KENWOOD

HI/FI STEREO COMPONENTS

SERVICE MANUAL

KX-500

STEREO CASSETTE DECK

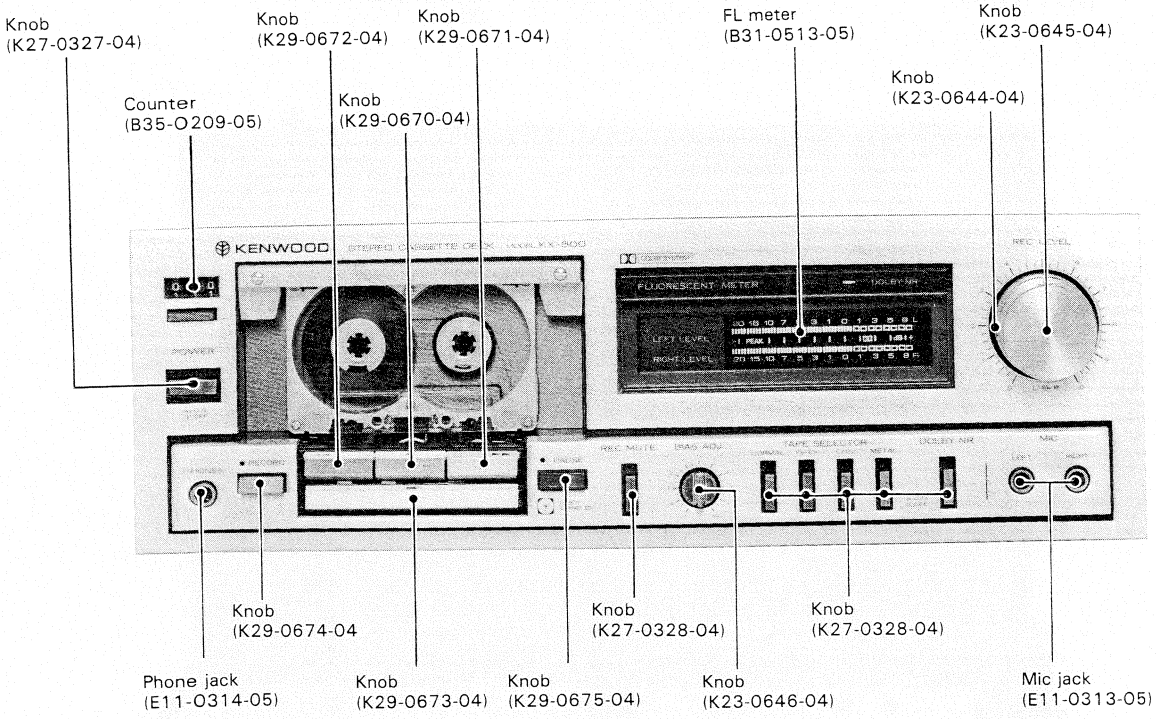
KX-500

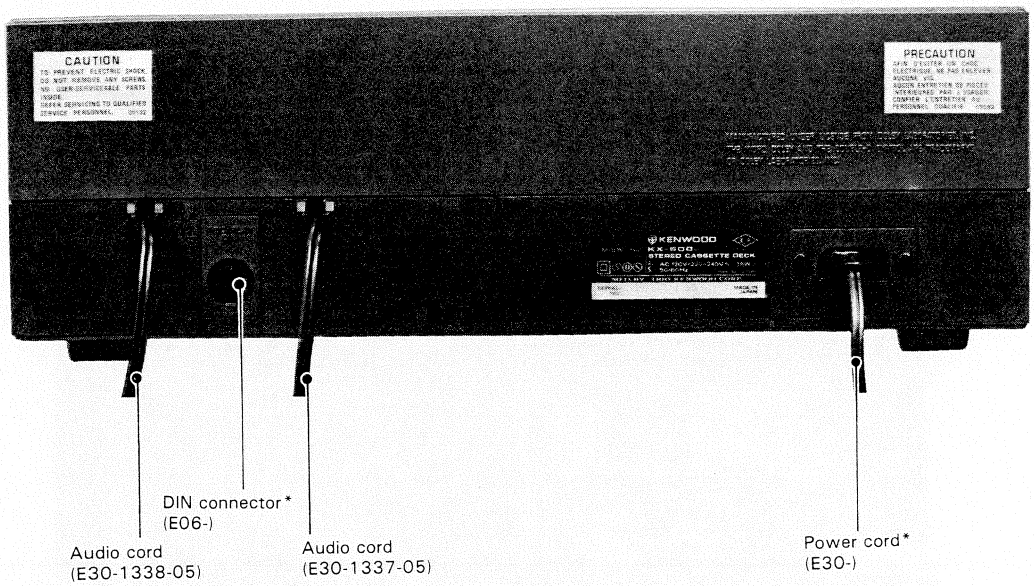
CONTENTS

Note:
Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on, the U.S.(K) 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.

Region	Code
U.S.A.	K
Canada	P
PX	U
Australia	X
Europe	W
England	T
South Africa	S
Other Areas	M
Audio Club	H

EXTERNAL VIEW



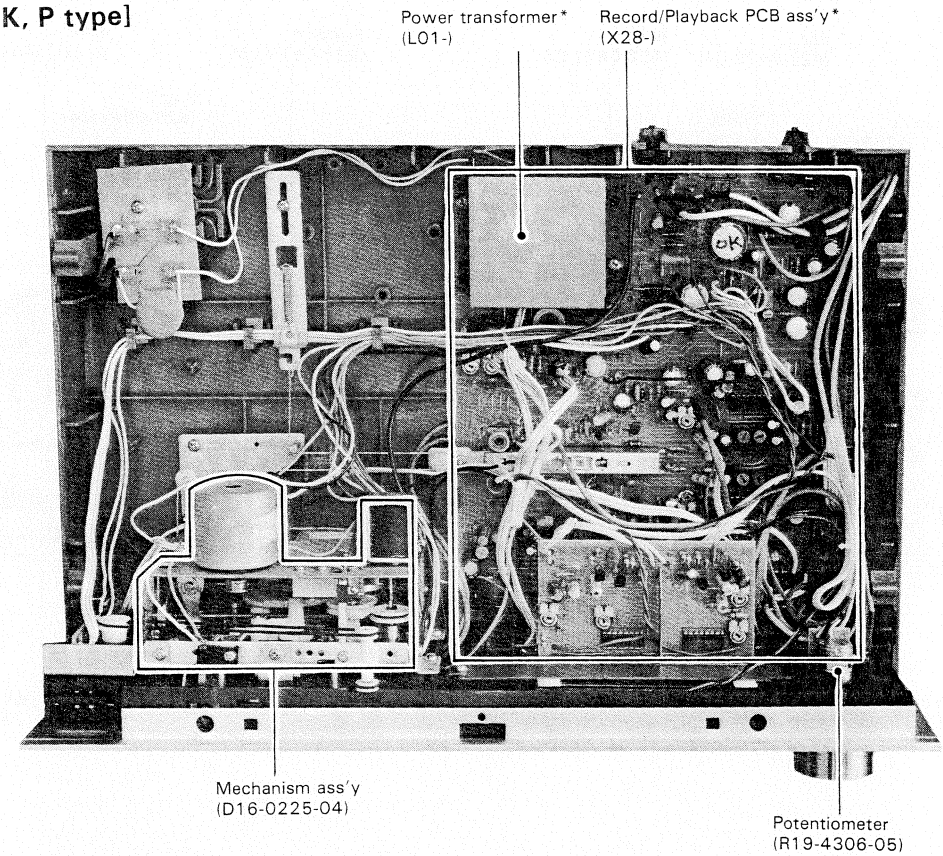


*Refer to Parts list.

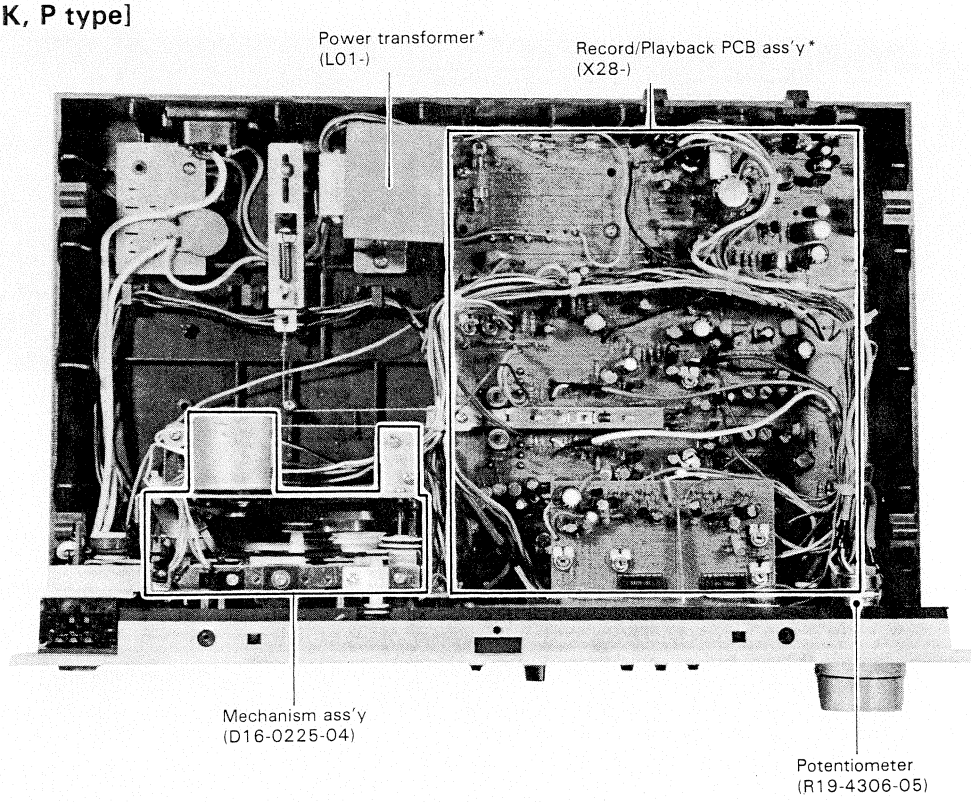
KX-500

INTERNAL VIEW

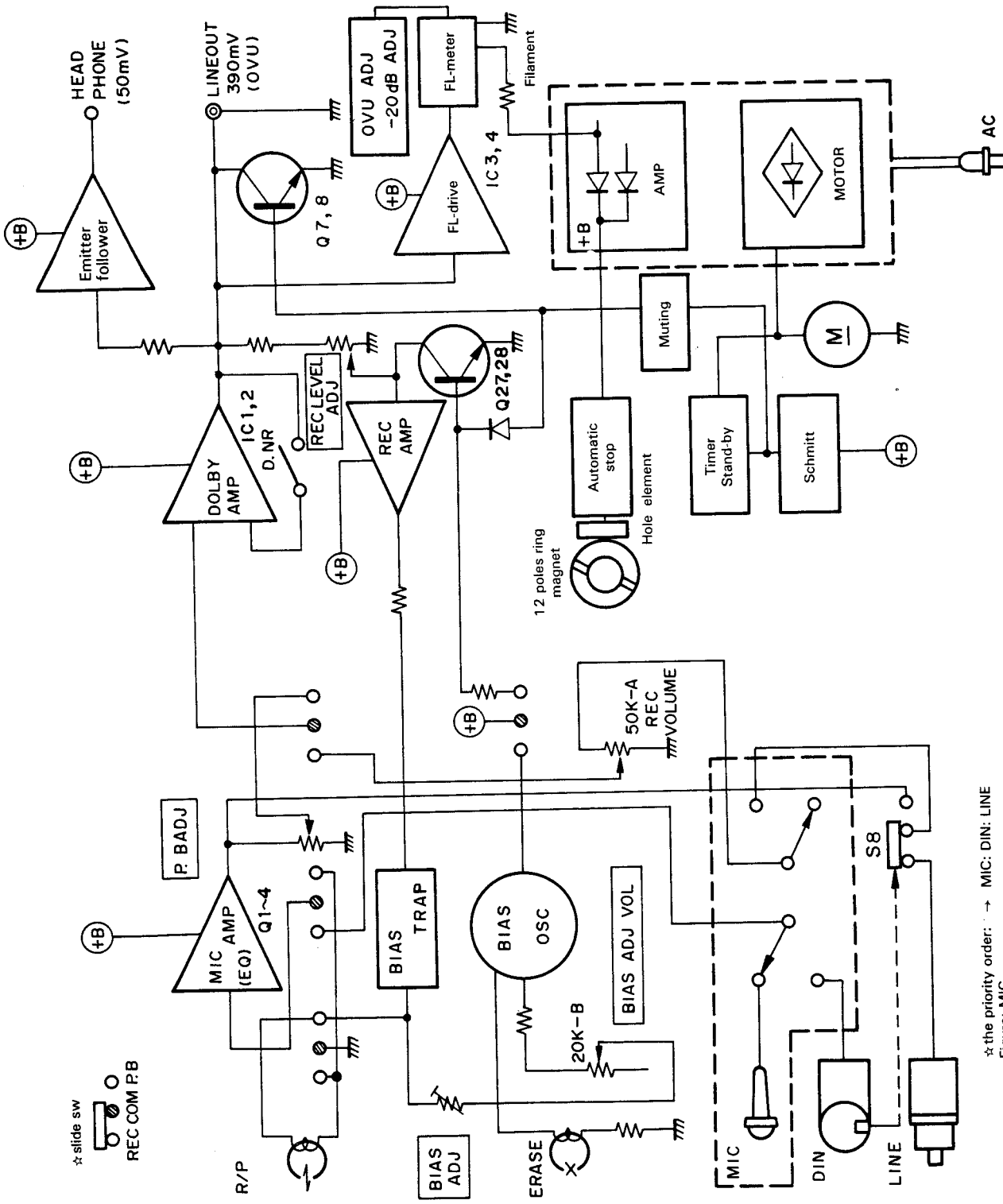
[K, P type]



[Except K, P type]

