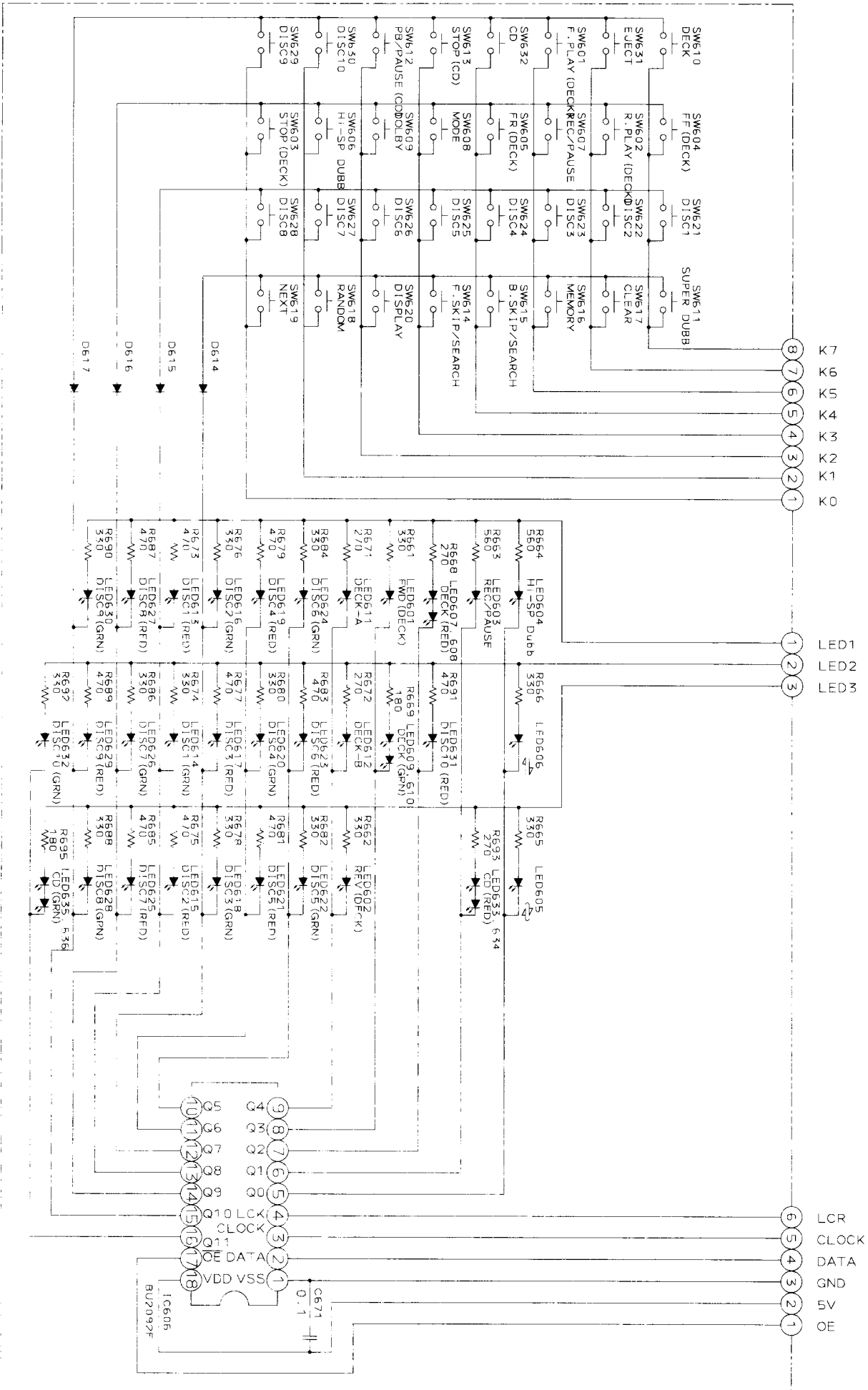
SCHEMATIC DIAGRAM

A | B | C | D | E | F | G



KCY-707 KCY-707

△ Parts marked with this sign are safety critical components
To be replaced with identical components
To the appropriate parts list and draw sheet.



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