

DTC-77ES/87ES

SERVICE MANUAL

106
doppelt

US Model

DTC-87ES

AEP Model

UK Model

DTC-77ES



RTV servis Horvat

Photo: DTC-87ES

Tel: ++385-31-856-842

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www.rtv-horvat-dj.hr

Model Name Using Similar Mechanism	New Mechanism
Tape Transport Mechanism Type	DATM-51

SPECIFICATIONS

Tape	Digital audio tape
Recording head	Rotary head
Recording time	Standard: 120 minutes. Long-play mode: 240 minutes (with DT-120)
Tape speed	Standard: 8.15 mm/s, Long play mode: 4.075 mm/s
Drum rotation	Standard: 2,000 rpm, Long-play mode: 1,000 rpm
Error correction	Double Read Solomon code

Tape	
Track pitch	13.6 μ m (20.4 μ m)
Sampling frequency	48 kHz, 44.1 kHz, 32 kHz
Modulation system	8-10 Modulation
Transfer rate	2.46 Mbit/sec.
Number of channel	2 channels, stereo
D/A conversion (Quantization)	Standard: 16-bit linear Long-play mode: 12-bit non-linear
Frequency response	Standard: 2-22,000 Hz (± 0.5 dB) Long-play mode: 2-14,500 Hz (± 0.5 dB)

		DTC-77ES	DTC-87ES
Signal to noise ratio	SP	more than 93 dB	more than 94 dB
	LP		more than 93 dB
Dynamic range	SP	more than 93 dB	more than 94 dB
	LP		more than 93 dB
Total harmonic distortion (1 kHz)	SP	less than 0.0045%	less than 0.004%
	LP	less than 0.08%	less than 0.08%

* SP: standard-play mode
LP: Long-play mode

Wow and flutter

Below measurable limit
($\pm 0.001\%$ W. PEAK)

— Continued on next page —



DIGITAL AUDIO TAPE DECK
SONY®

Input

	Jack type	Impedance	Rated input level
LINE IN	phono jack	47 kohms	-4 dBs
DIGITAL IN	phono jack	75 ohms	0.5 Vp-p, 20%
DIGITAL IN	optical jack	—	—

Output

	Jack type	Impedance	Rated output	Load impedance
LINE OUT	phono jack	470 ohms	-4 dBs	More than 10 kohms
PHONES	stereo phone jack	220 ohms	2.0 mW	32 ohms

DIGITAL OUT (optical jack): wavelength 660 nm

General

Power requirements	US model: 120 V AC, 60 Hz AEP model: 220/230 V AC, 50/60 Hz UK model: 240 V AC, 50/60 Hz
Power consumption	37 W
Dimensions	US, AEP model: Approx. 470 × 135 × 350 mm (w/h/d) (18 ⁵ / ₈ × 5 ³ / ₈ × 13 ⁷ / ₈ inches) UK model: Approx. 430 × 135 × 350 mm (w/h/d) (17 × 5 ³ / ₈ × 13 ⁷ / ₈ inches)
Weight	US, AEP model: Approx. 11 kg (24 lb 5 oz) UK model: Approx. 10.2 kg (22 lb 8 oz)

Remote commander (supplied)

Remote control system	Infrared control
Power requirements	3V DC, with two size AA (R6) batteries
Dimensions	Approx. 63×19×175 mm (w/h/d) (2 1/2 × 3/4 × 7 inches)
Weight	Approx. 130 g (4 oz) incl. batteries.

Supplied accessories

Sony batteries SUM-3(NS) (2)
Audio connecting cords (2 phono plugs - 2 phono plugs, stereo for line inputs and outputs) (2)
Screws (4)

Design and specifications subject to change without notice.

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SAFETY-RELATED COMPONENT WARNING!!

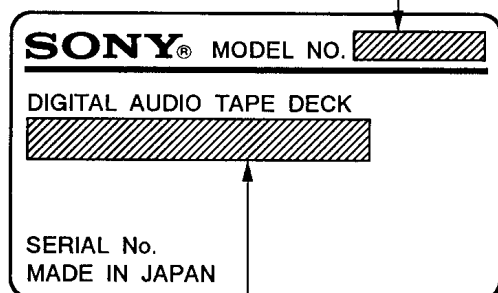
COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

MODEL IDENTIFICATION

— Specification Label —

DTC-77ES

DTC-87ES



US Model: AC: 120V 60Hz
 AEP Model: AC: 220 – 230V~50/60 Hz
 UK Model: AC: 240~50/60 Hz

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer. Discard used batteries according to manufacturer's instructions.

ADVARSEL !

Lithiumbatteri – Eksplosionsfare ved fejlagtig håndtering.
 Udskiftning må kun ske med batteri
 af samme fabrikat og type.
 Lever det brugte batteri tilbage til leverandøren.

ADVARSEL

Lithiumbatteri – Eksplosjonsfare.
 Ved utskifting benyttes kun batteri som
 anbefalt av apparatfabrikanten.
 Brukt batteri returneres apparatleverandøren.

VARNING

Explosionsfara vid felaktigt batteribyte.
 Använd samma batterityp eller en ekvivalent
 typ som rekommenderas av apparattillverkaren.
 Kassera använt batteri enligt fabrikantens
 instruktion.

VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu.
 Vaihda paristo ainoastaan laitevalmistajan suosittelemaan
 tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden
 mukaisesti.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

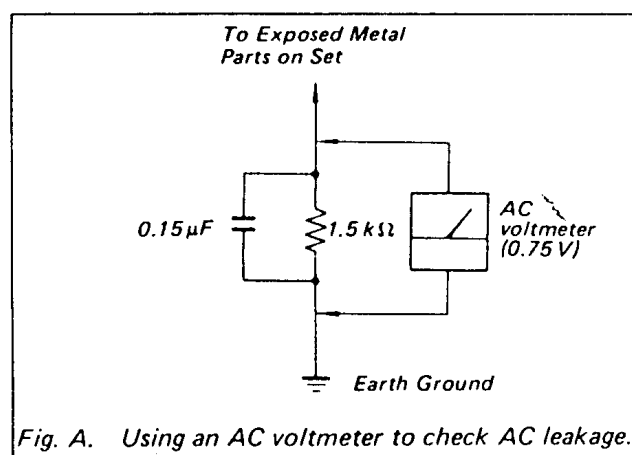


Fig. A. Using an AC voltmeter to check AC leakage.

SECTION 1 GENERAL

This section is extracted from instruction manual.

Features

Serial copy management system

This unit utilizes the serial copy management system that permits digital-to-digital recording for one generation. You can record CD sound or other digital formats through a digital-to-digital connection.

4-Head, 4-DD Motor Mechanical Deck System

In addition to the standard two heads for recording and playback, this unit employs two additional heads for after-monitoring, forming a four-head system. This system allows after-monitoring of the recorded sound during recording in the same manner as with three-head cassette decks. In addition, the unit employs direct-drive motors for the drum, capstan, and reel drives, realizing silent and stable tape transport.

Date Function Automatically Records the Recording Date and Time

The year, month, day, day of the week, hour, minute and second are automatically recorded in the subcode area during recording, so that during playback you can display this data to check when the tape was recorded. This function is especially convenient when recording live performances, etc.

Three sampling frequencies

Recording/playback can be done with three sampling frequencies (48 kHz, 44.1 kHz and 32 kHz).

48 kHz: For analog and digital input signals in a standard mode.

44.1 kHz: For compact disc and pre-recorded DAT tape.

32 kHz: For analog input signals in a long-play mode.

Long Play mode

This unit can operate in a long-play mode. Analog input signals can be recorded or playback for up to four consecutive hours when the DT-120 DAT cassette tape is used. The sampling frequency will be 32 kHz in the long-play mode.

Visible cassette loading

You can view the tape operation through the lid of the cassette compartment.

Excellent sound quality

1-bit A/D converter

For the A/D converter section which converts analog input signals to digital signals, the unit employs a 1-bit A/D converter which theoretically generates no zero-cross distortion for a clear, elegant sound quality.

Pulse D/A converter

Superior playback performance is achieved through the combination of an 8X oversampling digital filter with a 1-bit D/A converter.

Independent Digital and Analog Power Sources

Since the design of the power source section is important for obtaining good sound quality, this unit incorporates two large-sized, large-capacity transformers for independently supplying power to the digital/mechanical deck sections and the analog section. This design eliminates from the source any interference introduced through the power supply.

Rich Variety of Subcode Information

This unit can record subcode information such as Start IDs, program numbers, Skip IDs, and absolute time data, enabling you to quickly locate tunes and display the playback time in the same manner as when playing compact discs.

High-Speed Search Function

Direct-drive reel motors and a software servo system enable you to locate tunes at high speeds up to 200-times the normal playback speed.

Digital fade-in/fade-out

Professional sounding fade-in/fade-out of either digital or analog signals can be accomplished by use of the FADER button.

Post edit recording of sub codes

You can record or rewrite the following sub codes after the audio signal recording has been completed.

Start ID: Signifies the beginning of a selection.

Program number: Gives a number to the selection.

Skip ID: Signifies the beginning of a portion to be skipped.

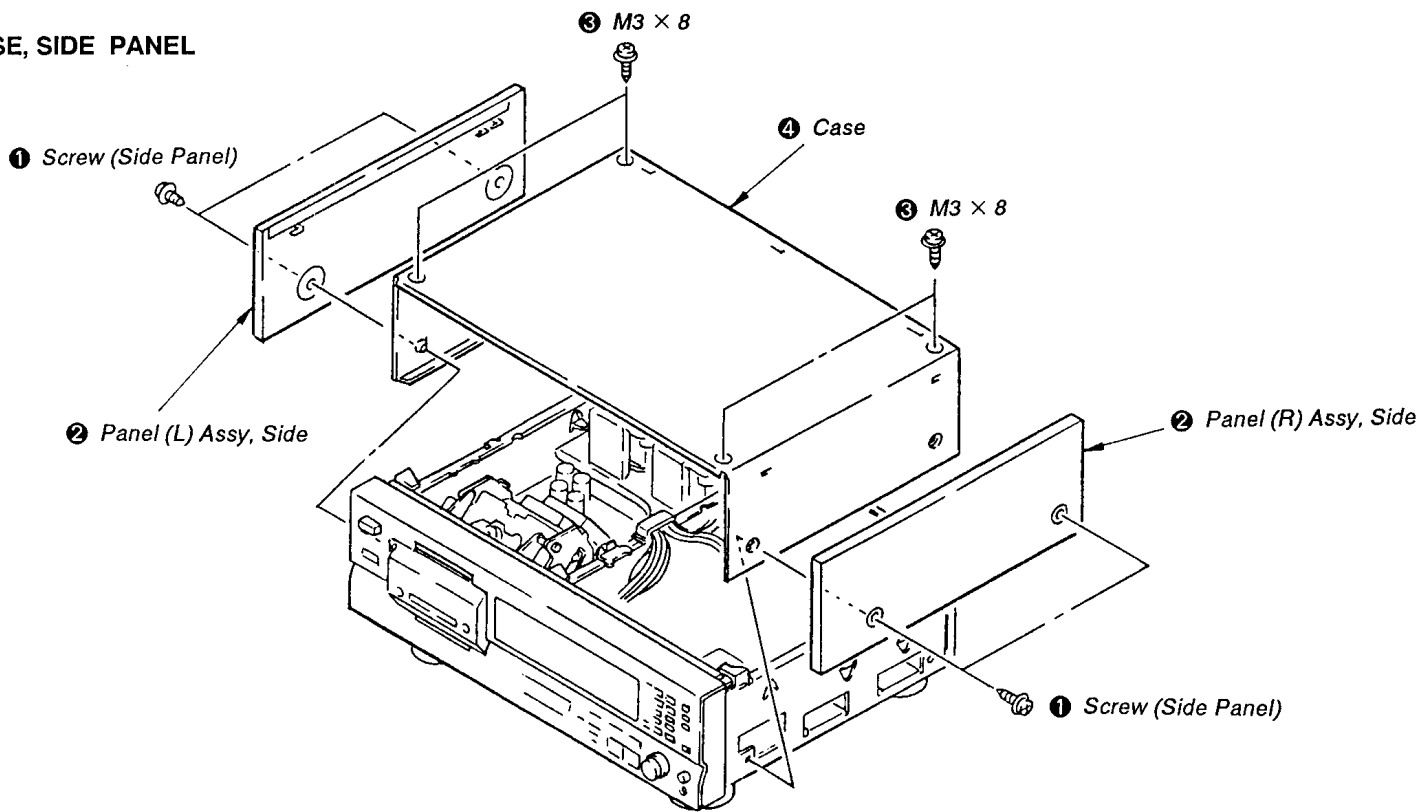
End ID: Signifies the end position of recording/playback.

Since sub codes are written on the tape separately from audio signals, the audio signals are not affected.

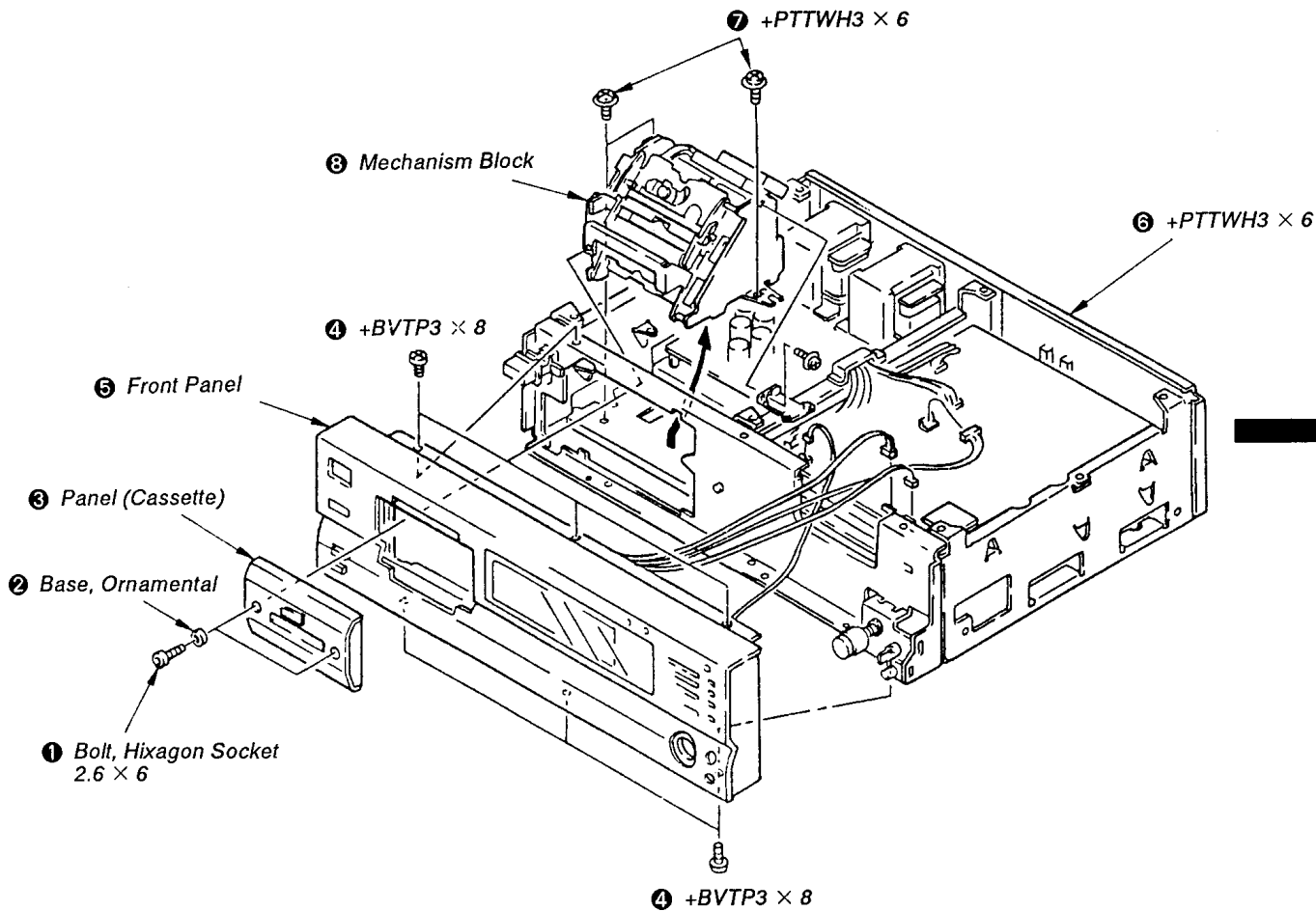
SECTION 2
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

CASE, SIDE PANEL

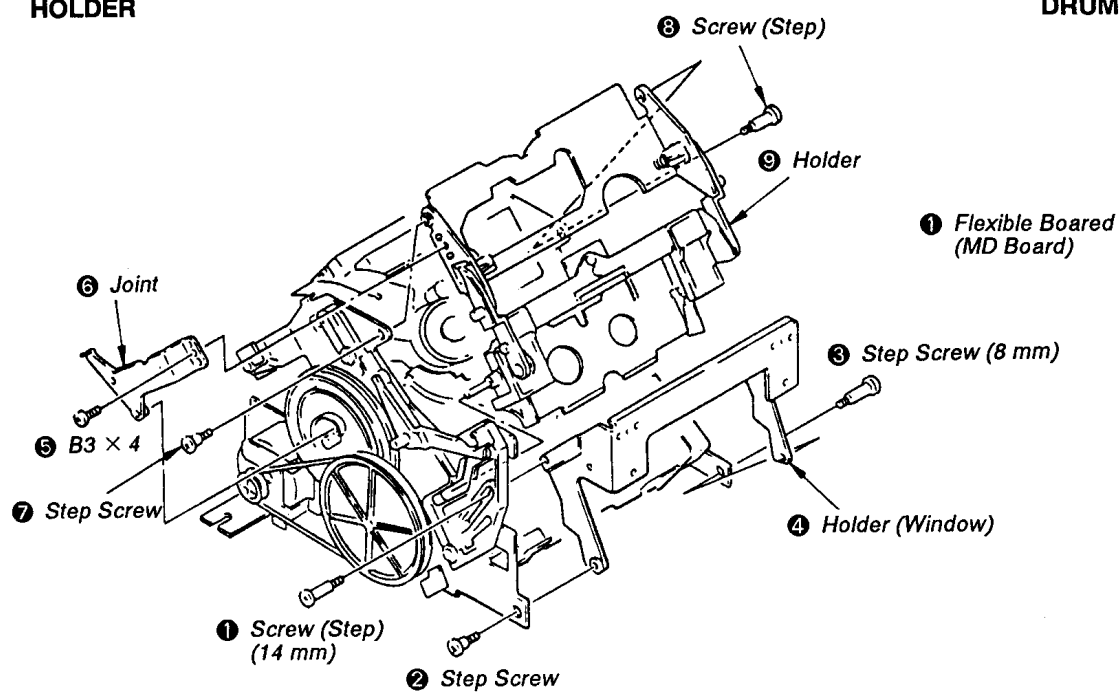


PANEL (CASSETTE), FRONT PANEL, MECHANISM BLOCK

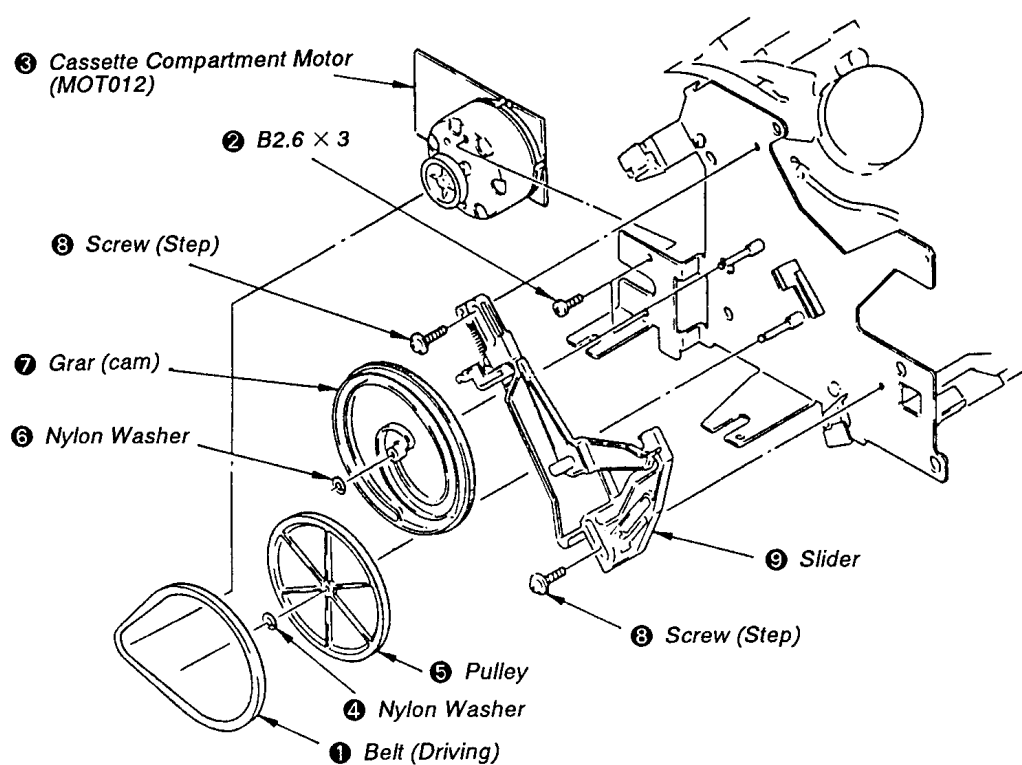


HOLDER

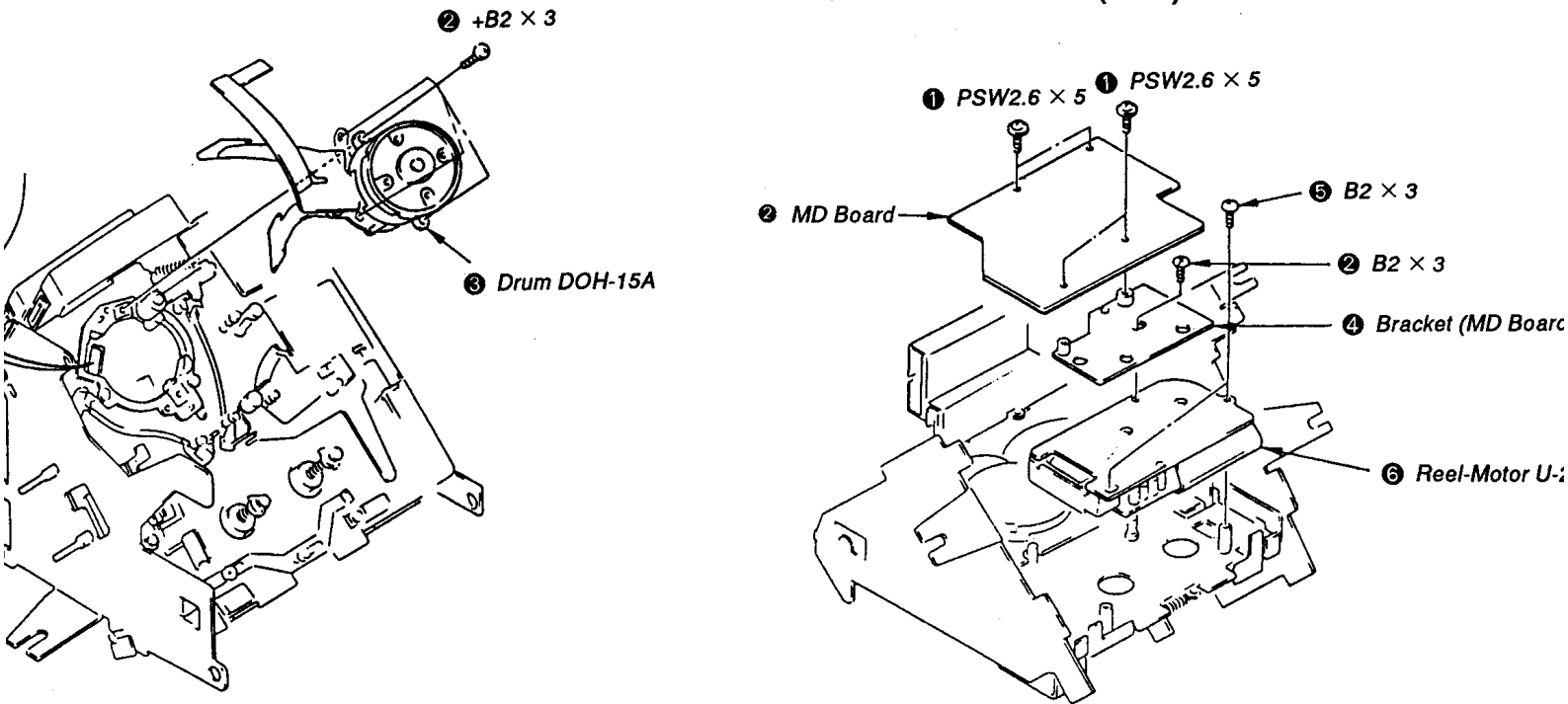
DRUM DOH-15A



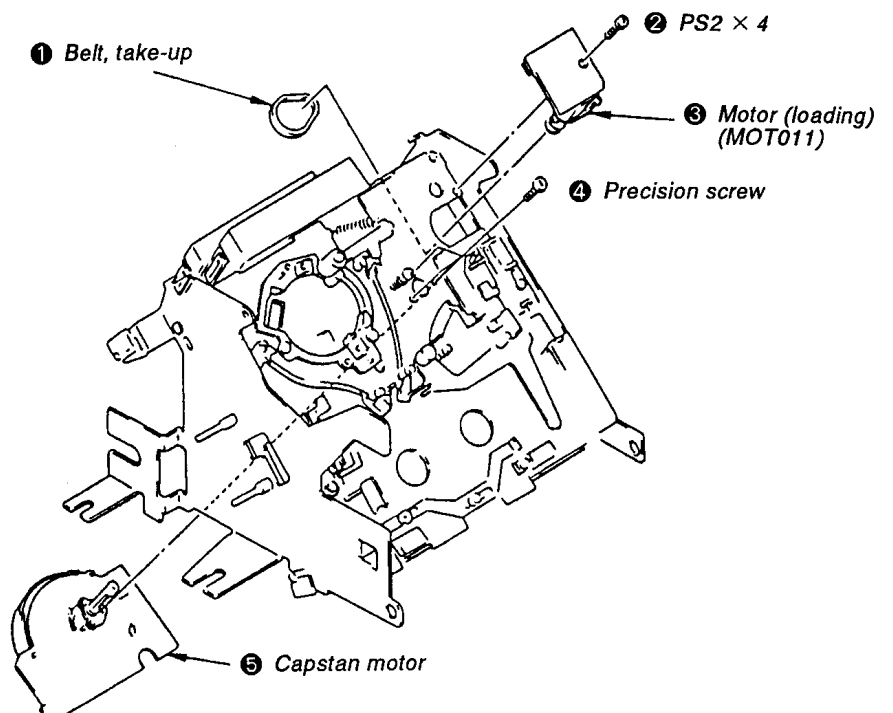
CASSETTE COMPARTMENT MOTOR (MOTO12), PULLEY, GEAR (CAM), SLIDER



MD BOARD, REEL MOTOR U2-A (M905)



