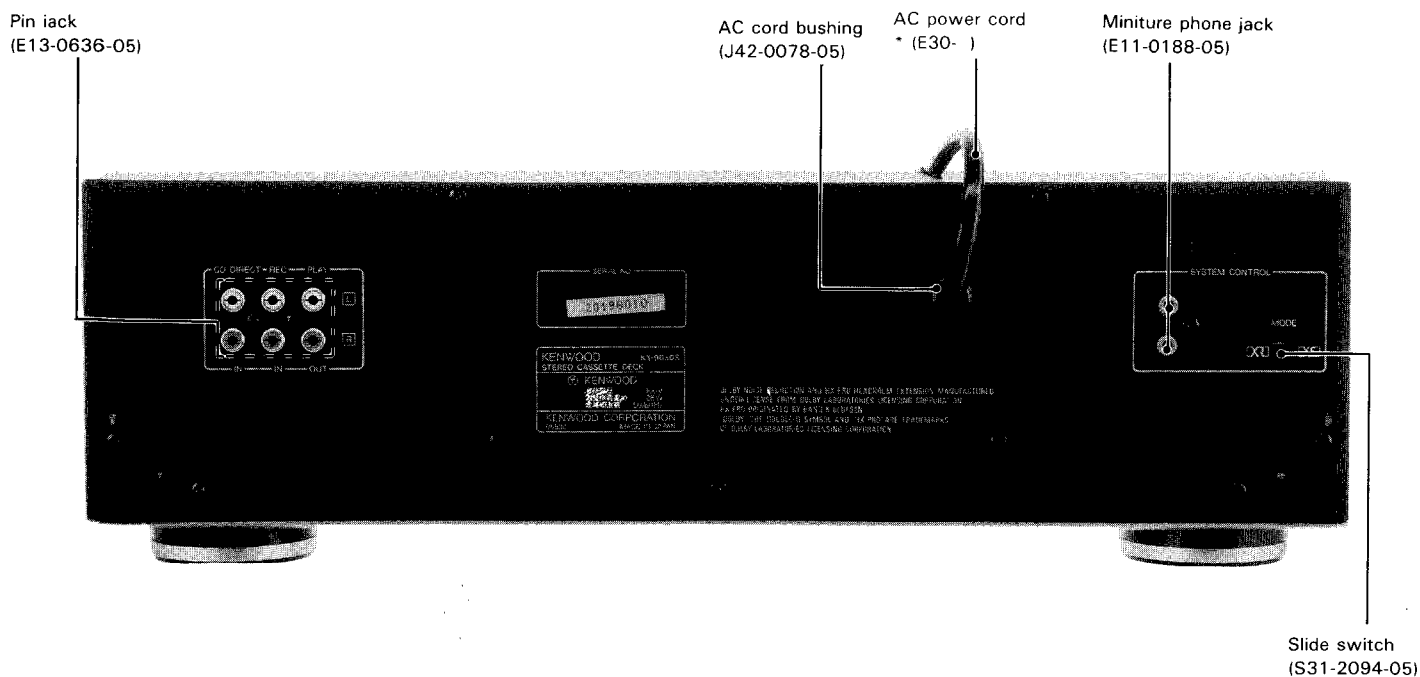
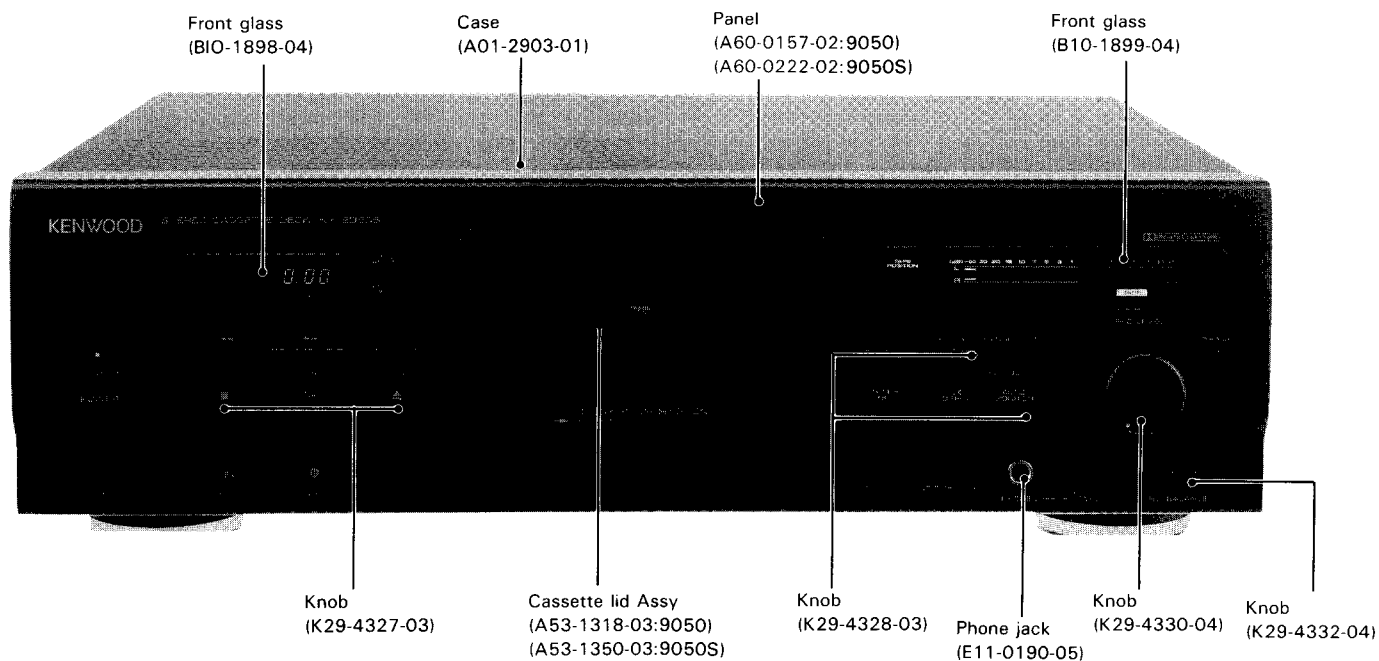


STEREO CASSETTE DECK
KX-9050/S
 SERVICE MANUAL

KENWOOD



* Refer to parts list on page 59.

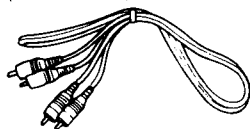
KX-9050/S

CONTENTS

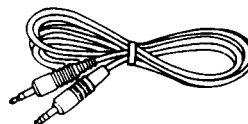
ACCESSORIES	2	WIRING DIAGRAM	40
INDICATORS	3	PC BOARD	41
DISASSEMBLY FOR REPAIR	4	SCHEMATIC DIAGRAM	45
CIRCUIT DESCRIPTION	5	EXPLODED VIEW (MECHANISM)	57
MECHANISM DESCRIPTION	24	EXPLODED VIEW (UNIT)	58
ADJUSTMENT	30	PARTS LIST	59
REGLAGE	33	SPECIFICATIONS	BACK COVER
ABGLEICH	36		

ACCESSORIES

Audio cord 2
(E30-0505-05)



System control cord 1
(Except for the U.K. and
Europe) (E30-0977-05)



INSTRUCTION MANUAL

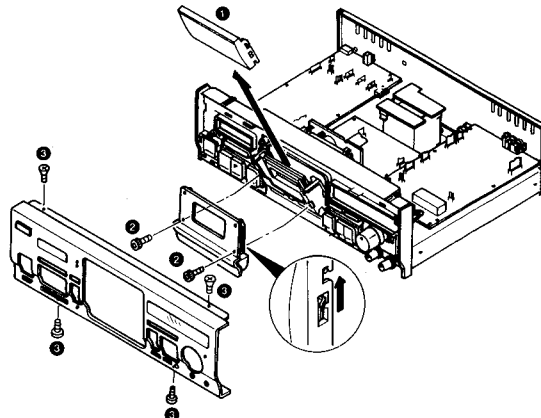
B60-0688-00 ENGLISH
B60-0689-00 FRENCH
B60-0691-00 GE, DU, IT

KX-9050/S

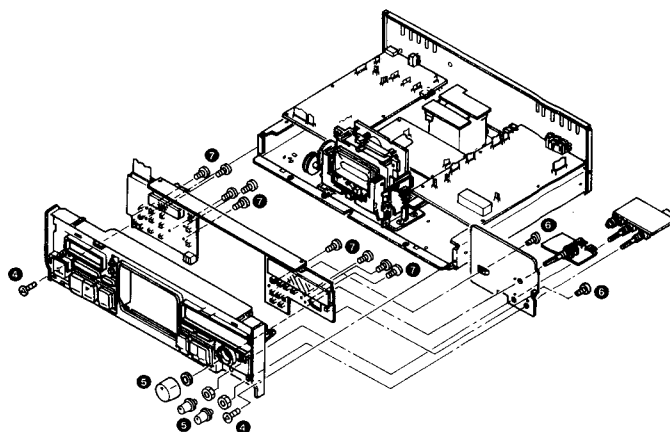
DISASSEMBLY FOR REPAIR

Remove the case in advance.

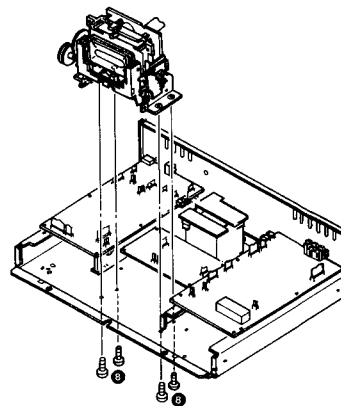
- ① Push the EJECT button to open the cassette holder. Remove the cassette lid in the arrow direction (①).
- ② Remove the cassette lid back plate by removing the 2 screws (②).
- ③ Remove the front panel by removing the 4 screws (③).
- ④ Remove the sub panel ASSY by removing the 2 screws (④).



- ⑤ Remove the REC LEVEL, REC BALANCE and PHONES LEVEL knobs (⑤), and remove the two screws (⑥) of the mounting fitting in order to remove E/8 and F/8 of X25.
- ⑥ The display units X25B/8, C8 and D/8 can be removed when the 9 screws (⑦) are removed.



- ⑦ The mechanism ASSY can be removed when the 4 screws (⑧) are removed.



CIRCUIT DESCRIPTION

(X25-4712)

No	Name	Function/Description	
IC81	TA8410AK	HEAD PHONE AMP	
IC82	PC4565D-D	LINE BUFFER	
IC95	PC4565D-D	LEVEL AMP BUFFER	
IC96	BA6138	LOG AMP	
IC702	μ PC7805AHF	+5V AVR	
IC703	μ PC7812AHF	+12V AVR	
IC704	BA6229	REEL MOTOR DRIVE	
IC705	BA6209	ASSYST MOTOR DRIVE	
IC706	BA6209	LORDING MOTOR DRIVE	
IC707	BA10393	REEL PULSE DRIVE	
IC708	PST5290	RESET IC	
IC710	CXP82320-1050	μ -COM	
Q92	2SC3311A	RESET	
Q95,96	2SC3311A	LOG AMP GAIN CONTROL	
Q97	2SC3311A	LINE AMP(IC95) Rch GAIN CONTROL	ATCS : ON
Q700	DTA143TS	BIAS CONTROL INVETER	
Q701	2SB1375	-30V AVR	
Q702	2SA1309A	-30V AVR	
Q703	DTC124ES	POWER ON/OFF CONTROL	ON : POWER ON
Q704	2SA1309A	REC MUTE CONTROL	ON : MUTE ON
Q705	2SA1309A	LINE MUTE CONTROL	ON : MUTE ON
Q706	2SA1309A	ATCS CONTROL	ON : ATCS
Q707	DTC143TS	OSC FIL	ON : 10kHz
Q708	DTC124ES	ATCS OSC CONTROL	OFF : ATCS
Q709	2SC3311A	REEL MOTOR CONTROL	ON :
Q710~712	DTC113ZS	GRID DRIVER	
Q713	2SC3311A	RELAY DRIVER	ON : POWER ON
Q714	2SA1309A	RELAY CONTROL	ON : POWER ON
Q715	DTA143TS	OSC FIL CONTROL	ON : 10kHz
Q716	2SC3311A	CAPSTAN MOTOR CONTROL	ON : MOTOR ON

(X26-1292)

NO	Name	Function/Description										
IC1	RC4565D-D or NJM4565D-D	PB EQ AMP										
IC2	CXA13305	DOL B/C decoder										
IC11	CXA13305	DOL B/C encoder										
IC21	RC4565D-D	REC EQ AMP										
IC31	μ PC1297CA	HX IC										
IC41	RC4565D-D	±8V AVR										
IC42	XRU4052B or TC4052BP	Change DOL B/C , S SELECT TAPE , SOURCE SELECT	<table border="1"> <tr> <td></td> <td>H</td> <td>L</td> </tr> <tr> <td>A</td> <td>B/C</td> <td>S</td> </tr> <tr> <td>B</td> <td>TAPE</td> <td>SOURCE</td> </tr> </table>		H	L	A	B/C	S	B	TAPE	SOURCE
	H	L										
A	B/C	S										
B	TAPE	SOURCE										
IC51	TC9164N	TAPE SELECT / AUTO BIAS / DOLBY CONTROL										
IC52	TC9162N	REC LEVEL / INPUT / DOLBY CONTROL										

KX-9050/S

CIRCUIT DESCRIPTION

(X26-1292)

No	Name	Function/Description
Q1~4	2SK170	HEAD AMP
Q5,6	2SK170	Change 70 μ / 120 μ controled IC51 8,10 pin.
Q7~10	2SC3311A	HEAD AMP
Q11~14	DTC143TS	Control IC51, 22 pin MPX ON/OFF
Q15	DTC124ES	When ,ATCS OFF the DOLBY
Q19,20	2SC3311A	REC EQ CONTROL CrO ₂ TAPE : ON
Q21~24	2SD1302	REC MUTE
Q25,26	2SC3311A	REC EQ CONTROL CrO ₂ TAPE : ON
Q27,28	2SC3311A	REC EQ CONTROL METAL TAPE : ON
Q29,30	2SC3311A	REC EQ CONTROL METAL TAPE : OFF
Q31,32	2SC3940A	BIAS OSC
Q33	2SC3246	BIAS OSC CURRENT CONTROL
Q34	DTC143TS	BIAS OSC ON/OFF CONTROL REC : OFF
Q35	DTC143TS	HX ON/OFF CONTROL REC : OFF
Q41~44	2SD1302	LINE MUTE
Q45	2SD2012	+8V AVR
Q46	2SB1375	-8V AVR
Q47	DTC124ES	POWER ON/OFF CONTROL POWER ON : ON
Q48	DTC113Z	} Control IC 42,10 pin B by IC710 4 pin DOLS, IC51 7 pin TAPE/SOURCE.
Q49,50	DTC124ES	

CIRCUIT DESCRIPTION

Key description

Key name	Description	Display
FWD PLAY ▶	If there is a cassette in the drive, it is played back in the forward direction. One track is repeated when this key is pushed during FWD playback.	LED lights up. ▶
FF ▶▶	Tape wound at high speed onto right-hand reel. Skipped track selection when pushed during playback.	
RWD ◀◀	Tape wound at high speed onto left-hand reel. Skipped track selection when pushed during playback. REC standby when pushed during FWD REC.	
STOP ■	All operations are stopped.	
REC/ARM ●	Recording starts when pushed during STOP, REC PAUSE, ARM. If recording is in progress, ARM starts.	LED lights up. ●
PAUSE 	REC PAUSE when pushed during recording, PLAY PAUSE when pushed during playback.	LED lights up.
COUNTER RESET	Resets linear counter to 0.00. Maintains 0.00 count when key is held down. Stops when key is pressed during zero stop. Invalid during DPSS track selection.	0.00
DOLBY NR	Switches the Dolby noise reduction. OFF→B→C→S (Cyclic)	
DISPLAY	Switches the display. All Display→Counter Only→All Off (Cyclic) Returns to ALL DISPLAY when POWER is turned ON. ALL DISPLAY turns ON for 3 sec, and then turns OFF when this key is pushed when DISPLAY is OFF.	
CDPS	Changes over to REC PAUSE, and then switches MONITOR to SOURCE when CD peak search key is pressed.	PLAY, REC PAUSE LED light up. ▶ ●
A/B REPEAT	Plays the section A-B of the tape back. (Only during playback) When the key is first pressed, point A is memorized, and when the key is pressed again, point B is memorized. When REWIND is pressed, playback starts from point A, and is repeated 16 times. — If any other key is pressed, the A-B repeat function is cancelled. Returns to normal operation after 16 times. At least 10-second spacing required between points A and B.	
ATCS	Automatic adjustment of BIAS and LEVEL. Reset when pressed after presetting.	▶ ● ATCS
PRESET	ATCS preset: The current optimum bias value and level value are stored in the memory. ATCS not preset: The memory is recalled.	CAL PRESET
BIAS CONTROL	Fine adjustment (± 3 steps) of bias. Valid only when ATCS is lit. (Irrespective of mechanism operation).	--- CAL
AUTO MONITOR	Performs TAPE/SOURCE switching. Switches automatically to TAPE during PLAY and REC. Switches automatically to SOURCE during REC PAUSE. Performs forcible switching to TAPE and is locked therein during DPSS.	
POWER	Turns the POWER ON when first pressed, and turns it OFF when pressed again. Can not be pressed repeatedly within 1 second.	
CD DIRECT	Input signal (CD) can be recorded without passing through the volume. It can be turned ON/OFF also during recording.	CD DIRECT
OPEN/CLOSE	Opens/closes the door. If pressed when the mechanism is operating, it stops the mechanism, and then opens the door. Opens/closes the door also when the POWER is OFF.	
MPX FILTER	Turns the MPX filter ON/OFF. This function is cancelled when CD DIRECT is ON, and returns to the original state when it is OFF.	FILTER

KX-9050/S

CIRCUIT DESCRIPTION

Operation description (DPSS)

Key name	Description	Display
INDEX SCAN	Beginning of each track is played back successively for approximately 10 seconds.	INDEX SCAN . 12 Flickering Number of playbacks
Zero stop	Stops the counter at 0.00	
FF search	Skips forth (relative to the playback direction) the number of tracks (up to 16) equivalent to the number of times the FF key is pressed. If FF is pressed again during FF search, the number of times the key is pressed is added to the number of tracks to be skipped.	5. 3 Number of key entries Number of tracks
RWD search	Skips back (relative to the playback direction) the number of tracks (up to 16, including the current track) equivalent to the number of times the REW key is pressed. If the RWD key is pressed during RWD search, the number of times the key is pressed is added to the number of track to be skipped.	Number of playbacks
One-track repeat	The current track is played back 16 times repeatedly, and then the normal playback is resumed, when the PLAY key is pressed once during playback or twice during any other operation. When the PLAY key is pressed again while a track is being repeated, the track is repeated 16 times from that time.	7 Number of playbacks
Rewind play ◀◀ & ▶▶	When the RWD and PLAY keys are pressed together, the tape is rewound to its end (RWD), and then a FF search is done on the forward side. When the first track is detected, playback starts.	
Dash & Play ◀◀ & ▶▶	Playback is performed when FF and RWD keys are pressed together. Cues and searches for the next track. If a blank section continues for 10 seconds during playback. Playback is resumed when a track is found. This is repeated 16 times (16 sides).	. 14 Number of playbacks.
Rerec standby	If RWD key is pressed during REC, tape is reviewed (RVW) and played back when end of previous track is found. Playback lasts 2 seconds and then stops.	
Auto rec mute	If REC key is pressed again during recording, or REC key is pressed twice during STOP or REC PAUSE, REC MUTE turns ON for 4 seconds, recording is performed, and then REC PAUSE is resumed.	

CIRCUIT DESCRIPTION

Dolby S Noise Reduction

Figure. 1 indicates the basic block diagram of the Dolby S NR concept.

It operates as a decoder when the Dolby S ENCODER unit is placed within the OP1 NF loop, and operates as an encoder when it is placed outside it.

Input level settings are as follows:

During encode: $-6 \text{ dBm} - 20 \log (1 + R1/R2)$

During decode: $-6 \text{ dBm} - 20 \log (1 + R3/R4)$

The test point and Dolby level will be -6 dBm (388 mV) during encode input with a 400-Hz sine wave signal.

Figure. 2 indicates the block diagram for the Dolby S encoder.

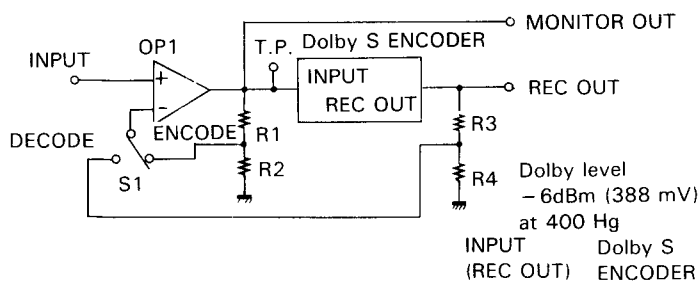


Fig. 1 Block Diagram

As with Dolby C, it has a two-level phase process (high-level phase and low-level phase); however, the difference is that to improve the noise in the low-frequencies (40-200 Hz), a low-frequency fixing band is added to the high level and a high-frequency fixing band is added to correct the noise in the high level, low level, and middle range (400-12.8 kHz). At this time, the role of the high-range fixing band will be used to correct the noise in music signals even when there are numerous high-range spectrums that are at a high level. In this case, the boost frequency will fall outside the audible range if only the sliding band is available, and the operations will be completed even when the noise cannot be corrected. Furthermore, a control signal to validly operate every respective sliding band, high-range fixed band, and low-range fixed band comes in four-types, MC1 ~ 4, and each signal processing portion is combined with the internal control signal to undergo operations.

Figure. 3 shows the block diagram for the Dolby S noise reduction IC (CXA1417S).

The low range is 10 dB and the high range is 24 dB as the noise reduction effect. In addition, a tape recorded in Dolby S is compatible with Dolby B play back.

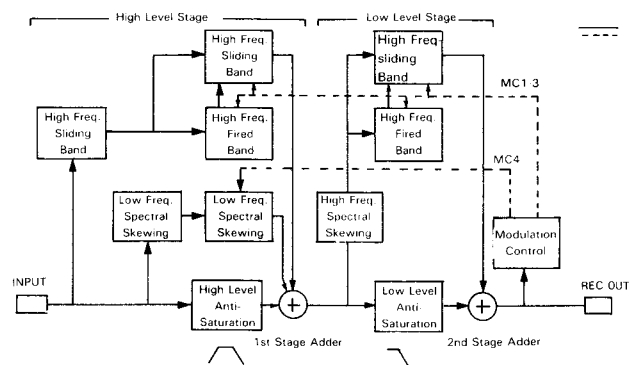


Fig. 2 Dolby S Encoder Block Diagram

KX-9050/S

CIRCUIT DESCRIPTION

1. Block Diagram

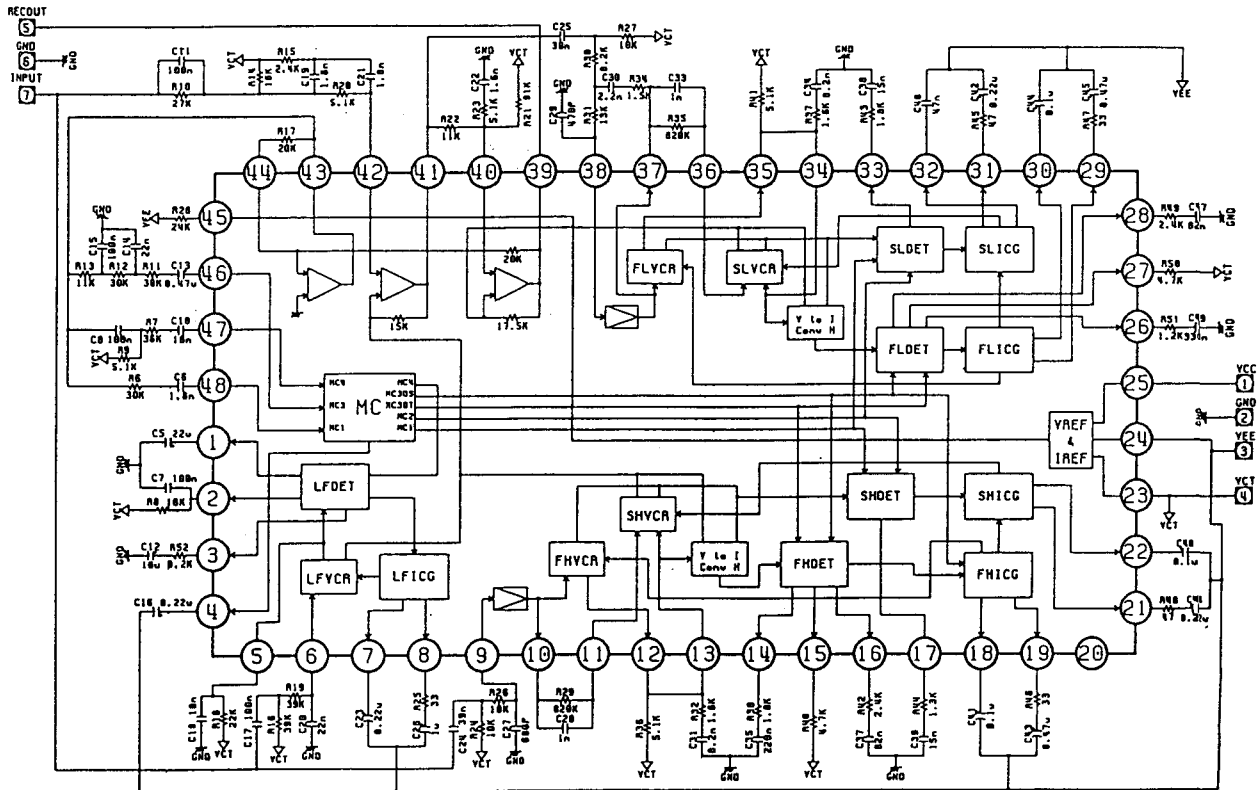


Fig.3 Block Diagram (CXA1417S)

1. Point to note when using Dolby S IC (CXA1417S)

(1) DC Check (when no signal)

Terminal		Voltage (V)	
Name	Pin No	TYPE	Measured value
MCTC	4	-3.9	-3.9 ± 0.3
TCL 1	7	-4.6	-4.0 ~ -5.0
TCL 2	8		
TCF1H	18	-4.6	-3.8 ~ -5.0
TCF2H	19		
VRX	20	-3.4	-3.4 ~ -3.8
TCS2H	21	-4.6	-4.6 ~ -5.0
TCS1H	22		
TCF2L	29	-4.6	-3.6 ~ -5.0
TCF1L	30		
TCS2L	31	-4.6	-4.6 ~ -5.0
TCS1L	32		
IREF	45	-4.8	-4.8 ~ -5.1
OTHER	-	0.0	0.0

Note: If there is a solder bridge or a "whiskered" solder, the observed voltage cannot be obtained.

(2) Checking the Frequency Characteristics

Defective frequency characteristics (1) will be caused by defective soldering of parts, even if the terminal voltage has been thoroughly checked. The quality of the product cannot be determined without checking the frequency characteristics of both the encoder and decoder at the Dolby level and at the Dolby level of -20 dB.

How to check the encoder (Turn MPX Filter off)

- (i) Set the S-type encoder INPUT (at test point (T.P.)) to 400 Hz and a -6 dBm (388 mV) Dolby level to adjust the AG output level.
- (ii) Alter the AG frequency through 20, 50, 100, 400 2k, 5k, 10k and 20k Hz reading the REC OUT level while maintaining the status described in (i), then check that the REC OUT levels are within ± 1.5 dB.
- (iii) Set the S-type encoder INPUT (at T.P.) to 400 Hz and a -26.0 dBm (38.8 mV) Dolby level to adjust the AG output level.
- (iv) Repeat step (iii).
- (v) Check the left and right channels when at the Dolby level and the -20 dB Dolby level.

CIRCUIT DESCRIPTION

How to check the decoder

- (i) Set the S-type encoder INPUT (point T.P.) to 400 Hz and a -6 dBm (388 mV) Dolby level to adjust the AG output level. Then program the REC OUT output level.
- (ii) While altering the AG frequency through 20, 50, 100, 400, 2k, 5k, 10k and 20 k Hzp correct the S-type NR encod characteristics to the REC OUT output level programmed in step (i), and adjust the AG output level to check whether the INPUT (point T.P.) levels are within ± 1.5 dB.
- (iii) Adjust the AG output level so that it will be -20 dB lower than the REC OUT output level programmed in step (i).

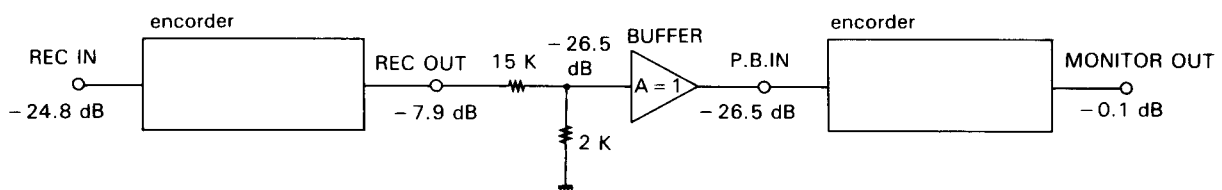
(iv) Repeat step (ii).

- (V) Check the left and right channels when at the Dolby level and the -20 dB Dolby level.

Checking with both the encoder and decoder.

Basically, it is be checked through combination of the encoder and decoder, respectively.

The check point is the BUFFER AMP output and two points of the MONITOR OUT. The encoder characteristics are checked at BUFFER OUT and the decoder characteristics are checked at MONITOR OUT.



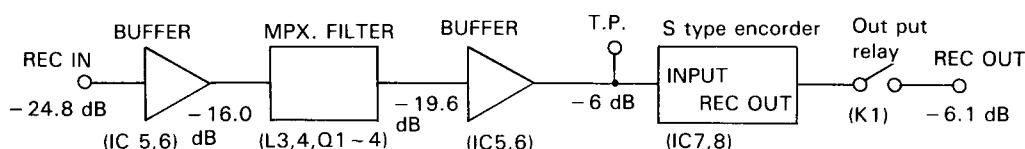
Note: The 0 dB level when a 400 Hz sine wave signal is input is 775 mV.

Input Level	Frequency (Hz)											
	20	50	100	200	400	500	1k	2k	5k	10k	15k	20k
+10	-7.2	-3.5	-2.4	-1.6	-1.2	-1.2	-1.0	-1.1	-3.4	-6.2	-7.5	-9.0
0	-6.5	-2.0	-0.1	0.1	0.0	0.0	0.0	-0.3	-2.4	-5.2	-6.7	-8.4
-10	-4.7	-0.6	3.0	3.4	2.8	2.7	2.4	1.8	-0.1	-2.1	-3.2	-4.5
-20	-1.4	2.0	6.2	7.8	7.4	7.2	6.6	5.9	4.1	2.9	2.1	0.8
-30	2.0	5.9	9.5	12.3	12.5	12.5	12.1	11.4	9.8	8.9	8.0	6.3
-40	2.5	7.4	10.9	15.0	16.9	17.1	17.2	16.6	15.4	14.7	13.2	10.1
-50	2.5	7.5	11.0	15.2	19.5	19.5	21.6	21.2	20.3	19.2	16.4	11.5
-60	2.5	7.5	11.0	15.2	19.8	19.8	23.3	23.5	22.8	21.5	17.4	11.6

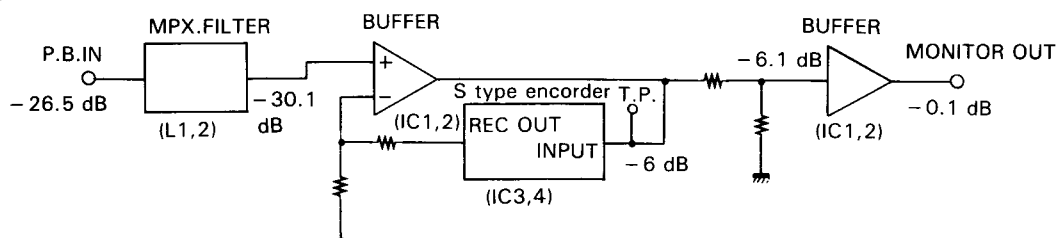
Table 1 S-type NR encode characteristics.