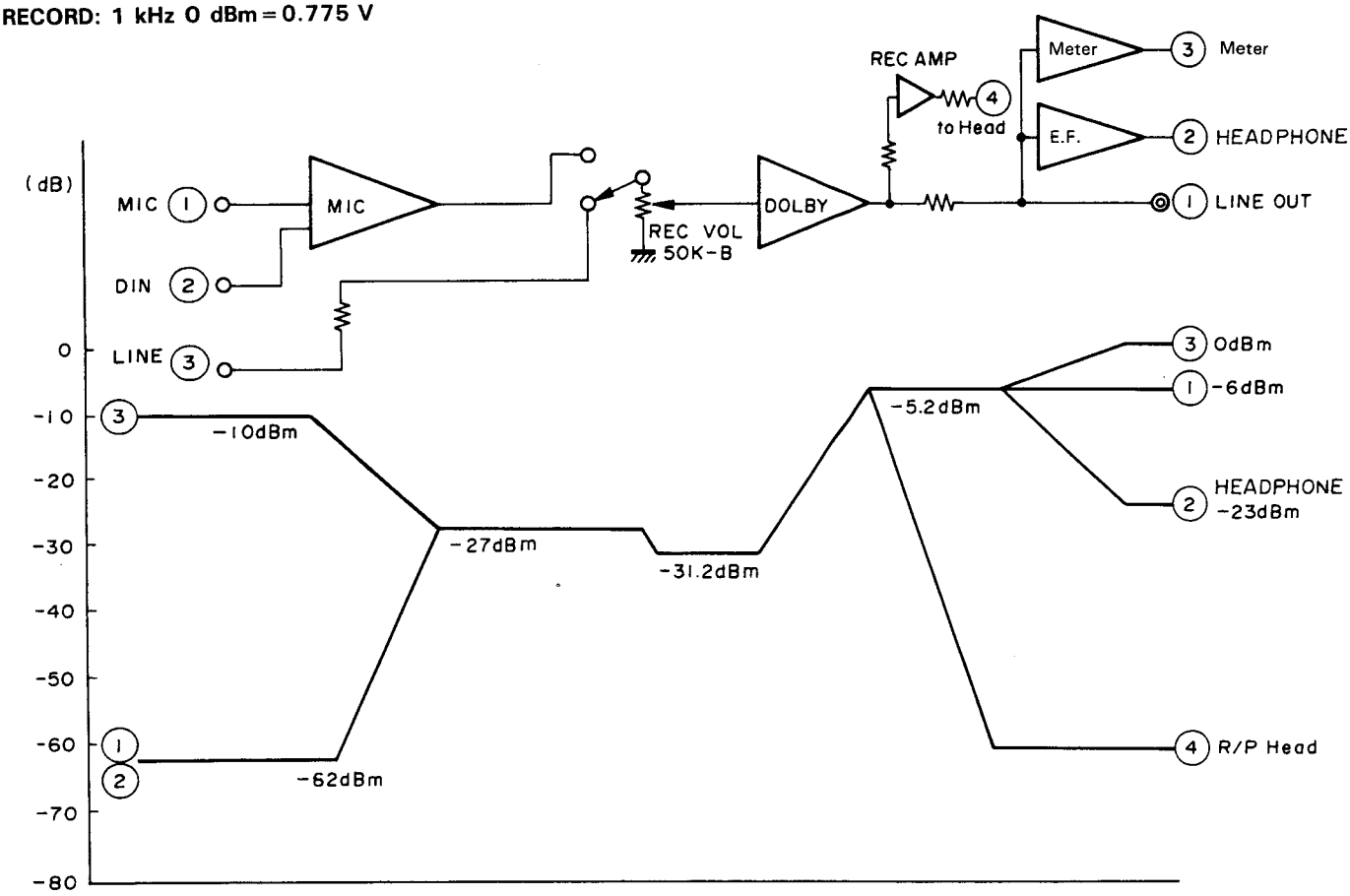


BLOCK DIAGRAM

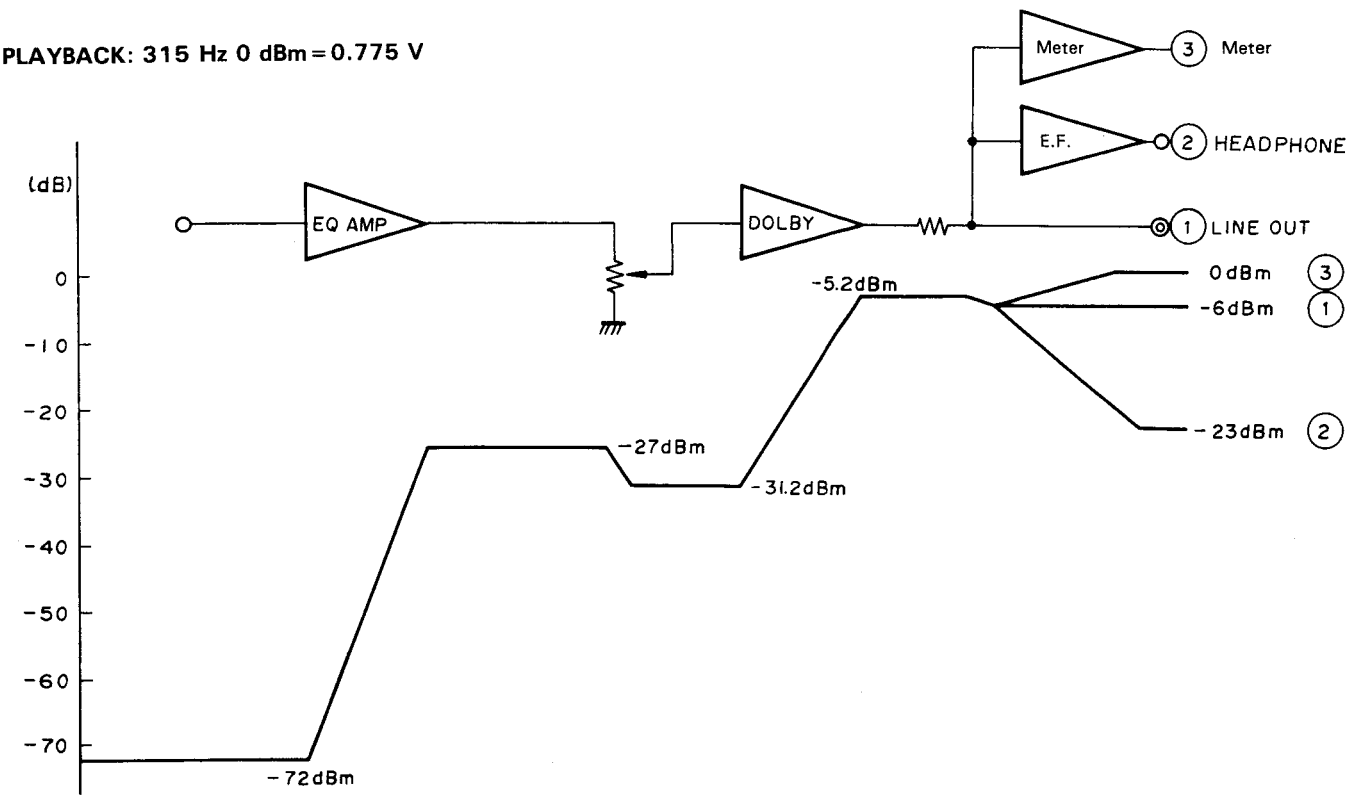


LEVEL DIAGRAM

RECORD: 1 kHz 0 dBm = 0.775 V



PLAYBACK: 315 Hz 0 dBm = 0.775 V

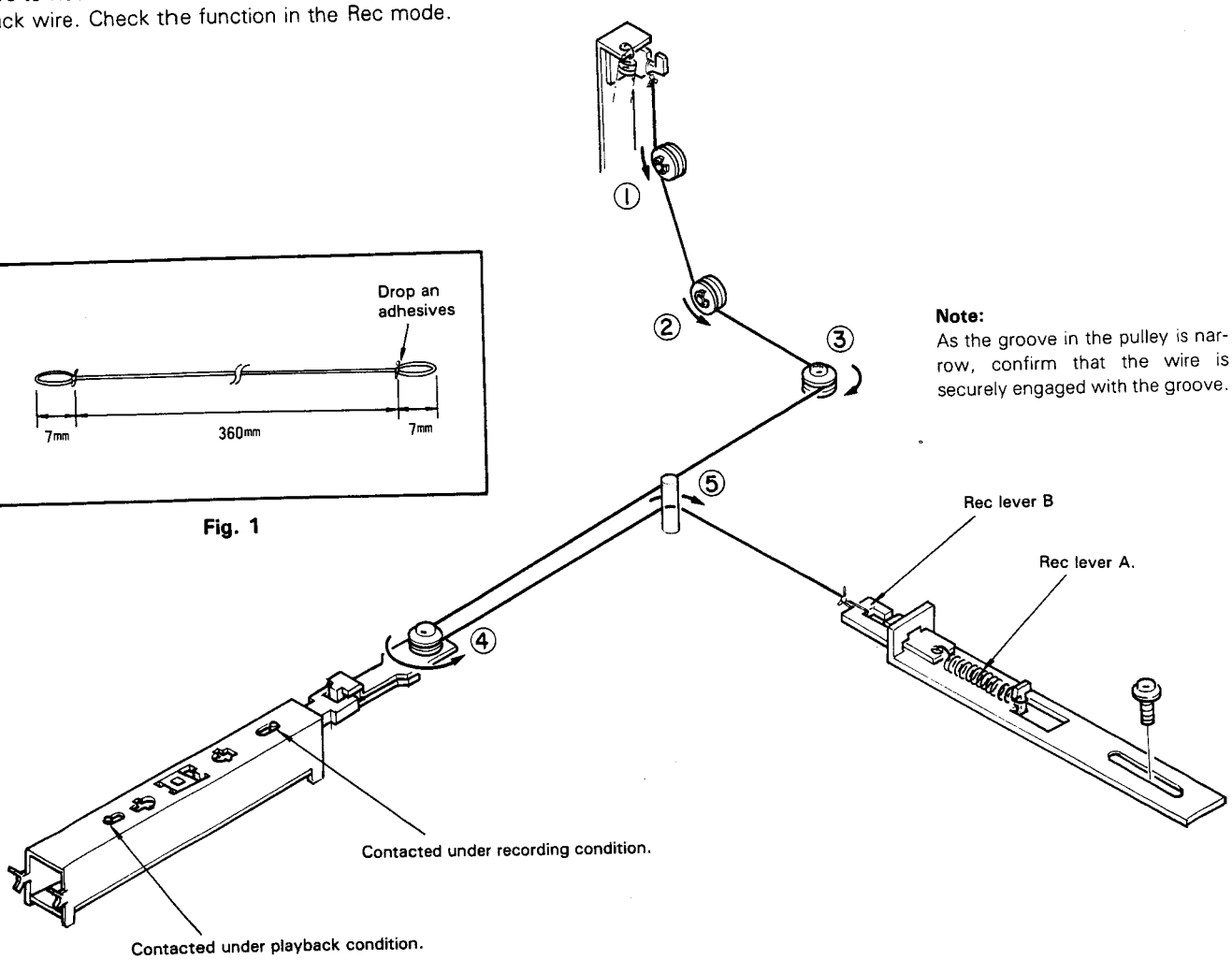


DISASSEMBLY FOR REPAIR

CORD STRINGING OF REC SWITCH

Arrange the wire as shown in Fig. 1.
Route the wire as shown in Fig. 2 and hook the end of the wire to Rec lever B. In the stop mode, fix Rec lever B with no slack wire. Check the function in the Rec mode.

Fig. 1

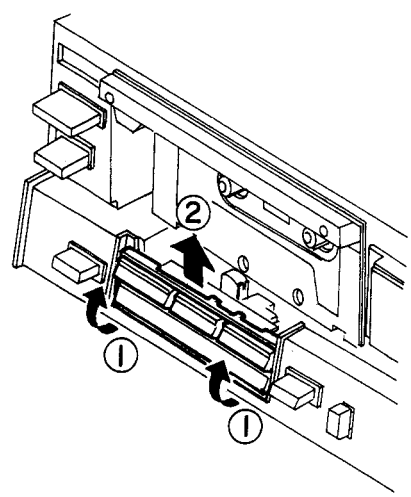


Note:
As the groove in the pulley is narrow, confirm that the wire is securely engaged with the groove.

Fig. 2

REMOVAL OF THE OPERATION KNOB

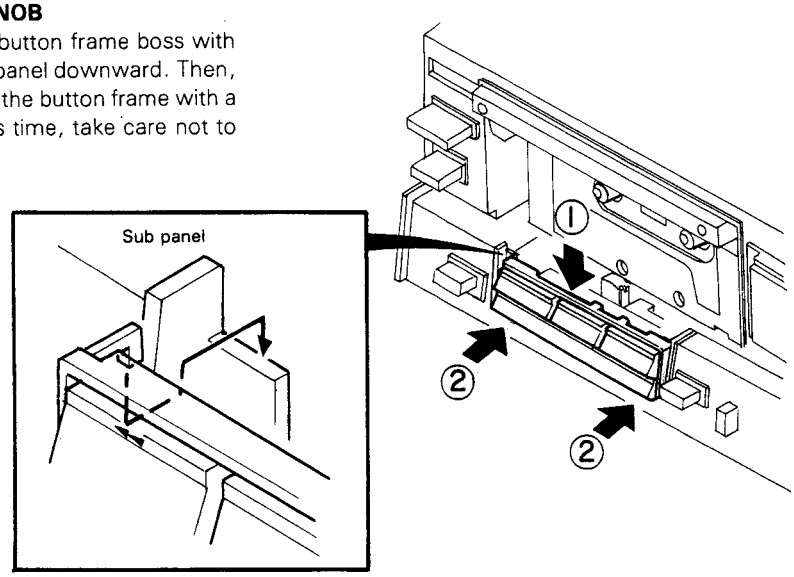
When removing the operation knobs ass'y from the unit, hook your fingers at the bottom of the knobs and lift it upwards.



DISASSEMBLY FOR REPAIR

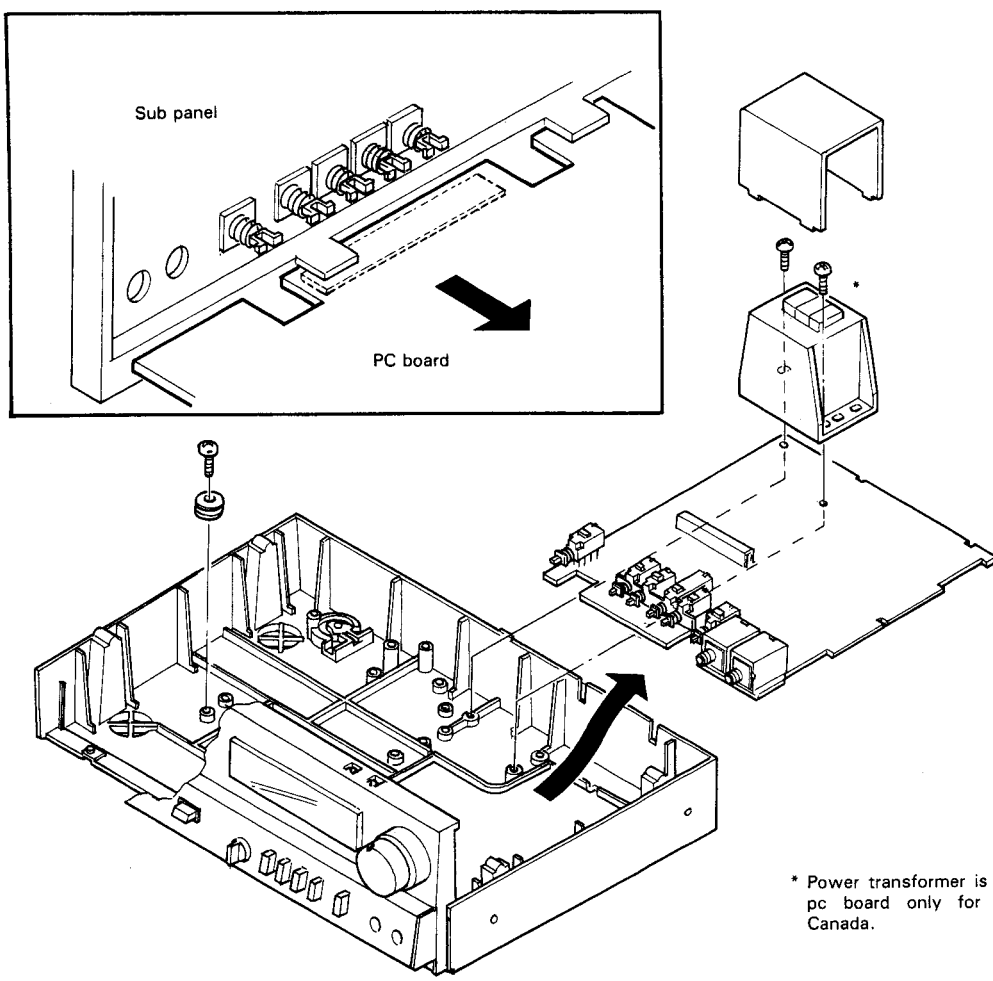
MOUNTING OF THE OPERATION KNOB

Insert the button frame engaging the button frame boss with the sub panel and depress the button panel downward. Then, press the right and left lower corner of the button frame with a screwdriver, etc. until it clicks. At this time, take care not to scratch the button frame.



R/P PCB ASS'Y

When removing the R/P PC board from the unit, remove the screw from PC board. Remove the PC board backwards.



* Power transformer is mounted on pc board only for U.S.A. and Canada.

ADJUSTMENT

1. Adjustment of Take-Up Torque (Forward Torque)

Note:

Take-up torque should be measured after the flywheel components, flat belt, etc. are cleaned.

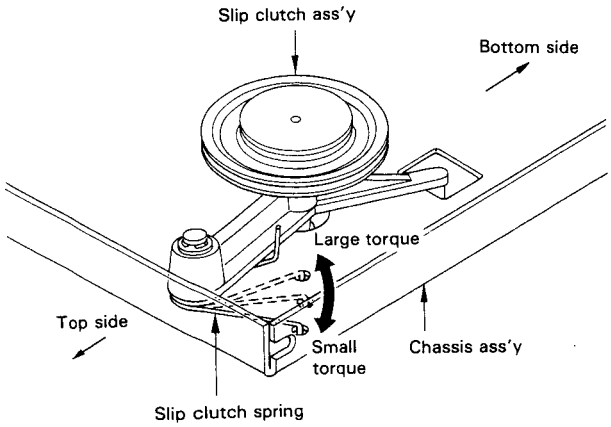
If this treatment is omitted, basic characteristics such as constant running, wow and flutter, etc. may be influenced adversely.

If the take-up torque is out of the standard 40~75 cm, repair as follows:

(1) Change the inserted hole of the slip clutch spring.

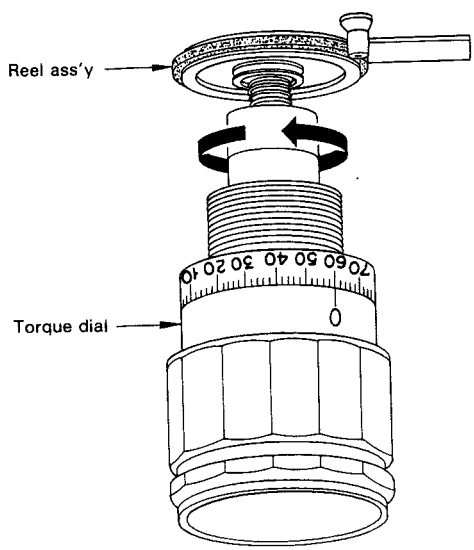
(2) Replace the slip clutch spring.

(3) Replace the slip clutch ass'y.



2. Measurement of Torque

Use a torque dial or a cassette type torque gauge.



3. Confirmation of Wow and Flutter

Note:

If the wow and flutter is out of the standard, repair as follows:

(1) Clean the flat belt and the pinch roller with alcohol.

(2) Adjust the thrust screw, if necessary.

(3) Replace the flywheel ass'y, if necessary.

(4) Replace the flat belt and the pinch roller, if necessary.

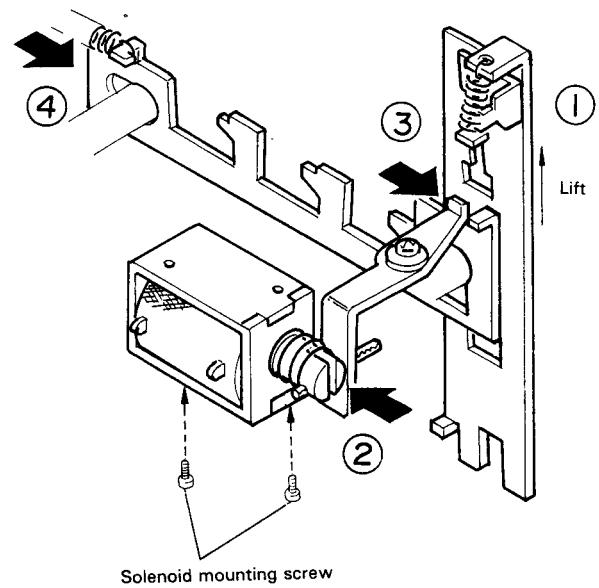
4. Checking the Auto-Stop Mechanism

If the auto-stop mechanism does not function, first check the functioning of the solenoid.