LOADING MOTOR (MOTO11), CAPSTAN MOTOR U-17A (M902)



SECTION 3 ADJUSTMENTS

Notes When Making Adjustments

1. Adjustments should be performed in the order listed.
2. Use the following test tapes :

TY-7111 (8-909-812-00)	Level
TY-7252 (8-909-822-00)	Tracking
TY-7551 (8-909-814-00)	Functions
TY-30B (8-892-358-00)	Blank

Use the following torque meter :

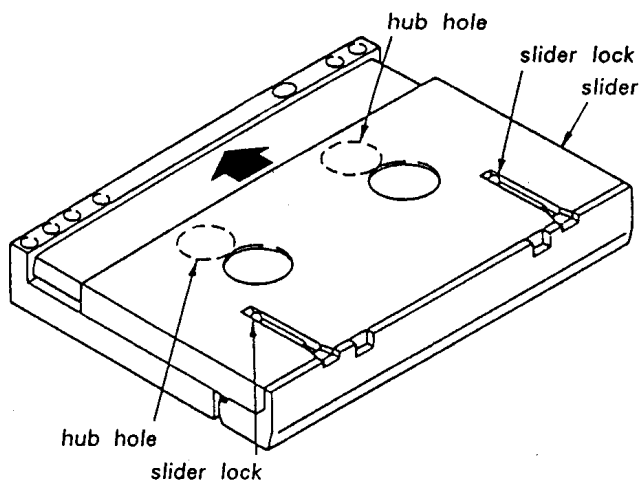
TW-7131 (8-909-708-71) FWD

3. Switches and controls should be set as follows unless otherwise specified.

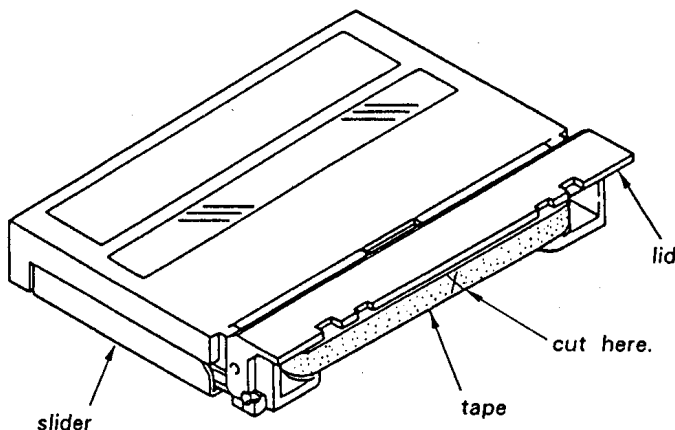
TIMER switch :	OFF
REC MODE switch :	LONG
INPUT switch :	COAXIAL
REC LEVEL control :	Min.
PHONES LEVEL control :	Min.

4. Creating an end sensor cassette

- (1) Press the tape slider lock and move the slider in the direction indicated by the arrow.

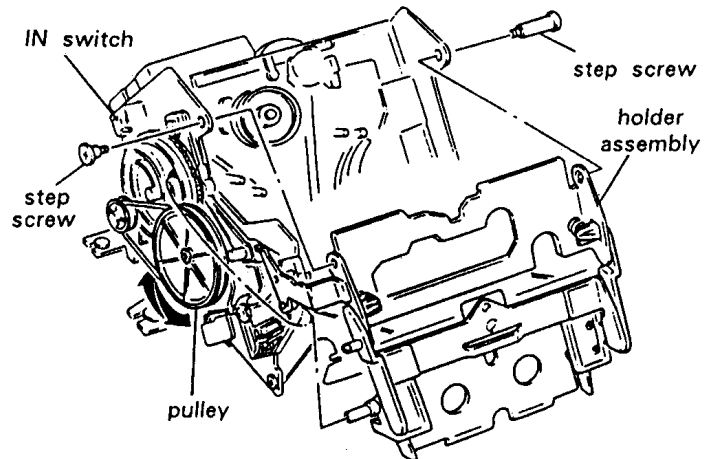


- (2) Open the lid and cut the tape.



- (3) Turn the hubs until the tape is completely inside the cassette (both T and S sides).
The end sensor cassette for end sensor adjustment is now ready for use.

5. Be careful not to move RV951 and RV952 on the RF AMP board in the mechanism assembly.
6. To adjust the tape path and guides, remove the holder assembly as shown in the diagram and use the DAT holder jig (J-2000-002-A). This will make it easier to perform adjustments.
 - First turning the pulley counterclockwise to put it in loading out status will make removal and reattachment of the holder assembly easier.
 - To perform adjustments, turn the pulley clockwise to put it in loading in status, load the cassette tape and set the IN switch to the ON position.



7. Test mode

To set to the test mode, short-circuit between Pin ⑦ (XTEST) and Pin ⑥ (GND) of CN553 on the digital board. At this time, "TEST" letters turn on red on the fluorescent display. And at the same time, turning on the date on the fluorescent display, it becomes to the torque measurement mode.

Test mode (Short-circuit between XTEST and GND)

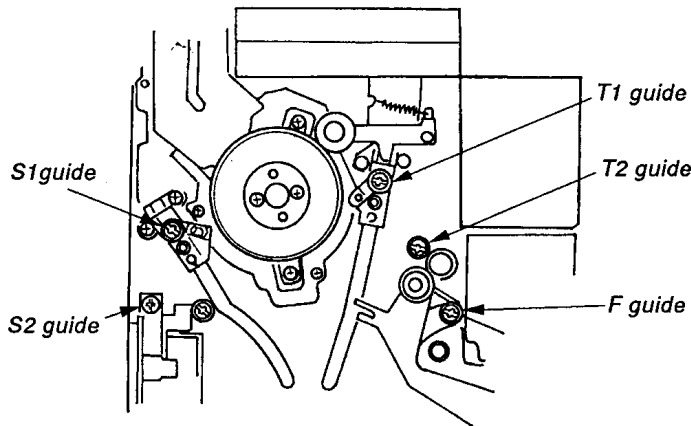
- ① Turn off the date on the fluorescent display.
(Press COUNTER MODE key)
 - S2, T2, F guides Adjustment
 - End Sensor Adjustment
 - Tape Path Adjustment
 - DPG Adjustment
 - ATF Pilot Adjustment
- ② Turn on the date on the fluorescent display.
(Press DATE-RECORD key)
 - FWD Torque Adjustment
 - FWD Back-Tension Adjustment

} Torque
Measurement
Mode

To release the test mode, release the short-circuit point between XTEST and GND, After the adjustments, be sure to release the test mode.

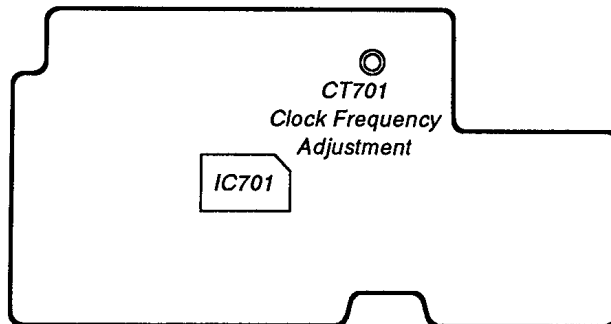
Adjust Parts Location

— Mechanism assembly —



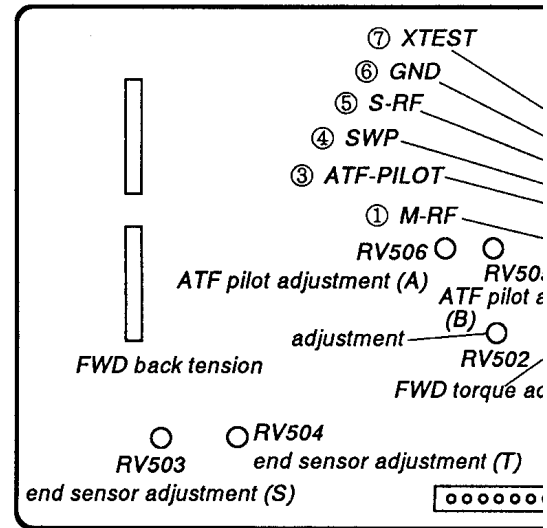
— Control Board —

— SIDE A —



— Digital Board —

— SIDE B —



3-1. MECHANICAL ADJUSTMENTS

After replacing the drum or related parts, adjust and F guides and then perform the tape path (X mode) fine adjustment of electrical adjustments.,

S2, T2 Guide/F Guide Adjustment

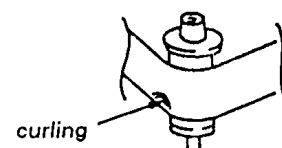
Adjustment Procedure :

1. Put the set into the test mode and l TY-7252 (8-909-822-00).
2. Set the REC MODE switch to STANDARI and press the AMS key.

Confirm there is no curling at the upper or flange of S2, T2, or F guides.

When there is curling, return higher S2, T2, F and adjust by screwing in.

* Curling :



"Curling" refers to the tape during F. It can be identified by a light at the tape.

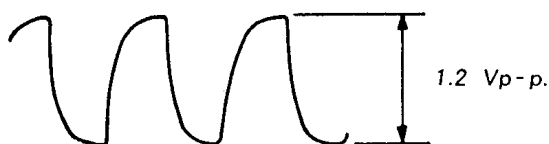
3-2. ELECTRICAL ADJUSTMENTS

End Sensor Adjustment

Perform the following adjustment when the holder has been removed or part of the mechanism deck section replaced.

Adjustment Procedure:

1. Connect an oscilloscope to CN554 pin ⑤ (SEND) (supply side) and CN554 pin ⑥ (TEND) (take-up side) on the digital board.
2. Load an end sensor cassette and put the set into the STOP (■) mode.
3. Adjust RV503 (supply side) and RV504 (take-up side) on the main board so that the oscilloscope waveform p-p value is 1.2 Vp-p.



Adjustment Point: digital board

FWD Torque Adjustment

Adjustment Procedure :

1. Put the set into the test mode and load the FWD torque meter TW-7131 (8-909-708-71).
2. Put the set into the PLAY (▶) mode.
3. Adjust RV501 so that the FWD torque value (take-up side rewinding torque) is between 10 – 15 g·cm (0.14 – 0.21 oz·inch).
4. Confirm that the value indicated by the torque meter is maintained for one full cycle.

Adjustment Point: digital board

FWD Back Tension Check

Check Procedure :

1. Put the set into the test mode and load the FWD torque meter TW-7131 (8-909-708-71).
2. Put the set into the PLAY (▶) mode.
3. Adjust RV502 so that the back tension (supply side) is between 8 – 9 g·cm (0.11 – 0.13 oz·inch).
4. Confirm that the value indicated by the torque meter is maintained for one full cycle.

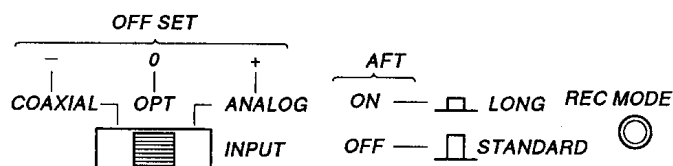
Tape Path Fine Adjustment (× 1.5 FWD Mode)

Perform the following adjustment when the drum has been replaced.

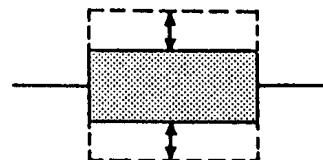
Adjustment Procedure:

1. Connect an oscilloscope CH-1 to CN553 pin ① (M-PF) and CH-2 to CN553 pin ④ (SWP) on the digital board.
2. Put the set into the test mode and load test tape TY-7252 (8-909-822-00).
3. Press the AMS (▶▶) key.

Each part of switches on Test Mode.

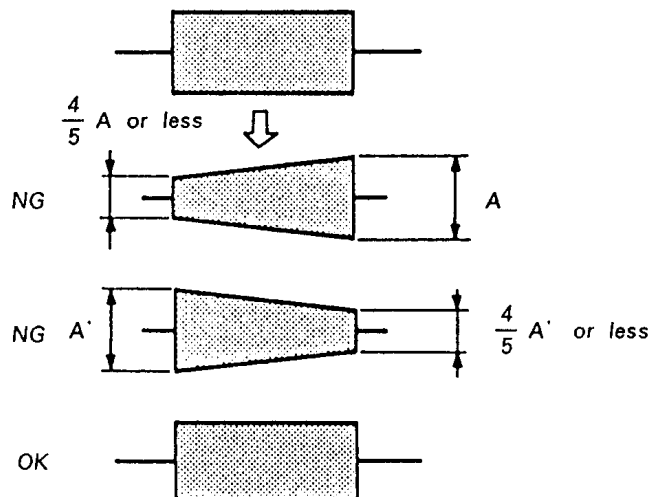


4. With the REC MODE switch set to STANDARD (ATF: OFF) and the INPUT switch set to ANALOG or COAXIAL (OFFSET: + or -), fine adjust the S1 and T1 guides so that the oscilloscope RF signal waveform remains the same when high-low is repeated.

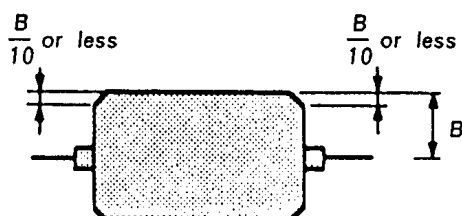


* Finish the adjustment by screwing in, and when there is curling at the upper or lower flange of S2, T2, or F guides, perform the guide adjustment.

5. Check the RF signal waveform with the REC MODE switch set to LONG (ATF: ON) and the INPUT switch set to ANALOG or COAXIAL (OFFSET: + or -).



6. Check the RF signal waveform with the REC MODE switch set to LONG (ATF: ON) and the INPUT switch set to OPTICAL (OFFSET: 0)
 - (1) Confirm that the RF signal waveform peak value is 60 mV or more.
 - (2) Confirm that the undershoot level of the RF signal waveform's flat portion is within 10%.



7. When the measured values are not within the above tolerances, repeat items 3 - 6 above.

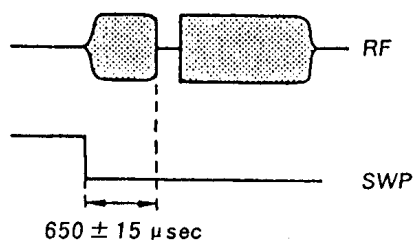
Adjustment Point : mechanism assembly

DPG Adjustment

Perform the following adjustment without fail when the drum has been replaced.

Adjustment Procedure :

1. Connect oscilloscope CH-1 to TP (RF) and CH-2 to TP (SWP) on the main board.(Use CH-2 as the trigger. When the CH-2 signal is inverted, the trailing edge can be used for synchronization.)
2. Put the set into the test mode and load test tape TY-7252 (8-909-822-00).
3. Set the REC MODE switch to LONG (ATF : ON) and the TIMER switch to OFF (OFFSET : 0).
4. Press the AMS (▶▶) key.
5. Press the ◀◀ and ▶▶ keys as appropriate so that the gap between the oscilloscope SWP and RF signals becomes $650 \pm 15 \mu\text{sec}$. (Hold the ◀◀ and ▶▶ keys down for more than 1 second to perform rough adjustment. Hold them down for approximately 0.2 seconds for fine adjustment.)

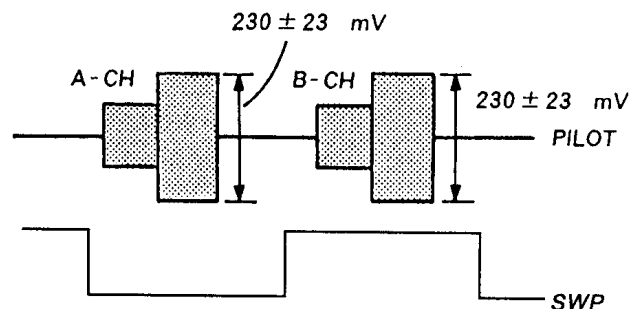


ATF Pilot Adjustment

Perform this adjustment after cleaning the heads with a cleaning cassette.

Adjust Procedure:

1. Connect oscilloscope CH-1 to CN553 pin ① (ATF-PILOT) and CH-2 to CN553 pin ④ (SWP) on the digital board. (Use CH-2 as the trigger.) When the CH-2 signal is inverted, the trailing edge can be used for synchronization.)
2. Put the set into the test mode and load test tape TY-7252 (8-909-822-00).
3. Put the set into the PLAY (▶) mode and adjust RV505 (B-CH) and RV506 (A-CH) on the main board so that the oscilloscope PILOT waveform P-P value is $230 \pm 23 \text{ mV}$.



Adjustment Point: digital board

3-3. CHECKS AND ADJUSTMENTS FOR DATE FUNCTION

Clock IC Back-up Check

- When there is the short-circuit position on the pattern around the lithium battery (BAT501) or the clock IC (IC712) or disconnecting CN573 on removing the front panel assembly the clock is reset.

(In spite of pressing PRESET button, the date indication becomes
 “_ _ Y _ _ M _ _ D ” “ _ _ H _ _ M _ _ S ”)

At this time, check the back-up function by the procedures given below.

- Connect DC voltmeter to CN554 pin ① (BATT+) and pin ② (BATT -) on the digital board.
- When the power is off, the voltage value of the item (1) should be less than +30 mV.

(When the voltage value becomes +30 mV or more, Check around IC712 or replace IC712.)

- When the power is on, the voltage value of the item (1) should be less than 0 mV (- (minus) indication).

(When the voltage value becomes + (plus) indication, Check around D718 or replace D718.)

- When the above voltage values are normal, set the preset date and time (year, month, day, day of the week, hour, minute, second) according to the instruction manual.
- After setting the time on the item (4), turn power off and turn power on several seconds later, and check the clock works normally.

Back-up Battery Replacement

The life of the back-up battery under normal use (normal temperature, normal humidity) is approximately ten years or more. (On the instruction manual, described “approximately five years”.)

Be carefull about the following points on the battery replacement.

- Repair the cause of the battery wastage by performing mentioned above “Clock IC Back-up Check”.
- The open-circuit voltage of the replaced battery is 3.0 V or more as the new one, and when it is 2.0 V or less, it is completely consumed, replace it with new one.
- After the battery replacement, perform “Clock IC Back-up Check” again and set the time*.

* Time setting procedure described on page 9.

Clock Frequency Adjustment

Note:

- On normal repair, this adjustment is not necessary. Don't turn the trimmer capacitor CT701.
- Only when needing this adjustment (X702 replacement or so on), perform in the order given.
- Use the frequency counter with six digits or more.

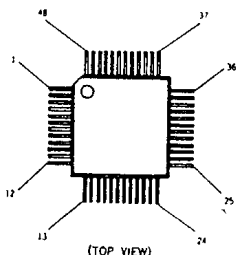
Adjustment Procedure:

- Connect a frequency counter to the test land “OSC FREQ” on the display board.
- Turn power on and adjust with CT701 so that the reading on the frequency counter becomes 2048.00 ± 0.01 Hz (in normal temperature)
- Perform “Clock IC Back-up Check” described above.

