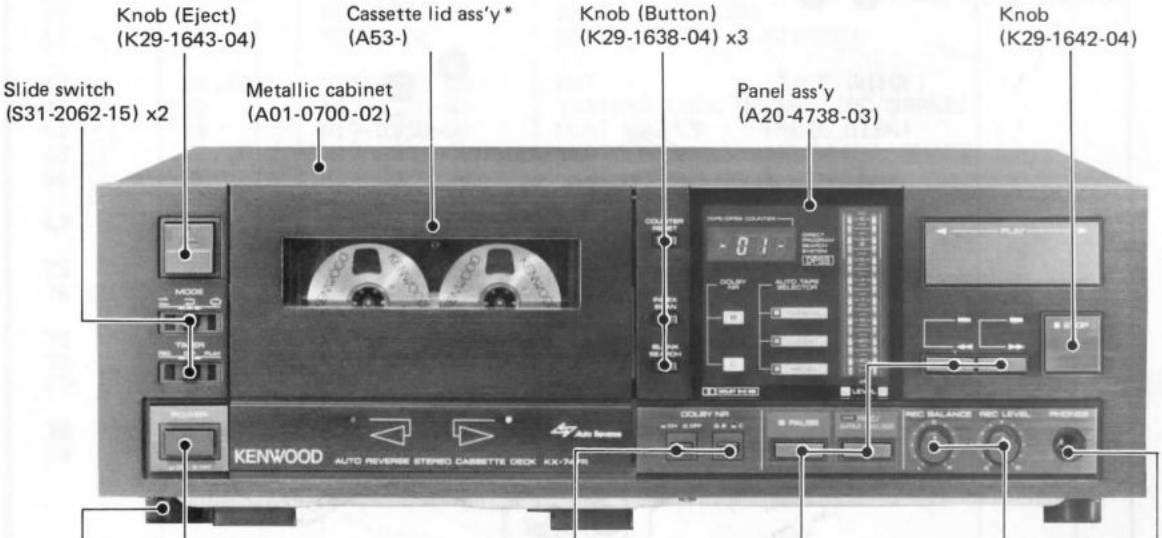
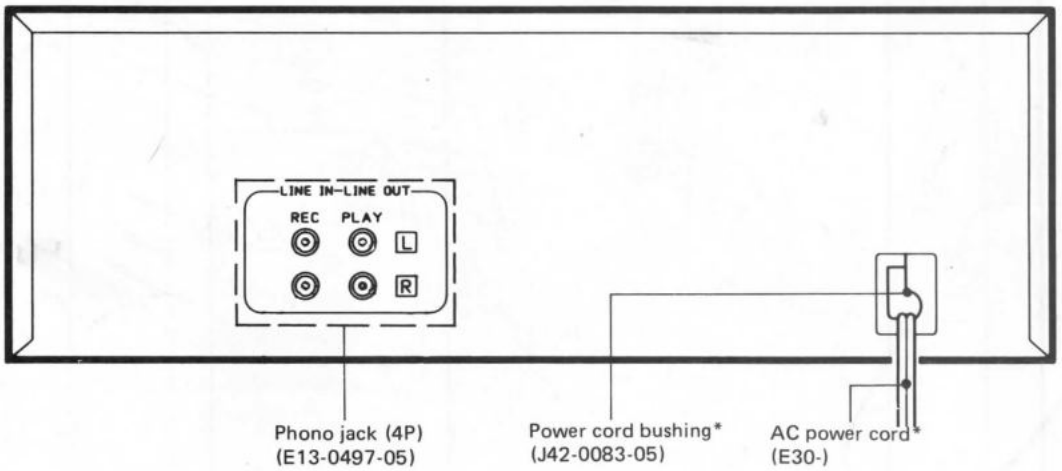
SERVICE MANUAL

KENWOOD

KX-747R

AUTO REVERSE STEREO CASSETTE DECK

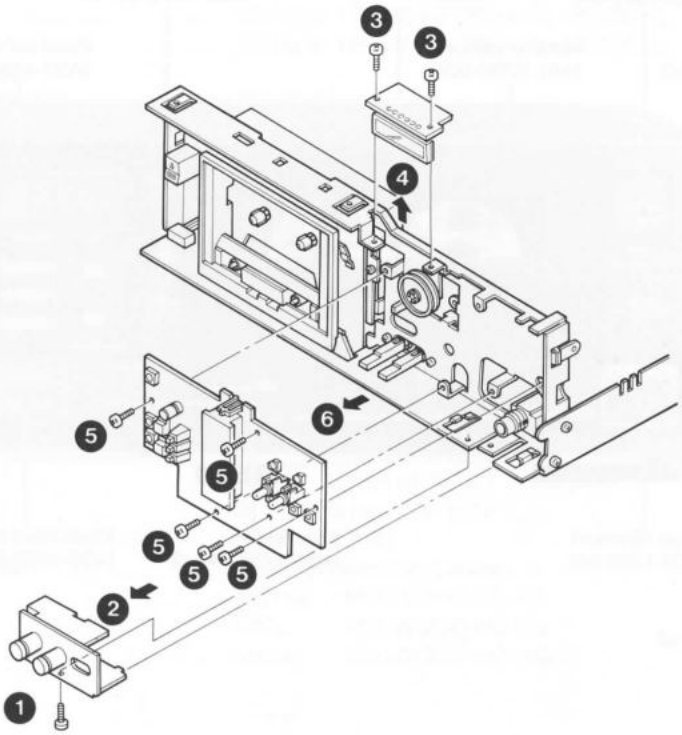




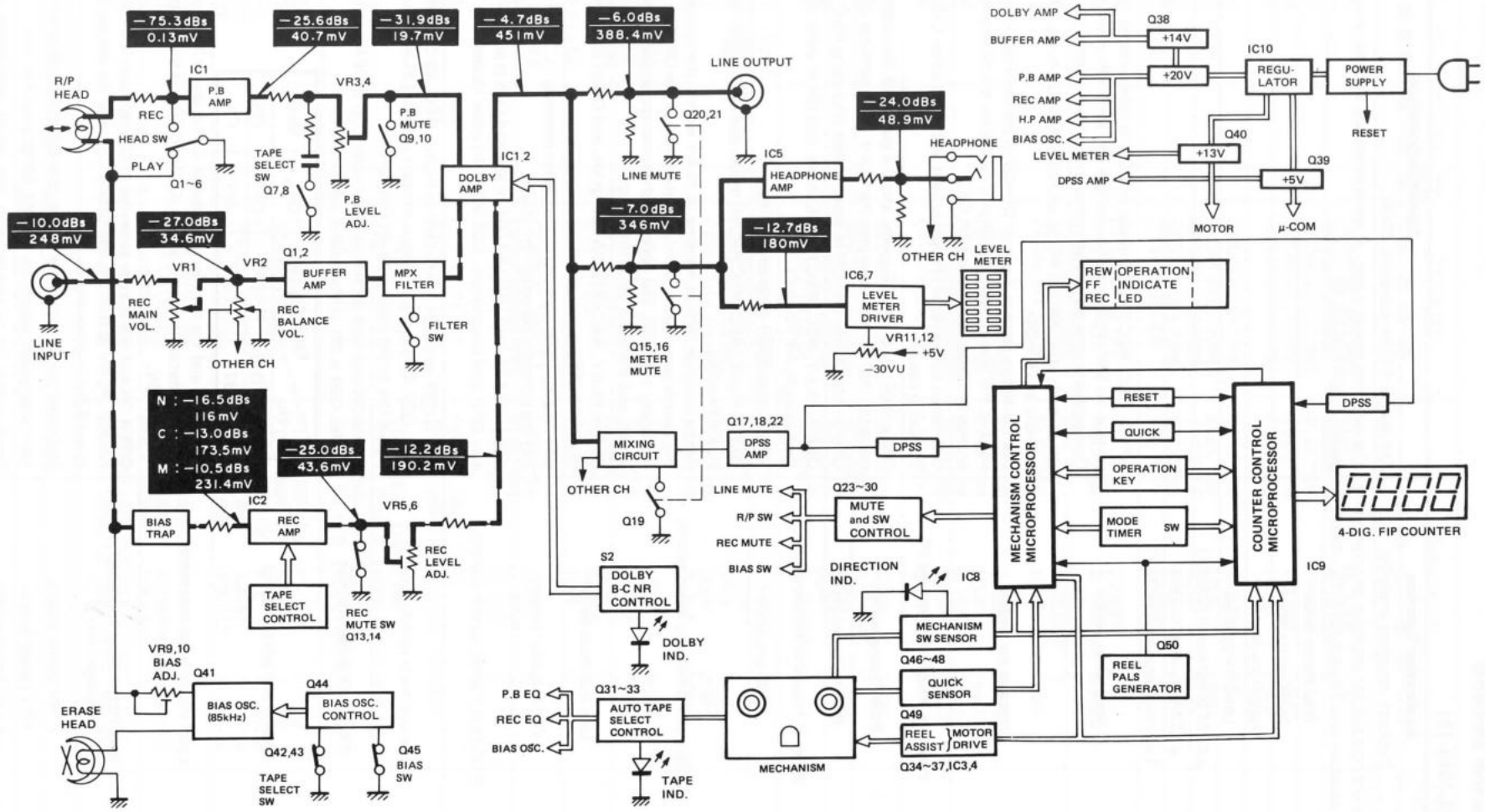
*Refer to parts list on page 15.

DISASSEMBLY FOR REPAIR

1. Remove the screw of the fitting for REC BALANCE and REC LEVEL dials from the bottom plate side. (❶).
2. Pull the fitting to this side in the state where the board is attached to it (❷).
3. Remove two screws of the tape counter board and remove the board (❸ , ❹).
4. Five screws of the board to which the level meter is mounted can now be removed, and the board can be removed to this side. (❺ , ❻).



BLOCK LEVEL DIAGRAM



KX-747R

CIRCUIT DESCRIPTION

Functions of active elements

REC/PLAY (X28-1640-12)

Components	Application/function	Operation/conditions
IC1	Playback equalizer amplifier	The gain at 315Hz is approx. 50dB.
IC2	Recording equalizer amplifier (incorporating equalizer select switch for CrO_2, metal)	The reference power supply is fitted externally because of use with single power supply. (Terminal No. 8)
IC3	Reel motor drive	
IC4	Assist motor drive	
IC5	Headphone amplifier	
IC6,IC7	Level meter drive	
IC8	μ-COM (mechanism control)	
IC9	μ-COM (counter control)	
IC10	3-terminal regulator (+ 20V)	
Q1~Q4	Head select switch	OFF in REC, REC PAUSE mode, and ON in other modes. High withstand voltage, suitably low saturation voltage and small ON resistance are required. Compatible article is 2SC1841 other than those in parts list.
Q5,Q6	Head select switch	ON in REC, REC PAUSE mode, and OFF in other modes. (Mutually supplementary to Q1~Q4). Use transistors same as those of Q1~Q4 in the same set. (It is because the shock noise at the time of head selection is caused by the difference in the saturation voltage between Q1~Q4 and Q5,Q6.)
Q7,Q8	Playback equalizer select switch	OFF when normal tape (120μs) is used and is ON when CrO_2, metal tape (120μs) is used.
Q9,Q10	PLAY mute switch	ON in REC, REC PAUSE mode, and the output of the playback equalizer is muted so that no bias leaks into the PLAY input terminal of the Dolby unit.
Q13,Q14	REC mute switch	OFF in REC mode, and ON in other modes (including REC, PAUSE).
Q15,Q16	Meter & Headphone mute switch	OFF in PLAY, REC, REC PAUSE mode, and ON in other modes (including PLAY PAUSE).
Q17,Q18	DPSS amplifier	NPN 2-stage direct coupled amplifier.
Q19	DPSS input sensitivity select switch	OFF in PLAY, REC, REC PAUSE mode, and ON in other modes (including PLAY PAUSE). As the switch is OFF at the time of PLAY search, the bypass filter connected to this switch becomes conductive to the input of the DPSS amplifier, and the input sensitivity increases. The opposite phenomenon occurs at the time of CUE & REV search, and the input sensitivity drops.
Q20,Q21	Line out mute switch	OFF in PLAY, REC, REC PAUSE mode, and ON in other modes (including PLAY PAUSE).
Q22	DPSS output switch	OFF in a no signal part and the collector becomes "L" (0V). ON in a signal part and the collector becomes "H" (5V).
Q23~Q26	REC/PLAY select switch control	Q26 is OFF in REC, REC PAUSE mode, and Q25 is also OFF. Further, Q24 is also OFF, and accordingly, Q23 is ON. In other modes Q25 is ON and Q23 is OFF.
Q27,Q28	Line out mute switch control	Q27 is OFF and Q28 is also OFF in PLAY, REC, REC PAUSE mode. Both Q27, Q28 are ON in other modes (including PLAY PAUSE mode). Q28 is ON at the time of power ON/OFF.
Q29,Q30	REC mute switch control	Q30 is ON and Q29 is OFF in REC mode. Q30 is OFF and Q29 is ON in other modes. Q29 is ON at the time of power ON/OFF.
Q31~Q33	Auto tape select control	<table><tr><th>Tape / Tr. No.</th><th>Normal</th><th>CrO_2</th><th>Metal</th></tr><tr><td>Q31,Q32</td><td>OFF</td><td>OFF</td><td>ON</td></tr><tr><td>Q33</td><td>OFF</td><td>ON</td><td>ON</td></tr></table>
Q34,Q36	Assist motor drive impressed voltage control	Q34 is ON and the emitter potential of Q36 is about 3.2V when assist motor is in HOLD status. In other statuses, Q34 is OFF and the emitter potential of Q36 is about 10V.
Q35,Q37	Reel motor drive impressed voltage control	Q35 is ON and the emitter potential of Q37 is about 3.6V in STOP, PLAY, REC PAUSE (PLAY & REC) mode. Q35 is OFF and the emitter potential of Q36 is about 9.5V in other modes.
Q38	+ 14V power supply	Stabilized power supply for buffer (pre-Dolby) amplifier and Dolby circuit.
Q39	+ 5V power supply	Stabilized power supply for μ-COM, DPSS amplifier, etc.
Q40	+ 13V power supply	Power supply for motors (capstan, reel, assist), level meter, etc.