(2) Block Diagram

(1) Encoder



(2) Decoder

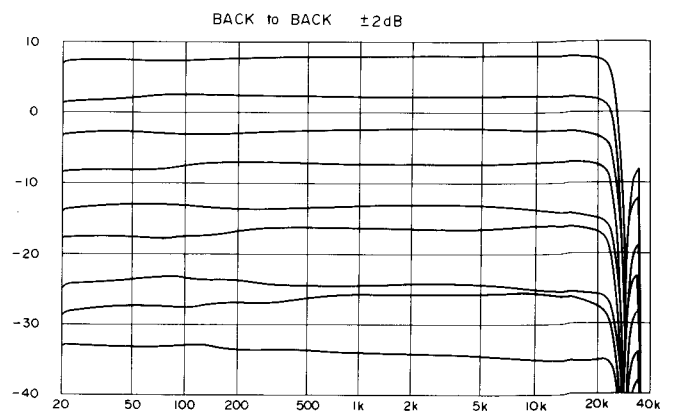
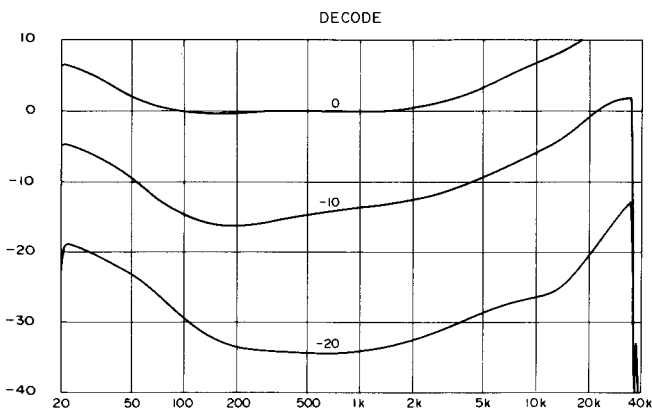
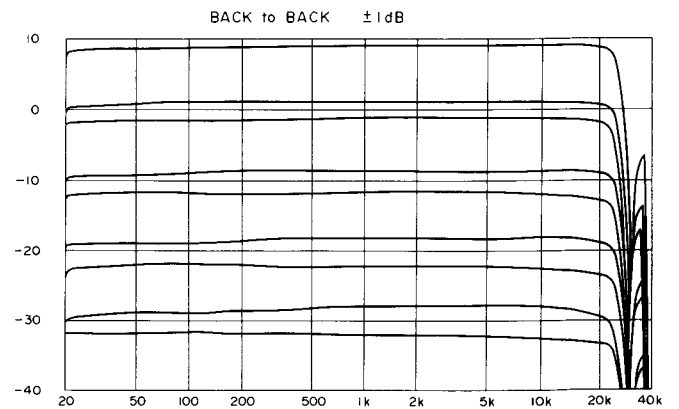
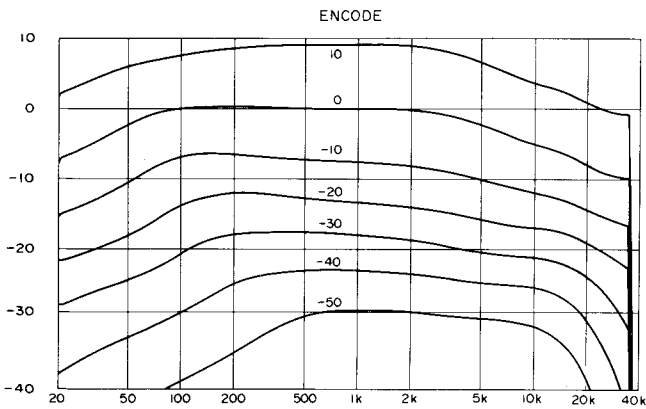
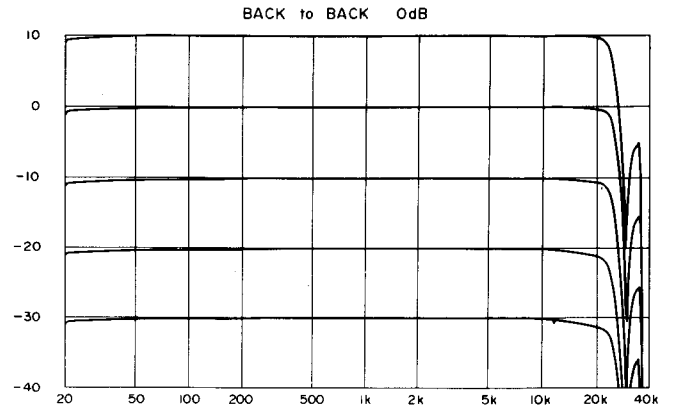


Note: The 0dB level when a 400Hz sine wave signal is input is 775 mV.

KX-9050/S

CIRCUIT DESCRIPTION

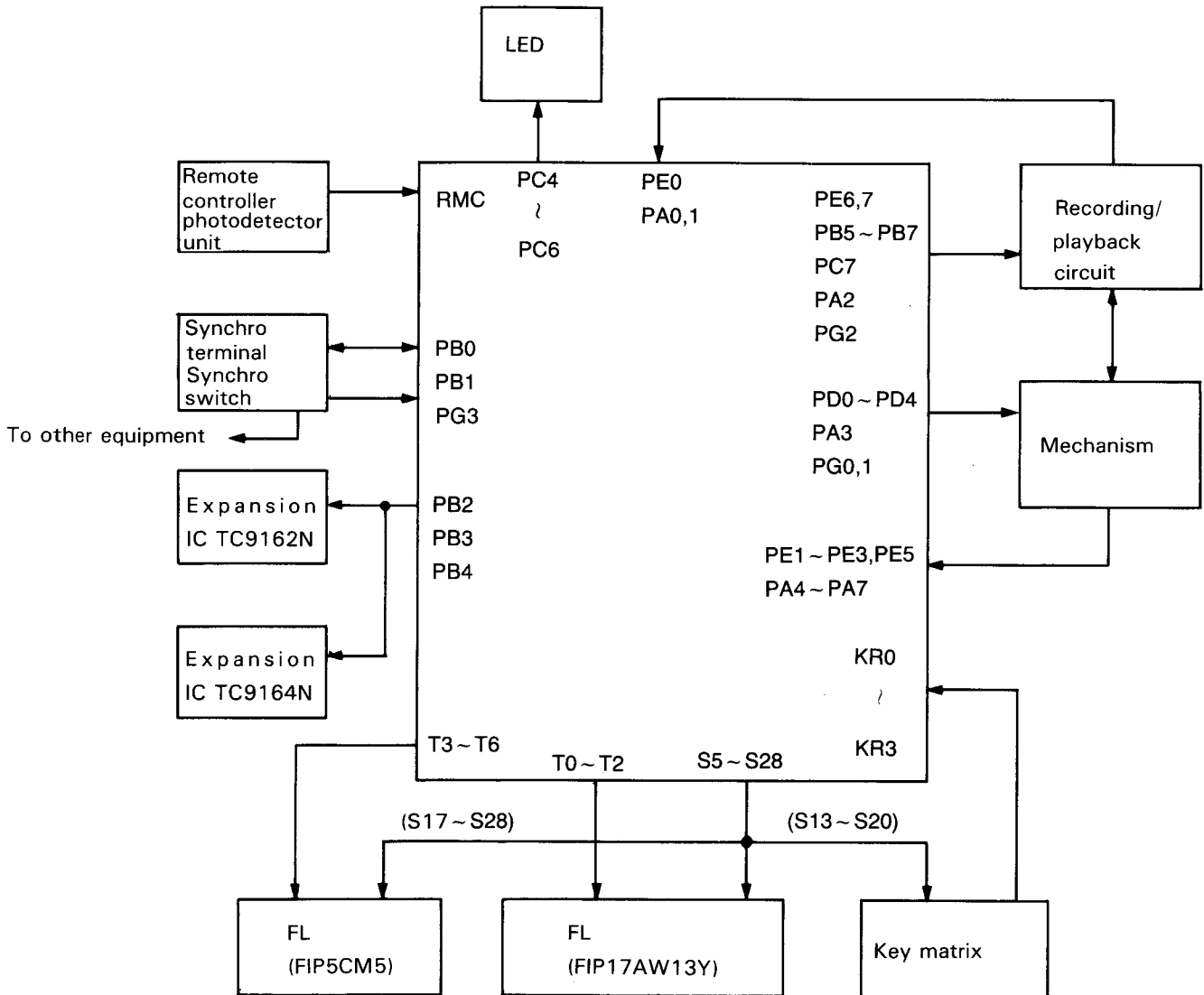
The appendix will include the encode characteristics, decode characteristics, and encode plus decode (back to back) graph. The back-to-back characteristics are represented in the graph as a reading of decoding by shifting the input level.



KX-9050/S

CIRCUIT DESCRIPTION

Microcomputer periphery block diagram



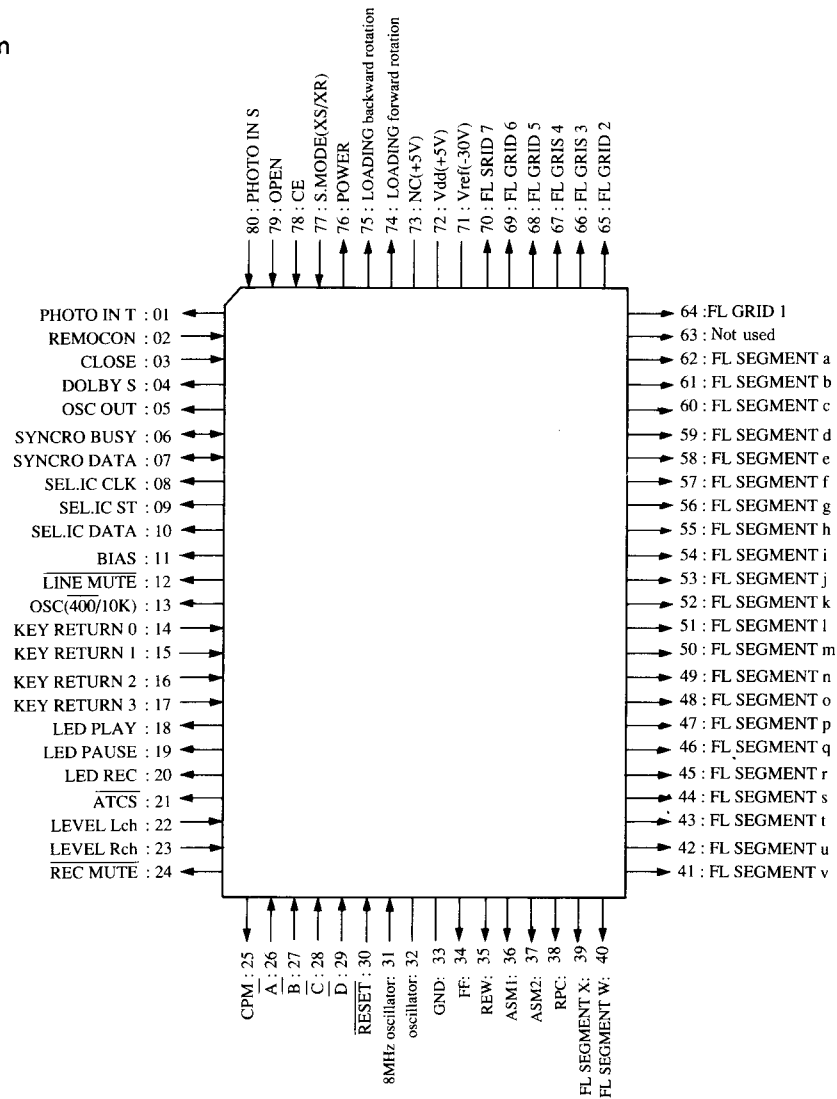
KEY MATRIX

	KR0	KR1	KR2	KR3
KS0	—	—	TEST 1	TEST2
KS1	DIRECT	CDPS	LOADING	INHFB
KS2	PRESET	DOLBY	C. RESET	METAL
KS3	ATCS	MPX	A ► B	CrO ₂
KS4	DOWN	●	I. SCAN	HALF
KS5	MONITOR		►	DOLBY S
KS6	UP	■	►►	T. PLAY
KS7	DISPLAY	POWER	◄◄	T. REC

KX-9050/S

CIRCUIT DESCRIPTION

Terminal connection diagram



* Ports 54 to 47 are also used as key scan 0 to 7.

Pin Description

Pin No.	Pin Name	I/O	Name	Description
1	PE3/INT3	I	PHOTO IN T	Photosensor input (take-up side)
2	PE4/REM	I	REMOCON	Remote control input
3	PE5	I	CLOSE	Loading close detector switch input
4	PE6	O	DOLBY S	Dolby S changeover output
5	PE7/TO	O	OSC OUT	Square wave output terminal
6	PB0/CINT	I/O	SBUSY	Serial BUSY input/output
7	PB1/CS0	I/O	SDATA	Serial data input/output
8	PB2/ SCK0	O	CLK	Clock output for selector IC
9	PB3/SIO	O	ST	Strobe output for selector IC
10	PB4/S00	O	DATA	Data output for selector IC
11	PB5/SCK1	O	BIAS	Bias ON/OFF control
12	PB6/SI1	O	LINE MUTE	Line mute control
13	PB7/SO1	O	OSC FILTER	400 /10K filter switching
14 ~ 17	KR0 ~ 3	I	KR0 ~ 3	Key return signal input
18	PC4/KR4	O	LED PLAY	Play LED driving port
19	PC5/KR5	O	LED PAUSE	Pause LED driving port
20	PC6/KR6	O	LED REC	Rec LED driving port

CIRCUIT DESCRIPTION

Pin Description

Pin No.	Pin Name	I/O	Name	Description
21	PC7/KR7	O	ATCS	ATCS NORMAL/ OSC switching
22	PA0/AN0	I	LEVEL Lch	Lch level input
23	PA1/AN1	I	LEVEL Rch	Rch level input
24	PA2/AN2	O	REC MUTE	Rec Mute control
25	PA3/AN3	O	CPM	Capstan motor ON/OFF control
26	PA4/AN4	I	A	Mechanism position detector encoder A
27	PA5/AN5	I	B	Mechanism position detector encoder B
28	PA6/AN6	I	C	Mechanism position detector encoder C
29	PA7/AN7	I	D	Mechanism position detector encoder D
30	RST	I	RESET	Reset signal input
31	EXTAL	I		Clock oscillator connection terminal
32	XTAL			Clock oscillator connection terminal
33	Vss			GND terminal
34	PD0/S0	O	FF	Reel motor control
35	PD1/S1	O	REW	Reel motor control
36	PD2/S2	O	ASM1	Assist motor control 1
37	PD3/S3	O	ASM2	Assist motor control 2
38	PD4/S4	O	RPC	Reel speed control
39	PD5/S5	O	x	FL segment
40	PD6/S6	O	w	FL segment
41	PD7/S7	O	v	FL segment
42	PF0/S8	O	u	FL segment
43	PF1/S9	O	t	FL segment
44	PF2/S10	O	s	FL segment
45	PF3/S11	O	r	FL segment
46	PF4/S12	O	q	FL segment
47	PF5/S13	O	p	FL segment key scan signal output 7
48	PF6/S14	O	o	FL segment key scan signal output 6
49	PF7/S15	O	n	FL segment key scan signal output 5
50	S16	O	m	FL segment key scan signal output 4
51	S17	O	l	FL segment key scan signal output 3
52	S18	O	k	FL segment key scan signal output 2
53	S19	O	j	FL segment key scan signal output 1
54	S20	O	i	FL segment key scan signal output 0
55	T15/S21	O	h	FL segment
56	T14/S22	O	g	FL segment
57	T13/S23	O	f	FL segment
58	T12/S24	O	e	FL segment
59	T11/S25	O	d	FL segment
60	T10/S26	O	c	FL segment
61	T9/S27	O	b	FL segment
62	T8/S28	O	a	FL segment
63	T7	O		not used
64	T6	O	1G	FL grid
65	T5	O	2G	FL grid
66	T4	O	3G	FL grid
67	T3	O	4G	FL grid
68	T2	O	5G	FL grid
69	T1	O	6G	FL grid
70	T0	O	7G	FL grid
71	V FDP			Voltage supply terminal for FL
72	V DD			Positive power supply terminal
73	NC			
74	PG0	O	Forward rotation	Power loading forward rotation control
75	PG1	O	Backward rotation	Power loading backward rotation control
76	PG2	O	POWER	Power ON/OFF control
77	PG3	I	S. MODE	Synchro mode (XS/ XR) discrimination
78	PE0/INT0	I	CE	Backup detection terminal
79	PE1/INT1	I	OPEN	Loading open detector switch input
80	PE2/IN2	I	PHOTO IN S	Photosensor input (supply side)

CIRCUIT DESCRIPTION

Operating specifications

Function description

(1) Features

- ① Amorphous 3 head closed loop dual capstan
- ② Direct drive capstan/reel/actuator motor
- ③ A.T.C.S (AUTO TAPE CALIBRATION SYSTEM)
Fine adjustment
- ④ Power loading
- ⑤ D.P.S.S
- ⑥ CD direct
- ⑦ Equipped with Dolby B.C.S (S available only in KX-9050S)
- ⑧ Full cassette stabilizer
- ⑨ Dual FL display
- ⑩ High bias system
- ⑪ Center mechanism layout

(2) Objects of control

- ① Cassette mechanism :D40-0992-15 (KX-9050)
:D40-1224-15 (KX-9050S)
- ② Loading mechanism :D-40-0996-05
- ③ IC :TC9162N, TC9164N
- ④ Display :FL, LED
- ⑤ Recording/playback circuit unit

1.2 Specifications, depending on model

Diode switch provided/not provided (KS0-KR1)...

Dolby S provided/not provided.

Operating Specifications

① ATCS (AUTO TAPE CALIBRATION SYSTEM)

Carries out automatic adjustment of the bias value (10 KHz, 16 adjustable steps) and level value (400 Hz, 16 adjustable steps).

a: Bias Adjustment

400 Hz and 10 KHz are generated alternately after forwarding the reader tape in blank (approximately 10 seconds), and their levels are monitored. The bias value is changed while doing so, and the value at which 400 Hz \leq 10 KHz is regarded as the optimum bias value.

b: Level Adjustment

After finishing the bias adjustment, the level obtained when entering the 400 Hz signal without passing through the head is stored in advance in the memory (reference). Next, 400 Hz signal is generated by the oscillator, and the Rch level is monitored. The level value is changed while doing so, and the value in which reference \leq Rch is regarded as the optimum level value.

c: Bias Fine Adjustment (BIAS CONTROL)

Fine adjustment is available only after ATCS presetting (when ATCS lamp is ON) (Irrespective of mechanism operation). The variable range is up to ± 3 steps. No variation is available, however, when the said steps exceed the 16-step variable range (the bar of the right-most side flickers). There is no variation when the key is kept merely pressed.

d: Preset

The bias value and the level value preset by ATCS can be stored in the memory. The bias value and the level value are stored in the memory when the PRESET key is pressed after presetting the ATCS. There are 3 types of memory, chrome, normal and metal. The memory is recalled when the PRESET key is pressed while the ATCS lamp is lit, and the function is reset when the key is pressed again.

ATCS is preset by carrying out the steps a. and b. above. When either a. or b. can not be preset due to malfunction of the tape and other reasons, reset the ATCS mode, and return the bias value and the level value to the initial state.

② Power loading (OPEN/CLOSE)

In the basic operation the power loading motor is rotated for a given time (forward rotation) when the OPEN/CLOSE key is pressed once. When it is pressed again, the motor is rotated for a given time (backward rotation), and the door is closed. When the door is fully closed, the switch recognizing its closure (CLOSE SW) is turned ON. There are the following kinds of special operation.

a: If a basic operation key (PLAY, FF, REW, REC, PAUSE, STOP) is pressed while the door is opening, the door is closed, and then the operation corresponding to the key in question is started. (The door is merely closed when there is no cassette in the drive. It opens again, however, when REC or REC PAUSE is pressed).

b: OPEN/CLOSE operation is possible also when POWER is OFF. (When AC is ON). If POWER is turned ON or OFF when the door is open, it is closed.

c: If the OPEN/CLOSE key is pressed with the mechanism in operation, the operation of the mechanism is stopped, and then the door is opened.

d: If the door is touched gently with the hand while it is opening, the motor is rotated for a given time

CIRCUIT DESCRIPTION

when the OPEN recognition switch is turned OFF, and the door is closed. The same operation is carried out also when the door is pushed forth.

- e: If the door is held in place with the hand when it is about to be opened, the motor is rotated for a given time, and after that the motor is stopped. The door is opened by inertia when the hand is released.
- f: The same operation as e. is carried out when the door is caught by something or stopped by hand while it is opening (when both recognition switches are OFF).

The door opens when it is caught by something or held by hand while it is closing (when both recognition switches are OFF).

③ CD direct

The CD can be recorded without passing through the volume. ON/OFF is possible also during the recording. If CD DIRECT is turned ON, MPX is turned forcibly OFF, and the MPX key is inhibited while CD DIRECT is ON. MPX is returned to its previous state when CD DIRECT is turned OFF.

④ Counter

Linear counter. The counter value is backed up when the power is turned OFF.

Start shift diagram

(1) Auto stop

The signal of the photoreflector located behind the reel stand is read, and when a given state (H or L) is kept 1 or 2 more seconds during PLAY, REC, FFD, RWD, CUE or RVW, the situation is interpreted as tape end, and the operation shown in the table below are carried.

operation mode		state
normal operation	PLAY	STOP
	FFD	STOP
	RWD	STOP
	REC	STOP
D	One-trac repeat , auto rec mute , re-rec standby	STOP
	Rewindplay	During RWD: FF search
P	FF search , RWD search , INDEX SCAN	STOP
	Dash & play	
S	PLAY & CUE	RWD
	RWD	1st to 15th time : CUE 16th time : STOP
ATCS		STOP

State shift of circuit system

Item \ state	During ATCS presetting	ATCS presetting finished	CD DIRECT ON	CD DIRECT OFF	CDPS
TAPE/SOURCE	During reference : SOURCE Others : TAPE	TAPE	No change	SOURCE	SOURCE
MPX	No change	No change	OFF	Return to previous state	No change
DIRECT MODE	No change	No change	ON	OFF	No change
ON/OFF	OFF	Return to previous state	No change	No change	No change
B/C	B	Return to previous state	No change	No change	No change
S	ON	Return to previous state	No change	No change	No change
DOLBY S	OFF	Return to previous state	No change	No change	No change
LINE	No change	No change	OFF	ON	No change
DIRECT	No change	No change	ON	OFF	No change

CIRCUIT DESCRIPTION

TEST MODE

(1) Initial states

Item	State
POWER	OFF
DOLBY	OFF
CE DIRECT	OFF
AUTO MONITOR	TAPE
MPX FILTER	OFF

Backup data

- ① POWER
- ② DOLBY
- ③ CD DIRECT
- ④ AUTO MONITOR
- ⑤ MPX FILTER
- ⑥ PRESET
- ⑦ ATCS data (NORMAL CrO2, METAL)
- ⑧ Linear counter

SELECT IC Data

TC9164N (IC51)				TC9162N (IC52)	
Item	State	Item	State	Item	State
CrO2 L	OFF	BIAS1	ON	LEVEL1	ON
NOR L	OFF	BIAS2	ON	LEVEL2	ON
CrO2 R	OFF	BIAS3	ON	LEVEL3	ON
NOR R	OFF	BIAS4	ON	LEVEL4	OFF
TAPE/ SOURCE	ON	MPX	OFF	LINE	ON
CROM	OFF	DIRECT MODE	OFF	DIRECT	OFF
METAL	ON	<input type="checkbox"/> ON/ <input type="checkbox"/> OFF	OFF	<input type="checkbox"/> S	ON
METAL	OFF	<input type="checkbox"/> B/C	ON	-	-

(2) Test mode

Presetting method: TEST1 KS0 (j) → KR2
TEST2 KS0 (j) → KR3

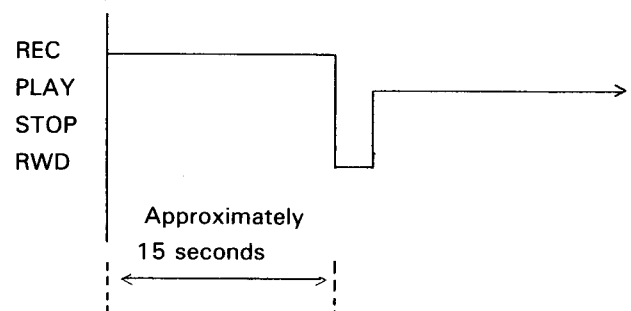
The operation mode is switched to the test mode by short-circuiting the 2 terminals mentioned above with a diode, and by turning the power ON.

Resetting method: The test mode is reset by pressing the PAUSE key. The contents of the test mode are not backed up.

(a) Specifications common to both TEST 1 and 2

- ① All display ON
The display turns ON approximately 500ms after turning the power ON, and remains ON for approximately 1.5 second.
The keys are enabled by resetting the ALL DISPLAY ON state.

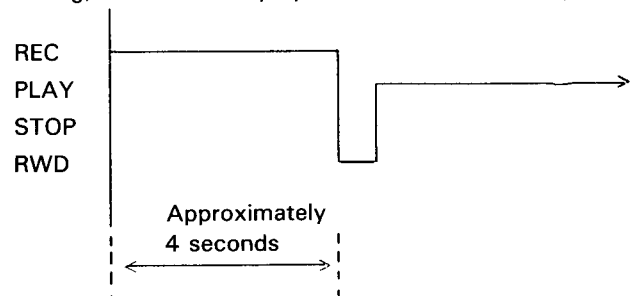
- ② Mechanism SW display
The states of the various mechanism SW are displayed on the level meter section when LINE MUTE is ON.
CrO2, METAL, F.REC INH
+ 3dB + 7dB + 12dB
- ③ Direct change
The operation mode goes to the direct REC state also from the PLAY state.
- ④ Timer PLAY
The operation mode switches to PLAY within the shortest time (approximately 2 seconds) when the timer SW is set to PLAY.
- ⑤ Timer REC
When the timer SW is set to REC, automatic recording and playback can be carried out in conformity with the time chart shown below.



- ⑥ CDPS
When the CDPS key is entered, the "CCRS start" serial code is emitted, and after that the operation mode is switched to REC PAUSE.

(b) TEST1 specification

- ① 4-second REC
When the REC key is pressed, recording is carried out for 4 seconds, the tape is rewound down to its beginning, and then it is played back.



CIRCUIT DESCRIPTION

② ATCS

The ATCS presetting time is shortened (Approximately 20 seconds → Approximately 10 seconds).

③ PRESET

Storage of the bias and level values, and shortening of recalling time.

(c) TEST2 specifications

① ATCS

The operation mode is switched to the recording state, and the input is switched to the internal oscillator side. Then, 400Hz is generated for 0.4 second, and 10KHz is generated for 0.6 second. Simultaneously, the bias terminals (4) are changed by 4 steps at 0.2 second intervals. After that, the level terminals (4) are changed in 4 steps at 0.2 second intervals. After finishing the said operations, the operation is returned to the original line input, and the bias and level are returned to their initial values. The recording operation is continued.

② MPX filter

MPX filter is ON only when MPX key is ON. It is OFF at all other times.

③ Dolby

DOLBY B when FFD key is ON.

DOLBY C when RWD Key is ON.

DOLBY S when I. SCAN key is ON.

KX-9050/S

CIRCUIT DESCRIPTION

Timing chart

Mechanism timing chart

The control method consists of rotating the cam gear of the center of the mechanism by means of the assist motor, detecting the current cam mode by means of the 4-bit rotary switch code mounted on the cam gear, and moving to the desired position. The timing is shown below.

A, B, C, D: Cam switch

BIAS: Bias oscillation H: ON L: OFF

R. MUTE: Rec mute control H: OFF L: ON

L.MUTE: Line mute control H: OFF L: ON

MONITOR: Automatic monitor control H: TAPE L: SOURCE

CMP: Capstan motor control L: ON H: OFF

R.FFD: Reel motor control (forward side)

R.RWD: Reel motor control (return side)

ASM1: Assist motor control 1

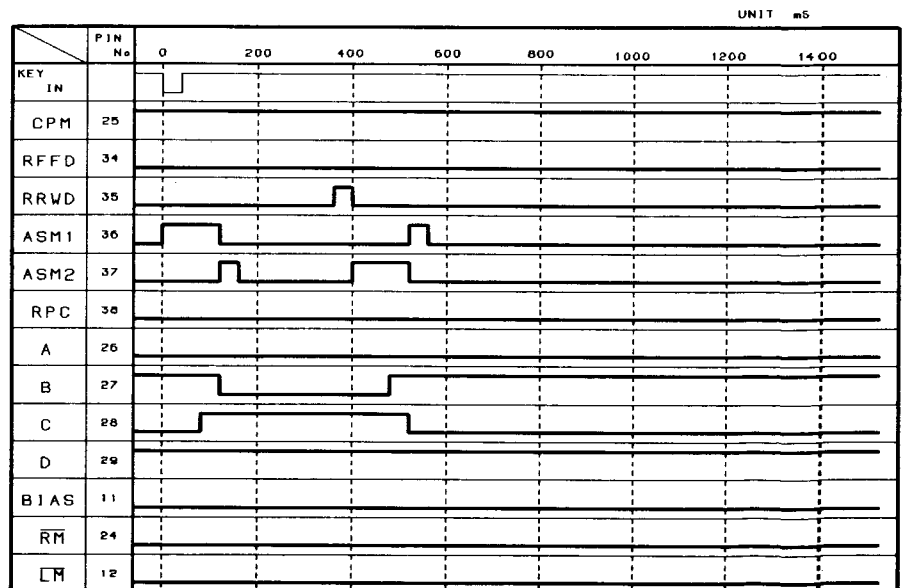
ASM2: Assist motor control 2

RPC: Reel motor speed control H: LOW L: HIGH

When POWER ON

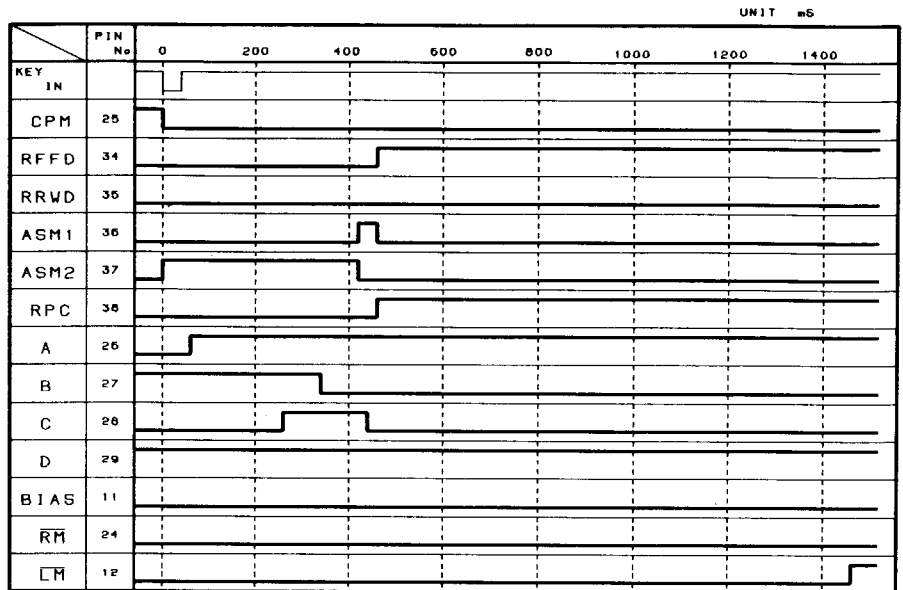
When tape is loaded

(24ms rewinding to eliminate tape slackness)

