

LVD-68

SERVICE MANUAL

Knob (10 key)
(K29-5985-02)

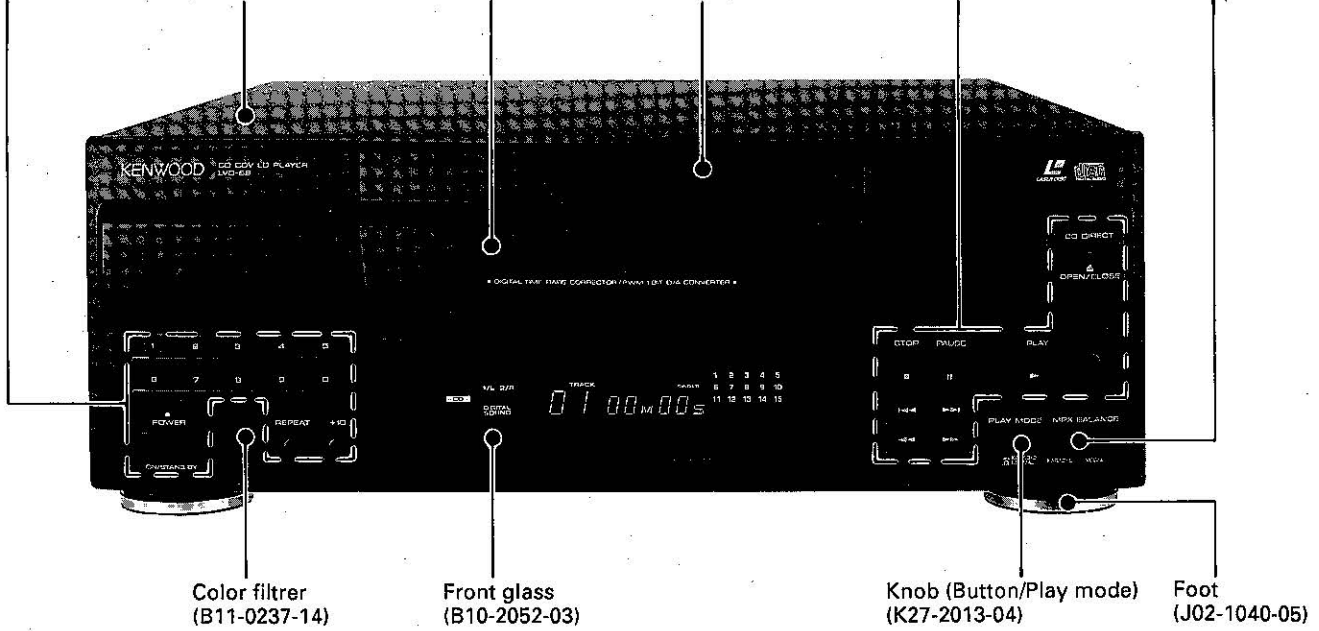
Metallic cabinet
(A01-1796-01)

Panel (Tray)
(A29-0379-02)

Panel (Front)
(A60-0627-11)

Knob (Stop/Play)
(K29-5986-12)

Knob (MPX balance)
(K29-4377-04)



Phono jack (Video out)
(E63-0105-05)

Slide switch (Voltage select)
(S62-0001-05)

Rectangular receptacle
(E08-0311-05)



Phono jack (Audio out)
(E63-0106-05)

AC power cord
(E30-2592-15)

Power cord bushing
(J42-0083-05)

In compliance with Federal Regulations, following are reproductions of labels on, or inside the product relating to laser product safety.

KENWOOD Corp. certifies this equipment conforms to DHHS Regulations No. 21 CFR 1040.10, Chapter 1, Subchapter J.

DANGER: Laser radiation when open and interlock defeated. AVOID DIRECT EXPOSURE TO BEAM.

Refer to LVD-320/LVD-97 service manual (B51-4629-00/B51-4785-00), if need description in detail.

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SPECIFICATIONS	BACK COVER

Refer to LVD-320/LVD-97 service manual (B51-4629-00/B51-4785-00), if need description in detail.

CAUTIONS

Beware of condensation

When water vapor comes into contact with the surface of cold material, water drops are produced. If condensation occurs, correct operation may not be possible, or the unit may not function correctly. This is not a malfunction, however, and the unit should be dried.
(To do this, turn the POWER switch ON and leave the unit as it is for several hours.)

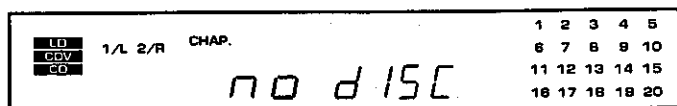
Note related to transportation and movement :

Before transporting or moving this unit, carry out the following operation.

1. Turn the POWER switch ON but do not load a disc.
2. Wait a few seconds and verify that the display shown appears.
3. Turn the POWER switch OFF.

Be especially careful in the following conditions :

- When the unit is brought from a cold place to a warm place, and there is a large temperature difference.
- When a heater starts operating.
- When the unit is brought from an air-conditioned place to a place of high temperature with high humidity.
- When there is a large difference between the internal temperature of the unit and the ambient temperature, or in conditions where condensation occurs easily.



ACCESSORIES

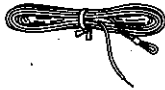
ACCESSORIES

System configuration

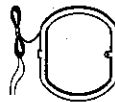
*Speaker cords are packed with the Speakers. Remote control unit and batteries are packed with the CD/LD player unit. All other accessories are packed with the Amp/GE unit.

System name	AMP / GE	TUNER	CD/LD PLAYER	CASSETTE DECK	Speakers
MIDI M-969LD	A-68	T-58	LVD-68	X-58	S-68

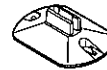
- FM indoor antenna 1
(T90-0182-15)



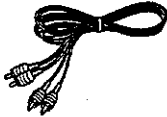
- AM loop antenna ass'y - - - - - 1
(T90-0195-05)



- Loop antenna stand
(J19-3645-05)



- Audio cord 1
(E30-0505-05)



- Speaker cords 2
(E30-1271-08)



- Video cord 1
(E30-1427-05)



- Parallel cord 1
(E30-2628-05)



- Power cord 1
(E30-2779-05)

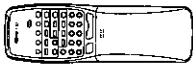


- AC plug adaptor 1
(E03-0115-05)

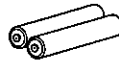


*Except for U.K., Europe and Australia.
For the unit with a European AC plug in
areas other than Europe.*

- Remote control unit 1
(X94-1050-71 : RC-68LD)

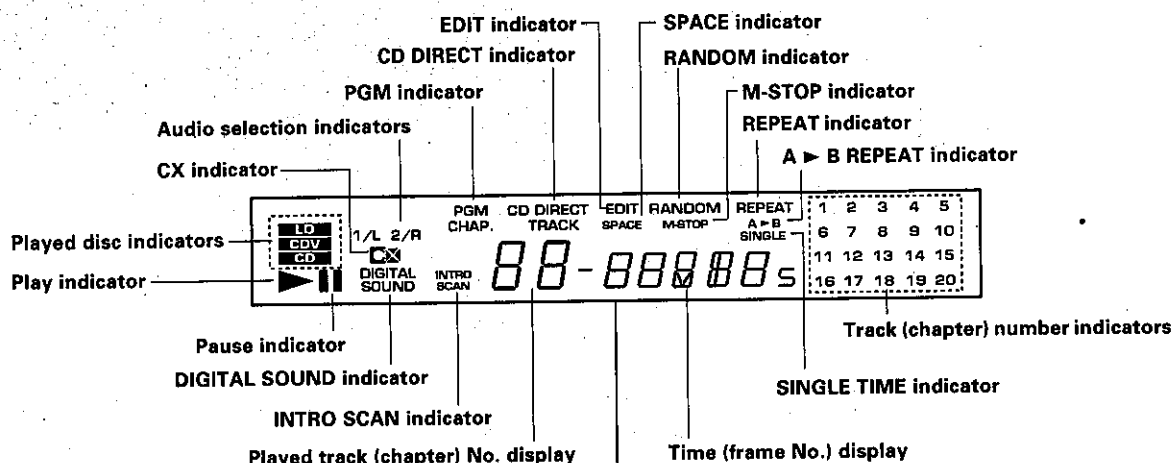


- Batteries (R03/AAA) 2
(-)

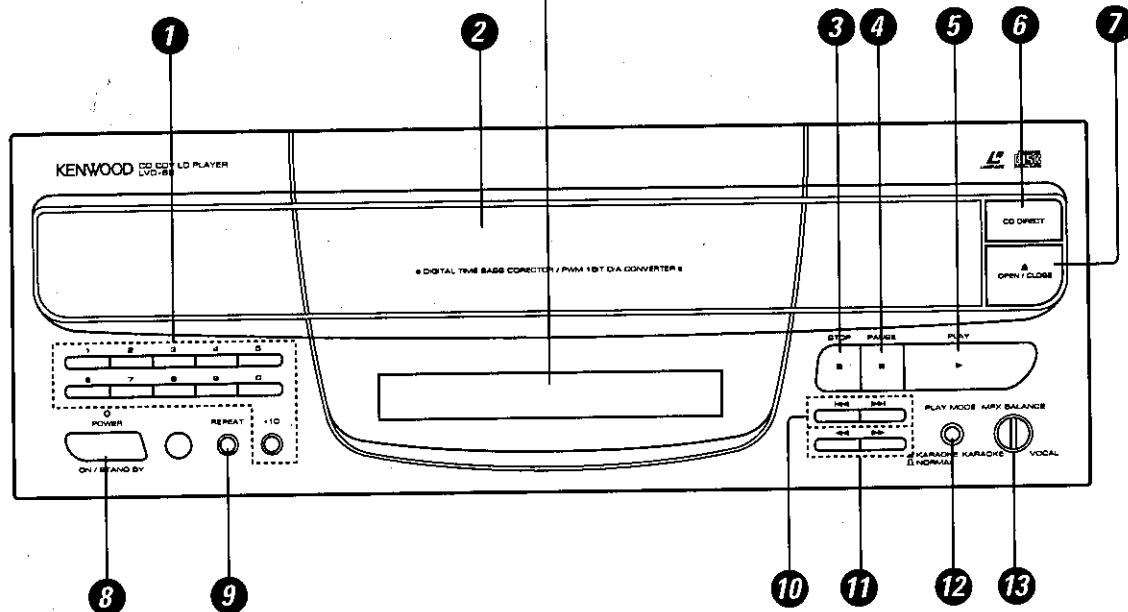


Battery cover
(F07-0721-33)

CONTROL



Display



① Numeric keys (0 to 9, +10)

② Disc tray

③ STOP key (■)

④ PAUSE key (⏸)

⑤ PLAY key (▶)

⑥ CD DIRECT key

⑦ OPEN/CLOSE key (▲)

⑧ POWER key

⑨ REPEAT key

Press for repeated playback.

⑩ Skip keys (◀, ▶)

Press to skip to the beginning of another track.

⑪ Search keys (◀◀, ▶▶)

Press to move the played position of disc at high speed.

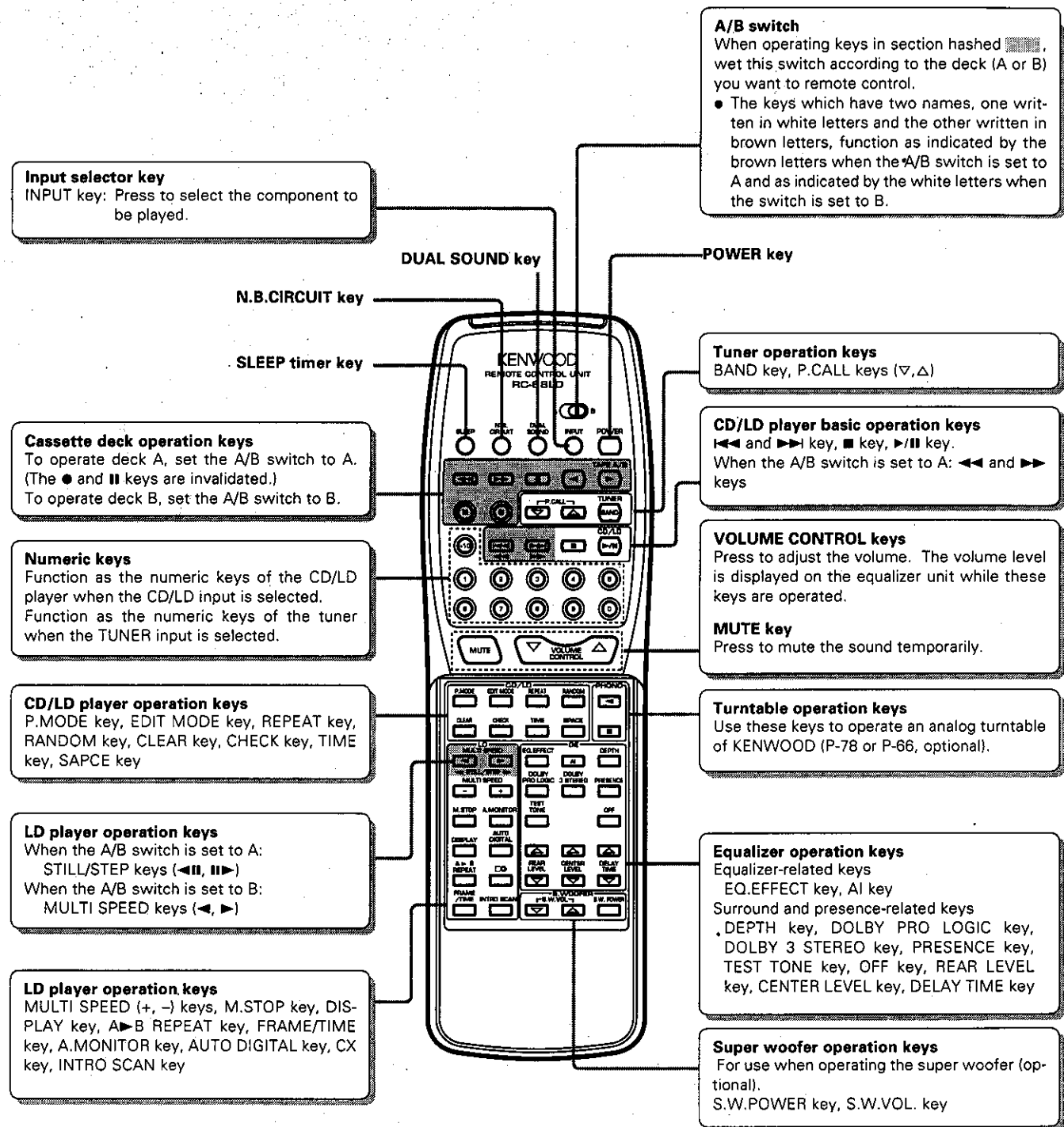
⑫ PLAY MODE key

Press to switch between the karaoke singing mode and normal playback mode.

⑬ MPX BALANCE key

For use in karaoke singing with an audio multiplex disc.

REMOTE CONTROL OPERATION

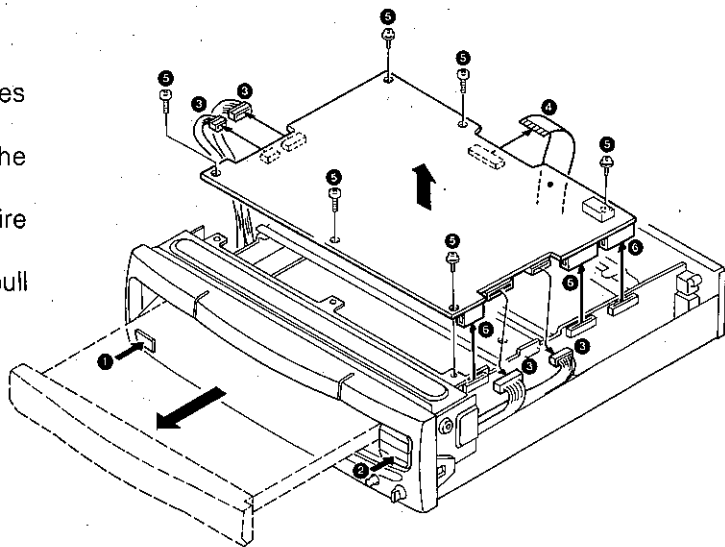


Model: RC-68LD
Infrared ray system

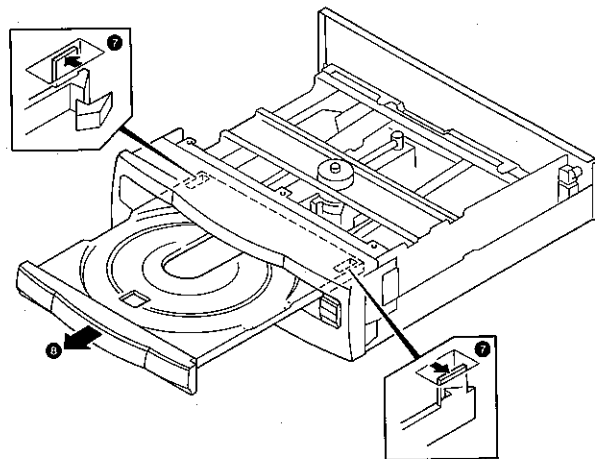
DISASSEMBLY FOR REPAIR

How to Disassemble PC Board and Tray

1. Turn the power switch ON (1).
2. Push the OPEN/CLOSE key (2).
Please refer to "How to Pull Out Tray" if the tray does not come out.
3. Turn the power switch OFF (1), and pull out the AC power cord.
4. Remove the connector (3) and the flexible wire (4).
5. Remove screws (5) and connectors (6) and pull up the PC board.