(1) Manually raise the Rec lever 1 .

(2) Manually insert the solenoid core 2 .

At this time, the playback mode should be released. If the solenoid's stroke is too short, loosen the solenoid mounting screws and re-position the solenoid.



KX-500

ADJUSTMENT

1. Test Instrument

- Solid state volt meter:
  SSVM
- Audio frequency generator:
  AG
- Oscilloscope
- Frequency counter
- Weighting filter
  (ASA A characteristic with NAB curve)
- Band pass filter
  (Center frequency: 100 Hz, 1 kHz,
  Attenuation: 18 dB/oct. or more)
- Cassette type torque gauge
- Spring balance

2. Test Tape

a) Test tape for recording system adjustment
  NORMAL:
    MAXELL UD-XLI (T93-0013-15)
  CHROME (for measurement):
    TDK AC-511. (T93-0010-05) or SAC-60

b) Test tape for playback measurement
  TEAC MTT-111 (Tape speed, azimuth)
  TEAC MTT-216R
    (MTT-116R) (Frequency characteristic)
  TEAC MTT-216
    (MTT-116U) (Frequency characteristic)

c) Cleaning Tape (T93-0014-05)

3. Meaning of Technical Words

a) **Normal recording level:** A level to obtain residual magnetic flux of 160 pWb/mm on the standard recording tape, which is 4 dB below the level 315 Hz, 0 dB (250 pWb/mm) of the test tape (MTT-216R).

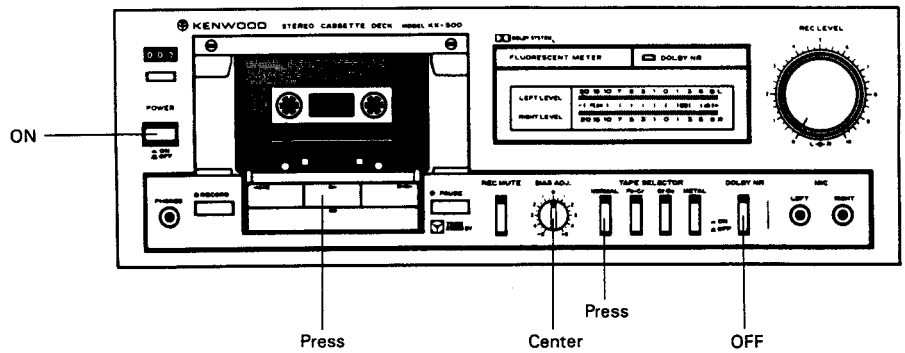
b) **Normal input level:** The standard input level necessary for obtaining the normal recording level. The levels at respective input jacks are as specified below. However 80 kΩ resistor should be inserted in the input of the DIN connector in series.

MIC INPUT ..... −62 dBs (0 VU)
LINE INPUT ..... −10 dBs (0 VU)

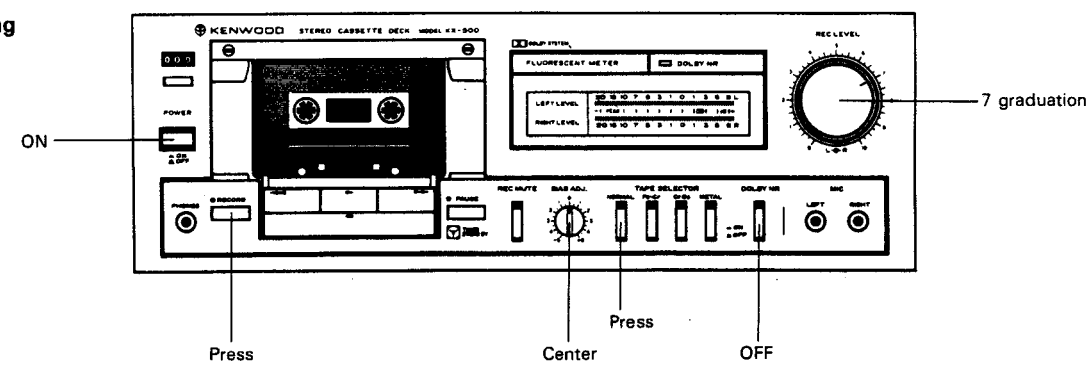
c) **Normal recording condition:** The state obtained by applying the 1 kHz signal to the LINE input jack at the normal input level (−10 dBs) and by adjusting the REC LEVEL control so that recording can be carried out at the normal recording level. (Volume position is at about 7 graduation).

d) **Normal output level:** The standard signal level obtained at the LINE output jack when the level reference signal is reproduced from the test tape 315 Hz.
MTT-216R 315 Hz (250 pWb/mm)
  Output level: −2 dBs
MTT-216U 315 Hz (160 pWb/mm)
  Output level: −6 dBs

e) **Standard playback**



f) **Standard recording**



ADJUSTMENT

0 dBs = 0.775V
= 0 dBm

DOLBY NR SW : OFF, NORMAL position

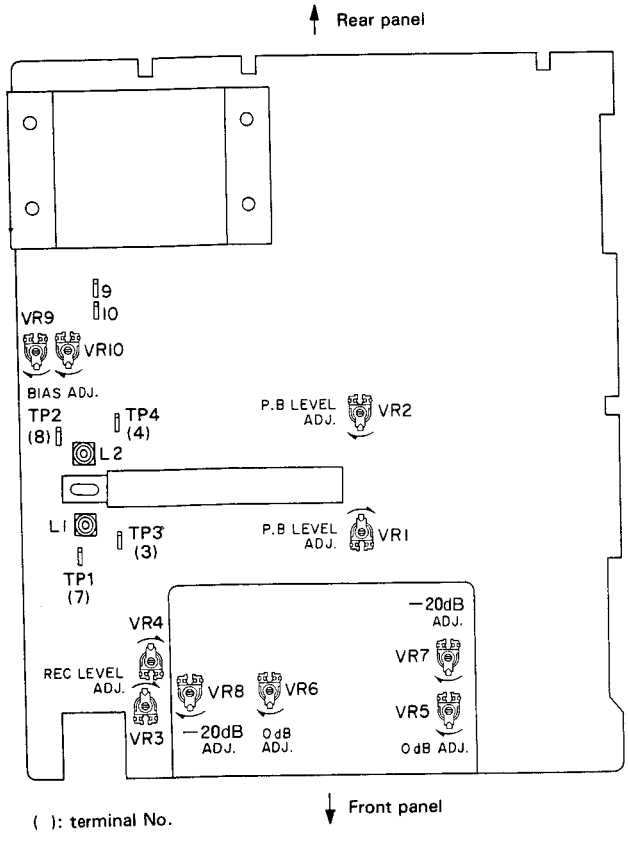
NO.	ALIGN	INPUT SIGNAL	CHECK POINTS	DECK SETTING	ADJUSTING POINTS	ADJUSTING METHOD	REMARKS
1.	**DEMAGNETIZING**	—	R/P head, Capstan	Power: off	—	Demagnetizing	Head demagnetizer
2.	**BIAS TRAP & BIAS OSCILLATING FREQUENCY**	—	TP1, 2	Recording REC VOL: Min	L1. 2	Minimum output at TP1, 2 (105 kHz)	Output 300mV. Check the oscillating frequency. Standard: 105±2.5 kHz. Replace Osc. coil L7, if it is deviating from the standard.
3.	**BIAS LEVEL (preparation)**	—	TP3, 4	Recording	VR9, 10	Adjust the AC voltage to 5 mV.	Required only when replacing the R/P head.
4.	**REC LEVEL (preparation)**	1 kHz −20 dBs	TP3, 4	Recording REC VOL:Max Short-circuit TP5 with terminal TP6.	VR3, 4	Adjust the AC voltage to 0.4 mV.	Required only when replacing the R/P head
5.	**TAPE SPEED**	MTT-111	LINE OUT	Playback	Trimming potentiometer in the DC motor	Adjust the frequency to 3000 Hz	
6.	**AZIMUTH**	MTT-216 10 kHz −10 dB	LINE OUT	Playback OUTPUT VOL: Max	Azimuth screw (left side)	Output level (L, R): Max	Reference: −16 dBs +2dB −4dB
Note: After the alignement, fix the screws with paint. Proceed adjustments after demagnetizing and cleaning the REC/PLAY head.							
7.	**PLAYBACK LEVEL**	MTT-216 315 Hz, 0 dB	LINE OUT	Playback OUTPUT VOL: Max	VR1, 2	Output level: −6dBs	Reference: −6 dBs ±1.5 dB
8a	**FL-METER (0 dB)**	LINE IN 1 kHz, −10 dBs	LINE OUT & FL-meter	Recording. Set the REC VOL position so that the output level is −6 dBs	VR5, 6	FL-meter 0 dB.	Reference: 0 dB±1 dB
8b	**FL-METER (−20 dB)**	LINE IN 1 kHz −30 dB	LINE OUT & FL-meter	The above setting.	VR7,8.	FL-meter: −20 dB	Reference: −20 dB
9.	**REC LEVEL**	LINE IN 1 kHz, −10 dBs UD-XLI (NORMAL) AC-511 (CHROME)	LINE OUT	The above setting. Recording→ Playback	VR3, 4	Output level: −6 dBs	
10.	**OVERALL FREQUENCY CHARACTERISTIC**	LINE IN 1 kHz, −30 dBs 10 kHz −30 dBs UD-XL1 (NORMAL)	LINE IN 1 kHz, −30 dBs 10 kHz −30 dBs UD-XL1 (NORMAL) AC-511 (CHROME)	Recording Playback Recording→ Playback	VR9, 10	Make the outputs of 1 kHz and 10 kHz equally.	

Note: 1. The bias becomes insufficient and high frequency range raise when turning VR9 or VR10 counterclockwise.
2. Since VR9 and VR10 are adjusted in BIAS CURRENT, they should be adjusted slightly in OVERALL FREQUENCY CHARACTERISTIC.
3. Repeat the alignments of (9, 10) a few times.

KX-500

ADJUSTMENT

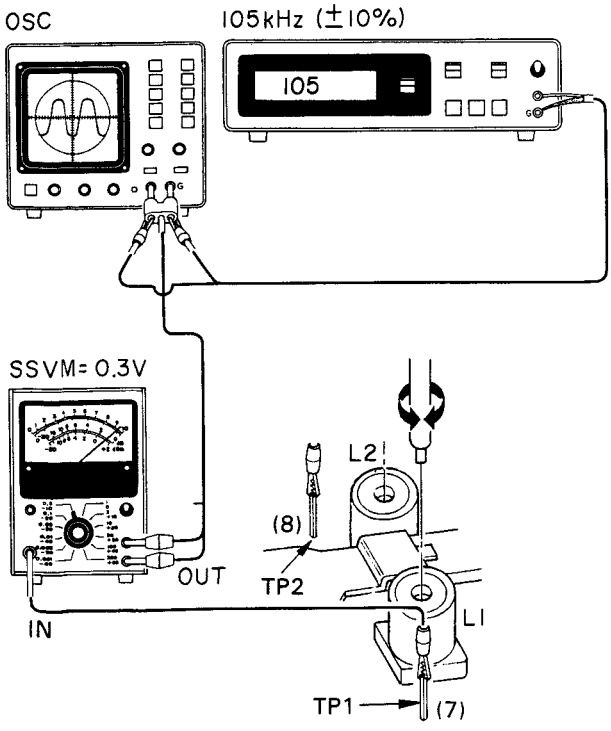
① PARTS LOCATION AND TEST POINT



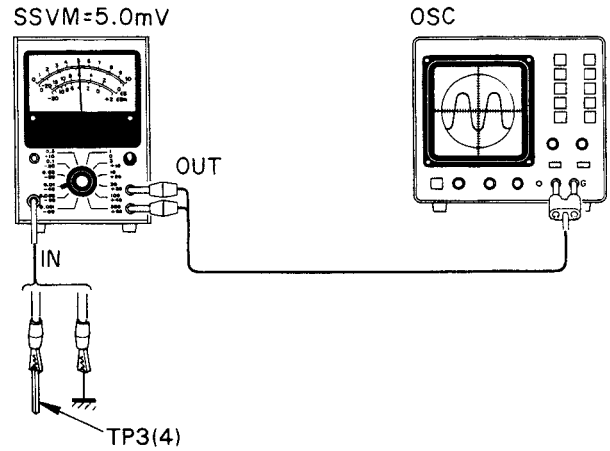
( ): terminal No.

② BIAS TRAP (L1, 2)

Note: Recording condition, REC LEVEL control: 0

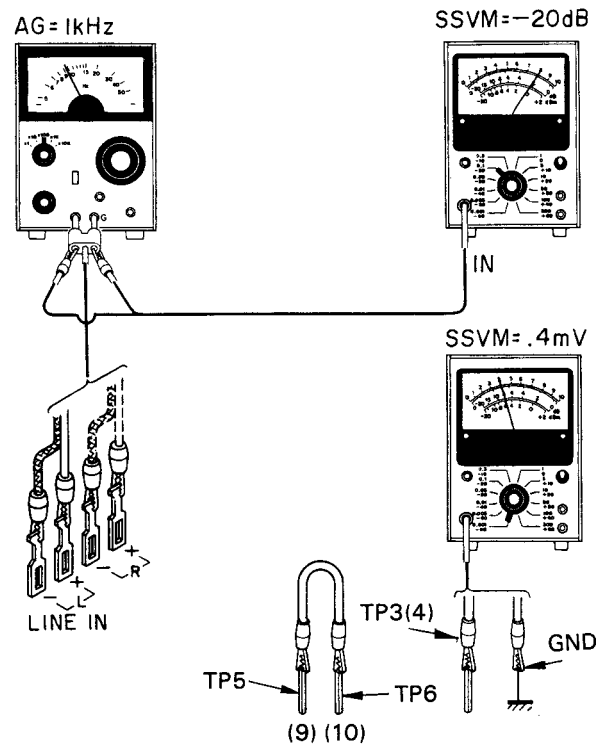


③ BIAS CURRENT (VR9, 10)



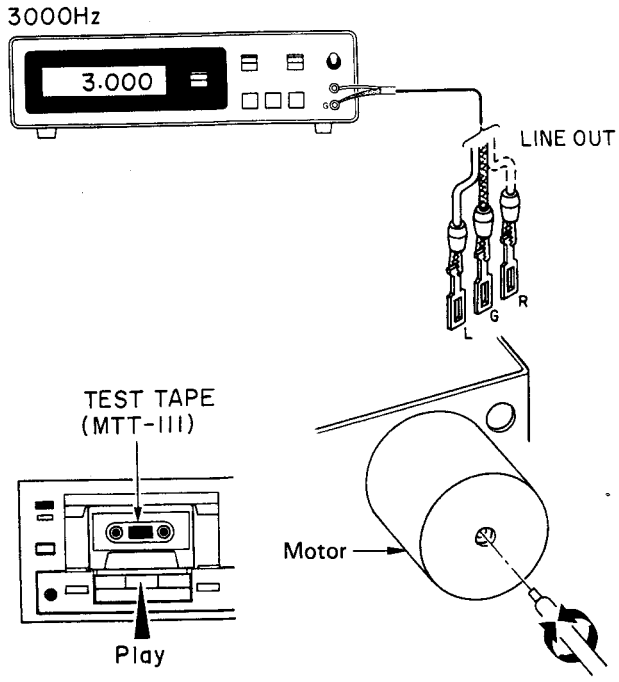
④ RECORD CURRENT (VR3, 4)

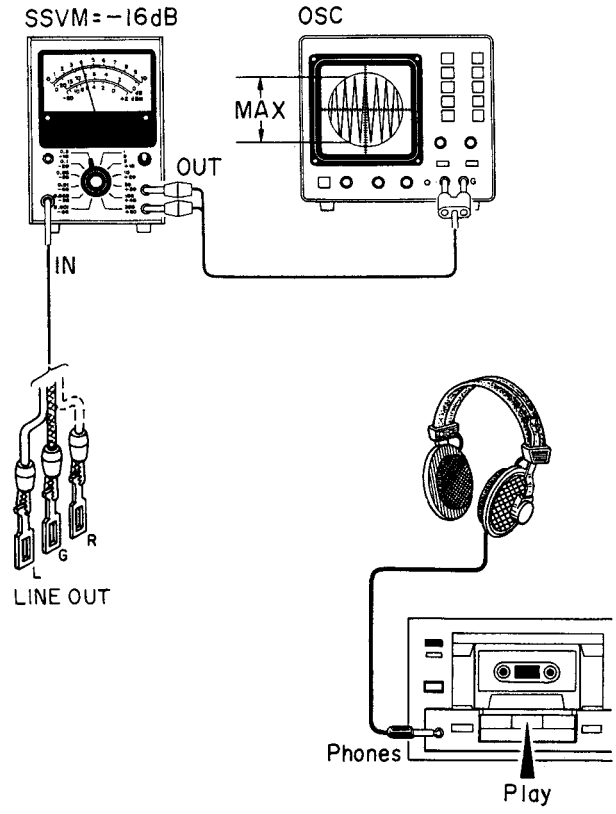
Note: Recording condition, REC LEVEL control: 0