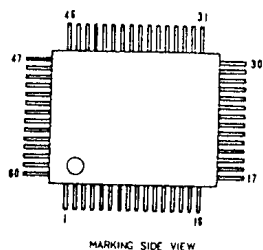
SECTION 4 DIAGRAMS

• SEMICONDUCTOR LEAD LAYOUTS

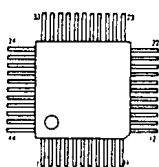
A1QH3020S

CXA1045Q-Z
CXA1364R

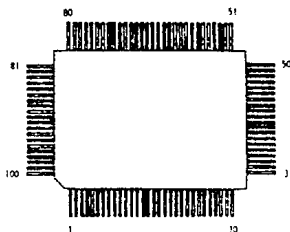
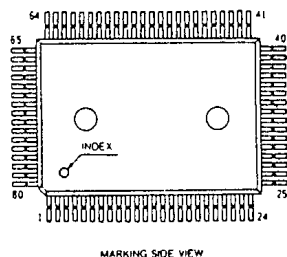
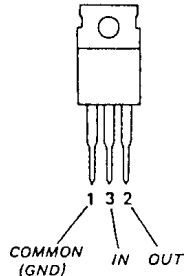
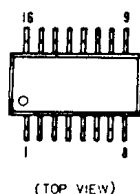
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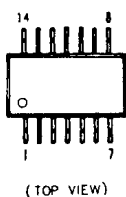
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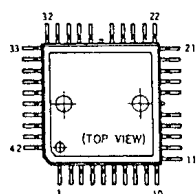
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MSC62408-020GS-KM5F7805L-720
M5F7808
TA7805S
μ PC2405HF
μ PC2406HFM5F7905L
TA7905SMC14051BF
MSM6338MS-K

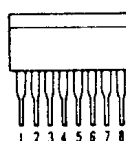
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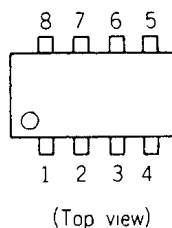
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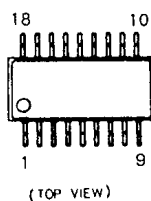
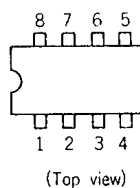
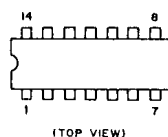
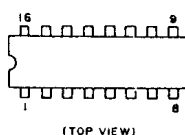
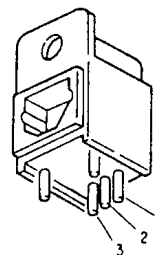
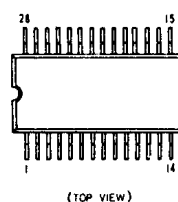
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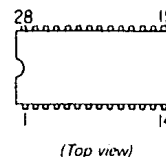
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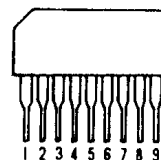
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M5239P
NE5532P
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LC74HC08
SN74HCU04AN
SN74HC00AN
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SN74HC14AN
SN74HC74N
SN74LS624N
TC74HCU04AF
MC74AC74NSN74HC157AN
SN74HC175AN
TC74HC123APGP1F32R
GP1F32TCXA1046M
CXK58257M-12L

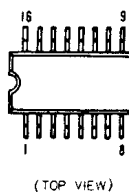
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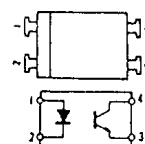
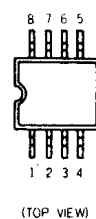
TC5081AP



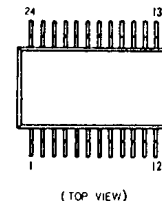
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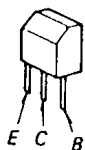
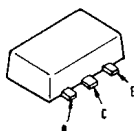
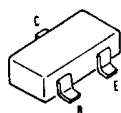
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CXK1011M
LM358M
LM393M

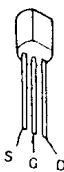
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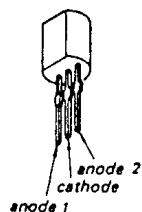
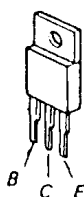
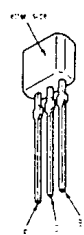
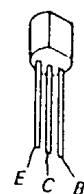
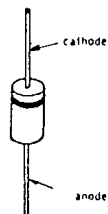
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2SB798-DL
2SD1621-RDTA114EK
DTC114EK
DTC124EK
DTC143TK
DTC144EK
2SC1623-L6

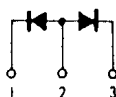
2SK241-GR

2SK246-GR
2SK30A-O

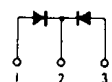
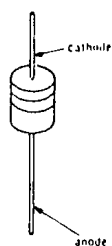
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DTA114ES
DTC114ES2SA985A-P
2SB1370-EF
2SC2275-P
2SD2061-EF2SA1175-HFE
2SC2785-HFE2SA1371-E
2SB1013-4
2SC3468-E
2SD1387-3EQB01-08Q
HZ4BLL
10E2N
30DF2

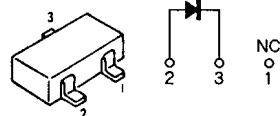
F10P20F



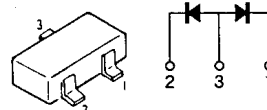
F10P20FR

HZS6A1L
HZS33-1L
RD3.3ES-B2
RD3.9ES-B2
RD5.1JS-B2
1SS168
1SS202-1
11ES2

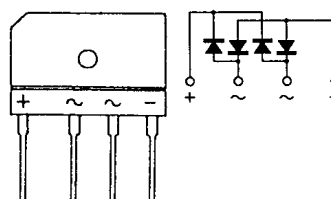
SB05-05CP



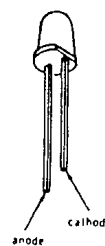
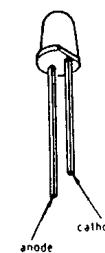
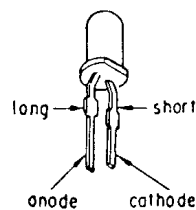
1S2836



RBV-602-01



AA3432S

SLR-34MC3
SLR-34VC3SEL2510W-D
GL-3PR9

4-1. PIN FUNCTION

IC501 MASTER microcomputer (CXP80524)

While exchanging data with the display microcomputer (IC701) by the serial communication, this IC controls the mechanism check servo and selects inputs DSP (IC502, 503) and the attenuator (IC504).

PIN	SIGNAL NAME	I/O	LOGIC		FUNCTION															
			O	I																
1	ATTEX	O	Outside (ATTCK)	Inside (1/8 LECK)	Attenuator (IC504) clock select output															
2	ATTCK	O	—	—	Attenuator (IC504) level set clock output															
3	FPON	O	OFF	ON	FWD plunger (PM002) ON/OFF output															
4	FPKI	O	OFF	ON	FWD plunger (PM002) KICK output															
5	TLOCK	O	ON	OFF	REEL T side LOCK output															
6	CPDIR	O	FWD	RVS	CAPSTAN DIRECTION select output															
7	BPON	O	OFF	ON	REEL BRAKE plunger (PM001) ON/OFF output															
8	BPKI	O	OFF	ON	REEL BRAKE plunger (PM001) KICK output															
9	DRON	O	OFF	ON	DRUM motor ON/OFF output															
10	DRDIR	O	NORM	RVS	DRUM DIRECTION select input															
11	OPT/COA	O	OPTICAL	COAXIAL	DIGITAL IN, OPTICAL/COAXIAL select output															
12	DIG/ANA	O	DIGITAL	ANALOG	INPUT/DIGITAL/ANALOG select output															
13	REC/PB	O	REC	PB	Mode REC/PB select input															
14	MST/SLV	O	SLAVE	MASTER	MONITOR MASTER/SLAVE (SOURCE/TAPE) select															
15	SLVMUT	O	OFF	MUTE	MUTE output so SLAVE DSP (IC503)															
16	MSTMUT	O	OFF	MUTE	MUTE output to MASTER DSP (IC502)															
17	FS1	O	—	—	fs select <table><tr><td></td><td>STOP</td><td>44.1K</td><td>32K</td><td>48K</td></tr><tr><td>FS1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>FS0</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table>		STOP	44.1K	32K	48K	FS1	0	0	1	1	FS0	0	1	0	1
	STOP	44.1K	32K	48K																
FS1	0	0	1	1																
FS0	0	1	0	1																
18	FS0	O	—	—																
19	DFMUT	O	OFF	MUTE	MUTE output to DIG-FIL (IC312)															
20	DOCNT	O	OFF	ON	DIGITAL OUT (ON/OFF) CONTROL output															
21	LMEJ	O	OFF	ON	LOADING motor EJECT direction } BRAKE MODE LOADING motor LOAD direction } at ON-ON															
22	LMLD	O	OFF	ON																
23	LINMUT	O	OFF	MUTE	Line mute (relay) output															
24	DISPSL	O	ON	OFF	DISPLAY microcomputer communication SELECT output															
25	TEND	I	—	—	T side END SENSOR TLED ON } DC (=): Magnetic part S side END SENSOR SLED ON } AC (⌋⌋⌋): Leader tape															
26	SEND	I	—	—																
27	CMCL	O	OFF	ON	CAS-CON. motor CLOSE direction } BRAKE MODE CAS-CON. motor OPEN direction } at ON-ON															
28	CMOP	O	OFF	ON																
29	TLED	O	OFF	ON	T side LED drive output } DUTY 50% S side LED drive output } DRIVE on T/S antiphase															
30	SLED	O	OFF	ON																
31	MP	I	Inside ROM	Outside ROM	MICRO PROCESSOR MODE input (fixed to "0")															
32	XRST	I	RESET	 RELEASE	RESET															
33	Vss	—	—	—	GND															
34	XTAL	—	—	—	NC															
35	EXTAL	—	—	—	Microcomputer external clock (=MCLK=9.408 MHz)															
36	DISPSY	I	ON	OFF	DISPLAY microcomputer communication sync input															
37	DISPDI	I	—	—	DISPLAY microcomputer communication serial data input															
38	DISPDO	O	—	—	DISPLAY microcomputer communication serial data output															

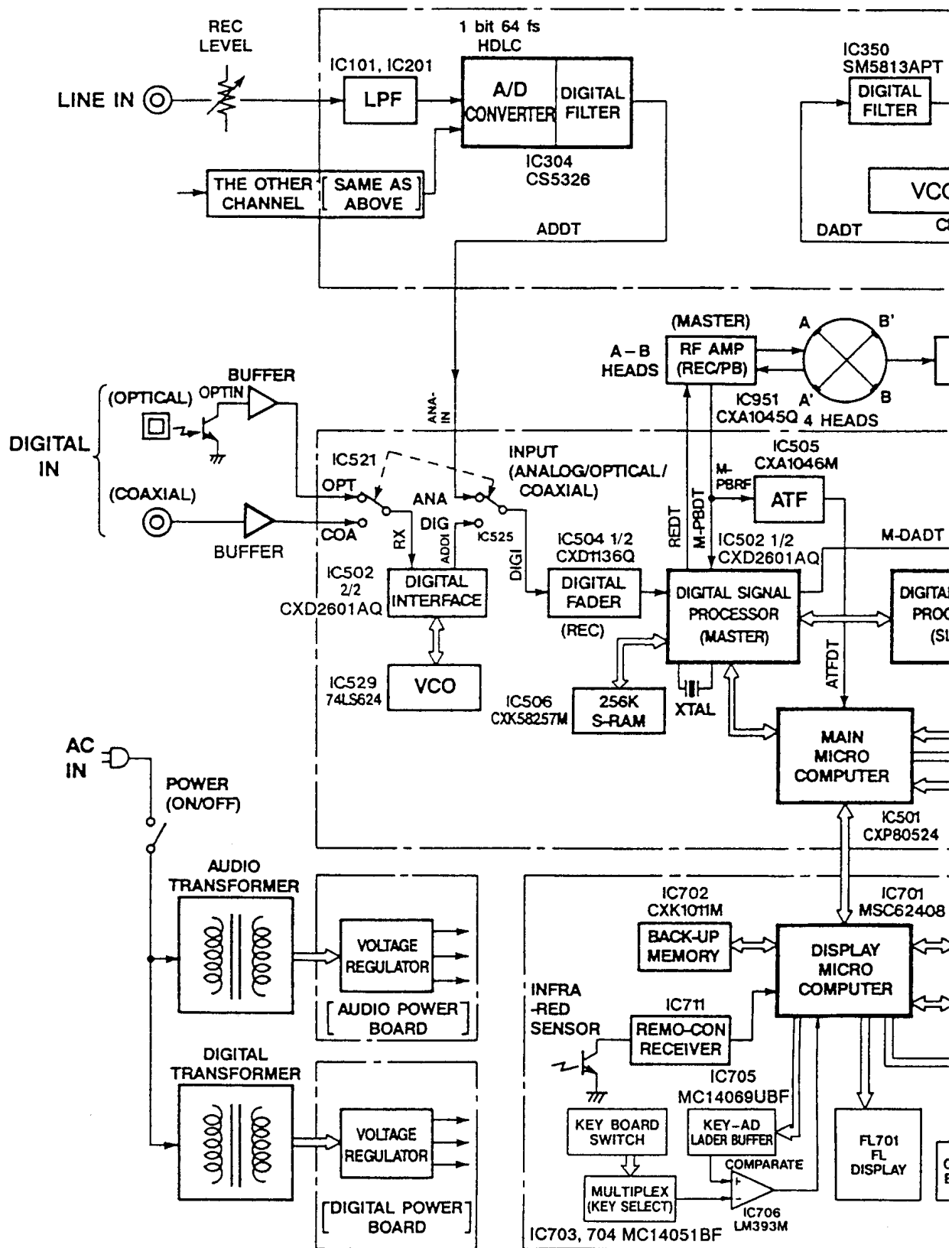
PIN	SIGNAL NAME	I/O	LOGIC		FUNCTION
			O	I	
39	DISPCK	I	—	—	DISPLAY microcomputer communication serial clock input
40	SBSY	I	ON (communicatable)	OFF (not communicatable)	Signal processing communication SUB DATA SYNC. input
41	SBDI	I	—	—	Signal Processing communication SUB DATA IN. input
42	SBDO	O	—	—	Signal Processing communication SUB DATA OUT. input
43	SDCK	O	—	—	Signal Processing communication SUB DATA CLOCK. input
44	AVss	—	—	—	Analogue input GND
45	AVref	—	—	—	Analogue input REFERENCE (+5 V)
46	AVdd	—	—	—	Analogue input +5 V
47		I			Not used (Pull-up)
48	SWAD3	I	—	—	SWITCH A/D input (CAS-CON system)
49	SWAD2	I	—	—	SWITCH A/D input (LOADING system)
50	SWAD1	I	—	—	SWITCH A/D input (RECGN system)
51	SWAD0	I	—	—	SWITCH A/D input (RECGN system)
52	LEVSYN	I	NONE	MUSIC	LEVEL SYNC input (Write START-ID by the audio input)
53	MUTM	I	OFF	MUTE	MUTE monitor input from MASTER DSP (IC502)
54	ATFIN	I	—	—	ATF PILOT signal input
55	TFG	I	—	—	T-REEL FG input
56	SFG	I	—	—	S-REEL FG input
57	CFG	I	—	—	CAPSTAN FG input
58	DFG	I	—	—	DRUM FG input
59	DPG	I	—	—	DRUM PG input
60	DREF	I	—	—	DRUM REFERENCE $\frac{SP}{100/3}, \frac{LP}{50/3}, \frac{SEARCH}{1.6k}$ ($Hz \pm \alpha$) input
61	MCLK	I	—	—	MASTER CLOCK ($F_{CH}=9.408$ MHz) input
62	PBDT	I	—	—	PB (playback) DATA input
63	SWP	O	Ach	Bch	SWITCHING PULSE
64	DPWM	O	—	—	DRUM PWM output
65	CPWM	O	—	—	CAPSTAN PWM output
66	TPWM	O	—	—	T-REEL PWM output
67	SPWM	O	—	—	S-REEL PWM output
68	ADRES	O	RESET	ACTIVE	Reset output for AD converter
69	ERMN	I	RF is none and REC	RF exists	ERROR MONITOR (PBRF exists or not) input
70	XTEST	I	ON	OFF	TEST MODE input
71	POWDN	I	ON	OFF	POWER DOWN detect input (AC POWER OFF input)
72	VDD	—	—	—	+5 V
73	Vss	—	—	—	GND
74	NC	—	—	—	Not connected
75	ATFS2	O	—	—	ATF Sync signal output to MASTER DSP (IC502)
76	DIVCO	O	OSC ON	OSC STOPS	Osc. ON/OFF select output to DIG-IN VCO (IC529)
77	ATFS3	O	—	—	SYNC3/RF AMP MODE for ATF (IC505)
78	LP/SP	O	LP	SP	LONG PLAY/STANDARD PLAY select output
79	XDTR	O	ON	OFF	DATA RECORDER MODE (ON during LP after-recording or searching)
80	ATTMUT	O	OFF	MUTE	Attenuator (IC504) MUTE, (ON during fading)

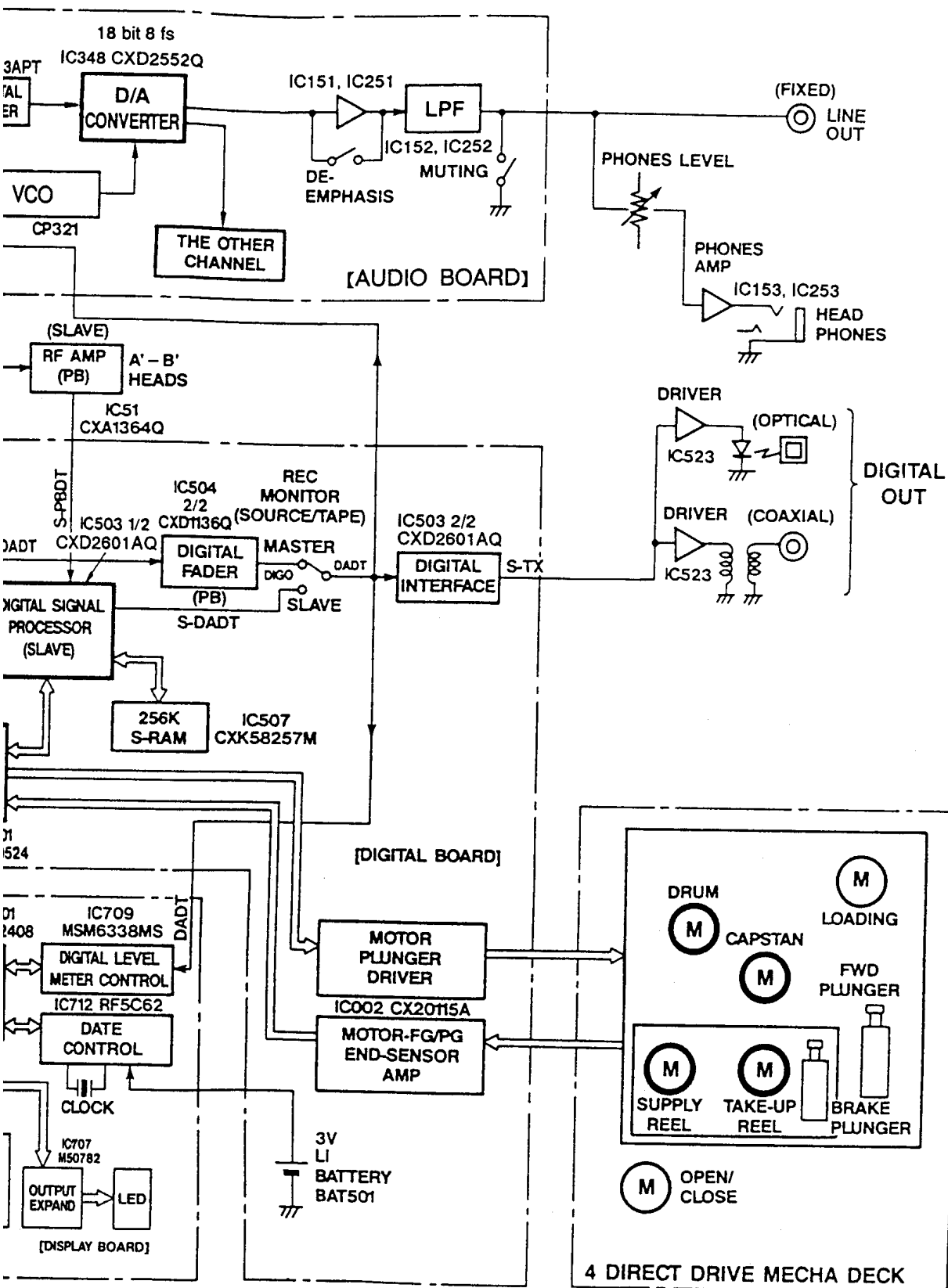
IC701 DISPLAY MICROCOMPUTER (MSC62408)

While serial communicating, this IC controls the fluorescent display tube, the level meter (IC709), the clock (IC712), the remote control signal, LED indication by the expansion port (IC707), key input scan, address set for SRAM (IC718).

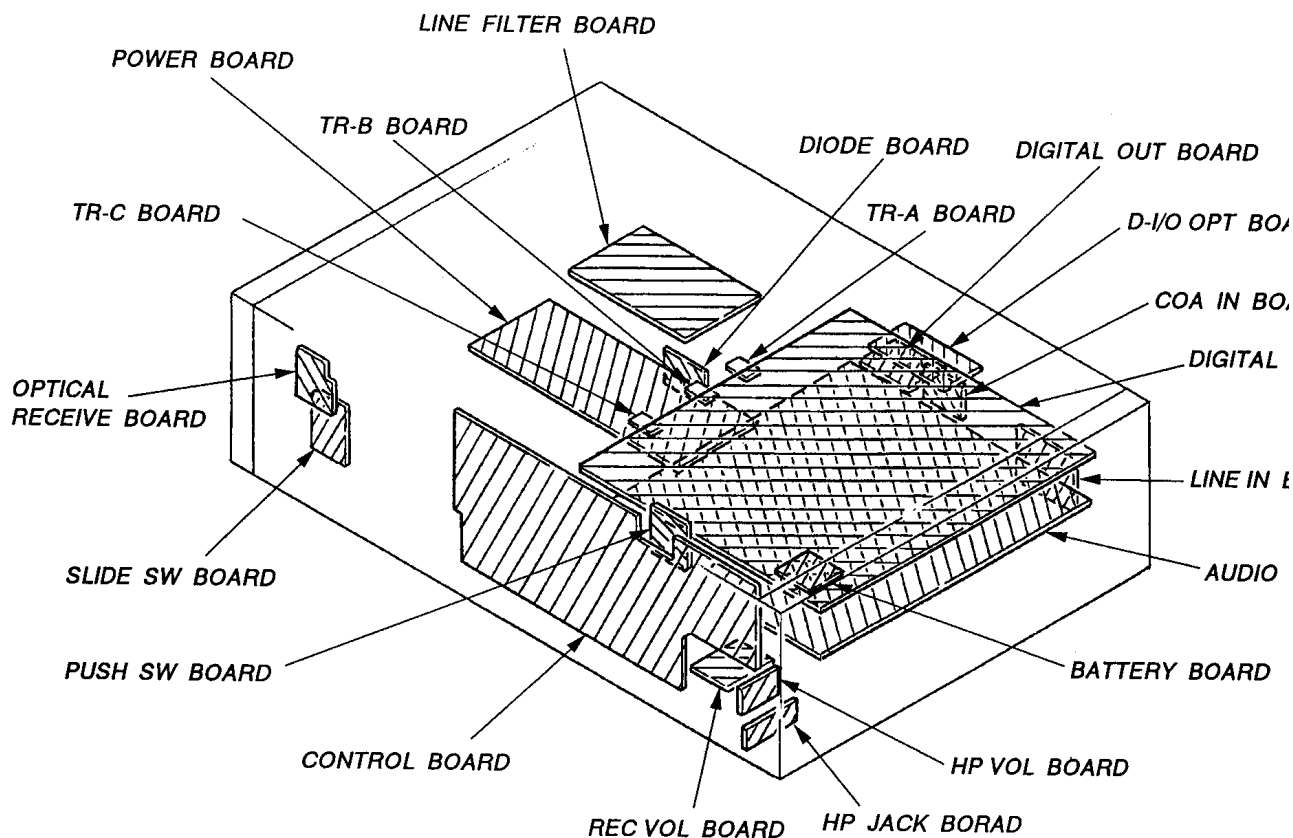
PIN	SIGNAL NAME	I/O	LOGIC		FUNCTION
			O	I	
1 – 2	D6 – D7	I/O	–	–	Data bus
3	PMODE0	I			PORT MODE 0 PORT MODE 1 PORT MODE 2 Mode setting input (normally open) for each processing
4	PMODE1	I			
5	PMODE2	I			
6	MMUTE	I	OFF	MUTE	Level meter muting input
7	ROMSI	I	–	–	Serial data input from E ² PROM (IC702)
8	ROMBY	I	ON	OFF	BUSY signal input from E ² PROM (IC702)
9	CMPIN	I	Vref < Vkey	Vref > Vkey	Comparator out input for KEY A/D
10	MSTAK	O	ON	OFF	Acknowledge output to the master microcomputer (IC501)
11	CPUSC	O	–	–	On the microcomputer communication, serial clock output
12	CPUSO	O	–	–	On the microcomputer communication, serial data output
13	CPUSI	I	–	–	On the microcomputer communication, serial data input
14	MOTUP	O	OFF	ON	UP output for the volume with motor
15	MOTDN	O	OFF	ON	DOWN output for the volume with motor
16	CLKCE	O	ON	OFF	Chip enable output to the real time clock (IC712)
17	RMC	I	–	–	Received remote control signal input
18	MSTSY	I	ON	OFF	Sync input from the master microcomputer (IC501)
19	TIMIN	I	ON	OFF	The real time clock (IC712) timing signal input
20	XRST	I	RESET	RELEASE	Microcomputer reset signal input
21	TEST	I	–	 –	Test mode (Normally GND level)
22	EXPST	O	LATCH	ACTIVE	Strobe signal output to the output expansion IC (IC707)
23	METCE	O	 ON	OFF	Chip enable signal output to the meter IC (IC709)
24	WR	O	ON	OFF	WRITE signal output to S-RAM (IC708) and the meter IC (IC709)
25	RD	O	ON	OFF	READ signal output to S-RAM (IC708) and the meter IC (IC709)
26	RAMCE	O	ON	OFF	Chip enable signal output to S-RAM (IC708)
27	ROMSO	O	–	–	Serial data output to E ² PROM (IC702)
28	ROMSC	O	–	–	Serial clock signal output to E ² PROM (IC702)
29	ROMCE	O	ON	OFF	Chip enable signal output to E ² PROM (IC702)
30	OSCI	O	–	–	Ceramic oscillator for clock connecting terminal (4.19 MHz)
31	OSCO	O	–	–	Ceramic oscillator for clock connecting terminal (4.19 MHz)
32	GND	O	–	–	GND
33 – 40	T0 – T7	O	OFF	ON	FL grid output
41 – 48	S31 – S24	O	OFF	ON	FL segment output
49	VFLT	–	–	–	B+ for FL (+35 V)
50 – 73	S23 – S0	O	OFF	ON	FL segment output
74	VDD	–	–	–	+5 V power supply
75 – 80	D0 – D5	I/O	–	–	Data bus