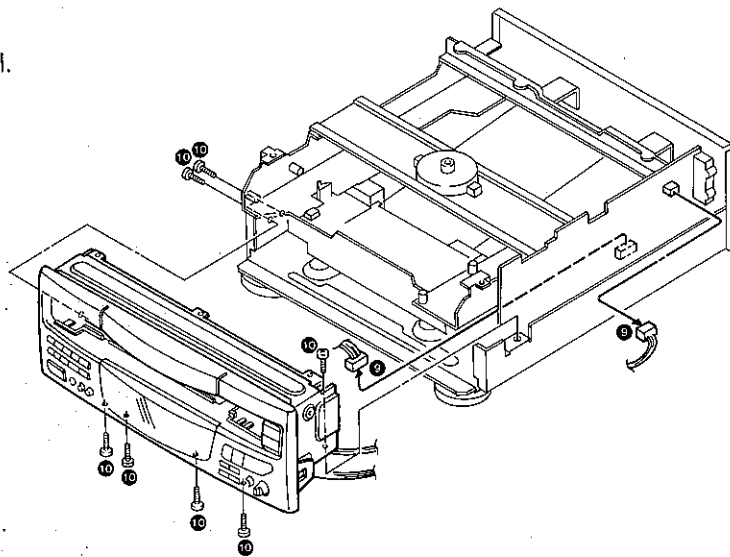


6. Slide the tray frontwards (8) with moving the projection of tray to outwards (7).



How to Disassemble Front Panel

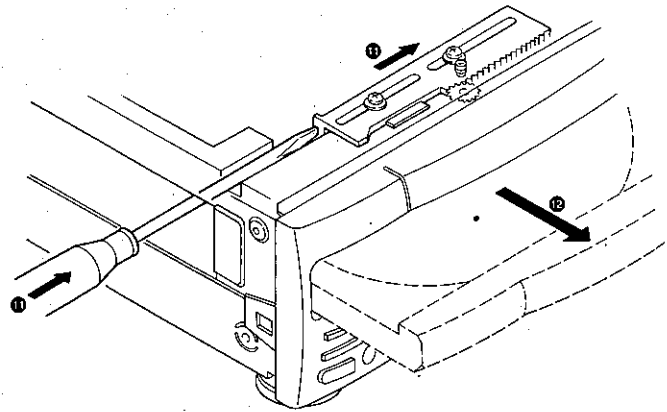
1. Remove the connectors (9).
2. Remove the screws (10) and the front panel.



DISASSEMBLY FOR REPAIR

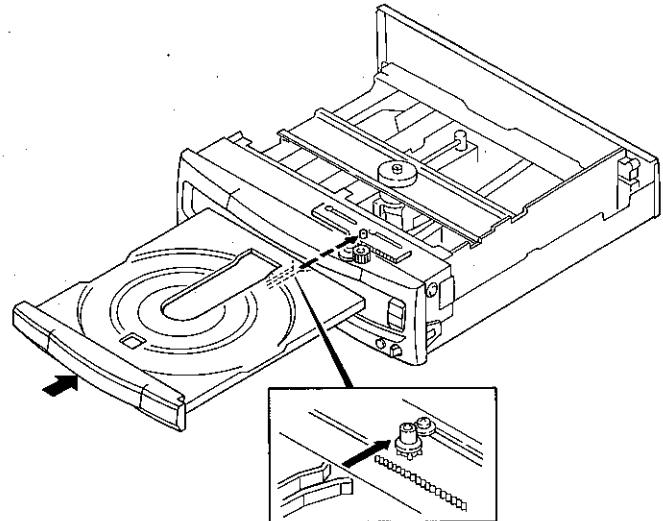
How to Pull Out Tray

1. Insert the screw driver into the left slit off the mechanism ass'y (11).
2. Pull out the tray frontwards by hand (12).



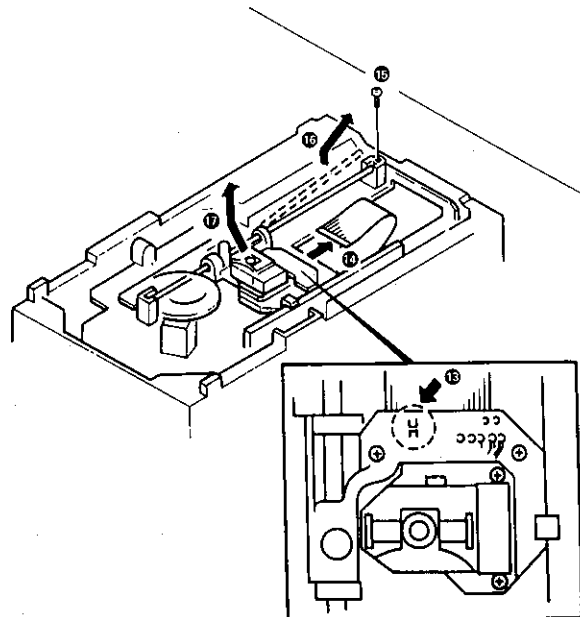
How to Remount Tray

1. Meet the slider boss with the groove of the tray.



How to Disassemble Pickup

1. Short the short-lands (13).
2. Remove the flexible wire (14).
3. Remove the screws (15).
4. Remove the rod of the pickup (16).
5. Remove the pickup (17).



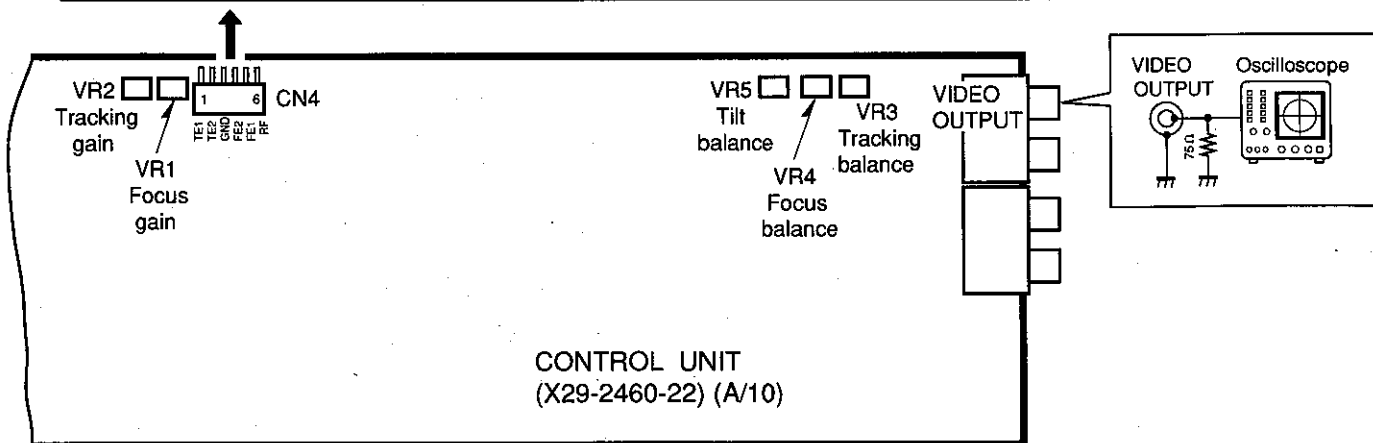
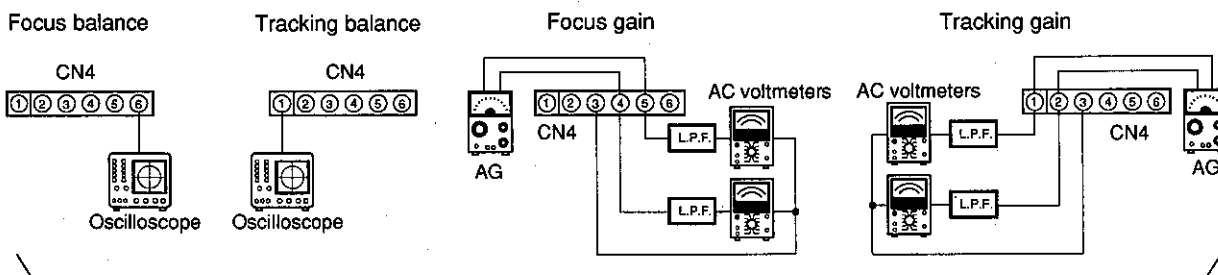
ADJUSTMENT

CONTROL UNIT(X29-2460)

NO.	ITEM	INPUT SETTING	OUTPUT SETTING	PLAYER SETTING	ALIGNMENT POINT	ALIGN FOR	FIG.
1	TILT BALANCE	LD test disc	Connect the TV monitor to the video output.	F.No.19100 STILL(still image) *F.No.23402 STILL(still image)	VR5	Minimize the crosstalk on the screen.	③
		LD disc	Connect the oscilloscope to LD EFM on X32-2300.	F.No.20000 STILL(still image)		Maximize the RF signal (eye pattern) amplitude.	
2	LD FOCUS BALANCE	LD test disc or LD disc	Connect the oscilloscope to CN4 pin 6(RF OUT).	PLAY	VR4	Maximize the RF signal amplitude.	
3	TRACKING BALANCE	LD test disc or LD disc	Connect the oscilloscope to CN4 pin 1(TE).	F.No.5000 STILL(still image)	VR3	Make the positive and negative jump pulses equal.	④
4	FOCUS GAIN	LD test disc. Apply signal (1.7kHz/200mVp-p) to CN4 pins 4 and 5.	Connect a L.P.F. to CN4 pins 4 and 5, to which connect an oscilloscope or two AC voltmeters.	PLAY	VR1	Two VTMs should read the same value.	
5	TRACKING GAIN	LD test disc. Apply signal (2.9kHz/200mVp-p) to CN4 pins 1 and 2.	Connect a L.P.F. to CN4 pins 1 and 2, to which connect an oscilloscope or two AC voltmeters.	PLAY	VR2	Two VTMs should read the same value.	

LD test disc: KENWOOD KLD-02, #:SONY REF5A-12. LD disc: Commercial LD disc(CAV with Digital sound)

FIG. : Waveform (page 10)



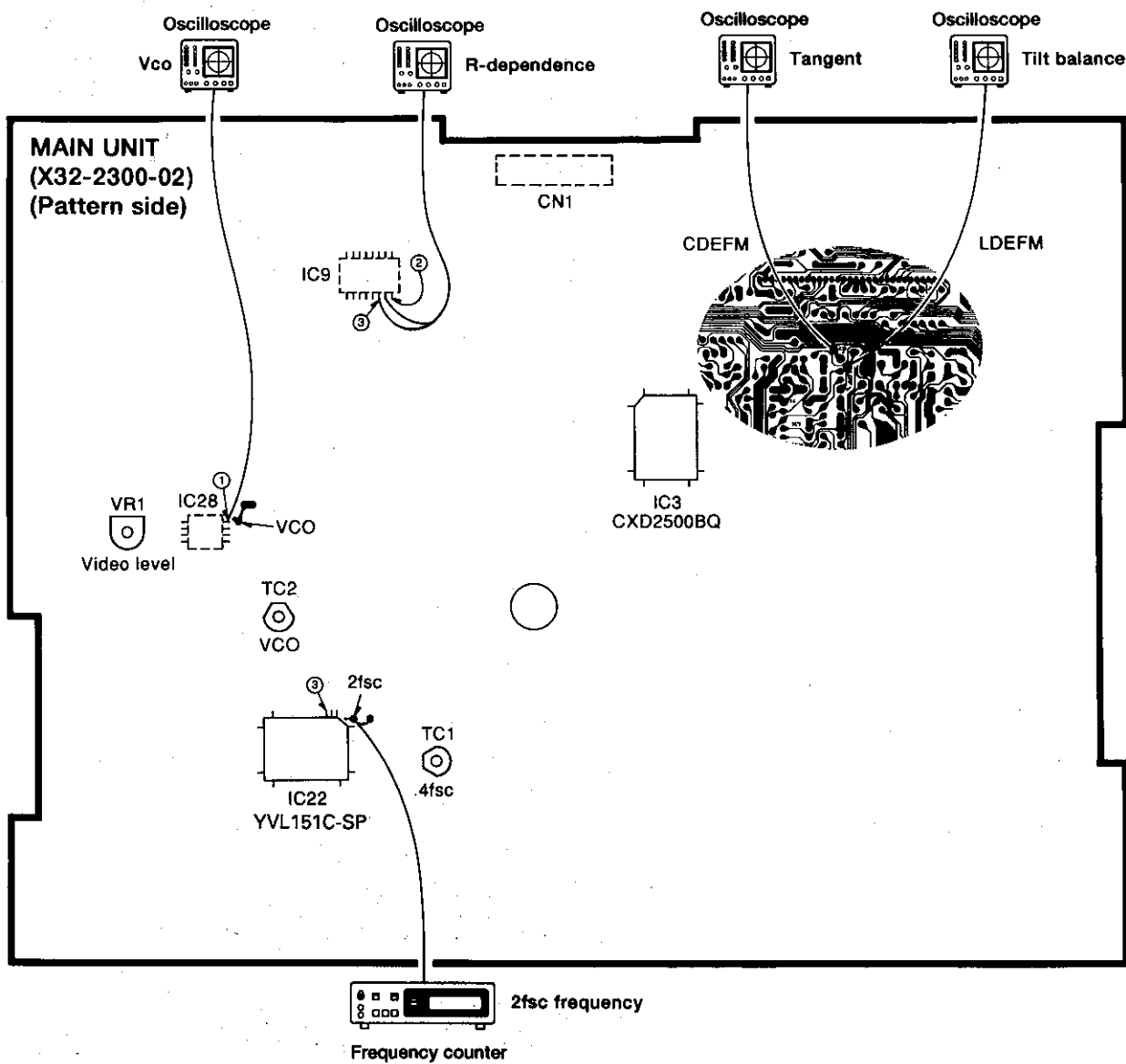
ADJUSTMENT

MAIN UNIT(X32-2300)

NO.	ITEM	INPUT SETTING	OUTPUT SETTING	PLAYER SETTING	ALIGNMENT POINT	ALIGN FOR	FIG.
1	2fsc FREQUENCY	Power on	Connect the frequency counter to check land(2fsc) of IC22 pin 3.	STOP	TC1	7.15909MHz±5Hz	
2	VCO	LD test disc	Connect the oscilloscope to IC28 pin 1.	PLAY	TC2	DC=0±0.5V	①
3	VIDEO LEVEL	LD test disc	Connect a 75Ω resistor to VIDEO OUT. Next, connect the oscilloscope across the resistor.	F.NO.100 STILL(still image) #F.No.13000 STILL(still image)	VR1	Video signal amplitude: 1.0Vp-p	②

LD test disc: KENWOOD KLD-02, #:SONY REF5A-12. LD disc: Commercial LD disc(CAV with Digital sound)

FIG. : Waveform (page 10)



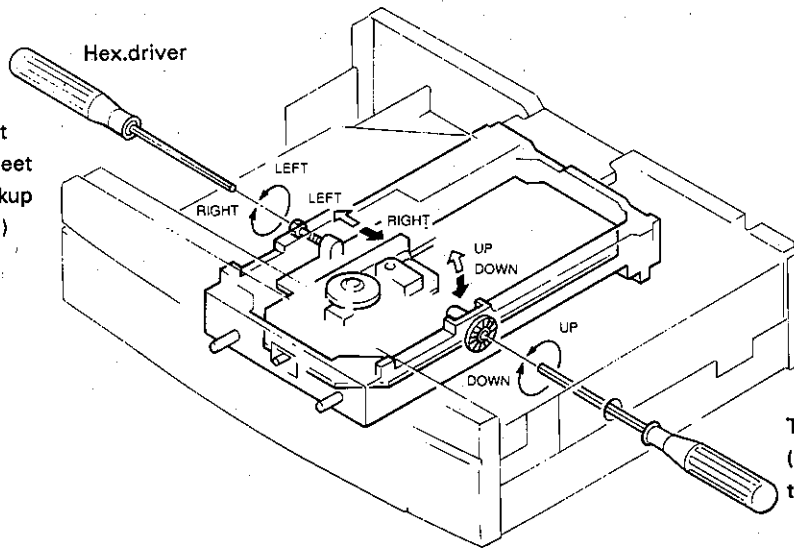
ADJUSTMENT

MECHANISM

NO.	ITEM	INPUT SETTING	OUTPUT SETTING	PLAYER SETTING	ALIGNMENT POINT	ALIGN FOR	FIG.
1	TANGENT	CD test disc	Connect the oscilloscope to CD EFM on X32-2300.	PLAY	Tangential nut (Turn within 14 clicks)	Maximize the RF signal (eye pattern)	
2	R-DEPENDENCE	CD test disc	Connect the oscilloscope to IC9 pins 2 and 3 on X32-2300.	PLAY	R-dep.nut	Lissajons' figure = 180°	

CD test disc: SONY YEDS-18(Type 4)

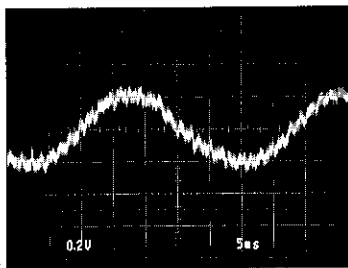
Radial-Dependence adjust
(slide the pickup to meet with the center of the pickup and that of the turntable.)