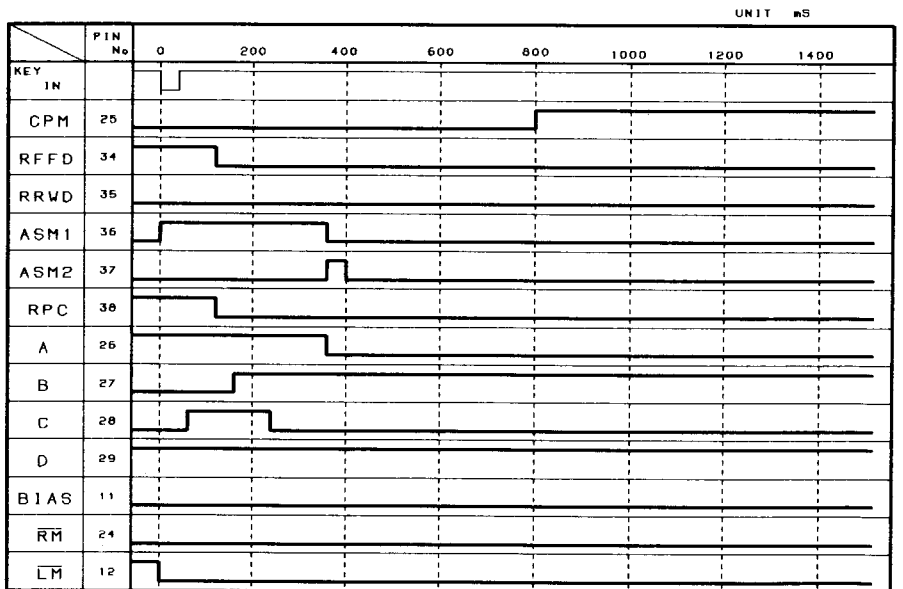


CIRCUIT DESCRIPTION

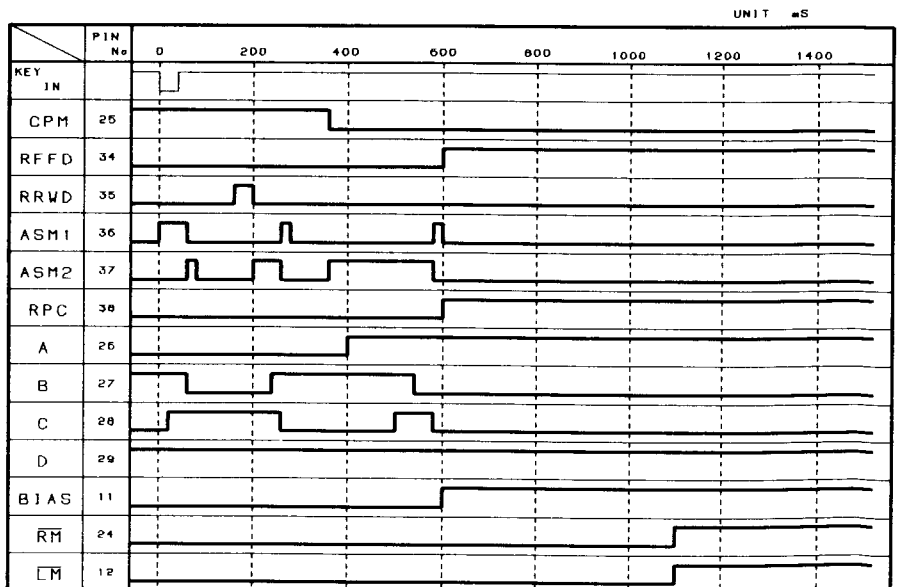
TIMING CHART STOP TO PLAY



PLAY TO STOP



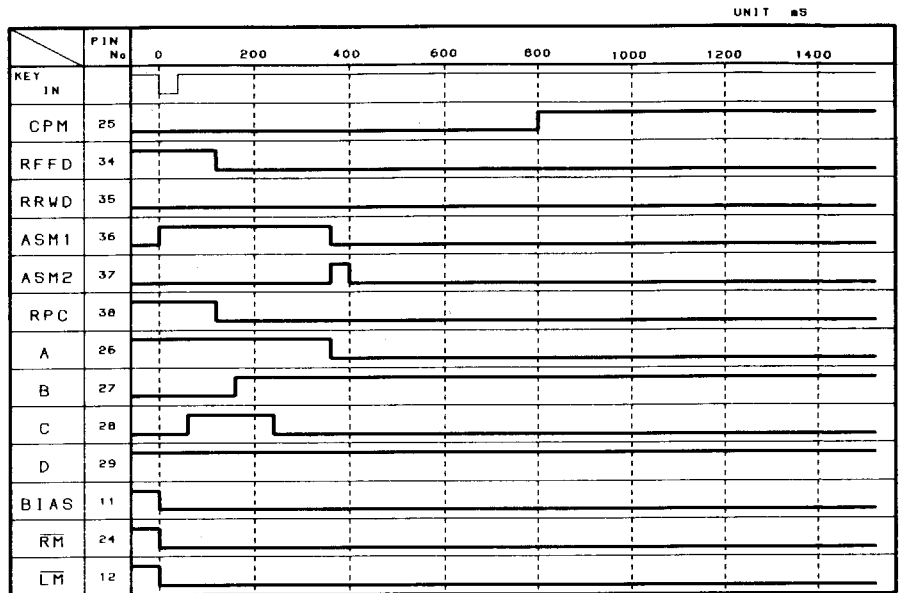
STOP TO REC



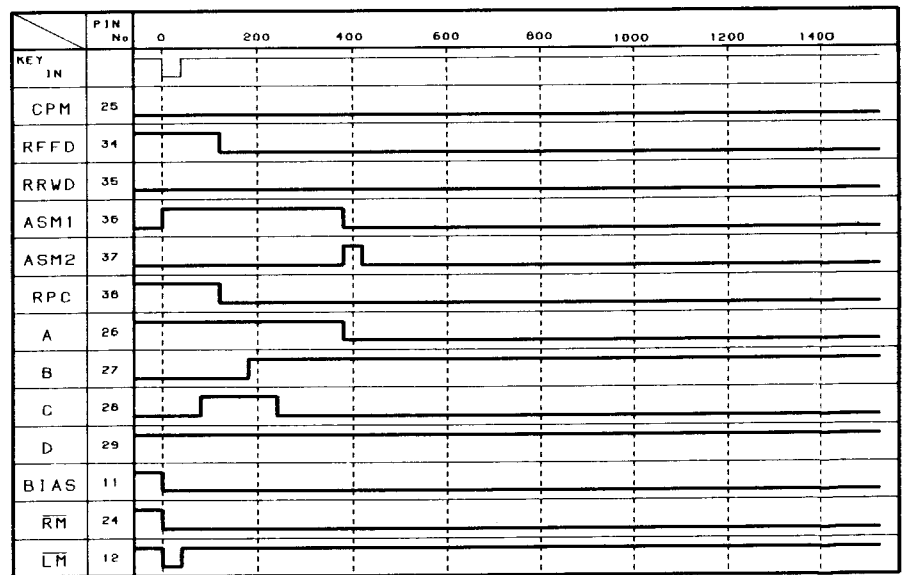
KX-9050/S

CIRCUIT DESCRIPTION

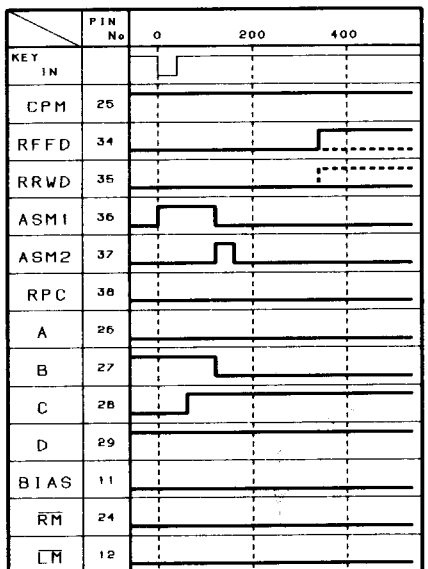
REC TO STOP



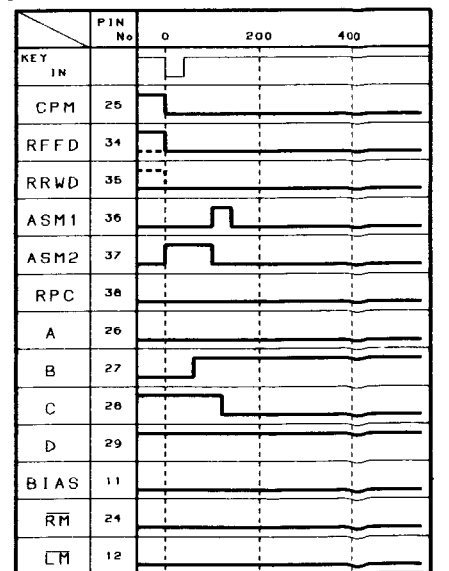
REC to REC PAUSE



STOP TO FF/RWD (---)

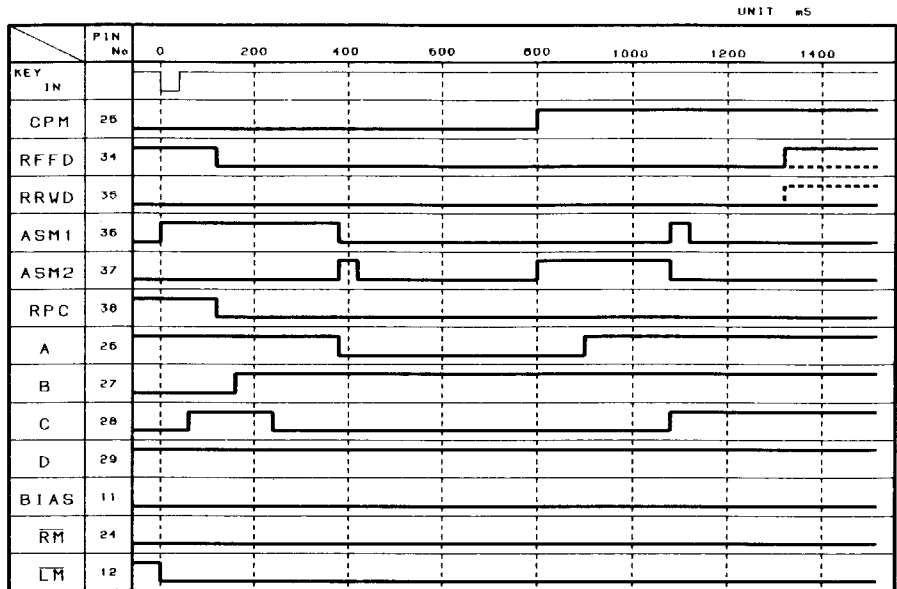


FF/RWD TO STOP

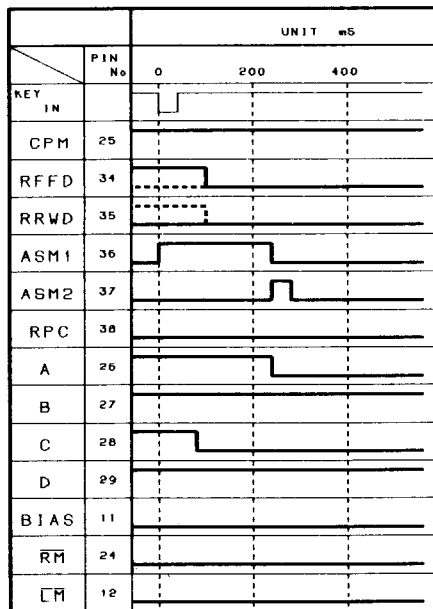


CIRCUIT DESCRIPTION

PLAY TO CUE/RVW (---)

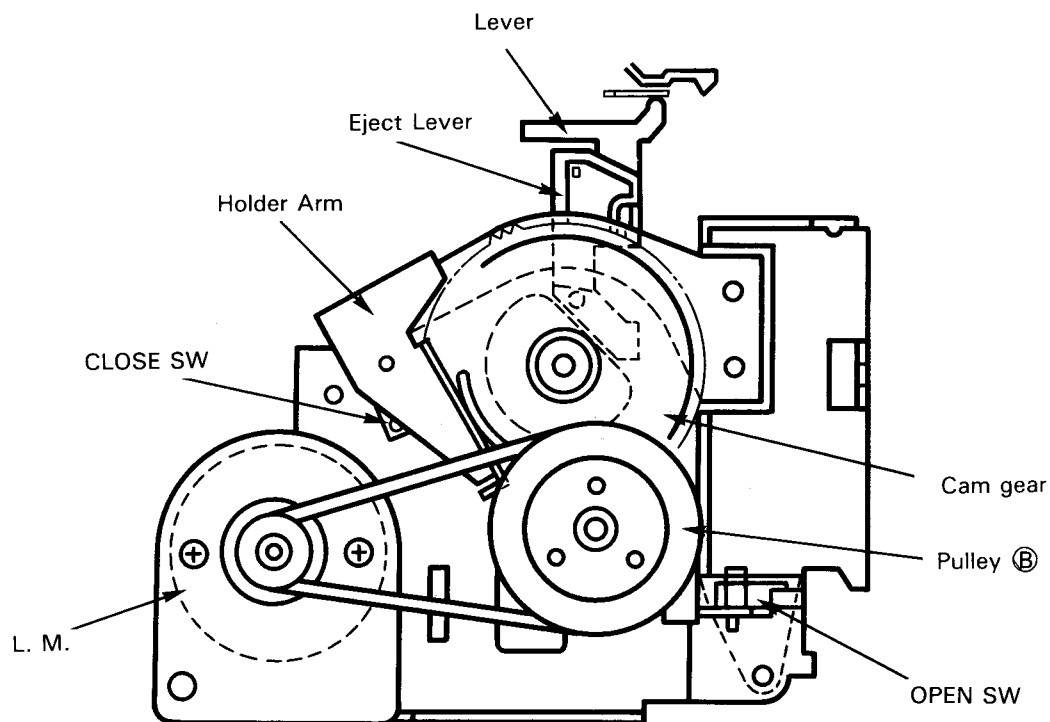


CUE/RVW TO STOP



KX-9050/S

MECHANISM DESCRIPTION



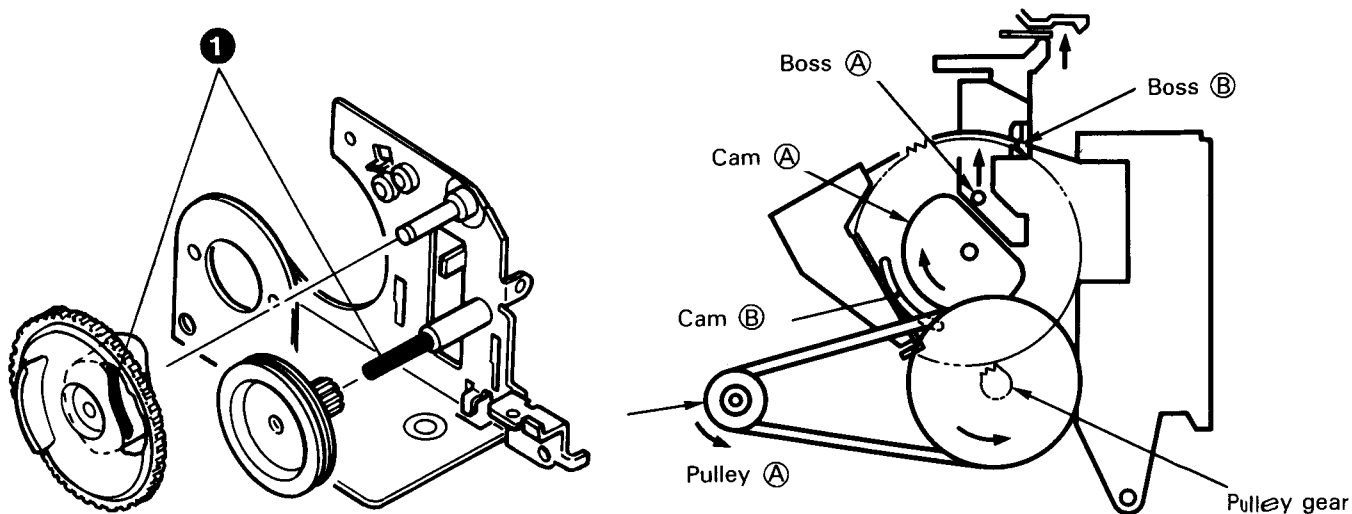
OPENING THE HOLDER

- ① Push the OPEN/CLOSE switch.
- ② The LM starts rotating.
- ③ The cam gear starts rotating via pulley.
- ④ The cam of the cam gear is released from the tongue of the holder arm.
- ⑤ Since the boss (A) of eject lever is pushed up at the same time, the boss (B) of INTER LOCK LEVER is also pushed up, and the tape SW is flicked up.

● POINT WHICH SHOULD BE GREASED

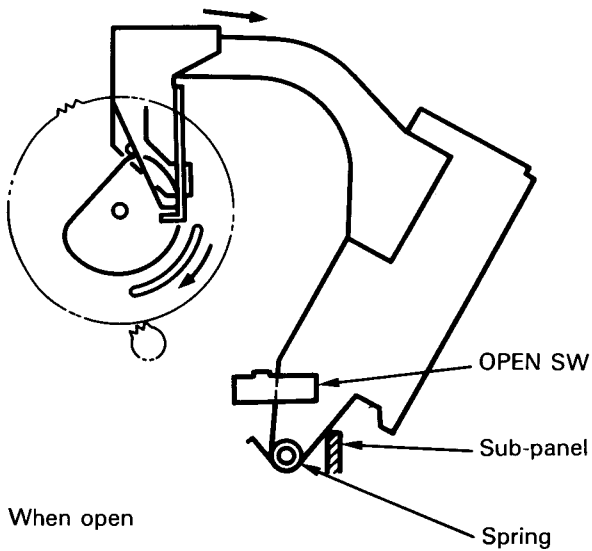
Dow corning W05-0130-00

① Section

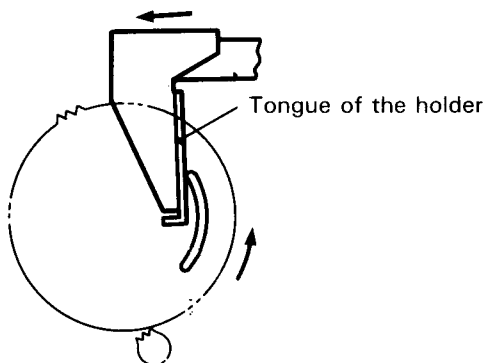


MECHANISM DESCRIPTION

- ⑥ When the cam **B** of the cam gear separates from the holder tongue, the holder begins to be opened by the spring, and stops at the position where it touches the sub-panel.
At that time the CLOSE switch turns OFF, and the OPEN SW turns ON.

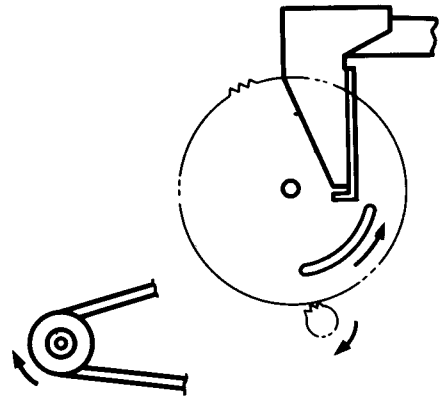


- ③ The cam **B** of the cam gear touches the tongue of the holder, and the holder is pushed to the arrow direction.

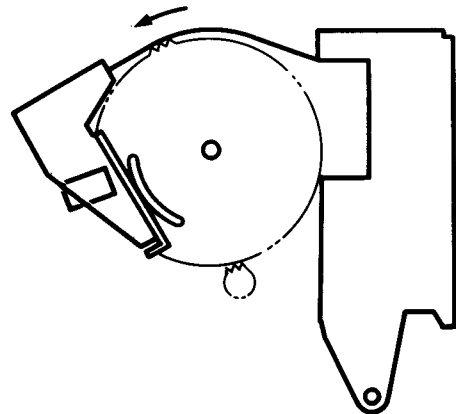


CLOSING THE HOLDER

- ① Push the OPEN/CLOSE switch.
- ② The LM starts rotating, and as a consequence the cam gear starts rotating.

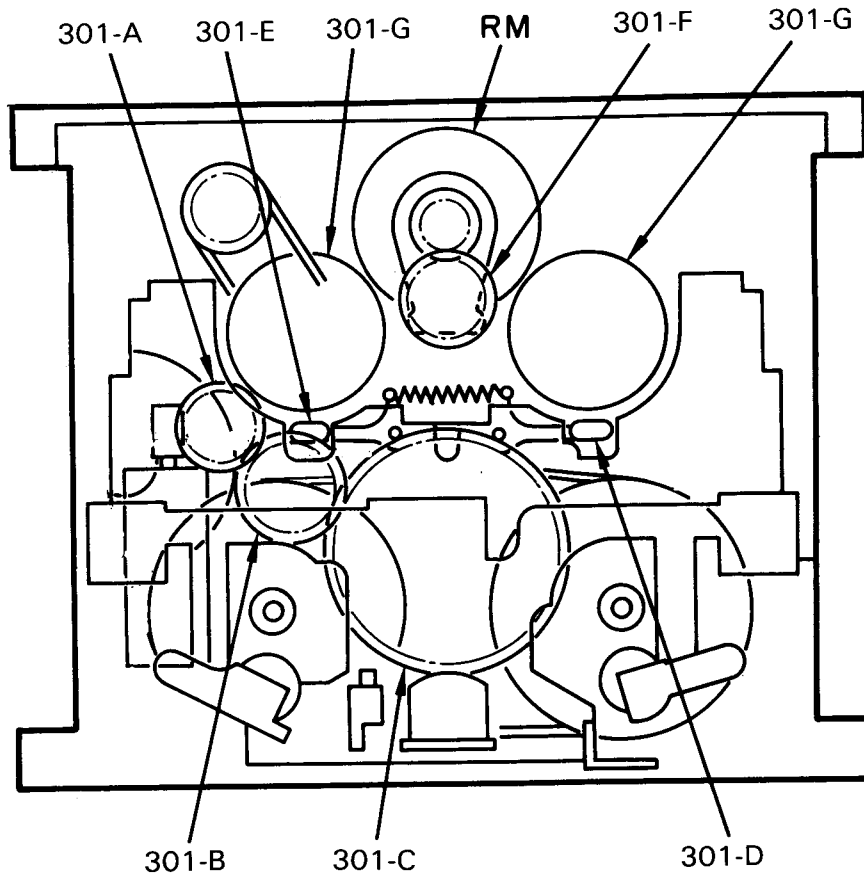


- ④ The cam gear continues to rotate, and when it reaches the position shown in the figure the CLOSE switch turns ON. The rotation stops and the holder is closed.



KX-9050/S

MECHANISM DESCRIPTION



Mechanism specification

Use of parts

MM	T42-0560-08	DC MOTOR ASSY (CAPSTAN)
RM	T42-0612-08	Reel motor
AM	T42-0593-08	DC MOTOR ASSY
BM	D16-0335-08	Main belt
BR	D16-0325-08	Reel belt

PLAY Torque: 35 ~ 55 g·cm
FF/RWD Torque: 70 ~ 160 g·cm
Back Tension Torque: 2 ~ 5 g·cm

301:	A10-2982-08	Chassis assy
301- A		Gear
301- B		Gear
301- C		Cam gear
301- D		Brake lever (L)
301- E		Brake lever (R)
301- F		Idler gear
301- G		Reel stand

MECHANISM DESCRIPTION

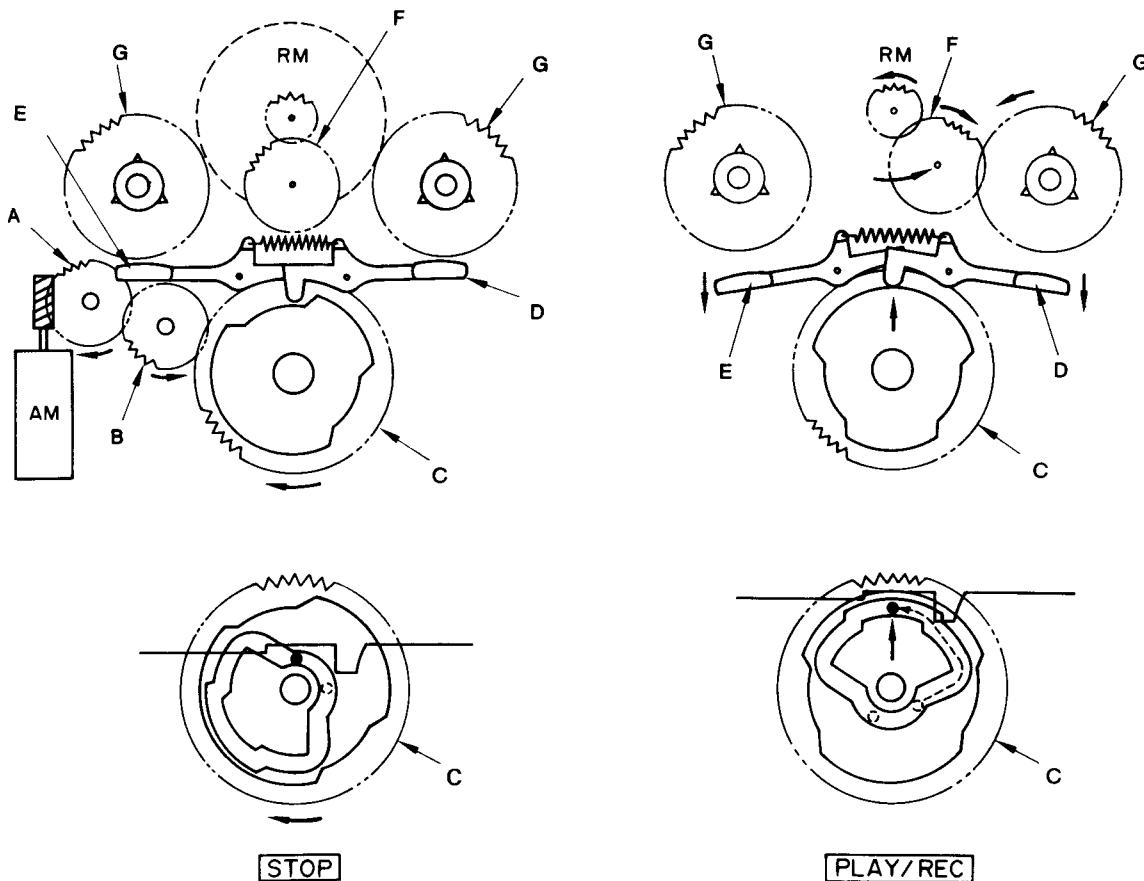
Description of Operation

Playback/Record

1. The assist motor runs.
2. Relay gears A and B turn the cam gear in the direction of the arrow, raising the boss on the head chassis. The pinch roller is pressed against the capstan.
3. In the PLAY position, the reel brake is released by the cam on the cam gear.
4. The reel motor runs in the direction of the arrow, and the idler gear starts turning the takeup reel in the direction of the arrow to start playback/recording.

Playback/Record → STOP

The assist motor runs, and the operations up to playback/record are reversed.

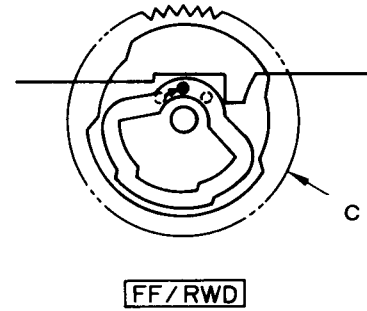
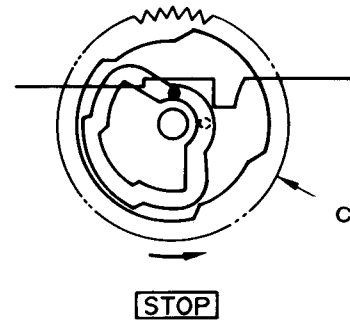
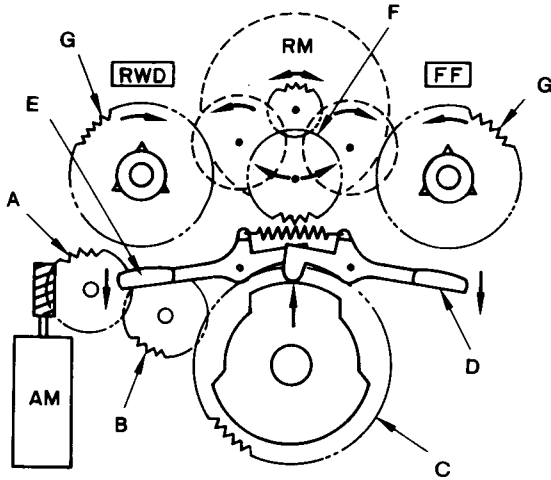


KX-9050/S

MECHANISM DESCRIPTION

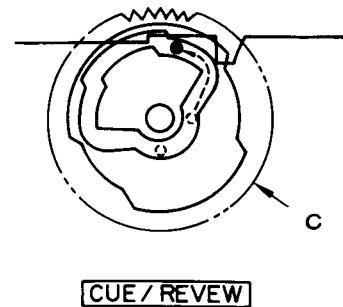
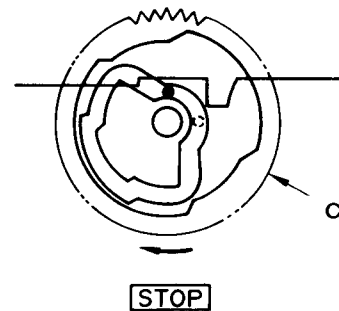
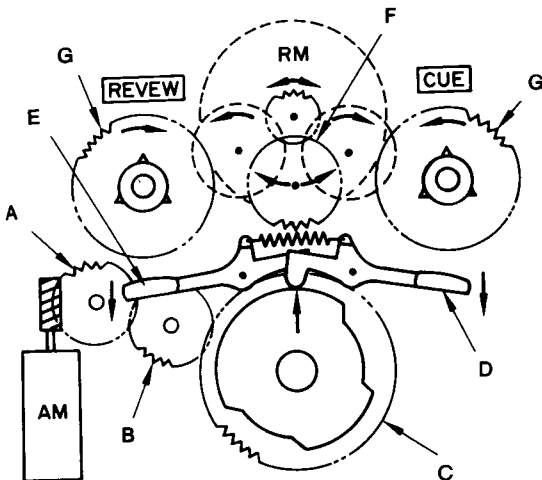
Fast forward Rewind

1. The assist motor rotates the cam gear, and the brake assembly is disengaged from the takeup and supply reels. The head chassis is not lifted, and the pinch roller and head do not contact the tape.
2. The reel motor starts running in the fast forward or rewind directions to wind the tape forward or in reverse.



Cue/Review

1. The assist motor runs, the cam gear turns, and the head chassis is raised. The pinch roller is also raised, but is not pressed against the capstan. The head contacts the tape.
2. The reel motor runs in the cue and review directions. When the motor runs in the cue direction, the takeup reel is turned by the idler gear; when the motor runs in the review direction, the supply reel turns to wind the tape.

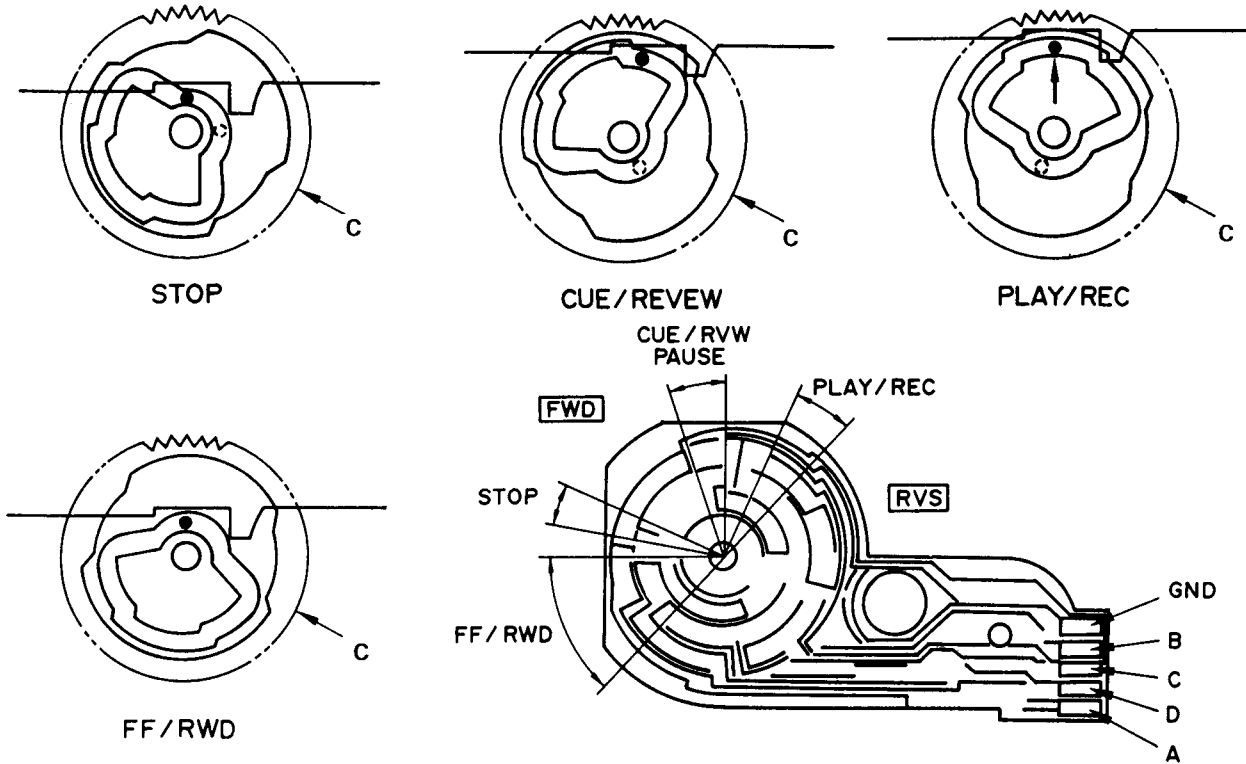


MECHANISM DESCRIPTION

Rotary switch operation

The operation of the mechanism is determined by the position of the rotary switch on the cam gear. Data on rotary switches A to D is input to the microprocessor to control

the assist motor, turn the cam gear, and control the head position and the brake assembly.