CIRCUIT DESCRIPTION

<table>
<tr><th>Components</th><th>Application/function</th><th>Operation/conditions</th></tr>
<tr><td>Q41</td><td>For bias oscillation</td><td>Drives the primary side of the bias oscillation transformer.</td></tr>
<tr><td>Q42,Q43</td><td>Bias oscillation level select switch</td><td>
<table>
<tr><th>Tape / Tr. No.</th><th>Normal</th><th>CrO₂</th><th>Metal</th></tr>
<tr><td>Q42</td><td>ON</td><td>OFF</td><td>OFF</td></tr>
<tr><td>Q43</td><td>OFF</td><td>ON</td><td>OFF</td></tr>
</table>
</td></tr>
<tr><td>Q44</td><td>Bias oscillator power supply</td><td></td></tr>
<tr><td>Q45</td><td>Bias ON/OFF switch</td><td>OFF in REC mode, and ON in other modes (including REC PAUSE).</td></tr>
<tr><td>Q46</td><td>Half detect switch</td><td>OFF when a cassette half is mounted, and is ON when not mounted.</td></tr>
<tr><td>Q47</td><td>CUE SW detect switch</td><td>ON when CUE SW is ON, and is OFF when CUE SW is OFF.</td></tr>
<tr><td>Q48</td><td>DIRECTION SW detect switch</td><td>ON at the time of REVERSE and OFF at the time of FORWARD.</td></tr>
<tr><td>Q49</td><td>Quick sensor amplifier</td><td>ON/OFF by a signal from the photocoupler for quick sensor. Momentarily ON from OFF state at the time of transition from the magnetic substance part to the leader tape part at the tape end.</td></tr>
<tr><td>Q50</td><td>Revolution detect amplifier</td><td>Generates pulses with switching signals which correspond to the revolution of the reel stand (winding side in FWD drive) obtained from the photocoupler.</td></tr>
<tr><td>Q51</td><td>DPSS indication clear</td><td>When IC8 AMPG output becomes "L", Q54 is OFF and REC KEY is not accepted.</td></tr>
</table>

CIRCUIT DESCRIPTION

Functions of ports of MB8843(1263J) (Microprocessor : IC9)

Functions of terminals

Terminal No.	Port code	Description of operation
1	EXTAL	Grounded because of use of external clocks.
2	XTAL	External clocks are input. fosc is about 2MHz.
3	$\overline{\text{RESET}}$	Reset is applied at LOW level, and all output ports become "H". 6μsec or longer is required for LOW level.
4	IRQ	Terminal for external interruption. An interruption is applied at deactivation of the signal. Counter pulses are counted here. The required minimum pulse width for an interruption signal is 3μsec.
5	SO	Serial data output port. Unused here.
6	SI	Serial data input port. Unused here, and therefore, PULL DOWN (10kΩ) only is made to GND.
7	$\overline{\text{SC}}$/$\overline{\text{TO}}$	Unused.
8	$\overline{\text{TC}}$	Unused.
9	P0	FL counter grid control board. P0—G1, P1—G2, P2—G3, P3—G4 make correspondence to each other, and lit at "H" and out at "L". The grid is dynamically driven. The duty is about 1/4 and the frequency is about 100Hz.
10	P1	
11	P2	
12	P3	
13	O0	FL counter a segment data output. Lit at "H"and out at "L".
14	O1	FL counter b segment data output. Lit at "H" and out at "L".
15	O2	FL counter c segment data output. Lit at "H" and out at "L".
16	O3	FL counter d segment data output. Lit at "H" and out at "L".
17	O4	FL counter e segment data output. Lit at "H" and out at "L".
18	O5	FL counter f segment data output. Lit at "H" and out at "L".
19	O6	FL counter g segment data output. Lit at "H" and out at "L".
20	O7	FL counter colon segment data output. Lit at "H", and out at "L".
21	Vss	Connected to GND.
22	R0	Key input DIRECTION ⮌
23	R1	Key input DIRECTION ⮎
24	R2	DPSS indication clear input "L" input : DPSS indication is returned to usual counter indication by hardware regardless of the current mechanical motions. "H" input : DPSS is kept until series of motions terminate during DPSS indication.
25	R3	Key input COUNTER RESET
26	R4	Key input BS
27	R5	Key input IS
28	R6	Key input PAUSE
29	R7	Key input REW
30	R8	Key input FF
31	R9	Key input REVERSE PLAY
32	R10	Key input FORWARD PLAY
33	R11	Key input STOP
34	R12	Index scan signal input port. Index scan at "H", and index scan is cancelled at "L".
35	R13	Head direction detect board. FORWARD at "H", and REVERSE at "L".
36	R14	Unused.
37	R15	FORWARD PLAY LED drive. Voltage (5V) is supplied to F.PLAY LED anode at "L".
38	K0	DPSS signal input port. "H" with music and "L" between musics.
39	K1	Motor running status detect port. "L" during FF, REW, CUE, REWIND; "H" in other status.
40	K2	Motor running status detect port. "H" while the tape is running in FORWARD direction, and "L" in other statuses.
41	K3	Motor running status detect port. "H" while the tape is running in REVEERSE direction, and "L" in other statuses.
42	Vcc	Power supply terminal 4.5~5.5V.

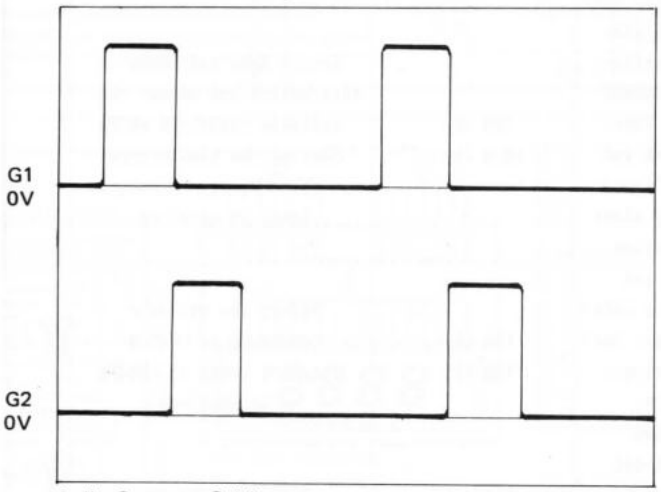
CIRCUIT DESCRIPTION

Description of FL counter indication (DPSS indication)

Item	Description
Feed SEARCH (FF SEARCH)	Number of jumped musics: The number of times FF (REW) key was pressed is indicated. However, in the case where unrecorded portion is continued for 540msec or longer in CUE status after FF (REW) key was pressed for the first time and second pressing of FF (REW) key was not made in the mean time, the number of times of jumping, i.e., the indication is –01–. –16– is indicated at maximum.
Rewind SEARCH (REW SEARCH)	Number of jumped musics: The number of times REW (FF) key was pressed is indicated. 16 is indicated at maximum.
One music repeat	The number of times of repeating at the present time is indicated. –16– is indicated at maximum, and reset to usual counter occurs at the 17th time.
Dush & Play	a) In the case of REVERSE MODE ⇄ The number of times of repeating on one side is indicated. Reset to usual counter occurs after –17– is displayed. b) In the case of REVERSE MODE ↻ Count-up occurs each time when reversing is made. –03– is indicated at maximum and reset to usual counter occurs at auto stop. c) In the case of REVERSE MODE ↻ Count-up occurs each time when reversing is made. –16– is indicated at maximum and reset to usual counter occurs at auto stop.
INDEX SCAN	The number of times of music play is indicated. –99– is indicated at maximum, and reset to usual counter occurs at auto stop.

Waveforms

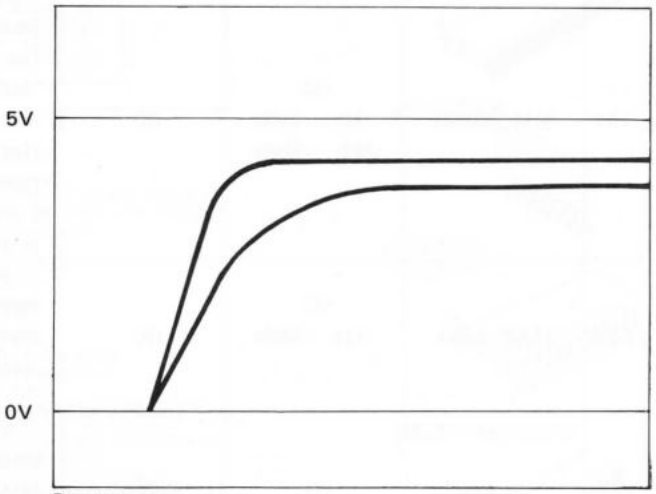
1. Grid waveforms of 4 digital counters



4-dig Counter Grid

X : 2 [ms/div]
Y : 5 [V/div]

2. RESET terminal activation waveforms



Power on
Reset Signal

X : 100 [ms/div]
Y : 1 [V/div]
ABOVE : MB8841HM-1237K
Reset terminal
BELOW : MB8843M-1263J
Reset terminal

ADJUSTMENT

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	CASSETTE TAPE DECK SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
CASSETTE DECK SECTION		TAPE: NORMAL, DOLBY: OFF, INPUT: LINE				0dBs=0.775V	
I REC/PLAY HEAD							
[1]	DEMAGNETIZATION	–	–	POWER: OFF Remove the cassette door.	REC/PLAY head	Demagnetize the REC/PLAY head with a head demagnetizer.	
[2]	CLEANING	–	–	PLAY	REC/PLAY head erase head, capstan, pinch roller.	Clean the REC/PLAY head erase head, capstan and pinch roller using a cotton swab slightly damped with alcohol.	
[3]	AZIMUTH	MTT-114	(B)	PLAY	Azimuth adjustment screw	Adjust the azimuth adjustment screw so that the output voltage is maximized in both forward and reverse direction.	(a)
DC MOTOR							
(i)	TAPE SPEED	MTT-111D	(B)	PLAY	Trimming potentiometer in the DC motor	Adjust the tape speed so that a 3kHz signal is produced at the center of the tape.	
II PC BOARD							
<1>	PLAYBACK LEVEL	MTT-150 MTT-256 MTT-256U	(B)	PLAY	VR3 (L) VR4 (R)	Output level: -3.8dBs(500mV) Output level: -6.5dBs(370mV) Output level: -2.5dBs(600mV)	
<2>	BIAS CURRENT	(A) 1kHz, -30dBs 10kHz, -30dBs	(B)	Adjust REC and BALANCE so that the REC monitor output becomes -26dBs at 1kHz, then record and reproduce signal of 1kHz and 10kHz in alternation.	VR9 (L) VR10 (R)	Record 1kHz and 10kHz in alternation and adjust the variable resistors which control the bias current so that the same playback level is obtained.	
<3>	RECORD LEVEL	(A) 1kHz, -30dBs	(B)	Record and reproduce a 1kHz signal under the conditions set in <2>.	VR5 (L) VR6 (R)	Adjust the variable resistors so that a playback level of -26dBs is obtained.	
<4>	LED PEAK LEVEL METER	(A) 1kHz, -40dBs	(B)	REC PAUSE Adjust REC and BALANCE so that the monitor output is -36dBs at 1kHz.	VR11 (L) VR12 (R)	-30dB LED segment is completely lit.	