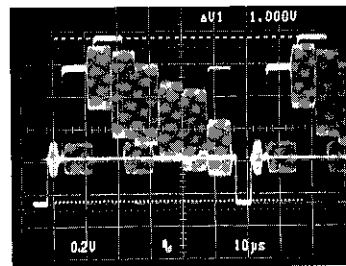
Tangential adjust
(Keep the disc horizontally for the pickup)

•Waveform

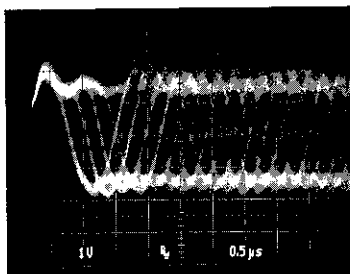
① VCO



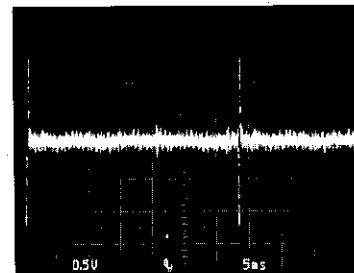
② Video level



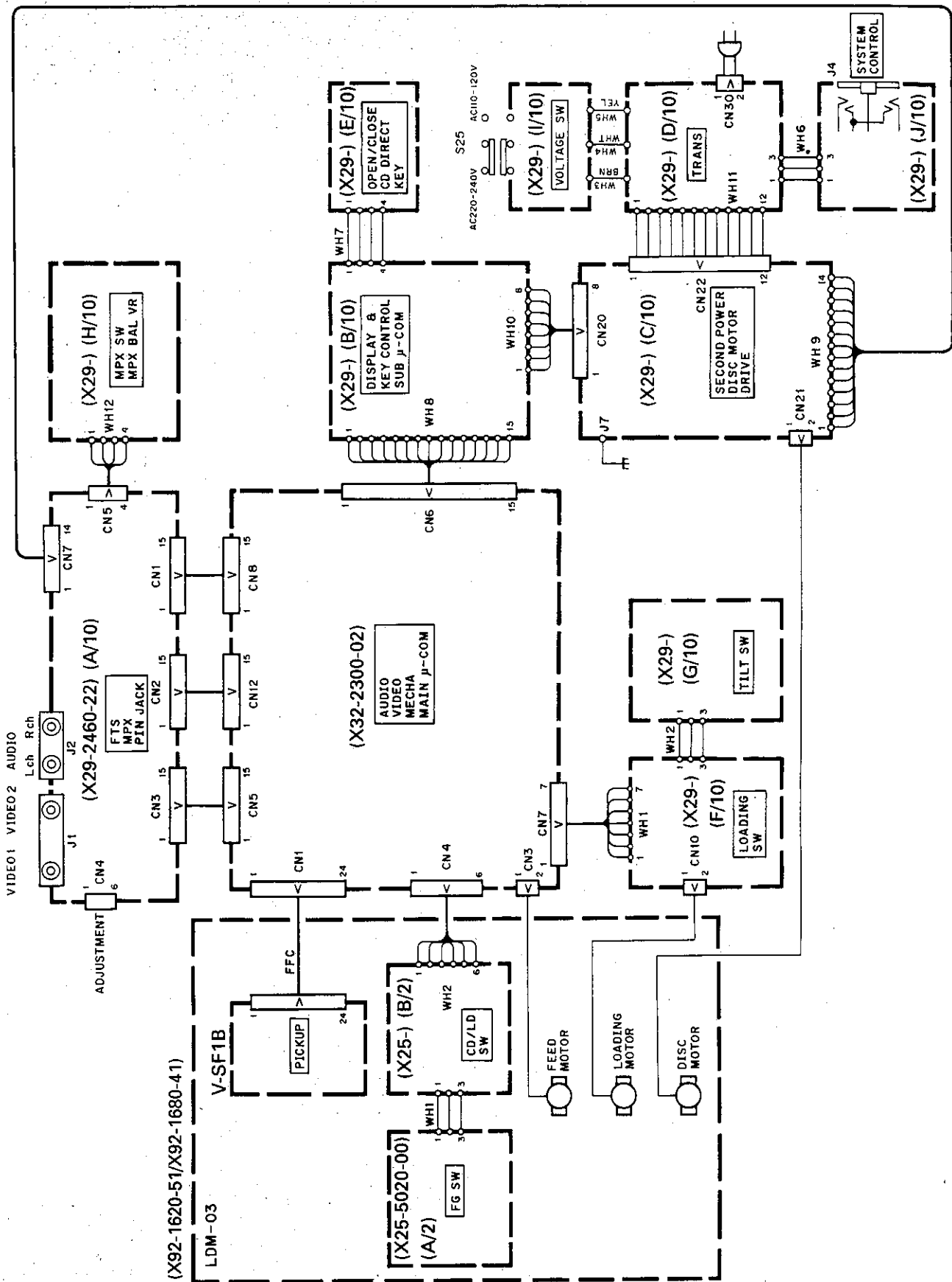
③ TILT balance



④ Tracking balance



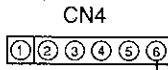
WIRING DIAGRAM



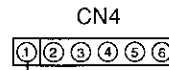
PC BOARD (COMPONENT SIDE VIEW)

LD Focus balance :
Maximize the RF
signal amplitude.

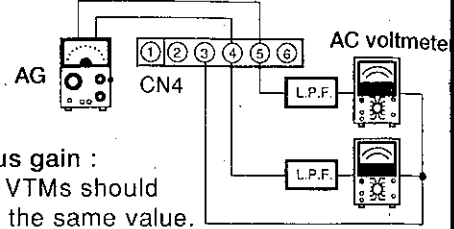
Tracking balance :
Make the positive
and negative jump
pulses equal.



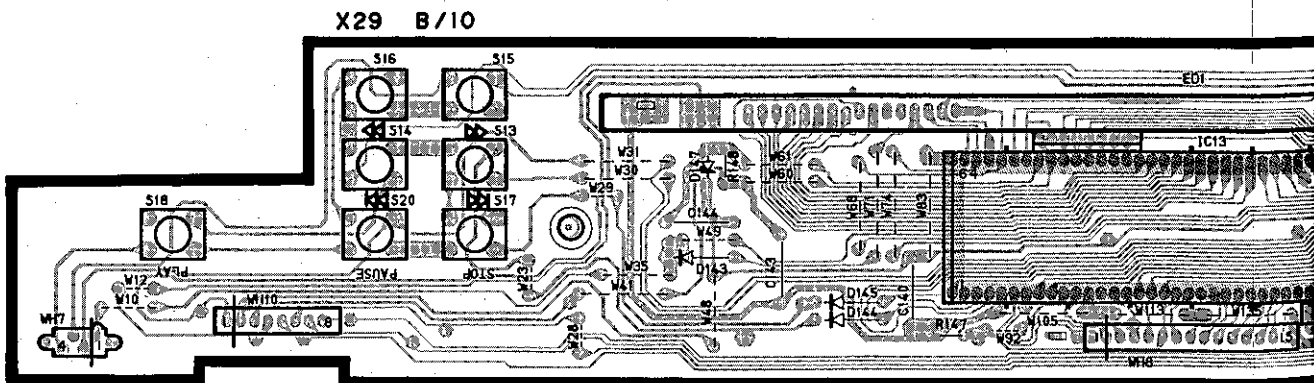
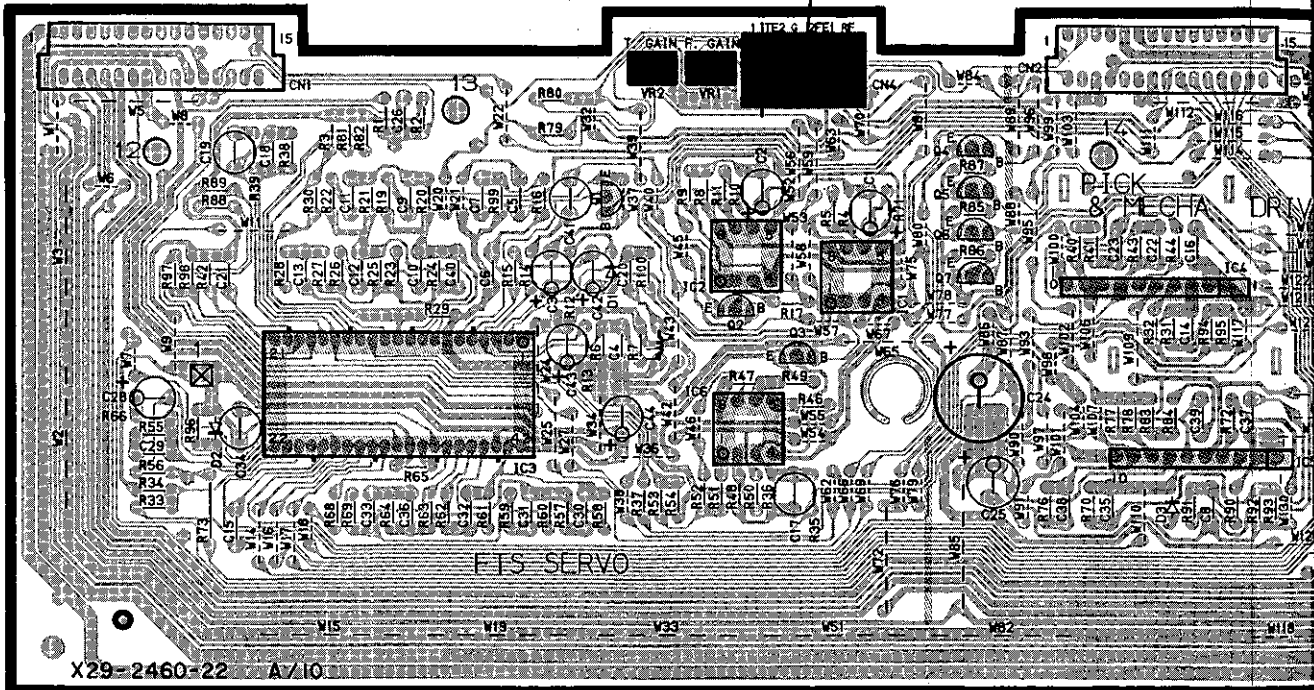
Oscilloscope



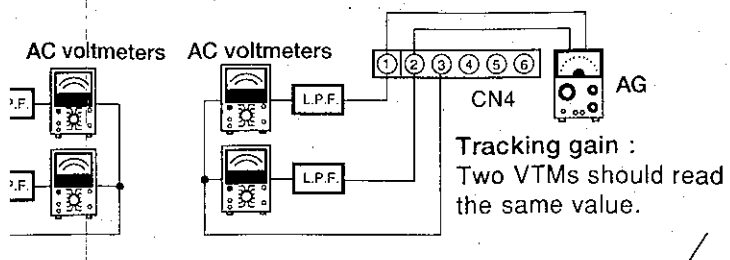
Oscilloscope



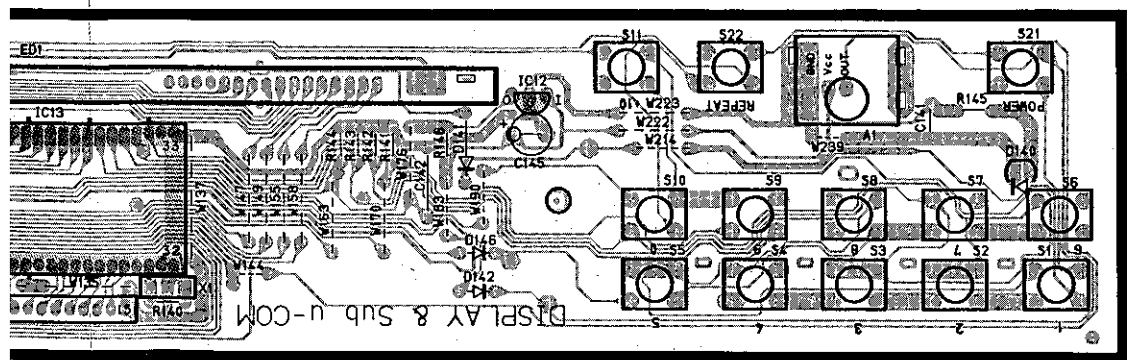
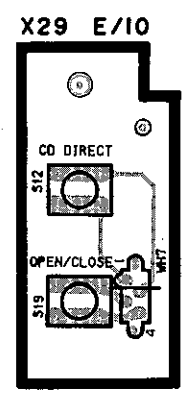
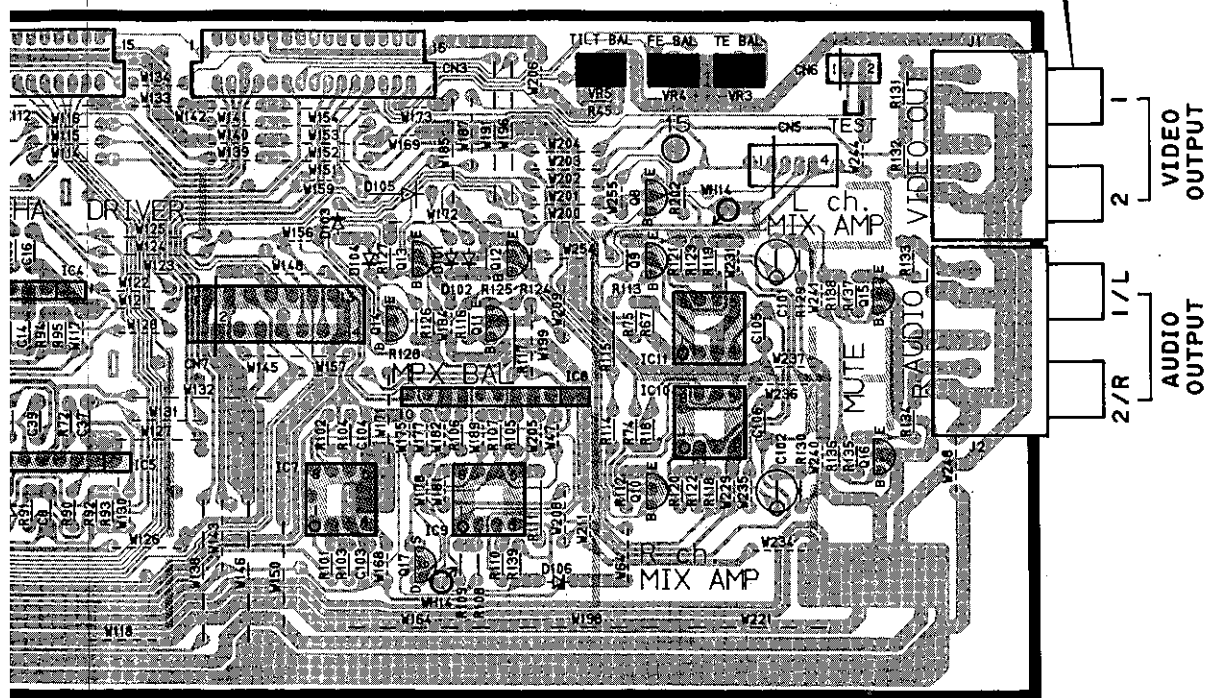
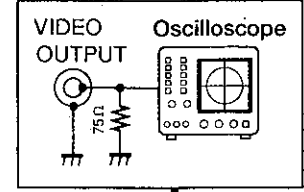
Focus gain :
Two VTMs should
read the same value.



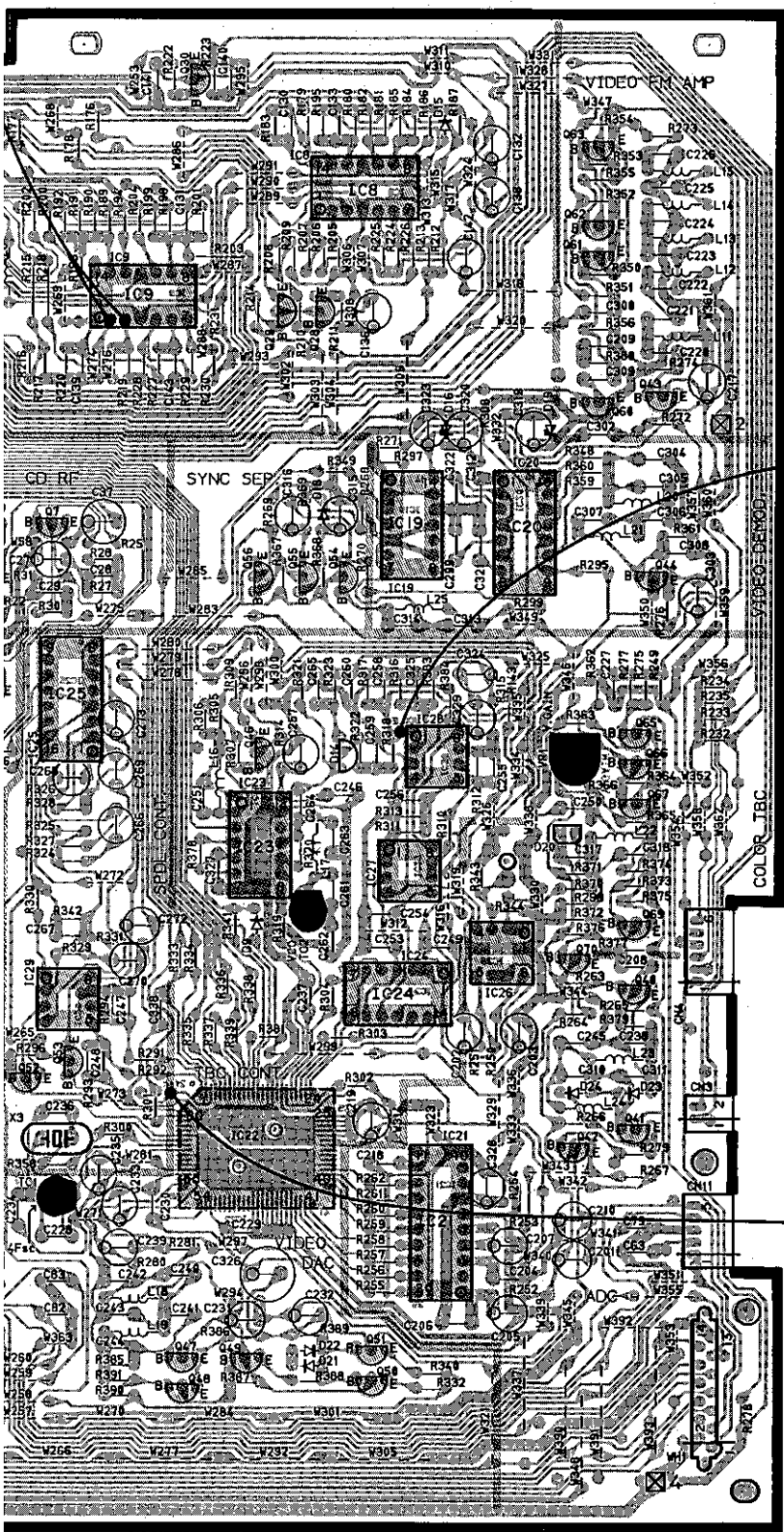
Refer to the schematic diagram for the values of resistors and capacitors.