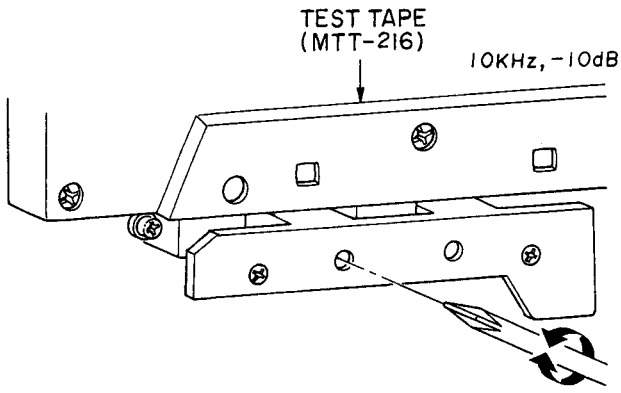
ADJUSTMENT

⑤ TAPE SPEED

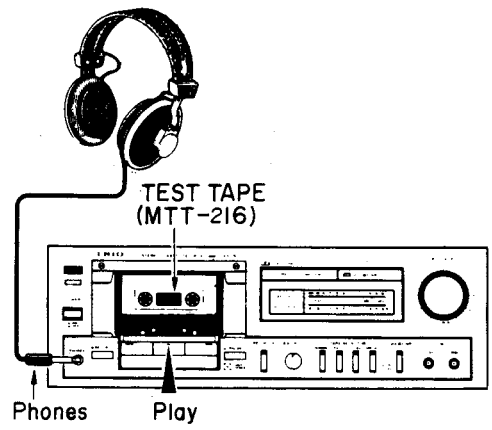


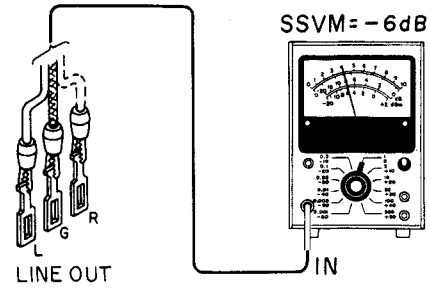


⑥ AZIMUTH OF R/P HEAD



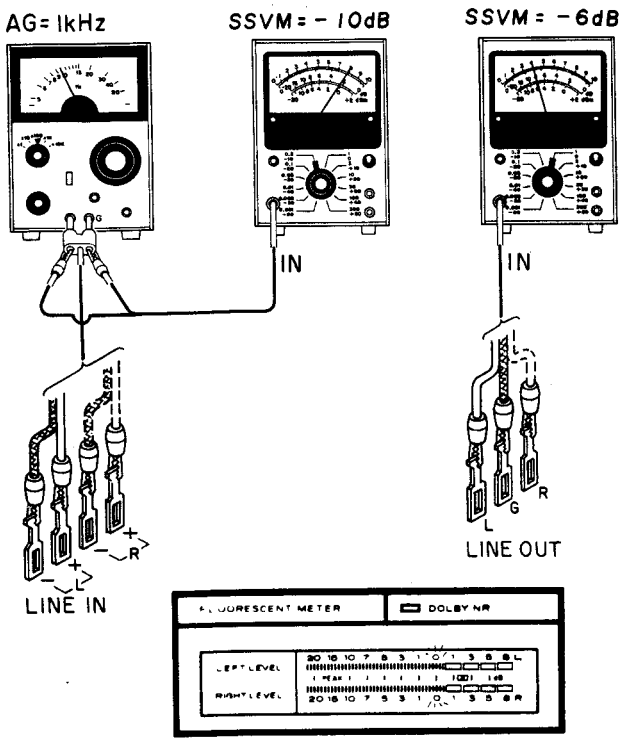
⑦ PLAYBACK LEVEL (VR1, 2)



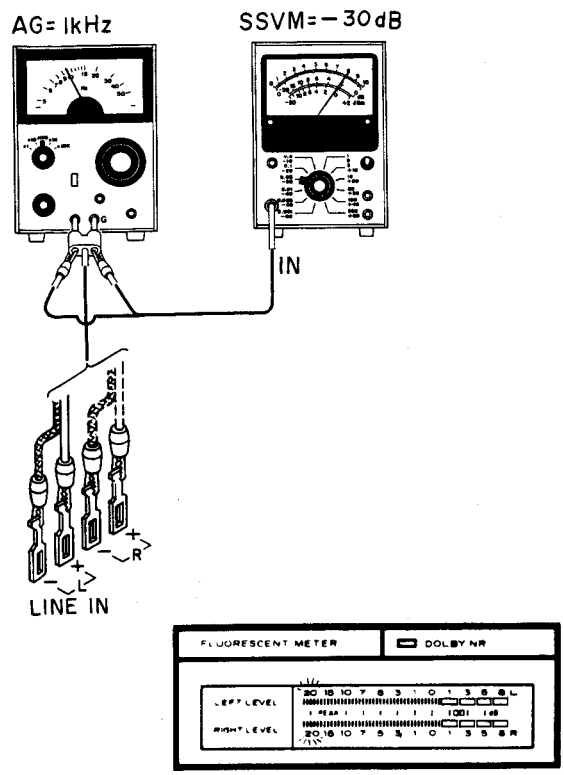


ADJUSTMENT

⑧ FL METER (0dB) VR5, 6

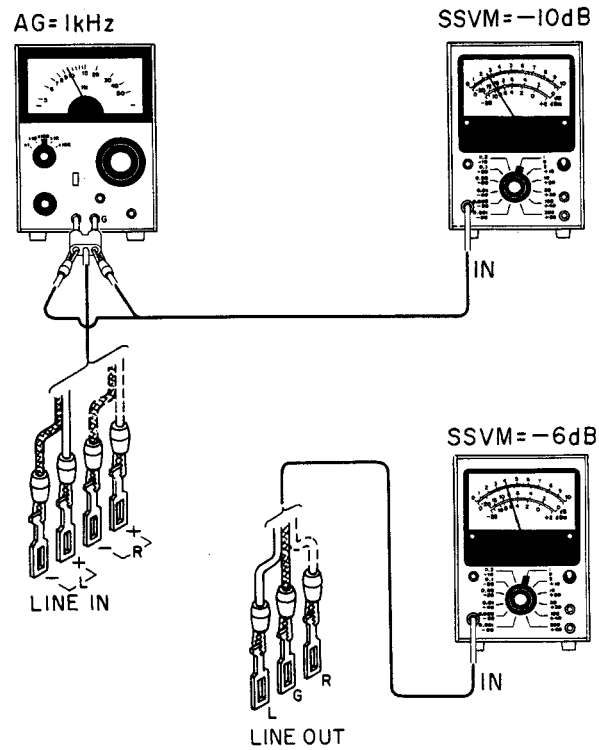


⑨ FL METER (−20dB) VR7, 8



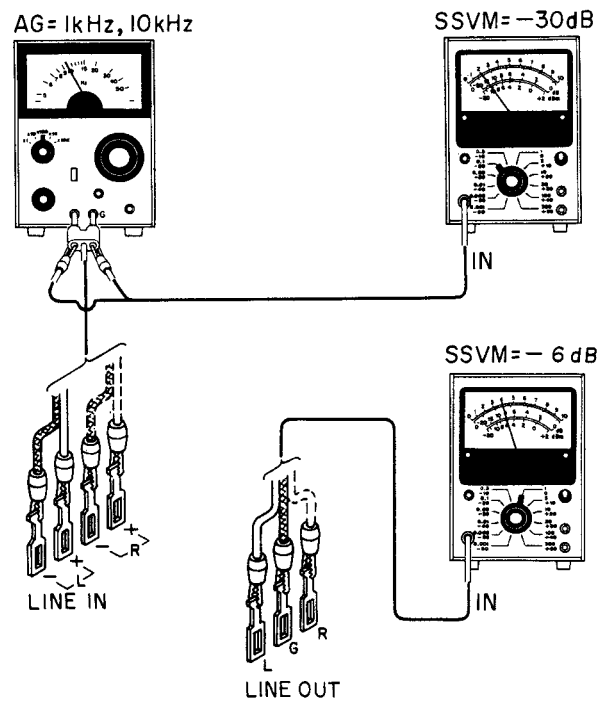
⑩ RECORD LEVEL (VR3, 4)

Note: Recording→Playback



⑪ OVERALL FREQUENCY RESPONSE (VR9, 10)

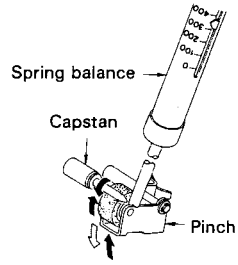
Note: Record→Playback

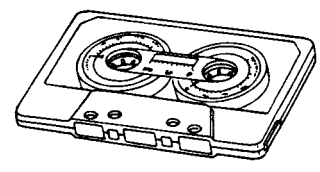


MEASUREMENT

NO.	ALIGN	INPUT SIGNAL	CHECK POINTS	SETTING	MEASUREMENT	MEASURED VALUE	REMARKS
MECHANISM SECTION							
1.	TAPE SPEED DEVIATION	MTT-111 3 kHz	LINE OUT	Playback	Diviation (%) = $\frac{f\text{-}3\ kHz}{3\ kHz} \times 100$	±1.5%	
2.	TAPE SPEED VARIATION	MTT-111 3 kHz	LINE OUT	Playback	Measure the difference between the maximum and minimum tape speed deviation.	1.3%	
3.	WOW AND FLUTTER	MTT-111 3 kHz	LINE OUT	Playback	Measure at the beginning of, in the middle of, and at the end of tape running.	0.05%WRMS	
4.	TIME FOR FAST FOR-WARD AND REWINDING	C-60	—	FF/REW	Measure the winding time necessary for FF and REW operation respectively.	90 sec. or less	
5.	TAPE COUNTER INDICATION	C-120	—	FF/REW PLAY/REC	Read out the counter indication from the beginning to the end of the tape, in FF, REW, PLAY and REC setting. (Prior to starting the tape, press the reset button of the counter to clear the figure [000].)	900 ±50 count	
6.	TIME FOR AUTO-STOP OPERATION	—	—	FF/REW PLAY/REC	Measure the time from the moment the tape stops running until the auto-stopper functions	3 sec. $\begin{cases} +2\ sec. \\ -2\ sec. \end{cases}$	
7.	TAKE-UP TORQUE	Cassette type torque gauge, torque dial	—	PLAY	—	40~75 g.cm	
8.	FF TORQUE	Cassette type torque gauge, torque dial	—	FF	—	80~160 g.cm	
9.	REW TORQUE	Cassette type torque gauge, torque dial	—	REW	—	80~160g.cm	
10.	PINCH ROLLER PRESSURE	—	—	PLAY	Press a spring balance to the pinch roller so that the pinch roller will separate from the capstan by 1~2 mm gap in PLAY mode. Then, allow the pinch roller to contact with the capstan quietly so that the pinch roller will start to turn. Then, read the indicating of the spring balance.	350 ± 50 g	See figure.
11.	TIMER START	C-60	—	Record (POWER-OFF) ↓ Record	Measure the recovery time when tape is in recording condition from power off under recording.	$3\begin{cases} +2 \\ -1 \end{cases}$ sec.	

PINCH ROLLER PRESSURE MEASUREMENT





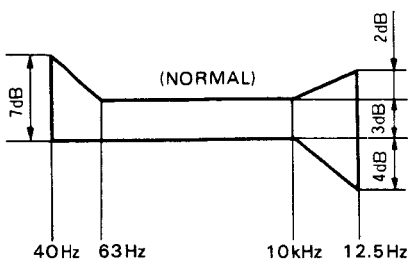
Cassette type torque gauge TW-2111

MEASUREMENT

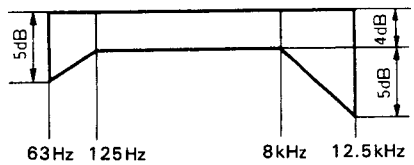
NO.	ALIGN	INPUT SIGNAL	CHECK POINTS	SETTING	MEASUREMENT	MEASURED VALUE	REMARKS
AMP SECTION							
1.	PLAYBACK LEVEL	MTT-216 315 Hz, 0 dB	1) LINE OUT 2) Headphone jack	Playback	Check the output level	1)−6dBs±1.5dB 2)−23dBs ±3dB	
2.	PLAYBACK FREQUENCY CHARAC-TERISTICS	MTT-216 −20 dB	LINE OUT	Playback	Plot output levels at respective frequencies.		See Fig. 1.
3.	PLAYBACK SN RATIO	MTT-216 315 Hz, 0 dB	LINE OUT	Playback	Check the ratio of the output in the playback state vs. that in the pause state.	46 dB or more (with compen-sation) 42 dB or more (without compensation)	Weighting filter is required
4.	PLAYBACK OUTPUT LEVEL DEVIATION	MTT-216 6.3 kHz −10 dB	LINE OUT	Playback	Check the deviation in the output level. For 60 sections or more.	3 dB or less	
5.	INPUT SENSITIVITY	1k Hz	LINE IN LINE OUT	Recording (REC VOL: Max)	Measure the input level to obtain the output level −6 dBs.	MIC: −72dBs ±3 dB LINE: −20 dBs ±3 dB	
6.	OVERALL FREQUENCY CHARAC-TERISTIC (1) WITH DOLBY NR OFF	−20 dB below the normal re-cording level input (−10 dBs) at each frequency, LINE IN	LINE OUT	Normal recording condition→playback (DOLBY OFF, input signal−20 dB below the normal recording level input, equalizer in 3 stages)	Plot output levels at respec-tive frequencies		Channel bal-ance should be made within 4 dB (See Fig. 2)
7.	OVERALL FREQUENCY CHARACTER-ISTIC (2) WITH DOLBY NR ON	−20 dB below the normal re-cording level input at each frequency, LINE IN	LINE OUT	Normal recording condition→playback (DOLBY ON, input signal −20 dB below the normal recording level input, equalizer in 3 stages)	Plot output levels at respec-tive frequencies.		See Fig. 3.
8.	ERASING RATE	+6 dB above the normal recording level input at 1 kHz, LINE IN	LINE OUT	Recording→Playback →Erasing	Measure the output level where recording and play-back have been performed and the one where the tape has been erased, using a band-pass filter. Express the resultant level difference in dB.	60 dB or more	
9.	DISTOR-TION	Normal record-ing level input 1 kHz, LINE IN	LINE OUT	Recording→Playback	Measure the total harmonic distortion factor in the playback output	2 % or less	
10.	OVERALL SN RATIO	Nromal record-ing level input at 1 kHz, LINE IN and no signal	LINE OUT	Recording→Playback	Check the ratio of the playback level at 1 kHz vs, the noise output level in no-signal tape.	DOLBY NR OFF: 46 dB or more (with compensation) 40 dB or more (without com-pensation)	Weighting filter is re-quired. Channel bal-ance should be made within 5 dB

MEASUREMENT

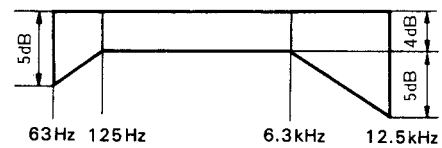
NO.	ALIGN	INPUT SIGNAL	CHECK POINTS	SETTING	MEASUREMENT	MEASURED VALUE	REMARKS
11.	CHANNEL SEPARATION	One channel: Normal recording level input at 100 Hz Another channel: No signal, LINE IN	LINE OUT	Recording→Playback	Measure the playback level in the recorded track and the crosstalk output level in the unrecorded track, using a band-pass filter. Express the resultant level difference in dB.	40 dB or more	
12.	CROSS TALK BETWEEN TRACKS	Normal recording level input at 100 Hz. LINE IN	LINE OUT	Recording→Playback	Measure the playback level in the recorded track and the crosstalk output level in the unrecorded track of the same tape section using a band-pass filter. Express the resultant level difference in dB.	30 dB or more	



Standard: Playback Frequency Characteristic (Fig. 1)



Standard: Overall Frequency Characteristic (1) (Fig. 2) DOLBY: OFF



Standard: Overall Frequency Characteristic (2) (Fig. 3) DOLBY: ON

LUBRICATION

Cleaning

Thoroughly clean the following parts with alcohol:

(1) Capstan spindle over which the pinch roller contacts.
(2) Flywheel
(3) Idler
(4) Drive belt (flat type).
(5) Motor pulley over which the drive belt contacts.
(6) Pinch roller
(7) Tape heads.