REGLAGE

N°	ITEM	REGLAGE DE L'ENTREE	REGLAGE DE LA SORTIE	REGLAGE DU MAGNETO -PHONE A CASSETTE	POINTS DE L'ALIGNEMENT	ALIGNER POUR	FIG.
SECTION DU MAGNETOPHONE		TAPE: NORMAL, DOLBY: OFF, ENTREE: LINE					0dBs=0.775V
I TETE D'ENREGISTREMENT/LECTURE							
[1]	DEMAGNETISATION	–	–	POWER: OFF Eloigner la porte.	Tête D'ENREGISTREMENT/ LECTURE	Demagnétiser la tête D'ENREGISTREMENT/LECTURE avec un démagnétiseur de tête.	
[2]	NETTOYAGE	–	–	PLAY	Tête D'ENREGISTREMENT/ LECTURE tête d'effacement, cabestan, galetpresseur.	Nettoyer la tête D'ENREGISTREMENT/LECTURE la tête d'effacement, le cabestan et le galetpresseur avec un coton-tige légèrement imbibé d'alcool.	
[3]	AZIMUT	MTT-114	(B)	PLAY	Vis d'azimut	Ajuster la vis de réglage de l'azimut de façon que la tension de sortie soit maximale à la fois en avant et en arrière, de la bande d'essai.	(a)
MOTEUR CC							
(i)	VITESSE DE DEFILEMENT	MTT-111D	(B)	PLAY	Résistance ajustable du moteur CC	Régler la vitesse de bande de façon qu'un signal de 3kHz soit produit au centre de la bande.	
II PLAQUE IMPRIMEE							
<1>	NIVEAU DE LECTURE	MTT-150	(B)	PLAY	VR3 (G) VR4 (D)	Niveau de sortie: -3.8dBs(500mV)	
		MTT-256				Niveau de sortie: -6.5dBs(370mV)	
		MTT-256U				Niveau de sortie: -2.5dBs(600mV)	
<2>	COURANT DE POLARISATION	(A) 1kHz. -30dBs 10kHz. -30dBs	(B)	Régler REC et BALANCE de façon que la sortie de moniteur REC soit de -26dBs à 1kHz, puis enregistrer et reproduire des signaux de 1kHz et 10kHz en alternance.	VR9 (G) VR10 (D)	Enregistrer un signal de 1kHz et 10kHz en alternance et ajuster les résistances variables qui commandent le courant de polarité de façon à obtenir le même niveau de lecture.	
<3>	NIVEAU D'ENREGISTREMENT	(A) 1kHz. -30dBs	(B)	Enregistrer et reproduire un signal de 1kHz dans les conditions précisées en <2>.	VR5 (G) VR6 (D)	Ajuster les résistances variables de façon à obtenir un niveau de lecture de -26dBs.	
<4>	INDICATEUR DE NIVEAU DE CRETE A DIODE LED	(A) 1kHz. -40dBs	(B)	REC PAUSE Ajuster REC et BALANCE de façon à ce que la sotie moniteur soit de -36dBs à 1kHz.	VR11 (G) VR12 (D)	Le segment de diode LED -30dB soit complètement allumé.	

ABGLEICH

NR.	GEGENSTAND	EINGANGS-EINSTELLUNG	AUSGANGS-EINSTELLUNG	KASSETTENGERÄT-EINSTELLUNG	ABGLEICH PUNKTE	ABGLEICHEN FÜR	ABB.
CASSETTEN-DECK-ABTEILUNG		TAPE: NORMAL, DOLBY: OFF, EINGANG: LINE				0dBs = 0,775V	
I AUFNAHME/WIEDERGABE-KOPF							
[1]	ENTMAGNETISIERUNG	–	–	POWER: OFF Den Kassettenfach deckel oben herausziehen.	AUFNAHME/ WIEDERGABE-Kopf	Entmagnetisierung von dem AUFNAHME/WIEDERGABE-Kopf mit einem Tonkopf Entmagnetisierungsdrossel.	
[2]	REINIGUNG	–	–	PLAY	AUFNAHME/ WIEDERGABE-Kopf Löschkopf, Tonwelle, Andruckrolle.	AUFNAHME/WIEDERGABE-Kopf, Löschkopf, Tonwelle und Andruckrolle mit einem leicht mit Alkohol befeuchteten Wattebausch reinigen.	
[3]	AZIMUT-EINSTELLUNG	MTT-114	(B)	PLAY	Azimut-Einstellschraube	Die Azimut-Justierschraube so einstellen, daß die maximale Ausgangsspannung in Vorwärts-Reverserichtung und erzielt.	(a)
GLEICHSTROMMOTOR							
(i)	BANDGESCHWINDIGKEIT	MTT-111D	(B)	PLAY	Trimmer potentiometer am Gleichstrommotor	Die Bandgeschwindigkeit so justieren, daß ein 3kHz Signal auf der Mitte des Bands erzeugt wird.	
II GEDRUCKTE SCHALTPLATTE							
<1>	WIEDERGABE-PEGEL	MTT-150	(B)	PLAY	VR3 (L) VR4 (R)	Ausgangspegel: -3,8dBs(500mV)	
		MTT-256				Ausgangspegel: -6,5dBs(370mV)	
		MTT-256U				Ausgangspegel: -2,5dBs(600mV)	
<2>	LEERLAUFSTROM	(A) 1kHz. -30dBs 10kHz. -30dBs	(B)	REC und BALANCE so justieren, daß der REC Monitorausgang -26dBs bei 1kHz wird, und danach abwechselnd Signale von 1kHz und 10kHz aufnehmen und wiedergeben.	VR9 (L) VR10 (R)	Signale von 1kHz und 10kHz abwechselnd aufnehmen und die Regelwiderstände, die den Vormagnetisierugsstrom regeln, so justieren, daß der gleiche Wiedergabepegel erzielt wird.	
<3>	AUFNAHMEPEGEL	(A) 1kHz. -30dBs	(B)	Ein 1kHz Signal unter den in Punkt <2> beschriebenen Bedingungen aufnehmen und reproduzieren.	VR5 (L) VR6 (R)	Die Regelwiderstände so justieren, daß ein wiedergabepegel von -26dBs erzielt wird.	
<4>	LED SPITZEN-PEGELMESSER	(A) 1kHz. -40dBs	(B)	REC PAUSE REC und BALANCE so einstellen, daß der Monitorausgang bei 1kHz, -36dBs ist.	VR11 (L) VR12 (R)	Die Regelwiderstände so justieren, daß das -30dB Segment vollständig leuchtet.	

ADJUSTMENT/REGLAGE/ABGLEICH

1. TEST TAPE

1–1. Recording system adjust tape

Nor. : AC-223 (TDK)
CrO_2 : AC-512 (TDK)
METAL : AC-712 (TDK)

1–2. Playback system adjust tape

Wow flutter and tape speed	: MTT-111D
Playback level	: MTT-150
Playback level and f characteristic	: MTT-256
Playback level and f characteristic	: MTT-256U
Azimuth	: MTT-114

2. MEANINGS OF TERMS

2–1. Specified recording level

The recording level required for obtaining an output level that is equal to the 315Hz playback output of a standard tape of full magnetic flux 16mM (= 160 nWb/m) is meant.

2–2. Specified recording status

The status where the specified input level of 1kHz, −10dBs is input to LINE IN and the LINE dial is adjusted so that recording can be made at the specified recording level (LINE OUT is −6dBs at this time) is meant.

2–3. Specified input level

The input level which is the reference required for obtaining the specified recording level is meant. The level at the input terminal is of the following value.

LINE INPUT . . . . . −10dBs (0VU)

2–4. Specified output level

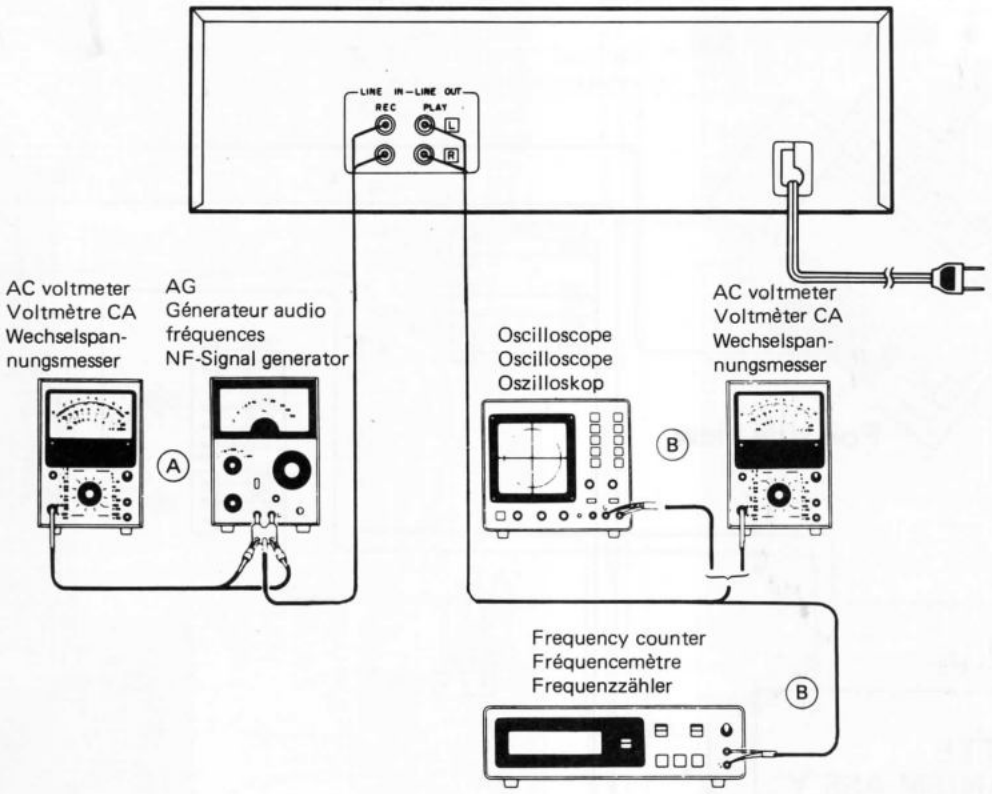
The level obtained at LINE OUT at the time when signals of 315Hz of a standard tape of full magnetic flux 16mM (= 160nWb/m) is played is meant. Provided that a resistance of 50kΩ is loaded to LINE OUT.

MTT-150 400Hz (20mM) playback)
. . . . . LINE OUT output −3.8dBs
MTT-256 315Hz (16mM) playback
. . . . . LINE OUT output −6.5dBs
MTT-256U 315Hz (25mM) playback
. . . . . LINE OUT output −2.5dBs

2–5. 0dBs = 0.775V

ADJUSTMENT/REGLAGE/ABGLEICH

SYSTEM CONNECTION



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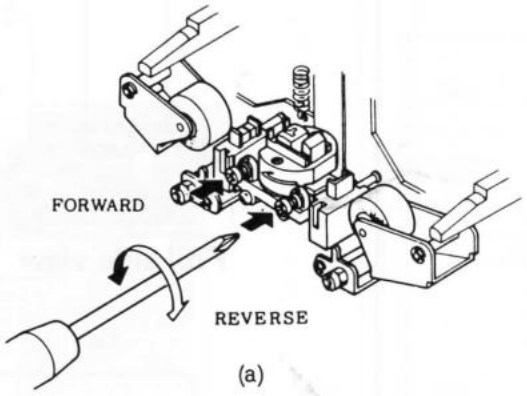
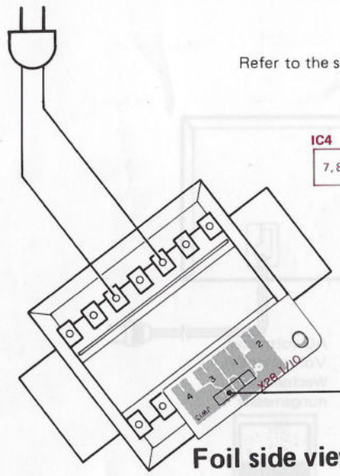


(a)

PC BOARD

Refer to the schematic diagram for the values of resistors and capacitors.