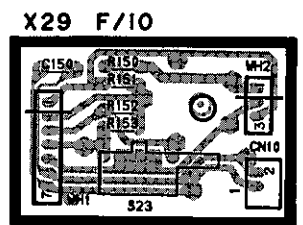
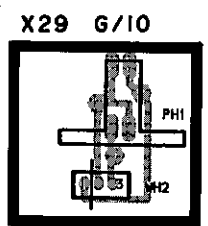
Video level :
Video signal amplitude
:1.0Vp-p.



ope
 R-dependence : Lissajons'figure=180°



Oscilloscope
 VCO : DC=0±0.5V

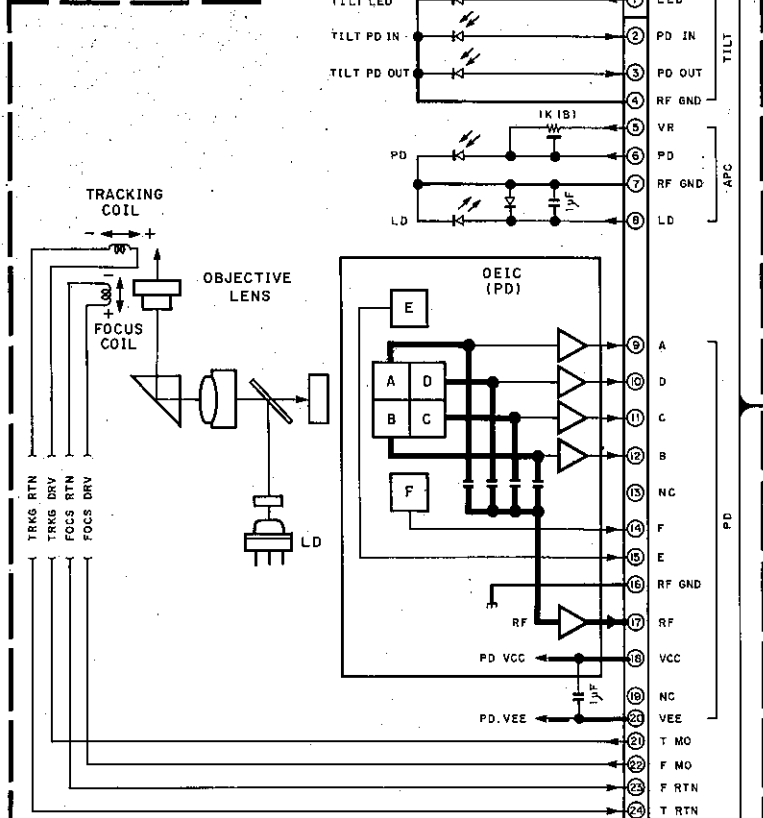


Frequency counter
 2fsc frequency :
 7.15909MHz±5Hz

MECHA. ASS'Y (X92-1620-51)

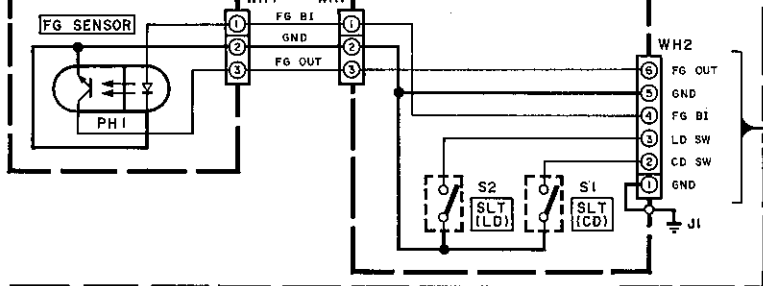
(X32-2300-02) PROCESSOR U

PICKUP (V-SFIB)



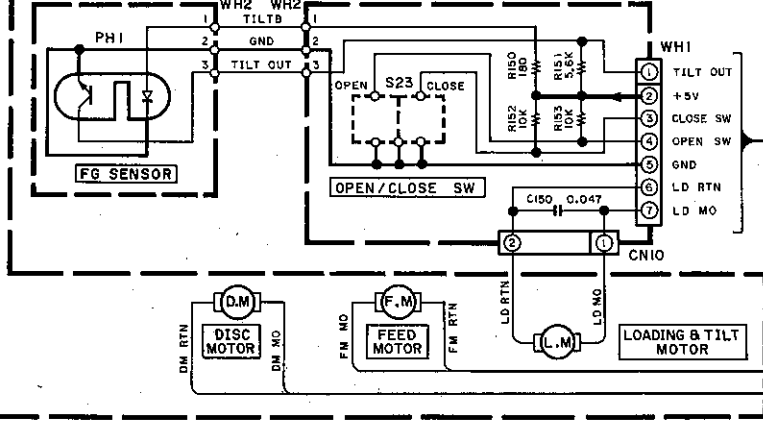
(X25-5020-00) (A/2)

(X25)(B/2)

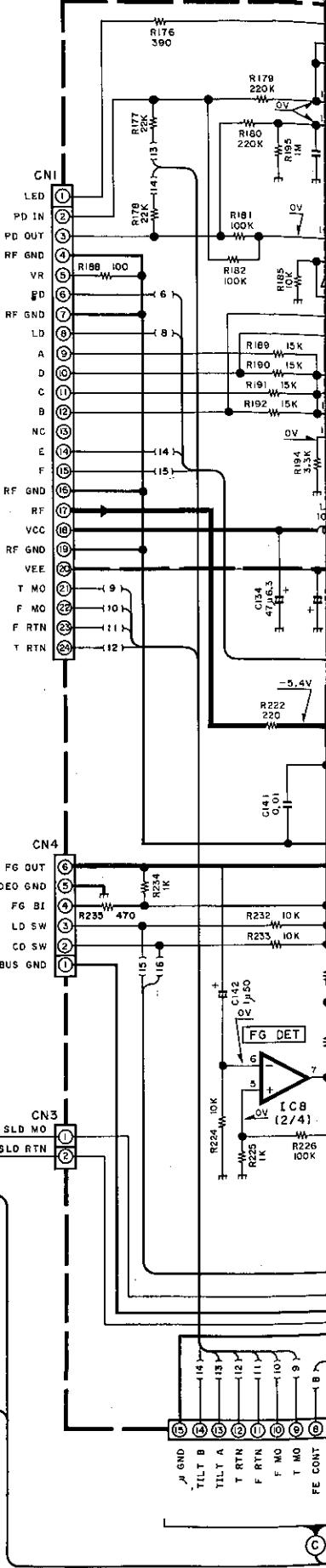


(X29)(G/10)

(X29)(F/10)



- SIGNAL LINE
- GND LINE
- +B LINE
- -B LINE



2

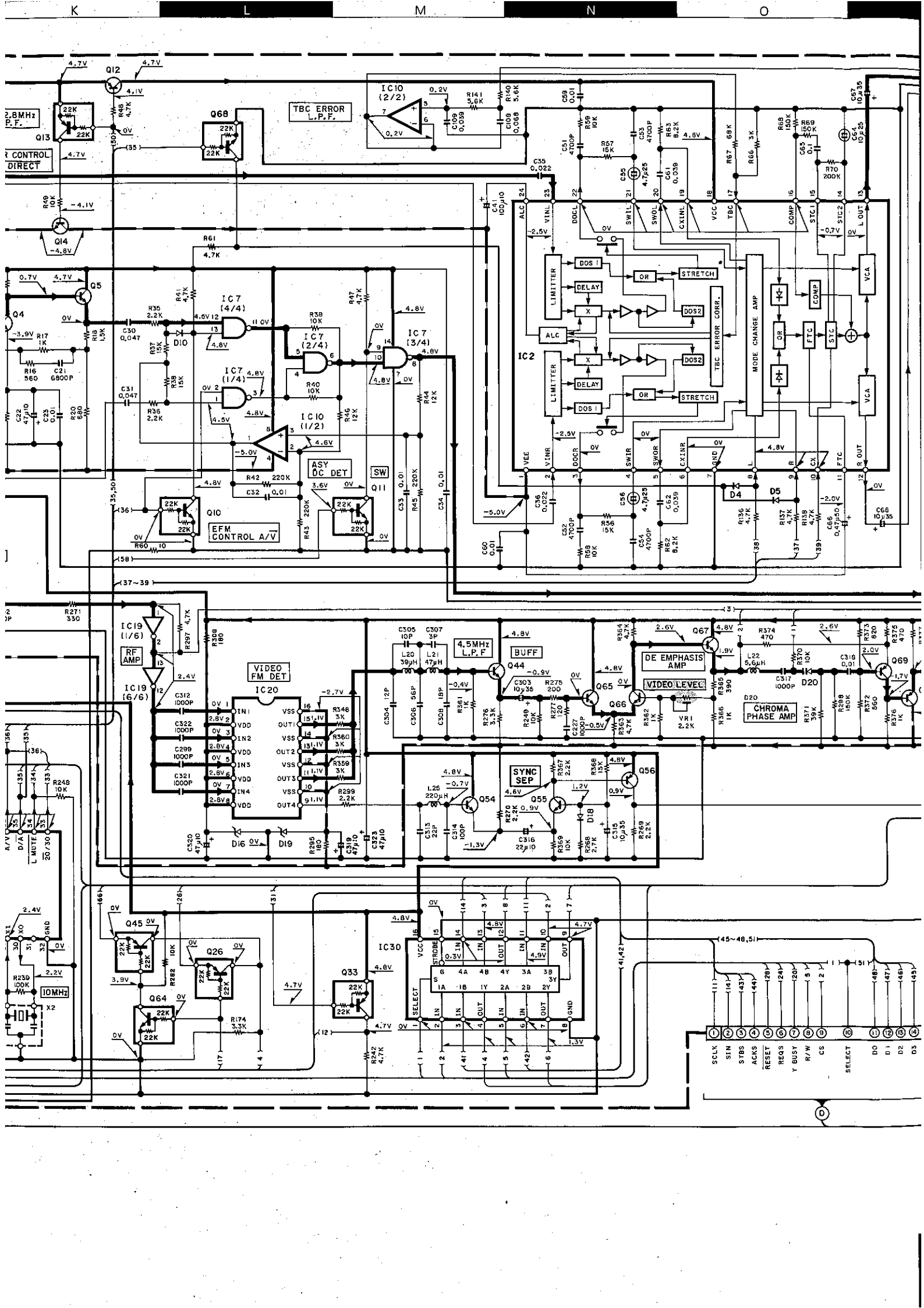
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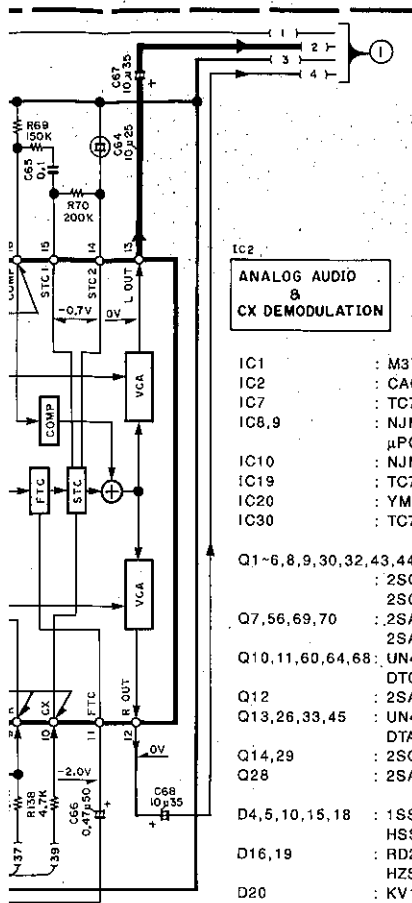
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5

6

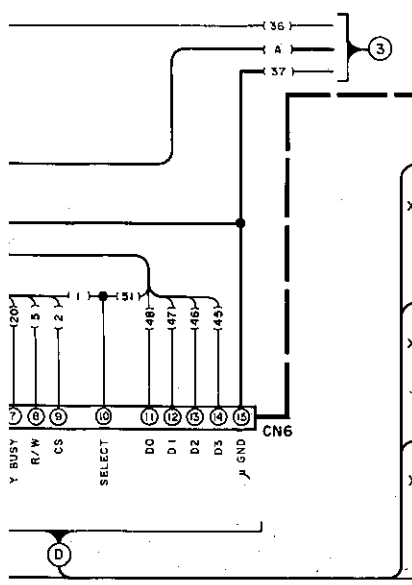
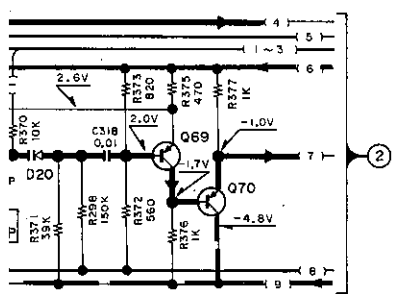
7





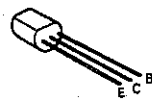
ANALOG AUDIO & CX DEMODULATION

- IC1 : M37451M8-133SP
 IC2 : CA0002AM
 IC7 : TC74HC00AP
 IC8,9 : NJM2058D or μ PC4574C
 IC10 : NJM4565D
 IC19 : TC74HCU04AP
 IC20 : YM9558-SP
 IC30 : TC74HC157AP
- Q1-6, 8, 9, 30, 32, 43, 44, 54, 55, 61-63, 65-67 : 2SC3311A(Q,R) or 2SC2458(Y,GR)
 Q7, 56, 69, 70 : 2SA1309A(Q,R) or 2SA1048(Y,GR)
 Q10, 11, 60, 64, 68 : UN4212 or DTC124ES
 Q12 : 2SA1286
 Q13, 26, 33, 45 : UN4112 or DTA124ES
 Q14, 29 : 2SC3246
 Q28 : 2SA954(L,K)
- D4, 5, 10, 15, 18 : 1SS133 or HSS104
 D16, 19 : RD2.7ES(B2) or HZS2.7N(B2)
 D20 : KV1230Z

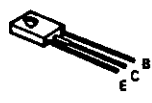


LVD-68 (M) (1/3)

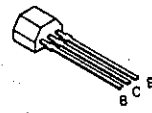
- 2SA1286 2SC3246
 2SA1534A 2SC3940A
 2SA954 2SD1302
 2SC2878



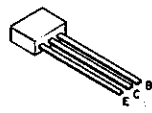
- 2SB772
 2SD882



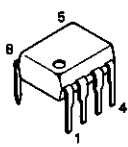
- DTA124ES 2SA1048
 DTC124ES 2SC2458
 UN4112



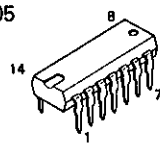
- UN4212
 2SA1309A
 2SC3311A



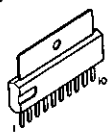
- NJM2903D
 NJM4560D



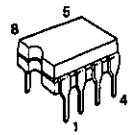
- M5207L05



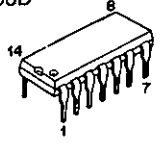
- TAB410AK



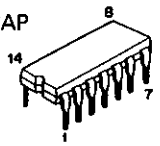
- NJM4565D



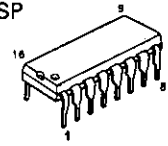
- NJM2058D



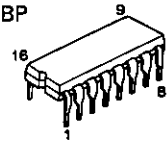
- TC74HCU04AP
 TC74HC00AP
 TC74HC4066AP
 UPC4574C



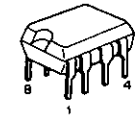
- XRU4053B
 YM3558-SP



- TC4052BP
 TC4053BP



- UPC4570C-A

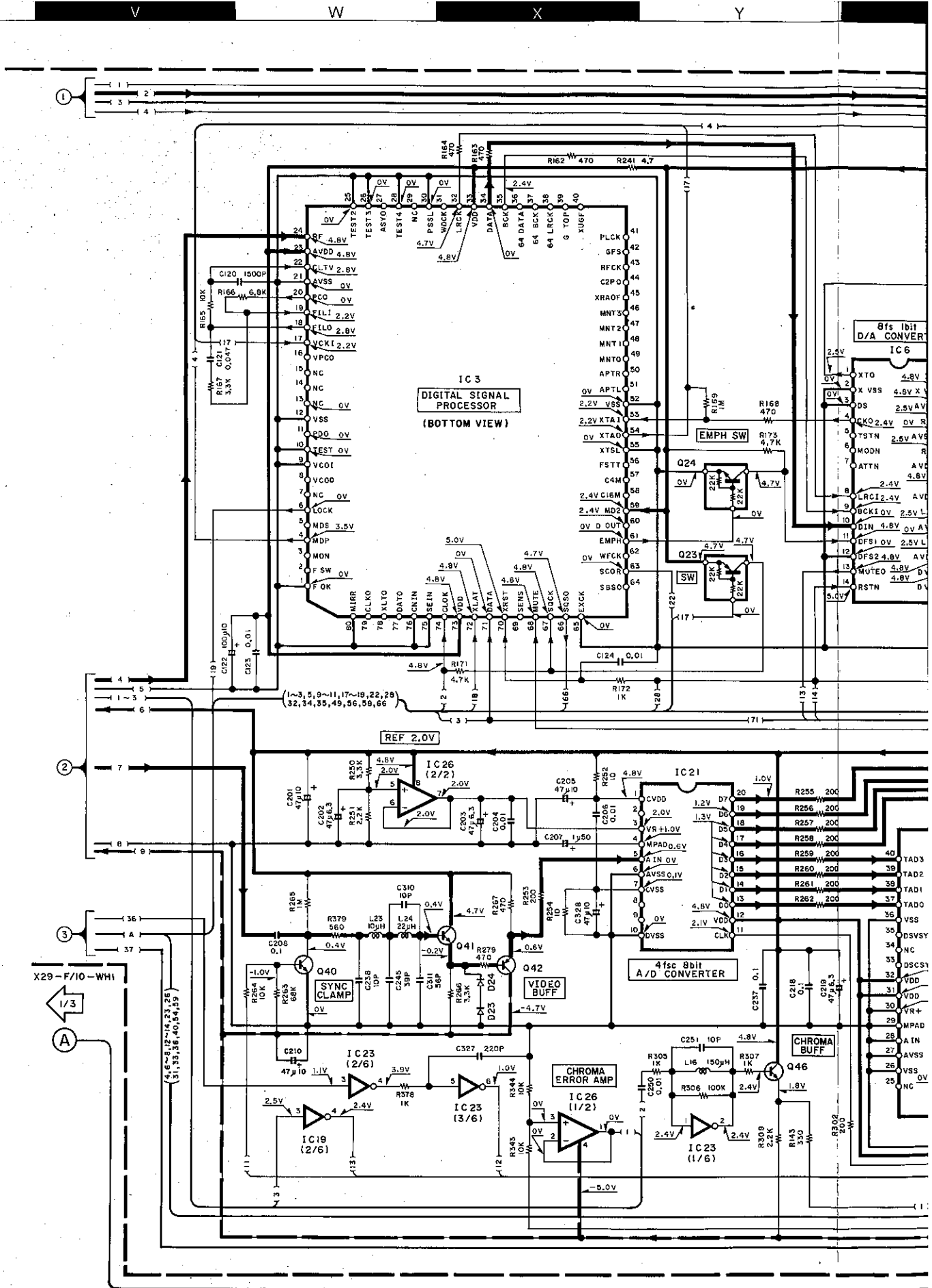


CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).