Rotary switch cam flow

Direction		RVS (unused)							FWD						
Mode	PLAY		PAUSE CUE REV		STOP		FF/RWD	FF/RWD	STOP		PAUSE CUE REV		PLAY		
Cam angle	20°	24°	18°	46°	14.5°	11°	46.5°	46.3°	11°	14.5°	46°	18°	24°	20°	
Rotary switch	A	H						(L)	(L)		(H)		(H)		
		L													
	B	H						(L)	(H)		(H)		(L)		
		L													
	C	H						(H)	(L)		(H)		(L)		
		L													
	D	H						(H)	(H)		(H)		(H)		
		L													
Head base position (approximate)	PLAY	[Graph showing head base position vs cam angle]													
	PAUSE	[Graph showing head base position vs cam angle]													
	STOP	[Graph showing head base position vs cam angle]													

KX-9050/S

ADJUSTMENT

RECORD/PLAYBACK UNIT

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	CASSTTE TAPE DECK SETTINGS	ALIGNMENT POINTS	ALING FOR	FIG.
CASSETTE DECK SECTION		TAPE : NORMAL, DOLBY : OFF, INPUT : LINE				0dBs=0.775V	
[1]	BIAS OSCILLATING FREQUENCY	Load the non recorded tapes on Deck	Connect the frequency counter between TP5 and GND or TP6 and GND	REC	L33 (X26-129 B/2)	Adjust so that the frequency counter shows 210kHz.	
[2]	BIAS LEAK	Load the non recorded tape on Deck	Connect the AC VOLT METER between TP5 and TP6.	Load a metal tape.	L 23 (L) L 24 (R) (X26-129 B/2)	Minimum	
[3]	HX VCA	Load the non recorded tape on Deck	Connect the oscilloscope between TP3 and TP4	REC	L 31 (L) L 32 (R) (X26-129 B/2)	Minimum	
[4]	PLAYBACK LEVEL (1)	MTT-150 400Hz (200nWb)	(B)	(DOLBY OFF : 9050) (DOLBY S : 9050S) PLAY	VR 1 (L) VR 2 (R) (X26-129 A/2)	Output level : -1.2dBs	
		MTT-256,SCC-1727 315Hz (160nWb)				Output level : -4.0dBs	
		MTT-256U,TCC-160 315Hz (250nWb)				Output level : 0 dBs	
[5]	PLAYBACK LEVEL (2) (KX-9050S)	MTT-150 400Hz	(B)	PLAY	VR 5 (L) VR 6 (R) (X26-129 A/2)	Output level : -1.2dBs	
		MTT-256,TCC-1727 315Hz				Output level : -4.0dBs	
		MTT-256U,TCC-160 315Hz				Output level : 0 dBs	
[6]	PLAY TRIM CONTROL	MTT-114 TCC-153,TCC-1727 -10dB, 10kHz	(B)	PLAY	VR 3 (L) VR 4 (R) (X26-129 A/2)	Adjust the variable resistors so that the level of 10kHz is -10 dBs	
[7]	BIAS CRRENT	(A) 1kHz, -30dBs 10kHz, -30dBs	(B)	Adjust REC VR (LEVEL, BALANCE) so that the REC monitor output becomes -24dBs at 1 kHz, then record and reproduce signal of 1 kHz and 10kHz in alternation.	VR 31 (L) VR 32 (R) (X26-129 B/2)	Adjust the bias current adjusting VR so that the playback level of the 10kHz signal is +0.5dB higher than that of the 1kHz signal when recording a 1kHz signal and a 10kHz signal alternately.	
[8]	RECORD LEVEL	(A) 1kHz, -30dBs	(B)	Record and reproduce a 1kHz signal under the conditions set in <7>	VR 21 (L) VR 22 (R) (X26-129 B/2)	Adjust the variable resistors so that a playback level of -24dBs is obtained.	
[9]	FL PEAK LEVEL METER	(A) 1kHz, -10dBs	—	REC PAUSE Adjust REC VR (LEVEL,BALANCE) so that the monitor output is -4dBs at 1kHz.	VR 95(R) (X25-471 A/8)	Adjust to the same level as that to L-channel.	
Note : On item (4) &(5). Although 3 kinds of tapes are set forth for the playback level adjustment, the use of one tape suffices for adjustment. Here is meant no necessity for the use of all these 3 kinds of tapes. Other than above mentioned tapes, when a test tape equal in magnetic flux and frequency is available, the adjustment is feasible with this test tape by making the playback output suited to the specified output level of this tape in agreement with the adjustment method.							

ADJUSTMENT

MECHANISM

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	—	—	—	REC/PLAY head erase head, capstan, pinch roller.	Clean the REC/PLAY head erase head, capstan and pinch roller, using a cotton swab slightly dampened with alcohol.	
[3]	Verification of the rec/play head. (KX-9050S)	※ MTT-94201	—	PLAY	—	Check that the level difference between the left and right channels is within 4 dB. If the difference exceeds 4 dB, perform the adjustments described in (7).	
[4]	Azimuth	MTT-114 TCC-153 SCC-1727 10kHz, -10dB	—	PLAY	Aimuth adjustment screw Ⓒ	Adjust the output to the maximum, then set the azimuth screw so that the oscilloscope resurge wavelength approaches a 45 deg. linearity.	
[5]	Check with mirror tape	mirror tape	—	PLAY	—	Play back the mirror tape and check that the edges of the tape do not touch the tape guide. If they do, perform the adjustments described in (7) onward.	
[6]	TAPE SPEED	(A) MTT-111 TCC-110, SCC-1727 3kHz, -4dB	—	PLAY	Trimming potentiometer in the DC motor	Adjust the tape speed so that a 3kHz signal is produced at the center of the tape.	
[7]	Height of supply pinch arm	THG-801	—	PLAY	Supply pinch roller arm height adjustment screw Ⓓ	Mount the standard THG-801 plate on the cassette receiving plate, then turn the block gage sideways and adjust the screws so that the gage fits in the tape guide.	
[8]	Height of REC/PLAY head	THG-801	—	PLAY	Head height adjustment screw Ⓐ	Mount the standard THG-801 plate on the cassette receiving plate, then turn the block gage sideways and adjust the screws so that the gage fits in the tape guide.	

KX-9050/S

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		
[9]	rec/play head adjustment	THG-801	—	PLAY	Head tilt adjustment screw ⓑ	Turn the THG-801 block gage sideways and position it so that it is perpendicular to the head surface. Adjust screw B so that the gage and standard plate come into close contact.	
The head height can be altered by performing the adjustment in procedure (9), so repeat adjustment procedure, (8) and (9) several times.							
[10]	DEMAGNETIZATION	—	—	POWER : OFF Remove the cassette door.	REC/PLAY head	Demagnetize the REC/PLAY head with a head demagnetizer.	
	CLEANING	—	—	—	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.	
[11]	Azimuth	SCC-1727 MTT-111 TCC-110 3kHz, -4dB	—	PLAY	Azimuth adjustment screw ⓒ	Adjust the output to maximum for the 3 kHz output then set the azimuth screw C so that the oscilloscope resurge wavelength approaches a 45 deg. linearity.	
Check the adjustments in procedures (8), (9) and (11).							
[12]	Check with mirror tape	mirror tape	—	PLAY	—	Playback the mirror tape and check that the tape edges are not touching the tape guide. If they are?, repeat procedures (8), (9) and (11) to adjust.	

Return to procedure (3). (KX-9050S)

REGLAGE

UNITE D'ENREGISTREMENT/LECTURE

N°	ITEM	REGLAGES DE L'ENTREE	REGLAGES DE LA SORTIE	REGLAGES DU MAGNETOPHONE A CASSETTE	POINTS DE L'ALIGNEMENT	ALIGNER POUR	HIG.
SECTION MAGNETOPHONE A CASSETTE		BANDE : NOMAL, DOLBY : OFF, INPUT : LINE				0 dBs=0,775 V	
[1]	FREQUENCEN OSCILLANTE DE POLARISATION	charger les bandes non enregistrées dans la platine	Connecter le fréquencesmètre entre TP5 et GND ou TP6 et GND.	REC	L33 (X26-129 B/2)	Ajuster de sorte que le fréquencesmètre indique 210 kHz.	
[2]	FUITE DE POLARISATION	charger une bande non enregistrée dans la platine	Connecter le voltmètre de CCentre TP5 et TP6.	charger une bande Metal	L23 (G) L24 (D) (X26-129 B/2)	Minimum	
[3]	HX VCA	charger une bande non enregistrée dans la platine	Connecter un oscilloscope entre TP3 et TP4	REC	L31 (G) L32 (D) (X26-129 B/2)	Minimum	
[4]	NIVEAU DE LECTURE (1)	MTT-150 400Hz (200 nwb)	(B)	(DOLBY OFF : 9050) (DOLBY S : 9050S) PLAY	VR 1 (G) VR 2 (D) (X26-129 A/2)	Niveau de sortie : -1,2 dBs	
		MTT-256,SCC-1727 315 Hz (160 nwb)				Niveau de sortie : -4,0 dBs	
		MTT-256U, TCC-160 315 Hz (250 nwb)				Niveau de sortie : 0 dBs	
[5]	NIVEAU DE LECTURE (2) (KX-9050S)	MTT-150 400 Hz	(B)	PLAY	VR 5 (G) VR 6 (D) (X26-129 A/2)	Niveau de sortie : -1,2 dBs	
		MTT-256 315 Hz SCC-1727				Niveau de sortie : -4,0 dBs	
		MTT-256, TCC-160 315 Hz				Niveau de sortie : 0 dBs	
[6]	CONTROLE D'EQUILIBRE DE LECTURE	MTT-114,SCC-1727 TCC-153 -10 dB, 10kHz	(B)	PLAY	VR 3 (G) VR 4 (D) (X26-129 A/2)	Ajuster les résistances variables de sorte que le niveau 10 kHz soit -10 dBs	
[7]	COURANT DE POLARISATION	(A) 1 kHz, -30 dBs 10 kHz, -30 dBs	(B)	Ajuster la VR REC (LEVEL, BALANCE) pour que la sortie de contrôle REC deviennent -24 dBs à 1 kHz, puis enregistrer et reproduire un signal de 1 kHz et 10kHz alternativement.	VR 31 (G) VR 32 (D) (X26-129 B/2)	Ajuster le courant de polarisation en ajustant VR de sorte que le niveau de lecture soit +0,5 dB plus haut que celui 10 kHz lors de l'enregistrement alternativement d'un signal de 1 kHz et d'un signal de 10 kHz.	
[8]	NIVEAU D'ENREGISTREMENT	(A) 1 kHz, -30 dBs	(B)	Enregistrer et reproduire un signal de 1 kHz dans les conditions établies en < 7 >	VR 21 (G) VR 22 (D) (X26-129 B/2)	Ajuster les résistances variables de sorte le niveau de lecture de -24 dBs soit obtenu.	
[9]	INDICATEUR DE NIVEAU DE CRETE FL	(A) 1 kHz, -10 dBs	-	REC PAUSE Ajuster la VR REC (LEVEL, BALANCE) pour que la sortie de contrôle soit -4dBs à 1 kHz.	VR 95(D) (X25-471 A/B)	Ajuster au même niveau que celui du canal G	

REMARQUE : Sur les items (4) et (5)

Bien que 3 sortes de bande soient employées pour l'ajustement du niveau de lecture, l'utilisation d'une bande suffit pour l'ajustement. Cela signifie qu'il n'est pas nécessaire d'utiliser les 3 types de bande. En plus des bandes citées ci-dessus, quand une bande test de flux magnétique et fréquence égaux est disponible, l'ajustement est possible en réglant la sortie de lecture sur le niveau de sortie spécifique à cette bande, selon la méthode d'ajustement.

REGLAGE

MECHANISM

N°	ITEM	REGLAGES DE L'ENTREE	REGLAGES DE LA SORTIE	REGLAGES DU MAGNETOPHONE A CASSETTE	POINTS DE L'ALIGNEMENT	ALIGNER POUR	FIG.
SECTION MAGNETOPHONE A CASSETTE		BANDE : NORMAL, DOLBY : OFF, INPUT : LINE			0dBz=0,775 V		
I TETE D'ENREGISTREMENT/LECTURE							
[1]	DEMAGNETISATION	—	—	ALIMENTATION : COUPEE Retirer la porte de cassette.	Tête d'enregistrement/ lecture	Démagnétiser la tête d'enregistrement/lecture avec l'effaceur de tête.	
[2]	NETTOYAGE	—	—	—	Tête d'enregistre- ment/lecture, tête d'effacement, cabestan, galet presseur	Nettoyer la tête d'enregistrement/lecture, la tête d'effacement, le cabestan et le galet presseur avec un coton-tige légèrement trempé dans de l'alcool.	
[3]	Vérification de la tête d'enre- gistrement/lecture (KX-9050S)	※ MTT-94201		PLAY	—	Vérifier que la différence de niveau entre les canaux droits et gauche soit inférieure à 4 dB. si la différence dépasse 4 dB, effectuer les ajustements décrits en (7).	
[4]	Azimut	SCC-1727 MTT-114 TCC-153 10kHz, -10dB		PLAY	Vis d'ajustement de l'azimut (C)	Ajuster la sortie du maximum, puis régler la vis d'azimut de sorte que la longueur d'onde sur l'oscilloscope approche d'une linéarité de 45 deg.	
[5]	Vérifier avec une bande miroir	Bande miroir	—	PLAY	—	Reproduire la bande miroir et vérifier que les rebords de bande ne touchent pas le guide de bande. En cas de contact, effectuer les ajustements décrits en (7) plus loin.	
[6]	Vérifier avec une bande miroir	Bande miroir		PLAY	Potentiomètre d'équilibrage dans le moteur CC	Ajuster la vitesse de la bande pour qu'un signal de 3kHz soit produit au centre de la bande.	
[7]	VITESSE DE LA BANDE	(A) SCC-1727 MTT-111, TCC-110 3kHz, -4dB	—	PLAY	Vis de réglage de hauteur de bras de galet presseur d'alimentation (D)	Monter la plaque THG-801 standard sur la plaque de réception de cassette, puis tourner le calibre latéralement et ajuster les vis de sorte que le calibre correspond au guide de bande.	
[8]	Hauteur de tête d'entraînement/ lecture	THG-801	—	PLAY	Vis d'ajustement de hauteur de tête (A)	Monter la plaque THG-801 standard sur la plaque de réception de cassette, puis tourner le calibre latéralement et ajuster les vis de sorte que le calibre correspond au guide de bande.	

REGLAGE

N°	ITEM	REGLAGES DE L'ENTREE	REGLAGES DE LA SORTIE	REGLAGES DU MAGNETOPHONE A CASSETTE	POINTS DE L'ALIGNEMENT	ALIGNER POUR	FIG.
SECTION MAGNETOPHONE A CASSETTE		BANDE : NORMAL, DOLBY : OFF, INPUT : LINE			0dBz=0,775 V		
[9]	Réglage de la tête d'enregistrement/lecture	THG-801	—	PLAY	Vis d'ajustement d'inclinaison de tête (B)	Tourner le calibre THG-801 latéralement et le positionner de sorte qu'il soit perpendiculaire à la surface de tête. Ajuster la vis B de sorte que la plaque standard d'extrémité de calibre arrive en contact.	
La hauteur de tête peut être modifiée en effectuant l'ajustement dans la procédure (9), donc répéter plusieurs fois les procédures de réglage (8) et (9).							
[10]	DEMAGNETISATION	—	—	ALIMENTATION : COUPEE	Tête d'enregistrement/lecture	Démagnétiser la tête d'enregistrement/lecture avec un effaceur de tête.	
	NETTOYAGE	—	—	—	Tête d'enregistrement /lecture, tête d'effacement, cabestan, galet pressur	Nettoyer la tête d'enregistrement/lecture, la tête d'effacement, le cabestan et le galet presseur avec un coton-tige légèrement trempé dans de l'alcool.	
[11]	Azimet	SCC-1727 MTT-111 TCC-110 3 kHz,-4dB	—	PLAY	Vis d'ajustement de l'azimet (C)	Ajuster la sortie au maximum pour la sortie de 3 kHz, puis régler la vis d'azimet (C) de sorte que la longueur d'onde sur l'oscilloscope approche d'une linéarité de 45 deg.	
Vérifier les réglages dans les procédures (8), (9) et (11).							
[12]	Vérifier avec une bande miroir	Bande miroir	—	PLAY	—	Reproduire la bande miroir et vérifier que les rebords de la bande ne touchent pas le guide de bande. En cas de contact, répéter les procédures (8), (9) et (11) pour effectuer le réglage.	

Retourner à la procédure (3) . (KX-9050/S)

ABGLEICH

AUFNAHME-/WIEDERGABETEIL

Nr.	GEGENSTAND	EINGANGSEINSTELLUNG	AUSGANGSEINSTELLUNG	CASSETTENECKEINSTELLUNG	ABGLEICH PUNKTE	ABGLEICHEN FÜR	ABB.
TAPE: NORMAL, DOLBY: OFF, INPUT: LINE							OdBs=0,775V
[1]	VORMAGNETISIERUNGSSCHWINGUNGSTORFREQUENZ	Nicht bespielte Bänder in das Deck einlegen	Den Frequenzmesser zwischen TP5 und GND oder TP6 und GND schließen	REC	L33 (X26-129 B/2)	So einstellen, daß der Frequenzmesser 210 kHz anzeigt.	
[2]	VORMAGNETISIERUNGSTROMVERLUST	Ein nicht bespieltes Band in das Deck einlegen	Wechselspannungsmeter zwischen TP5 und TP6 schließen	Ein Metallband einlegen.	L 23 (L) L 24 (R) (X26-129 B/2)	Minimal	
[3]	HX VCA	"	Osilloskop zwischen TP3 und TP4 schließen	REC	L 31 (L) L 32 (R) (X26-129 B/2)	Minimal	
[4]	WIEDERGABEPEGEL (1)	MTT-150 400Hz (200nWb)	(B)	(DOLBY OFF : 9050) (DOLBY S : 9050S) PLAY	VR 1 (L) VR 2 (R) (X26-129 A/2)	Ausgangspegel : -1.2dBs	
		MTT-256,SCC-1727 315Hz (160nWb)				Ausgangspegel: -4.0dBs	
		MTT-256,TCC-160 315Hz (250nWb)				Ausgangspegel : 0 dBs	
[5]	WIEDERGABEPEGEL (2) (KX-9050/S)	MTT-150 400Hz	(B)	PLAY	VR 5 (L) VR 6 (R) (X26-129 A/2)	Ausgangspegel : -1.2dBs	
		MTT-256,SCC-1727 315Hz				Ausgangspegel : -4.0dBs	
		MTT-256,TCC-160 315Hz				Ausgangspegel: 0 dBs	
[6]	WIEDERGABETRIMMER	MTT-114 TCC-153,SCC-1727 -10dB, 10kHz	(B)	PLAY	VR 3 (L) VR 4 (R) (X26-129 A/2)	Die Stellwiderstände so einstellen, daß der 10-kHz-Pegel -10 dBs beträgt	
[7]	VORMAGNETISIERUNGSTROM	(A) 1kHz, -30dBs 10kHz, -30dBs	(B)	REC VR (LEVEL, BALANCE) so einstellen, daß der REC-Monitor-Ausgang bei 1 kHz -24 dBs wird, dann abwechselnd ein Signal mit 1 kHz und 10 kHz aufzeichnen und wiedergeben.	VR 31 (L) VR 32 (R) (X26-129 B/2)	Den Vormagnetisierungsstrom-Stellwiderstand so einstellen, daß der Wiedergabepegel des 10-kHz-Signals +0,5 dB höher als der des 1-kHz-Signals ist, wenn abwechselnd ein 1-kHz-Signal und ein 10-kHz-Signal aufgezeichnet wird.	
[8]	AUFNAHMEPEGEL	(A) 1kHz, -30dBs		Unter den in <7> eingestellten Bedingungen ein 1-kHz-Signal aufzeichnen und wiedergeben	VR 21 (L) VR 22 (R) (X26-129 B/2)	Die Stellwiderstände so einstellen, daß ein Wiedergabepegel von -24 dBs erhalten wird.	
[9]	FL-SPITZENPEGELMETER	(A) 1kHz, -10dBs	-	REC PAUSE REC VR (LEVEL, BALANCE) so einstellen, daß der Monitorausgang bei 1 kHz -4 dBs beträgt.	VR 95(R) (X25-471 A/8)	Auf denselben Pegel wie den des linken Kanals einstellen	
Hinweis: Bei Punkt (4) und (5).							
Obwohl 3 Bandsorten für die Wiedergabepegel-einstellung vorliegen, genügt der Gebrauch eines Bands zur Einstellung. Dies bedeutet, daß nicht alle 3 Bandsorten verwendet werden müssen. Die Einstellung kann auch mit einem Testband mit demselben Magnetfluß und derselben Frequenz der oben erwähnten Bänder durchgeführt werden, indem der Wiedergabeausgang dem Sollausgangspegel dieses Bands gemäß Einstellverfahren angeglichen wird.							

ABGLEICH

LAUFWERK

Nr.	GEGENSTAND	EINGANGSEINSTELLUNG	AUSGANGSEINSTELLUNG	CASSETTENDECKEINSTELLUNG	ABGLEICH PUNKTE	ABGLEICHEN FÜR	ABB.
CASSETTENDECK-TEIL TAPE: NORMAL, DOLBY: OFF, INPUT: LINE						0 dBs = 0,775 V	
AUFNAHME/WIEDERGABEKOPF							
[1]	ENTMAGNETISIERUNG	—	—	POWER :OFF Die Cassettenklappe entfernen.	Aufnahme/Wiedergabekopf (REC/PLAY)	Den REC/PLAY-Kopf mit einem Tonkopf-Entmagnetisierer entmagnetisieren.	
[2]	REINIGUNG	—	—	—	REC/PLAY-Kopf, Löschkopf, Tonwelle, Andruckrolle.	REC/PLAY-Kopf, Löschkopf, Tonwelle und Andruckrolle mit einem leicht mit Alkohol angefeuchteten Wattestäbchen reinigen.	
[3]	Kontrolle des Aufnahme/Wiedergabekopfs. (KX-9050S)	MTT-94201		PLAY	—	Sicherstellen, daß der Pegelunterschied zwischen dem linken und rechten Kanal innerhalb von 4 dB liegt. Wenn der Unterschied 4 dB überschreitet, die in (7) beschriebenen Einstellungen vornehmen.	
[4]	Azimut	MTT-114 TCC-153, SCC-1727 10kHz, -10dB	—	PLAY	Azimut-Einstellschraube Ⓒ	Den Ausgang auf den Höchstwert einstellen, dann die Azimut-Schraube so justieren, daß sich die Oszilloskop-Wiederanstiegswellenlage einer Linearität von 45 Grad annähert.	
[5]	Mit Spiegelband überprüfen	Spiegelband	—	PLAY	—	Das Spiegelband abspielen und sicherstellen, daß die Bandkanten die Bandführung nicht berühren. Wenn sie die Bandführung berühren, die ab (7) beschriebenen Einstellungen durchführen.	
[6]	BANDGESCHWINDIGKEIT	(A) SCC-1727 MTT-111, TCC-110 3kHz, -4dB	—	PLAY	Trimm-Potentiometer im Gleichstrommotor	Die Bandgeschwindigkeit so einstellen, daß ein 3-kHz-Signal in der Mitte des Bands erzeugt wird.	
[7]	Höhe des Zuführandruckrollenarms	THG-801	—	PLAY	Zuführandruckrollenarm-Höheneinstellschraube Ⓓ	Die Standard-THG-801-Platte an der Cassettenempfangsplatte montieren, dann die Blocklehre seitw. ts drehen und die Schrauben so einstellen, daß die Lehre in die Bandführung paß.	
[8]	Höhe des REC/PLAY-Kopfes	THG-801		PLAY	Kopfhöheneinstellschraube Ⓐ	Die Standard-THG-801-Platte an der Cassettenempfangsplatte montieren, dann die Blocklehre seitw. ts drehen und die Schrauben so einstellen, daß die Lehre in die Bandführung paß.	

ABGLEICH

Nr.	GEGENSTAND	EINGANGS-EINSTELLUNG	AUSGANGS-EINSTELLUNG	CASSETTENDECK-EINSTELLUNG	ABGLEICH-PUNKTE	ABGLEICHEN FÜR	ABB.
CASSETTENDECK-TEIL		TAPE: NORMAL, DOLBY: OFF, INPUT: LINE			0 dBs = 0,775 V		
[9]	Aufnahme/Wiedergabekopf-Einstellung	THG-801	—	PLAY	POWER: OFF Das Cassettenklappe entfernen. Ⓑ	Die THG-801-Blocklehre seitwärts drehen und so positionieren, daß sie senkrecht zur Kopfoberfläche ist. Die Schraube B so einstellen, daß Lehre und Standard-Platte miteinander in enge Beührung gelangen.	
Die Kopfhöhe kann durch Einstellverfahren (9) geändert werden, daher Einstellverfahren (8) und (9) einige Male wiederholen.							
[10]	ENTMAGNETISIERUNG	—	—	POWER: OFF Die Cassettenklappe entfernen.	Aufnahme/Wiedergabekopf (REC/PLAY)	Den REC/PLAY-Kopf mit einem Tonkopf-Entmagnetisierer entmagnetisieren.	
	REINIGUNG	—	—	—	REC/PLAY-Kopf, Löschkopf, Tonwelle, Andruckrolle.	REC/PLAY-Kopf, Löschkopf, Tonwelle und Andruckrolle mit einem leicht mit Alkohol angefeuchteten Wattestäbchen reinigen.	
[11]	Azimut	SCC-1727 MTT-111 TCC-110 3kHz, -4dB	—	PLAY	Azimut-Einstellschraube Ⓒ	Den Ausgang für den 3-kHz-Ausgang auf den Höchstwert einstellen, dann die Azimut-Schraube C so einstellen, daß sich die Oszilloskop-Wiederanstiegswellenlänge einer Linearität von 45 Grad annähert.	
Die Einstellungen bei Verfahren (8), (9) und (11) überprüfen.							
[12]	Mit Spiegelband überprüfen	Spiegelband	—	PLAY	—	Das Spiegelband abspielen und sicherstellen, daß die Bandkanten die Bandführung nicht berühren. Wenn sie die Bandführung berühren, Verfahren (8), (9) und (11) zur Einstellung wiederholen.	

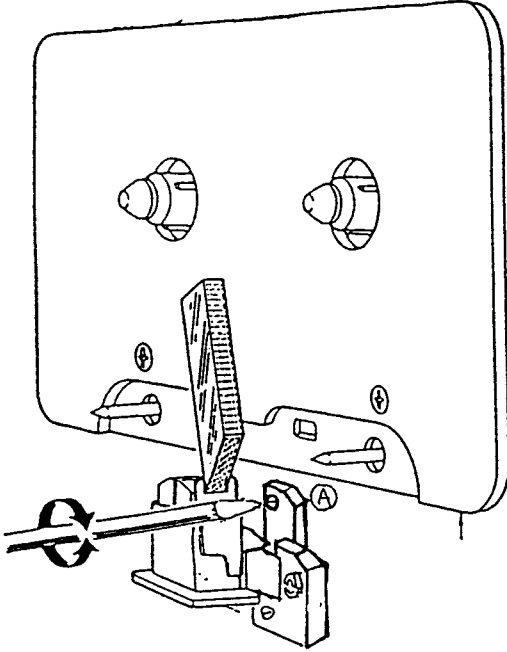
Zu Verfahren (3) zurückkehren. (KX-9050S)

KX-9050/S

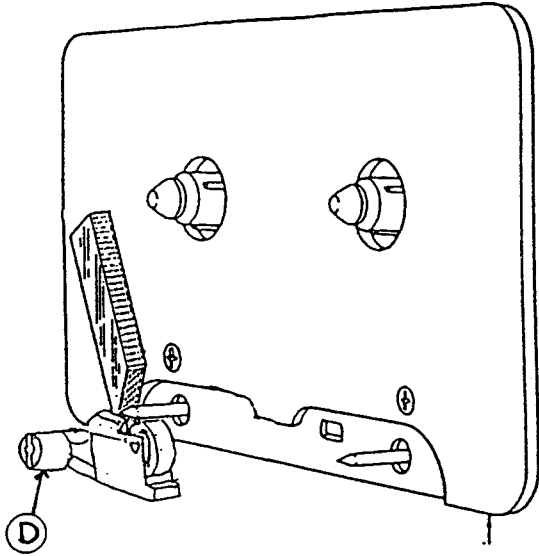
ADJUSTMENT

Adjusting REC/PLAY head

Head height adjustment

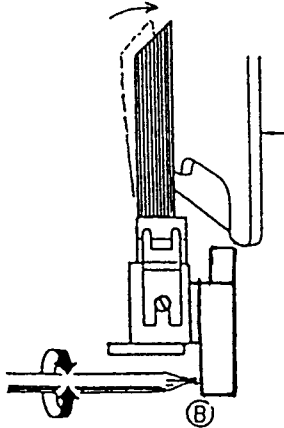


Supply PINCH roller height Adjustment.



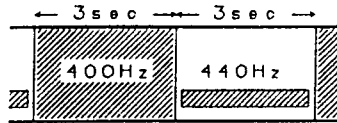
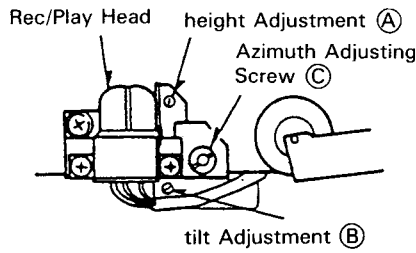
*

Head tilt adjustment



Tape Speed Adjustment

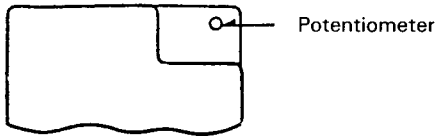
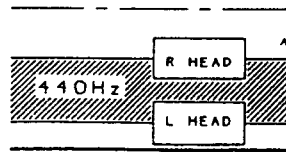
* MTT-94201 (TEST TAPE for HEAD height adjustment)



400 Hz Full track

440 Hz 0.8 mm width track

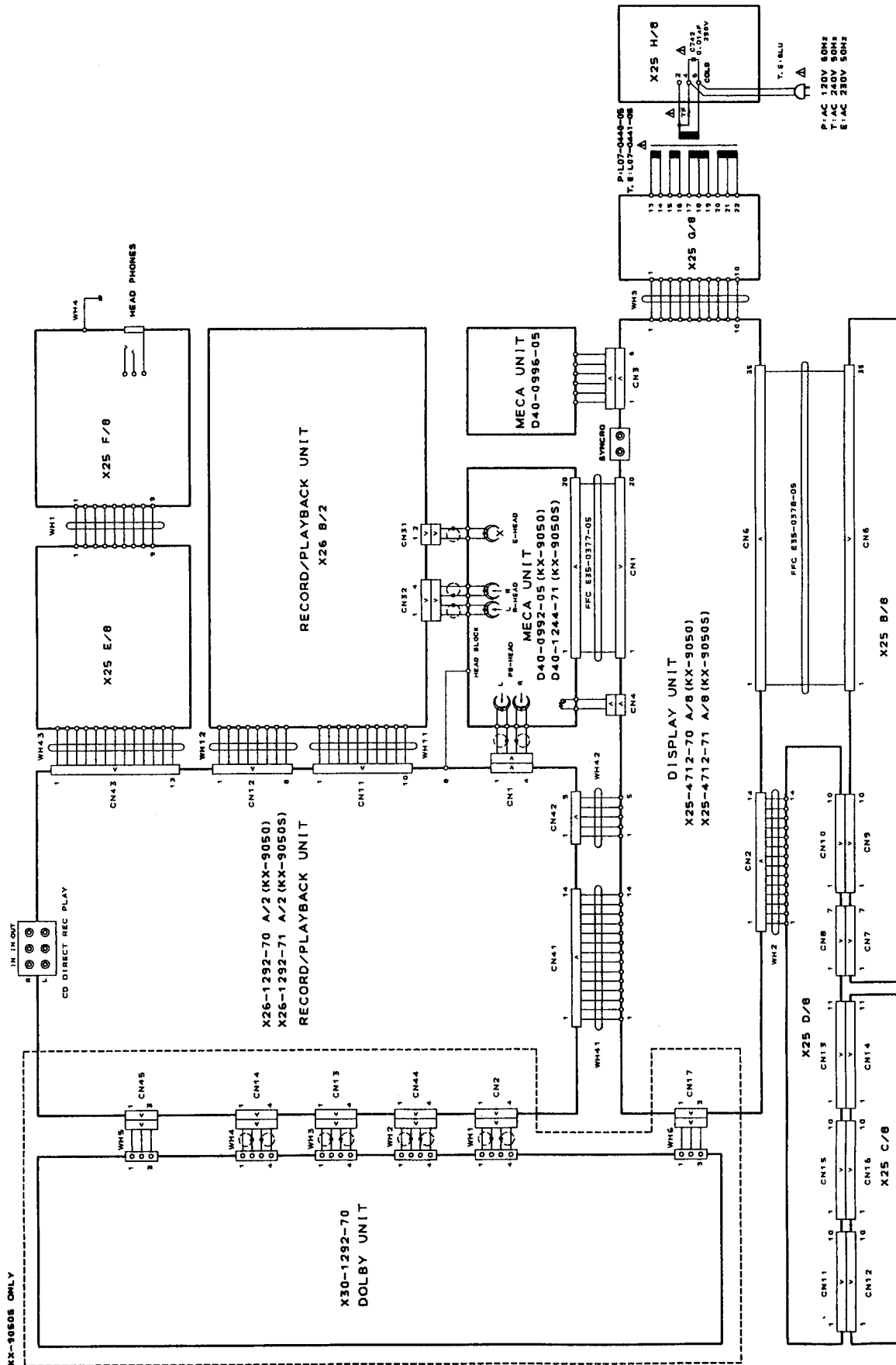
Level difference is about the same of L, R ch output when the adjustment is complete.