Foil side view

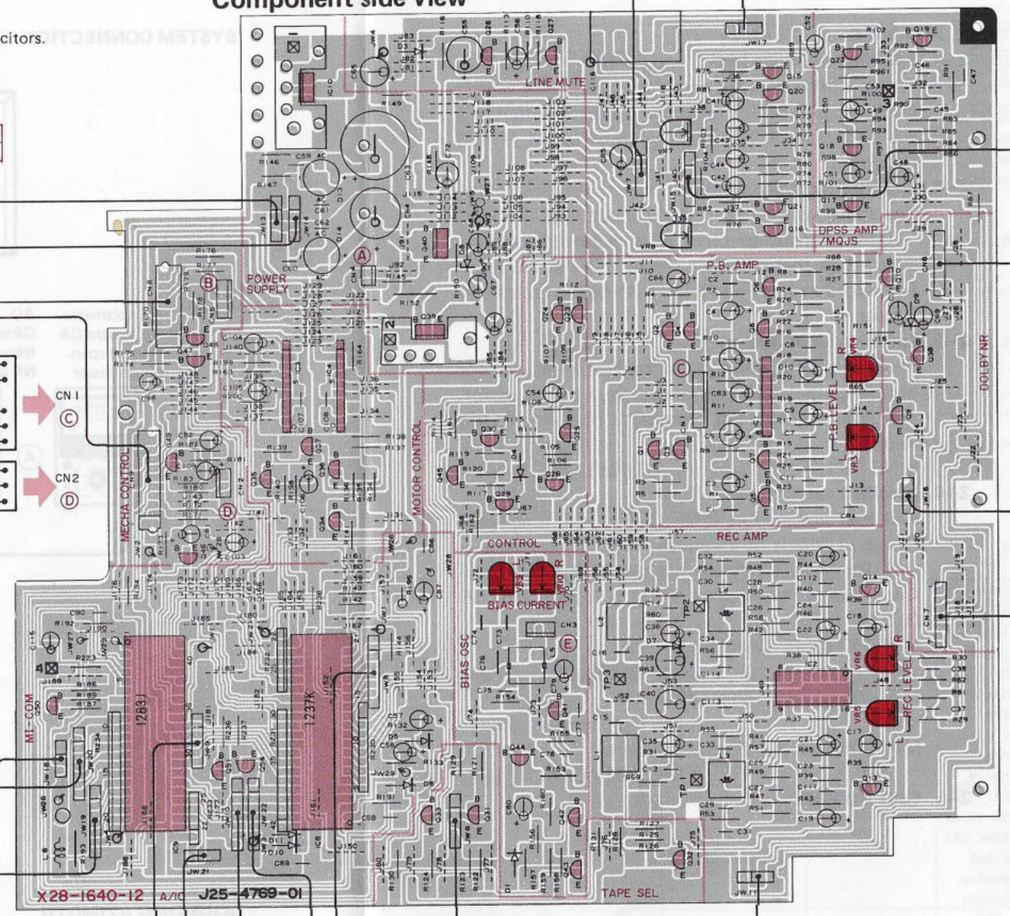
IC4

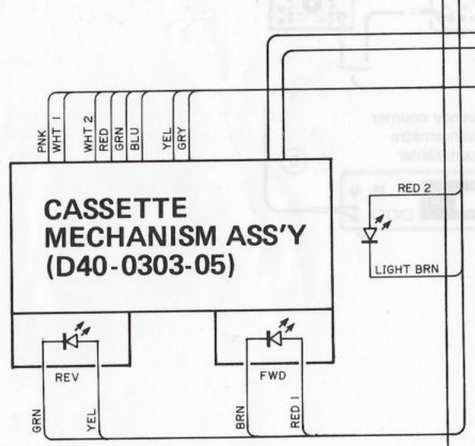
7,8	STOP 3.56V STOP→PLAY 11.3V

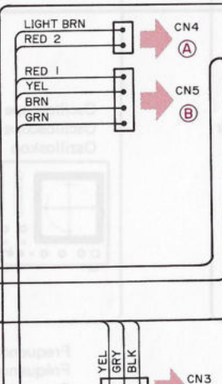
IC10

I	G	O
29.8V	–	19.8V

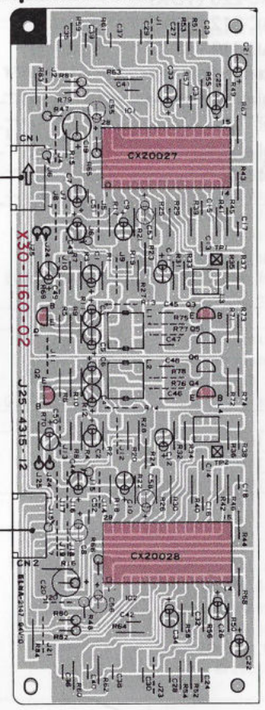
REC/PLAY (X28-1640-12)(A/10)
Component side view







DOLBY NOISE REDUCTION (X30-1160-02)
Component side view



X28-1640-12
IC1

1	1.27V
2	0.76V
3	4.18V
4	13.7V
5	0V
6	3.9V
7	0.76V
8	1.27V

IC2

1,2	10.8V
3	10.9V
4	10.8V
5	10.9V
6	0V
7,8	10.9V
9	N : 14.4V C : 9.89V M : 3.00V
10	10.8V
11	19.8V
12 ~ 15	10.8V
16	10.7V

IC3

1,2	0V
3	0.3V
4	4.3V
5,6	0.13V
7,8	14.7V
9	0.34V
10	0V

X30-1160-02

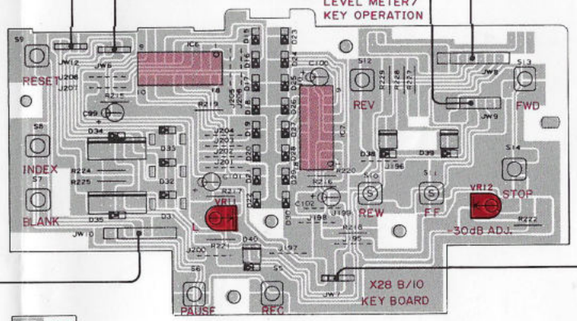
	B	C	E
Q1	2.2V	11.3V	–
Q2	2.2V	–	–

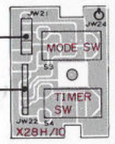
IC1

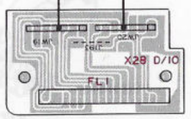
1	6.9V	17,18	0.2V
2	14V	19	7.3V
3,4	7.3V	20,21	0.2V
5	7.2V	22,23	0V
6	7V	24	NR OFF : 12V
7,8	7.2V		NR ON : 0V
9	1.9V	25	B : 12V
10	0.65V		C : 0V
11~13	7.2V	26	REC : 12V
14	7.3V		PLAY : 0V
15	7.2V	27	0V
16	7.3	28	7.3V

X28-1640-12

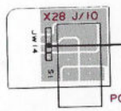
	B	C	E
Q17	0.56V	–	–
Q18	1.17V	3.0V	0.59V
Q22	5.6V	–	–
Q23	–	–	R/P 19.7V/0V
Q25	–	–	R/P HIZ/14.1V
Q33	–	9.1V *(NORM)	–
Q36	–	STOP 3.56V STOP →PLAY 11.3V	–
Q38	–	19.8V	14.0V
Q39	–	–	5.0V
Q40	–	14.6V	13.9V (STOP) 13.0V (PLAY)