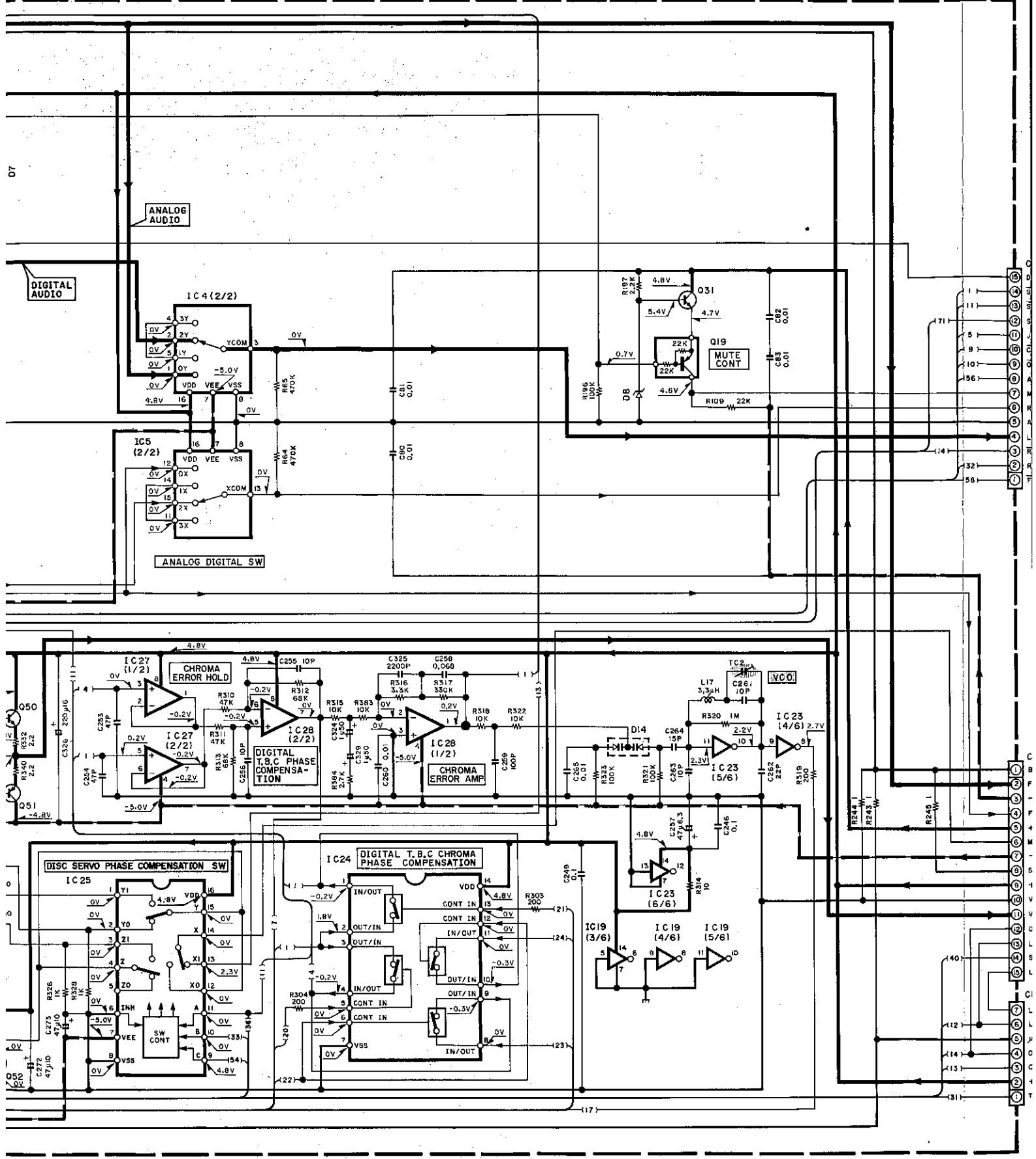
⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

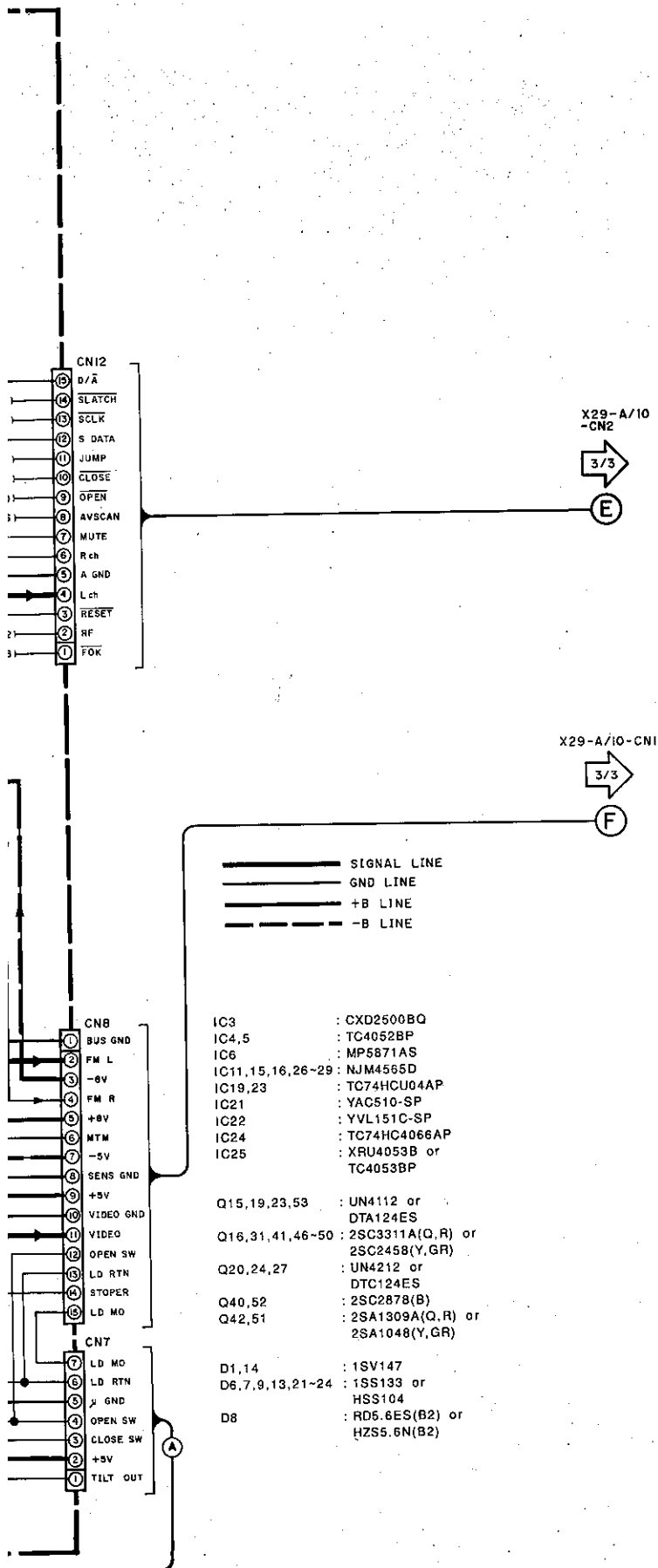
• DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.



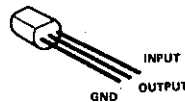


(X32-2300-02) PROCESSOR UNIT

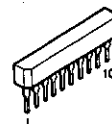




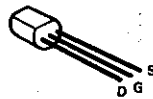
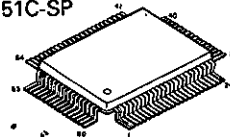
PST529C



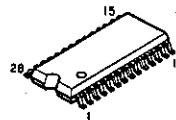
STA455C



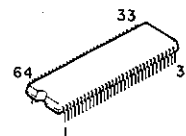
2SK163

CXD2500BQ
YVL151C-SP

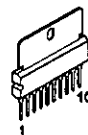
MP5871AS



UPD75217CW-244



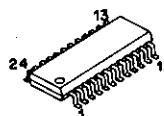
TA7272P



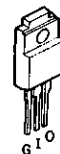
UPC2405HF



CA0002AM



UPC7905HF



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.

- DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

LVD-68(M)(2/3)

Y22-3860-21

LVD-68

KENWOOD

(X29-2460-22) (A/10) CONTROL UNIT

MECHA.

1/3

(B)

2

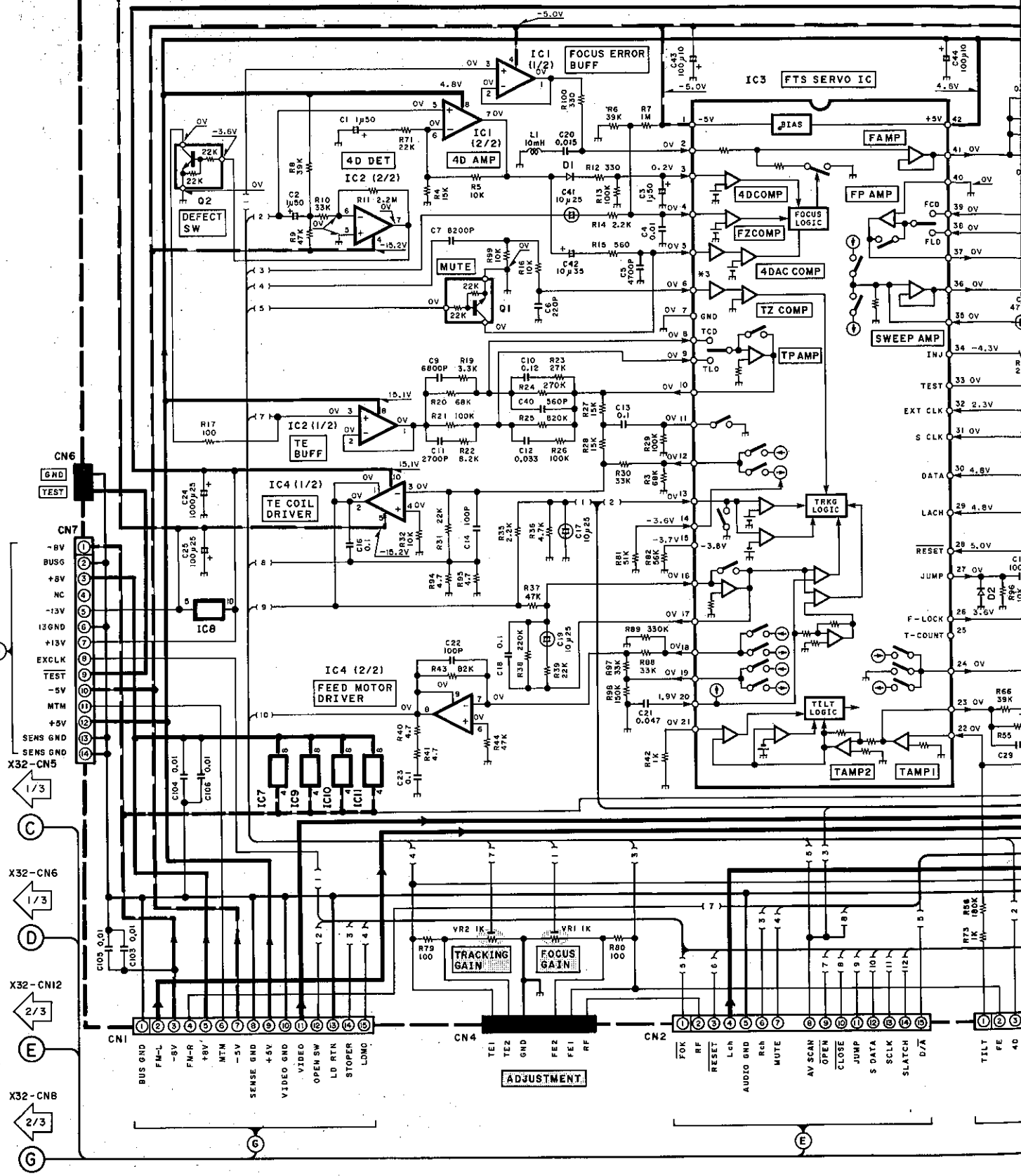
3

4

5

6

7



X32-CN5

X32-CN6

X32-CN12

X32-CN8

CN1

CN4

CN2

ADJUSTMENT

TRACKING GAIN

FOCUS GAIN

DEFECT SW

MUTE

TE COIL DRIVER

FEED MOTOR DRIVER

4D DET

4D AMP

FOCUS ERROR BUFF

FTS SERVO IC

BIAS

FAMP

4DCOMP

FZCOMP

4DAC COMP

TZ COMP

TP AMP

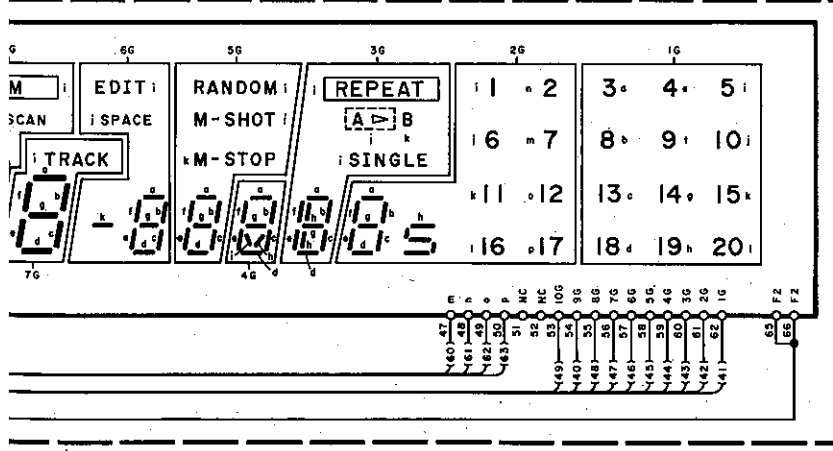
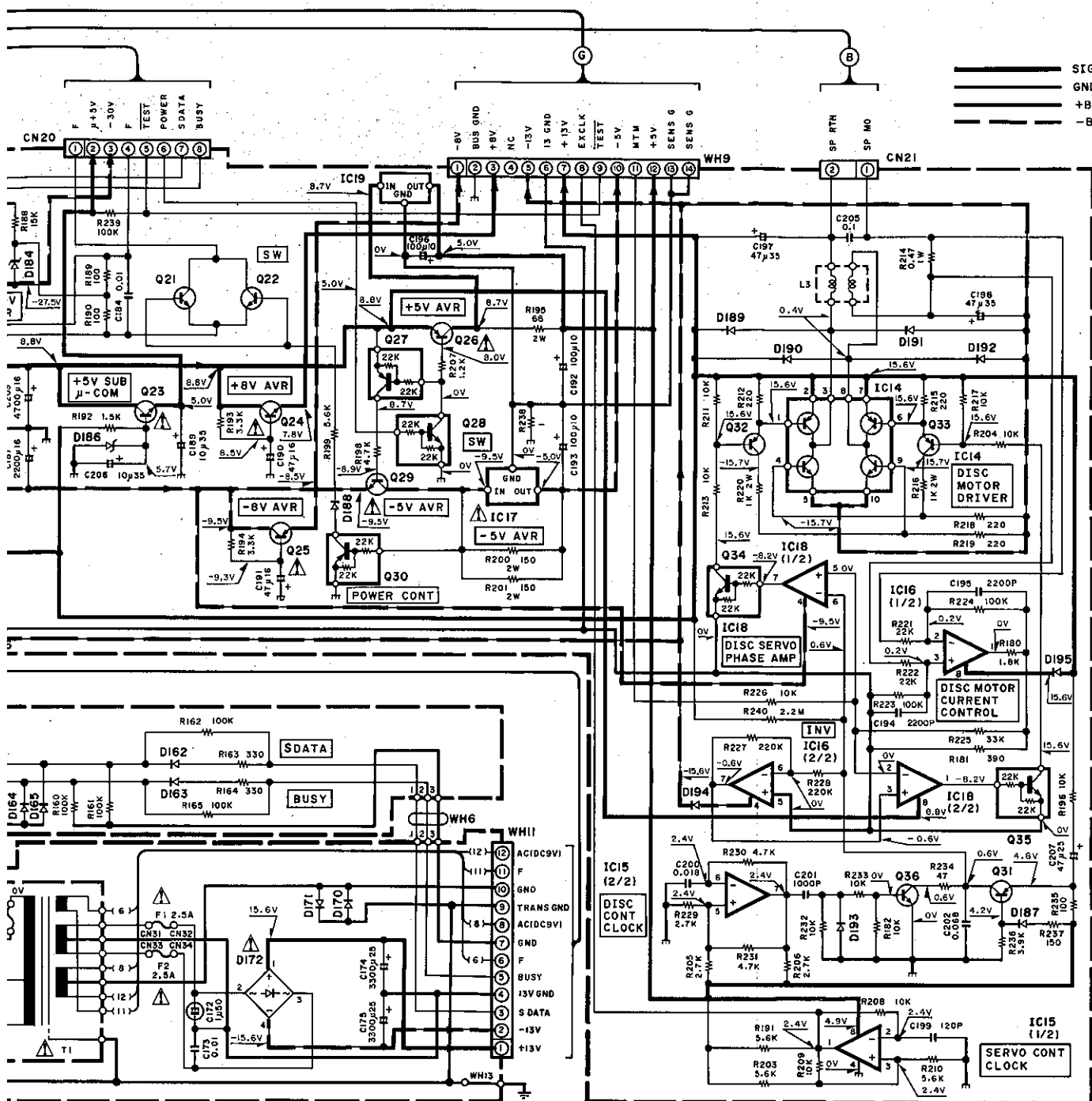
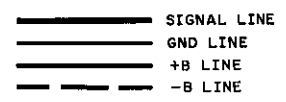
SWEEP AMP