Capstan Motor

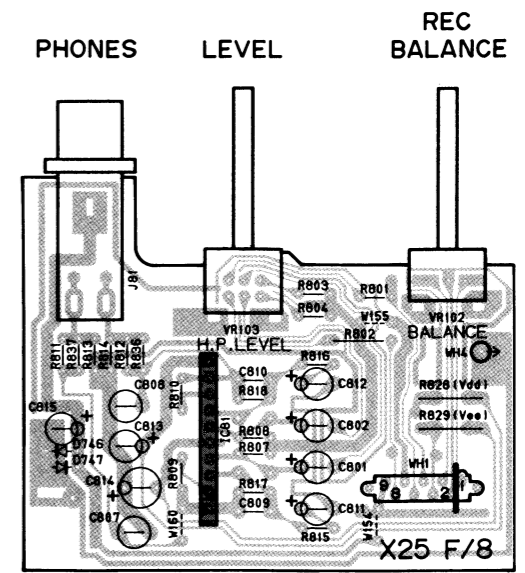
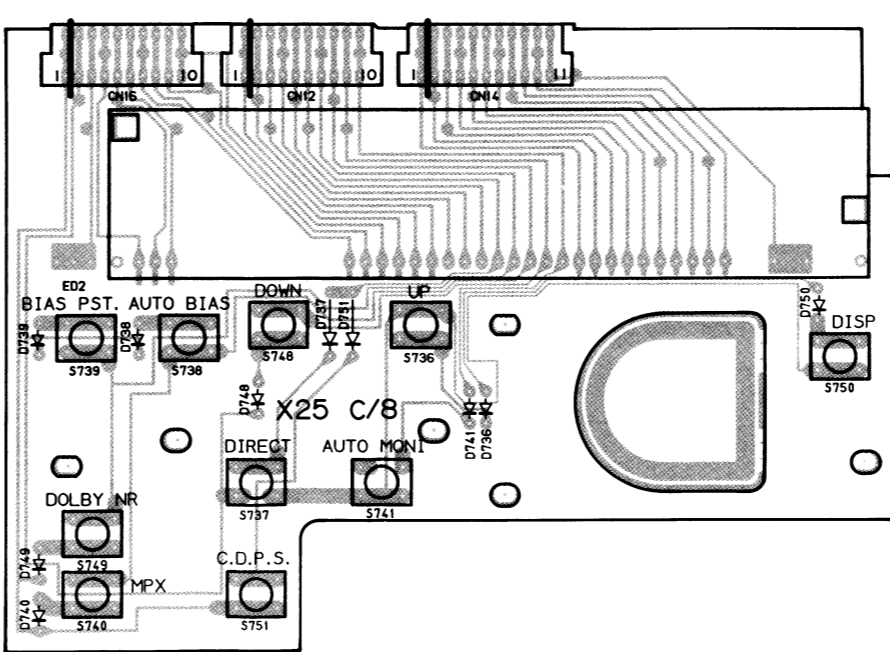
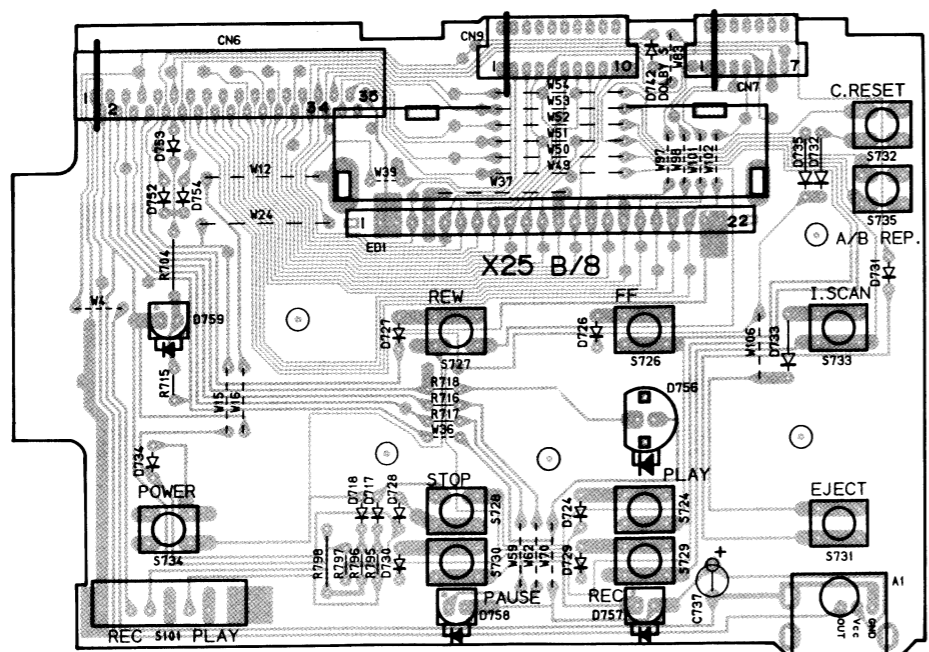
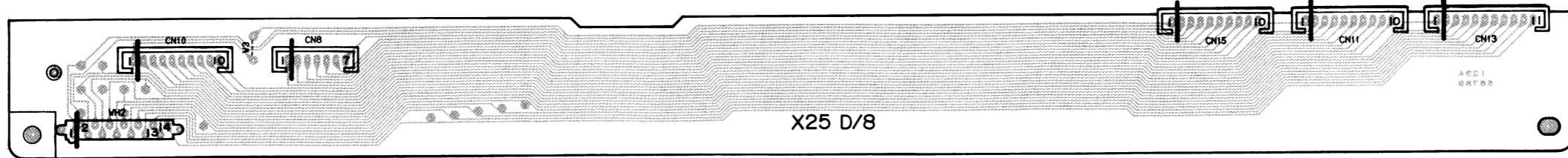
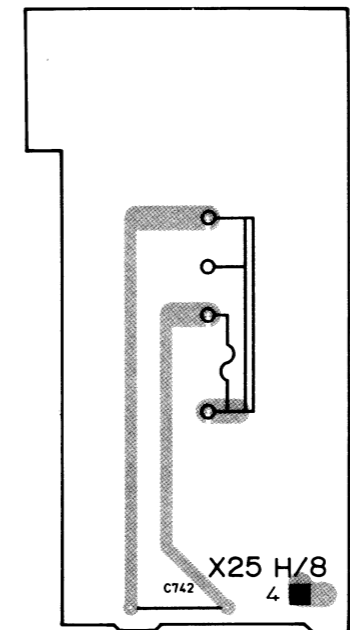
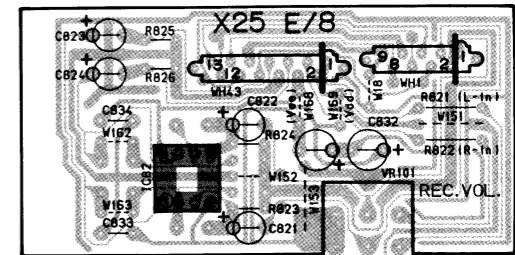
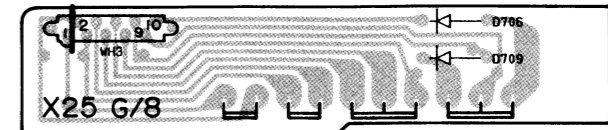
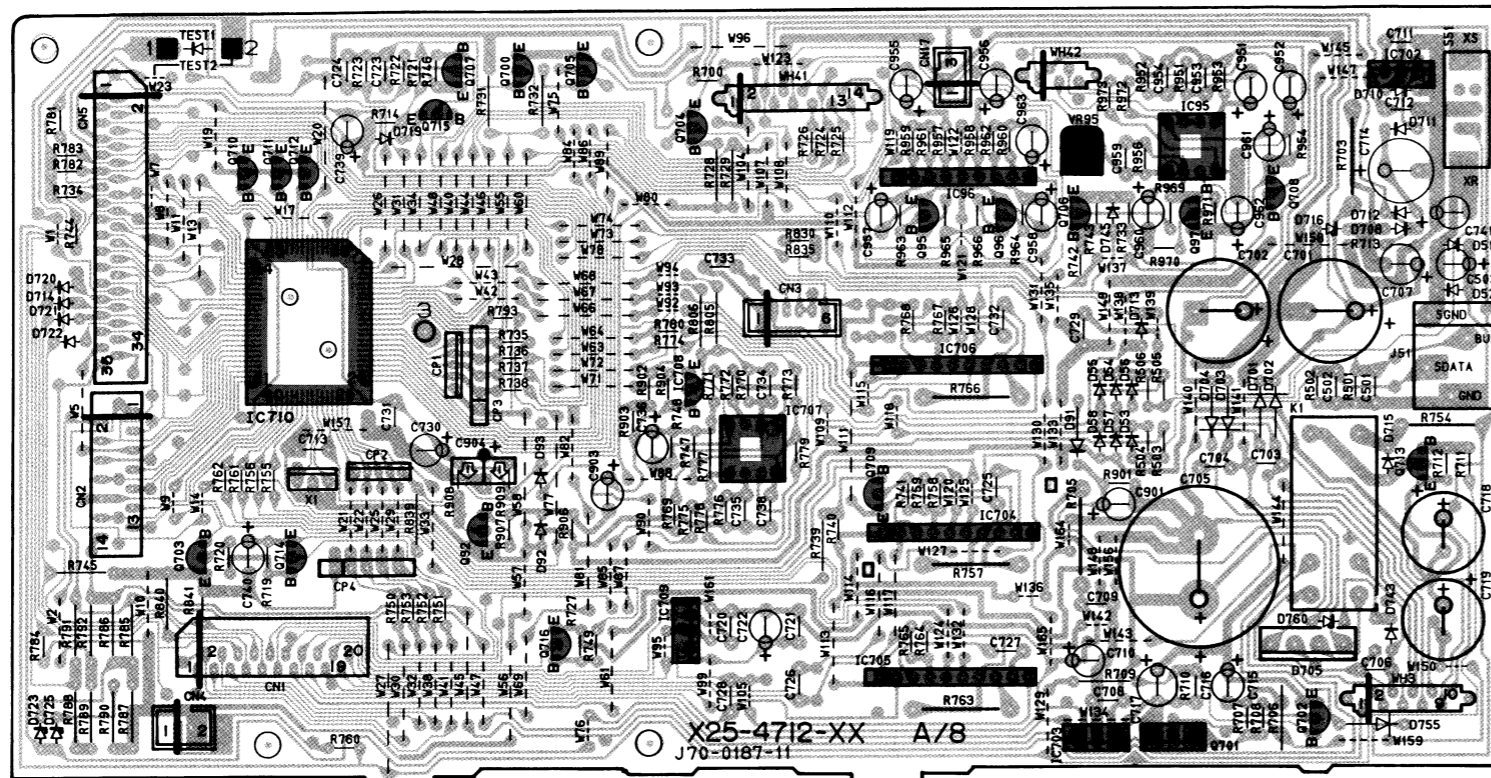
KX-9050/S

WIRING DIAGRAM



PC BOARD (Component side view)

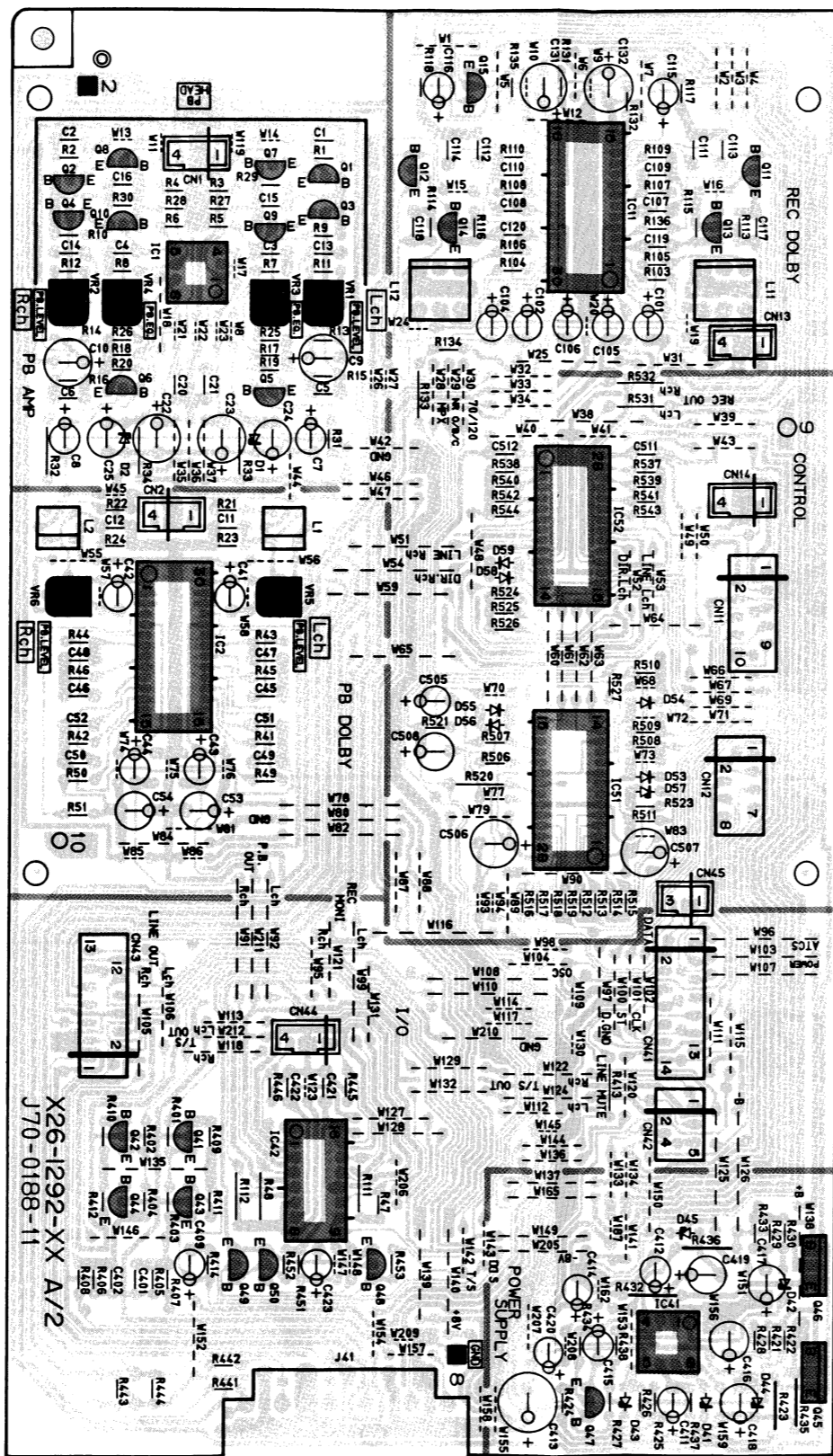
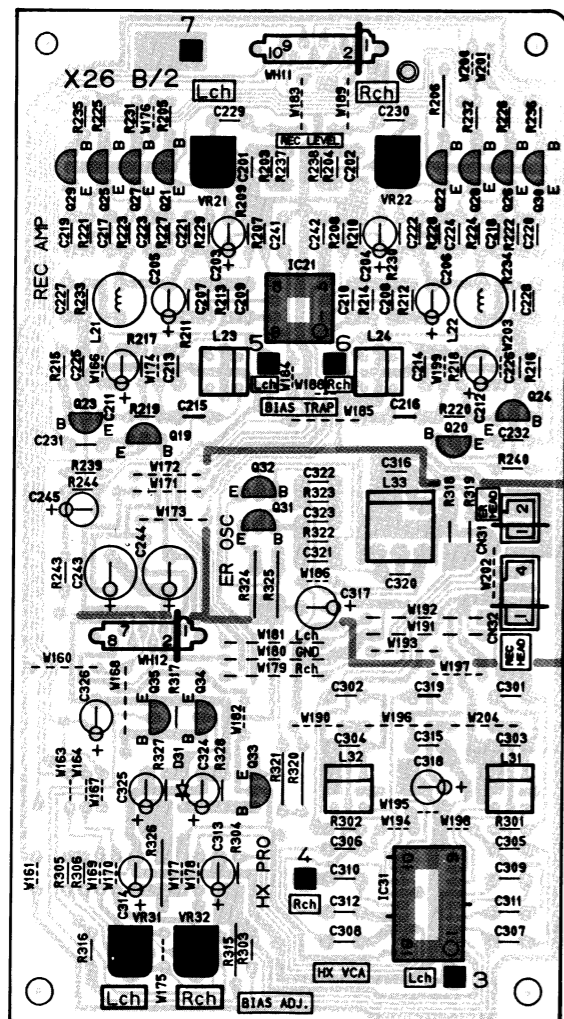
DISPLAY UNIT(X25-4712-XX)



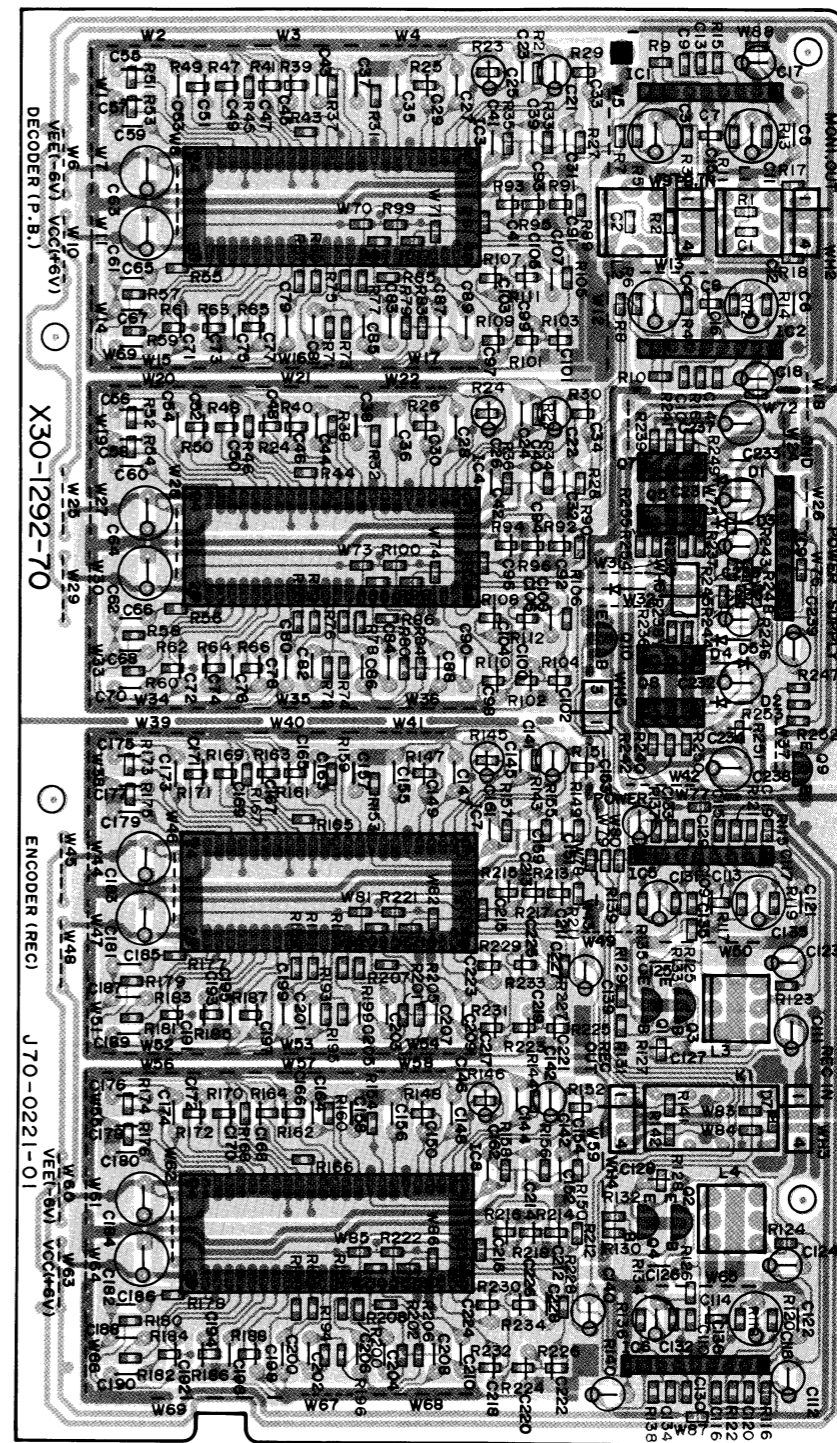
Refer to the schematic diagram for the values of resistors and capacitors.

PC BOARD (Component side view)

RECORD/PLAYBACK UNIT(X26-1292-XX)
DOLBY UNIT(X30-1292-70) KX-9050S only



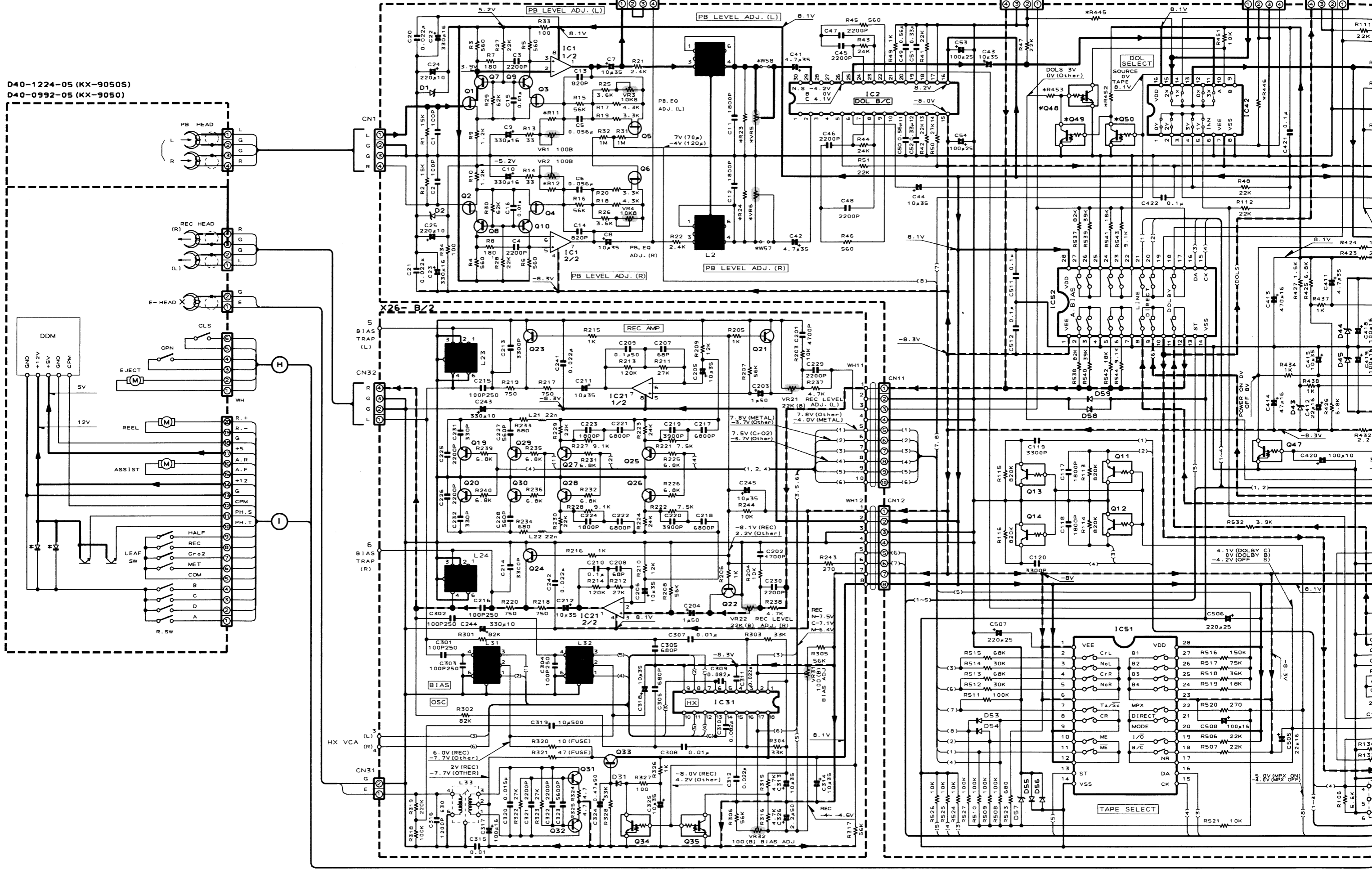
CD DIRECT REC PLAY L
IN IN OUT R

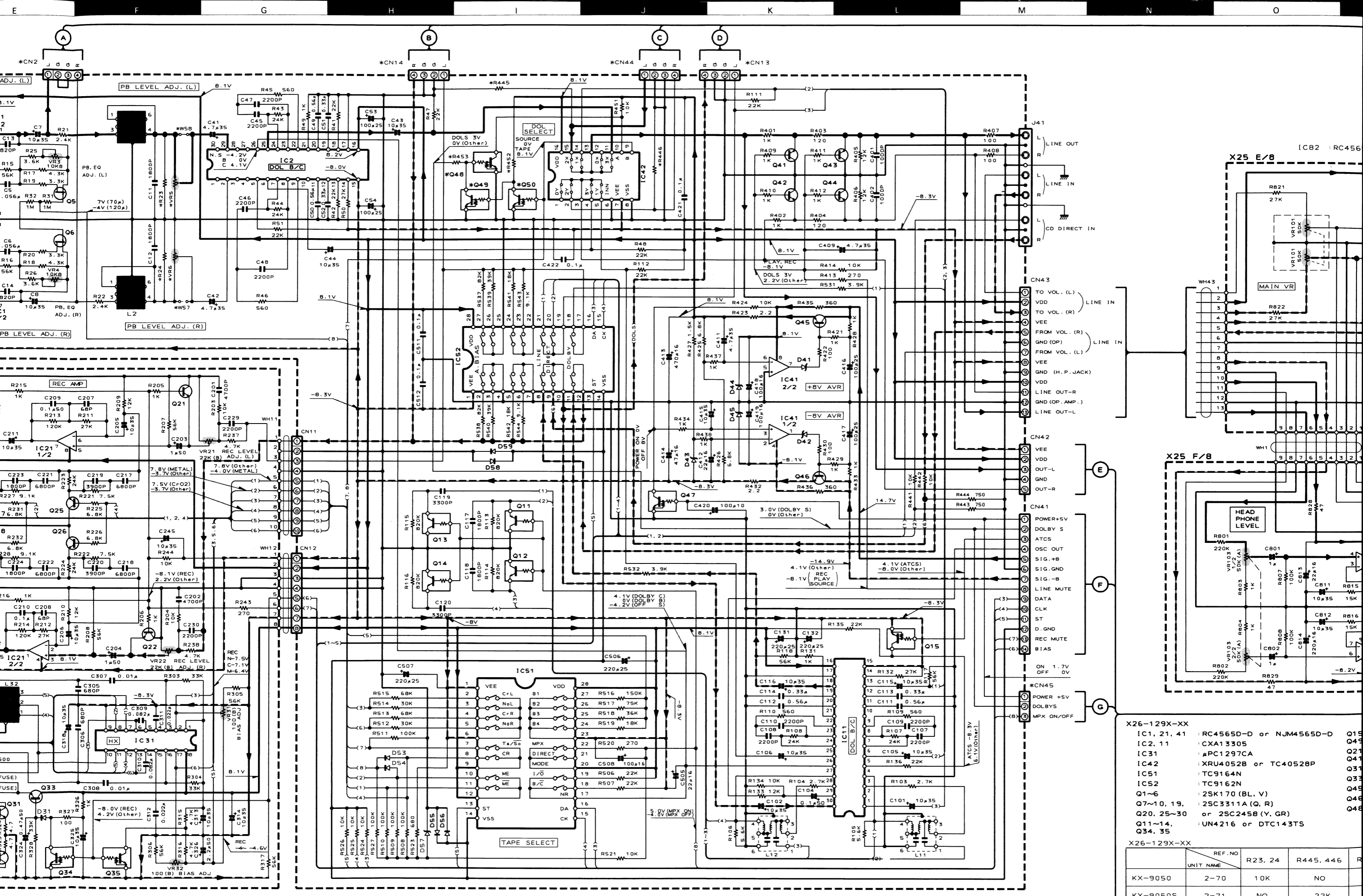


Refer to the schematic diagram for the values of resistors and capacitors.

D40-1224-05 (KX-9050S)
D40-0992-05 (KX-9050)

X26-1292-71 A/2 (KX-9050S)
X26-1292-70 A/2 (KX-9050)

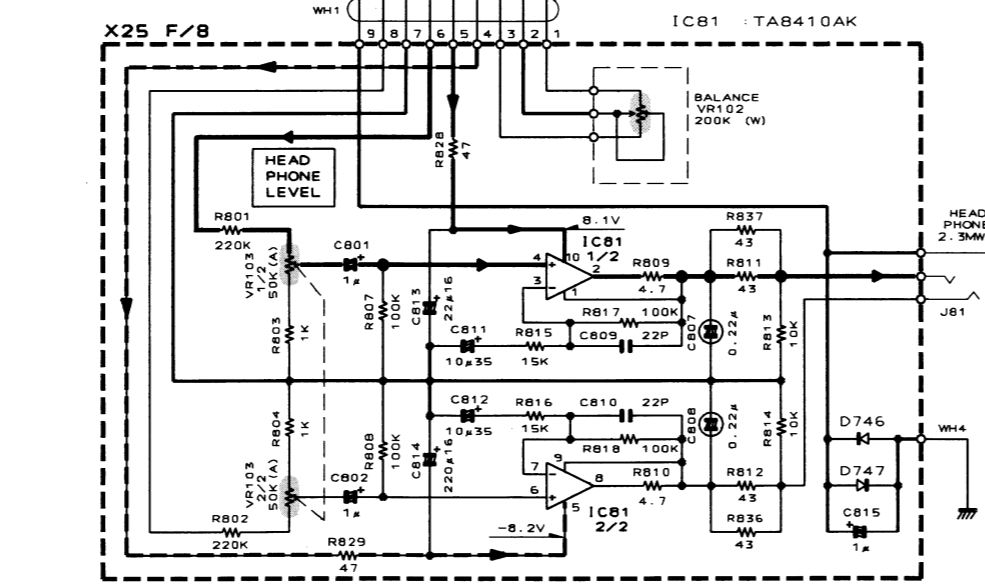
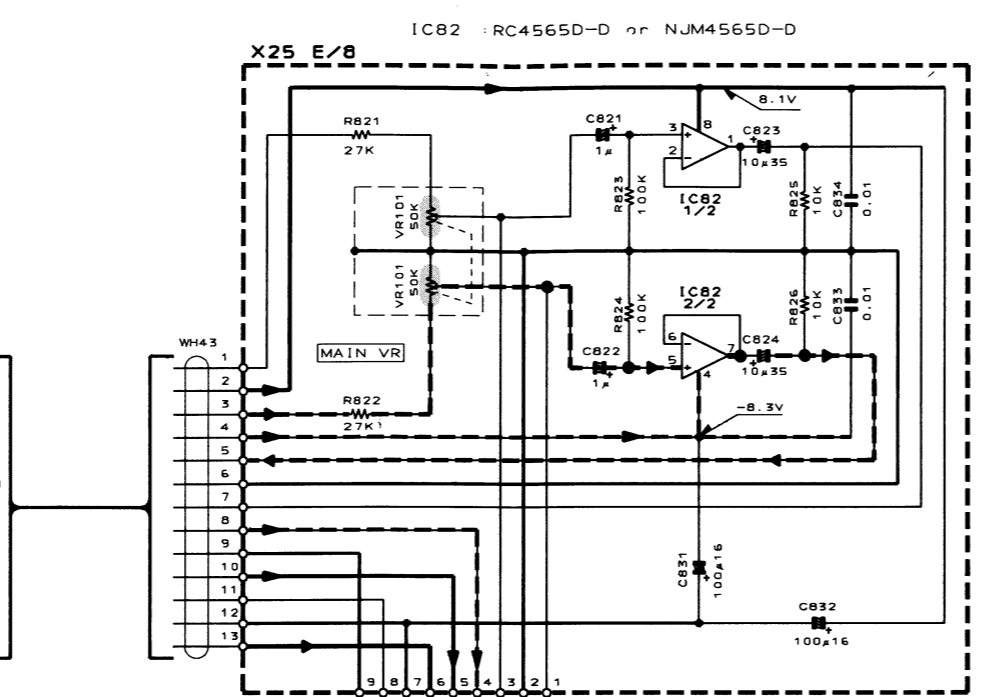
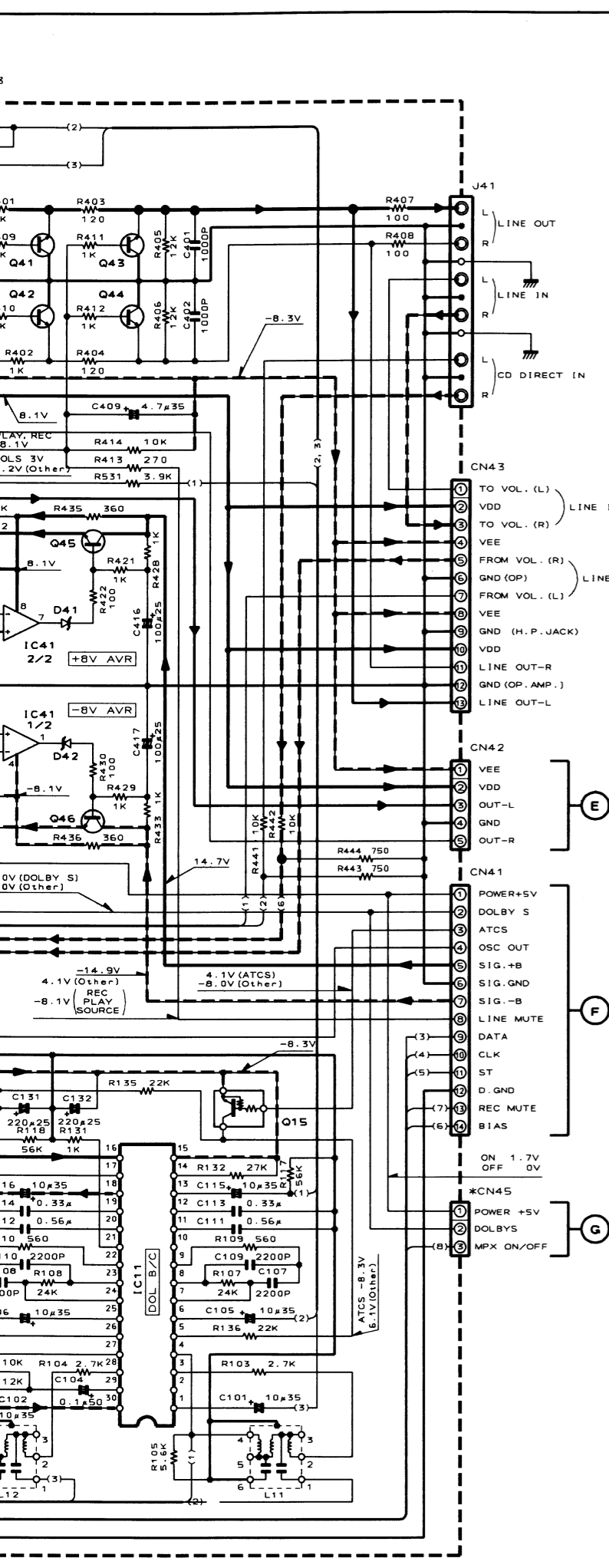