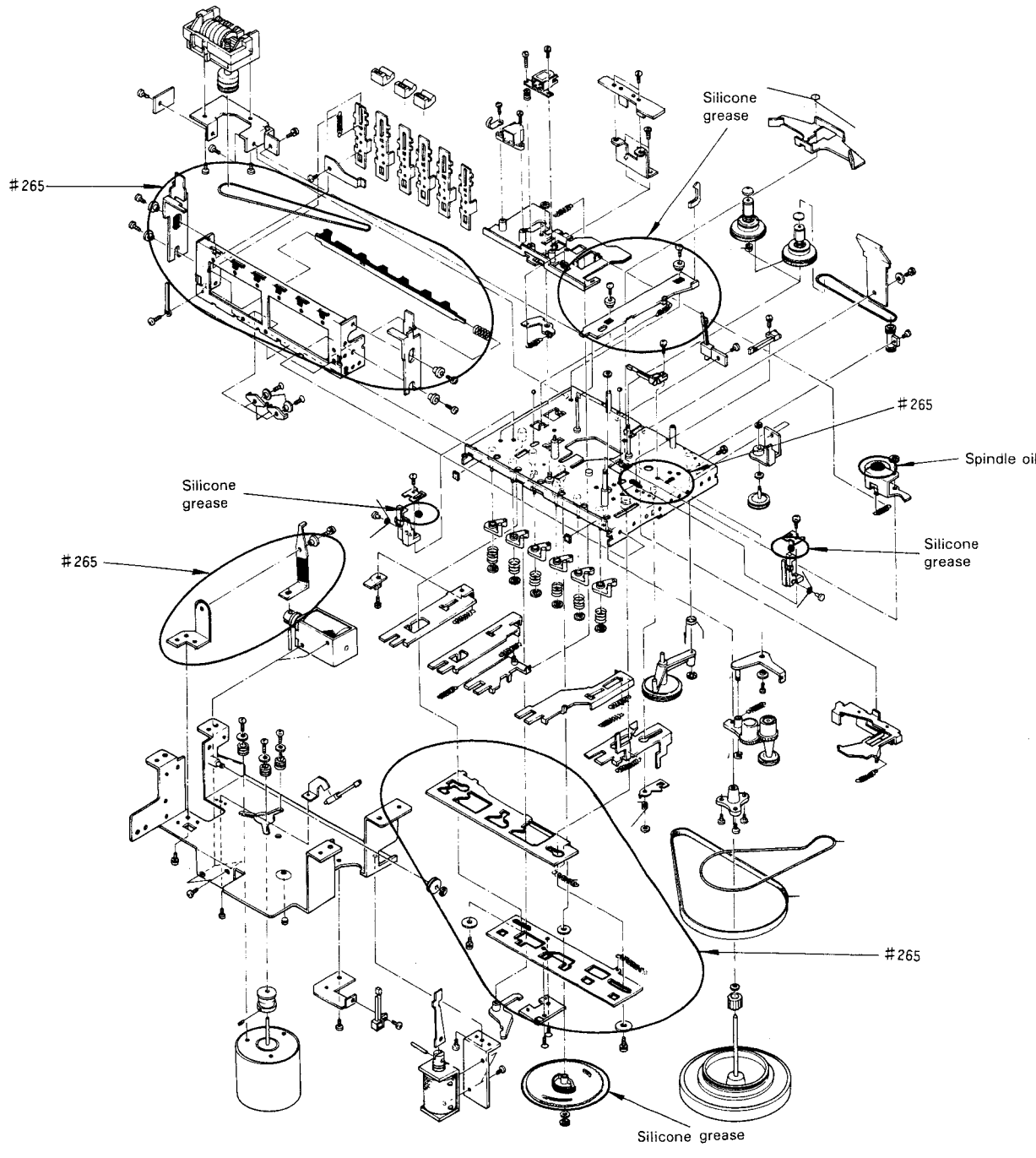
Lubrication

Disassemble the tape mechanism to remove deposits of oil and dirt. Lubricate the parts specified with recommended oil.

(1) ROCOL MOLYTONE grease #265 (W01-9997-09)
Contact areas of the mechanism such as reel base shafts, idler shaft and other rotary parts.
(2) Spindle oil (J42-0031-04 or W01-9995-09)
Capstan spindle, motor shaft and other rotary parts using oilless metal.
(3) Silicone grease G40L (W01-9990-00)
Contact areas between metal and plastic.

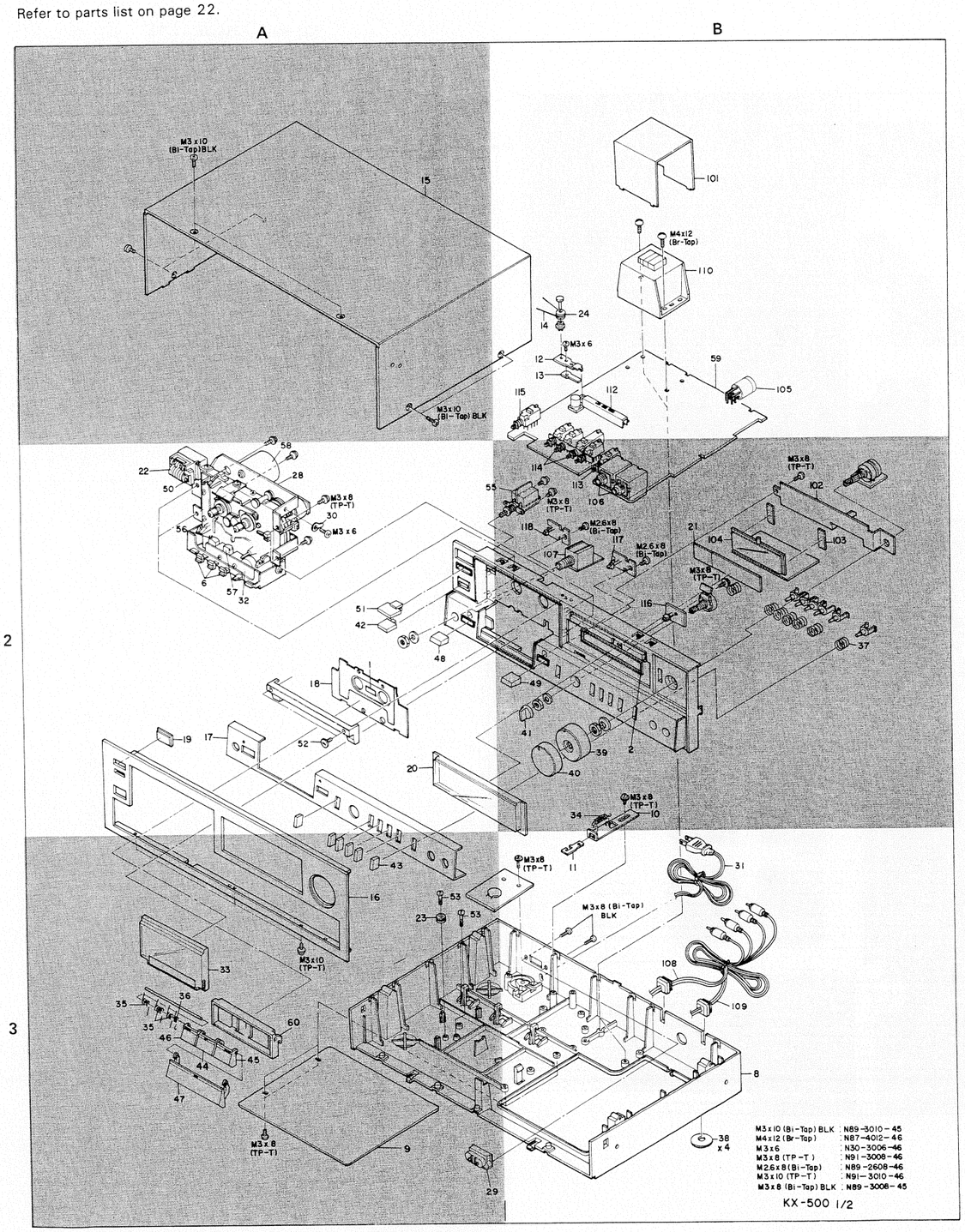
Note:

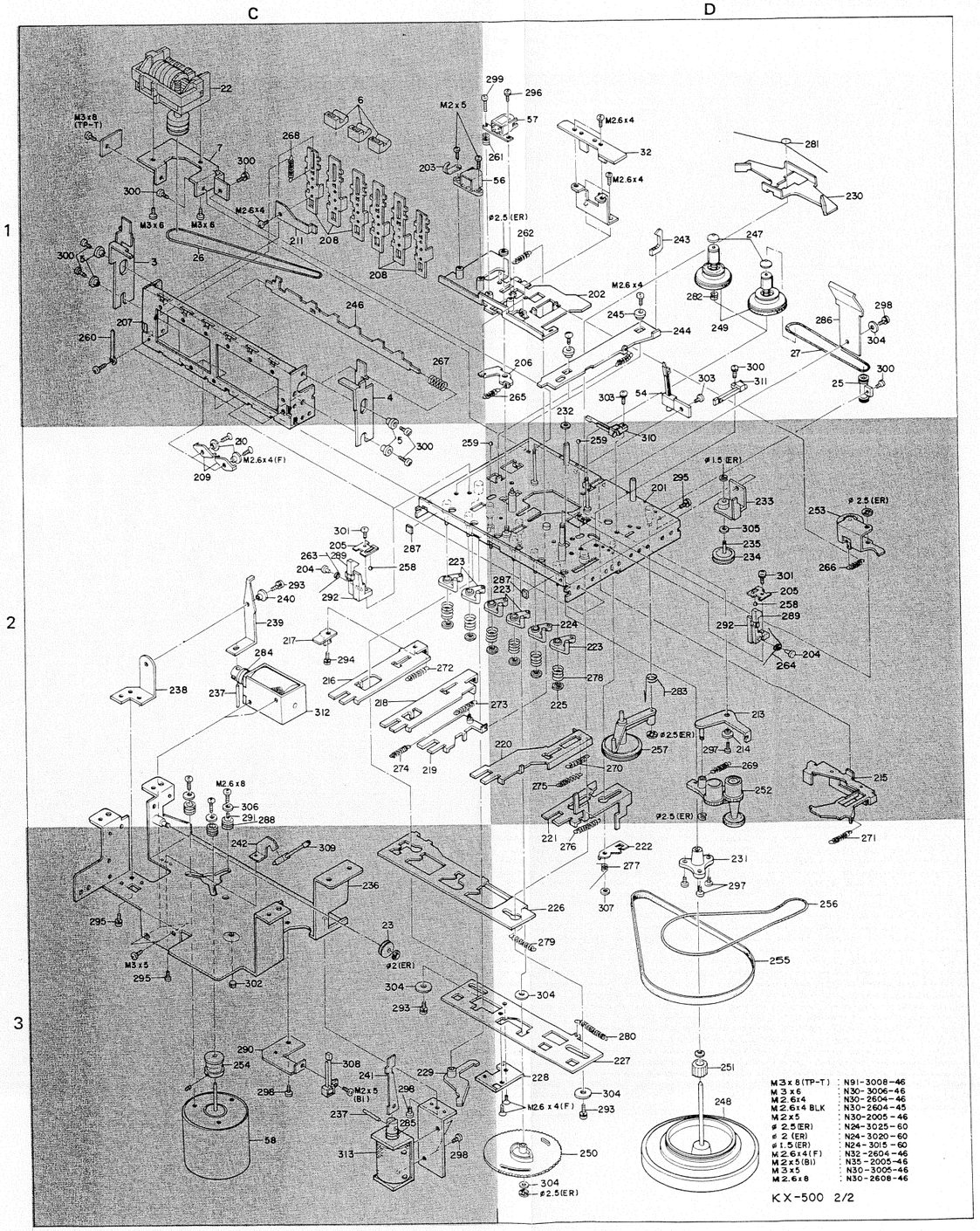
Lubricate with a small amount (1 drop) of oil using a small screwdriver. After lubricating, clean the drive-belts and the idler with alcohol to remove excess oil.



EXPLODED VIEW

Refer to parts list on page 22.

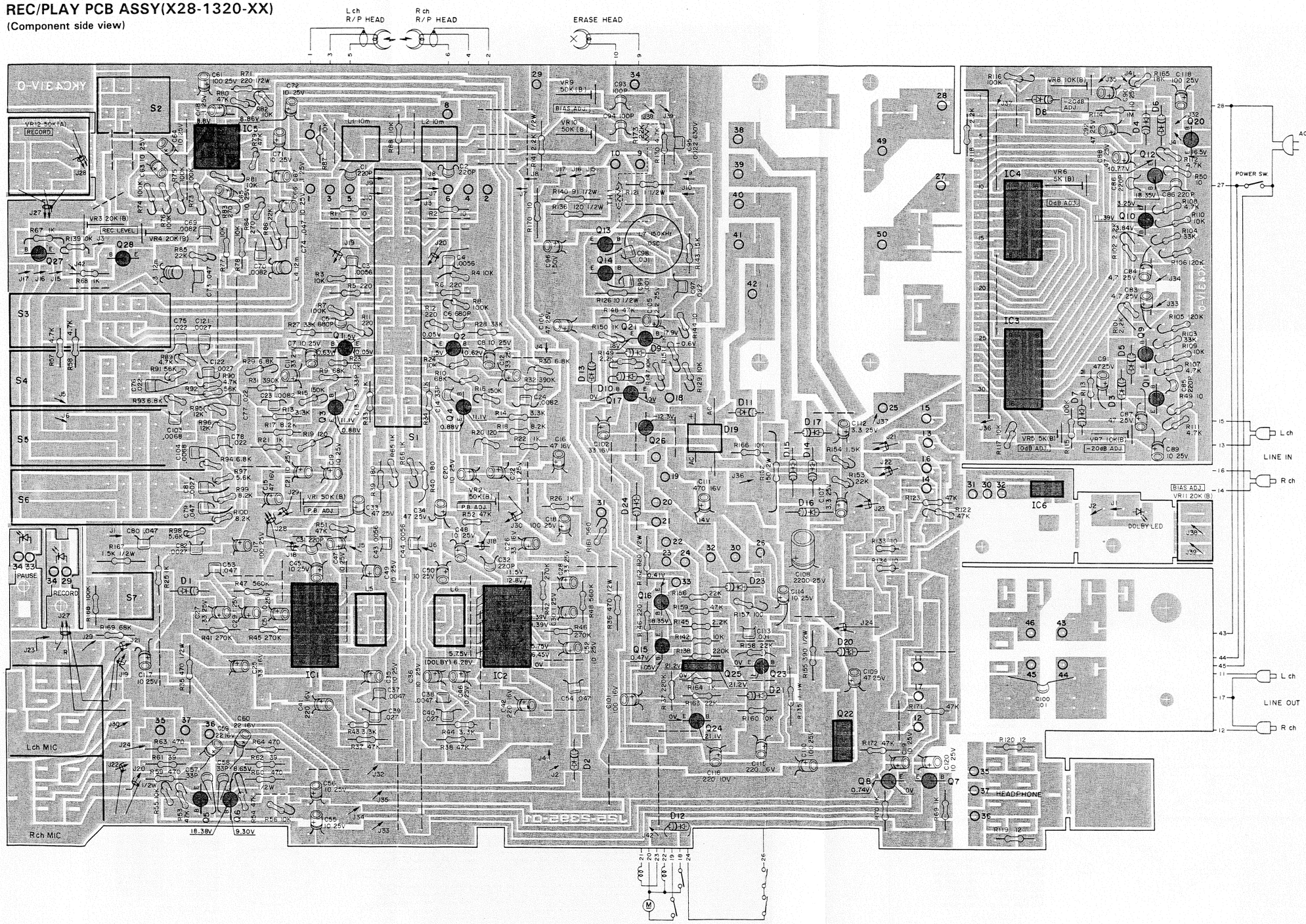




PC BOARD

REC/PLAY PCB ASSY(X28-1320-XX)

(Component side view)

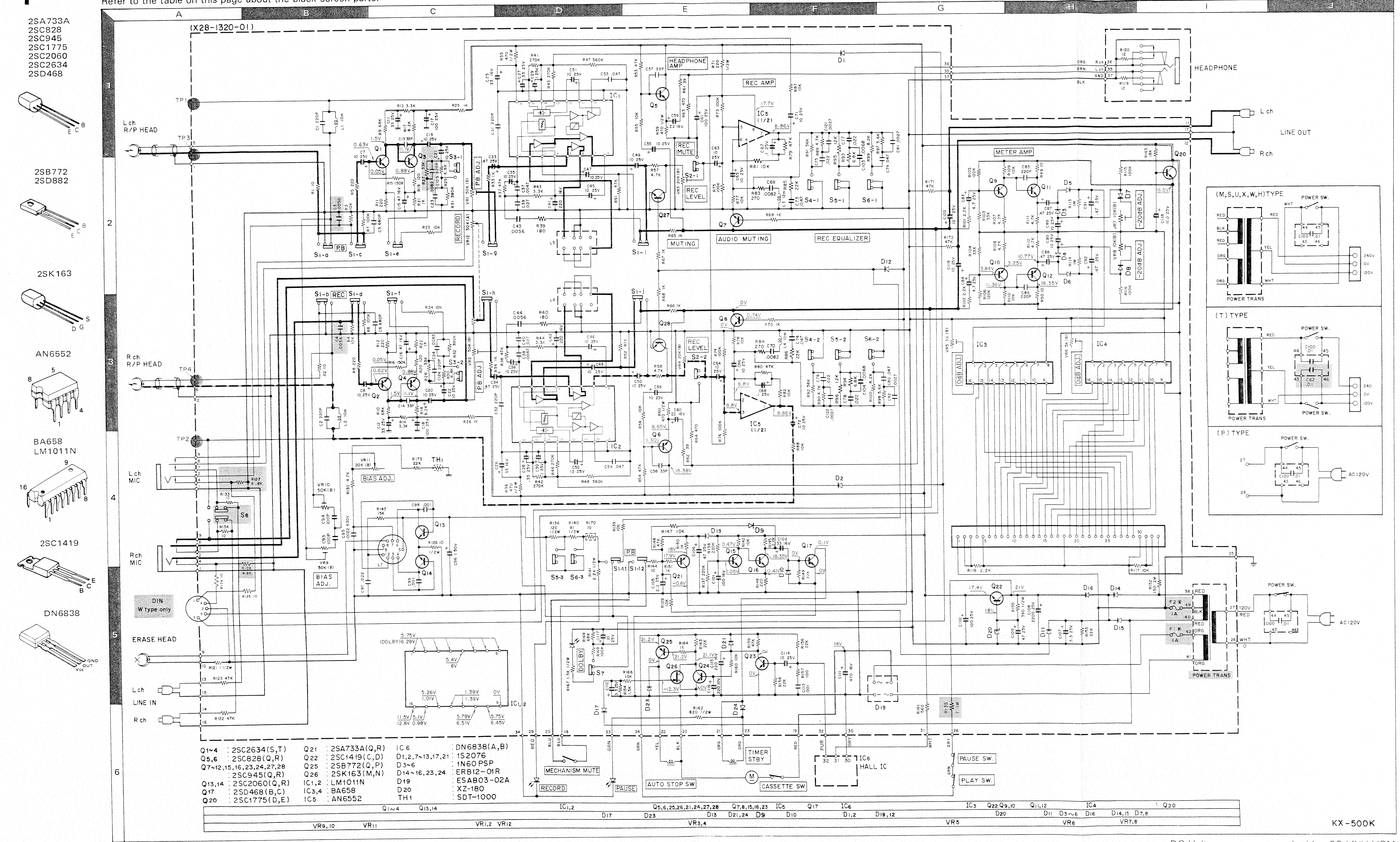


Q1~4 :2SC2634(S,T)
Q5,6 :2SC828(Q,R)
Q7~12,15,16,23,24,27,28 :2SC945(Q,R)
Q13,14 :2SC2060(Q,R)
Q17 :2SD468(B,C)
Q20 :2SC1775(D,E)
Q21 :2SA733A(Q,R)
Q22 :2SC1419(C,D)
Q25 :2SB772(Q,P)
Q26 :2SK163(M,N)
IC1,2 :LM1011N
IC3,4 :BA658
IC5 :AN6552
IC6 :DN6838(A,B)
D1,2,7~13,17,21 :1S2076
D3~6 :1N60PSP
D14~16,23,24 :ERB12-01R
D19 :ESAB03-02A
D20 :XZ-180
TH1 :SDT-1000

KENWOOD

STEREO CASSETTE DECK

Refer to the table on this page about the black screen parts.