TRKG LOGIC

TILT LOGIC

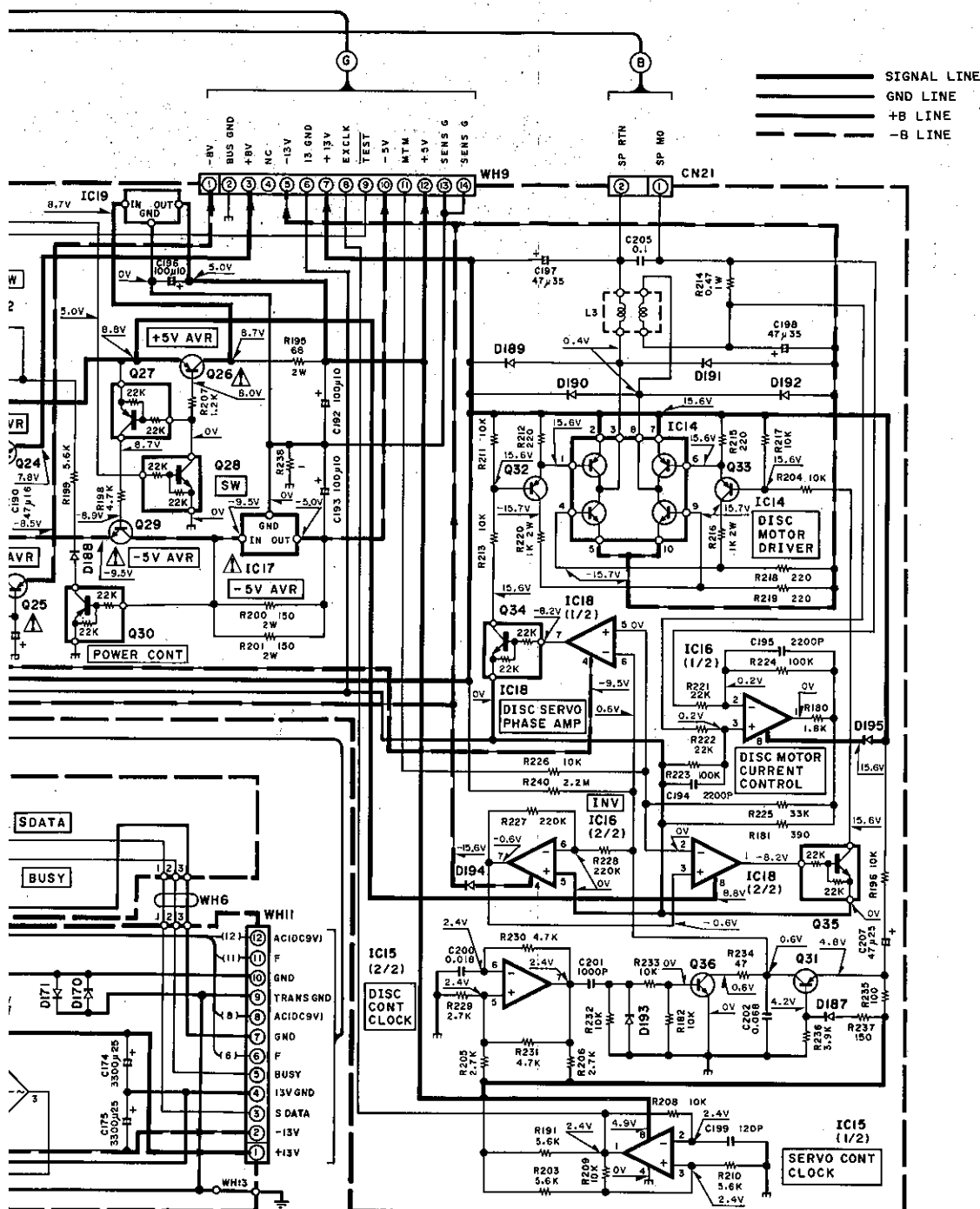
TAMP2

TAMP1

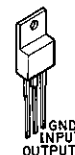


- (X29)-(C/10)(D/10)(J/10)
- | | | |
|-----------|--------------------|------------------------------|
| IC14 | : STA455C | D160-163,170,171,187,188,193 |
| IC15 | : NJM2903D | : ISS133 or |
| IC16 | : NJM4560D | : HSS104 |
| IC17 | : TA79005S or | D164,165,184,186 |
| | µPC7905HF | : RDS.6ES (B2) or |
| IC18 | : µPC4570C-A | : HZS5.6N (B2) |
| IC19 | : µPC2405HF | D172,185 : D3SBA20F03 |
| | | D180-182,194-197 |
| Q20,25 | : 2SA1534A(R,S) | : S5688B or |
| Q21,22 | : 2SD1302(S,T) | : 1SR139-100 |
| Q23 | : 2SC3940A(R,S) | D183 : R030ES (B) or |
| Q24 | : 2SC3311A(Q,R) or | : HZS30N (B) |
| | 2SC2458(Y,GR) | D189-192 : ERA081-004 |
| Q26 | : 2SB772 (F,E) | |
| Q27,30 | : DTA124ES or | |
| | UN4112 | |
| Q28,34,35 | : DTC124ES or | |
| | UN4212 | |
| Q29 | : 2SD882 (F,E) | |
| Q31-33 | : 2SA1048(Y,GR) or | |
| | 2SA1309(Q,R) | |
| Q36 | : 2SC3246 | |

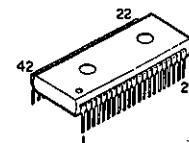
LVD-68 (M) (3/3)



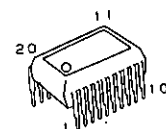
TA79005S



HA11529



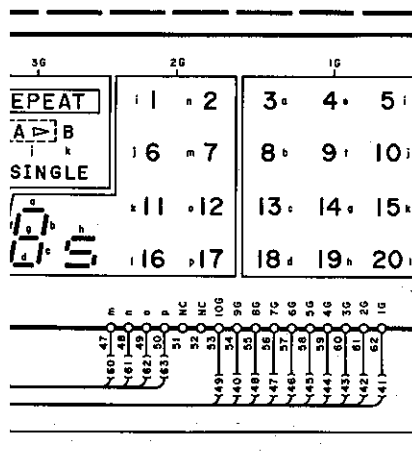
YAC510-SP



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 ⚠ Indicates safety critical components.

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- DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.



(X29-)(C/10)(D/10)(J/10)

IC14	: STA455C	D160-163,170,171,187,188,193
IC15	: NJM2903D	: ISS133 or
IC16	: NJM4560D	: HSS104
IC17	: TA79005S or	D164,165,184,186
	μPC7905HF	
IC18	: μPC4570C-A	: RD5.6ES (B2) or
IC19	: μPC2405HF	: HZS5.6N (B2)
		D172,185 : D3SBA20F03
		D180-182,194-197
Q20,25	: 2SA1534A(R,S)	: S5688B or
Q21,22	: 2SD1302(S,T)	: 1SR139-100
Q23	: 2SC3940A(R,S)	D183 : RD30ES (B) or
Q24	: 2SC3311A(Q,R) or	: HZS30N (B)
	2SC2458(Y,GR)	D189-192 : ERA081-004
Q26	: 2SB772 (P,E)	
Q27,30	: DTA124ES or	
	UN4112	
Q28,34,35	: DTC124ES or	
	UN4212	
Q29	: 2SD882 (P,E)	
Q31-33	: 2SA1048(Y,GR) or	
	2SA1309(Q,R)	
Q36	: 2SC3246	

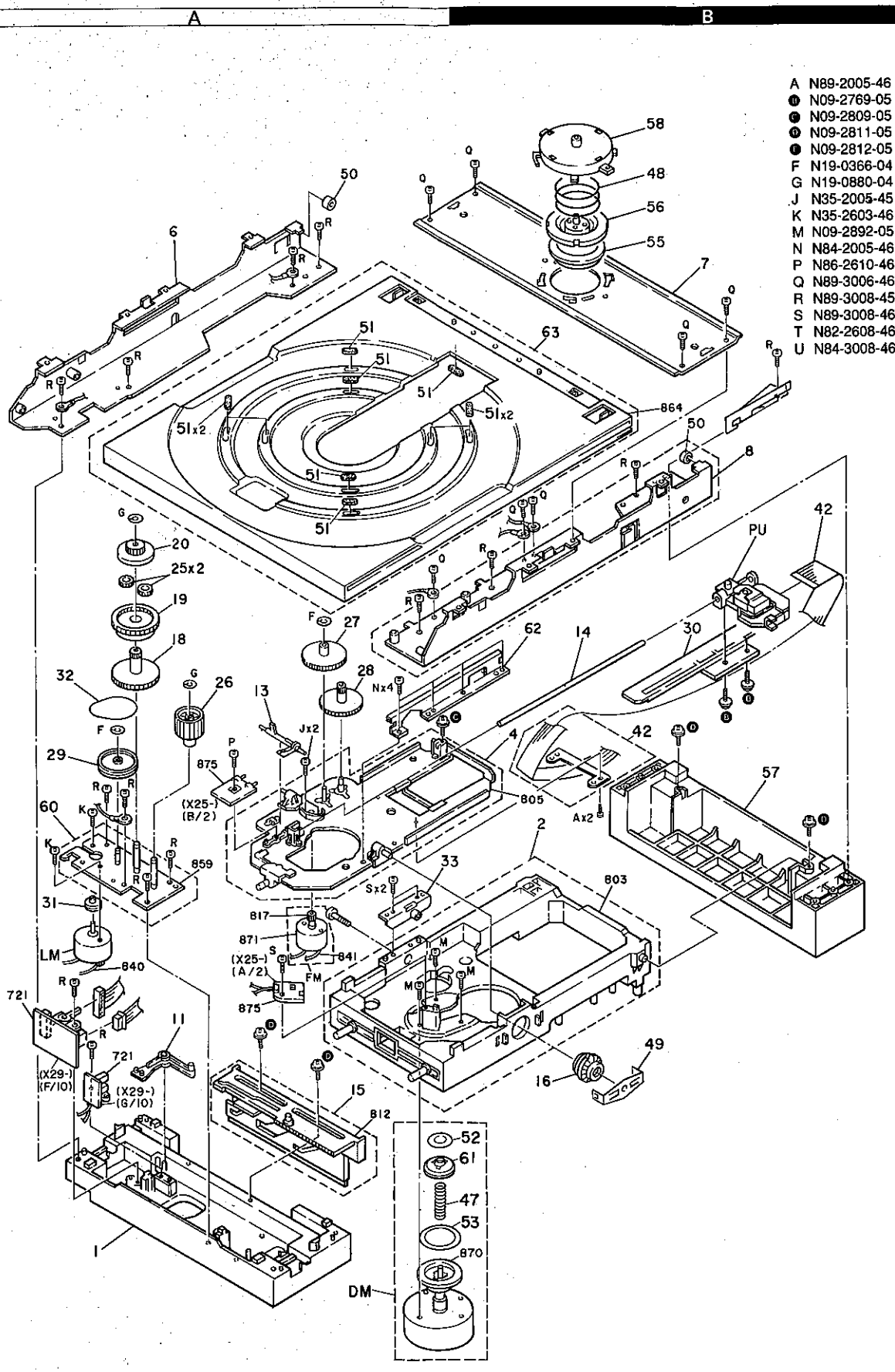
LVD-68 (M) (3/3)

Y22-3860-21

LVD-68

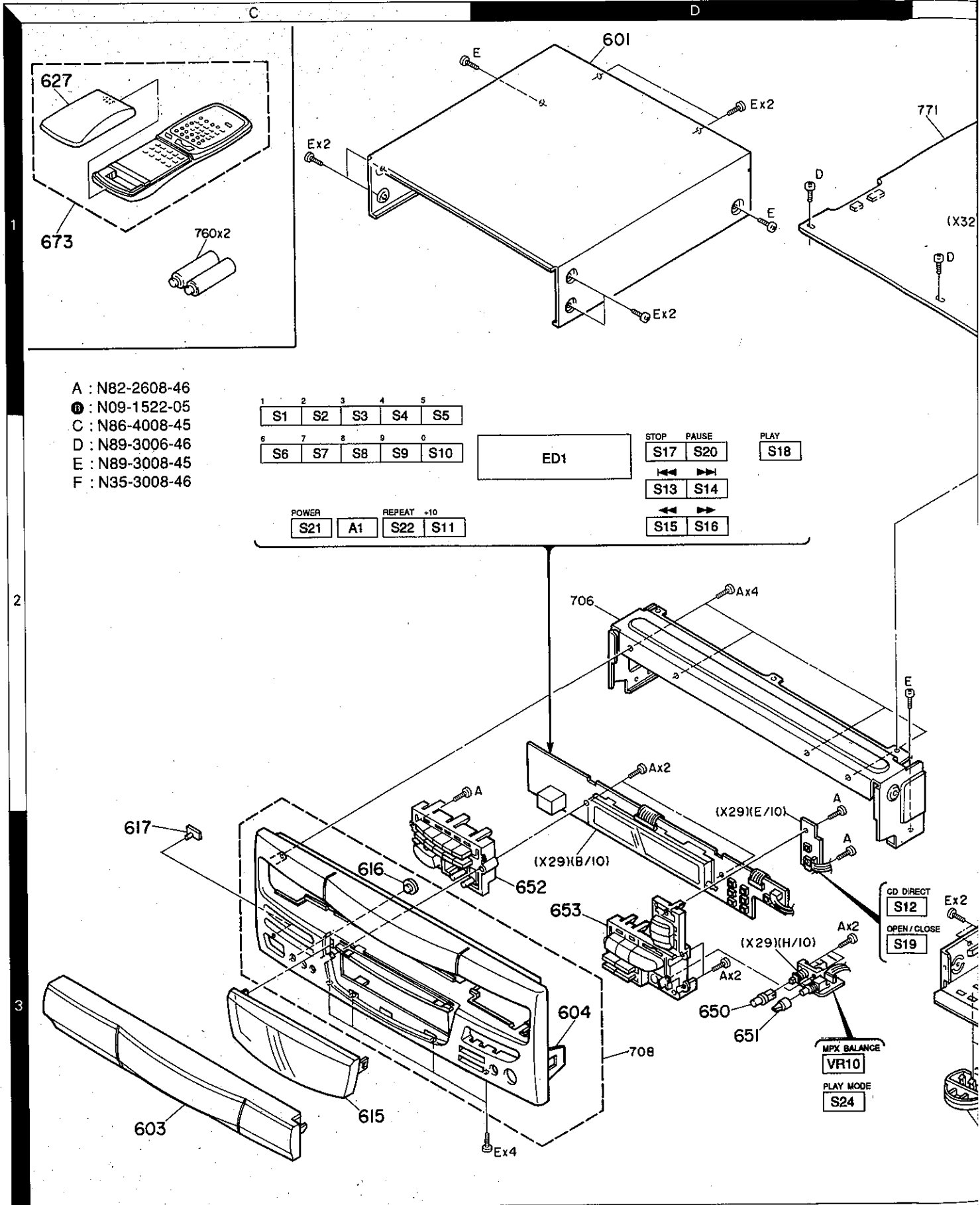
KENWOOD

EXPLODED VIEW (MECHANISM)



- A N89-2005-46
- N09-2769-05
- N09-2809-05
- N09-2811-05
- N09-2812-05
- F N19-0366-04
- G N19-0880-04
- J N35-2005-45
- K N35-2603-46
- M N09-2892-05
- N N84-2005-46
- P N86-2610-46
- Q N89-3006-46
- R N89-3008-45
- S N89-3008-46
- T N82-2608-46
- U N84-3008-46

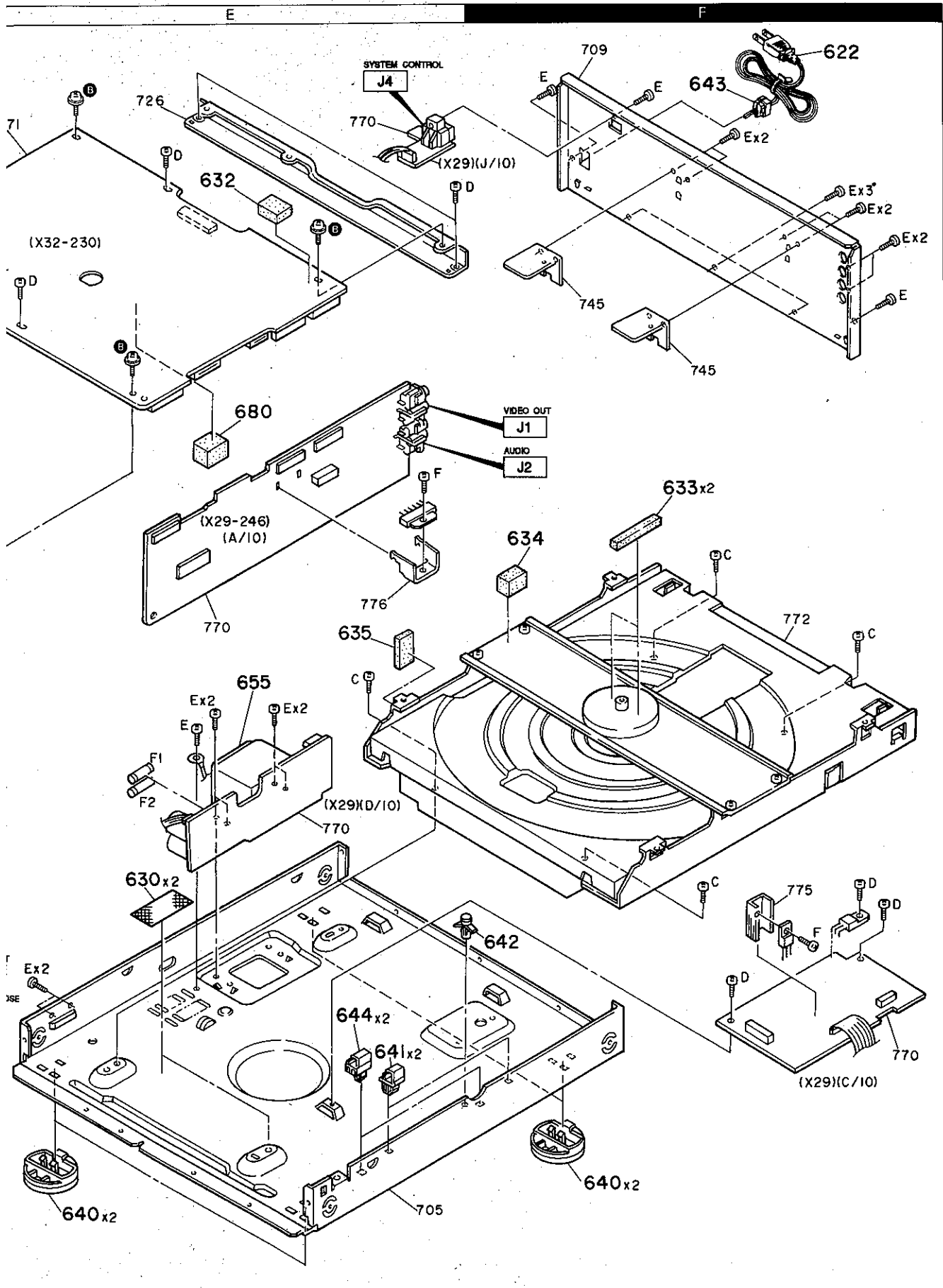
Parts with the exploded numbers larger than 700 are not supplied



2

3

EW (UNIT)



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

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.