4-2. BLOCK DIAGRAM

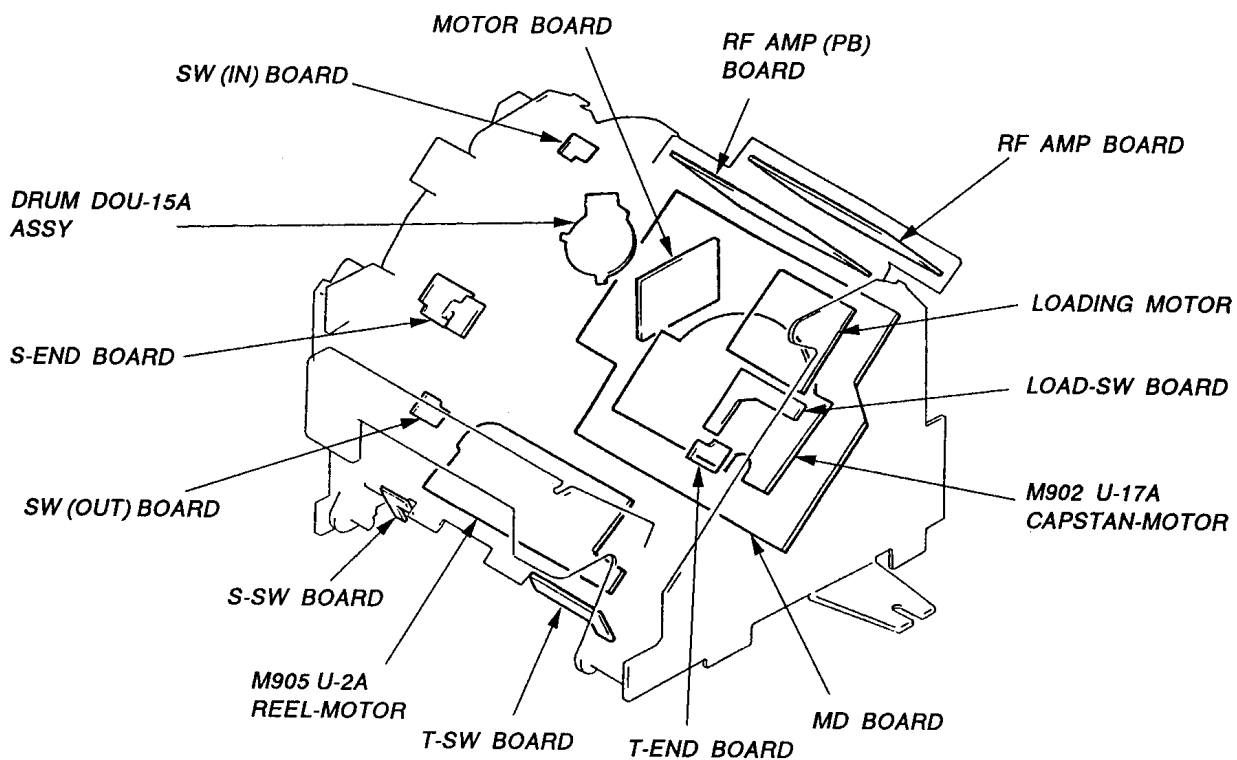




• CIRCUIT BOARDS LOCATION



(DATM-51)



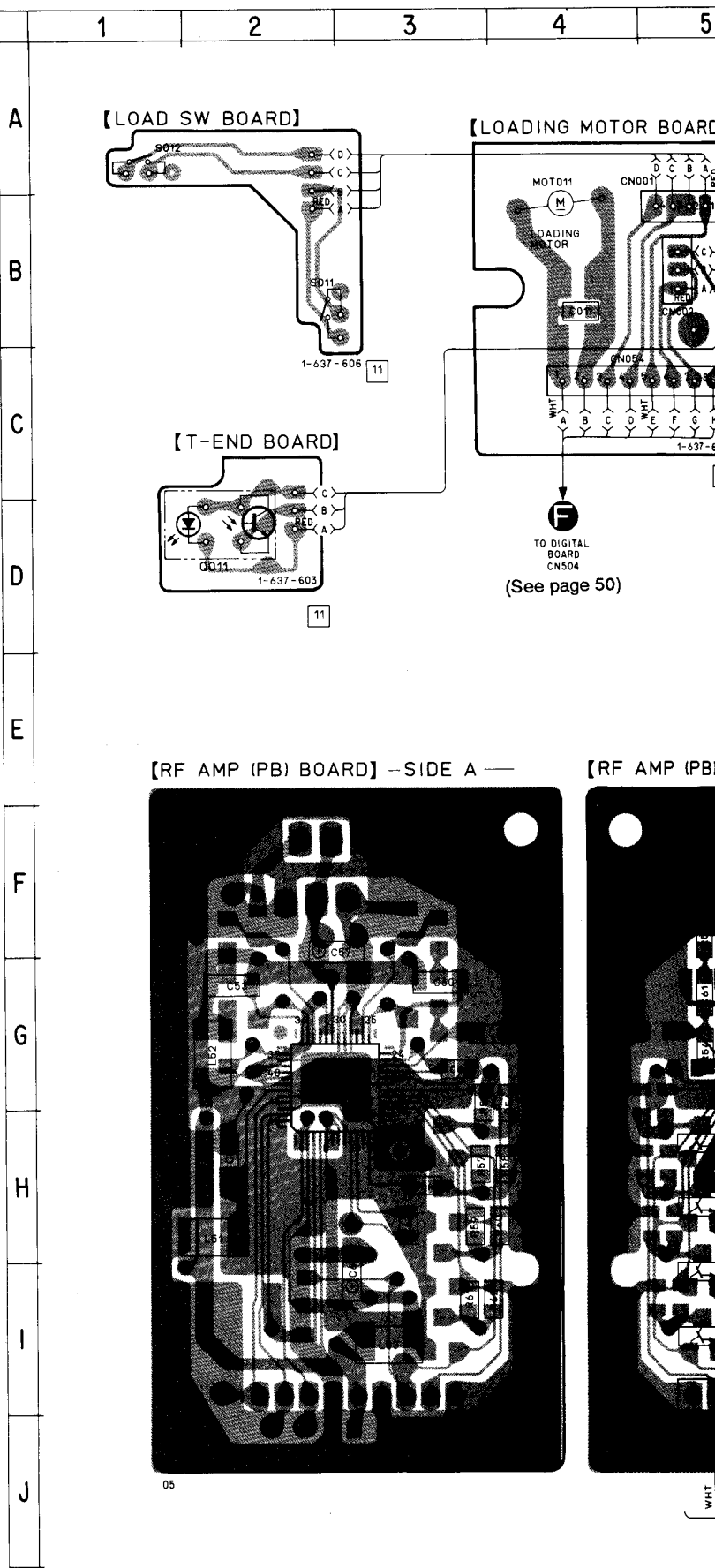
4-3. PRINTED WIRING BOARDS – RF/MD SECTION –

• Semiconductor Location

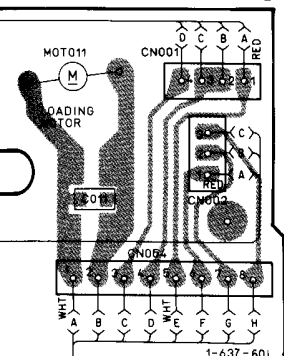
Ref. No.	Location
D011	J-16
D012	J-16
IC51	G-2
IC001	G-17
IC002	I-17
IC951	H-9
Q51	I-5
Q52	I-5
Q53	H-5
Q54	H-5
Q55	I-6
Q001	I-16
Q002	I-16
Q003	F-17
Q011	D-2
Q012	B-14

Note on Mounting Diagram:

- — : parts extracted from the component side.
- : parts extracted from the conductor side.
- : parts mounted on the conductor side.
- : Through hole.
- — : Jumper wire connected to the ground pattern on the component side.
- ▨ : Pattern on the side which is seen.
- ▩ : Pattern of the rear side.



LOADING MOTOR BOARD

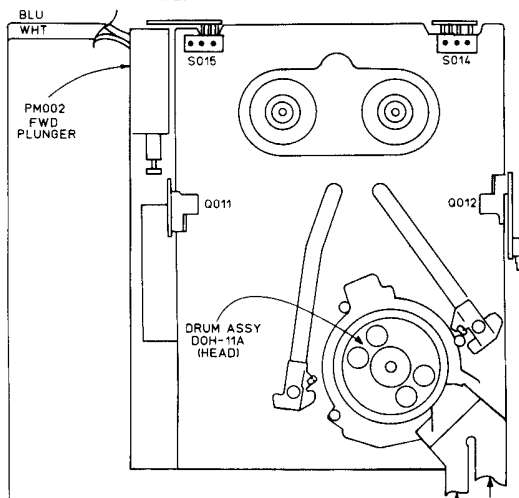


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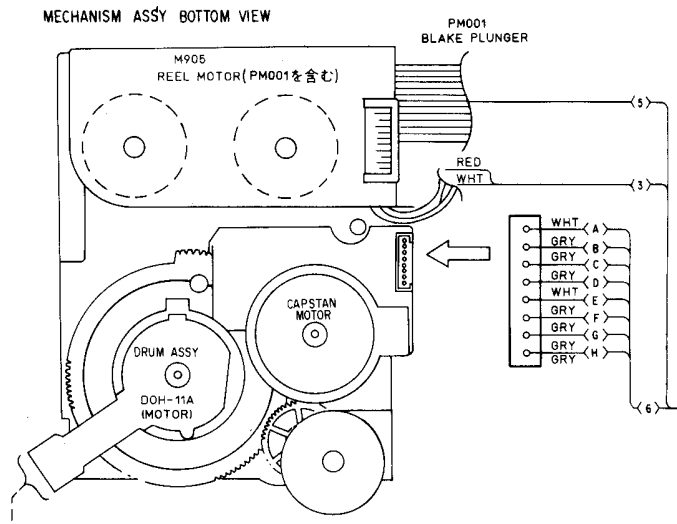
TO DIGITAL BOARD CN504

(See page 50)

MECHANISM ASSY TOP VIEW



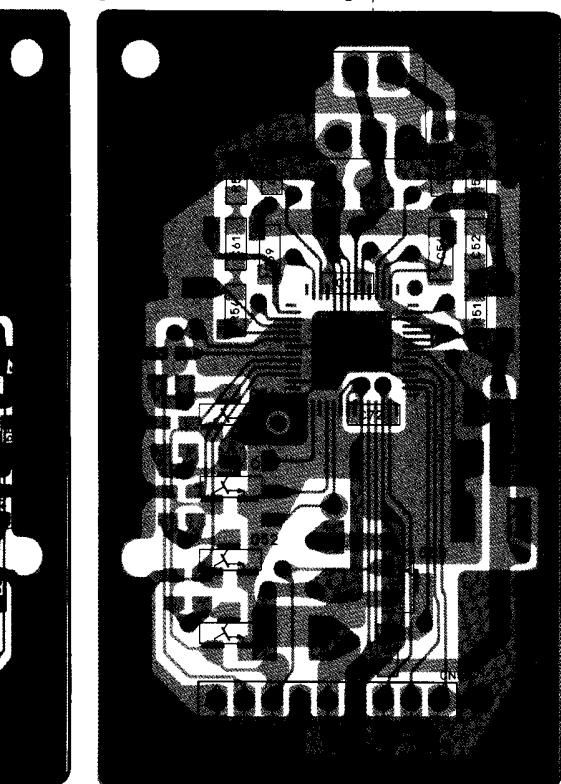
MECHANISM ASSY BOTTOM VIEW



(FLEXIBLE BOARD)

(FLEXIBLE BOARD)

[RF AMP (PB) BOARD] — SIDE B —



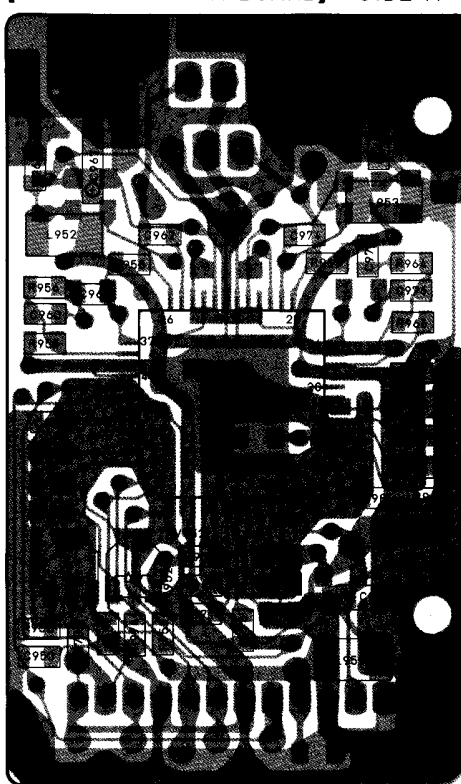
WHT GRY GRY WHT WHT GRY GRY

A

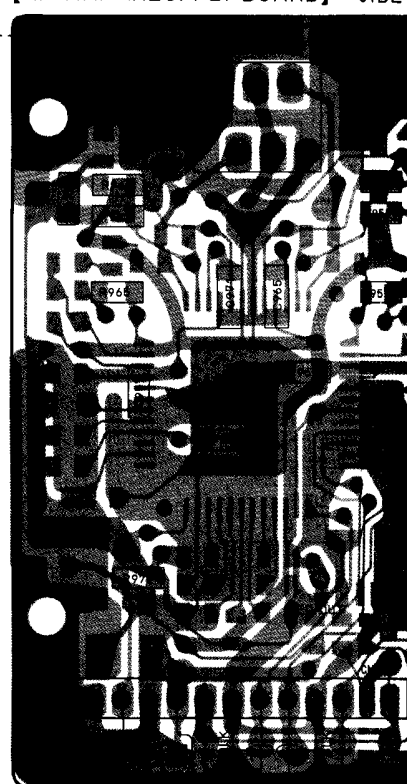
TO DIGITAL BOARD CN508

(See page 51)

[RF AMP (REC/PB) BOARD] — SIDE A —



[RF AMP (REC/PB) BOARD] — SIDE B —



WHT GRY GRY WHT WHT WHT GRY

B

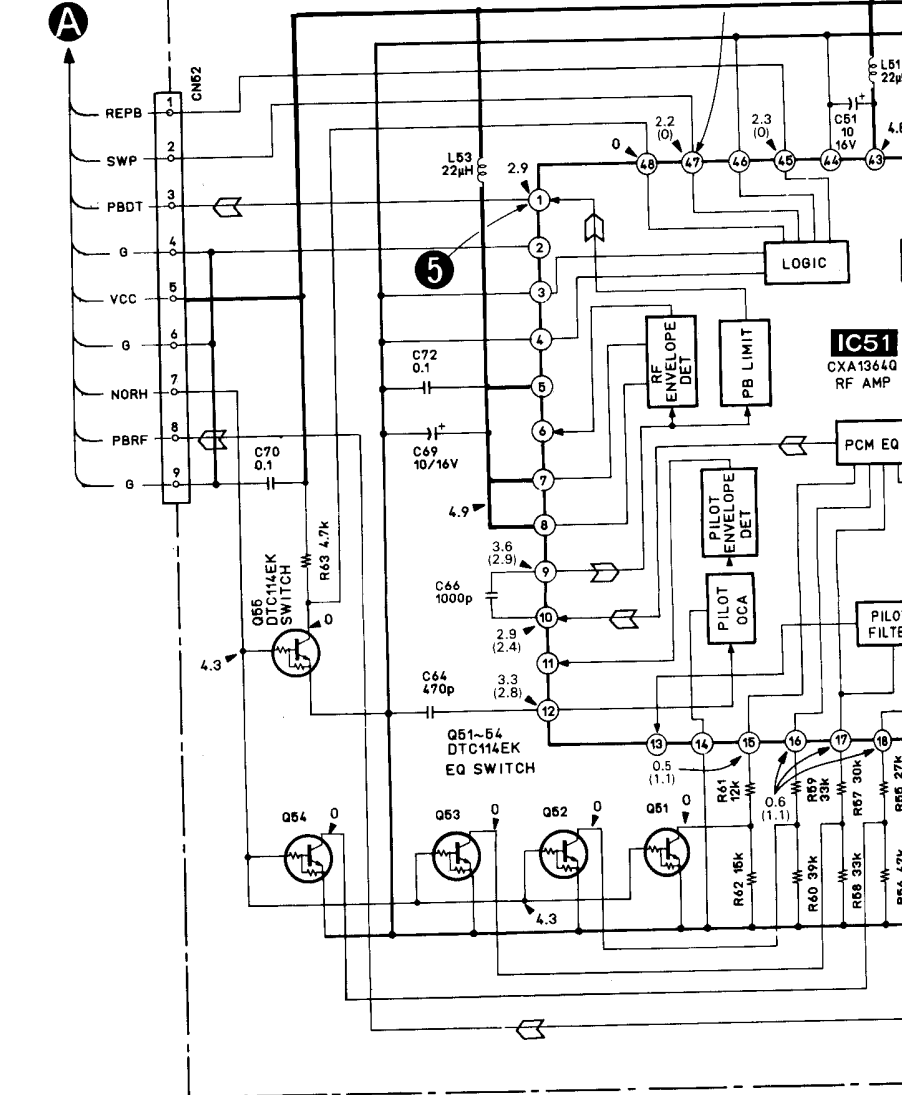
TO DIGITAL BOARD CN507

(See page 51)

4-4. SCHEMATIC DIAGRAM - RF/MD SECTION -

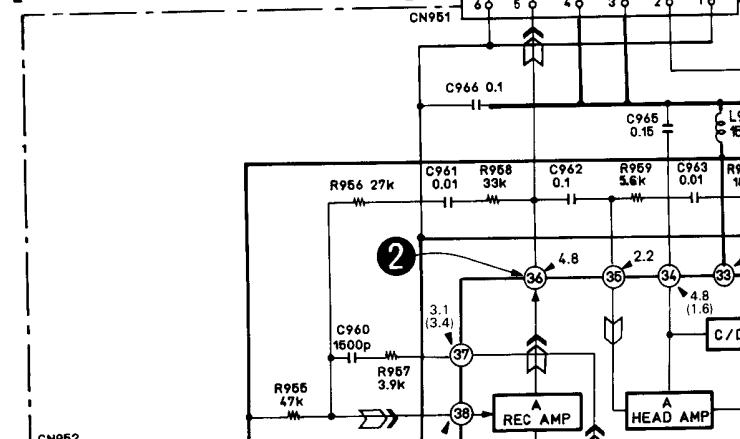
(See page 47)
TO DIGITAL
BOARD
CN508

[RF AMP(PB) BOARD]

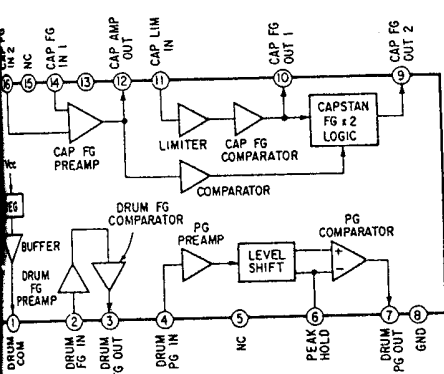


[RF AMP(REC/PB) BOARD]

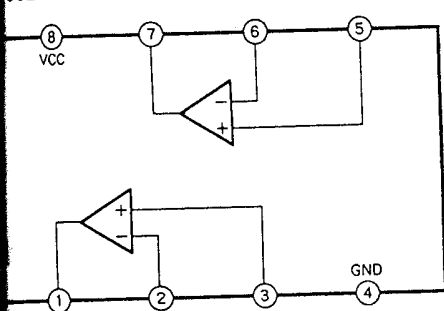
(See page 47)
TO DIGITAL
BOARD
CN507

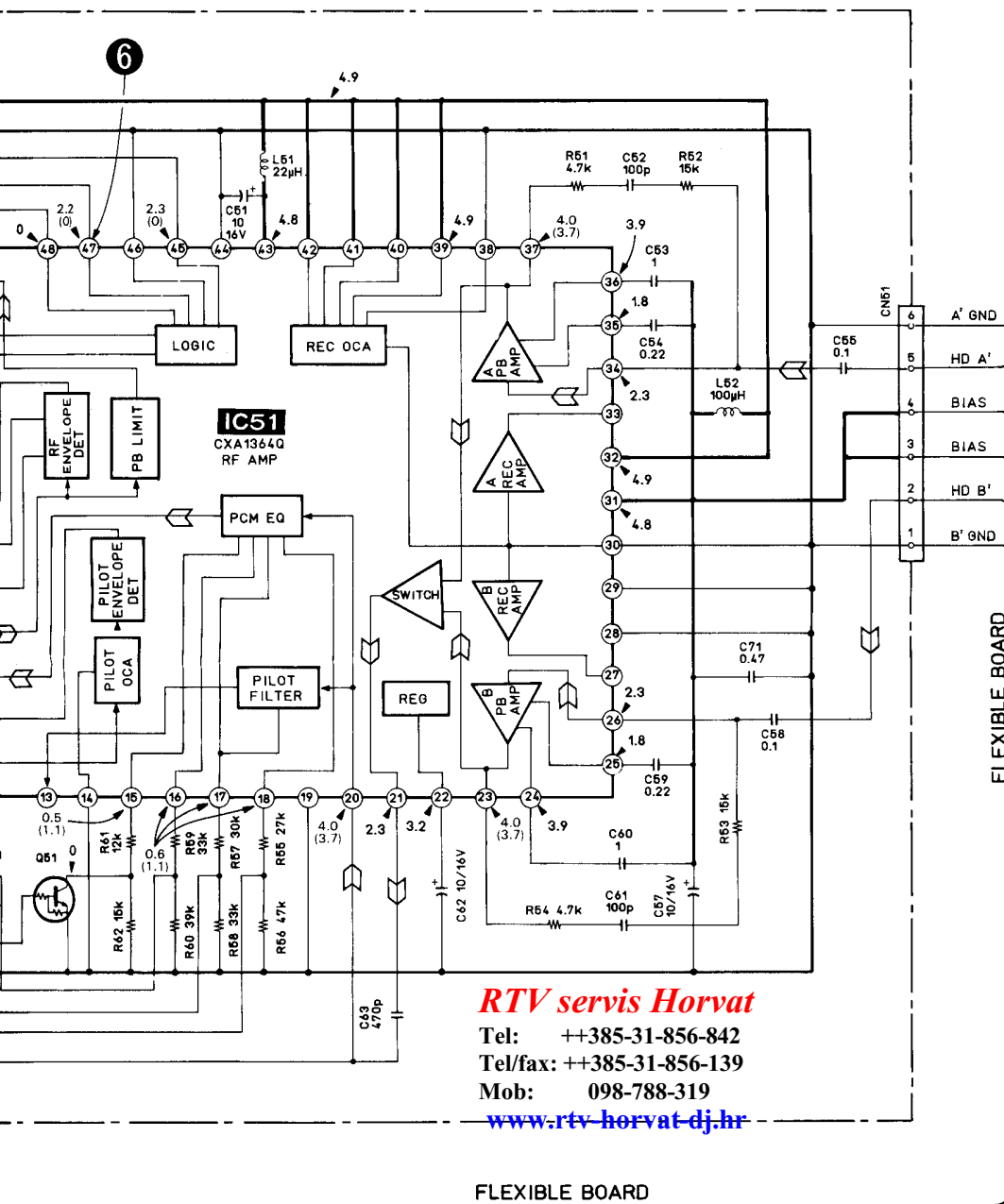


01 CX20115A

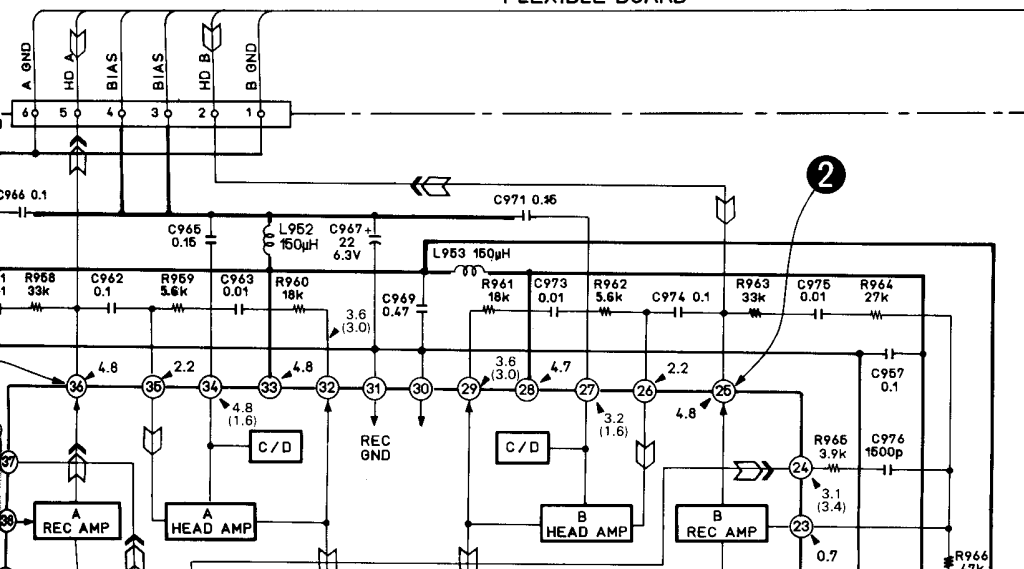
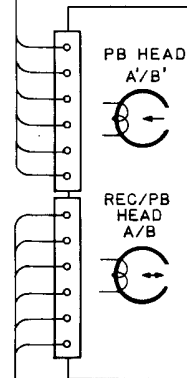