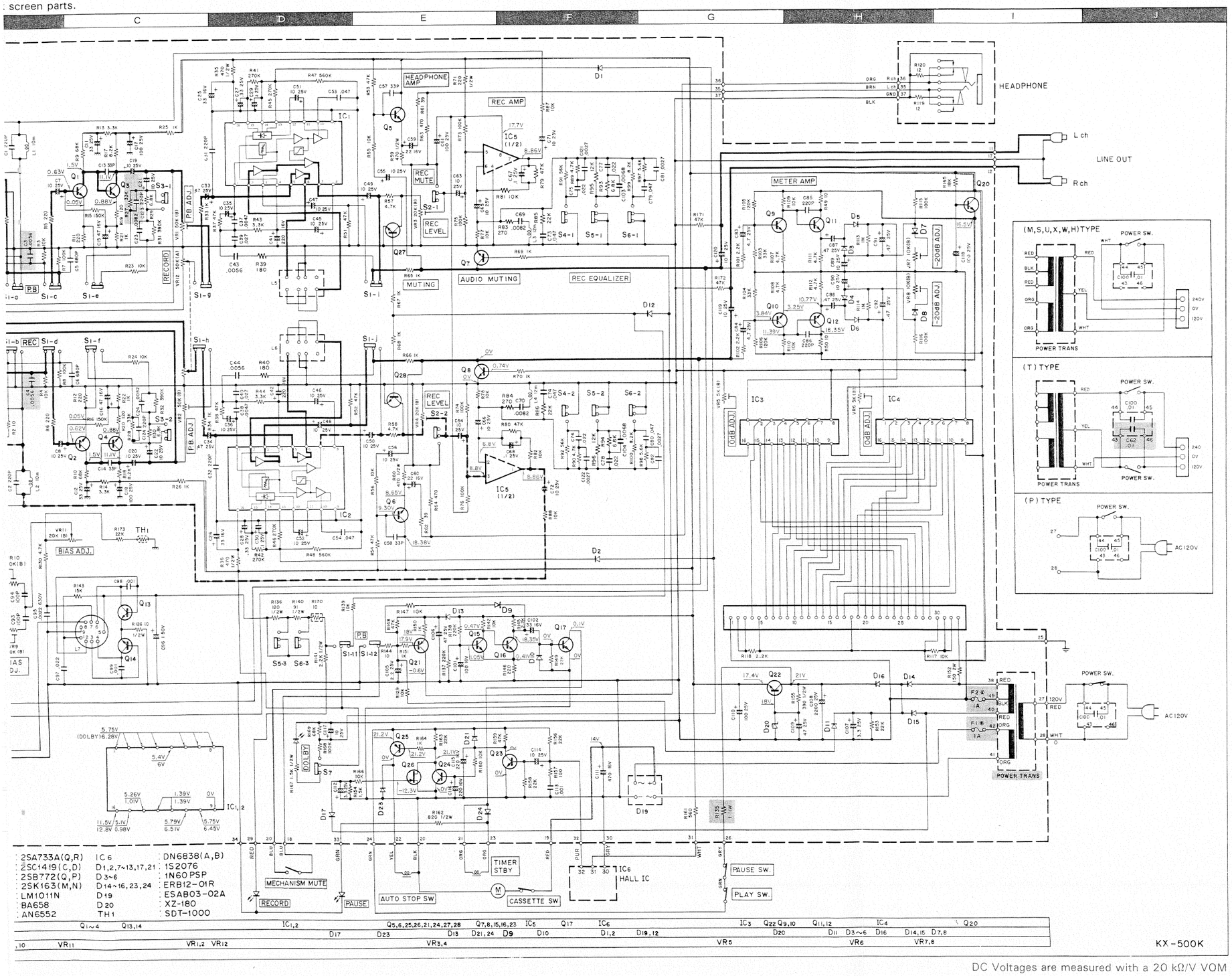
2SA733A
2SC828
2SC945
2SC1775
2SC2060
2SC2634
2SD468
2SB772
2SD882
2SK163
AN6552
BA658
LM1011N
2SC1419
DN6838
(X28-1320-01)
L ch R/P HEAD
R ch R/P HEAD
L ch MIC
R ch MIC
DIN W type only
ERASE HEAD
L ch LINE IN
R ch
HEADPHONE
LINE OUT
L ch
R ch
HEADPHONE AMP
REC AMP
REC MUTE
REC LEVEL
MUTING
AUDIO MUTING
REC EQUALIZER
METER AMP
PB ADJ
RECORD
BIAS ADJ.
-20dB ADJ
0dB ADJ
(M,S,U,X,W,H) TYPE
(T) TYPE
(P) TYPE
POWER SW.
POWER TRANS
AC120V
MECHANISM MUTE
RECORD
PAUSE
AUTO STOP SW
TIMER STBY
CASSETTE SW
HALL IC
PAUSE SW.
PLAY SW.
Q1~4 : 2SC2634(S,T)
Q5,6 : 2SC828(Q,R)
Q7~12,15,16,23,24,27,28 : 2SC945(Q,R)
Q13,14 : 2SC2060(Q,R)
Q17 : 2SD468(B,C)
Q20 : 2SC1775(D,E)
Q21 : 2SA733A(Q,R)
Q22 : 2SC1419(C,D)
Q25 : 2SB772(Q,P)
Q26 : 2SK163(M,N)
IC1,2 : LM1011N
IC3,4 : BA658
IC5 : AN6552
IC6 : DN6838(A,B)
D1,2,7~13,17,21 : 1S2076
D3~6 : 1N60PSP
D14~16,23,24 : ERB12-01R
D19 : ESAB03-02A
D20 : XZ-180
TH1 : SDT-1000
KX-500K

DC Voltages are measured with a 20 kΩ/V VOM

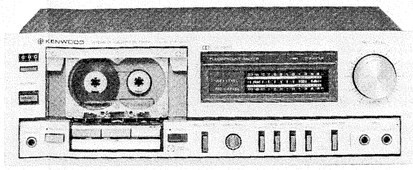
STEREO CASSETTE DECK

KX-500

screen parts.



DC Voltages are measured with a 20 kΩ/V VOM



SPECIFICATIONS

Type	Front Loading Stereo Cassette Deck with Dolby NR System
Track System	4-Track, 2-Channel Stereo/Mono, Recording/Playback
Recording System	AC Bias System (Bias Frequency: 105 kHz)
Erasing System	AC System
Tape Speed	4.76 cm/sec (1-7/8 ips)
Heads	Record and Playback Head × 1 (Hard Permalloy with Sendust Guard) Erase Head × 1 (Ferrite)
Motor	Electronically-Controlled DC Motor
Fast Winding Time	Approx. 85 seconds with C-60 tape
Frequency Response:	
Normal Tape	30 Hz to 15,000 Hz (40 Hz to 14,000 Hz ± 3 dB)
Chrome Tape	30 Hz to 16,000 Hz (40 Hz to 15,000 Hz ± 3 dB)
Ferro-Chrome Tape	30 Hz to 16,000 Hz (40 Hz to 15,000 Hz ± 3 dB)
Metal Tape	30 Hz to 16,000 Hz (40 Hz to 15,000 Hz ± 3 dB)
Signal to Noise Ratio:	
Dolby NR ON (Over 5 kHz)	62 dB (Normal Tape), 64 dB (Chrome, Ferro-Chrome and Metal Tape)
Dolby NR OFF	52 dB (Normal Tape), 54 dB (Chrome, Ferro-Chrome and Metal Tape)
Harmonic Distortion	Less than 1.3% (at 1 kHz, 0 VU with Metal Tape)
Wow and Flutter	0.05% (W.R.M.S.)
Input Sensitivity/Impedance:	
LINE × 2	77.5 mV/50 kohms
DIN × 1	0.1 mV/kohms: Europe, and U.K. Models
Microphones × 2	0.19 mV/10 kohms
Output Level/Load Impedance:	
LINE × 2	390 mV (0 VU)/100 kohms
DIN × 1	390 mV (0 VU)/100 kohms: Europe and U.K. Models
Headphones × 1	48.9 mV/8 ohms
Built-in Features	Dolby Noise Reduction System with LED Indicator Four Position Tape Selector Switches (Normal/Ferro-Chrome/Chrome/Metal) Fine Bias Adjustment Control Full Auto Shut-Off Mechanism in all Modes Recording Mute LED Recording and Pause Indicators Timer Stand by Mechanism Three Digit Tape Counter All-Electronic Fluorescent Display Level Meters (– 20 dB to + 8 dB) Two Microphone Jacks, Headphone Jack DIN Rec/Playback Connector (Europe and U.K. models only)
Power Requirements	AC 120 V, 60 Hz: U.S.A. and Canada Models AC 120 V/220-240 V (Switchable), 50/60 Hz: Other Countries
Power Consumption	12.0 watts: U.S.A. & Canada Models 18.0 watts: Other Countries
Dimensions	W: 400 mm (15-3/4") H: 139 mm (5-15/32") D: 281 mm (11-1/16")
Weight	4.3 kg (9.5 lbs.)
Supplied Accessories	Head Cleaning Set × 1, Head Cover × 1
Reference Tapes	Normal: MAXELL XLI Fe-Cr: SONY Ferri-chrome Chrome: TDK SA Metal: TDK MA-R

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

Note: Dolby is a trademark of Dolby Laboratories.

X28-1320-	K -01	M -02	W -03	P -04
F1	—	Yes	Yes	—
F2	—	Yes	Yes	—
Power trans.	Yes	—	—	Yes
DIN	—	—	Yes	—
S8	—	—	Yes	—
C3,4	Yes	Yes	—	Yes
C123, 124	—	—	Yes	—
C62	—	—	Yes	—
R127, 128	—	—	Yes	—
R135	Yes	—	—	—

KX-500 KX-500
KX-500 KX-500

PARTS LIST

Refer to "exploded view" on page 19.

Ref. No. 参照番号	Parts No. 部品番号	Description 部品名／規格	Remarks 備考
KX-500 UNIT			
1 2A	-	TAPE INDICATOR	
2 2B	-	METER DRESS PANEL	
3 1C	-	BUTTON LEVER(L)	
4 2C	-	BUTTON LEVER(R)	
5 1C	-	COLLAR	
6 2A,1C	-	LEVER CAP(D)	
7 1C	-	COUNTER MOUT HARDWARE	
8 3B	-	CHASSIS	
9 3A	-	BOTTOM CASE	
10 2B	-	REC LEVER(A)	
11 3B	-	REC LEVER(B)	
12 1B	-	SW LEVER(B)	
13 1B	-	SW LEVER(C)	
14 1B	351-0008-04	STRING	
15 1A	A02-0325-05	CASE	*
16 3A	A20-1993-12	FRONT PANEL	*K
16 3A	A20-1993-12	FRONT PANEL	PM
16 3A	A20-1993-12	FRONT PANEL	SU
16 3A	A20-1993-12	FRONT PANEL	WX
16 3A	A20-1994-12	FRONT PANEL	T
16 3A	A20-1995-12	FRONT PANEL	H
16 3A	A20-2010-02	FRONT PANEL	M2
17 2A	A21-0679-12	DRESS PANEL	*K
17 2A	A21-0679-12	DRESS PANEL	PM
17 2A	A21-0679-12	DRESS PANEL	SU
17 2A	A21-0679-12	DRESS PANEL	TW
17 2A	A21-0679-12	DRESS PANEL	HX
17 2A	A21-0694-02	DRESS PANEL	M2
18 2A	A21-0680-04	CASSETTE DRESS PLATE	*
-	B46-0055-20	WARRANTY CARD	P
-	B46-0060-00	WARRANTY CARD	T
-	B46-0061-20	WARRANTY CARD	K
-	B46-0062-20	WARRANTY CARD	UH
-	B46-0063-00	WARRANTY CARD	U
-	B46-0064-00	WARRANTY CARD	X
-	B50-2360-00	INSTRUCTION MANUAL	*K
-	B50-2360-00	INSTRUCTION MANUAL	SU
-	B50-2360-00	INSTRUCTION MANUAL	W
-	B50-2361-00	INSTRUCTION MANUAL	PM
-	B50-2361-00	INSTRUCTION MANUAL	X
-	B50-2362-00	INSTRUCTION MANUAL	T
-	B50-2363-00	INSTRUCTION MANUAL	H
-	B50-2395-00	INSTRUCTION MANUAL	M2
-	B59-0018-00	SERVICE STATIONS' LIST	U
19 2A	B07-0594-04	COUNTER WINDOW	*
20 2A	B10-0515-14	FRONT GLASS	*
21 2B	B11-0309-04	FILTER	*
22 2A,1C	B35-0209-05	COUNTER	*
23 3A,3C	D15-0160-04	SMALL PULLEY	
24 1B	D15-0528-05	PULLEY	
25 1D	D15-0517-04	INTERMEDIATE PULLEY	*
26 1C	D16-0225-04	COUNTER BELT(A)	*
27 1D	D16-0226-04	COUNTER BELT(B)	*
28 2A	D40-0477-05	MECHANISM ASSY	
29 3A	E03-0102-05	POWER SUPPLY SELECTOR	MS
29 3A	E03-0102-05	POWER SUPPLY SELECTOR	UT
29 3A	E03-0102-05	POWER SUPPLY SELECTOR	WH
29 3A	E03-0102-05	POWER SUPPLY SELECTOR	X
29 3A	E03-0102-05	POWER SUPPLY SELECTOR	M2

Ref. No. 参照番号	Parts No. 部品番号	Description 部品名／規格	Remarks 備考
30 2A	E23-0015-04	LUG	
31 3B	E30-0181-05	POWER CORD	KP
31 3B	E30-1305-15	POWER CORD	MU
31 3B	E30-1305-15	POWER CORD	M2
31 3B	E30-1328-05	POWER CORD	ST
31 3B	E30-1329-05	POWER CORD	WH
31 3B	E30-1342-05	POWER CORD	X
32 2B,1D	F07-0661-04	HEAD COVER	*
33 3A	F07-0662-04	FRONT COVER ASSY	*
F1 ,2	F05-1023-05	FUSE (1A)	MS
F1 ,2	F05-1023-05	FUSE (1A)	UX
F1 ,2	F05-1023-05	FUSE (1A)	M2
F1 ,2	F06-1021-05	FUSE (1A)	T
F1 ,2	F06-1021-05	FUSE (1A)	WH
34 2B	G01-0680-14	TENSION SPRING	
35 3B	G01-0774-04	TORSION SPRING(A)	*
36 3B	G01-0775-04	TORSION SPRING(B)	*
37 2B	G01-0776-04	COMPRESSION SPRING	*
38 3B	G10-0405-04	FELT	*
-	H01-2376-04	CARTON BOX	*K
-	H01-2376-04	CARTON BOX	MS
-	H01-2376-04	CARTON BOX	UH
-	H01-2376-04	CARTON BOX	X
-	H01-2377-04	CARTON BOX	T
-	H01-2378-04	CARTON BOX	W
-	H01-2379-04	CARTON BOX	P
-	H01-2417-04	CARTON BOX	M2
-	H10-2261-02	POLYSTYREN FOAMED FIX.	*
-	H10-2267-04	POLYSTYREN FOAMED FIX.	*
-	H20-0417-04	POLYETHYLENE COVER	M
-	H20-0417-04	POLYETHYLENE COVER	M2
-	H20-0441-04	POLYETHYLENE COVER	KP
-	H20-0441-04	POLYETHYLENE COVER	SU
-	H20-0441-04	POLYETHYLENE COVER	TW
-	H20-0441-04	POLYETHYLENE COVER	HX
-	H25-0078-04	COVER	
39 2B	K23-0644-04	KNOB(VOLUME,OUT)	*
40 2B	K23-0645-04	KNOB(VOLUME,IN)	*
41 2B	K23-0646-04	KNOB(BIAS)	*
42 2A	K27-0327-04	BUTTON(POWER)	*
43 3A	K27-0328-04	PUSHBUTTON	*
44 3A	K29-0670-04	PLAY BUTTON	*
45 3A	K29-0671-04	FF BUTTON	*
46 3A	K29-0672-04	REW BUTTON	*
47 3A	K29-0673-04	STOP BUTTON	*
48 2A	K29-0674-04	REC BUTTON	*
49 2B	K29-0675-04	PAUSE BUTTON	*
50 2A	K29-0676-03	RESET BUTTON(A)	*
51 2A	K29-0678-04	RESET BUTTON(B)	*
52 2A	N08-0411-05	DRESS SCREW	*
53 3A	N09-0100-14	PULLEY SCREW	*
54 2D	S46-1315-15	LEAF SWITCH	*
S1	S40-1311-15	POWER SWITCH FIG55	*K
S1	S40-1311-15	POWER SWITCH FIG55	P
S1	S40-1312-15	POWER SWITCH FIG55	MS
S1	S40-1312-15	POWER SWITCH FIG55	UX
S1	S40-1312-15	POWER SWITCH FIG55	M2
S1	S40-2310-15	POWER SWITCH FIG55	TW
S1	S40-2310-15	POWER SWITCH FIG55	H