- X26-129X-XX**
- IC1, 21, 41 : RC4565D-D or NJM4565D-D
 - IC2, 11 : CXA13305
 - IC31 : PC1297CA
 - IC42 : XRU4052B or TC4052BP
 - IC51 : TC9164N
 - IC52 : TC9162N
 - Q1-6 : 2SK170 (BL. V)
 - Q7-10, 19 : 2SC3311A (Q. R)
 - Q20, 25-30 : 2SC2458 (Y. GR)
 - Q11-14 : UN4216 or DTC143TS
 - Q34, 35

X26-129X-XX

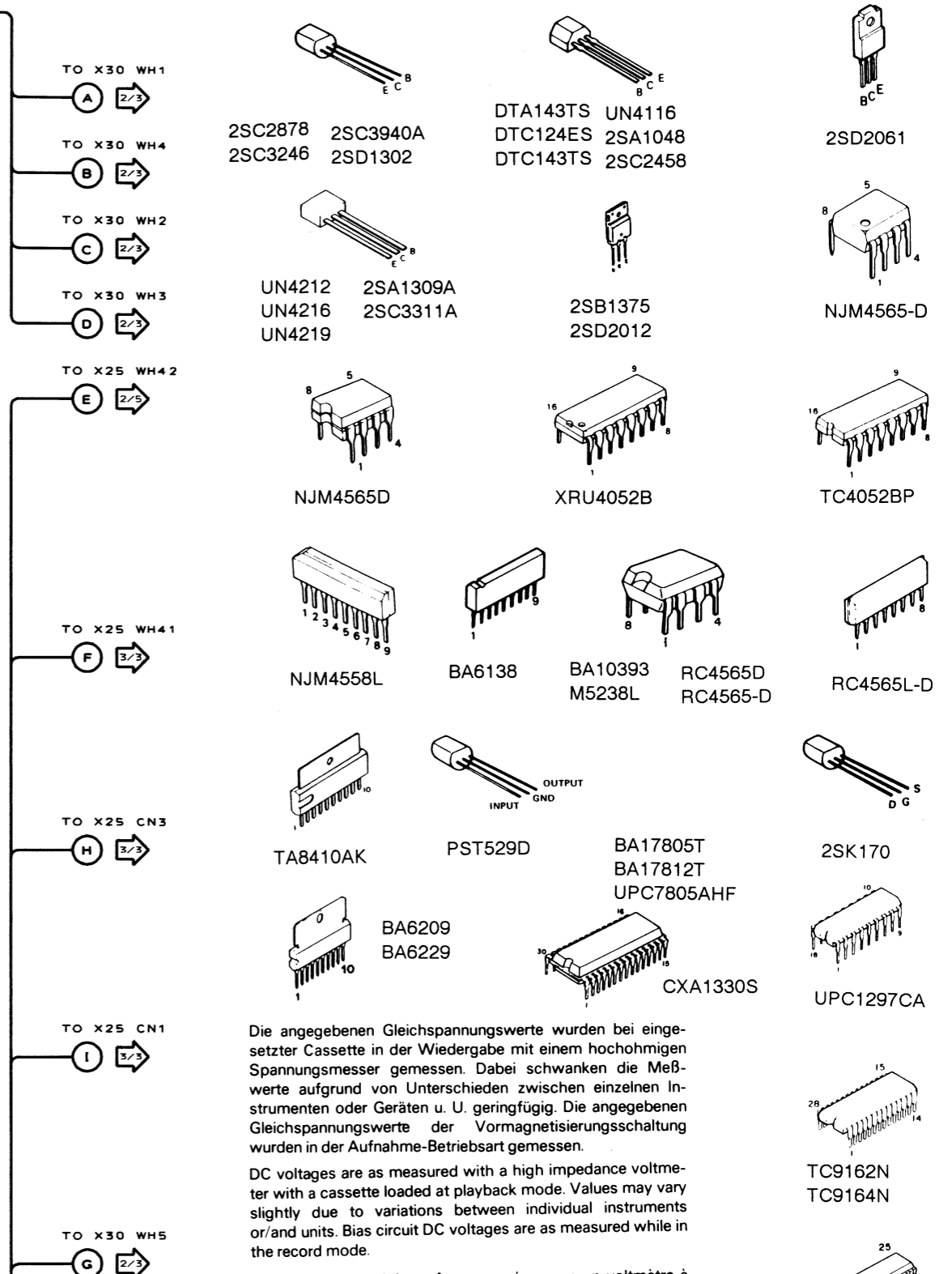
UNIT NAME	REF. NO	R23, 24	R445, 446
KX-9050	2-70	10K	NO
KX-9050S	2-71	NO	22K



- X26-129X-XX**
- | | | | |
|-------------|---------------------------|----------|----------------------|
| IC1, 21, 41 | : RC4565D-D or NJM4565D-D | Q15, 47, | : UN4212 or DTC124ES |
| IC2, 11 | : CXA1330S | Q49, 50 | |
| IC31 | : PC1297CA | Q21~24, | : 2SD1302 (S, T) |
| IC42 | : XRUA052B or TC4052BP | Q41~44, | |
| IC51 | : TC9164N | Q31, 32 | : 2SC3940A (R, S) |
| IC52 | : 2SC9162N | Q33 | : 2SC3246 |
| Q1~6 | : 2SK170 (BL, V) | Q45 | : 2SD2012 or 2SD2061 |
| Q7~10, 19, | : 2SC3311A (Q, R) | Q46 | : 2SB1375 or 2SB1370 |
| Q20, 25~30 | : 2SC245B (Y, GR) | Q48 | : UN4219 or DTC113ZS |
| Q11~14, | : UN4216 or DTC143TS | | |
| Q34, 35 | | | |

X26-129X-XX

UNIT NAME	REF. NO	R23, 24	R445, 446	R452	R453	Q48~50	VR5, 6	W57, 58	CN2, 13, 14 44, 45	R11, 12
KX-9050	2-70	10K	NO	NO	NO	NO	NO	YES	NO	NO
KX-9050S	2-71	NO	22K	10K	1K	YES	22KB	NO	YES	47



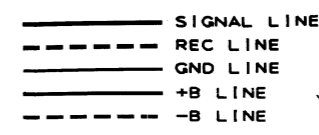
Die angegebenen Gleichspannungswerte wurden bei eingesetzter Cassette in der Wiedergabe mit einem hochohmigen Spannungsmesser gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig. Die angegebenen Gleichspannungswerte der Vormagnetsierungsschaltung wurden in der Aufnahme-Betriebsart gemessen.

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.

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance, une cassette étant insérée en mode de lecture. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

Les tensions c.c. du circuit de polarité doivent être mesurées, l'appareil étant en mode d'enregistrement.

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ 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.



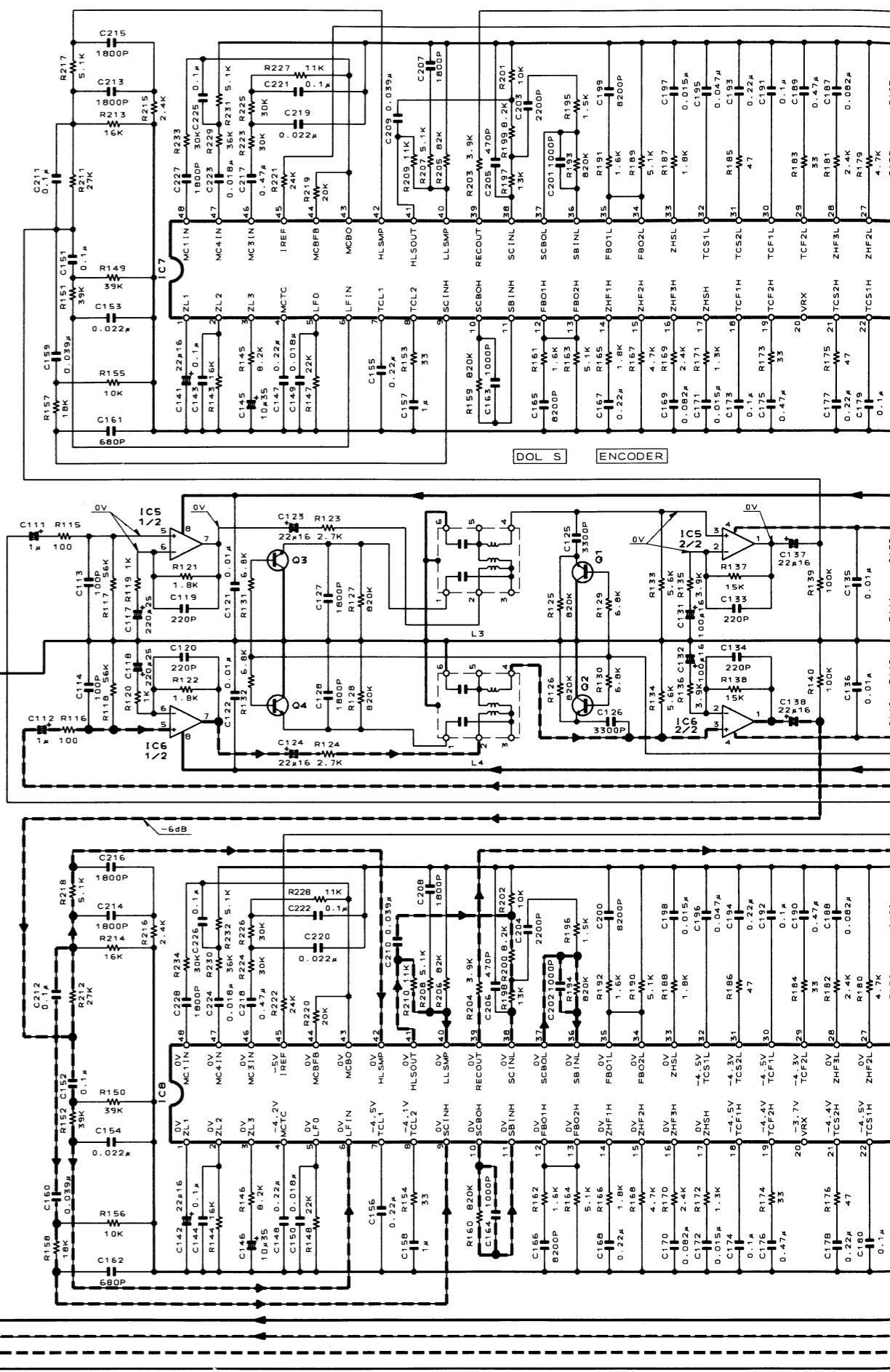
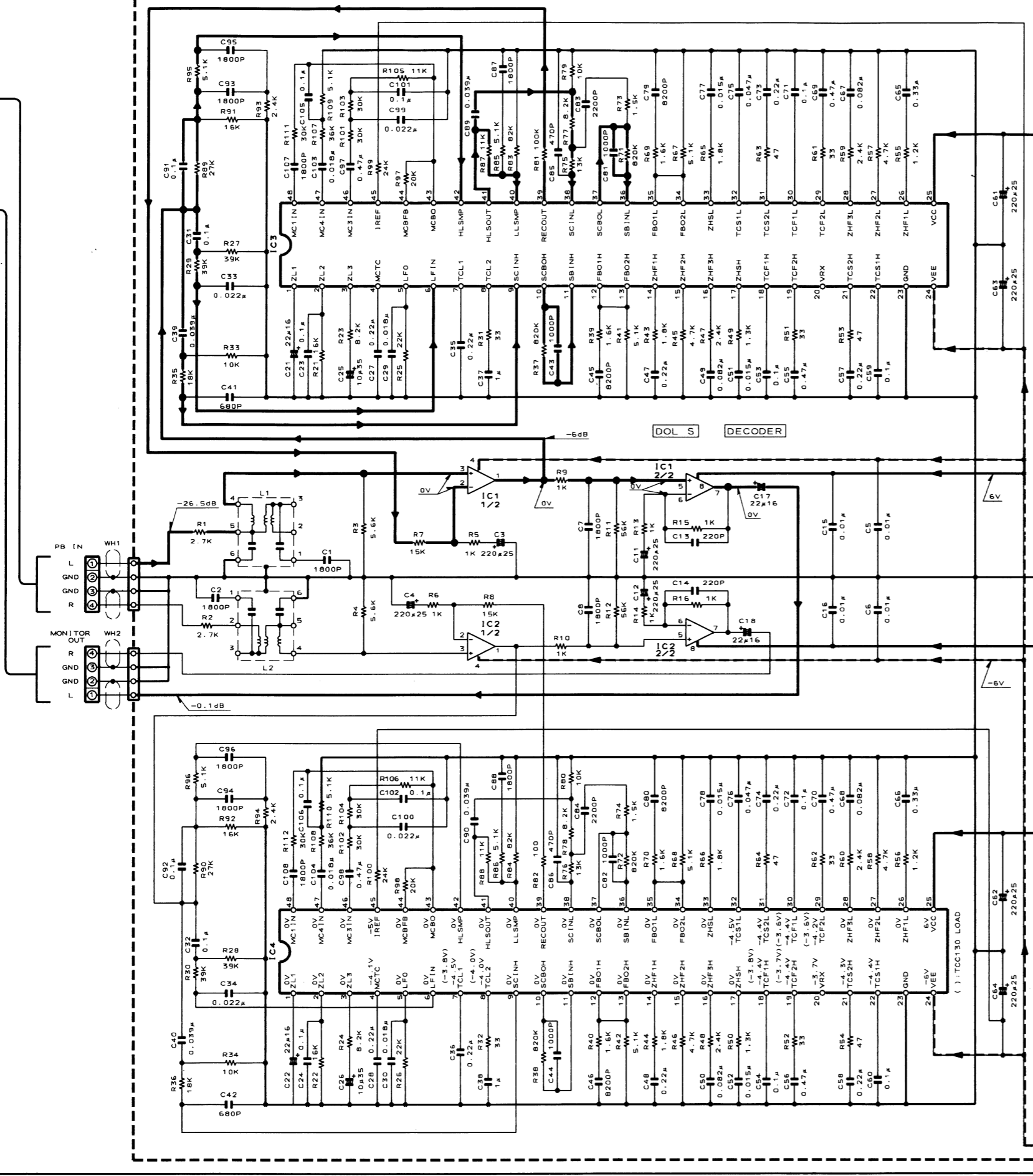
KX-9050/S
KENWOOD

Y26-3401-01

X30-1292-70 (KX-9050S)

TO X26 CN2
TO X26 CN14
TO X26 CN44
TO X26 CN13

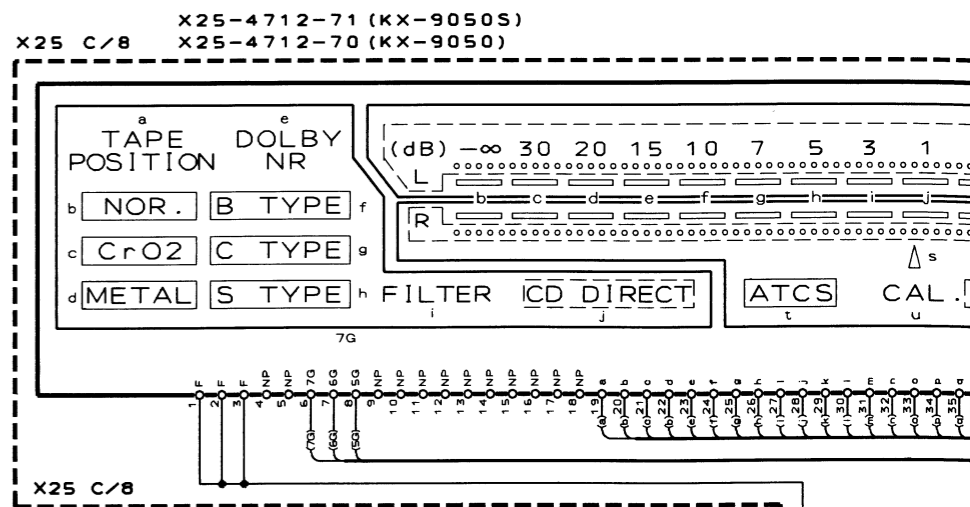
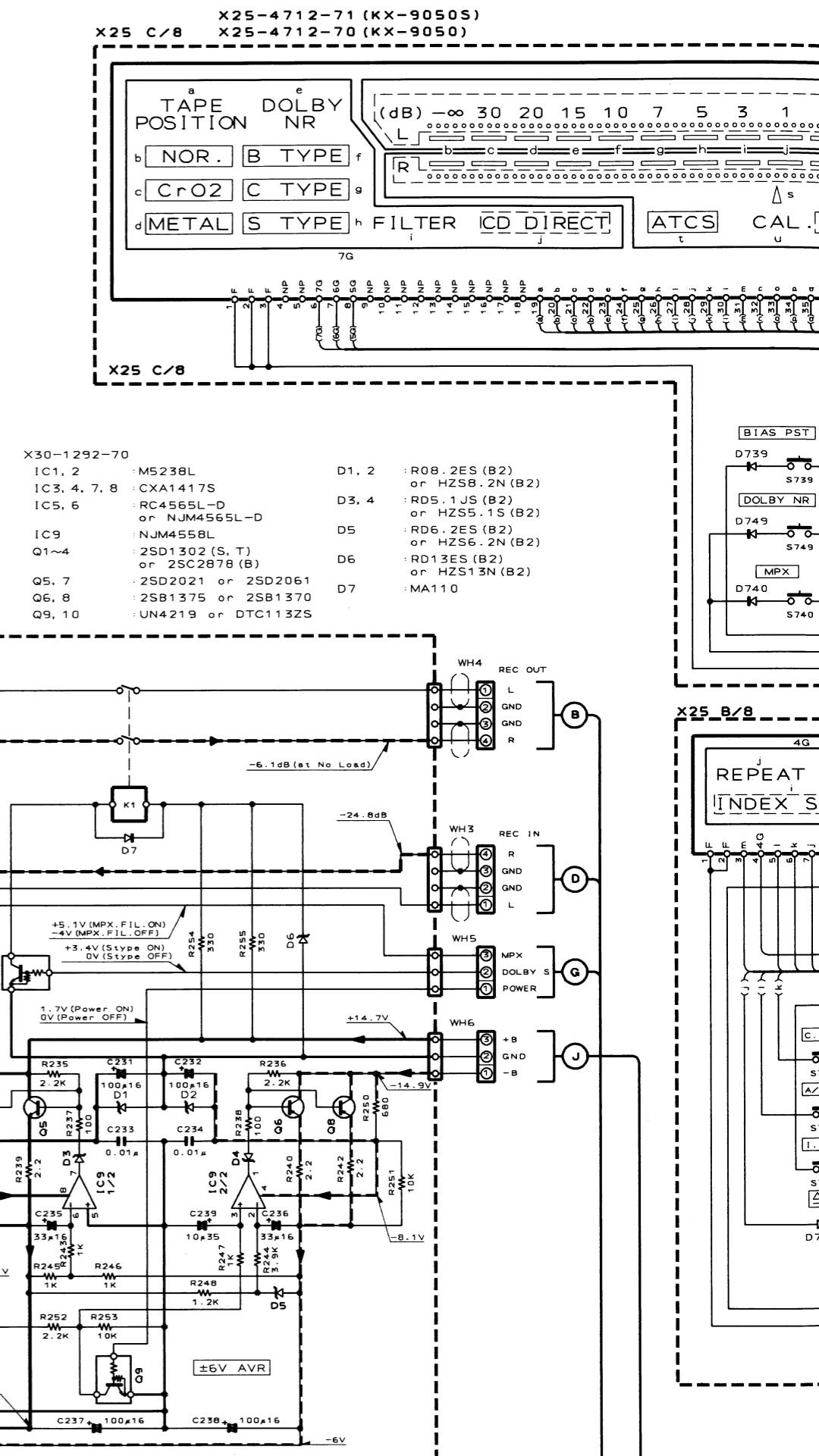
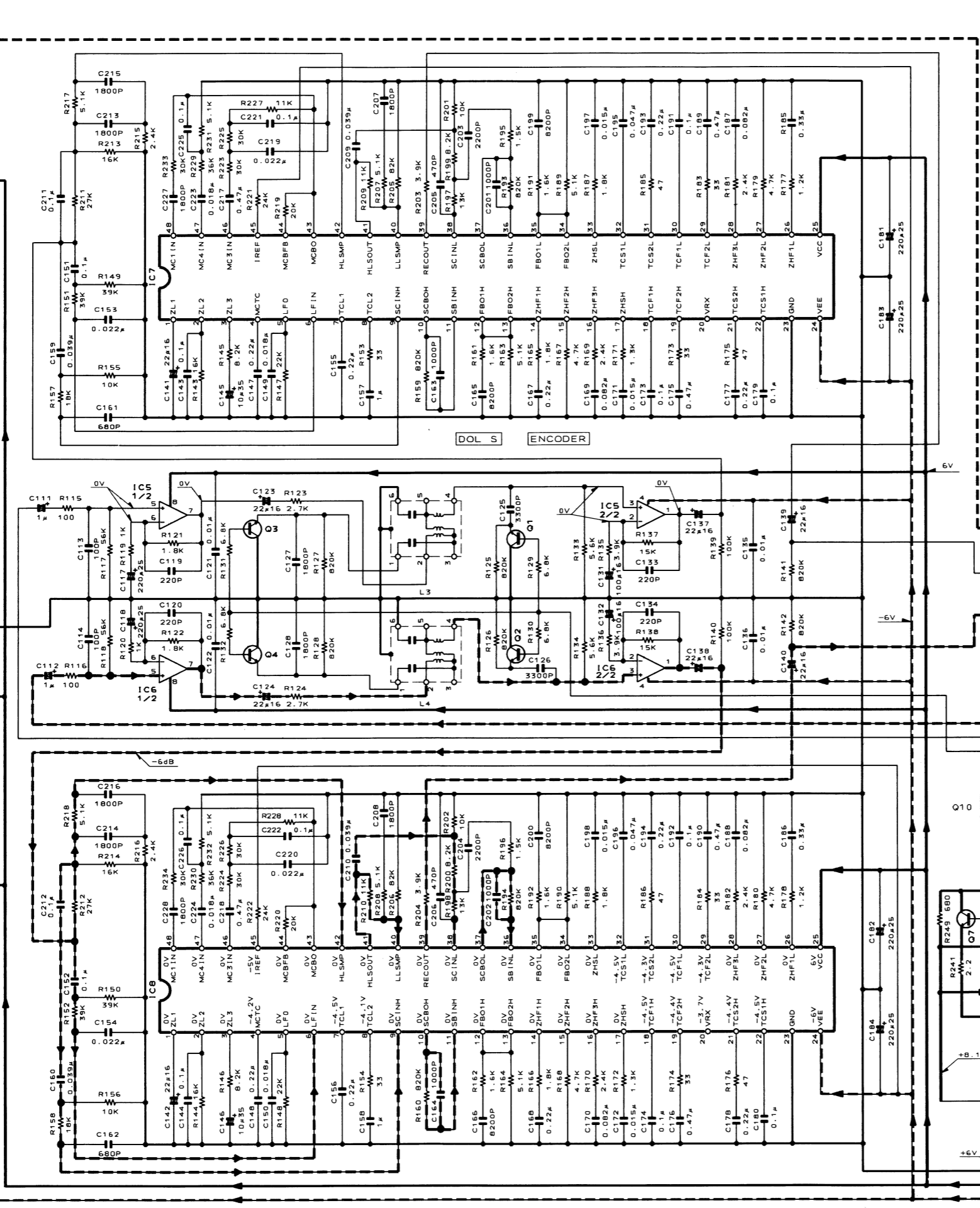
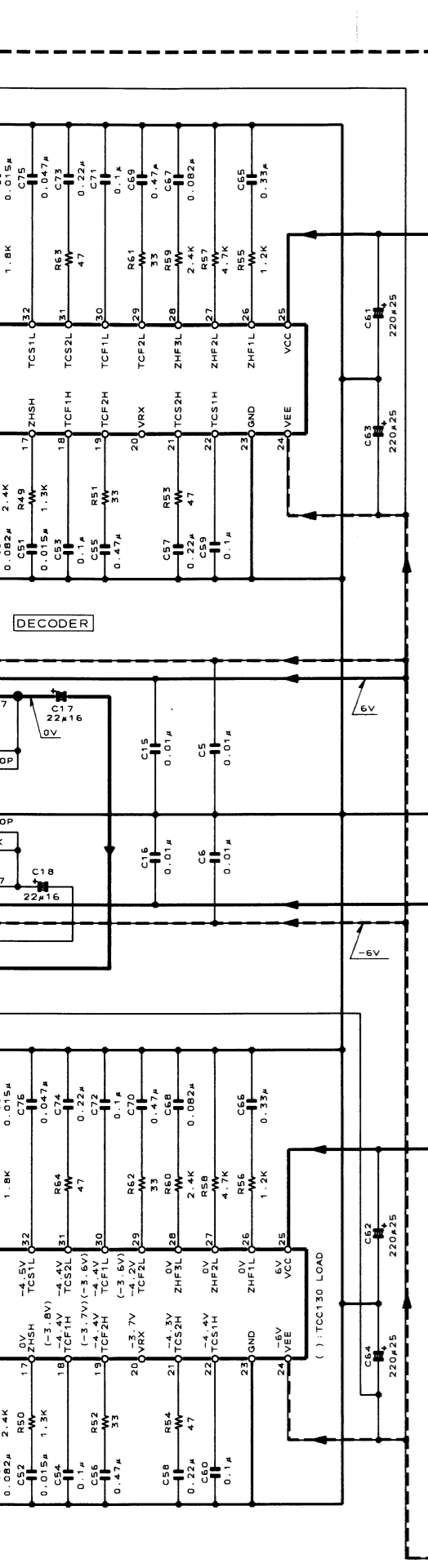
TO X16 CN4



DOL S DECODER

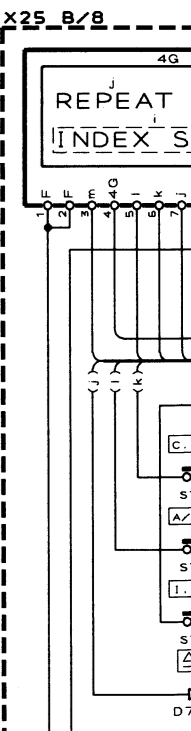
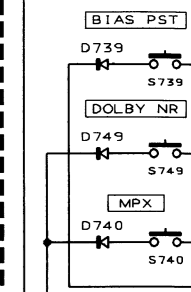
DOL S ENCODER

() : TCCT130 LOAD

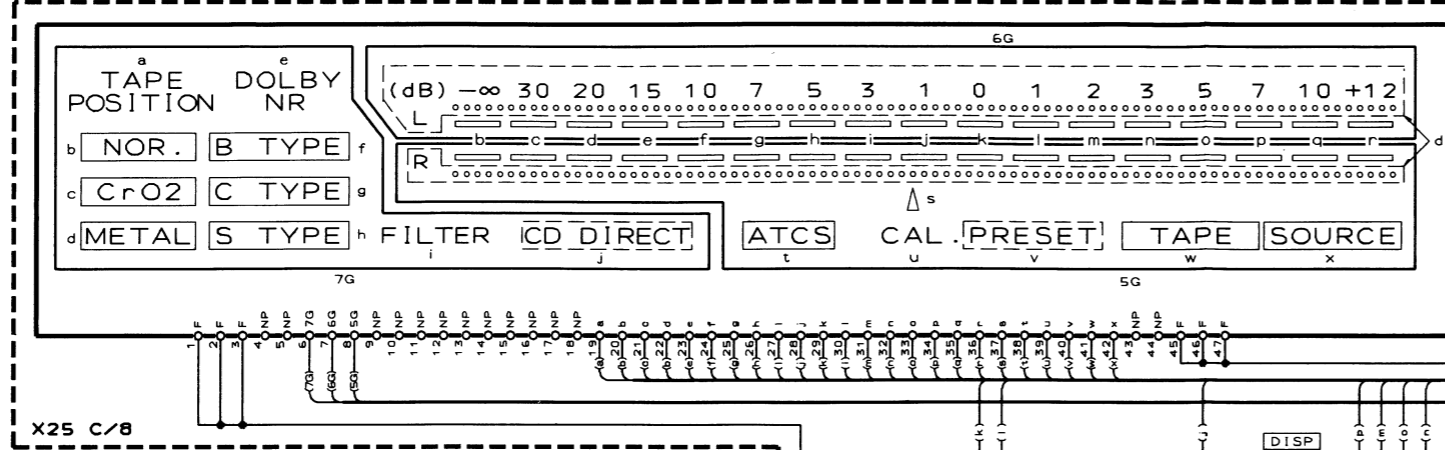


- X30-1292-70
- IC1, 2 M5238L
 - IC3, 4, 7, 8 CXA14175
 - IC5, 6 RC4565L-D or NJM4565L-D
 - IC9 NJM4558L
 - Q1-4 2SD1302 (S, T) or 2SC2878 (B)
 - Q5, 7 2SD2021 or 2SD2061
 - Q6, 8 2SB1375 or 2SB1370
 - Q9, 10 UN4219 or DTC113Z5

- D1, 2 R08, 2ES (B2) or HZ58, 2N (B2)
- D3, 4 RD5, 1JS (B2) or HZ55, 1S (B2)
- D5 RD6, 2ES (B2) or HZ56, 2N (B2)
- D6 RD13ES (B2) or HZ513N (B2)
- D7 MA110