002 LM358M



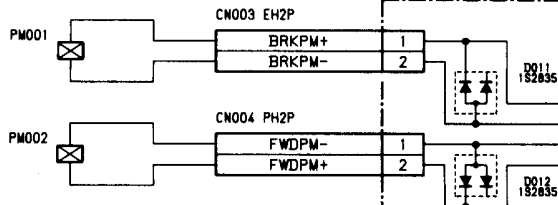


DRUM
ASSY(1/2)
DOH-11A

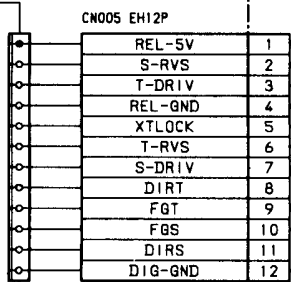


BRAKE-PM
(M905に含まれる)

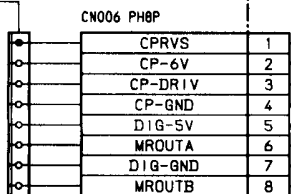
FWD-PM



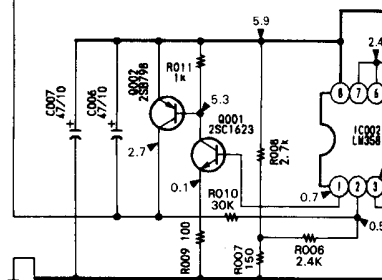
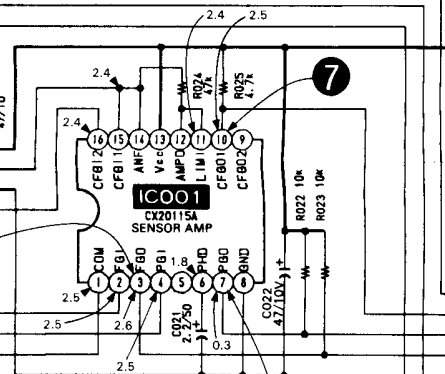
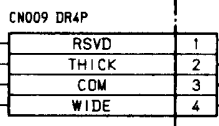
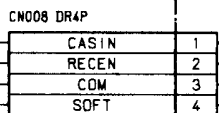
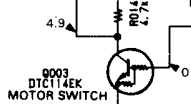
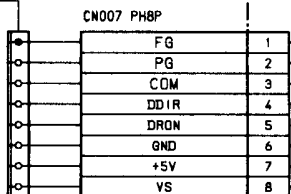
SUPPLY REEL
TAKE-UP REEL
M905 U-2A
REEL-MOTER
(PM001を含む)



M902 U-17A
CAPSTAN-MOTER



DORUM ASSY(1/2)
DOU-15A
DRUM-MOTER



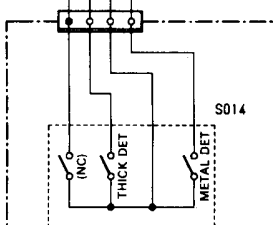
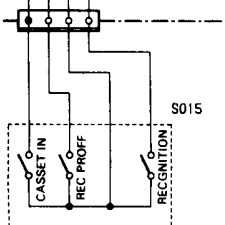
0001.002
REG.

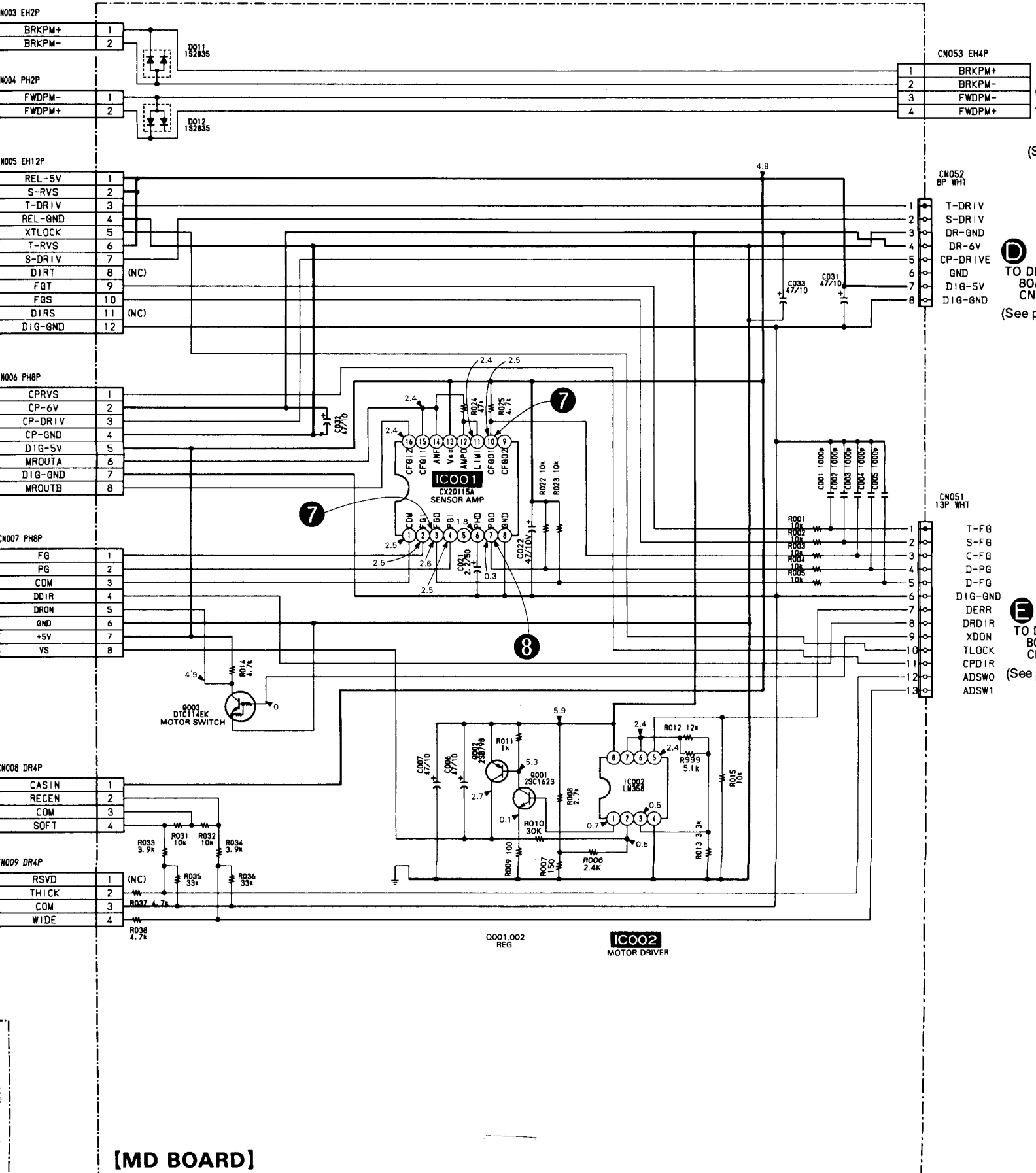
IC001
MOTOR D

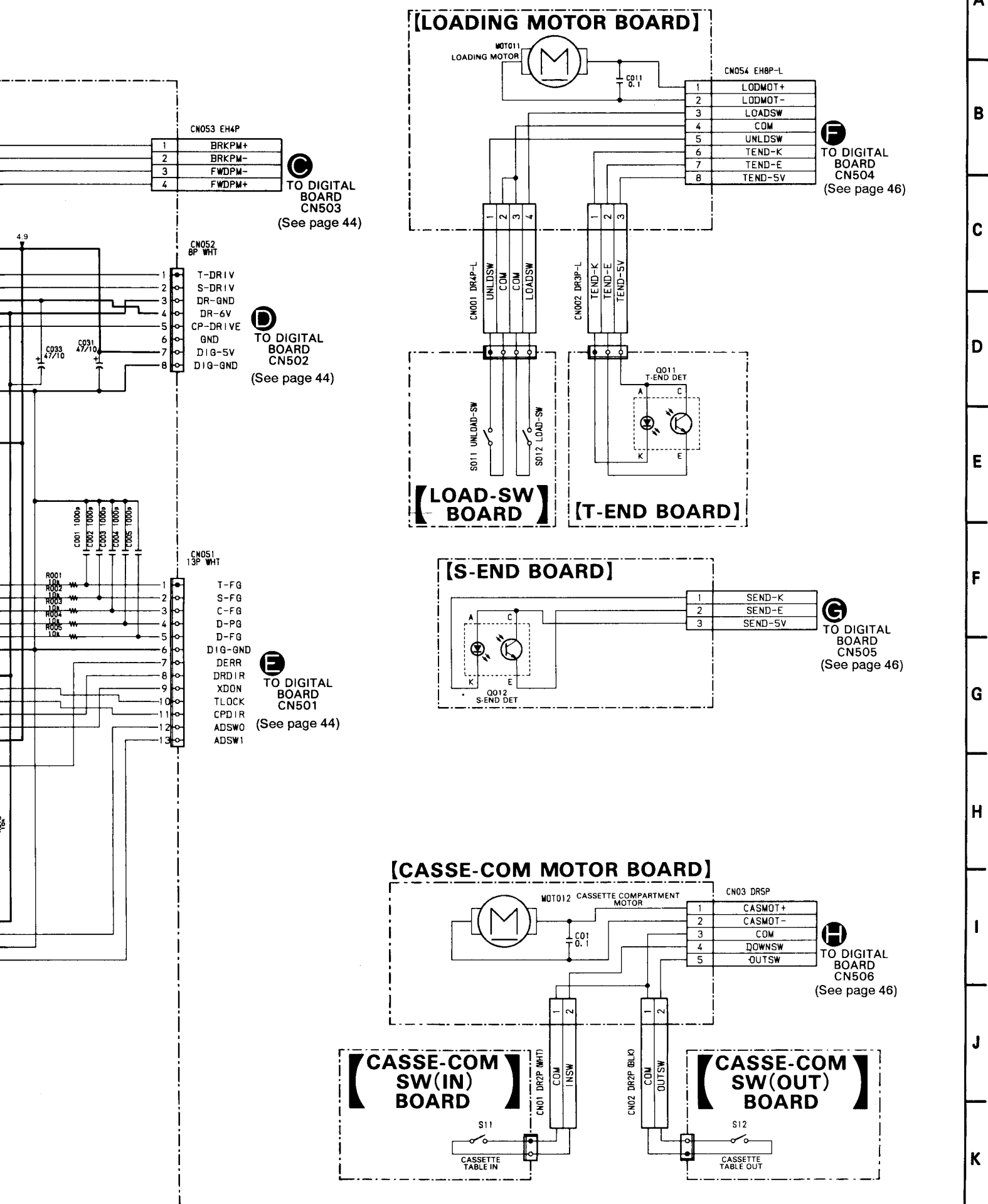
[MD BOARD]

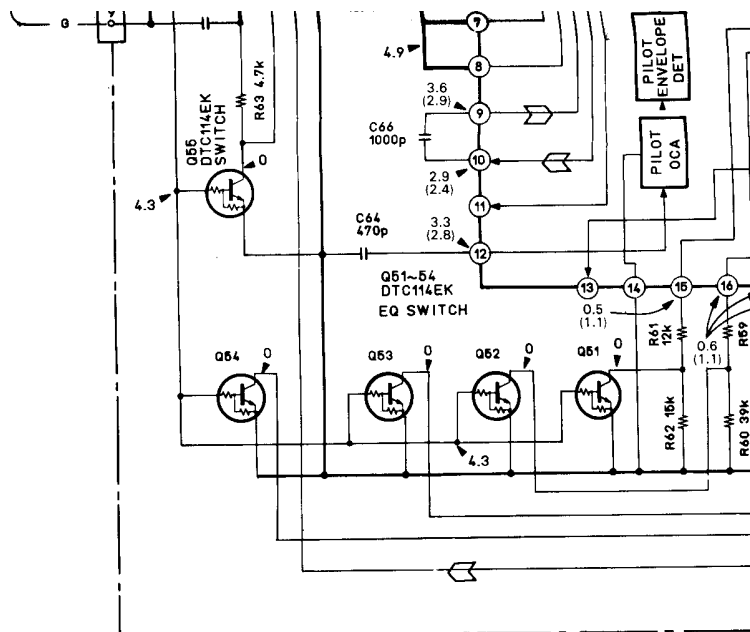
[T-SW BOARD]

[S-SW BOARD]



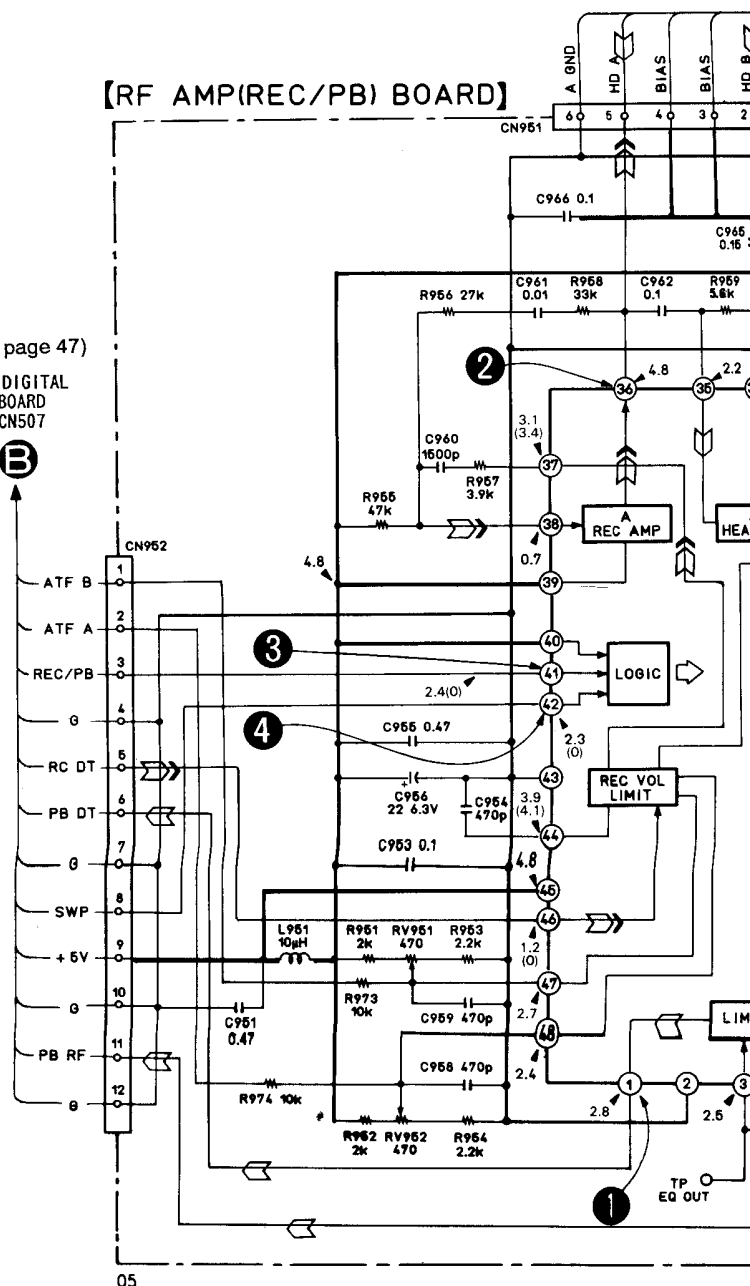


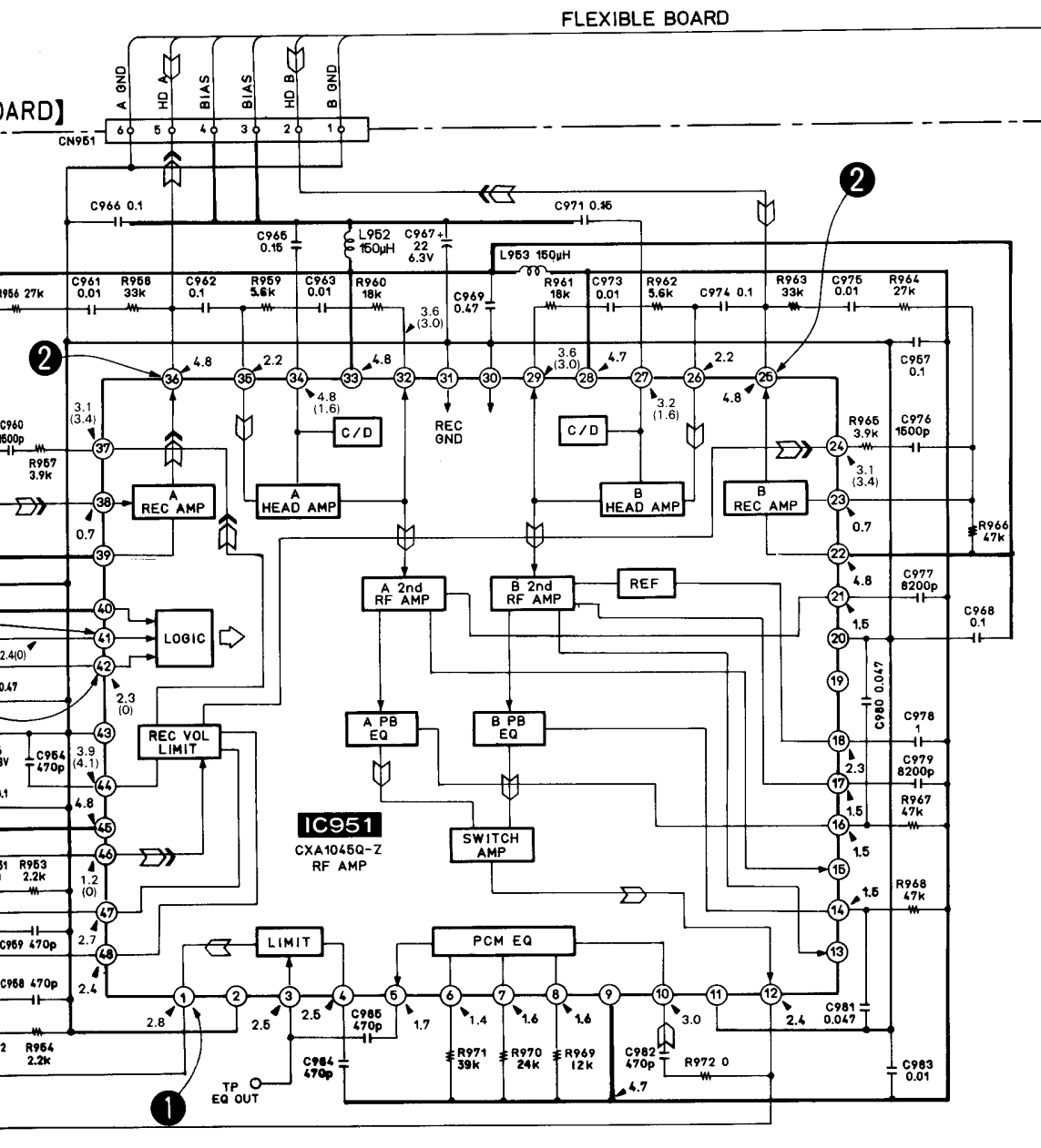
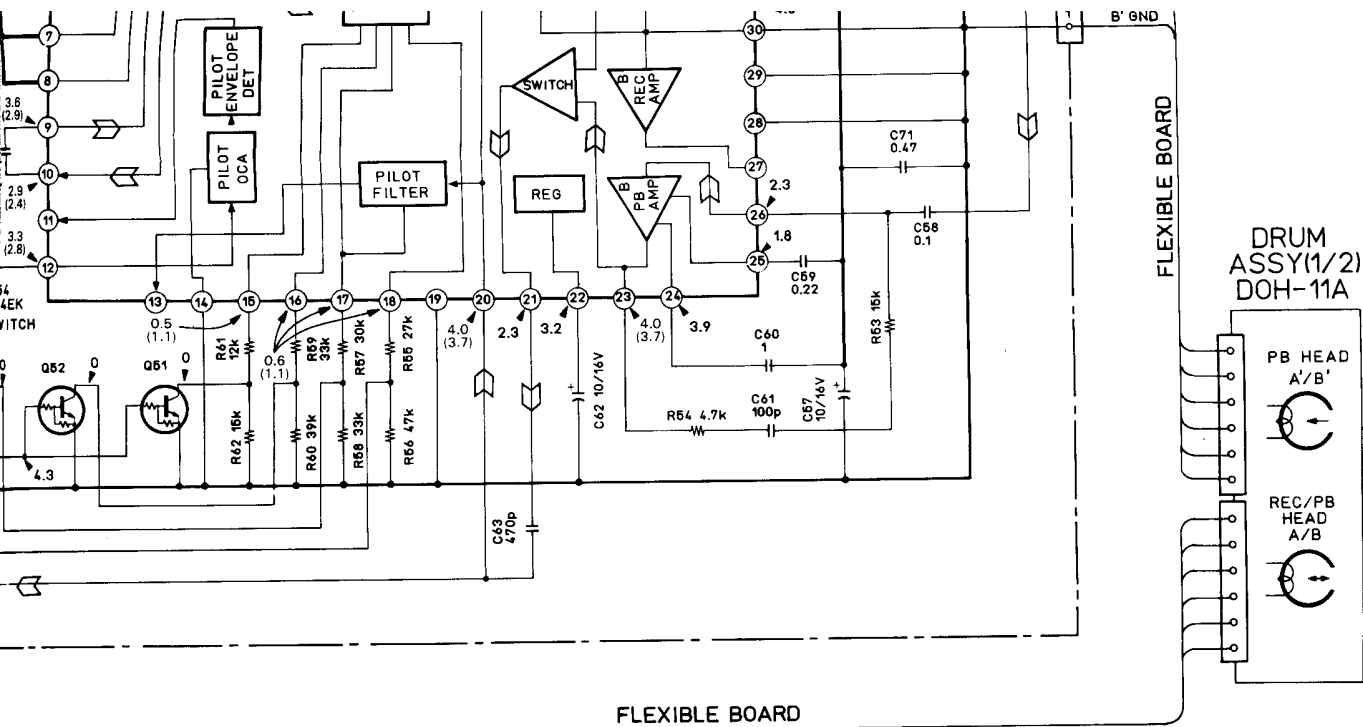