PARTS LIST

2
 * 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 位	New Parts 新	Parts No. 部品番号	Description 部品名 / 规格	Desti- nation 向	Re- marks 備考
C15			CK45FB1H102K	CERAMIC		
C16			CF92FV1H104J	MF		
C17			CE04HW1E100M	NP-ELEC		
C18			CF92FV1H104J	MF		
C19			CE04HW1E100M	NP-ELEC		
C20			CF92FV1H153J	MF		
C21			CF92FV1H473J	MF		
C22			CC45FSL1H101J	CERAMIC		
C23			CF92FV1H104J	MF		
C24		*	CE04DW1E102M	ELECTRØ		
C25			CE04KW1E101M	ELECTRØ		
C26			CF92FV1H104J	MF		
C28			CE04KW1H010M	ELECTRØ		
C29			CF92FV1H104J	MF		
C30			CF92FV1H123J	MF		
C31			CF92FV1H104J	MF		
C32			CF92FV1H223J	MF		
C33			CF92FV1H473J	MF		
C34			CE04HW1A470M	NP-ELEC		
C35			CC45FSL1H121J	CERAMIC		
C36			CC45FSL1H101J	CERAMIC		
C37	-39		CF92FV1H104J	MF		
C40			CF92FV1H561J	MF		
C41			CE04HW1E100M	NP-ELEC		
C42			CE04KW1V100M	ELECTRØ		
C43, 44			CE04KW1A101M	ELECTRØ		
C101, 102			CE04KW1V100M	ELECTRØ		
C103-106			CK45FF1H103Z	CERAMIC		
C140			C91-0769-05	CERAMIC		
C141			CK45FF1H103Z	CERAMIC		
C142			C91-0769-05	CERAMIC		
C143			C91-0757-05	CERAMIC		
C144			C91-0769-05	CERAMIC		
C145			C90-5222-05	ELECTRØ		
C150			CF92FV1H473J	MF		
C160, 161			CC45FSL1H221J	CERAMIC		
C162			CF92FV1H101K	MF		
C170, 171			CF91-1488-05	MF		
C172			CE04HW1H010M	NP-ELEC		
C173			CK45FF1H103Z	CERAMIC		
C174, 175			CE04KW1E332M	ELECTRØ		
C180-182			CE04KW1E221M	ELECTRØ		
C183			CE04DW1V221M	ELECTRØ		
C184, 185			CK45FF1H103Z	CERAMIC		
C186			CE04HW1H010M	NP-ELEC		
C187, 188			CE04DW1C222M	ELECTRØ		
C189			CE04KW1V100M	ELECTRØ		
C190, 191			CE04KW1C470M	ELECTRØ		
C192, 193			CE04KW1A101M	ELECTRØ		
C194, 195			CK45FB1H222K	CERAMIC		
C196			CE04KW1A101M	ELECTRØ		
C197, 198			CE04KW1V470M	ELECTRØ		
C199			CC45FSL1H121J	CERAMIC		
C200			CF92FV1H183J	MF		
C201			CK45FB1H102K	CERAMIC		

L: Scandinavia K: USA P: Canada R: Mexico
 Y: PX (Far East, Hawaii) T: England E: Europe G: Germany
 Y: AA/ES (Europe) X: Australia M: Other Areas
 Δ indicates safety critical components.

1
 * New Parts
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Ref. No. 参照番号	Address 位	New Parts 新	Parts No. 部品番号	Description 部品名 / 规格	Desti- nation 向	Re- marks 備考
LVD-68						
601	1D		A01-1796-01	METALLIC CABINET (TRAY)		
603	3C		A29-0379-02	PANEL		
604	3D	*	A60-0627-11	PANEL (FRONT)		
615	3C	*	B10-2052-03	FRONT GLASS		
616	3C	*	B11-0237-14	COLOR FILLER		
617	3C	*	B12-0200-04	INDICATOR		
622	1F		E30-2592-15	AC POWER CORD		
627	1C		F07-0721-33	BATTERY COVER		
630	3E		G10-0127-04	NON-WOVEN FABRIC		
632	1E		G11-2086-04	CUSHION		
633	2F		G11-2143-04	CUSHION		
634	2F		G11-2144-04	CUSHION		
635	2E		G11-2087-04	CUSHION		
-	-	*	H10-5842-02	POLYSTYRENE FOAMED FIXTURE		
-	-	*	H10-5843-02	POLYSTYRENE FOAMED FIXTURE		
-	-	*	H20-0568-04	PROTECTION COVER		
-	-	*	H21-0311-04	PROTECTION SHEET		
-	-	*	H50-1176-04	ITEM CARTON CASE		
640	3E, 3F		I02-1040-05	FOOT		
641	3E		J19-3223-05	UNIT HOLDER		
642	3F		J19-3300-05	UNIT HOLDER		
643	1F		J42-0083-05	POWER CORD BUSHING		
644	3E		J50-0133-05	HINGE		
650	3D		J61-0307-05	WIRE BAND		
651	3D		K27-2013-04	KNØB (BUTTON)		
652	3D		K29-4377-04	MPX BALANCE		
653	3D	*	K29-5985-02	10 KEY		
655	2E	*	K29-5986-12	STOP/PLAY		
673	1C		L07-0351-05	POWER TRANSFORMER		
			X94-1050-71	REMOTE CONTROL ASSY UNIT		
MECHANISM PCB (X25-5020-00)						
S1, 2			S40-1139-05	PUSH SWITCH		
PH1			T95-0048-05	OPTØ ISOLATOR		
CONTROL UNIT (X29-2460-22)						
D140			B30-1012-05	LED(SLP-981C-S1)		
C1	-3		CE04KW1H010M	ELECTRØ		
C4			CF92FV1H103J	MF		
C5			CF92FV1H472J	MF		
C6			CC45FSL1H221J	CERAMIC		
C7			CF92FV1H822J	MF		
C8			CF92FV1H104J	MF		
C9			CF92FV1H682J	MF		
C10			CF92FV1H124J	MF		
C11			CF92FV1H272J	MF		
C12			CF92FV1H333J	MF		
C13			CF92FV1H104J	MF		
C14			CC45FSL1H101J	CERAMIC		

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 Y: AA/ES (Europe) X: Australia M: Other Areas
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PARTS LIST

* 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 仕	Re- marks 備考
△ D185			D3SBA20F03	DIODE		
D186			HZS5.6N(B2)	ZENER DIODE		
D186			RDS.6ES(B2)	ZENER DIODE		
△ D187,188			HSS104	DIODE		
D187,188			1SS133	DIODE		
△ D189-192			ERA081-004	DIODE		
D193			HSS104	DIODE		
D195			1SS133	DIODE		
△ D194-197			S5688B	DIODE		
△ D194-197			1SR139-100	DIODE		
ED1			10-BT-107GK	INDICATOR TUBE		
IC1, 2			NJM4565D	IC(OP AMP X2)		
IC3			HA11529	IC(CD/LD SERV IC)		
IC4			TA8410AK(V18)	IC(OP AMP X2)		
IC5			TA7272P	IC(OP AMP X2)		
IC6, 7			NJM4565D	IC(OP AMP X2)		
IC8			M5207L05	IC(DUAL VCA)		
IC9 - 11			NJM4565D	IC(OP AMP X2)		
IC12			PST529C	IC(SYSTEM RESET)		
IC13		*	UPD75217CM-244	MI-COM IC		
IC14			STA455C	IC(TRANSISTOR ARRAY)		
IC15			NJM2903D	IC(DUAL COMPARTOR)		
IC16			NJM4566D	IC(OP AMP X2)		
△ IC17			TA7900SS	IC(VOLTAGE REGULATOR/ -5V)		
△ IC17			UPC7905HF	IC(VOLTAGE REGULATOR/ -5V)		
IC18			UPC4570C-A	IC(OP AMP X2)		
IC19			UPC2405HF	IC(VOLTAGE REGULATOR/ +5V)		
Q1			DTC124ES	DIGITAL TRANSISTOR		
Q2			UN4212	TRANSISTOR		
Q3			DTC124ES	DIGITAL TRANSISTOR		
Q3			DTC124ES	DIGITAL TRANSISTOR		
Q4 - 6			UN4212	TRANSISTOR		
Q4 - 6			DTA124ES	DIGITAL TRANSISTOR		
Q7, 8			DTC124ES	DIGITAL TRANSISTOR		
Q7, 8			UN4212	TRANSISTOR		
Q9 - 11			2SC2878(B)	TRANSISTOR		
Q12 - 14			DTC124ES	DIGITAL TRANSISTOR		
Q12 - 14			UN4212	TRANSISTOR		
Q15, 16			2SC2878(B)	TRANSISTOR		
Q17			2SK163(L,M)	FET		
△ Q20			2SA1534(R,S)	TRANSISTOR		
△ Q21, 22			2SD1302(S,T)	TRANSISTOR		
△ Q23			2SC3940(R,S)	TRANSISTOR		
△ Q24			2SC2458(Y,6R)	TRANSISTOR		
△ Q24			2SC3311A(Q,R)	TRANSISTOR		
△ Q25			2SA1534A(R,S)	TRANSISTOR		
△ Q26			2SB772(P,E)	TRANSISTOR		
△ Q27			DTA124ES	DIGITAL TRANSISTOR		
Q27			UN4112	TRANSISTOR		
Q28			DTC124ES	DIGITAL TRANSISTOR		
Q28			UN4212	TRANSISTOR		
△ Q29			2SD082(P,E)	TRANSISTOR		
Q30			DTA124ES	DIGITAL TRANSISTOR		
Q30			UN4112	TRANSISTOR		

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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 仕	Re- marks 備考
C202			CF92FV1H683J	MF 0.068UF J		
C203, 204			CE04KW1C472M	4700UF 16WV		
C205			CF92FV1H104J	MF 0.10UF J		
C206			CE04KV1V100M	ELECTRO 10UF 35WV		
C207			CE04KW1E470K	ELECTRO 47UF 25WV		
J1	1F		E63-0105-05	PHONE JACK (VIDEO OUT)		
J2	2F		E63-0106-05	PHONE JACK (AUDIO OUT)		
J4	1E		E08-0311-05	RECTANGULAR RECEPTACLE		
△ F1, 2			F05-2525-05	FUSE (SEMKO) (250V T2.5AL)		
CN31-34			J13-0075-05	FUSE CLIP		
L1			L4D-1031-46	SMALL FIXED INDUCTOR(10MH, K)		
△ L2			L79-0733-05	LINE FILTER		
L3			L33-0374-05	CHOKO COIL		
X1			L78-0267-05	RESONATOR (4.194MHZ)		
R187			RD14GB2E220J	FL-PROOF RD 22 J 1/4W		
R195			RS14KB3D680J	FL-PROOF RS 68 J 2W		
R203, 201			RS14KB3D151J	FL-PROOF RS 150 J 2W		
R214			RS14KB3AR47J	FL-PROOF RS 0.47 J 1W		
R216			RS14KB3D102J	FL-PROOF RS 1.0K J 2W		
R220			RS14KB3D102J	FL-PROOF RS 1.0K J 2W		
VR1, 2			R12-1084-05	TRIMMING POT.(1K) GAIN		
VR3, 4			R12-1090-05	TRIMMING POT.(4.7K) BAL		
VR5			R12-1059-05	TRIMMING POT.(100K) TILT		
VR10	3D	*	R10-3052-05	POTENTIOMETER(10K/1B) MPX		
S1 - 22	2C, 2D		S40-1064-05	PUSH SWITCH (PLAY MODE)		
S23	3D		S64-0001-05	LEVER SWITCH		
S24			S40-2146-05	PUSH SWITCH		
S25			S62-0001-05	SLIDE SWITCH (VOLTAGE SELE)		
PH1		*	T95-0109-15	OPTO ISOLATOR		
D1 - 3			HSS104	DIODE		
D1 - 3			1SS133	DIODE		
D101-105			HSS104	DIODE		
D101-105			1SS133	DIODE		
D106			HZS2.7N(B2)	ZENER DIODE		
D106			RD2.7ES(B2)	ZENER DIODE		
D141-146			HSS104	DIODE		
D141-146			1SS133	DIODE		
D147			HZS8.2N(B2)	ZENER DIODE		
D147			RD8.2ES(B2)	ZENER DIODE		
D160-163			HSS104	DIODE		
D160-163			1SS133	DIODE		
D164, 165			HZS5.6N(B2)	ZENER DIODE		
D164, 165			RD5.6ES(B2)	ZENER DIODE		
D170, 171			HSS104	DIODE		
D170, 171			1SS133	DIODE		
D172			D3SBA20F03	DIODE		
D180-182			S5688B	DIODE		
D180-182			1SR139-100	DIODE		
D183			HZS30N(B)	ZENER DIODE		
D183			RD30ES(B)	ZENER DIODE		
D184			HZS5.6N(B2)	ZENER DIODE		
D184			RDS.6ES(B2)	ZENER DIODE		

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C106			CE04KW1A221M	ELECTRØ	
C108			CF92FV1H683J	220UF 0.068UF J	10WV J
C109			CF92FV1H393J	MF	J
C111			CF92FV1H223J	MF	J
C112			CE04HW1A220M	NP-BLEC	10WV
C113			CE04HW1H010M	NP-BLEC	50WV
C114			CF92FV1H103J	MF	J
C115			CE04KW1H00M	ELECTRØ	35WV
C116			CF92FV1H103J	MF	J
C117, 118			CF92FV1H223J	MF	J
C119			CC45FSL1H560J	CERAMIC	J
C120			CF92FV1H152J	MF	J
C121			CF92FV1H473J	MF	J
C122			CE04KW1A101M	ELECTRØ	10WV
C123-126			CF92FV1H103J	MF	J
C130			CF92FV1H103J	MF	J
C131			CC45FSL1H220J	CERAMIC	J
C132			CE04KW1A470M	ELECTRØ	10WV
C133			CF92FV1H103J	MF	J
C134, 135			CF90-3212-05	ELECTRØ	6.3WV
C136			CE04KW1A470M	ELECTRØ	10WV
C138			CE04KW1A470M	ELECTRØ	10WV
C139			CC45FSL1H220J	CERAMIC	J
C140, 141			CK45FF1H103Z	CERAMIC	Z
C142			CE04KW1H010M	ELECTRØ	50WV
C143			CF92FV1H102J	MF	J
C150			CC45FSL1H101J	CERAMIC	J
C151			CF92FV1H102J	MF	J
C152			CK45FF1H103Z	CERAMIC	Z
C153			CE04KW1A101M	ELECTRØ	10WV
C156			CK45FF1H103Z	CERAMIC	Z
C201			CE04KW1A470M	ELECTRØ	10WV
C202, 203			CF90-3212-05	ELECTRØ	6.3WV
C204			CK45FF1H103Z	CERAMIC	Z
C205			CE04KW1A470M	ELECTRØ	10WV
C206			CK45FF1H103Z	CERAMIC	Z
C207			CE04KW1H010M	ELECTRØ	50WV
C208			CF92FV1H104J	MF	J
C209			CC45FSL1H330J	CERAMIC	J
C210			CE04KW1A470M	ELECTRØ	10WV
C217			CE04KW1A470M	ELECTRØ	10WV
C218			CF92FV1H104J	MF	J
C219			CF90-3212-05	ELECTRØ	6.3WV
C220, 221			CC45FSL1H331J	CERAMIC	J
C222			CC45FSL1H331J	CERAMIC	J
C223			CC45FSL1H221J	CERAMIC	J
C224			CC45FSL1H150J	CERAMIC	J
C225			CC45FSL1H470J	CERAMIC	J
C226			CC45FSL1H150J	CERAMIC	J
C227			CF92FV1H102J	MF	J
C228			CC45FSL1H180J	CERAMIC	J
C229, 230			CF92FV1H104J	MF	J
C231, 232			CE04KW1A101M	ELECTRØ	10WV
C233			CE04KW1H010M	ELECTRØ	50WV
C234			CF92FV1H104J	MF	J

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C31 - 33			2SA1048(Y,GR)	TRANSISTØR	
C31 - 33			2SA1309A(Q,R)	TRANSISTØR	
C34, 35			DT124ES	DIGITAL TRANSISTØR	
C34, 35			UN4212	TRANSISTØR	
C36			2SC3246	TRANSISTØR	
A1	2C	*	W02-2516-05	ELECTRIC CIRCUIT MODULE	
PROCESSOR UNIT (X32-2300-02)					
C1			CC45FSL1H220J	CERAMIC	J
C2			CC45FSL1H820J	CERAMIC	J
C3			CC45FSL1H220J	CERAMIC	J
C4			CE04KW1H010M	ELECTRØ	50WV
C5			CE04KW1H383M	ELECTRØ	50WV
C6			CF92FV1H223J	MF	J
C8, 9			CK45FF1H103Z	CERAMIC	Z
C10, 11			CE04KW1A101M	ELECTRØ	10WV
C12			CE04HW1H47M	NP-BLEC	50WV
C14			CC45FSL1H270J	CERAMIC	J
C16			CC45FSL1H680J	CERAMIC	J
C17			CC45FSL1H101J	CERAMIC	J
C19			CC45FSL1H680J	CERAMIC	J
C20			CE04KW1A470M	ELECTRØ	10WV
C21			CF92FV1H682J	MF	J
C22			CE04KW1A470M	ELECTRØ	10WV
C23			CF92FV1H103J	MF	J
C24			CF92FV1H182J	MF	J
C25			CF92FV1H104J	MF	J
C26			CC45FSL1H121J	CERAMIC	J
C27			CE04KW1H010M	ELECTRØ	50WV
C28			CK45FF1H541K	CERAMIC	K
C29			CF92FV1H332J	MF	J
C30, 31			CF92FV1H473J	MF	J
C32, 33			CF92FV1H103J	MF	J
C34			CK45FF1H103Z	CERAMIC	Z
C35, 36			CF92FV1H223J	MF	J
C37			CE04KW1C101M	ELECTRØ	16WV
C41			CE04KW1A101M	ELECTRØ	10WV
C51 - 54			CF92FV1H472J	MF	J
C55, 56			CE04HW1E47M	NP-BLEC	25WV
C57, 58			CE04KW1H010M	ELECTRØ	50WV
C59, 60			CK45FF1H103Z	CERAMIC	Z
C61, 62			CF92FV1H393J	MF	J
C64			CE04HW1E100M	NP-BLEC	25WV
C65			CF92FV1H104J	MF	J
C66			CE04KW1H47M	ELECTRØ	50WV
C67, 68			CE04KW1V100M	ELECTRØ	35WV
C80 - 83			CK45FF1H105Z	CERAMIC	Z
C88, 89			CF92FV1H471J	MF	J
C90, 91			CF92FV1H223J	MF	J
C92 - 95			CF92FV1H101K	MF	J
C96, 97			CF92FV1H561J	MF	J
C98			CE04KW1A101M	ELECTRØ	10WV
C100			CE04KW1A221M	ELECTRØ	10WV
C102			CE04KW1A221M	ELECTRØ	10WV