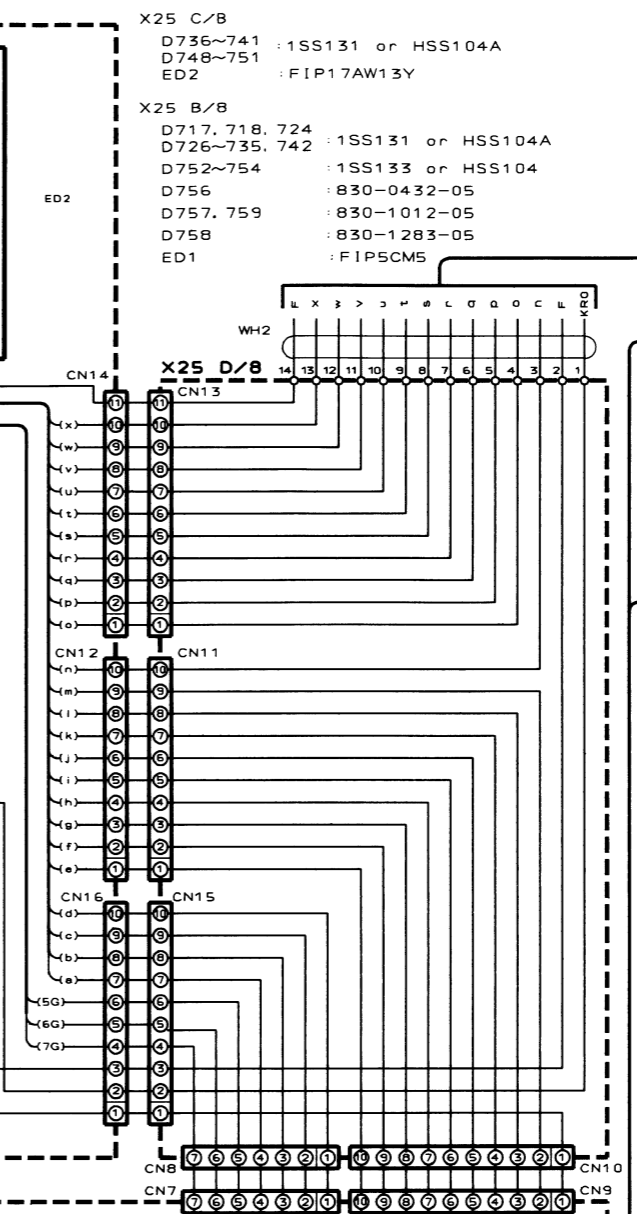
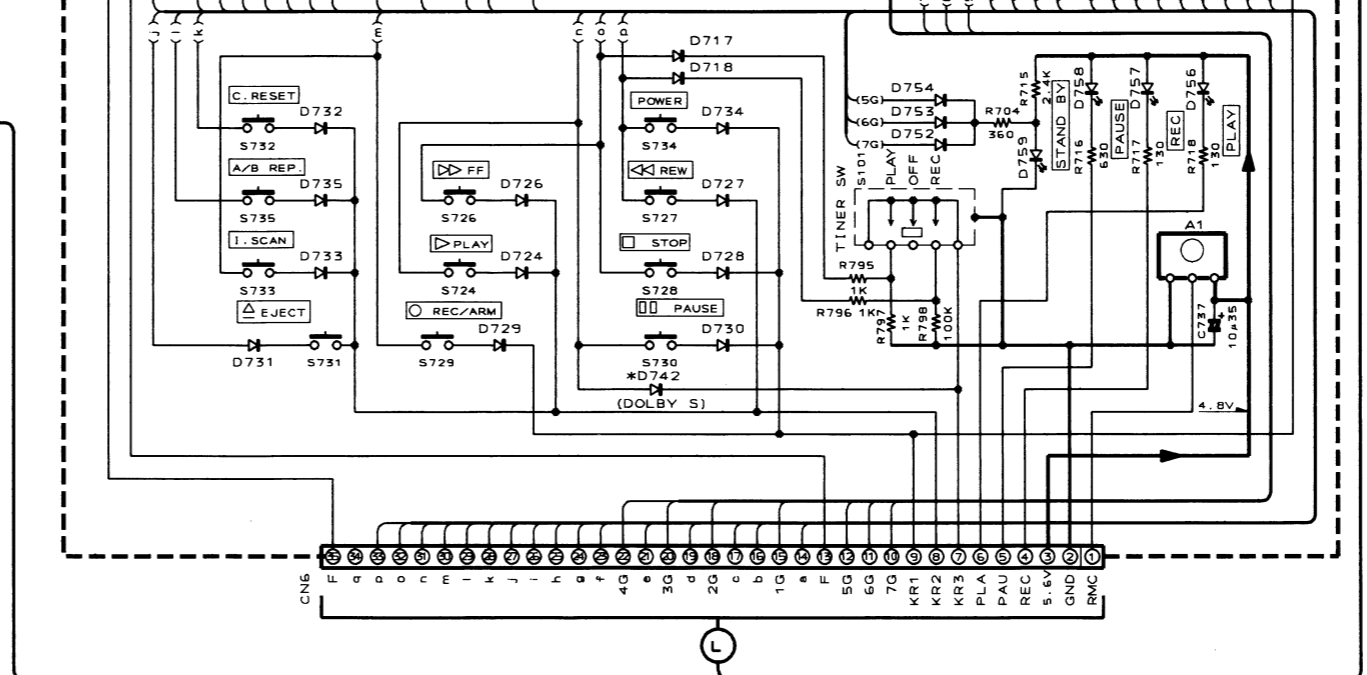
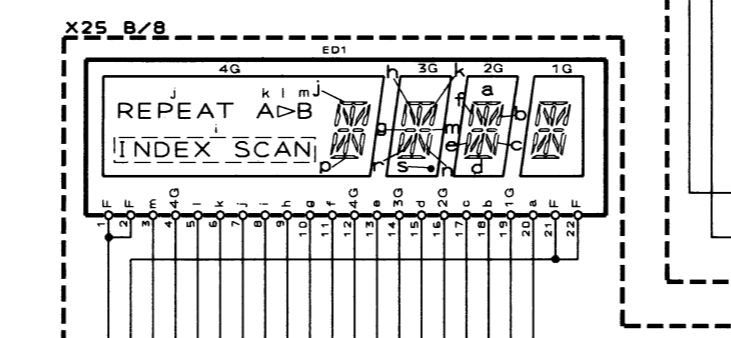
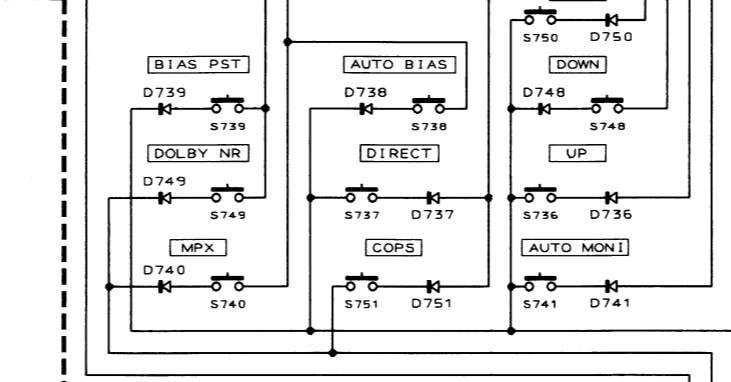
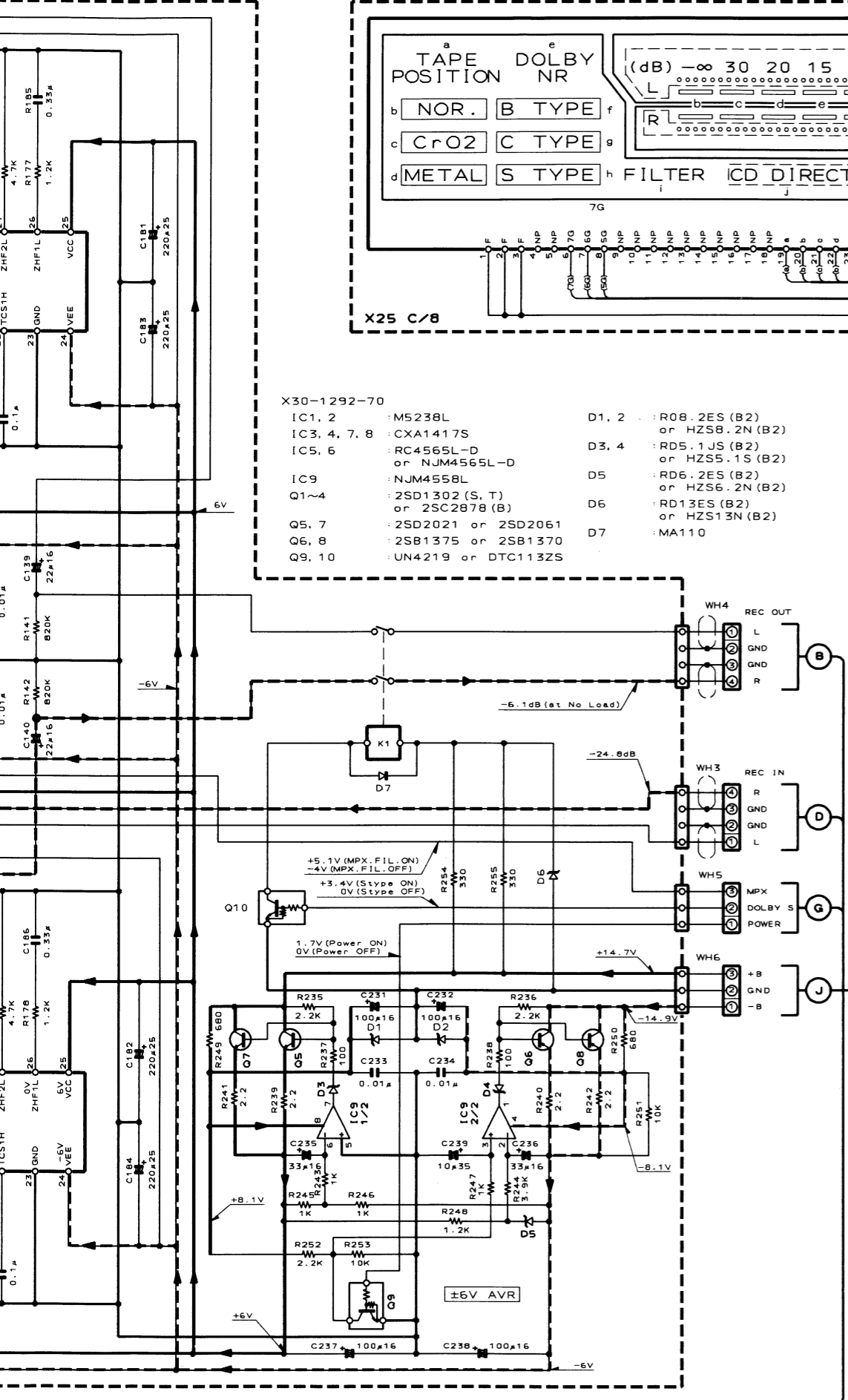
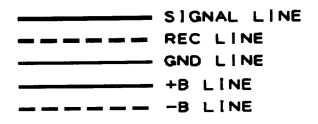


X25-4712-71 (KX-9050S)
X25-4712-70 (KX-9050)



- | | | |
|-------------|-------------------------|----------------------|
| X30-1292-70 | IC1, 2 : M5238L | D1, 2 : R08.2ES (B2) |
| | IC3, 4, 7, 8 : CXA1417S | or HZ58.2N (B2) |
| | IC5, 6 : RC4565L-D | D3, 4 : RDS.1JS (B2) |
| | or NJM4565L-D | or HZ55.1S (B2) |
| | IC9 : NJM4558L | D5 : R06.2ES (B2) |
| Q1~4 : | 2SD1302 (S, T) | D6 : RD13ES (B2) |
| | or 2SC2878 (B) | or HZ56.2N (B2) |
| Q5, 7 : | 2SD2021 or 2SD2061 | D7 : MA110 |
| Q6, 8 : | 2SB1375 or 2SB1370 | |
| Q9, 10 : | 2UN4219 or DTC113ZS | |

- | | |
|---------|------------------------------------|
| X25 C/B | D736~741 : 1SS131 or HSS104A |
| | D748~751 : FIP17AW13Y |
| X25 B/B | D717, 718, 724 : 1SS131 or HSS104A |
| | D726~735, 742 : 1SS133 or HSS104 |
| | D752~754 : 830-0432-05 |
| | D756 : 830-1012-05 |
| | D757, 759 : 830-1283-05 |
| | D758 : FIP5CM5 |



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.

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance, une cassette étant insérée en mode de lecture. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

Les tensions c.c. du circuit de polarité doivent être mesurées, l'appareil étant en mode d'enregistrement.

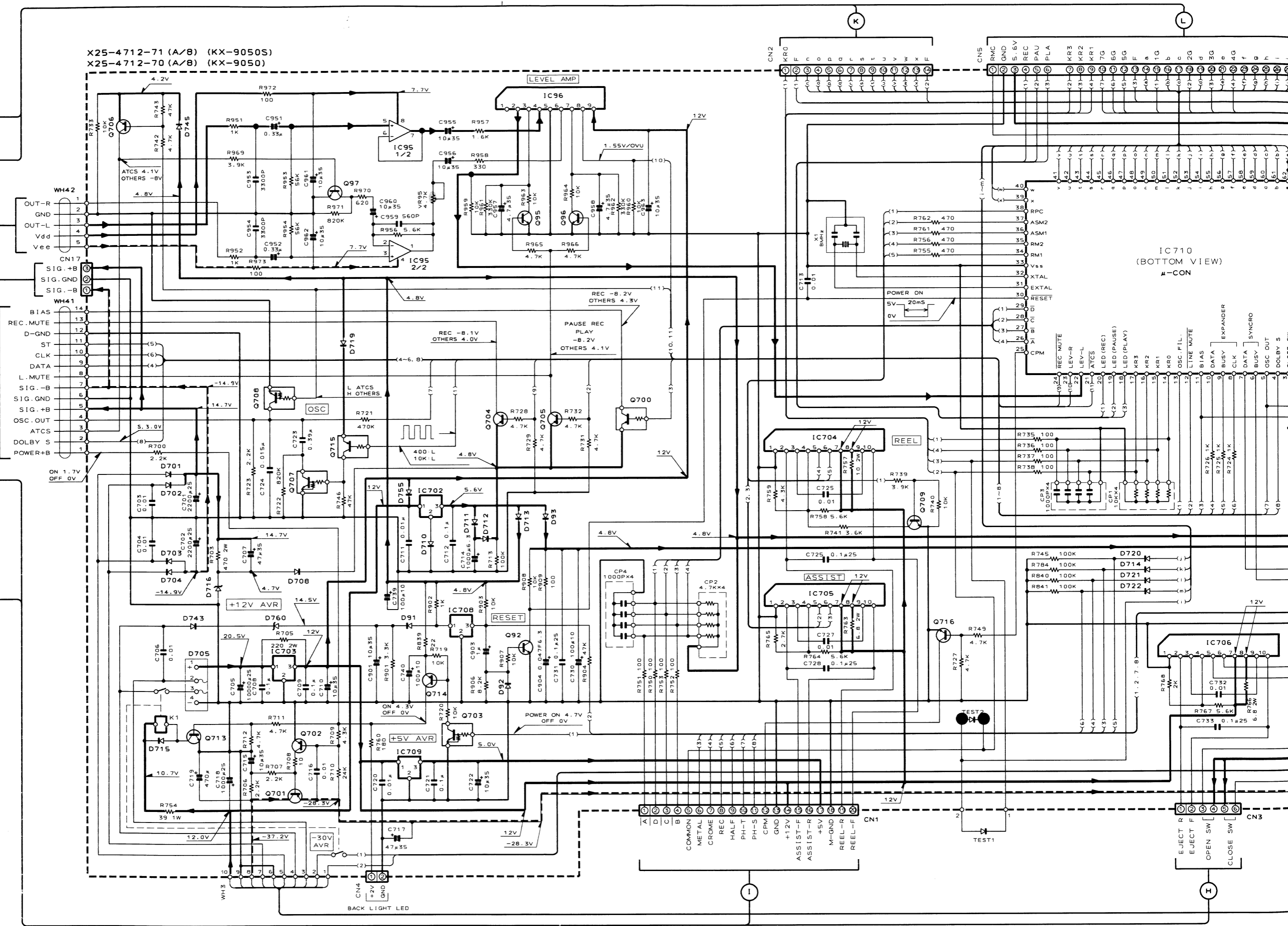
Die angegebenen Gleichspannungswerte wurden bei eingesetzter Cassette in der Wiedergabe mit einem hochohmigen Spannungsmesser gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig. Die angegebenen Gleichspannungswerte der Vormagnetisierungsschaltung wurden in der Aufnahme-Betriebsart gemessen.

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.

KX-9050/S
KENWOOD

X25-4712-71 (A/B) (KX-9050S)
X25-4712-70 (A/B) (KX-9050)

- TO X25 WH2 (K)
- TO X25 CN6 (L)
- TO X26 CN42 (E)
- TO X30 WH6 (J)
- TO X26 CN41 (F)
- TO X25 WH2 (H)
- TO X25 CN6 (J)



IC710 (BOTTOM VIEW) 4-CON

2

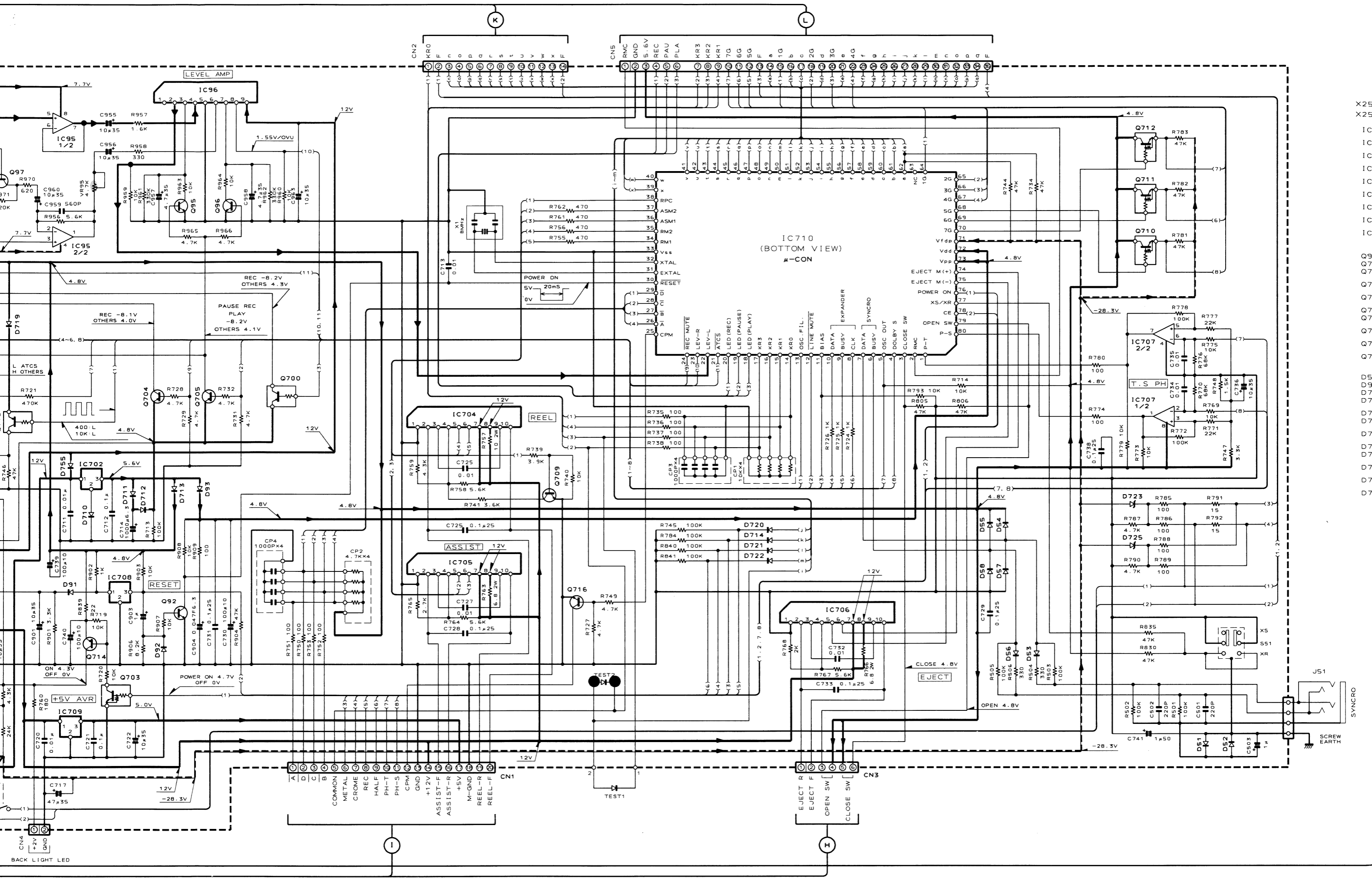
3

4

5

6

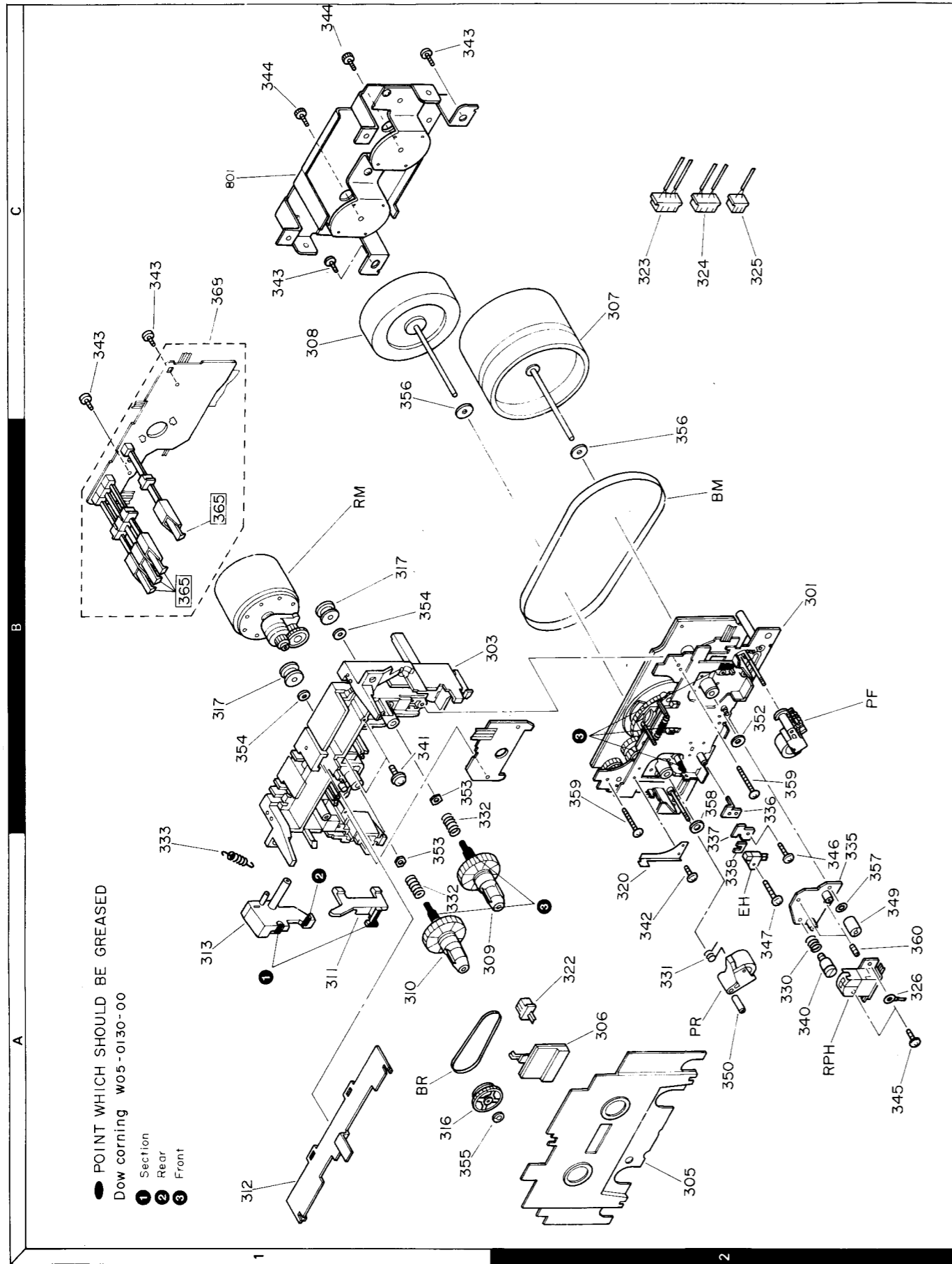
7



X25
X25
IC9
IC9
IC7
IC7
IC7
IC7
IC7
Q92
Q70
Q71
Q70
Q71
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D51
D92
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D71
D70
D70
D71
D72
D71
D72
D71
D72

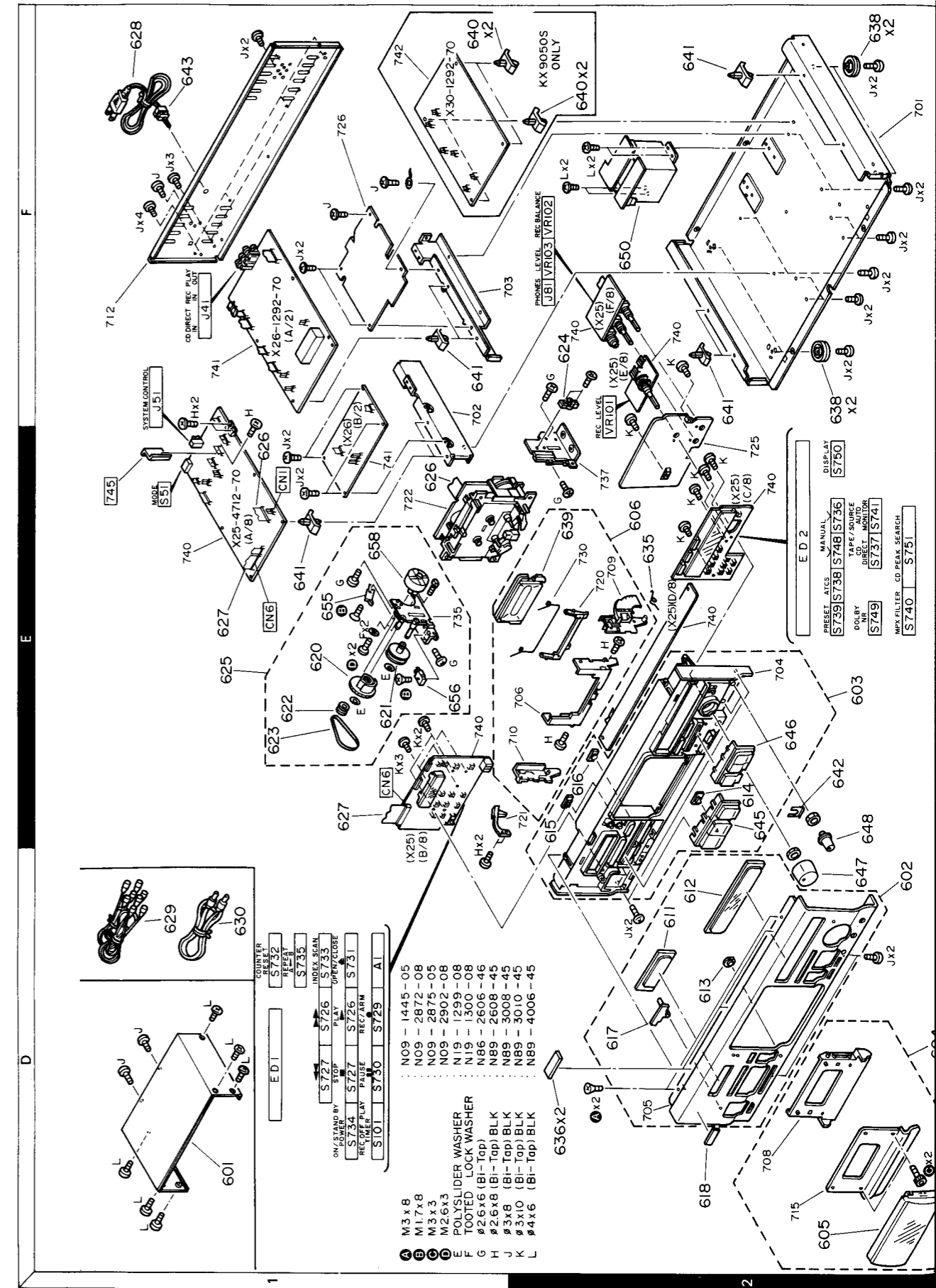
J51
SCREW EARTH
SYNCRO

EXPLODED VIEW (MECHANISM UNIT)



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

EXPLODED VIEW (UNIT)



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

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

No.1

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Re- marks 備考
601	1D	A01-2903-01	METALLIC CABINET	N
602	2D	A60-0072-02	PANEL ASSY	S
603	2E	A22-1533-02	SUB PANEL ASSY	N
604	2D	A53-1318-03	CASSETTE LID ASSY	S
605	2D	A53-1350-03	CASSETTE LID ASSY	
606	2E	A53-1321-12	CASSETTE HOLDER ASSY	
611	2D	B10-1898-04	FRONT GLASS	
612	2D	B10-1899-04	FRONT GLASS	
613	2D	B11-0237-14	COLOR FILTER	
614	2E	B12-0095-04	INDICATOR	
615	2E	B12-0096-14	INDICATOR	
616	2D	B12-0159-04	INDICATOR	
617	2D	B13-0285-04	INDICATOR	
618	2D	B43-0121-13	WARRANTY CARD	
619	2D	B46-0122-23	WARRANTY CARD	
620	1E	B46-0143-13	WARRANTY CARD	
621	1E	B60-0688-00	INSTRUCTION MANUAL (ENGLISH)	
622	1E	B60-0689-00	INSTRUCTION MANUAL (FRENCH)	
623	1E	B60-0690-00	INSTRUCTION MANUAL (FRENCH)	
624	1E	B60-0691-00	INSTRUCTION MANUAL (GE,DU,IT)	
625	1E	D12-0142-08	CAM	
626	1E	D15-0332-08	BULLEY	
627	1E	D15-0333-08	DRIVER BELT	
628	2E	D39-0200-05	DAMPER	
629	1D	D40-0996-05	OBJECT MECHANISM ASSY	
630	1D	E35-0377-05	FLAT CABLE X25(CN6)	
631	1E	E35-0378-05	FLAT CABLE MECHA-X25(CN1)	
632	1F	E30-0459-05	AC POWER CORD	
633	1F	E30-0974-05	AC POWER CORD	
634	1F	E30-1416-05	AC POWER CORD	
635	1D	E30-0505-05	AUDIO CORD	
636	2E	G01-3466-04	CORD WITH PLUG	
637	2D	G13-0439-04	TORSTON COIL SPRING	
638	2E	H50-0198-04	CUSHION	
639	2E	H50-0322-04	ITEM CARTON CASE	
640	1F,2F	H10-5233-02	POLYSTYRENE FRAMED FIXTURE (F)	
641	1F,2F	H10-5233-02	POLYSTYRENE FRAMED FIXTURE (R)	
		H25-0002-03	PROTECTION BAG (100X250)	
		H25-0232-04	PROTECTION BAG (235X350X0.03)	
		H25-0368-04	PROTECTION BAG (235X350X0.03)	
		H25-0651-04	PROTECTION BAG (0232 PRINTED)	
		102-1072-05	FOOT	
		111-0177-03	CLAMPER	
		119-3504-15	UNIT HOLDER	
		119-3505-15	UNIT HOLDER	

L:Scandinavia K:USA P:Canada
Y:FX(Far East, Hawaii) T:England E:Europe
Y:AFES(Europe) X:Australia M:Other Areas

N:KX-9050
S:KX-9050S
△ indicates safety critical components.

No.2

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Re- marks 備考
642	2E	J21-3326-05	JACK MOUNTING HARDWARE	
643	1F	J42-0078-05	POWER CORD BUSHING	
		J61-0035-05	WIRE BAND	
		J61-0307-05	WIRE BAND	
645		K29-4327-03	KNOB TAPE CONTROL	
646	2D	K29-4328-03	KNOB BODY, CD DIRECT, AUTO MONI	
647	2E	K29-4329-04	KNOB TAPE LEVEL	
648	2E	K29-4332-04	KNOB PHONES LEVEL	
650	2F	L07-0440-05	POWER TRANSFORMER	P
651	2F	L07-0441-05	POWER TRANSFORMER	TE
B		N09-2872-08	TAPPING SCREW M1.7X8	
D		N09-2902-08	PAN SCREW M2.6X3	
E		N19-1299-08	POLYSLIDER WASHER /2.5X6.0X0.5	5
F		N19-1300-08	TWOOTED LOCK WASHER /2.6	
655	1E	S74-0011-08	SWITCH	
656	1E	S74-0012-08	SWITCH	
658	1E	T42-0614-08	MOTOR	
DISPLAY UNIT (X25-4712-70 : 9050,2-71 : 9050S)				
6756		B30-0433-05	LED(LN31GCPH(U))	
6757		B30-1012-05	LED(SLP-981C-51)	
6758		B30-1283-05	LED(SEL2910A)	
6759		B30-1012-05	LED(SLP-981C-51)	
6501,502		CC45FSL1H221J	CERAMIC	J
6503		CE04KW1H010M	ELECTRO	50WV
6701,702		CE04KW1E222M	ELECTRO	250V
6703,704		CK45FF1H103Z	CERAMIC	0.010UF Z
6705		C90-1872-05	ELECTRO	10000UF 25WV
6706		CK45FF1H103Z	CERAMIC	0.010UF Z
6707		CE04KW1V470M	ELECTRO	47UF 35WV
6708,709		CE04KW1V100M	ELECTRO	100UF 35WV
6710		CF92FV1H104J	MF	0.10UF J
6711		CF92FV1H104J	MF	0.10UF J
6712		CF92FV1H104J	MF	0.10UF J
6713		CK45FF1H103Z	CERAMIC	0.010UF Z
6714		CE04KW1J02M	ELECTRO	6.3WV
6715		CE04KW1V100M	ELECTRO	100UF 35WV
6716		CK45FF1H103Z	CERAMIC	0.010UF Z
6717		CE04KW1V470M	ELECTRO	47UF 35WV
6718		CE04KW1E102M	ELECTRO	1000UF 25WV
6719		CF92FV1H104J	MF	0.10UF J
6720		CF92FV1H104J	MF	0.10UF J
6721		CF92FV1H104J	MF	0.10UF J
6722		CE04KW1V100M	ELECTRO	10UF 35WV
6723		CF92FV1H394J	MF	0.39UF J
6724		CF92FV1H153J	MF	0.015UF J
6725		CK45FF1H103Z	CERAMIC	0.010UF Z
6726		C91-0700-05	CERAMIC	0.1UF J
6727		CK45FF1H103Z	CERAMIC	0.010UF Z
6728,729		CE04KW1V470M	ELECTRO	0.1UF J
6730		CE04KW1E102M	ELECTRO	1000UF 25WV
6731		CF92FV1H104J	MF	0.10UF J
6732		CF92FV1H104J	MF	0.10UF Z

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N:KX-9050
S:KX-9050S
△ indicates safety critical components.

* New Parts
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Teile ohne Parts No. werden nicht geliefert.