(See page 47)

TO DIGITAL
BOARD
CN507





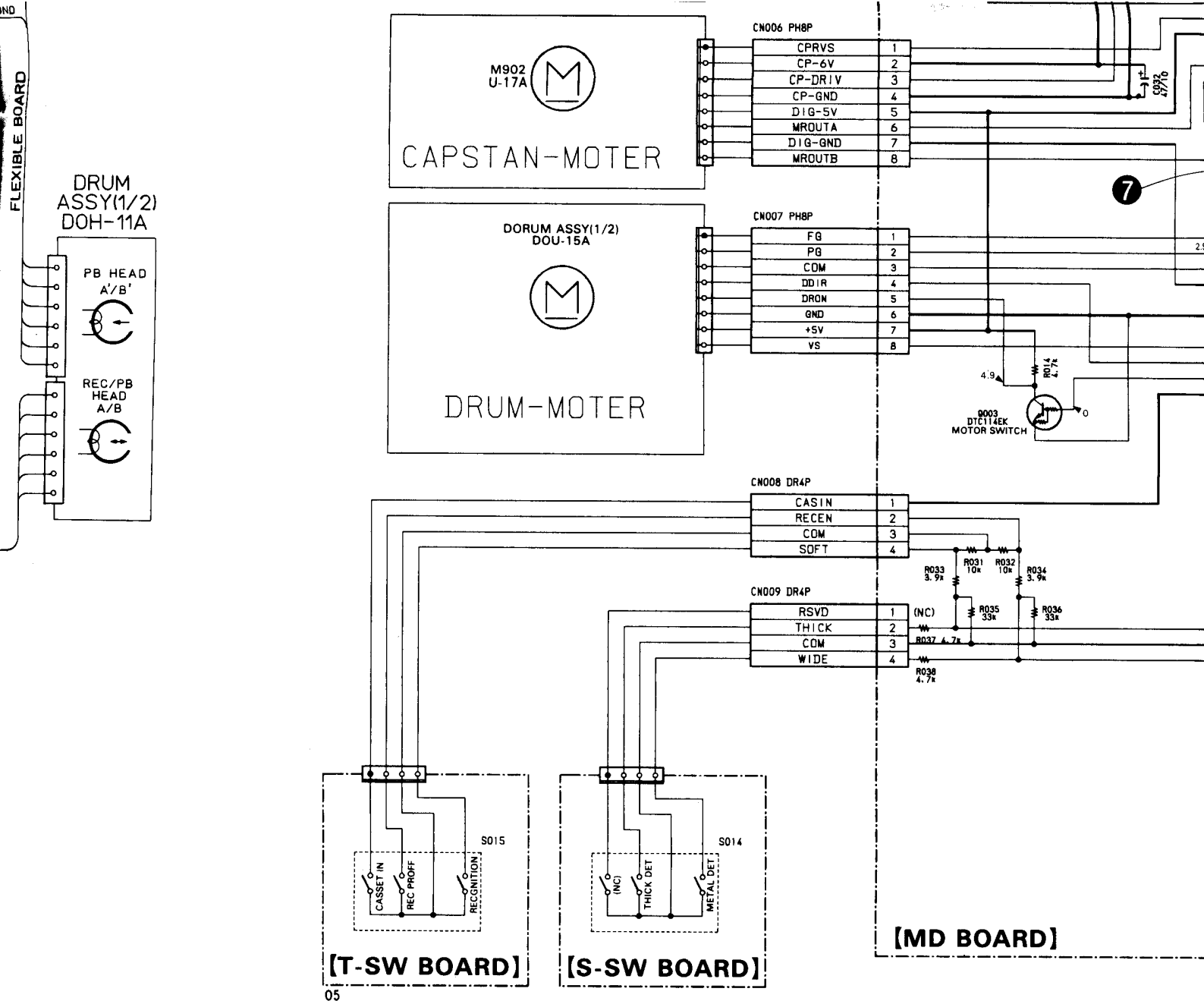
Note on Schem

- All capacitors are 50 WV or less and tantalum type unless specified.
- % : Inductor
- Δ : Int
- $\square$: Fuse

Note:

The component value is marked by mark Δ or $\square$ with mark Δ or $\square$ as a safety. Replace only with the number specified.

- $\square$: B
- $\square$: B
- $\square$: ad



Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}$ W or less unless otherwise specified.
- % : indicates tolerance.
- Δ : internal component.
- : fusible resistor.

Note:

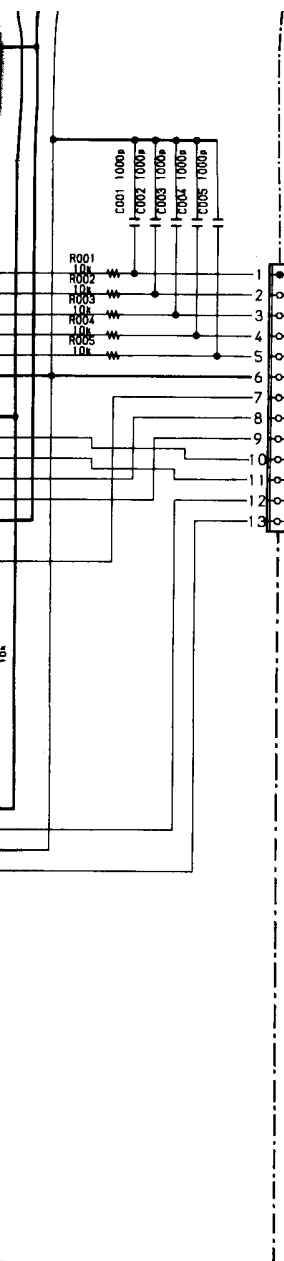
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Note:

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
no mark : REC/PLAY
() : PLAY
- Voltages are taken with a VOM (input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
 $\Rightarrow$: PB
 $\Rightarrow$: REC

- : B + Line.
- : B - Line.
- : adjustment for repair.



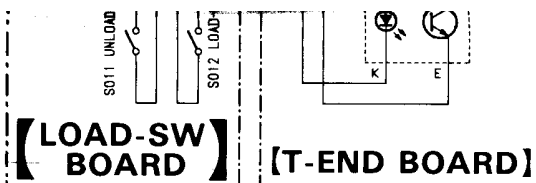
CN051
13P WHT

T-FB
S-FB
C-FB
D-PG
D-FB
DIG-GND
DERR
DRD1R
XDON
TLOCK
CPD1R
ADSW0
ADSW1

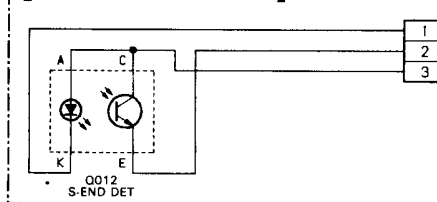
E

TO DIGITAL
BOARD
CN501

(See page 44)



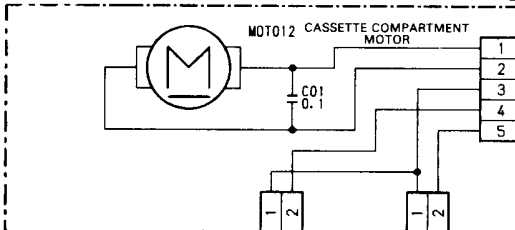
[S-END BOARD]



G

TO DIGITAL
BOARD
CN505
(See page 46)

[CASSE-COM MOTOR BOARD]

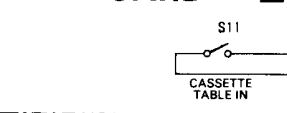


CN03 DR5P

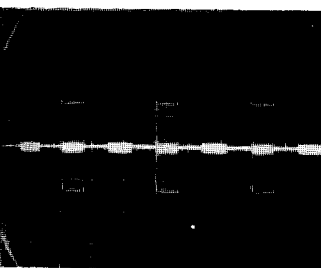
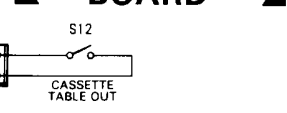
H

TO DIGITAL
BOARD
CN506
(See page 46)

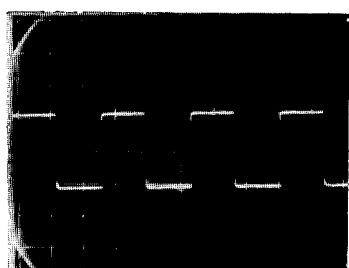
[CASSE-COM SW(IN) BOARD]



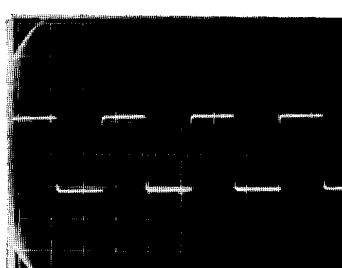
[CASSE-COM SW(OUT) BOARD]



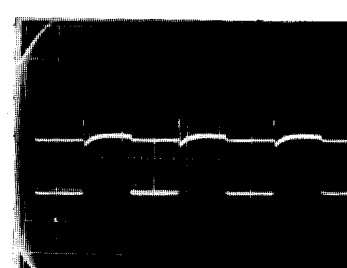
② 2V/div 10msec/div REC



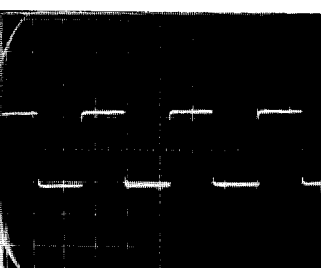
③ 2V/div 5msec/div REC



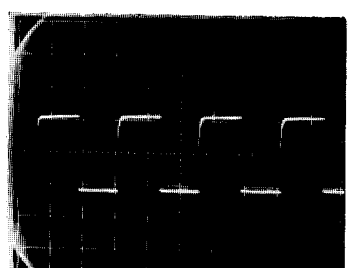
④ 2V/div 10msec/div REC



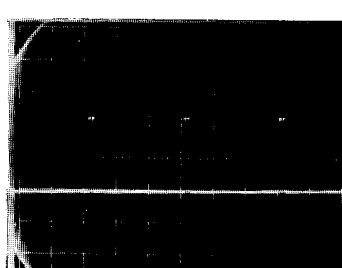
⑤ 0.5V/div 5msec/div REC



⑥ 2V/div 10μsec/div REC/PB

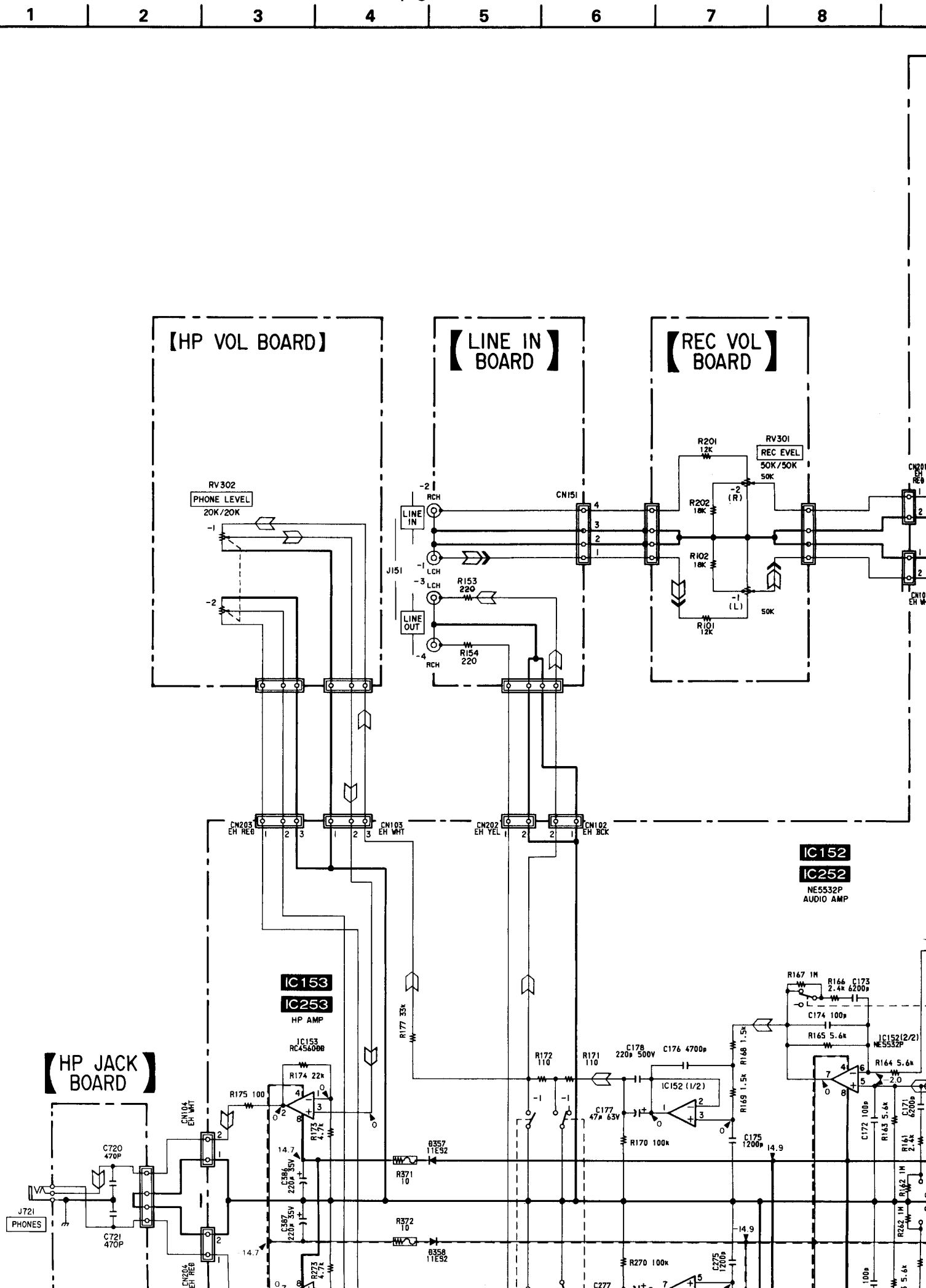


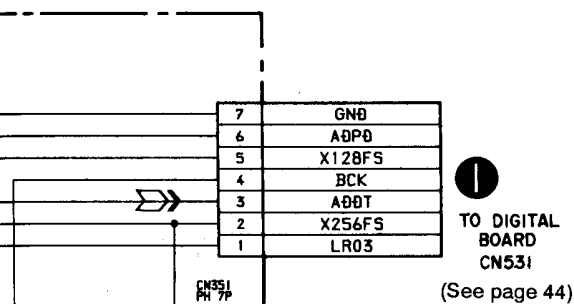
⑦ 2V/div 0.5msec/div REC



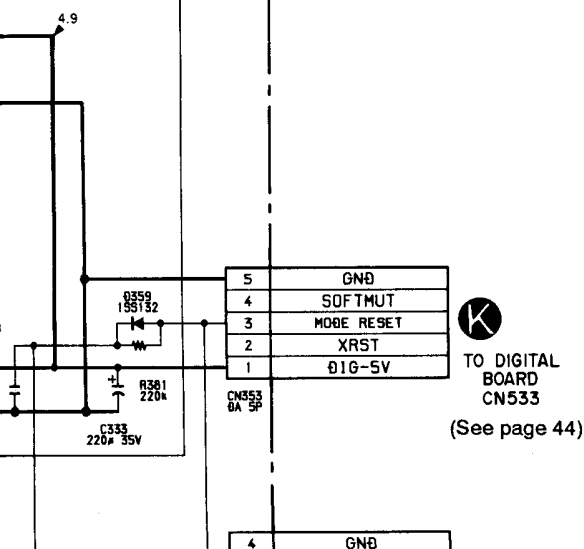
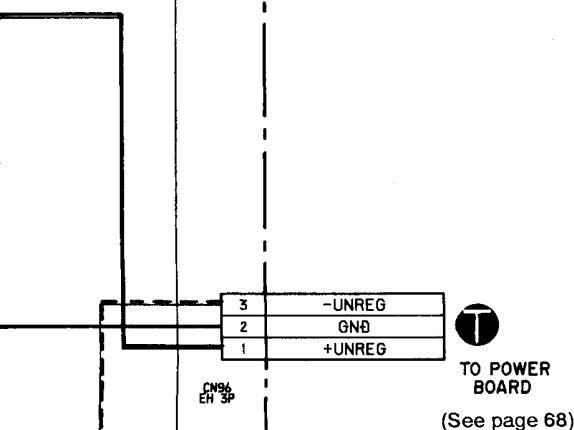
⑧ 2V/div 10msec/div REC

4-6. SCHEMATIC DIAGRAM – AUDIO SECTION – • See page 31 for note.

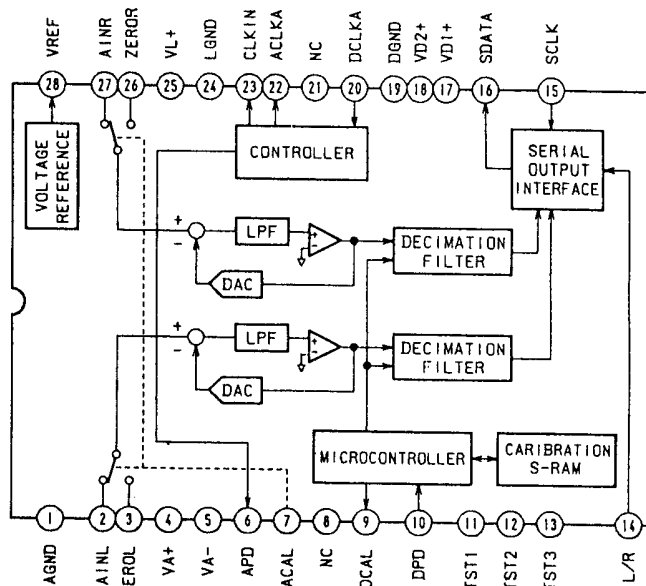




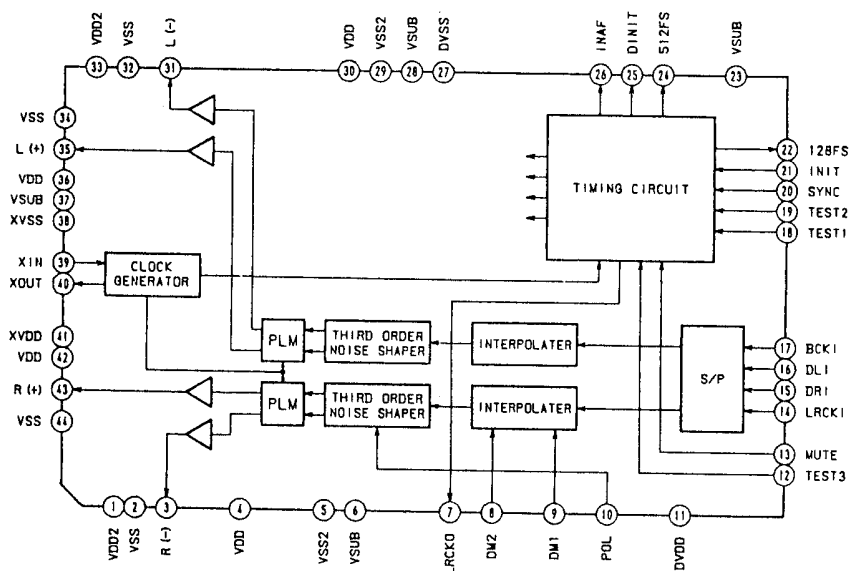
325, 327, 329, 331, 333
+15V REG.