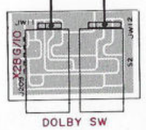


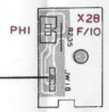




Foil side view

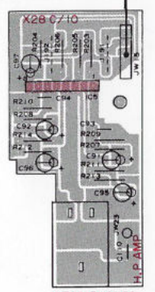


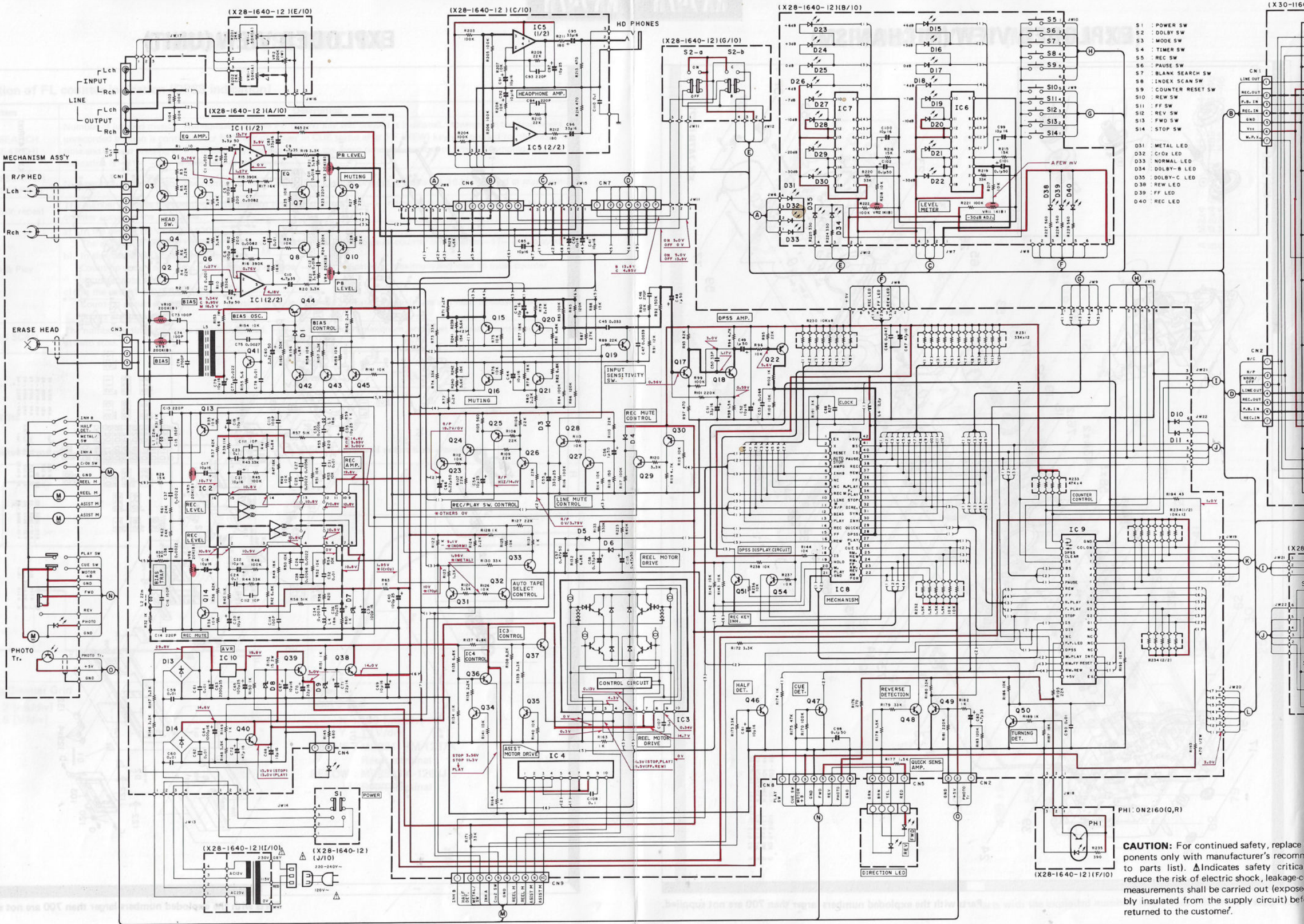


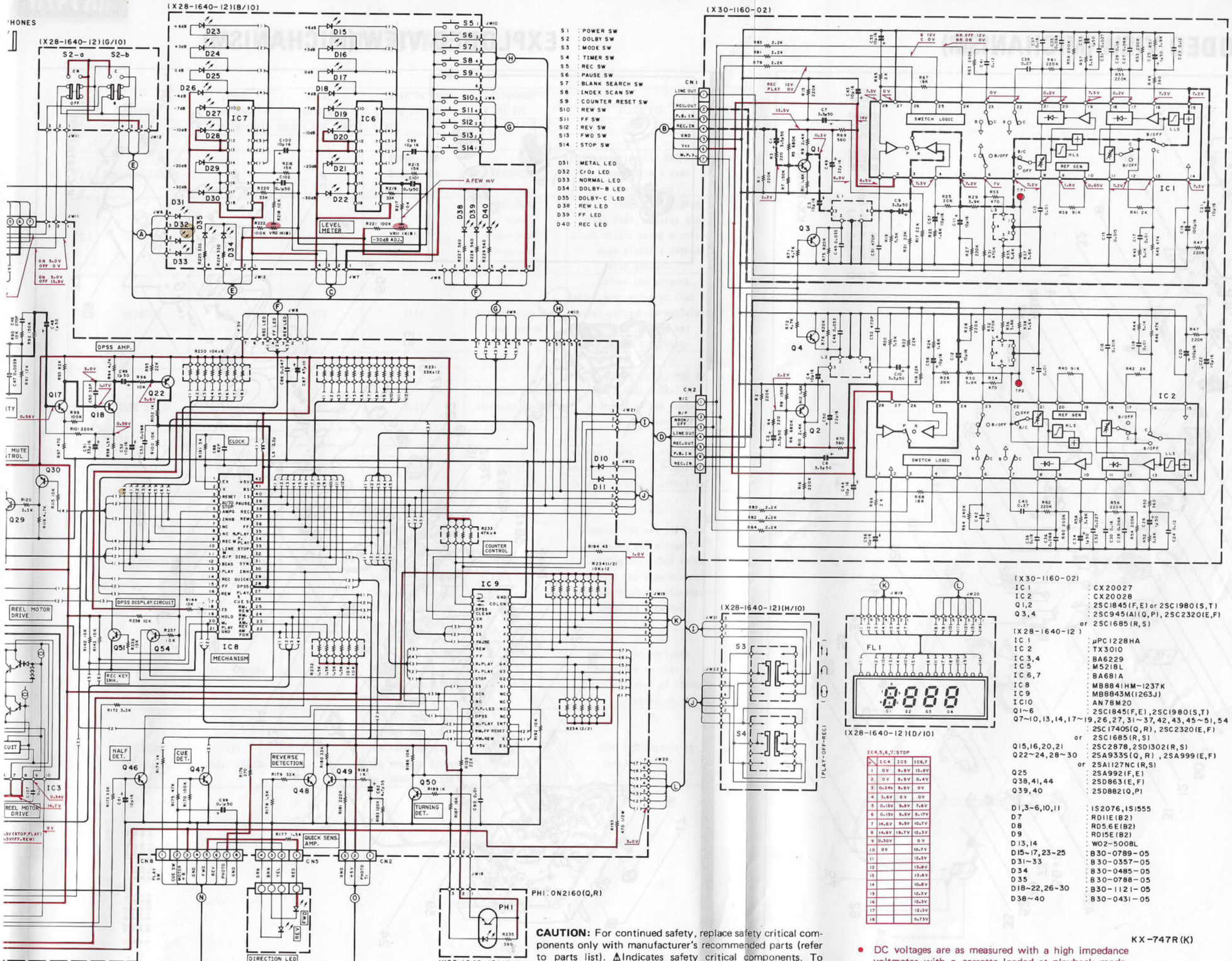


FRONT

Foil side view




(X28-1640-12)(E/10)
(X28-1640-12)(C/10)
(X28-1640-12)(G/10)
(X28-1640-12)(B/10)
(X28-1640-12)(A/10)
(X30-164
HD PHONES
HEADPHONE AMP.
IC5 (1/2)
IC5 (2/2)
S2-a
S2-b
INPUT
LINE
OUTPUT
Lch
Rch
MECHANISM ASS'Y
R/P HED
ERASE HEAD
PHOTO Tr.
EQ AMP.
IC1 (1/2)
IC1 (2/2)
EQ
PB LEVEL
MUTING
HEAD SW.
BIAS
BIAS OSC.
BIAS CONTROL
REC LEVEL
REC AMP.
REC MUTE
BIAS TRAP
AVR
IC10
IC2
REC/PLAY SW. CONTROL
REC MUTE CONTROL
LINE MUTE CONTROL
REEL MOTOR DRIVE
AUTO TAPE SELECT CONTROL
IC3 CONTROL
IC4 CONTROL
CONTROL CIRCUIT
ASIST MOTOR DRIVE
IC3
IC4
INPUT SENSITIVITY SW.
DPSS AMP.
DPSS DISPLAY CIRCUIT
REC KEY INH.
IC8
MECHANISM
IC6
IC7
IC9
LEVEL METER
A FEW mV
-30dB ADJ.
CLOCK
COUNTER CONTROL
HALF DET.
CUE DET.
REVERSE DETECTION
TURNING DET.
QUICK SENS. AMP.
DIRECTION LED
REC LED
FF LED
REW LED
S1 : POWER SW
S2 : DOLBY SW
S3 : MODE SW
S4 : TIMER SW
S5 : REC SW
S6 : PAUSE SW
S7 : BLANK SEARCH SW
S8 : INDEX SCAN SW
S9 : COUNTER RESET SW
S10 : REW SW
S11 : FF SW
S12 : REV SW
S13 : FWD SW
S14 : STOP SW
D31 : METAL LED
D32 : CrO2 LED
D33 : NORMAL LED
D34 : DOLBY-B LED
D35 : DOLBY-C LED
D38 : REW LED
D39 : FF LED
D40 : REC LED
PHI : ON2160(Q,R)
(X28-1640-12)(I/10)
(X28-1640-12)(J/10)
(X28-1640-12)(F/10)
CN1
CN2
CN3
CN4
CN5
CN6
CN7
CN8
CN9
POWER
CAUTION: For continued safety, replace
ponents only with manufacturer's recomm
to parts list). ⚠Indicates safety critica
reduce the risk of electric shock, leakage-c
measurements shall be carried out (expose
bly insulated from the supply circuit) bef
returned to the customer.



CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

IC4,5,6,7:STOP

	IC4	IC5	IC6,7
1	0V	9.8V	13.8V
2	0V	9.9V	0.4V
3	0.24V	9.9V	0V
4	3.6V	0V	0V
5	0.13V	9.8V	7.6V
6	0.13V	9.9V	9.17V
7	14.6V	9.9V	10.7V
8	14.6V	19.7V	12.3V
9	0.30V		0V
10	0V		10.7V
11			12.3V
12			13.8V
13			13.8V
14			10.8V
15			12.3V
16			12.3V
17			12.3V
18			0.73V

(X30-1160-02)

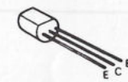
IC1	: CX20027
IC2	: CX20028
Q1,2	: 2SC1845(F,E) or 2SC1980(S,T)
Q3,4	: 2SC945(A)(Q,P), 2SC2320(E,F) or 2SC1685(R,S)

(X28-1640-12)

IC1	: μPC1228HA
IC2	: TX3010
IC3,4	: BA6229
IC5	: M5218L
IC6,7	: BA681A
IC8	: MB8841HM-1237K
IC9	: MB8843M(1263J)
IC10	: AN78M20
Q1~6	: 2SC1845(F,E),2SC1980(S,T)
Q7~10,13,14,17~19,26,27,31~37,42,43,45~51,54	: 2SC1740S(Q,R), 2SC2320(E,F) or 2SC1685(R,S)
Q15,16,20,21	: 2SC2878,2SD1302(R,S)
Q22~24,28~30	: 2SA933S(Q,R), 2SA999(E,F) or 2SA1127NC(R,S)
Q25	: 2SA992(F,E)
Q38,41,44	: 2SD863(E,F)
Q39,40	: 2SD882(Q,P)
D1,3~6,10,11	: 1S2076,1S1555
D7	: RD11E(B2)
D8	: RD5.6E(B2)
D9	: RD15E(B2)
D13,14	: W02-5008L
D15~17,23~25	: B30-0789-05
D31~33	: B30-0357-05
D34	: B30-0485-05
D35	: B30-0788-05
D18~22,26~30	: B30-1121-05
D38~40	: B30-0431-05

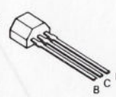
- DC voltages are as measured with a high impedance voltmeter with a cassette loaded at playback mode. Values may vary slightly due to variations between individual instruments or/and units. Bias circuit DC voltages are as measured while in the record mode.

2SA1127NC 2SC2320
2SA992 2SC2878
2SA999 2SC945
2SC1685 2SD1302
2SC1845 2SD863
2SC1980

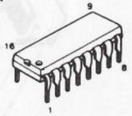


2SD882

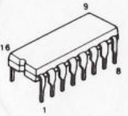
2SA933S
2SC1740S



BA681A

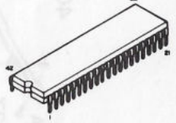


TX3010

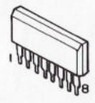


M5218L

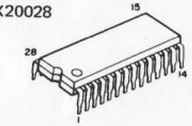
MB8843M



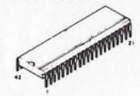
μPC1228HA



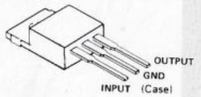
CX20027
CX20028



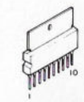
MB8841HM-1237K



AN78M20



BA6229

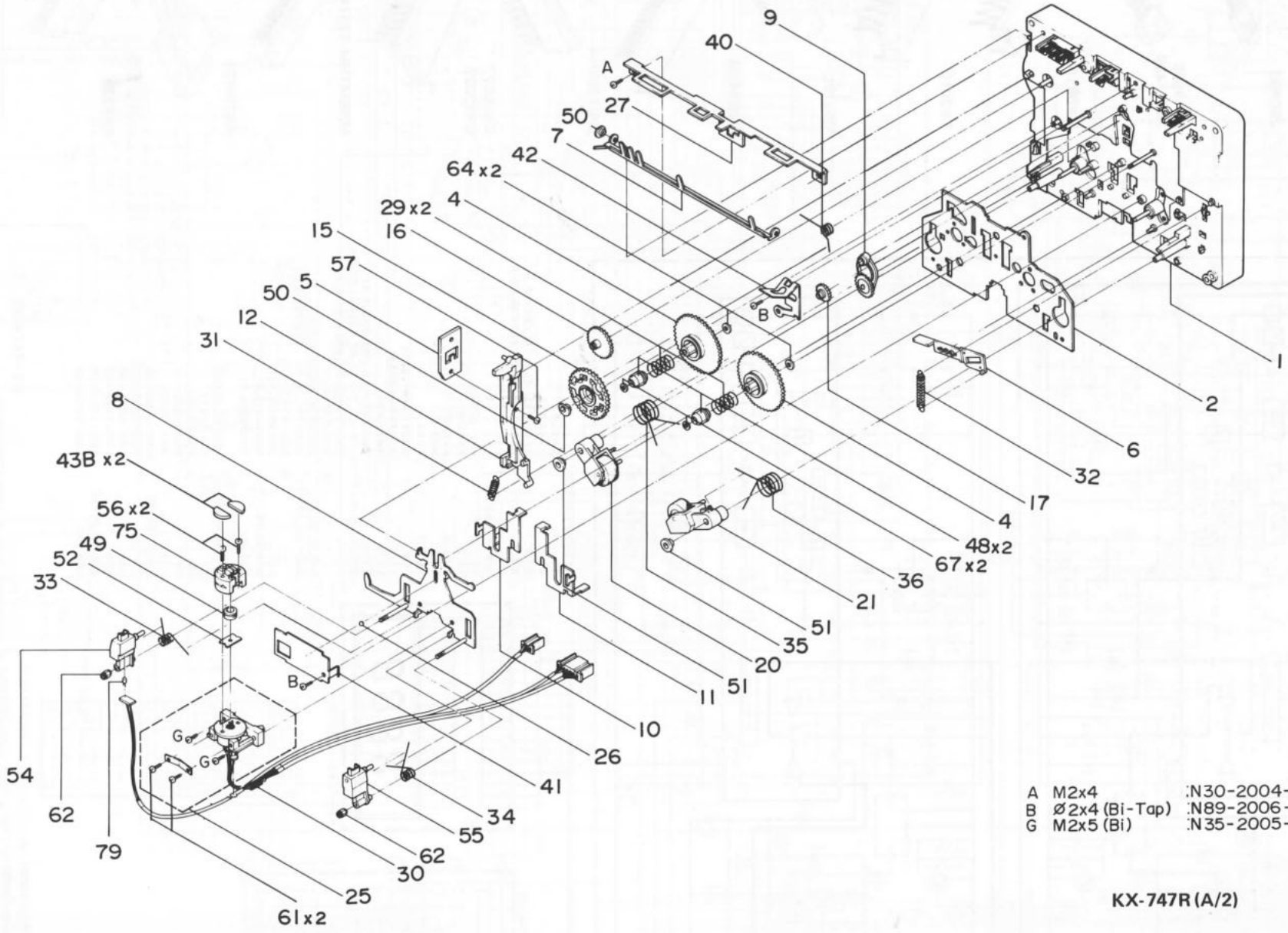


KX-747R(K)