Ref. No. 参照番号	Parts No. 部品番号	Description 部品名／規格	Remarks 備考
56 2A,1D	T32-0010-05	ERASE HEAD	
57 2A,1D	T34-0010-05	RECORD/PLAYBACK HEAD	*
58 2A,3C	T42-0105-05	MOTOR	
-	W01-0301-05	HEAD CLEANING STICKS	
59 1B	X28-1320-01	REC/PLAY PCB ASSY	*K
59 1B	X28-1320-02	REC/PLAY PCB ASSY	MS
59 1B	X28-1320-02	REC/PLAY PCB ASSY	UX
59 1B	X28-1320-02	REC/PLAY PCB ASSY	M2
59 1B	X28-1320-03	REC/PLAY PCB ASSY	TW
59 1B	X28-1320-03	REC/PLAY PCB ASSY	H
59 1B	X28-1320-04	REC/PLAY PCB ASSY	P
60 3A	-	BUTTON FRAMEWORK	*
REC/PLAY PCB (X 28-1320-XX)			
101 1B	-	SHIELD COVER	KP
102 2B	-	METER HOLDER	
103 2B	-	CUSHION	
104 2B	B31-0513-05	FL-METER	*
C1 ,2	C71-1722-15	CERAMIC 220PF J	
C3 ,4	C45-1756-25	MYLAR 0.0056UF J	KM
C3 ,4	C45-1756-25	MYLAR 0.0056UF J	P
C5 ,6	C71-1768-15	CERAMIC 680PF J	
C7 ,8	C25-1410-67	LL-ELEC 10UF 25WV	
C11 ,12	C24-1433-61	ELECTRO 33UF 25WV	
C13 ,14	C71-1733-05	CERAMIC 33PF J	
C15 ,16	C24-1247-61	ELECTRO 47UF 16WV	
C17 ,18	C24-1410-71	ELECTRO 100UF 25WV	
C19 -22	C24-1410-61	ELECTRO 10UF 25WV	
C23 ,24	C45-1782-25	MYLAR 0.0082UF J	
C25 ,26	C24-1233-61	ELECTRO 33UF 16WV	
C27 ,28	C25-1433-47	LL-ELEC 0.33UF 25WV	
C29 ,30	C25-1410-47	LL-ELEC 0.1UF 25WV	
C31 ,32	C71-1722-15	CERAMIC 220PF J	
C33 ,34	C25-1447-47	LL-ELEC 0.47UF 25WV	
C35 ,36	C24-1410-61	ELECTRO 10UF 25WV	
C37 ,38	C45-1747-25	MYLAR 0.0047UF J	
C39 ,40	C45-1727-35	MYLAR 0.027UF J	
C41 ,42	C24-1222-71	ELECTRO 220UF 16WV	
C43 ,44	C45-1756-25	MYLAR 0.0056UF J	
C45 -52	C24-1410-61	ELECTRO 10UF 25WV	
C53 ,54	C45-1747-36	MYLAR 0.047UF K	
C55 ,56	C24-1410-61	ELECTRO 10UF 25WV	
C57 ,58	C71-1733-05	CERAMIC 33PF J	
C59 ,60	C24-1222-61	ELECTRO 22UF 16WV	
C61	C24-1410-71	ELECTRO 100UF 25WV	
C62	C54-3310-39	CERAMIC 0.01UF P	W
C63 -66	C24-1410-61	ELECTRO 10UF 25WV	
C67 ,68	C25-1410-47	LL-ELEC 0.1UF 25WV	
C69 ,70	C45-1782-25	MYLAR 0.0082UF J	
C71 ,72	C25-1410-67	LL-ELEC 10UF 25WV	
C73 ,74	C45-1747-35	MYLAR 0.047UF J	
C75 -78	C45-1722-35	MYLAR 0.022UF J	
C79 ,80	C45-1747-35	MYLAR 0.047UF J	
C81 ,82	C45-1727-25	MYLAR 0.0027UF K	
C83 ,84	C24-1447-51	ELECTRO 4.7UF 25WV	
C85 ,86	C71-1722-15	CERAMIC 220PF J	
C87 ,88	C25-1447-47	LL-ELEC 0.47UF 25WV	
C89 ,90	C24-1410-61	ELECTRO 10UF 25WV	
C91 ,92	C25-1447-47	LL-ELEC 0.47UF 25WV	
C93 ,94	C71-1710-15	CERAMIC 100PF J	

Ref. No. 参照番号	Parts No. 部品番号	Description 部品名／規格	Remarks 備考
C95	C91-0327-05	FILM 2200PF 630WV	
C96	C24-1710-51	ELECTRO 1UF 50WV	
C97	C45-1722-36	MYLAR 0.022UF K	
C98 ,99	C45-1710-26	MYLAR 0.001UF K	
C100	C54-3310-39	CERAMIC 0.01UF P	W
C100	C90-0145-05	CERAMIC 0.01UF 125VAC	K
C100	C91-0308-05	CERAMIC 0.01UF 125VAC	M
C101	C25-1210-77	LL-ELEC 100UF 16WV	
C102	C24-1233-61	ELECTRO 33UF 16WV	
C103,104	C45-1768-25	MYLAR 0.0068UF J	
C105	C24-1422-51	ELECTRO 2.2UF 25WV	
C106	C24-1447-61	ELECTRO 47UF 25WV	
C107	C24-1433-51	ELECTRO 3.3UF 25WV	
C108	C24-1422-81	ELECTRO 2200UF 25WV	
C109	C24-1447-61	ELECTRO 47UF 25WV	
C110	C24-1410-71	ELECTRO 100UF 25WV	
C111	C24-1247-71	ELECTRO 470UF 16WV	
C112	C24-1433-51	ELECTRO 3.3UF 25WV	
C113	C45-1710-26	MYLAR 0.001UF K	
C114	C24-1410-61	ELECTRO 10UF 25WV	
C115	C24-1222-71	ELECTRO 220UF 16WV	
C116	C24-1022-71	ELECTRO 220UF 10WV	
C117	C24-1410-61	ELECTRO 10UF 25WV	
C118	C24-1410-71	ELECTRO 100UF 25WV	
C119,120	C24-1410-61	ELECTRO 10UF 25WV	
C121,122	C45-1727-25	MYLAR 0.0027UF K	
C123,124	C71-1722-15	CERAMIC 220PF J	W
105 1B	E06-0541-05	DIN CONNECTOR	*W
106 2B	E11-0313-05	MIC JACK	*
107 2B	E11-0314-05	HEADPHONE JACK	*
108 3B	E30-1337-05	AUDIO CORD (REC)	*
109 3B	E30-1338-05	AUDIO CORD (PLAY)	*
-	J13-0055-05	FUSE HOLDER	WP
110 1B	L01-6281-05	POWER TRANSFORMER	*K
110 1B	L01-6281-05	POWER TRANSFORMER	P
110 1B	L01-6284-05	POWER TRANSFORMER	TW
110 1B	L01-6284-05	POWER TRANSFORMER	H
110 1B	L01-6287-05	POWER TRANSFORMER	MS
110 1B	L01-6287-05	POWER TRANSFORMER	UX
110 1B	L01-6287-05	POWER TRANSFORMER	M2
L1 ,2	L39-0304-05	TRAP COIL 10MH	
L3 ,4	L39-0314-05	INDUCTOR	*
L5 ,6	L79-0310-05	DOLBY FILTER	*
L7	L32-0508-05	OSC COIL	*
R35 ,36	R43-1347-15	FL-PROOF RD470 J 2H	
R59 ,60	R43-1347-15	FL-PROOF RD470 J 2H	
R71	R43-1322-15	FL-PROOF RD220 J 2H	
R121	R43-1310-95	FL-PROOF RD1 J 2H	
R126	R43-1310-05	FL-PROOF RD10 J 2H	
R132	R92-0511-05	FUSE-RESIST10 J 2E	
R135	R47-1401-05	FL-PROOF RS1 J 3A	
R136	R43-1312-15	FL-PROOF RD120 J 2H	
R140	R43-1391-05	FL-PROOF RD91 J 2H	
R141	R43-1322-25	FL-PROOF RD2,2K J 2H	
R152	R47-5415-15	FL-PROOF RS150 J 3D	
R155	R43-1339-15	FL-PROOF RD390 J 2H	
R162	R43-1382-15	FL-PROOF RD820 J 2H	
R167	R43-1315-25	FL-PROOF RD1,5K J 2H	
R170	R92-0511-05	FUSE-RESIST10 J 2E	
VR1 ,2	R12-4302-05	TRIMMING POT 50K PLAY	

PARTS LIST

Ref. No. 参照番号	Parts No. 部品番号	Description 部品名／規格	Remarks 備考
0 2A	E23-0015-04	LUG	
1 3B	E30-0181-05	POWER CORD	KP
1 3B	E30-1305-15	POWER CORD	MU
1 3B	E30-1305-15	POWER CORD	M2
1 3B	E30-1328-05	POWER CORD	ST
1 3B	E30-1329-05	POWER CORD	WH
1 3B	E30-1342-05	POWER CORD	X
2 2B,1D	F07-0661-04	HEAD COVER	*
3 3A	F07-0662-04	FRONT COVER ASSY	*
1 ,2	F05-1023-05	FUSE (1A)	MS
1 ,2	F05-1023-05	FUSE (1A)	UX
1 ,2	F05-1023-05	FUSE (1A)	M2
1 ,2	F06-1021-05	FUSE (1A)	T
1 ,2	F06-1021-05	FUSE (1A)	WH
4 2B	G01-0680-14	TENSION SPRING	
5 3B	G01-0774-04	TORSION SPRING(A)	*
6 3B	G01-0775-04	TORSION SPRING(B)	*
7 2B	G01-0776-04	COMPRESSION SPRING	*
8 3B	G10-0405-04	FELT	*
	H01-2376-04	CARTON BOX	*K
	H01-2376-04	CARTON BOX	MS
	H01-2376-04	CARTON BOX	UH
	H01-2376-04	CARTON BOX	X
	H01-2377-04	CARTON BOX	T
	H01-2378-04	CARTON BOX	W
	H01-2379-04	CARTON BOX	P
	H01-2417-04	CARTON BOX	M2
	H10-2261-02	POLYSTYREN FOAMED FIX.	*
	H10-2267-04	POLYSTYREN FOAMED FIX.	*
	H20-0417-04	POLYETHYLENE COVER	M
	H20-0417-04	POLYETHYLENE COVER	M2
	H20-0441-04	POLYETHYLENE COVER	KP
	H20-0441-04	POLYETHYLENE COVER	SU
	H20-0441-04	POLYETHYLENE COVER	TW
	H20-0441-04	POLYETHYLENE COVER	HX
	H25-0078-04	COVER	
9 2B	K23-0644-04	KNOB(VOLUME,OUT)	*
0 2B	K23-0645-04	KNOB(VOLUME,IN)	*
1 2B	K23-0646-04	KNOB(BIAS)	*
2 2A	K27-0327-04	BUTTON(POWER)	*
3 3A	K27-0328-04	PUSHBUTTON	*
4 3A	K29-0670-04	PLAY BUTTON	*
5 3A	K29-0671-04	FF BUTTON	*
6 3A	K29-0672-04	REW BUTTON	*
7 3A	K29-0673-04	STOP BUTTON	*
8 2A	K29-0674-04	REC BUTTON	*
9 2B	K29-0675-04	PAUSE BUTTON	*
0 2A	K29-0676-03	RESET BUTTON(A)	*
1 2A	K29-0678-04	RESET BUTTON(B)	*
2 2A	N08-0411-05	DRESS SCREW	*
3 3A	N09-0100-14	PULLEY SCREW	*
4 2D	S46-1315-15	LEAF SWITCH	*
1	S40-1311-15	POWER SWITCH FIG55	*K
1	S40-1311-15	POWER SWITCH FIG55	P
1	S40-1312-15	POWER SWITCH FIG55	MS
1	S40-1312-15	POWER SWITCH FIG55	UX
1	S40-1312-15	POWER SWITCH FIG55	M2
1	S40-2310-15	POWER SWITCH FIG55	TW
1	S40-2310-15	POWER SWITCH FIG55	H

Ref. No. 参照番号	Parts No. 部品番号	Description 部品名／規格	Remarks 備考
56 2A,1D	T32-0010-05	ERASE HEAD	
57 2A,1D	T34-0010-05	RECORD/PLAYBACK HEAD	*
58 2A,3C	T42-0105-05	MOTOR	
-	W01-0301-05	HEAD CLEANING STICKS	
59 1B	X28-1320-01	REC/PLAY PCB ASSY	*K
59 1B	X28-1320-02	REC/PLAY PCB ASSY	MS
59 1B	X28-1320-02	REC/PLAY PCB ASSY	UX
59 1B	X28-1320-02	REC/PLAY PCB ASSY	M2
59 1B	X28-1320-03	REC/PLAY PCB ASSY	TW
59 1B	X28-1320-03	REC/PLAY PCB ASSY	H
59 1B	X28-1320-04	REC/PLAY PCB ASSY	P
60 3A	-	BUTTON FRAMEWORK	*
REC/PLAY PCB (X 28-1320-XX)			
101 1B	-	SHIELD COVER	KP
102 2B	-	METER HOLDER	
103 2B	-	CUSHION	
104 2B	B31-0513-05	FL-METER	*
C1 ,2	C71-1722-15	CERAMIC 220PF J	
C3 ,4	C45-1756-25	MYLAR 0.0056UF J	KM
C3 ,4	C45-1756-25	MYLAR 0.0056UF J	P
C5 ,6	C71-1768-15	CERAMIC 680PF J	
C7 ,8	C25-1410-67	LL-ELEC 10UF 25WV	
C11 ,12	C24-1433-61	ELECTRO 33UF 25WV	
C13 ,14	C71-1733-05	CERAMIC 33PF J	
C15 ,16	C24-1247-61	ELECTRO 47UF 16WV	
C17 ,18	C24-1410-71	ELECTRO 100UF 25WV	
C19 -22	C24-1410-61	ELECTRO 10UF 25WV	
C23 ,24	C45-1782-25	MYLAR 0.0082UF J	
C25 ,26	C24-1233-61	ELECTRO 33UF 16WV	
C27 ,28	C25-1433-47	LL-ELEC 0.33UF 25WV	
C29 ,30	C25-1410-47	LL-ELEC 0.1UF 25WV	
C31 ,32	C71-1722-15	CERAMIC 220PF J	
C33 ,34	C25-1447-47	LL-ELEC 0.47UF 25WV	
C35 ,36	C24-1410-61	ELECTRO 10UF 25WV	
C37 ,38	C45-1747-25	MYLAR 0.0047UF J	
C39 ,40	C45-1727-35	MYLAR 0.027UF J	
C41 ,42	C24-1222-71	ELECTRO 220UF 16WV	
C43 ,44	C45-1756-25	MYLAR 0.0056UF J	
C45 -52	C24-1410-61	ELECTRO 10UF 25WV	
C53 ,54	C45-1747-36	MYLAR 0.047UF K	
C55 ,56	C24-1410-61	ELECTRO 10UF 25WV	
C57 ,58	C71-1733-05	CERAMIC 33PF J	
C59 ,60	C24-1222-61	ELECTRO 22UF 16WV	
C61	C24-1410-71	ELECTRO 100UF 25WV	
C62	C54-3310-39	CERAMIC 0.01UF P	W
C63 -66	C24-1410-61	ELECTRO 10UF 25WV	
C67 ,68	C25-1410-47	LL-ELEC 0.1UF 25WV	
C69 ,70	C45-1782-25	MYLAR 0.0082UF J	
C71 ,72	C25-1410-67	LL-ELEC 10UF 25WV	
C73 ,74	C45-1747-35	MYLAR 0.047UF J	
C75 -78	C45-1722-35	MYLAR 0.022UF J	
C79 ,80	C45-1747-35	MYLAR 0.047UF J	
C81 ,82	C45-1727-25	MYLAR 0.0027UF K	
C83 ,84	C24-1447-51	ELECTRO 4.7UF 25WV	
C85 ,86	C71-1722-15	CERAMIC 220PF J	
C87 ,88	C25-1447-47	LL-ELEC 0.47UF 25WV	
C89 ,90	C24-1410-61	ELECTRO 10UF 25WV	
C91 ,92	C25-1447-47	LL-ELEC 0.47UF 25WV	
C93 ,94	C71-1710-15	CERAMIC 100PF J	