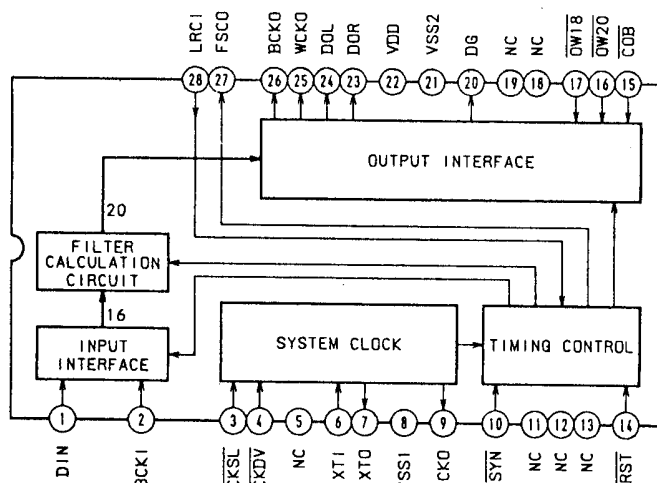
IC304 CS5326-KP



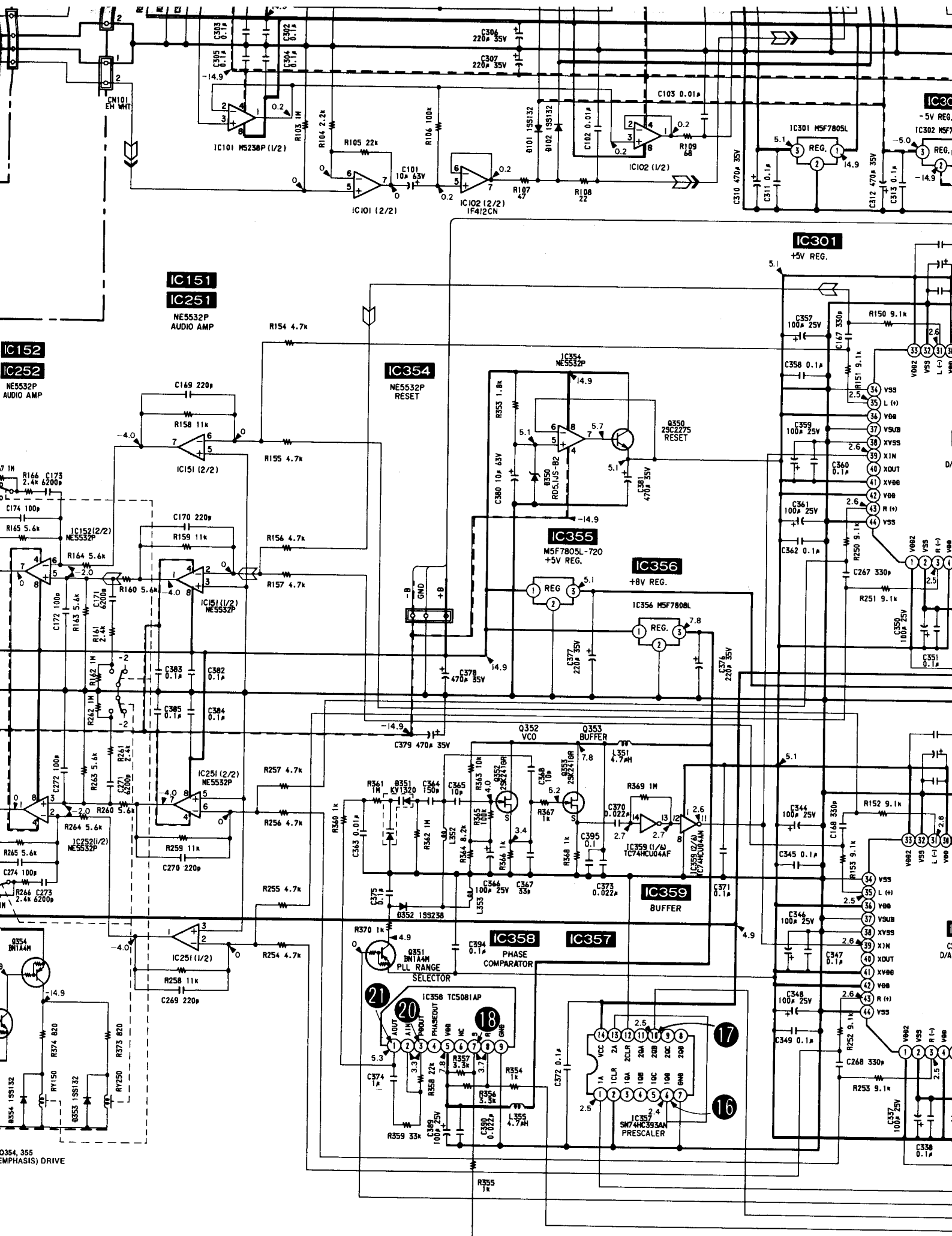
IC348 CXD2552

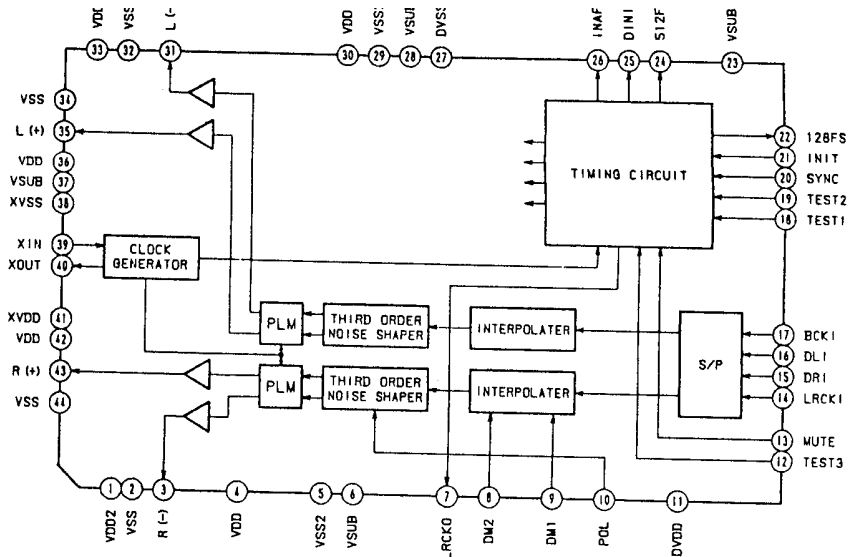
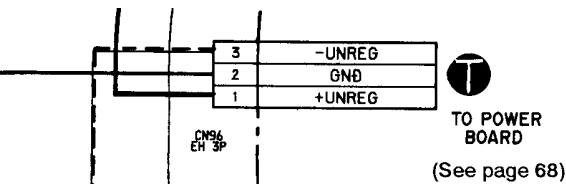


IC350 SM5813APT

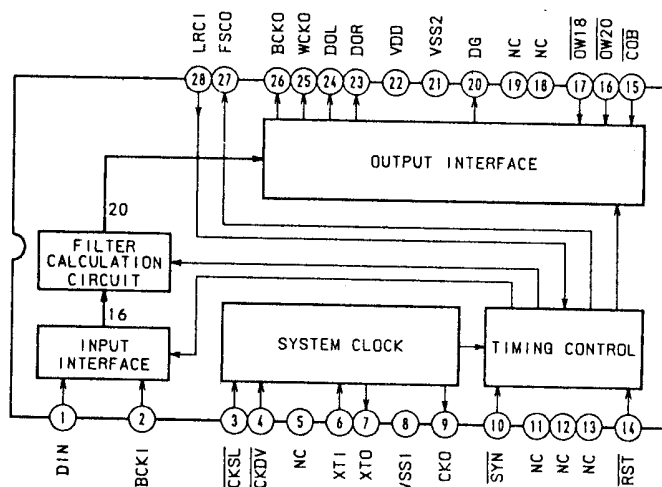


IC358 TC5081AP

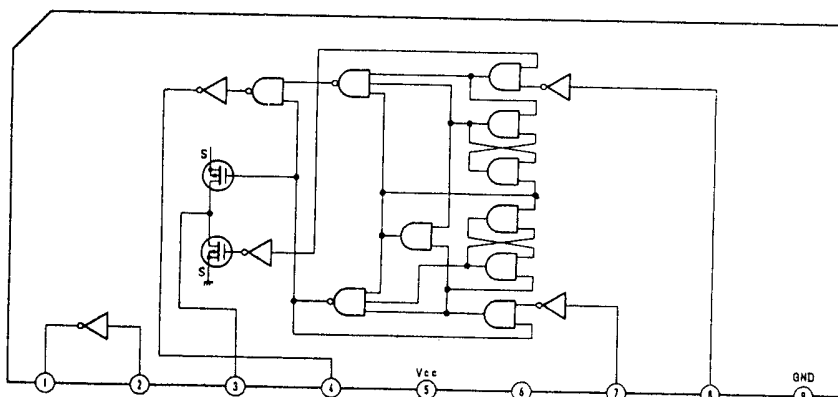




IC350 SM5813APT



IC358 TC5081AP



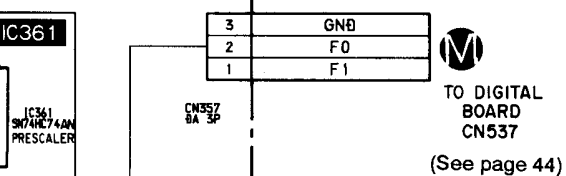
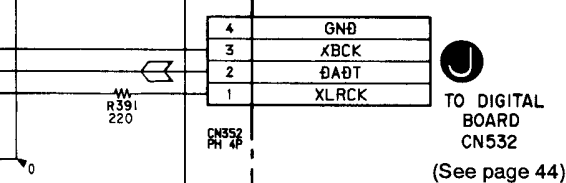
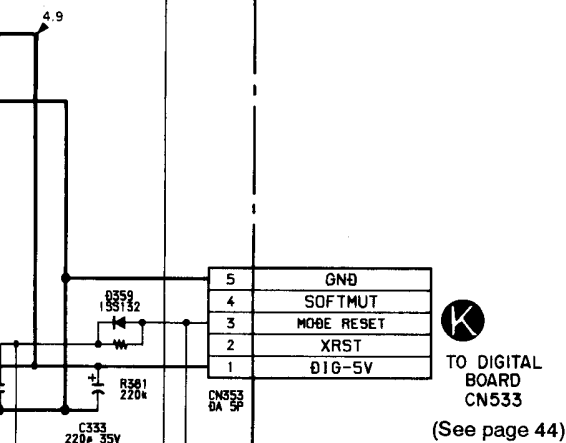
RTV servis Horvat

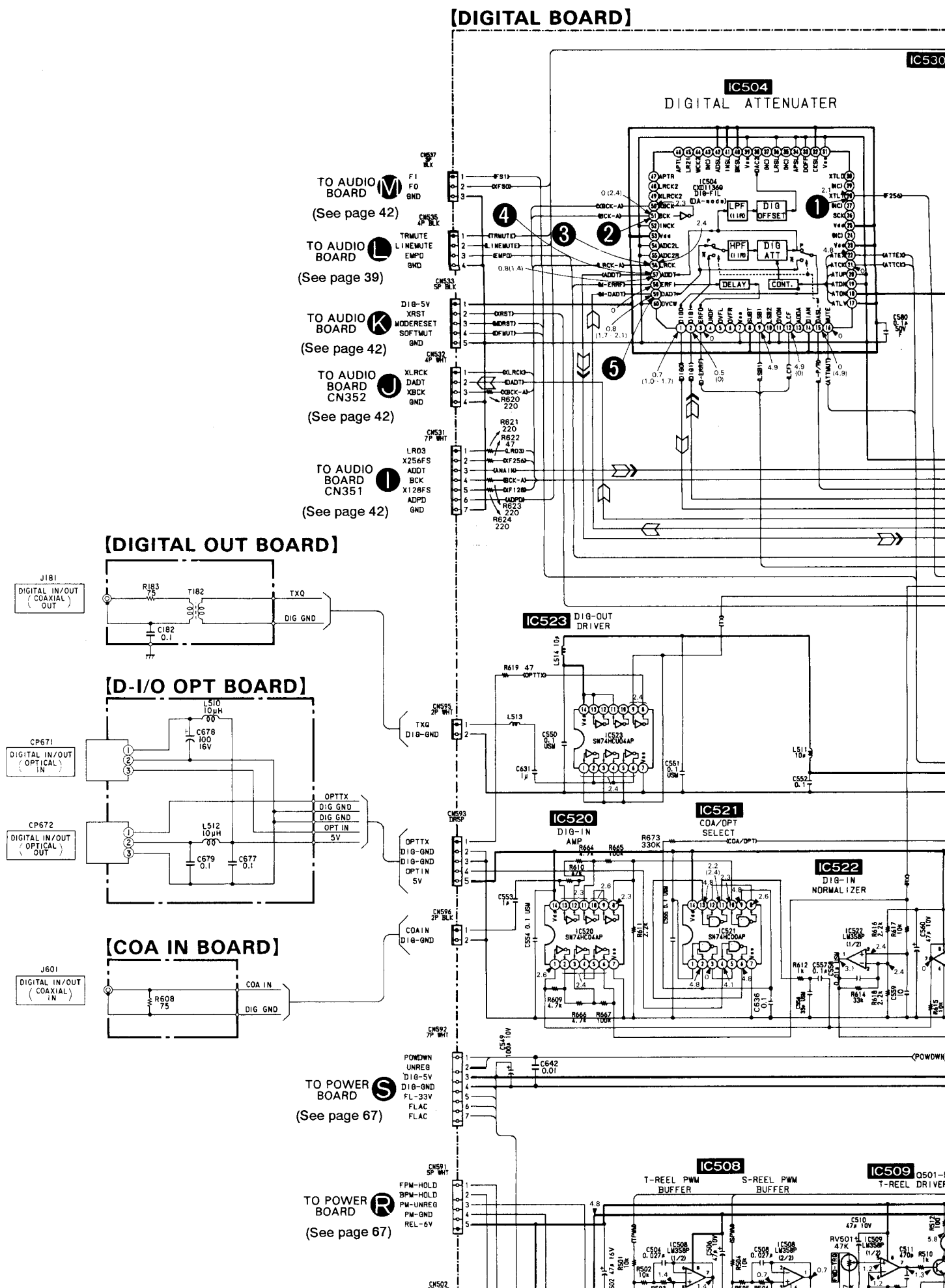
Tel: ++385-31-856-842

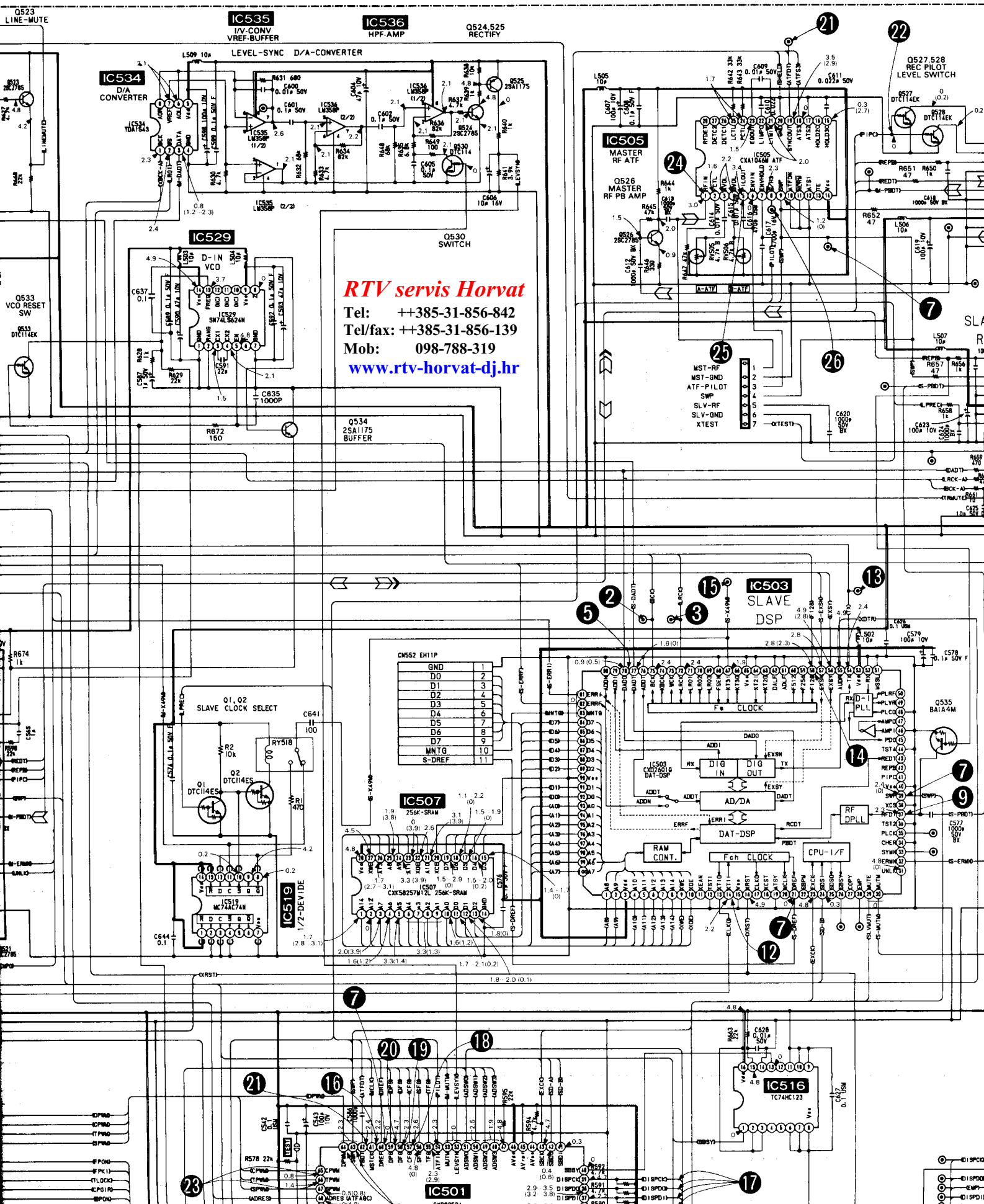
Tel/fax: ++385-31-856-139

Mob: 098-788-319

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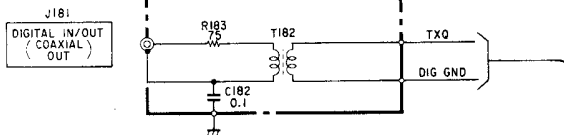




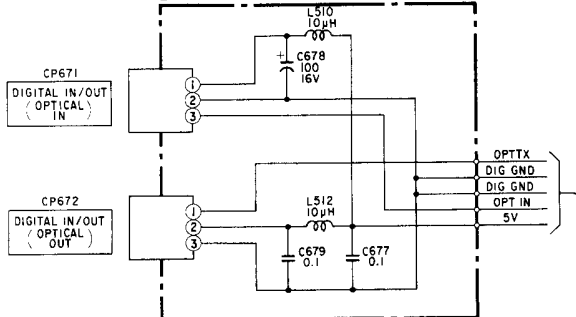


TO AUDIO BOARD
CN351
(See page 42)

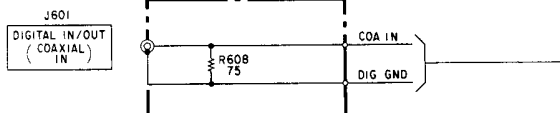
[DIGITAL OUT BOARD]



[D-I/O OPT BOARD]



[COA IN BOARD]



TO POWER BOARD
(See page 67)

TO POWER BOARD
(See page 67)

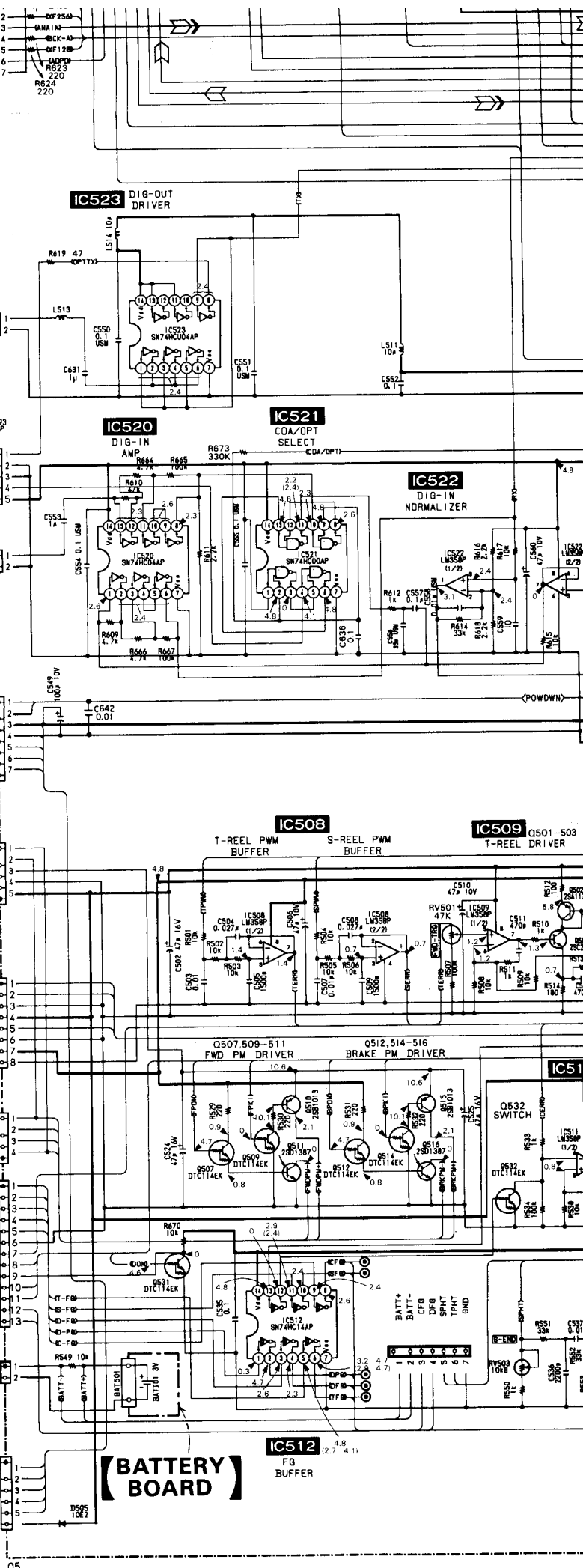
TO MD BOARD
CN052
(See page 32)

TO MD BOARD
CN053
(See page 32)

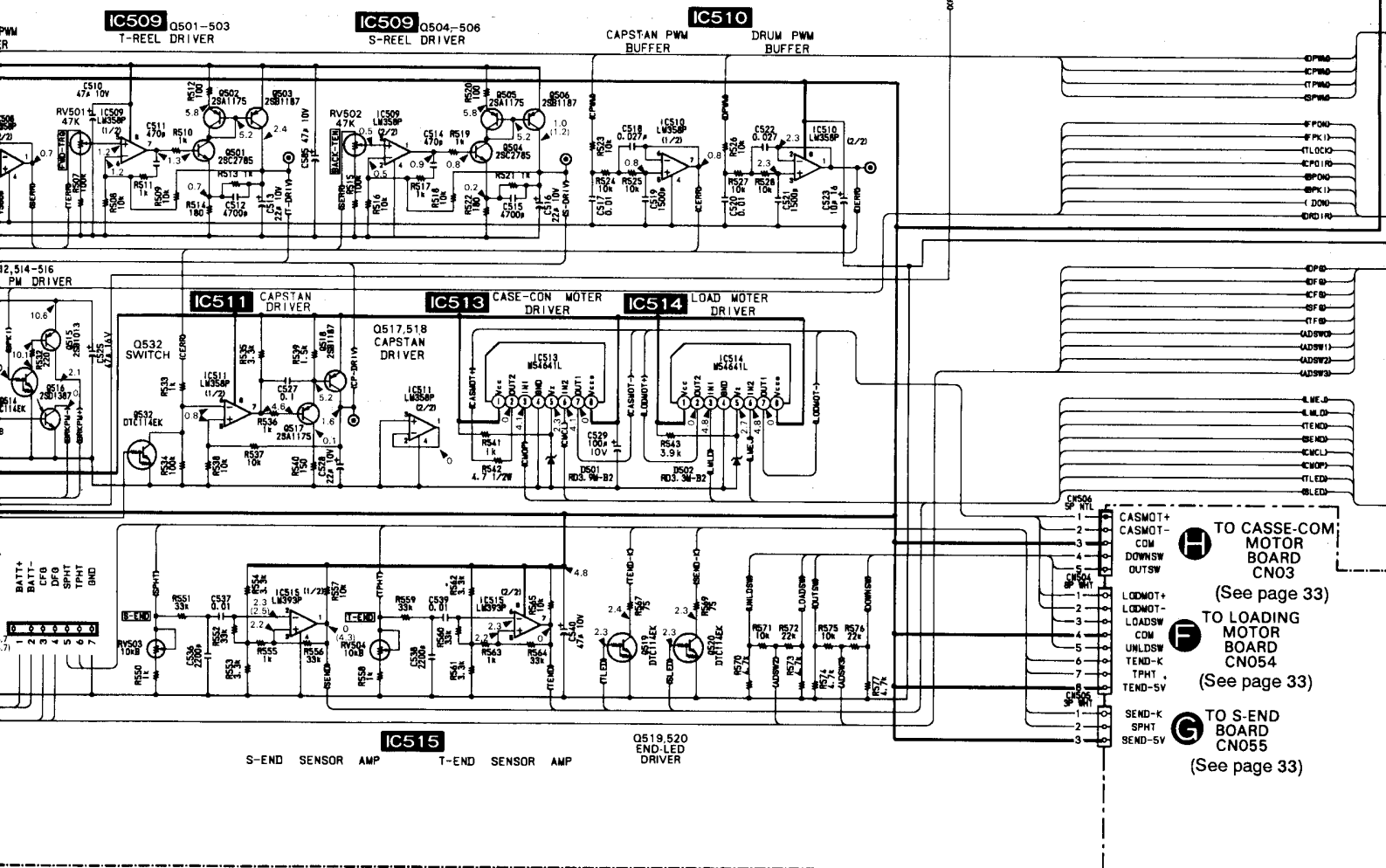
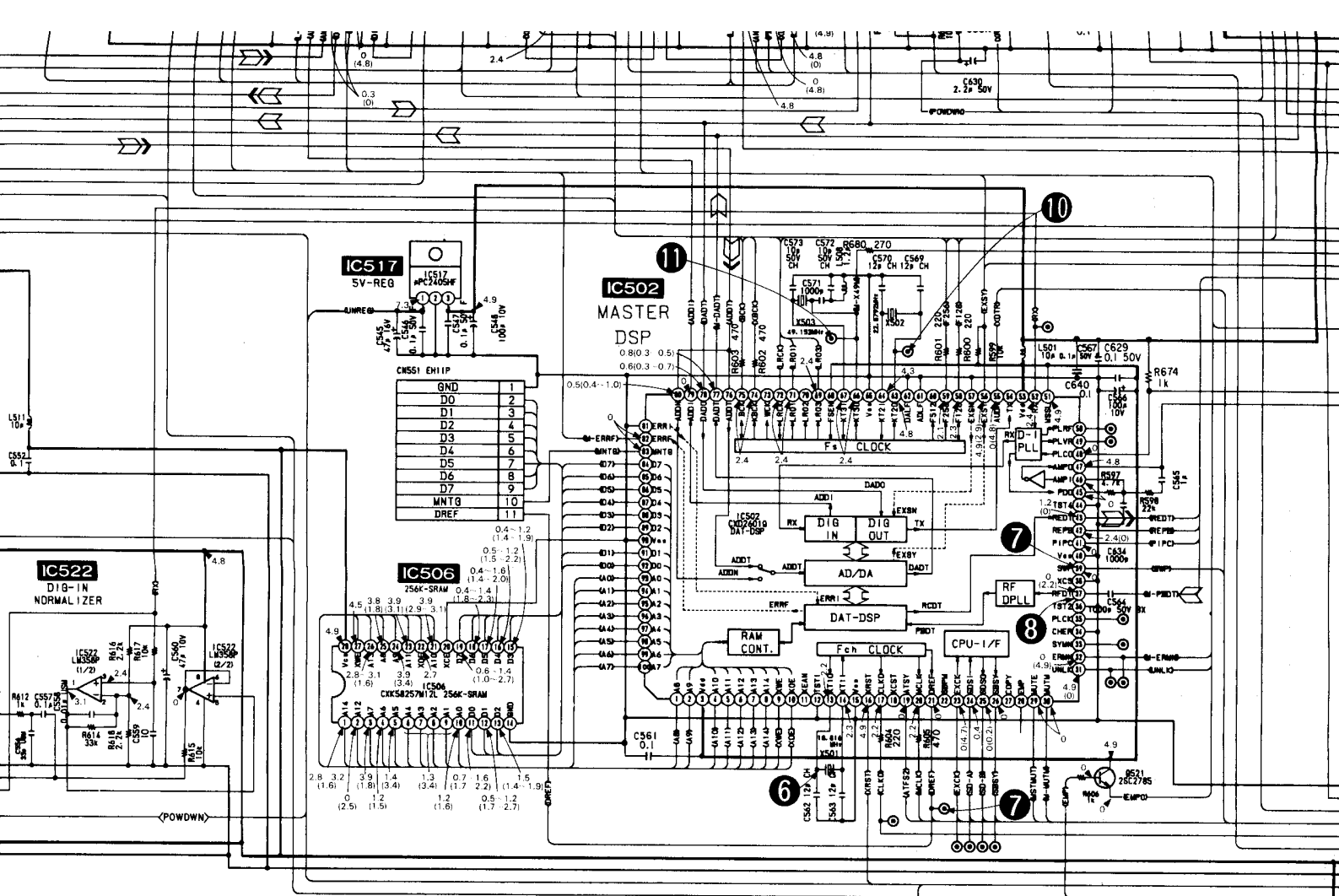
TO MD BOARD
CN051
(See page 32)