No.3

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Re- marks 備考
C733		C91-0700-05	CERAMIC	J
C734,735		CK45FF1H103Z	ELECTRO	35WV
C736,737		CE04KW1V100M	ELECTRO	50WV
C738		C91-0700-05	CERAMIC	J
C739,740		CE04KW1A101M	ELECTRO	10WV
C741		CE04KW1H010M	ELECTRO	50WV
C742		C91-1439-05	FILM	250VAC
C801,802		CE04KW1H010M	ELECTRO	50WV
C807,808		NP-ELEC	222F	J
C809,810		CC45FSL1H220J	CERAMIC	
C811,812		CE04KW1V100M	ELECTRO	35WV
C813		CE04KW1C221M	ELECTRO	22UF 16WV
C814		CE04KW1C221M	ELECTRO	22UF 16WV
C815		CE04KW1H010M	ELECTRO	50WV
C821,822		CE04KW1H010M	ELECTRO	50WV
C823,824		CE04KW1V100M	ELECTRO	35WV
C831,832		CK45FF1H103Z	CERAMIC	0.010UF Z
C833,834		CE04KW1V100M	ELECTRO	35WV
C901		CE04KW1H010M	ELECTRO	50WV
C903		CE04KW1H010M	ELECTRO	50WV
C904		C90-1826-05	BACKUP	0.047F 5.5WV
C951,952		CE04KW1H35M	ELECTRO	35UF 3WV
C953,954		CE04KW1V100M	ELECTRO	10UF 35WV
C957,958		CE04KW1V47M	ELECTRO	47UF 35WV
C959		CK45FB1H561K	CERAMIC	560PF K
C960-963		CE04KW1V100M	ELECTRO	10UF 35WV
CN1	1E	E40-4160-05	FLAT CABLE CONNECTOR	
CN6	1E	E40-4215-05	FLAT CABLE CONNECTOR	
J51		E11-0188-05	MINIATURE PHONE JACK SYNCRO	
J81		E11-0190-05	PHONE JACK HEAD PHONES	
X1		J11-0098-05	WIRE CLAMPER	
C1		L78-0290-05	RESONATOR	8MHz
C2		R90-0809-05	MULTI-COMP	10KX4 J 1/6W
C3		R90-0824-05	MULTI-COMP	4.7KX6
C33,4		R90-0478-05	MULTI-COMP	1000PX4
R703,4		RS1AKB3D471J	FL-PROOF RS	490 J 2W
R705		RS1AKB3D221J	FL-PROOF RS	220 J 2W
R706		R01ANB2E222J	RD	2.2K J 1/4W
R754		RS1AKB3A390J	FL-PROOF RS	39 J 1W
R757		RS1AKB3D100J	FL-PROOF RS	10 J 2W
R763		RS1AKB3D68J	FL-PROOF RS	6.8 J 2W
R766		RS1AKB3D68J	FL-PROOF RS	6.8 J 2W
R828,829		R01ANB2E470J	RD	47 J 1/4W
VR10		R42-1068-05	POTENTIOMETER(50K)	REC LABEL BALANCE
VR102		R05-5045-05	POTENTIOMETER	BALANCE
VR103		R10-4042-05	POTENTIOMETER HEAD	PHONE LEVEL
K1		S51-2093-05	MAGNETIC RELAY	MODE(XR/AS)
S101		S31-2094-05	SLIDE SWITCH	TIMER
S724		S40-1064-05	PUSH SWITCH	KEY BOARD
S726-741		S40-1064-05	PUSH SWITCH	KEY BOARD

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KX-9050/S

PARTS LIST

KX-9050/S

PARTS LIST

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No.4

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Re- marks 備考
S748-751		S40-1064-05	PUSH SWITCH	KEY BOARD
D51-58		HSS104	D100E	
D51-58		HSS133	D100E	
D91-93		HSS104	D100E	
D91-93		HSS133	D100E	
D701-704		S56888	D100E	
D701-704		SR139-100	D100E	
D705		ABP02ML-6127	D100E	
D706		S56888	D100E	
D706		SR139-100	D100E	
D706		HSS104	D100E	
D708		HSS133	D100E	
D709		S56888	D100E	
D709		SR139-100	D100E	
D710-712		HSS104	D100E	
D710-712		HSS133	D100E	
D713,714		HSS104A	D100E	
D713,714		HSS131	D100E	
D715		HSS104	D100E	
D715		HSS133	D100E	
D716		HSS4,7N(B)	ZENER D100E	
D716		R04,76S(B)	ZENER D100E	
D717,718		HSS104A	D100E	
D717,718		HSS131	D100E	
D719		HSS104	D100E	
D719		HSS133	D100E	
D720-722		HSS104A	D100E	
D720-722		HSS131	D100E	
D723		HSS6,8N(B2)	ZENER D100E	
D723		R06,8ES(B2)	ZENER D100E	
D724		HSS104A	D100E	
D724		HSS133	D100E	
D725		HSS131	D100E	
D725		R06,8ES(B2)	ZENER D100E	
D726-741		HSS104A	D100E	
D726-741		HSS131	D100E	
D726-742		HSS104A	D100E	
D726-742		HSS131	D100E	
D743		HSS104	D100E	
D743		HSS133	D100E	
D745-747		HSS104	D100E	
D745-747		HSS133	D100E	
D748-751		HSS104A	D100E	
D748-751		HSS131	D100E	
D752-754		HSS104	D100E	
D752-754		HSS133	D100E	
D755</				

PARTS LIST

No.6

Ref. No. 参照番号	Address 位置	New Parts 新部品	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 向標	Re- marks 備考
C22, 23			CE04KH1C331M	ELECTRO		
C24, 25			CE04KH1E221M	ELECTRO		
C41, 42			CE04KH1V457M	ELECTRO		
C43, 44			CE04KH1V100M	ELECTRO		
C45 - 48			CF92FV1H222J	MF		
C49 - 50			CF92FV1H564J	MF		
C51, 52			CF92FV1H334J	MF		
C53, 54			CE04KH1E101M	ELECTRO		
C101, 102			CE04KH1V100M	ELECTRO		
C104			CE04KH1HOR1M	ELECTRO		
C105, 106			CE04KH1V100M	ELECTRO		
C107-110			CF92FV1H222J	MF		
C111, 112			CF92FV1H544J	MF		
C113, 114			CF92FV1H334J	MF		
C115, 116			CE04KH1V100M	ELECTRO		
C117, 118			CF92FV1H182J	MF		
C119, 120			CF92FV1H332J	MF		
C131, 132			CE04KH1E221M	ELECTRO		
C201, 202			CF92FV1H472J	MF		
C203, 204			CE04KH1H010H	ELECTRO		
C205, 206			CE04KH1V100M	ELECTRO		
C207, 208			CE45FSL1H680J	CERAMIC		
C209, 210			CF92FV1H104J	MF		
C211, 212			CE04KH1V100M	ELECTRO		
C213, 214		*	CQ09FSH352J	POLYSTY		
C215, 216			C91-1432-05	FILM		
C217, 218			CF92FV1H682J	MF		
C219, 220			CF92FV1H222J	MF		
C221, 222			CF92FV1H662J	MF		
C223, 224			CF92FV1H182J	MF		
C225, 226			CF92FV1H222J	MF		
C227, 228			CF92FV1H541J	MF		
C229, 230			CF92FV1H222J	MF		
C231, 232			CF92FV1H331K	MF		
C241, 242			CF92FV1H223J	MF		
C243, 244			CE04KH1A331M	ELECTRO		
C245, 246			CE04KH1V100M	ELECTRO		
C301-304			C91-1432-05	FILM		
C305, 306			CK45FB1H681K	CERAMIC		
C307, 308			CF92FV1H103J	MF		
C309, 310			CF92FV1H823J	MF		
C311, 312			CF92FV1H223J	MF		
C313, 314			CE04KH1V100M	ELECTRO		
C315			CK45FB1H103Z	CERAMIC		
C316			C91-0774-05	POLYPR0		
C317			CE04KH1C101M	ELECTRO		
C318			CE04KH1V100M	ELECTRO		
C319			CE45FSL2H100D	CERAMIC		
C320			CF92FV1H153J	MF		
C321, 322			CF92FV1H222J	MF		
C323			CF92FV1H562J	MF		
C324			CE04KH1HR47M	ELECTRO		
C325			CE04KH1V100M	ELECTRO		
C326			CE04KH1H282M	ELECTRO		
C401, 402			CK45FB1H102K	CERAMIC		

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No.5

Ref. No. 参照番号	Address 位置	New Parts 新部品	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 向標	Re- marks 備考
IC82			IC455ED-D	IC(OP AMP X2)		
IC85			UM455D	IC(OP AMP X2)		
IC95			IC455ED	IC(OP AMP X2)		
IC96			BA6338	IC(BOOT AMP X2)		
IC702			BA1760ST	IC(VOLTAGE REGULATOR)		
IC703			URC7805AHF	IC(VOLTAGE REGULATOR/ +5V)		
IC704			BA1781ZT	IC(VOLTAGE REGULATOR)		
IC705			BA6329	IC(MOTOR DRIVER)		
IC706, 706			BA6309	IC(MOTOR DRIVER)		
IC707			BA10393	IC(DUAL COMPALATOR)		
IC708			PST529D	IC(SYSTEM RESET)		
IC709			BA1760ST	IC(VOLTAGE REGULATOR)		
IC709			URC7805AHF	IC(VOLTAGE REGULATOR/ +5V)		
IC710			UCP7805AHF	IC(VOLTAGE REGULATOR/ +5V)		
Q92		*	CAP82320, 105Q	IC		
Q92			2SC2458(Y,GR)	TRANSISTOR		
Q95 - 97			2SC3111A(Q,R)	TRANSISTOR		
Q98 - 99			2SC2458(Y,GR)	TRANSISTOR		
Q700			2SC3315(Q,R)	DIGITAL TRANSISTOR		
Q700			UM4143TS	DIGITAL TRANSISTOR		
Q701			UM4116	TRANSISTOR		
Q702			2SB1370	TRANSISTOR		
Q702			2SA1048(Y,GR)	TRANSISTOR		
Q703			2SA1309A(Q,R)	TRANSISTOR		
Q703			DTC124ES	DIGITAL TRANSISTOR		
Q703			UM4212	TRANSISTOR		
Q704-706			2SA1048(Y,GR)	TRANSISTOR		
Q704-706			2SA1309A(Q,R)	TRANSISTOR		
Q707			DTC143TS	DIGITAL TRANSISTOR		
Q707			UM4216	TRANSISTOR		
Q708			DTC124ES	DIGITAL TRANSISTOR		
Q708			UM4212	TRANSISTOR		
Q709			2SC2458(Y,GR)	TRANSISTOR		
Q709			2SC3311A(Q,R)	TRANSISTOR		
Q710-712			2SC3311A(Q,R)	TRANSISTOR		
Q710-712			DTC113ZS	DIGITAL TRANSISTOR		
Q711			UM4219	TRANSISTOR		
Q713			2SC2458(Y,GR)	TRANSISTOR		
Q713			2SC3311A(Q,R)	TRANSISTOR		
Q714			2SA1048(Y,GR)	TRANSISTOR		
Q714			2SA1309A(Q,R)	TRANSISTOR		
Q715			2SA1309A(Q,R)	DIGITAL TRANSISTOR		
Q715			DTC143TS	DIGITAL TRANSISTOR		
Q716			UM4116	TRANSISTOR		
Q716			2SC2458(Y,GR)	TRANSISTOR		
Q716			2SC3311A(Q,R)	TRANSISTOR		
A1			W02-0975-05	ELECTRIC CIRCUIT MODULE		
C1	2		CE45FSL1H101V	100PF		
C3	4		CF92FV1H221J	2200PF		
C5	6		CF92FV1H563J	0.056UF		
C7	8		CE04KH1V100M	10UF		
C9	10		CE04KH1C331M	330UF		
C11, 12			CF92FV1H182J	1600PF		
C13, 14			CF92FV1H821J	820PF		
C15, 16			CF92FV1H103J	0.010UF		
C20, 21			CK45FF1H223Z	0.022UF		

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x New Parts

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KX-9050/S

PARTS LIST

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No.8

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕	Re- marks 備考
IC2		CXA1330S	IC(DOUBLE B/C)		
IC11		CXA1330S	IC(DOUBLE B/C)		
IC21		NJM4565D-D	IC(OP AMP X2)		
IC21		RC4565D-D	IC(OP AMP X2)		
IC31		UPC1297CA	IC(DOUBLE HX PHO SYSTEM)		
IC41		NJM4565D-D	IC(OP AMP X2)		
IC41		TC4565D-D	IC(OP AMP X2)		
IC42		TC40528P	IC(4CH MPX/DE-MPX)		
IC51		RU40528B	IC(MULTIPLIER/DEMULTIPLIER)		
IC51		TC9164N	IC(16CH BILATERAL SELECTOR SW)		
IC52		TC9162N	IC(ANALOG SWITCH ARRAY)		
Q1 -6		ZSK170(BL, V)	FET		
Q7 -10		Z5C2456(Y, GR)	TRANSISTOR		
Q7 -10		Z5C3311A(Q, R)	TRANSISTOR		
Q11 -14		DTC143TS	DIGITAL TRANSISTOR		
Q11 -14		UN4216	TRANSISTOR		
Q15		DTC124ES	DIGITAL TRANSISTOR		
Q19 -20		UN4212	TRANSISTOR		
Q19 -20		Z5C2456(Y, GR)	TRANSISTOR		
Q19 -20		Z5C3311A(Q, R)	TRANSISTOR		
Q21 -24		Z5D1302(S, T)	TRANSISTOR		
Q25 -30		Z5C2456(Y, GR)	TRANSISTOR		
Q25 -30		Z5C3311A(Q, R)	TRANSISTOR		
Q31 -32		Z5C3940A(R, S)	TRANSISTOR		
Q33		Z5C3246	TRANSISTOR		
Q34 -35		DTC143TS	DIGITAL TRANSISTOR		
Q34 -35		UN4216	TRANSISTOR		
Q41 -44		Z5D1302(S, T)	TRANSISTOR		
Q45		Z5D2061	TRANSISTOR		
Q46		Z5B1370	TRANSISTOR		
Q47		DTC124ES	DIGITAL TRANSISTOR		
Q47		UN4212	TRANSISTOR		
Q48		DTC113ZS	DIGITAL TRANSISTOR		S
Q48		UN4219	TRANSISTOR		S
Q49 -50		DTC124ES	DIGITAL TRANSISTOR		S
Q49 -50		UN4212	TRANSISTOR		S
DOLBY UNIT(X30-1292-70)KX9050S only					
C1 -2		CK73FB1H182K	CHIP C		
C3 -4		CE04KW1E221M	ELECTRO		
C5 -6		CF92FV1H103J	MF		
C7 -8		CK73FB1H182K	CHIP C		
C11 -12		CE04KW1E221M	ELECTRO		
C13 -14		CC73FSL1H221J	CHIP C		
C15 -16		CF92FV1H103J	MF		
C17 -18		CE04KW1C220M	ELECTRO		
C21 -22		CE04KW1C220M	ELECTRO		
C23 -24		CF92FV1H104J	MF		
C25 -26		CE04KW1V100M	ELECTRO		
C27 -28		CF92FV1H224J	MF		
C29 -30		CF92FV1H183J	MF		
C31 -32		CF92FV1H104J	MF		
C33 -34		CF92FV1H223J	MF		
C35 -36		CF92FV1H224J	MF		
C37 -38		CF92FV1H105J	MF		
DOLBY UNIT(X30-1292-70)KX9050S only					
L1 -2		L39-0190-05	TRAP COIL		
L11 -12		L40-2235-29	SMALL FIXED INDUCTOR(22MH, J)		
L21 -22		L39-0190-05	TRAP COIL		
L23 -24		L32-0545-05	BIAS OSCILLATING COIL		
L31 -32		L32-0544-05	OSCILLATING COIL		
L33		R92-0219-05	FUSE RESIST 10		
R320		RS14KB3A470J	FL-PROOF RS 47		
R324, 325		RD14NB2E4R7J	RD 4.7		
R326		RD14NB2E102J	RD 1.0K		
R423		RD14GB2E2R2JTS	FL-PROOF RD 2.2		
R432		RD14GB2E2R2JTS	FL-PROOF RD 2.2		
R435, 436		RD14GB2E361JTS	FL-PROOF RD 360		
VR1 -2		R12-3684-05	TRIMMING POT. (100) PB LEVEL		
VR3 -4		R12-3685-05	TRIMMING POT. (10K) PB EQ ADJ		
VR5 -6		R12-3686-05	TRIMMING POT. (22K) PB LEVEL		
VR21, 22		R12-3686-05	TRIMMING POT. (22K) REC LEVEL		
VR31, 32		R12-3651-05	TRIMMING POT. (100K)BIAS ADJ		
D1 -2		HZ55-1S(B2)	ZENER DIODE		
D1 -2		RS9-1JS(B2)	ZENER DIODE		
D31		HSS104	DIODE		
D31		15S133	DIODE		
D41 -42		HZ58-2N(B2)	ZENER DIODE		
D41 -42		RS8-2ES(B2)	ZENER DIODE		
D43		HZ58-2S(B2)	ZENER DIODE		
D43		HZ58-2R(B2)	ZENER DIODE		
D44 -45		RS8-2ES(B2)	ZENER DIODE		
D44 -45		RS8-2ES(B2)	ZENER DIODE		
D53 -56		HSS104	DIODE		
D53 -56		15S133	DIODE		
D57		HZ53-9N(B2)	ZENER DIODE		
D57		RS3-9ES(B2)	ZENER DIODE		
D58 -59		HSS104	DIODE		
D58 -59		15S133	DIODE		
TC1		NJM4565D-D	IC(OP AMP X2)		
TC1		RC4565D-D	IC(OP AMP X2)		

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No.7

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕	Re- marks 備考
C409		CE04KW1V4R7H	ELECTRO		
C411		CE04KW1V4R7H	ELECTRO		
C412		CE04KW1C220M	ELECTRO		
C413		CE04DW1C471M	ELECTRO		
C414		CE04KW1C470M	ELECTRO		
C415		CE04KW1V100M	ELECTRO		
C416, 417		CE04KW1E101M	ELECTRO		
C418, 419		CE04KW1C101M	ELECTRO		
C420		CE04KW1A101M	ELECTRO		
C421, 422		CF92FV1H104J	MF		
C505		CE04KW1C220M	ELECTRO		
C506, 507		CE04KW1E221M	ELECTRO		
C508		CE04KW1C101M	ELECTRO		
C511, 512		CF92FV1H104J	MF		
J41		E13-0636-05	PHONO JACK LINE I/O, CD DIRECT		
-		J11-0098-05	WIRE CLAMPER		
L1 -2		L39-0190-05	TRAP COIL		
L11 -12		L40-2235-29	SMALL FIXED INDUCTOR(22MH, J)		
L21 -22		L39-0190-05	TRAP COIL		
L23 -24		L32-0545-05	BIAS OSCILLATING COIL		
L31 -32		L32-0544-05	OSCILLATING COIL		
L33		R92-0219-05	FUSE RESIST 10		
R320		RS14KB3A470J	FL-PROOF RS 47		
R324, 325		RD14NB2E4R7J	RD 4.7		
R326		RD14NB2E102J	RD 1.0K		
R423		RD14GB2E2R2JTS	FL-PROOF RD 2.2		
R432		RD14GB2E2R2JTS	FL-PROOF RD 2.2		
R435, 436		RD14GB2E361JTS	FL-PROOF RD 360		
VR1 -2		R12-3684-05	TRIMMING POT. (100) PB LEVEL		
VR3 -4		R12-3685-05	TRIMMING POT. (10K) PB EQ ADJ		
VR5 -6		R12-3686-05	TRIMMING POT. (22K) PB LEVEL		
VR21, 22		R12-3686-05	TRIMMING POT. (22K) REC LEVEL		
VR31, 32		R12-3651-05	TRIMMING POT. (100K)BIAS ADJ		
D1 -2		HZ55-1S(B2)	ZENER DIODE		
D1 -2		RS9-1JS(B2)	ZENER DIODE		
D31		HSS104	DIODE		
D31		15S133	DIODE		
D41 -42		HZ58-2N(B2)	ZENER DIODE		
D41 -42		RS8-2ES(B2)	ZENER DIODE		
D43		HZ58-2S(B2)	ZENER DIODE		
D43		HZ58-2R(B2)	ZENER DIODE		
D44 -45		RS8-2ES(B2)	ZENER DIODE		
D44 -45		RS8-2ES(B2)	ZENER DIODE		
D53 -56		HSS104	DIODE		
D53 -56		15S133	DIODE		
D57		HZ53-9N(B2)	ZENER DIODE		
D57		RS3-9ES(B2)	ZENER DIODE		
D58 -59		HSS104	DIODE		
D58 -59		15S133	DIODE		
TC1		NJM4565D-D	IC(OP AMP X2)		
TC1		RC4565D-D	IC(OP AMP X2)		

L:Scandinavia
 Y:FX(Far East, Hawaii)
 Y:AAFE(Europe)

KUSA P:Canada
 T:England E:Europe
 X:Australia M:Other Areas

N:KX-9050
 S:KX-9050S

Δ indicates safety critical components

KX-9050/S

PARTS LIST

No. 10

x New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address New Parts 位置 新 部品番	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕 向 備考
C163, 164		CF92FV1H102J	MF 1000PF J	
C165, 166		CF92FV1H224J	MF 8200PF J	
C167, 168		CF92FV1H224J	MF 0.22UF J	
C169, 170		CF92FV1H224J	MF 0.082UF J	
C171, 172		CF92FV1H153J	MF 0.015UF J	
C173, 174		CF92FV1H104J	MF 0.10UF J	
C175, 176		CF92FV1H474J	MF 0.47UF J	
C177, 178		CF92FV1H224J	MF 0.22UF J	
C179, 180		CF92FV1H104J	MF 0.10UF J	
C181-184		CE04KW1E221M	ELECTR0 220UF 25WV	
C185, 186		CF92FV1H334J	MF 0.33UF J	
C187, 188		CF92FV1H224J	MF 0.082UF J	
C189, 190		CF92FV1H474J	MF 0.47UF J	
C191, 192		CF92FV1H104J	MF 0.10UF J	
C193, 194		CF92FV1H224J	MF 0.22UF J	
C195, 196		CF92FV1H474J	MF 0.047UF J	
C197, 198		CF92FV1H153J	MF 0.015UF J	
C199, 200		CF92FV1H224J	MF 8200PF J	
C201, 202		CF92FV1H102J	MF 1000PF J	
C203, 204		CF92FV1H224J	MF 2200PF J	
C205, 206		CF92FV1H471J	MF 470PF J	
C207, 208		CF92FV1H182J	MF 1800PF J	
C209, 210		CF92FV1H393J	MF 0.039UF J	
C211, 212		CF92FV1H104J	MF 0.10UF J	
C213-216		CF92FV1H182J	MF 1800PF J	
C217, 218		CF92FV1H474J	MF 0.47UF J	
C219, 220		CF92FV1H224J	MF 0.022UF J	
C221, 222		CF92FV1H104J	MF 0.10UF J	
C223, 224		CF92FV1H182J	MF 0.018UF J	
C225, 226		CF92FV1H104J	MF 0.10UF J	
C227, 228		CF92FV1H182J	MF 1800PF J	
C231, 232		CE04KW1C101M	ELECTR0 100UF 35WV	
C233, 234		CF92FV1H103J	MF 0.010UF J	
C235, 236		CE04KW1C30M	ELECTR0 33UF 16WV	
C237, 238		CE04KW1C101M	ELECTR0 100UF 16WV	
C239		CE04KW1V100M	ELECTR0 10UF 35WV	
L1 -4		L79-0792-05	LC FILTER	
W70 -88		R92-0670-05	CHIP R 0 0HM	
W70 -88		R92-2052-05	CHIP R 0	J 1/10W
K1		S51-2089-05	MAGNETIC RELAY	
D1 ,2		HZS6.2S(B2)	ZENER DIODE	
D3 ,4		RD8.2JS(B2)	ZENER DIODE	
D3 ,4		HZS5.1S(B2)	ZENER DIODE	
D5		RD5.1JS(B2)	ZENER DIODE	
D5		HZS6.2N(B2)	ZENER DIODE	
D6		RD6.2ES(B2)	ZENER DIODE	
D6		HZS13N(B2)	ZENER DIODE	
D7		RD13ES(B2)	ZENER DIODE	
IC1 ,2		MA110	ZENER DIODE	
IC3 ,4		M5238L	IC(OP AMP X2)	
IC5 ,6		CXA1417S	IC(DOUBLE NR STYPE)	
		NJM4565L-D	IC(OP AMP X2)	

x New Parts
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Teile ohne Parts No. werden nicht geliefert.

No. 9

Ref. No. 参照番号	Address New Parts 位置 新 部品番	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕 向 備考
C39 ,40		CF92RV1H393J	MF 0.039UF J	
C41 ,42		CF92RV1H681J	MF 680PF J	
C43 ,44		CF92RV1H102J	MF 1000PF J	
C45 ,46		CF92RV1H822J	MF 8200PF J	
C47 ,48		CF92RV1H224J	MF 0.22UF J	
C49 ,50		CF92RV1H823J	MF 0.082UF J	
C51 ,52		CF92RV1H153J	MF 0.015UF J	
C53 ,54		CF92RV1H104J	MF 0.10UF J	
C55 ,56		CF92RV1H474J	MF 0.47UF J	
C57 ,58		CF92RV1H224J	MF 0.22UF J	
C59 ,60		CF92RV1H104J	MF 0.10UF J	
C61 -64		CE04KW1E221M	ELECTR0 220UF 25WV	
C65 ,66		CF92RV1H334J	MF 0.33UF J	
C67 ,68		CF92RV1H224J	MF 0.082UF J	
C69 ,70		CF92RV1H474J	MF 0.47UF J	
C71 ,72		CF92RV1H104J	MF 0.10UF J	
C73 ,74		CF92RV1H224J	MF 0.22UF J	
C75 ,76		CF92RV1H474J	MF 0.47UF J	
C77 ,78		CF92RV1H153J	MF 0.015UF J	
C79 ,80		CF92RV1H822J	MF 8200PF J	
C81 ,82		CF92RV1H102J	MF 1000PF J	
C83 ,84		CF92RV1H224J	MF 2200PF J	
C85 ,86		CF92RV1H471J	MF 470PF J	
C87 ,88		CF92RV1H182J	MF 1800PF J	
C89 ,90		CF92RV1H393J	MF 0.039UF J	
C91 ,92		CF92RV1H104J	MF 0.10UF J	
C93 -96		CF92RV1H182J	MF 1800PF J	
C97 ,98		CF92RV1H474J	MF 0.47UF J	
C99 ,100		CF92RV1H224J	MF 0.022UF J	
C101, 102		CF92RV1H104J	MF 0.10UF J	
C103, 104		CF92RV1H183J	MF 0.018UF J	
C105, 106		CF92RV1H104J	MF 0.10UF J	
C107, 108		CF92RV1H182J	MF 1800PF J	
C111, 112		CE04KW1H010M	ELECTR0 1.0UF 50WV	
C113, 114		CC73FSLH101J	CHIP C	
C117, 118		CE04KW1E221M	ELECTR0 220UF 25WV	
C119, 120		CC73FSLH221J	CHIP C	
C121, 122		CF92RV1H103J	MF 0.010UF J	
C123, 124		CE04KW1C20M	ELECTR0 22UF 16WV	
C125, 126		CF92RV1H393J	MF 3300PF J	
C127, 128		CF92RV1H182J	MF 1800PF J	
C131, 132		CE04KW1C101M	ELECTR0 100UF 16WV	
C133, 134		CC73FSLH221J	CHIP C	
C135, 136		CF92RV1H103J	MF 0.010UF J	
C137-142		CE04KW1C20M	ELECTR0 22UF 16WV	
C143, 144		CF92RV1H104J	MF 0.10UF J	
C145, 146		CE04KW1V100M	ELECTR0 10UF 35WV	
C147, 148		CF92RV1H224J	MF 0.22UF J	
C149, 150		CF92RV1H183J	MF 0.018UF J	
C151, 152		CF92RV1H104J	MF 0.10UF J	
C153, 154		CF92RV1H224J	MF 0.022UF J	
C155, 156		CF92RV1H224J	MF 0.22UF J	
C157, 158		CF92RV1H105J	MF 1.0UF J	
C159, 160		CF92RV1H393J	MF 0.039UF J	
C161, 162		CF92RV1H681J	MF 680PF J	

L:Scandinavia K:USA P:Canada
Y:PX(Far East, Hawaii) T:England E:Europe
Y:AMFES(Europe) X:Australia M:Other Areas
△ indicates safety critical components.

L:Scandinavia K:USA P:Canada
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Y:AMFES(Europe) X:Australia M:Other Areas
△ indicates safety critical components.

PARTS LIST

No. 12

* New Parts
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Teile 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	Desti- nation 向	Re- marks 備考
354	1B		N19-1240-08	FLAT WASHER /2.6X5.5X0.13		
355	1A	*	N19-1241-08	FLAT WASHER		
356	1C, 2B	*	N19-1302-08	FLAT WASHER		
357	2A	*	N19-1303-08	FLAT WASHER		
358	2B	*	N19-1304-08	FLAT WASHER		
359	2B		N30-2630-46	PAN HEAD MACHINE SCREW		
360	2A		N73-2004-46	SCREW		
365	1C	*	S74-0005-08	LEAF SWITCH		
368	1C	*	W02-1147-08	FRONT END UNIT, ELECTRIC UNIT		
			J61-0094-08	WIRE CLAMPER		
BM	2B	*	D16-0335-08	MAIN BELT		
BR	1A		D16-0325-08	REEL BELT		
PF	2B		D14-0319-08	PINCH ROLLER ASSY		
PR	2A	*	D14-0339-08	PINCH ROLLER ASSY		
RM	2A	*	T42-0615-08	REEL MOTOR ASSY		
BH	2A	*	T32-0325-05	BRASE HEAD		
RPH	2A	*	T34-0343-05	RECORD/PLAYBACK HEAD		
			RD	2.2K J 1/6W		
			RD14BB2C222J			

L-Scandinavia
Y-PX(Far East, Hawaii)
Y-AFES(Europe)

K-USA
T-England
X-Australia

P-Canada
E-Europe
M-Other Areas

△ indicates safety critical components

No. 11

* New Parts
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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	Desti- nation 向	Re- marks 備考
IC5, 6			RC4565L-D	IC(OP AMP)		
IC7, 8		*	CXA1417S	IC(DOUBLE NR STYPE)		
IC9			NJM4558L	IC(OP AMP X2)		
Q1 -4			2SC2878(B)	TRANSISTOR		
			2SD1302(S,T)	TRANSISTOR		
Q5			2SD2012	TRANSISTOR		
Q6			2SD2061	TRANSISTOR		
Q7			2SD2012	TRANSISTOR		
Q8			2SD1370	TRANSISTOR		
Q9			2SD1370	TRANSISTOR		
Q10			2SD1375	TRANSISTOR		
Q9, 10			DTCL132S	DIGITAL TRANSISTOR		
Q9, 10			UN4219	DIGITAL TRANSISTOR		
MECHANISM ASSY (D40-0992-05 : 9050,4-05 : 9050S)						
301	2B	*	A10-2982-08	HEAD CHASSIS CALKED ASSY		
303	1B	*	A11-0762-08	SUB CHASSIS ASSY		
305	2A	*	B03-2755-08	DRESSING PLATE ASSY		
306	2A	*	B30-1038-05	LED(CSLF-601C)		
307	2C	*	D01-0145-08	FLYWHEEL ASSY		
308	1C	*	D01-0146-08	FLYWHEEL ASSY		
309	1A	*	D03-0295-08	REEL DISK ASSY		
310	1A	*	D03-0298-08	REEL DISK ASSY		
311	1A	*	D10-2430-08	LEVER		
312	1A	*	D10-3284-08	INTER LOCK LEVER		
313	1A	*	D10-3285-08	EJECT LEVER		
316	1B		D15-0308-08	PULLEY ASSY		
317	1B		D15-0321-08	BRAKE PULLEY ASSY (WHITE)		
320	2A	*	D32-0191-08	STOPPER		
322	2A	*	E35-0387-08	LED WIRE		
323	2C	*	E35-0436-08	PLAY HEAD WIRE		
324	2C	*	E35-0437-08	REC HEAD WIRE		
325	2C	*	E35-0438-08	BRASE HEAD WIRE		
326	2A	*	E35-0439-08	EARTH READ WIRE		
330	2A	*	G01-2466-08	AZIMUTH SPRING		
331	2A		G01-2471-08	TORSION SPRING		
332	1A, 1B	*	G01-3413-08	COMPRESSION SPRING (BLUE)		
333	1A	*	G01-3482-08	TENSION SPRING		
335	2A	*	J21-5881-08	Mounting Hardware (R/P HEAD)		
336	2A	*	J21-5882-08	Mounting Hardware (BRASE HEAD)		
337	2A	*	J30-0287-08	SPACER (BRASE HEAD)		
338	2A		J39-0169-08	SPACER SHEET		
340	2A		N09-2760-08	SCREW		
341	2A		N09-2762-08	SCREW		
342	2A		N09-2763-08	SCREW		
343	1C	*	N09-2765-08	SCREW		
344	1C	*	N09-2903-08	SCREW		
345	2A	*	N09-2903-08	SCREW		
346	2A	*	N09-2905-08	SCREW		
347	2A	*	N09-2906-08	SCREW		
349	2A		N14-0189-08	AZIMUTH ADJ NUT		
350	2A		N14-0190-08	PR ARM ADJ NUT		
352	2B		N19-1235-08	FLAT WASHER		
353	1A, 1B		N19-1239-08	FLAT WASHER		

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