KX-747R

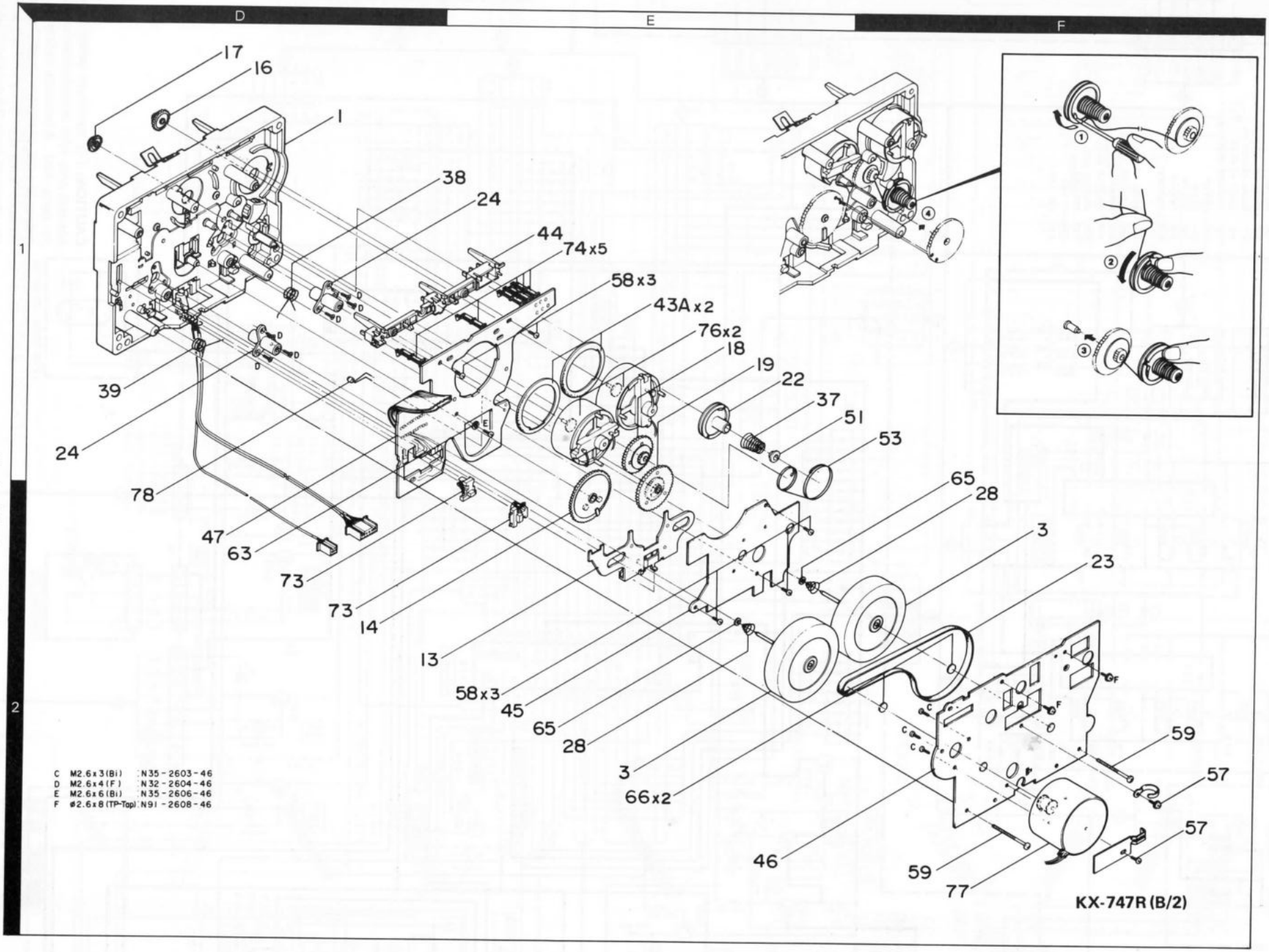
KENWOOD

EXPLODED VIEW (MICHANISM)



Parts with the exploded numbers larger than 700 are not supplied.

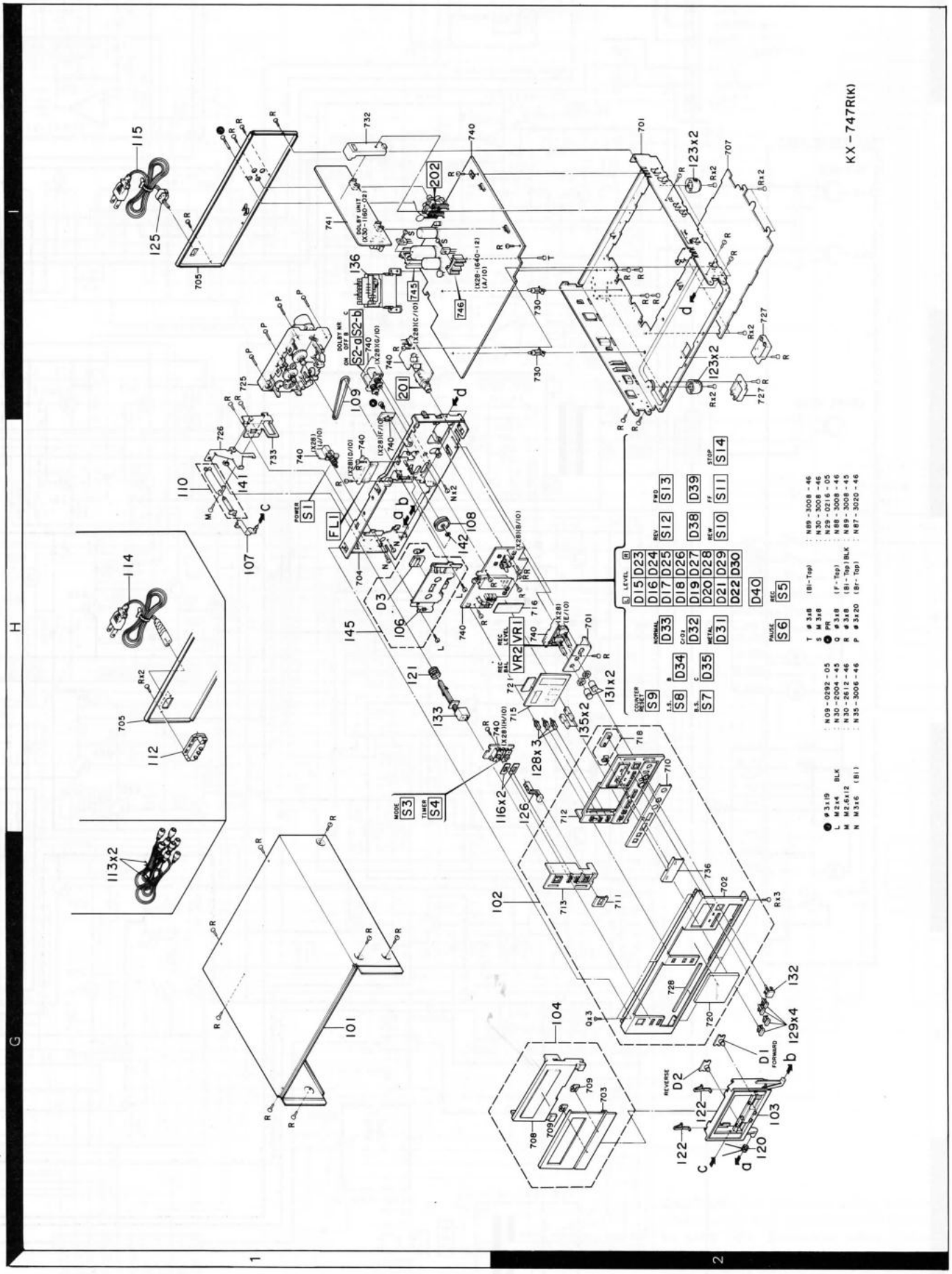
EXPLODED VIEW (MICHANISM)



Parts with the exploded numbers larger than 700 are not supplied.

KX-747R

EXPLODED VIEW (UNIT)



Parts with the exploded numbers larger than 700 are not supplied.

PARTS LIST

* New Parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.
Telle ohne **Parts No.** werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
			KX-747R			
101	1G		A01-0700-02	METALLIC CABINET		
102	2G	*	A20-4738-03	PANEL ASSY		
103	2G		A53-0613-02	CASSETTE HOLDER		
104	2G	*	A53-0800-03	CASSETTE LID ASSY	UMUEXE	
104	2G	*	A53-0804-03	CASSETTE LID ASSY	T	
106	1H		B03-1320-03	DRESSING PLATE (CASSETTE MECHA		
-			B46-0094-03	WARRANTY CARD	UUE	
-			B46-0095-03	WARRANTY CARD	UUE	
-			B46-0096-13	WARRANTY CARD	X	
-			B46-0122-13	WARRANTY CARD	E	
-			B46-0123-03	WARRANTY CARD	T	
-		*	B50-6080-00	INSTRUCTION MANUAL(ENGLISH)	UMUEXE	
-		*	B50-6081-00	INSTRUCTION MANUAL(FRENCH)	MXE	
-		*	B50-6082-00	INSTRUCTION MANUAL(ENGLISH)	T	
-		*	B50-6083-00	INSTRUCTION MANUAL(SPANISH)	M	
-		*	B50-6084-00	INSTRUCTION MANUAL(G,D,I)	E	
-			B58-0223-04	CAUTION CARD (PRE-SET 120V)	U	
-			B58-0513-04	CAUTION CARD (PRESET220-240)	UE	
-			B59-0092-00	SERVICE DIRECTORY	UUE	
-			B59-0094-00	SUB-INSTRUCTION MANUAL(ENGLISH		
-			B59-0095-00	SUB-INSTRUCTION MANUAL(FRENCH)	MXE	
-			B59-0096-00	SUB-INSTRUCTION MANUAL(SPANISH	M	
-			B59-0097-00	SUB-INSTRUCTION MANUAL(G,D,I)	E	
D1 ,2	2G		B30-1012-05	LED(SLP-981C-50)TAPE RUN		
D3	1H		B30-1036-05	LED(SLF-601C) TAPE COUNTER		
107	1H		D10-1179-04	ARM (DUNPER)		
108	1H		D15-0215-04	PULLEY ASSY (TAPE COUNTER)		
109	1I		D16-0090-04	BELT (TAPE COUNTER)		
110	1H		D39-0170-05	DAMPER ASSY		
⚠ 112	1H		E03-0102-25	AC INLET	UMUEE	
⚠ 113	1G		E30-0505-05	AUDIO CORD		
⚠ 114	1H		E30-1305-15	AC POWER CORD (INLET)	UMUE	
⚠ 114	1H		E30-1329-05	AC POWER CORD (INLET)	E	
⚠ 115	1I		E30-1341-05	AC POWER CORD	X	
⚠ 115	1I		E30-1416-05	AC POWER CORD	T	
116	2H		F19-0316-04	BLIND PLATE (TIMER,MODE SW)		
120	2G	*	G01-1576-04	TORSION COIL SPRING(C.HOLDER)		
121	1H		G01-1402-04	COMPRESSION SPRING (KNOB)EJECT		
122	2G		G02-0363-04	FLAT SPRING (CASSETTE HOLDER		
-		*	H01-7085-04	ITEM CARTON CASE	UMUEXE	
-		*	H01-7086-04	ITEM CARTON CASE	T	
-			H10-1710-12	POLYSTYRENE FOAMED FIXTURE		
-			H12-0156-04	PACKING FIXTURE		
-			H20-0417-04	PROTECTION COVER(460X370X360)	M	
-			H25-0223-04	PROTECTION BAG (750X350)	UUEXTE	
-			H25-0232-04	PROTECTION BAG (235X350)		
123	2I		J02-0126-05	FOOT		
⚠ 125	1I		J42-0083-05	POWER CORD BUSHING	XT	
-			J61-0307-05	WIRE BAND		
126	2H		K27-1226-04	KNOB (BUTTON) POWER		

E: Scandinavia & Europe H:Audio Club K: USA P: Canada
T: England U: PX(Far East, Hawaii)
UE : AAFES(Europe) X: Australia M: Other Areas

⚠ indicates safety critical components.