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C325			CF92FV1H222J	ME ELECTRO 2200PF J		
C326			CE04KW1C221H	16WV J		
C327			CC45FSL1H221J	220UF J		
C328			CE04KW1A470M	220PF 10W		
C329			C90-3253-05	470F 50WV		
C338			CK45FB1H102K	1000PF K		
C339			C05-0093-05	CERAMIC TRIMMER CAPACITOR(60PF)		
C340			C05-0302-05	CERAMIC TRIMMER CAPACITOR(11PF)		
C341			C11-2144-04	CUSHION		
C342	2E		J11-0098-05	WIRE CLAMPER		
C343			L40-6801-17	SMALL FIXED INDUCTOR(60UH,K)		
C344			L40-1511-17	SMALL FIXED INDUCTOR(150UH,K)		
C345			L79-0797-05	LC FILTER		
C346			L40-5691-17	SMALL FIXED INDUCTOR(5.6UH,K)		
C347			L40-1001-17	SMALL FIXED INDUCTOR(10UH,K)		
C348			L40-2201-17	SMALL FIXED INDUCTOR(20UH,K)		
C349			L40-1501-17	SMALL FIXED INDUCTOR(15UH,K)		
C350			L40-1001-17	SMALL FIXED INDUCTOR(10UH,K)		
C351			L40-1511-17	SMALL FIXED INDUCTOR(15UH,K)		
C352			L40-1511-17	SMALL FIXED INDUCTOR(15UH,K)		
C353			L40-3391-17	SMALL FIXED INDUCTOR(3.3UH,K)		
C354			L40-1501-17	SMALL FIXED INDUCTOR(15UH,K)		
C355			L40-1001-17	SMALL FIXED INDUCTOR(10UH,K)		
C356			L40-3981-17	SMALL FIXED INDUCTOR(39UH,K)		
C357			L40-4701-17	SMALL FIXED INDUCTOR(47UH,K)		
C358			L40-5691-17	SMALL FIXED INDUCTOR(5.6UH,K)		
C359			L40-1001-17	SMALL FIXED INDUCTOR(10UH,K)		
C360			L40-2201-17	SMALL FIXED INDUCTOR(22UH,K)		
C361			L40-2211-17	SMALL FIXED INDUCTOR(220UH,K)		
C362			L77-1129-05	CRYSTAL RESONATOR(16.9525MHZ)		
C363			L78-0280-05	RESONATOR (10.000MHZ)		
C364			L77-2116-05	CRYSTAL RESONATOR(14.3181MHZ)		
C365			R12-1100-05	TRIMMING POT.(2.2K) VIDEO LVL		
C366			R12-1125-05	TRIMMING POT.(2.2K) VIDEO LVL		
C367			1SV147	VARIABLE CAPACITANCE DIODE		
C368			HSS104	DIODE		
C369			1SS133	DIODE		
C370			HSS104	DIODE		
C371			HSS104	DIODE		
C372			HSS104	DIODE		
C373			HSS104	DIODE		
C374			HSS104	DIODE		
C375			HSS104	DIODE		
C376			HSS104	DIODE		
C377			HSS104	DIODE		
C378			HSS104	DIODE		
C379			HSS104	DIODE		
C380			HSS104	DIODE		
C381			HSS104	DIODE		
C382			HSS104	DIODE		
C383			HSS104	DIODE		
C384			HSS104	DIODE		
C385			HSS104	DIODE		
C386			HSS104	DIODE		
C387			HSS104	DIODE		
C388			HSS104	DIODE		
C389			HSS104	DIODE		
C390			HSS104	DIODE		
C391			HSS104	DIODE		
C392			HSS104	DIODE		
C393			HSS104	DIODE		
C394			HSS104	DIODE		
C395			HSS104	DIODE		
C396			HSS104	DIODE		
C397			HSS104	DIODE		
C398			HSS104	DIODE		
C399			HSS104	DIODE		
C400			HSS104	DIODE		
C401			HSS104	DIODE		
C402			HSS104	DIODE		
C403			HSS104	DIODE		
C404			HSS104	DIODE		
C405			HSS104	DIODE		
C406			HSS104	DIODE		
C407			HSS104	DIODE		
C408			HSS104	DIODE		
C409			HSS104	DIODE		
C410			HSS104	DIODE		
C411			HSS104	DIODE		
C412			HSS104	DIODE		
C413			HSS104	DIODE		
C414			HSS104	DIODE		
C415			HSS104	DIODE		
C416			HSS104	DIODE		
C417			HSS104	DIODE		
C418			HSS104	DIODE		
C419			HSS104	DIODE		
C420			HSS104	DIODE		
C421			HSS104	DIODE		
C422			HSS104	DIODE		
C423			HSS104	DIODE		
C424			HSS104	DIODE		

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C235			C90-3212-05	47UF 6.3WV		
C236			CC45FSL1H560J	56PF J		
C237			CF92FV1H104J	0.10UF J		
C238			CC45FSL1H100D	10PF D		
C239			CE04KW1A101M	100UF 10WV		
C240			CC45FSL1H080D	8.0PF D		
C241			CC45FSL1H270J	27PF J		
C242			CC45FSL1H330J	33PF J		
C243			CC45FSL1H101J	100PF J		
C244			CC45FSL1H180J	18PF J		
C245			CC45FSL1H390J	39PF J		
C246			CF92FV1H104J	0.10UF J		
C247	248		CF92FV1H332J	3300PF J		
C248			CF92FV1H104J	0.10UF J		
C249			CK45FF1H103Z	0.010UF Z		
C250			CC45FSL1H100D	10PF D		
C251			CC45FSL1H470J	47PF J		
C252			CC45FSL1H100D	10PF D		
C253	254		C90-3212-05	47UF 6.3WV		
C254	256		CF92FV1H683J	0.068UF J		
C255			CC45FSL1H101J	100PF J		
C256			CK45FF1H103Z	0.010UF Z		
C257			CC45FSL1H100D	10PF D		
C258			CC45FSL1H220J	22PF J		
C259			CC45FSL1H100D	10PF D		
C260			CC45FSL1H100D	10PF D		
C261			CC45FSL1H220J	22PF J		
C262			CC45FSL1H100D	10PF D		
C263			CC45FSL1H100D	10PF D		
C264			CC45FSL1H150J	15PF J		
C265			CK45FF1H103Z	0.010UF Z		
C266			CE04HW1H383M	3.3UF 50WV		
C267			CF92FV1H233J	0.022UF J		
C268	269		CE04HW1H2R2M	2.2UF 50WV		
C270			CE04HW1HR22M	0.22UF 50WV		
C272	273		CE04KW1A470M	47UF 10WV		
C299			CK45FB1H102K	1000PF K		
C300			CC45FSL1H470J	47PF J		
C302			CK45FB1H102K	1000PF K		
C303			CE04KW1A100M	10UF 35WV		
C304			CC45FSL1H120J	12PF J		
C305			CC45FSL1H100D	10PF D		
C306			CC45FSL1H560J	56PF J		
C307			CC45FSL1H030C	3.0PF C		
C308			CC45FSL1H180J	18PF J		
C309			CC45FSL1H270J	27PF J		
C310			CC45FSL1H100D	10PF D		
C311			CC45FSL1H560J	56PF J		
C312			CK45FB1H102K	1000PF K		
C313			CC45FSL1H220J	22PF J		
C314			CC45FSL1H101J	100PF J		
C315			CE04KW1V100M	10UF 35WV		
C316			CE04KW1A220M	22UF 10WV		
C317			CK45FB1H102K	1000PF K		
C318			CK45FF1H103Z	0.010UF Z		
C319	320		CE04KW1A470M	47UF 10WV		
C321	322		CK45FB1H102K	1000PF K		
C323			CE04KW1A470M	47UF 10WV		
C324			C90-3253-05	1UF 50WV		

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D21 -24			H5S104	DIODE		
D21 -24			1S5133	CUSTOM IC		
I01			M37451M8-133SP	IC(LD AUDIO SYSTEM)		
I02			CA0002AM	IC(DIGITAL SIGNAL PROCESSOR)		
I03			CA023500BQ			
IC4 ,5			TC4052BP	IC(4CH MPX/DE-MPX)		
IC6			MF5871AS	DI BI-POLAR IC		
IC7			TC74HC00AP	IC(2INPUT NAND GATE)		
IC8 ,9			NJM2058D	IC(OP AMP X4)		
IC8 ,9			UPC4574C	IC(OP AMP X4)		
IC10,11			NJM4565D	IC(OP AMP X2)		
IC15,16			NJM4565D	IC(OP AMP X2)		
IC19			TC74HC004AP	IC(CMOS INVERTER)		
IC20		*	YN3558-SP	MOS-IC		
IC21		*	YAC510-SP	MOS-IC		
IC22		*	YVL151C-SP	MOS-IC		
IC23			TC74HC004AP	IC(CMOS INVERTER)		
IC24			TC74HC4066AP	IC(SWITCHING IC)		
IC25			TC4053BP	IC(3-INPUT 2CH MPX/DE-MPX)		
IC25			XRU4053B	IC(ANALOG MULTIPLEXER)		
IC26-29			NJM4565D	IC(OP AMP X2)		
IC30			TC74HC157AP	IC(QUAD 2-CHANNEL MULTIPLEXER)		
Q1 -6			2SC2458(Y,GR)	TRANSISTOR		
Q1 -6			2SC3311A(Q,R)	TRANSISTOR		
Q7			2SA1048(Y,GR)	TRANSISTOR		
Q7			2SA1309A(Q,R)	TRANSISTOR		
Q8 ,9			2SC2458(Y,GR)	TRANSISTOR		
Q8 ,9			2SC3311A(Q,R)	TRANSISTOR		
Q10 ,11			DTA124ES	DIGITAL TRANSISTOR		
Q10 ,11			UN4212	DIGITAL TRANSISTOR		
Q12			2SA1286	TRANSISTOR		
Q13			DTA124ES	DIGITAL TRANSISTOR		
Q13			UN4112	TRANSISTOR		
Q14			2SC3246	TRANSISTOR		
Q15			DTA124ES	DIGITAL TRANSISTOR		
Q15			UN4112	TRANSISTOR		
Q16			2SC2458(Y,GR)	TRANSISTOR		
Q16			2SC3311A(Q,R)	TRANSISTOR		
Q19			DTA124ES	DIGITAL TRANSISTOR		
Q19			UN4112	TRANSISTOR		
Q20			DTA124ES	DIGITAL TRANSISTOR		
Q20			UN4212	TRANSISTOR		
Q23			DTA124ES	DIGITAL TRANSISTOR		
Q23			UN4112	TRANSISTOR		
Q24			DTA124ES	DIGITAL TRANSISTOR		
Q24			UN4212	TRANSISTOR		
Q26			DTA124ES	DIGITAL TRANSISTOR		
Q26			UN4112	TRANSISTOR		
Q27			DTA124ES	DIGITAL TRANSISTOR		
Q27			UN4212	TRANSISTOR		
Q28			2SA954(L,K)	TRANSISTOR		
Q29			2SC3246	TRANSISTOR		
Q30 -32			2SC2458(Y,GR)	TRANSISTOR		
Q30 -32			2SC3311A(Q,R)	TRANSISTOR		
Q33			DTA124ES	DIGITAL TRANSISTOR		

L: Scandinavia K: USA P: Canada R: Mexico
Y: PX (Far East, Hawaii) T: England E: Europe G: Germany
Y: AAFES (Europe) X: Australia M: Other Areas

△ indicates safety critical components.

* 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 位置	New Parts 新部品	Parts No. 部品番号	Description 部品名/規格	Desti- nation 向	Re- marks 備考
Q33			UN4112	TRANSISTOR		
Q40			2SC2878(B)	TRANSISTOR		
Q41			2SC2458(Y,GR)	TRANSISTOR		
Q41			2SC3311A(Q,R)	TRANSISTOR		
Q42			2SA1048(Y,GR)	TRANSISTOR		
Q42			2SA1309A(Q,R)	TRANSISTOR		
Q43 ,44			2SC2458(Y,GR)	TRANSISTOR		
Q43 ,44			2SC3311A(Q,R)	TRANSISTOR		
Q45			DTA124ES	DIGITAL TRANSISTOR		
Q45			UN4112	TRANSISTOR		
Q46 -50			2SC2458(Y,GR)	TRANSISTOR		
Q46 -50			2SC3311A(Q,R)	TRANSISTOR		
Q51			2SA1048(Y,GR)	TRANSISTOR		
Q51			2SA1309A(Q,R)	TRANSISTOR		
Q52			2SC2878(B)	TRANSISTOR		
Q53			DTA124ES	DIGITAL TRANSISTOR		
Q53			UN4112	TRANSISTOR		
Q54 ,55			2SC2458(Y,GR)	TRANSISTOR		
Q54 ,55			2SC3311A(Q,R)	TRANSISTOR		
Q56			2SA1048(Y,GR)	TRANSISTOR		
Q56			2SA1309A(Q,R)	TRANSISTOR		
Q60			DTA124ES	DIGITAL TRANSISTOR		
Q60			UN4212	TRANSISTOR		
Q61 -63			2SC2458(Y,GR)	TRANSISTOR		
Q61 -63			2SC3311A(Q,R)	TRANSISTOR		
Q64			DTA124ES	DIGITAL TRANSISTOR		
Q64			UN4212	TRANSISTOR		
Q65 -67			2SC2458(Y,GR)	TRANSISTOR		
Q65 -67			2SC3311A(Q,R)	TRANSISTOR		
Q68			DTA124ES	DIGITAL TRANSISTOR		
Q68			UN4212	TRANSISTOR		
Q69 ,70			2SA1048(Y,GR)	TRANSISTOR		
Q69 ,70			2SA1309A(Q,R)	TRANSISTOR		
MECHANISM ASSY (X92-1620-51, X92-1680-41)						
1	3A		A10-2846-01	CHASSIS		
2	2B		A11-0707-23	SUB CHASSIS CALKING ASSY		
4	2B		A11-0709-13	SUB CHASSIS ASSY		
6	1A		A11-0712-23	SUB CHASSIS CALKING ASSY		
7	1B		A11-0714-03	SUB CHASSIS		
8	1B		A11-0768-03	SUB CHASSIS CALKING ASSY		
11	3A		D10-3128-04	ARM		
13	2A		D10-3130-04	ARM		
14	2B		D10-3131-04	ROD		
15	3A		D10-3133-14	SLIDER ASSY		
16	3B		D12-0129-03	CAH		
18	2A		D13-0919-04	GEAR		
19	2A		D13-0920-04	GEAR		
20	2A		D13-0921-04	GEAR		
25	2A		D13-0922-04	GEAR		
26	2A		D13-0923-04	GEAR		
27	2A		D13-0942-04	GEAR		
28	2A		D13-0926-04	GEAR		
29	2A		D13-0930-04	GEAR		
30	2B		D13-0931-03	LACK (GEAR)		

L: Scandinavia K: USA P: Canada R: Mexico
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Y: AAFES (Europe) X: Australia M: Other Areas

△ indicates safety critical components.

PARTS LIST

PARTS LIST

* 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.

11

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 规格	Desti- nation 仕向	Re- marks 備考
31	2A		D15-0316-04	PULLEY		
32	2A		D16-0316-04	BELT		
33	2A		D23-0268-04	RETAINER		
42	2B		535-0523-05	FLAT CABLE ASSY		
47	3B		G01-3354-04	COMPRESSION SPRING		
48	1B		G01-3353-04	COMPRESSION SPRING		
49	3B		G02-0984-04	FLAT SPRING		
50	1A, 1B		G11-2091-04	CUSHION		
51	1A, 1B		G16-0770-04	SHEET		
52	3B		G16-0768-04	SHEET		
53	3B		G16-0769-04	SHEET		
			G10-0146-04	NON-WOVEN FABRIC		
55	1B		J11-0171-13	CLAMPER		
56	1B		J11-0172-13	CLAMPER		
57	2B		J19-3388-11	HOLDER		
58	1B		J19-3389-03	HOLDER		
60	2A		J21-5726-04	MOUNTING HARDWARE ASSY		
61	3B		J90-0669-13	GUIDE		
62	2B		J90-0670-04	RAIL		
63	1B		J99-0551-03	TRAY ASSY		
DM	3B		T42-0601-34	MOTOR ASSY		
FM	3A		T42-0648-04	MOTOR ASSY		
LM	3A		T42-0530-05	DC MOTOR		
PU	2B		X93-1000-02	OPTICAL PICKUP ASSY		

SPECIFICATIONS

[Type]

Video disc format Laser Vision format
Signal read system Semiconductor laser
Video output format NTSC

[Characteristics]

Video output level 1 Vp-p (75 Ω load, sync. negative)
Horizontal resolution 425 lines
Video signal to noise ratio More than 50 dB

Digital audio section

Frequency response 4 Hz, ~ 20 kHz, + 1.0 dB - 1.0 dB
Signal to noise ratio More than 100 dB
Channel separation More than 82 dB (at 1 kHz)
Total harmonic distortion
..... Less than 0.008 % (at 1 kHz)

Wow & Flutter Below measurable limit
(\pm 0.001 % W.PEAK)

Output level / Impedance 1.2 V / 10 k Ω

[General]

Power consumption 35 W

Dimensions W: 360 mm (14-3 / 16")

H: 130 mm (5-1 / 8")

D: 419 mm (13-9 / 16")

Weight (net) 8.0kg (17.6 lb)

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

Note :

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

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