KX-500 KX-500

PARTS LIST

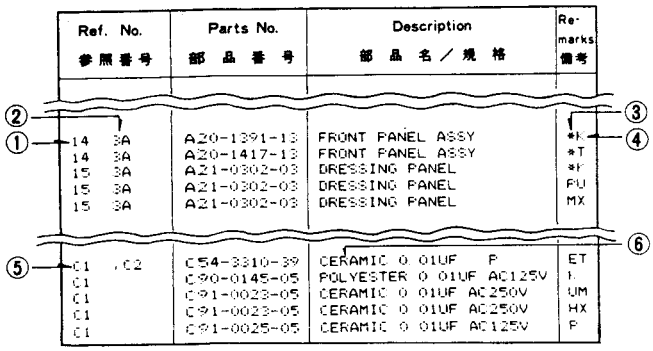
Ref. No. 参照番号	Parts No. 部品番号	Description 部品名／規格	Remarks 備考
C95	C91-0327-05	FILM 2200PF 630WV	
C96	C24-1710-51	ELECTRO 1UF 50WV	
C97	C45-1722-36	MYLAR 0.022UF K	
C98 ,99	C45-1710-26	MYLAR 0.001UF K	
C100	C54-3310-39	CERAMIC 0.01UF P	W
C100	C90-0145-05	CERAMIC 0.01UF 125VAC	K
C100	C91-0308-05	CERAMIC 0.01UF 125VAC	M
C101	C25-1210-77	LL-ELEC 100UF 16WV	
C102	C24-1233-61	ELECTRO 33UF 16WV	
C103,104	C45-1768-25	MYLAR 0.0068UF J	
C105	C24-1422-51	ELECTRO 2.2UF 25WV	
C106	C24-1447-61	ELECTRO 47UF 25WV	
C107	C24-1433-51	ELECTRO 3.3UF 25WV	
C108	C24-1422-81	ELECTRO 2200UF 25WV	
C109	C24-1447-61	ELECTRO 47UF 25WV	
C110	C24-1410-71	ELECTRO 100UF 25WV	
C111	C24-1247-71	ELECTRO 470UF 16WV	
C112	C24-1433-51	ELECTRO 3.3UF 25WV	
C113	C45-1710-26	MYLAR 0.001UF K	
C114	C24-1410-61	ELECTRO 10UF 25WV	
C115	C24-1222-71	ELECTRO 220UF 16WV	
C116	C24-1022-71	ELECTRO 220UF 10WV	
C117	C24-1410-61	ELECTRO 10UF 25WV	
C118	C24-1410-71	ELECTRO 100UF 25WV	
C119,120	C24-1410-61	ELECTRO 10UF 25WV	
C121,122	C45-1727-25	MYLAR 0.0027UF K	
C123,124	C71-1722-15	CERAMIC 220PF J	W
105 1B	E06-0541-05	DIN CONNECTOR	*W
106 2B	E11-0313-05	MIC JACK	*
107 2B	E11-0314-05	HEADPHONE JACK	*
108 3B	E30-1337-05	AUDIO CORD (REC)	*
109 3B	E30-1338-05	AUDIO CORD (PLAY)	*
-	J13-0055-05	FUSE HOLDER	WP
110 1B	L01-6281-05	POWER TRANSFORMER	*K
110 1B	L01-6281-05	POWER TRANSFORMER	P
110 1B	L01-6284-05	POWER TRANSFORMER	TW
110 1B	L01-6284-05	POWER TRANSFORMER	H
110 1B	L01-6287-05	POWER TRANSFORMER	MS
110 1B	L01-6287-05	POWER TRANSFORMER	UX
110 1B	L01-6287-05	POWER TRANSFORMER	M2
L1 ,2	L39-0304-05	TRAP COIL 10MH	
L3 ,4	L39-0314-05	INDUCTOR	*
L5 ,6	L79-0310-05	DOLBY FILTER	*
L7	L32-0508-05	OSC COIL	*
R35 ,36	R43-1347-15	FL-PROOF RD470 J 2H	
R59 ,60	R43-1347-15	FL-PROOF RD470 J 2H	
R71	R43-1322-15	FL-PROOF RD220 J 2H	
R121	R43-1310-95	FL-PROOF RD1 J 2H	
R126	R43-1310-05	FL-PROOF RD10 J 2H	
R132	R92-0511-05	FUSE-RESIST10 J 2E	
R135	R47-1401-05	FL-PROOF RS1 J 3A	
R136	R43-1312-15	FL-PROOF RD120 J 2H	
R140	R43-1391-05	FL-PROOF RD91 J 2H	
R141	R43-1322-25	FL-PROOF RD2.2K J 2H	
R152	R47-5415-15	FL-PROOF RS150 J 3D	
R155	R43-1339-15	FL-PROOF RD390 J 2H	
R162	R43-1382-15	FL-PROOF RD820 J 2H	
R167	R43-1315-25	FL-PROOF RD1.5K J 2H	
R170	R92-0511-05	FUSE-RESIST10 J 2E	
VR1 ,2	R12-4302-05	TRIMMING POT 50K PLAY	

Ref. No. 参照番号	Parts No. 部品番号	Description 部品名／規格	Remarks 備考
VR3 ,4	R12-3301-05	TRIMMING POT 20K REC	
VR5 ,6	R12-2302-05	TRIMMING POT 5K ODB	
VR7 ,8	R12-3302-05	TRIMMING POT 10K -20DB	
VR9 ,10	R12-4302-05	TRIMMING POT 50K BIAS	
VR11	R01-3305-05	POT.20K BIAS	*
VR12	R19-4306-05	POT. 50K (DUAL) VOLUME	*
S1	S31-0306-05	SLIDE SW FIG112	*
S2	S40-2311-05	PUSH SW FIG113	*
S3 -6	S40-4304-05	PUSH SW FIG114	*
S7	S40-2312-05	PUSH SW FIG115	*
S8	S31-2307-05	SLIDE SW	W
116 2B	V11-1100-20	LN-324GP (GRN)	*
117 2B	V11-7200-40	PG-2132D (GRN)	*
118 2B	V11-7200-50	AR-2132D (RED)	*
D1 ,2	V11-0271-05	1S2076	
D3 -6	V11-0051-05	1N60PSP	
D7 -13	V11-0271-05	1S2076	
D14 -16	V11-7100-60	ERB12-01R	
D17	V11-0271-05	1S2076	
D19	V11-7100-11	ESAB03-02A	
D20	V11-4102-90	XZ-180	*
D21	V11-0271-05	1S2076	
D23 ,24	V11-7100-60	ERB12-01R	
IC1 ,2	V30-0277-10	LM-1011N	
IC3 ,4	V30-0347-10	BA658	
IC5	V30-0405-10	AN6552	*
IC6	V30-0355-10	DN6838	
Q1 -4	V03-2634-10	2SC2634(S,T)	*
Q5 ,6	V03-0479-05	2SC828(Q,R)	
Q7 -12	V03-0270-05	2SC945(Q,R)	
Q13 ,14	V03-2060-10	2SC2060(Q,R)	
Q15 ,16	V03-0270-05	2SC945(Q,R)	
Q17	V04-0468-10	2SD468(B,C)	*
Q20	V03-1775-40	2SC1775(D,E)	
Q21	V01-0733-30	2SA733A(R,Q)	
Q22	V03-0343-05	2SC1419(C,D)	
Q23 ,24	V03-0270-05	2SC945(Q,R)	
Q25	V02-0772-10	2SB772(Q,P)	*
Q26	V09-0144-20	2SK163(M,N)	
Q27 ,28	V03-0270-05	2SC945(Q,R)	
TH1	V22-0005-05	SDT-1000	
MECHANISM ASS'Y (D40-0477-05)			
201 2D	-	CHASSIS	
202 1D	-	HEAD PANEL	
203 1C	-	LUG	
204 2C,2D	-	CASSETTE HOLDER SHAFT	
205 2C,2D	-	PANEL HOLDER	
206 1D	-	PREVENTION LEVER	
207 1C	-	PUSHBUTTON FRAMEWORK	
208 1C	-	PUSHBUTTON LEVER	
209 2C	-	PREVENTION ANGLE	
210 2C	-	PREVENTION COLLAR	
211 1C	-	INTERCONNECTION LEVER	
213 2D	-	RF LEVER	
214 2D	-	RF LEVER METAL	
215 2D	-	SWITCH ARM	
216 2C	-	REC ARM	
217 2C	-	REC SW HARDWARE	
218 2C	-	REW ARM	
219 2C	-	PLAY ARM	
220 2D	-	FF ARM	
221 3D	-	PAUSE ARM	

PARTS LIST

Ref. No. 参照番号	Parts No. 部品番号	Description 部品名／規格	Remarks 備考
222 3D	-	PAUSE CAM	
223 2C,2D	-	OPERATION LEVER	
224 2D	-	OPERATION LEVER(STOP)	
225 2D	-	LEVER SPRING HOLDER	
226 3D	-	LOCK PLATE	
227 3D	-	DRIVE ARM	
228 3D	-	CAM HOLDER	
229 3C	-	TRIGGER LEVER	
230 1D	-	BRAKE ARM	
231 3D	-	RETAINER	
232 1C	-	SPECIAL WASHER	
233 2D	-	INTERMEDIATE PULLEY DISK	
234 2D	-	INTERMEDIATE PULLEY	
235 2D	-	SHAFT	
236 3C	-	REAR CHASSIS	
237 2C	-	SPRING PIN	
238 2C	-	STOP LEVER HOLDER	
239 2C	-	STOP LEVER	
240 2C	-	STOP LEVER COLLAR	
241 3C	-	TIMER LEVER	
242 3C	-	MAIN SW MOUNTING METAL	
243 1D	-	REC SENSOR	
244 1D	-	REC SENSOR ARM	
245 1D	-	REC SENSOR ARM COLLAR	
246 1C	-	TRIGGER OPERATION METAL	
247 1D	B09-0220-08	REEL CAP	*
248 3D	D01-0308-08	FLYWHEEL	*
249 1D	D03-0015-08	REEL DISK ASSY	*
250 3D	D13-0214-08	DRIVE GEAR ASSY	*
251 3D	D13-0215-08	CAPSTAN GEAR ASSY	*
252 2D	D14-0228-08	RF-ASSY	*
253 2D	D14-0229-08	PINCH ROLLER SUB ASSY	*
254 3C	D15-0526-08	PULLEY	*
255 3D	D16-0231-08	FLAT BELT	*
256 3D	D16-0232-08	SQUARE BELT	*
257 2D	D19-0234-08	CLUTCH ASSY	*
258 2C,2D	D90-0102-08	STEEL BALL	
259 2C,2D	D90-0104-08	STEEL BALL	*
260 1C	E23-0305-08	CORD LUG	
F1 ,2	F05-1023-05	FUSE (1A)	MS
F1 ,2	F05-1023-05	FUSE (1A)	UX
F1 ,2	F05-1023-05	FUSE (1A)	M2
F1 ,2	F06-1021-05	FUSE (1A)	
261 1D	G01-0682-08	REC/PLAY HEAD SPRING	
262 1D	G01-0792-08	HEAD PANEL SPRING	*
263 2C	G01-0793-08	CASSETTE HOLDER SPRING	*
264 2D	G01-0794-08	CASSETTE HOLDER SPRING	*
265 1D	G01-0795-08	LEVER SPRING	*
266 2D	G01-0796-08	PINCH ROLLER SPRING	*
267 1C	G01-0797-08	TRIGGER OPERATION SPRING	*
268 1C	G01-0798-08	LEVER SPRING	*
269 3D	G01-0799-08	RF ARM SPRING	*
270 2C	G01-0800-08	RF LEVER SPRING	*
271 3D	G01-1001-08	SW ARM SPRING	*
272 2C	G01-1002-08	REC ARM SPRING	*
273 2D	G01-1003-08	REW ARM SPRING	*
274 2C	G01-1004-08	PLAY ARM SPRING	*
275 2D	G01-1005-08	FF ARM SPRING	*
276 3D	G01-1006-08	PAUSE ARM SPRING	*
277 3D	G01-1008-08	PAUSE CAM SPRING	*
278 2D	G01-1009-08	OPERATION LEVER SPRING	*
279 3D	G01-1010-08	LOCK PLATE SPRING	*
280 3D	G01-1011-08	DRIVE ARM SPRING	*
281 3D	G01-1012-08	BRAKE ARM SPRING	*
282 1D	G01-1013-08	REW REEL SPRING	*
283 2D	G01-1014-08	CLUTCH ARM SPRING	*
284 2C	G01-1015-08	SOLENOID SPRING	*
285 3C	G01-1033-08	SOLENOID SPRING	*
286 1D	G02-0335-08	CASSETTE HOLDER SPRING	*
287 2C,2D	G10-0407-08	FELT	*
288 2C	G13-0446-08	RUBBER CUSHION	
289 2C,2D	J19-1977-08	CASSETTE HOLDER	*
290 3C	J21-2395-08	PAUSE SW METAL	*
291 2C	J31-0429-08	COLLAR	
292 2C,2D	J90-0311-08	CASSETTE GUIDE	*
293 2C,3C	N09-0202-08	PAN HEAD SCREW	
294 2C	N09-0203-08	PAN HEAD SCREW	
295 2D,3D	N09-0246-08	PAN HEAD SCREW	
296 1D	N09-0591-08	PAN HEAD SCREW	
297 2D	N09-0827-08	TAP TIGHT SCREW	
298 1D,3C	N09-0828-08	TAP TIGHT SCREW	
299 1D	N09-0830-08	BINDING SCREW	
300 1C	N09-0896-04	TAP TIGHT SCREW	*
301 2C,2D	N09-0898-08	TAP TIGHT SCREW	*
302 3C	N09-0899-08	ADJUSTING SCREW	*
303 1D	N09-0901-08	TAP TIGHT SCREW	*
304 1D,3C	N15-1030-46	FLAT WASHER	
305 2D	N19-0539-08	SPRING WASHER	
306 2C	N19-0551-08	FLAT WASHER	*
307 3D	N19-0573-08	SPRING WASHER	*
308 3C	S46-1316-08	LEAF SWITCH	*
309 3C	S46-1317-08	LEAF SWITCH	*
310 2D	S46-1318-08	LEAF SWITCH	*
311 1D	S46-1319-08	LEAF SWITCH	*
312 2C	T94-0063-08	SOLENOID	*
313 3C	T94-0064-08	SOLENOID	*

INSTRUCTION FOR PARTS LIST



Ref. No. 参照番号	Parts No. 部品番号	Description 部品名／規格	Remarks 備考
14 3A	A20-1391-13	FRONT PANEL ASSY	*K
14 3A	A20-1417-13	FRONT PANEL ASSY	*T
15 3A	A21-0302-03	DRESSING PANEL	*K
15 3A	A21-0302-03	DRESSING PANEL	PU
15 3A	A21-0302-03	DRESSING PANEL	MX
C1 ,C2	C54-3310-39	CERAMIC 0.01UF P	ET
C1	C90-0145-05	POLYESTER 0.01UF AC125V	I
C1	C91-0023-05	CERAMIC 0.01UF AC250V	UM
C1	C91-0023-05	CERAMIC 0.01UF AC250V	HX
C1	C91-0025-05	CERAMIC 0.01UF AC125V	P

① Exploded view drawing No.
② Position in exploded view.
③ Symbol of new parts
④ Area to which parts are shipped. Example: A20-1390-13 is the part No. of FRONT PANEL ASS'Y for the "K" type products (for U.S.A.). When this column is blank, it means that the same type of parts (same parts No.) are used for the products shipped to all areas.
⑤ Reference No. in schematic diagram.
⑥ Abbreviation of "ceramic capacitor".

All capacitors and resistors are listed using abbreviations.

Abbreviations

* Abbreviations of capacitors (Parts No. with initial letter "C").

ELECTRO	Electrolytic capacitor
LL-ELEC	Low leak electrolytic capacitor
NP-ELEC	Non-pole electrolytic capacitor
MICA	Mica capacitor
POLYSTY	Polystyrene capacitor
MYLAR	Mylar capacitor
CERAMIC	Ceramic capacitor
TANTAL	Tantalum capacitor
MF	Metallized film capacitor
MP	Metallized paper capacitor
OIL	Oil capacitor

The unit "UF" is used in lieu of "μF"

* Abbreviations of resistors (Parts No. with initial letters "R").

RC	Carbon composition resistor
RD	Carbon film resistor
FL-PROOF RD	Flame-proof carbon film resistor
RW	Wire wound power resistor
FL-PROOF RS	Flame-proof metal oxide film resistor
RN	Metal film resistor
FUSE-RESIST	Resistor with fuse function
2B	Rated wattage 1/8W
2E	Rated wattage 1/4W
2H	Rated wattage 1/2W
3A	Rated wattage 1W
3D	Rated wattage 2W
3F	Rated wattage 3W
3G	Rated wattage 4W
3H	Rated wattage 5W

All resistor values are indicated with the unit (Ω) omitted.

* Abbreviations common to capacitors and resistors.

C	±0.25pF (Used for capacitors only)
D	±0.5pF (Used for capacitors only)
F	±1%
G	±2%
J	±5%
K	±10%
M	±20%
Z	+80%, −20% (Used for capacitors only)
P	+100%, −0% (Used for capacitors only)

* Resistors RD (carbon composition resistors) are not listed in the parts list. For values, refer to the schematic diagram.
* CODEs in X28-1320-xx.

K:	X28-1320-01
MSUXM2:	X28-1320-02
TWH:	X28-1320-03
P:	X28-1320-04