PARTS LIST

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Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
128	2H		K29-1638-04	KNOB (BUTTON) COUNTER,I.S,B.S		
129	2G		K29-1639-04	KNOB(BUTTON)PAUSE,REC/ARM,TAPE		
131	2H		K29-1641-04	KNOB (REC LEVEL,REC BALANCE		
132	2G		K29-1642-04	KNOB (STOP)		
133	1H		K29-1643-04	KNOB (EJECT)		
135	2H		K29-1728-04	KNOB ASSY (DOLBY)		
⚠ 136	1I		L01-3594-05	POWER TRANSFORMER		
141	1H		N29-0207-04	RETAINING RING (Ø2.5)		
142	1H		N19-0880-04	FLAT WASHER (PULLY)		
J	1I		N09-0292-05	STEPPED SCREW (Ø3X19)		
K	1I		N29-0216-05	RIVET		
145	1H	*	X92-1080-00	MECHANISM ASSY		
REC/PLAY (X28-1640-12)						
D15 -17	2H		B30-0789-05	LED(LN245RP) LEVEL-L		
D18 -22	2H	*	B30-1121-05	LED(AMBER) LEVEL-L		
D23 -25	2H		B30-0789-05	LED(LN245RP) LEVEL-R		
D26 -30	2H	*	B30-1121-05	LED(AMBER) LEVEL-R		
D31 -33	2H		B30-0357-05	LED(SLP-153B) TAPE SELECTOR		
D34	2H		B30-0485-05	LED(SLF-202B-01) DOLBY-B		
D35	2H		B30-0788-05	LED(SLF-402B-01) DOLBY-C		
D38 -40	2H		B30-0431-05	LED(LN21CPH) REW,FF,REC		
C1 ,2			CQ09FS1H102JZS	POLYSTY 1000PF J		
C3 ,4			CE04FW1H3R3MEL	ELECTRO 3.3UF 50WV		
C5 ,6			CE04FW1A101MEL	ELECTRO 100UF 10WV		
C7 ,8			CF92FV1H822J	MF 8200PF J		
C9 ,10			CE04FW1V4R7MEL	ELECTRO 4.7UF 35WV		
C11 ,12			CF92FV1H183J	MF 0.018UF J		
C13 ,14			CC45FSL1H221J	CERAMIC 220PF J		
C15 ,16		*	C91-0357-05	POLYSTY 150PF J		
C17 -22			CE04FW1C100MEL	ELECTRO 10UF 16WV		
C23 ,24			CF92FV1H104J	MF 0.10UF J		
C25 ,26			CF92FV1H222J	MF 2200PF J		
C27 ,28			CF92FV1H682J	MF 6800PF J		
C31 ,32			CF92FV1H103J	MF 0.010UF J		
C33 ,34		*	CF92FV1H362J	MF 3600PF J		
C35 ,36			CE04FW1E100MEL	ELECTRO 10UF 25WV		
C37 ,38			CF92FV1H222J	MF 2200PF J		
C39			CE04FW1C101MEL	ELECTRO 100UF 16WV		
C40			CE04FW1E101MEL	ELECTRO 100UF 25WV		
C41 -44			CE04FW1C100MEL	ELECTRO 10UF 16WV		
C45			CF92FV1H333J	MF 0.033UF J		
C46			CC45FSL1H271J	CERAMIC 270PF J		
C47			CF92FV1H392J	MF 3900PF J		
C48 ,49			CE04FW1H010MEL	ELECTRO 1.0UF 50WV		
C50			CC45FSL1H330J	CERAMIC 33PF J		
C51			CE04FW1C330MEL	ELECTRO 33UF 16WV		
C52			CE04FW1C100MEL	ELECTRO 10UF 16WV		
C53			CF92FV1H683J	MF 0.068UF J		
C54			CE04FW1E100MEL	ELECTRO 10UF 25WV		
C55		*	CE04FW1E331MEL	ELECTRO 330UF 25WV		
C56			CE04FW1H010MEL	ELECTRO 1.0UF 50WV		
C57			CE04FW1HR47MEL	ELECTRO 0.47UF 50WV		

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C58			CE04FW1HR33MEL	ELECTRO 0.33UF 50WV		
C59 -62			CK45FF1H103Z	CERAMIC 0.010UF Z		
C63		*	CE04FW1V222MEL	ELECTRO 2200UF 35WV		
C64		*	CE04FW1C102MEL	ELECTRO 1000UF 16WV		
C65			CE04FW1E101MEL	ELECTRO 100UF 25WV		
C66			CE04FW1HR22MEL	ELECTRO 0.22UF 50WV		
C67 -69			CE04FW1C100MEL	ELECTRO 10UF 16WV		
C70 ,71			CE04FW1C220MEL	ELECTRO 22UF 16WV		
C72			CE04FW1C470MEL	ELECTRO 47UF 16WV		
C73 ,74			C91-0355-05	POLYSTY 100PF J		
C75			CF92FV1H272J	MF 2700PF J		
C76			C91-0348-05	POLYPRO 0.0027UF 630WV		
C77			CF92FV1H223J	MF 0.022UF J		
C78			CF92FV1H103J	MF 0.010UF J		
C79			CE04FW1C100MEL	ELECTRO 10UF 16WV		
C80			CE04FW1H2R2MEL	ELECTRO 2.2UF 50WV		
C81			CE04FW1C100MEL	ELECTRO 10UF 16WV		
C82			CE04FW1V4R7MEL	ELECTRO 4.7UF 35WV		
C83			CE04FW1C330MEL	ELECTRO 33UF 16WV		
C84			CK45FF1H103Z	CERAMIC 0.010UF Z		
C85			CE04FW1C100MEL	ELECTRO 10UF 16WV		
C86			CK45FF1H473Z	CERAMIC 0.047UF Z		
C87			CE04FW1A470MEL	ELECTRO 47UF 10WV		
C88			CC45FSL1H820J	CERAMIC 82PF J		
C90			CK45FF1H103Z	CERAMIC 0.010UF Z		
C91 ,92			CE04FW1C100MEL	ELECTRO 10UF 16WV		
C93 ,94			CC45FSL1H221J	CERAMIC 220PF J		
C95 ,96			CE04FW1C330MEL	ELECTRO 33UF 16WV		
C97			CE04FW1E100MEL	ELECTRO 10UF 25WV		
C98			CE04FW1HOR1MEL	ELECTRO 0.1UF 50WV		
C99 ,100			CE04FW1C100MEL	ELECTRO 10UF 16WV		
C101,102			CE04FW1HOR1MEL	ELECTRO 0.1UF 50WV		
C107,108		*	C91-0700-05	CERAMIC 0.1UF J		
C110		*	C91-0700-05	CERAMIC 0.1UF J		
C111,112			CC45FSL1H100D	CERAMIC 10PF D		
C113,114			CC45FSL1H101J	CERAMIC 100PF J		
C115			CE04FW1HR47MEL	ELECTRO 0.47UF 50WV		
C116			C91-0699-05	CERAMIC 0.1UF K		
201	1I		E11-0104-15	PHONE JACK (3P)		
202	1I		E13-0497-05	PHONO JACK (4P)LINE IN/OUT		
L1 ,2			L39-0312-05	VARIABLE INDUCTOR		
L3 ,4			L40-1838-21	SMALL FIXED INDUCTOR(18MH,G)		
L5			L32-0285-05	BIAS OSCILATING COIL		
L6		*	L40-2292-14	SMALL FIXED INDUCTOR(2.2UH,M)		
R152		*	RS14KB3D150J	FL-PROOF RS 15 J 2W		
R153			RS14KB3A680J	FL-PROOF RS 68 J 1W		
R193			RD14GB2H471J	FL-PROOF RD 470 J 1/2W		
R230			R90-0229-05	MULTI-COMP 10KX8 J 1/6W		
R231			R90-0251-05	MULTI-COMP 33KX12 J 1/6W		
R232			R90-0253-05	MULTI-COMP		
R233			R90-0202-05	MULTI-COMP 47KX4 J 1/6W		
R234		*	R90-0293-05	MULTI-COMP 10KX12		
VR1	2H	*	R10-4017-05	POTENTIOMETER(50KX2)REC LEVEL		
VR2	2H	*	R05-5010-05	POTENTIOMETER(200K)REC BALANCE		

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VR3 -6			R12-3313-05	TRIMMING POT. (20K)PB,REC,METER		
VR9 ,10			R12-5310-05	TRIMMING POT. (200K)REC BIAS		
VR11,12			R12-1312-05	TRIMMING POT. (1K)METER		
S1	1H		S40-2173-05	PUSH SWITCH (POWER)		
S2	1I	*	S42-2111-05	MULTIPLE PUSH SWITCH(DOLBY NR)		
S3 ,4	1H		S31-2062-15	SLIDE SWITCH (MODE,TIMER)		
S5 -9	2H		S40-1068-05	PUSH SWITCH(REC,PAUSE,COUNTER)		
S10 ,11	2H		S40-1065-05	PUSH SWITCH (REW,FF)		
S12 -14	2H		S40-1068-05	PUSH SWITCH (REV,FWD,STOP)		
PH1			T95-0017-05	OPTO ISOLATOR (TAPE COUNTER)		
D1			1S1555	DIODE		
D1			1S2076	DIODE		
D3 -6			1S1555	DIODE		
D3 -6			1S2076	DIODE		
D7			RD11E(B2)	ZENER DIODE		
D8			RD5.6E(B2)	ZENER DIODE		
D9			RD15E(B2)	ZENER DIODE		
D10 ,11			1S1555	DIODE		
D10 ,11			1S2076	DIODE		
D13 ,14			W02-5008L	DIODE		
FL1	1H	*	4-ST-01ZS1	FLUORESCENT INDICATOR TUBE		
IC1			UPC1228HA	IC(PREAMP FOR TAPE EQ X2)		
IC2			TX3010	IC(REC AMP FOR CASSETTE DECK)		
IC3 ,4		*	BA6229	IC(MOTOR DRIVER)		
IC5			M5218L	IC(OP AMP X2)		
IC6 ,7			BA681A	IC(LED LEVEL METER)		
IC8			MB8841HM-1237K	IC(MICROPROCESSER)		
IC9		*	MB8843M(1263J)	IC(MICROPROCESSOR)		
IC10		*	AN78M20	IC(VOLTAGE REGULATOR/ +20V)		
Q1 -6			2SC1845(F,E)	TRANSISTOR		
Q1 -6			2SC1980(S,T)	TRANSISTOR		
Q7 -10			2SC1685(R,S)	TRANSISTOR		
Q7 -10			2SC1740S(Q,R)	TRANSISTOR		
Q7 -10			2SC2320(E,F)	TRANSISTOR		
Q13 ,14			2SC1685(R,S)	TRANSISTOR		
Q13 ,14			2SC1740S(Q,R)	TRANSISTOR		
Q13 ,14			2SC2320(E,F)	TRANSISTOR		
Q15 ,16			2SC2878	TRANSISTOR		
Q15 ,16		*	2SD1302(R,S)	TRANSISTOR		
Q17 -19			2SC1685(R,S)	TRANSISTOR		
Q17 -19			2SC1740S(Q,R)	TRANSISTOR		
Q17 -19			2SC2320(E,F)	TRANSISTOR		
Q20 ,21			2SC2878	TRANSISTOR		
Q20 ,21		*	2SD1302(R,S)	TRANSISTOR		
Q22 -24			2SA1127NC(R,S)	TRANSISTOR		
Q22 -24			2SA933S(Q,R)	TRANSISTOR		
Q22 -24			2SA999(E,F)	TRANSISTOR		
Q25			2SA992(F,E)	TRANSISTOR		
Q26 ,27			2SC1685(R,S)	TRANSISTOR		
Q26 ,27			2SC1740S(Q,R)	TRANSISTOR		
Q26 ,27			2SC2320(E,F)	TRANSISTOR		
Q28 -30			2SA1127NC(R,S)	TRANSISTOR		
Q28 -30			2SA933S(Q,R)	TRANSISTOR		

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Q28 -30			2SA999(E,F)	TRANSISTOR				
Q31 -37			2SC1685(R,S)	TRANSISTOR				
Q31 -37			2SC1740S(Q,R)	TRANSISTOR				
Q31 -37			2SC2320(E,F)	TRANSISTOR				
Q38			2SD863(E,F)	TRANSISTOR				
Q39 ,40			2SD882(Q,P)	TRANSISTOR				
Q41			2SD863(E,F)	TRANSISTOR				
Q42 ,43			2SC1685(R,S)	TRANSISTOR				
Q42 ,43			2SC1740S(Q,R)	TRANSISTOR				
Q42 ,43			2SC2320(E,F)	TRANSISTOR				
Q44			2SD863(E,F)	TRANSISTOR				
Q45 -51			2SC1685(R,S)	TRANSISTOR				
Q45 -51			2SC1740S(Q,R)	TRANSISTOR				
Q45 -51			2SC2320(E,F)	TRANSISTOR				
Q54			2SC1685(R,S)	TRANSISTOR				
Q54			2SC1740S(Q,R)	TRANSISTOR				
Q54			2SC2320(E,F)	TRANSISTOR				
DOLBY NOISE REDUCTION (X30-1160-02)								
C1 ,2			CE04FW1H3R3M	ELECTRO	3.3UF	50WV		
C3 ,4			CE04FW1C100M	ELECTRO	10UF	16WV		
C7 -10			CE04FW1H3R3M	ELECTRO	3.3UF	50WV		
C11 ,12			CE04FW1C100M	ELECTRO	10UF	16WV		
C13 ,14			CF92FV1H103J	MF	0.010UF	J		
C15 ,16			CF92FV1H153J	MF	0.015UF	J		
C17 ,18			CF92FV1H103J	MF	0.010UF	J		
C19 ,20			CE04FW1C101M	ELECTRO	100UF	16WV		
C21 ,22			CE04FW1C100M	ELECTRO	10UF	16WV		
C23 ,24			CF92FV1H124J	MF	0.12UF	J		
C25 ,26			CE04FW1H010M	ELECTRO	1.0UF	50WV		
C27 ,28			CF92FV1H683J	MF	0.068UF	J		
C29 ,30			CF92FV1H184J	MF	0.18UF	J		
C31 ,32			CF92FV1H273J	MF	0.027UF	J		
C33 ,34			CE04FW1H010M	ELECTRO	1.0UF	50WV		
C35 ,36			CF92FV1H683J	MF	0.068UF	J		
C37 ,38			CF92FV1H184J	MF	0.18UF	J		
C39 ,40			CF92FV1H274J	MF	0.27UF	J		
C41 ,42			CF92FV1H124J	MF	0.12UF	J		
C43 ,44			CE04FW1C100M	ELECTRO	10UF	16WV		
C45 ,46			CF92FV1H472J	MF	4700PF	J		
C49 ,50			CE04FW1C220M	ELECTRO	22UF	16WV		
C51 ,52			CK45FB1H471K	CERAMIC	470PF	K		
C55 -58			CE04FW1C100M	ELECTRO	10UF	16WV		
L1 ,2		*	L79-0196-05	LC FILTER				
L3 ,4			L39-0108-05	TRAP COIL				
IC1			CX20027	IC(DOLBLY B/C NOISE REDUCTION)				
IC2			CX20028	IC(DOLBY B/C NOISE REDUCTION)				
Q1 ,2			2SC1845(F,E)	TRANSISTOR				
Q1 ,2			2SC1980(S,T)	TRANSISTOR				
Q3 ,4			2SC1685(R,S)	TRANSISTOR				
Q3 ,4			2SC2320(E,F)	TRANSISTOR				
Q3 ,4			2SC945(A)(Q,P)	TRANSISTOR				
CASSETTE MECHANISM ASS'Y (D40-0303-05)								
1	1C,1D		A10-0701-08	CHASSIS ASSY				

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2	1C		A11-0119-08	SUB CHASSIS		
3	2E,2F		D01-0051-08	FLYWHEEL ASSY		
4	1B,2C		D03-0226-08	REEL DISK (TAKEUP,SUPPLY)		
5	1A		D10-1187-08	LEVER (RELEASE,C.HOLDER		
6	2C		D10-1188-08	LEVER (DURING DPSS)		
7	1B		D10-1189-08	LEVER(LIFTS LEAF SW FOR EJECT)		
8	1A		D10-1190-08	LEVER ASSY(PROHIBITS EJECT,ETC		
9	1B		D10-1191-08	LEVER ASSY		
10	2B		D10-1192-08	SLIDER(P.ROLLER,R/P HEAD UP DN		
11	1A		D10-1193-08	SLIDER(P.ROLLER,R/P HEAD UP DN		
12	1A		D10-1194-08	SLIDER (CASSETTE HOLDER LOCK		
13	2D		D10-1195-08	SLIDER (FWD,REV DRIVER		
14	2D		D12-0096-08	CAM (FWD,REV SW)		
15	1A		D13-0135-08	GEAR (ASSIST MOTOR)		
16	1A,1D		D13-0136-08	GEAR (ASSISE MOTOR)		
17	2C		D13-0137-08	GEAR (REEL MOTOR)		
18	1D		D13-0138-08	GEAR (FWD,REV DRIVER		
19	1E		D13-0139-08	GEAR (FWD,REV DRIVER		
20	2B		D14-0091-08	PINCH ROLLER ASSY (REV)		
21	2B		D14-0092-08	PINCH ROLLER ASSY (FWD)		
22	1E		D15-0208-08	PULLEY (RESTORE)		
23	2F		D16-0092-08	BELT (FLYWHEEL)		
24	1D,1E		D23-0180-08	RETAINER (FLYWHEEL TO CHASSIS		
25	2A		D40-0298-08	MECHANISM ASSY (R/P HEAD BLOCK		
26	2B		D90-0103-04	STEEL BALL(BETWEEN NO.8 AND 41		
27	1B		F07-0443-08	COVER (LEAF SW PROTECTION		
28	2E,2F		G01-1268-08	COMPRESSION SP (FLYWHEEL SHAFT		
29	1A		G01-1414-08	COMPRESSION SPRING (REEL DISK)		
30	2A		G01-1415-08	TENSION SPRING (R/P HEAD SW)		
31	1A		G01-1416-08	TENSION SPRING (SLIDER)		
32	2C		G01-1417-08	TORSION SPRING (DPSS LEVER)		
33	2A		G01-1418-08	TORSION SPRING (TAPE GUIDE)		
34	2B		G01-1419-08	TORSION SPRING (TAPE GUIDE)		
35	2B		G01-1420-08	TORSION SP (PINCH ROLLER)REV		
36	2C		G01-1421-08	TORSION SP (PINCH ROLLER)FWD		
37	1E		G01-1422-08	TORSION SPRING (RESTORE PULLY)		
38	1E		G01-1423-08	TORSION SPRING (L)		
39	1D		G01-1424-08	TORSION SPRING (R)		
40	1B		G01-1425-08	TORSION SPRING		
41	2B		G02-0128-08	LEAF SPRING (STEEL BALL)		
42	1B		G02-0129-08	LEAF SPRING (CASET STABILIZER		
43A	1A		G11-1059-08	CUSHION (MOTOR)		
43B	2A	*	G11-1073-08	CUSHION (R/P HEAD)		
44	1E		J19-0839-08	HOLDER (CASET TOP STABILIZER		
45	2E		J21-3365-08	MOUNTING HARDWARE		
46	2E		J21-3366-08	MOUNTING HARDWARE (MOTOR)		
47	2D		J25-4288-08	PC BOARD (NO COMPONENT)		
48	2C		J31-0212-08	COLLAR (REEL DISK)		
49	2A		J42-0104-08	BUSHING (R/P HEAD BLOCK		
50	1A,1B		J42-0105-08	BUSHING (ASSIST MOTOR GEAR		
51	2B,1F		J42-0110-08	BUSHING (PINCH ROLLER)		
52	2A		J42-0111-08	BUSHING (PINCH ROLLER)		
53	1F		J60-0006-08	STRING (PULLEY) NO.22		

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54	2A		J90-0126-08	GUIDE (L) WITH SENSOR		
55	2B		J90-0127-08	RAIL (R) W/O SENSOR		
56	2A		N09-1257-08	SCREW (M1.4X6) R/P HEAD BLOCK		
57	1A,2F		N09-1316-08	SCREW (Ø2.6X6)		
58	1E,2E		N09-1317-08	SCREW (Ø2.6X8)		
59	2F		N09-1318-08	SCREW (Ø2.6X24)		
61	2A		92708056	SCREW (M2X6) AZIMUTH		
62	2A,2B		N14-0135-08	NUT (TAPE GUIDE)		
63	2D		N17-1026-46	TOOTHED LOCK WASHER (PC BOARD)		
64	1B		N19-0350-08	FLAT WASHER (REEL DISK)		
65	2E,1F		N19-0351-08	FLAT WASHER (FLYWHEEL SHAFT		
66	2E		N19-0394-08	FLAT WASHER (FLYWHEEL)		
67	2C		N29-0060-08	FASTENER (REEL DISK)		
73	2D		S31-1008-08	SLIDE SWITCH (PLAY,CUE)		
74	1E		S46-1037-08	LEAF SWITCH		
75	2A		T34-0305-08	REC/PLAY HEAD		
76	1E		T42-0032-08	DC MOTOR ASSY		
77	2F		T42-0033-08	MOTOR ASSY (MAIN)		
78	2D		TLN103	PHOTO DIODE		
79	2A		TPS603	PHOTO TRANSISTOR		

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KX-747R

SPECIFICATIONS

Type	Front Loading Auto-Reverse Stereo Cassette Deck with Dolby B/C NR System
Track System	4-track, 2-channel Stereo/Mono, Recording/Playback
Recording System	AC Bias System (Bias Frequency: 85 kHz)
Erasing System	AC System
Tape Speed	4.76 cm/sec (1-7/8 ips)
Heads	Record and Playback Head × 1 (Hard Permalloy Head) Erase Head × 1 (Double Gap Ferrite)
Motors	Capstan Drive: Electronically Controlled DC Motor
Fast Winding Time	Approx. 85 seconds with C-60 tape
Frequency Response:	
Normal Tape	20 Hz to 16,000 Hz (30 Hz to 15,000 Hz, ±3 dB)
CrO_2 Tape	20 Hz to 17,000 Hz (30 Hz to 16,000 Hz, ±3 dB)
Metal Tape	20 Hz to 18,000 Hz (25 Hz to 17,000 Hz, ±3 dB)
Signal-to-Noise Ratio:	
Dolby C Type NR ON	75 dB (Metal tape)
Dolby B Type NR ON	67 dB (Metal tape)
Dolby NR OFF	58 dB (Metal tape)
Harmonic Distortion	Less than 1.0% (at 1 kHz, 0 VU with Metal tape)
Wow and Flutter	0.05% (W.R.M.S.), ±0.15% (DIN)
Input Sensitivity/Impedance:	
LINE × 2	77.5 mV/50 kohms
Output Level/Load Impedance:	
LINE × 2	390 mV (0 VU)/2 kohms
Headphones × 1	0.3 mW/8 ohms
Power Requirements	AC 120V/220-240V (Switchable), 50/60 Hz
Power Consumption	21W
Dimensions	W: 340 mm (13-13/32") H: 113 mm (4-7/16") D: 356 mm (14-1/32")
Weight	5.2 kg (11.4 lb)
Supplied Accessories	Audio Connection Cables × 2
Reference Tapes	Normal: KENWOOD ND-60 CrO_2: KENWOOD CD-60 Metal: KENWOOD MD-60

Note:

We follow a policy of continuous advancements in development.
For this reason specifications may be changed without notice.

Note :

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on, the Europe (E) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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