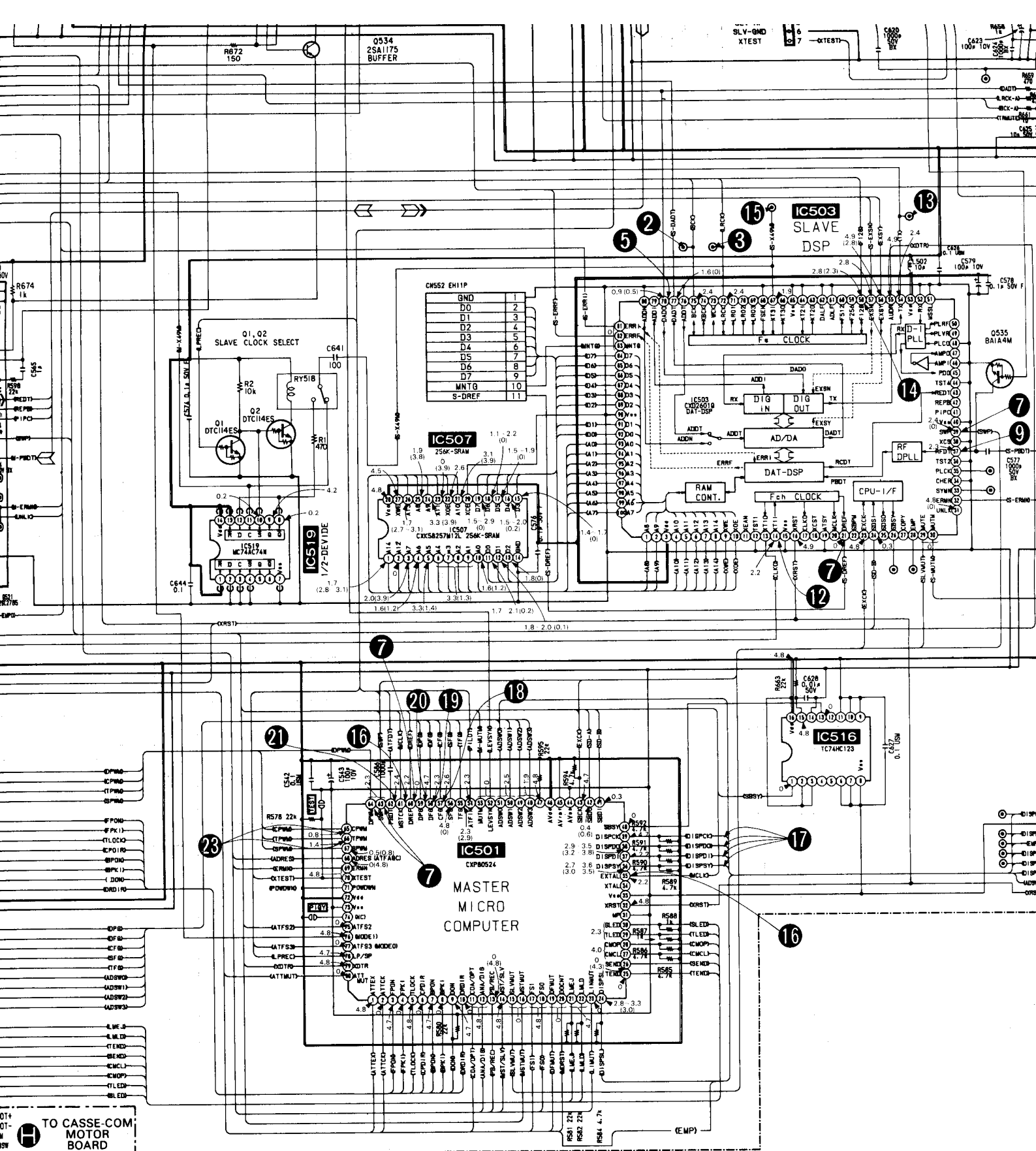
TO OPERATION BOARD
(See page 55)

TO OPERATION BOARD
(See page 55)

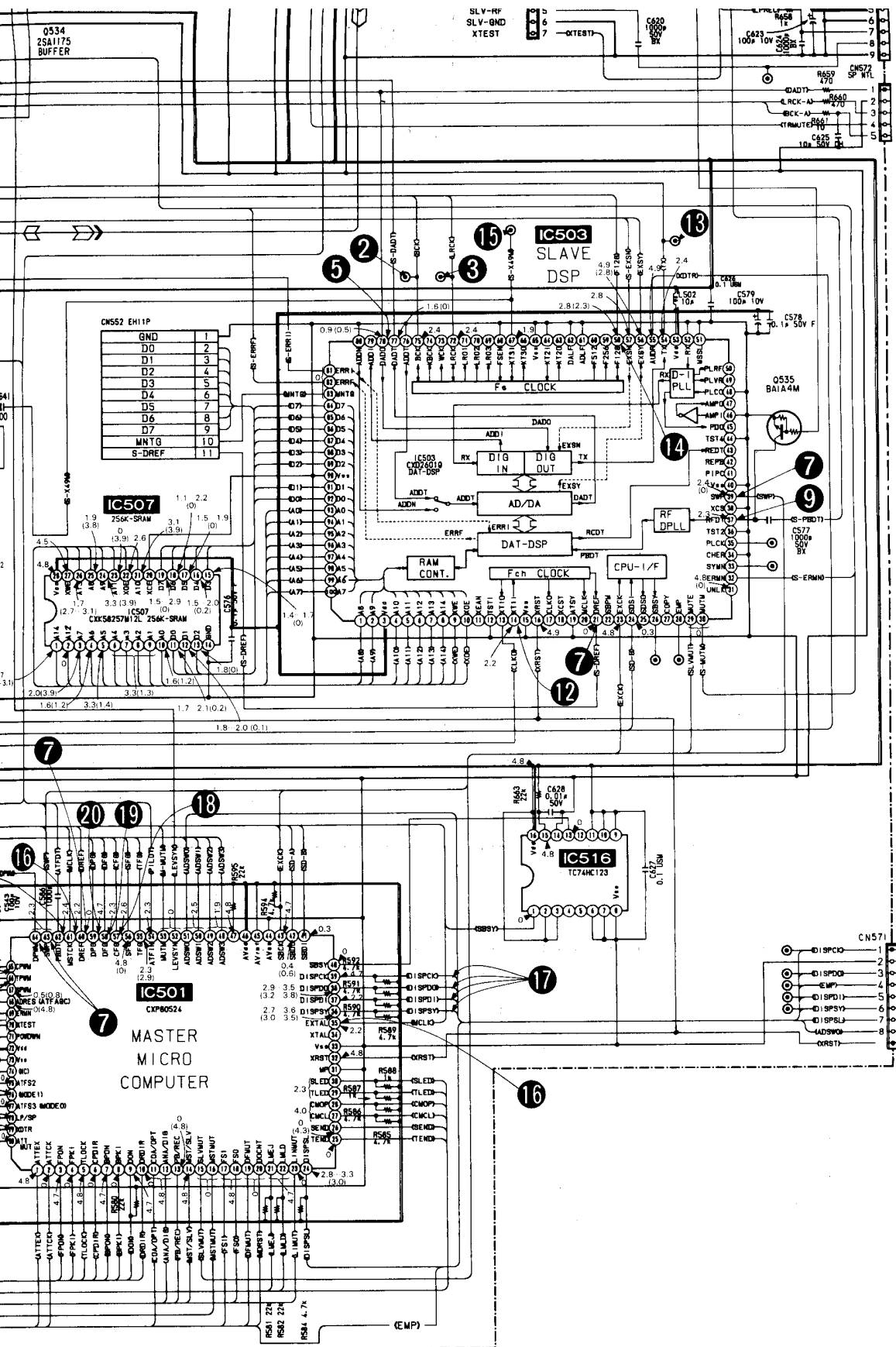


[BATTERY BOARD]





H TO CASSE-COM
 MOTOR BOARD
 CN03
 (See page 33)
 F TO LOADING
 MOTOR BOARD
 CN054
 (See page 33)
 G TO S-END
 BOARD
 CN055
 (See page 33)



TSV
 GND
 NORTH
 PBRF
 GND

(See page 28)
 TO RF AMP
 (PB)
 BOARD
 CN52

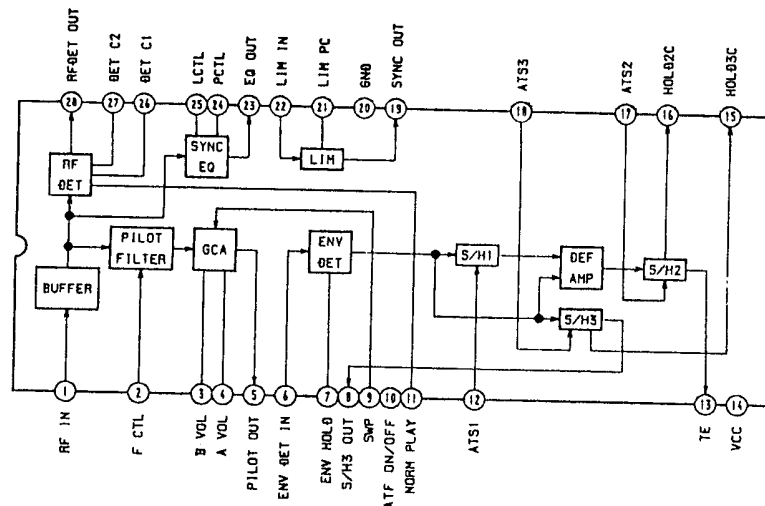
DADT
LRCK
METMUT
BCK
TO
OPERATION
BOARD
(See page 55)

DISPCK
DISPGND
DISPDO
EMP
DISPDI
DISPSY
DISPSL
ADSWO
XRST

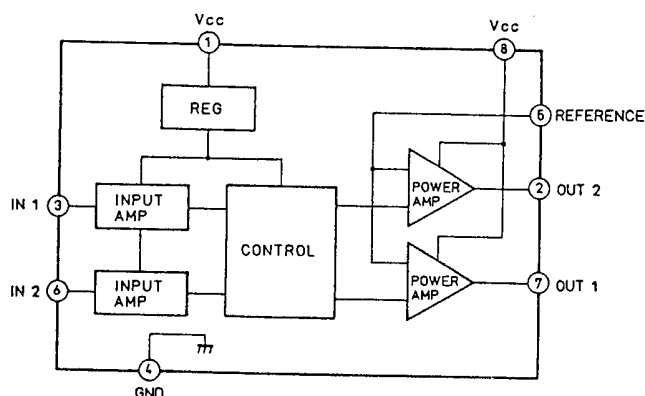
N

TO
OPERATION
BOARD

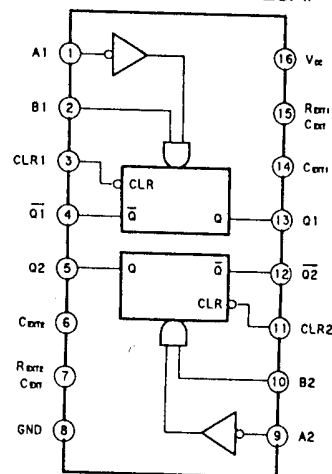
(See page 55)



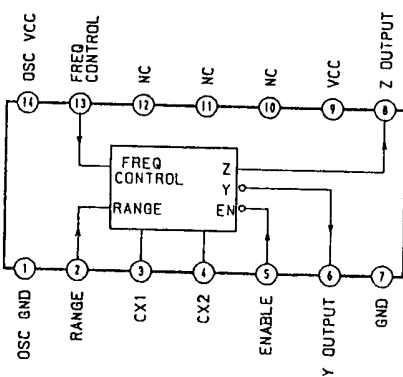
IC513, 514 M54641L



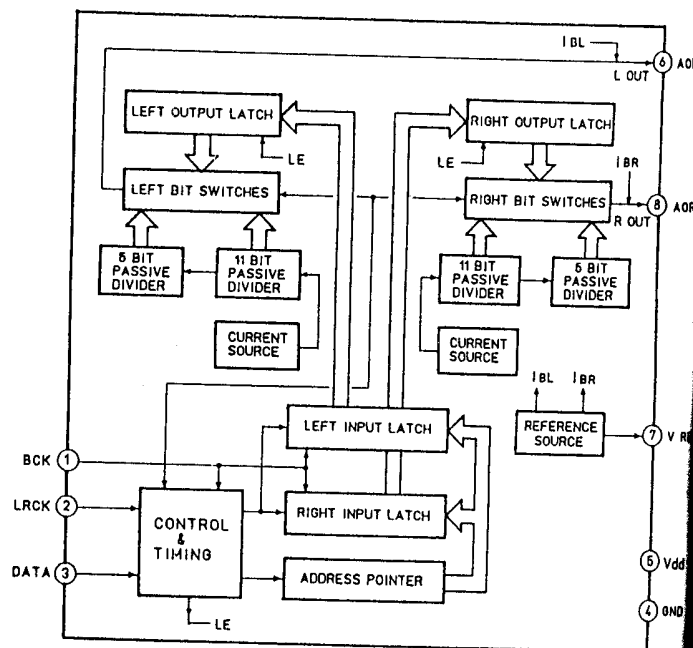
IC516 TC74HC123AP



IC529 74LS624



IC534 TDA1543



1

2

3

4

5

6

7

8

A

B

C

D

E

F

G

H

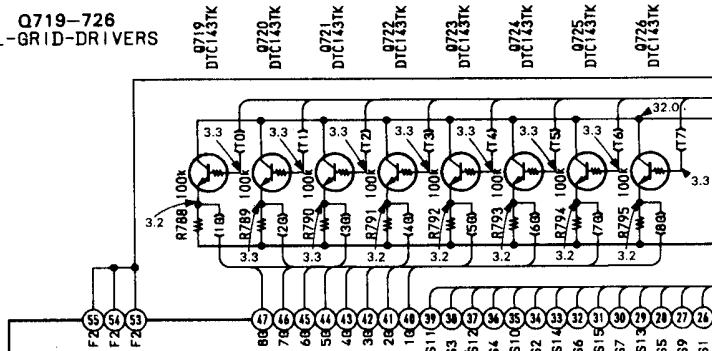
I

J

K

[CONTROL SW BOARD]

Q719-726
FL-GRID-DRIVERS



FL701 FL-TUBE

IC703 IC704

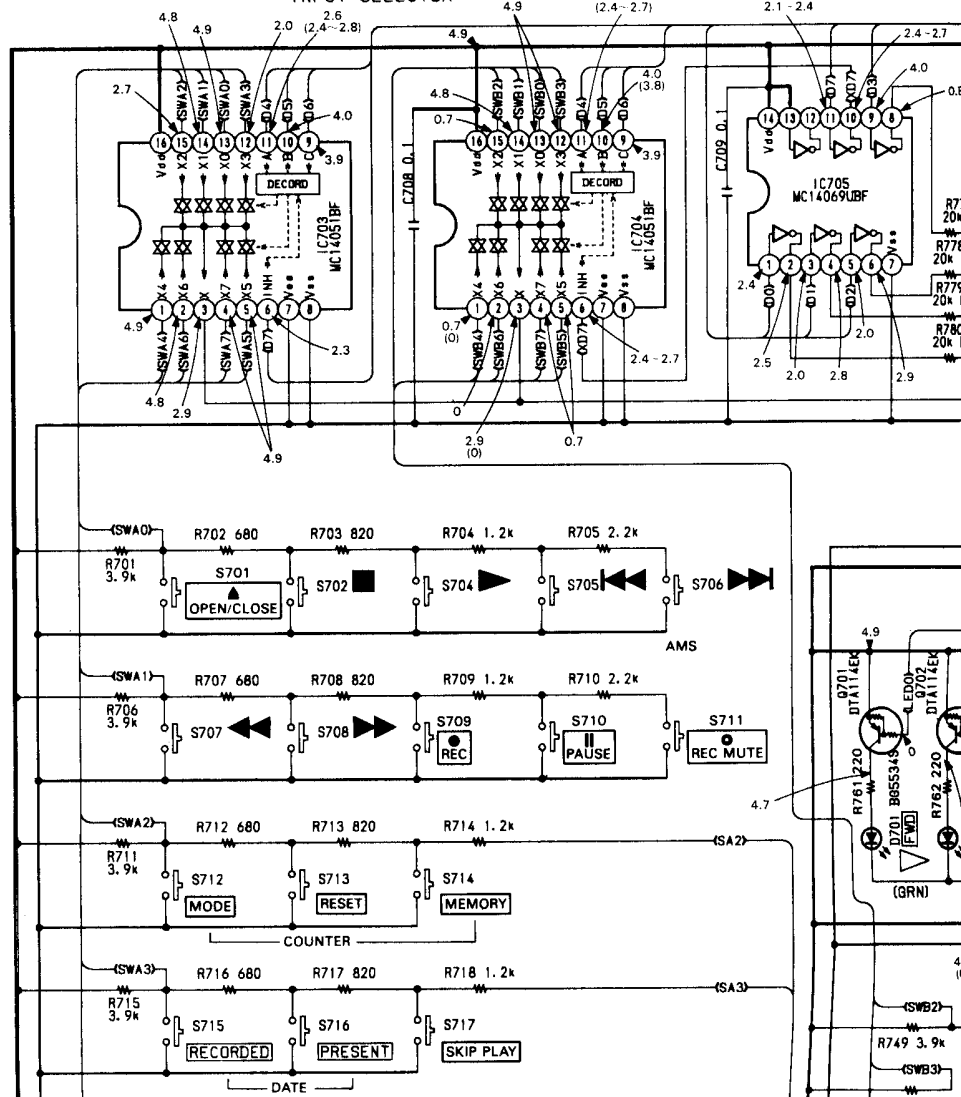
KEY-SCAN

INPUT-SELECTOR

IC705

REFERENCE-VOLT

R-2R LADDER



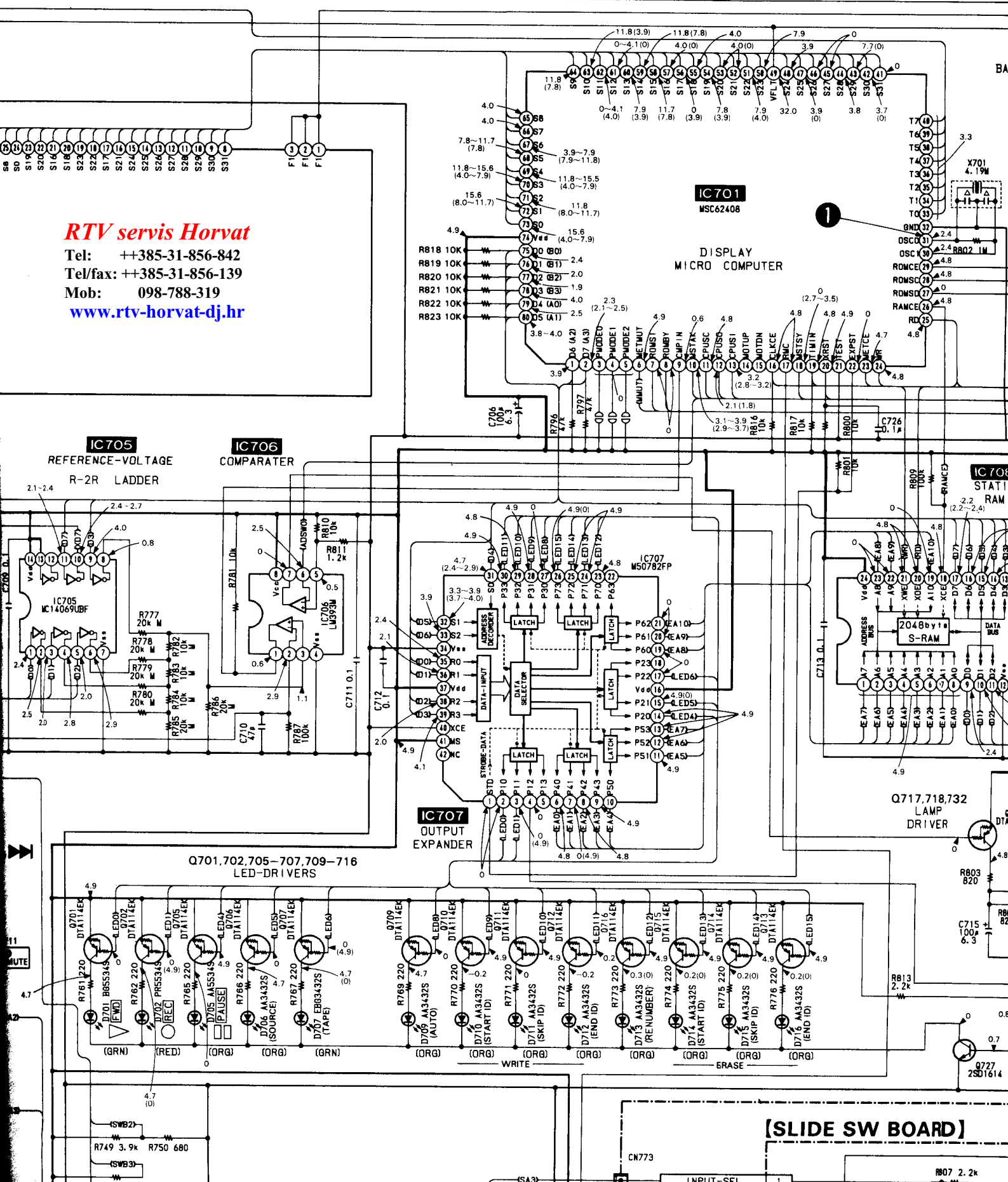
RTV servis Horvat

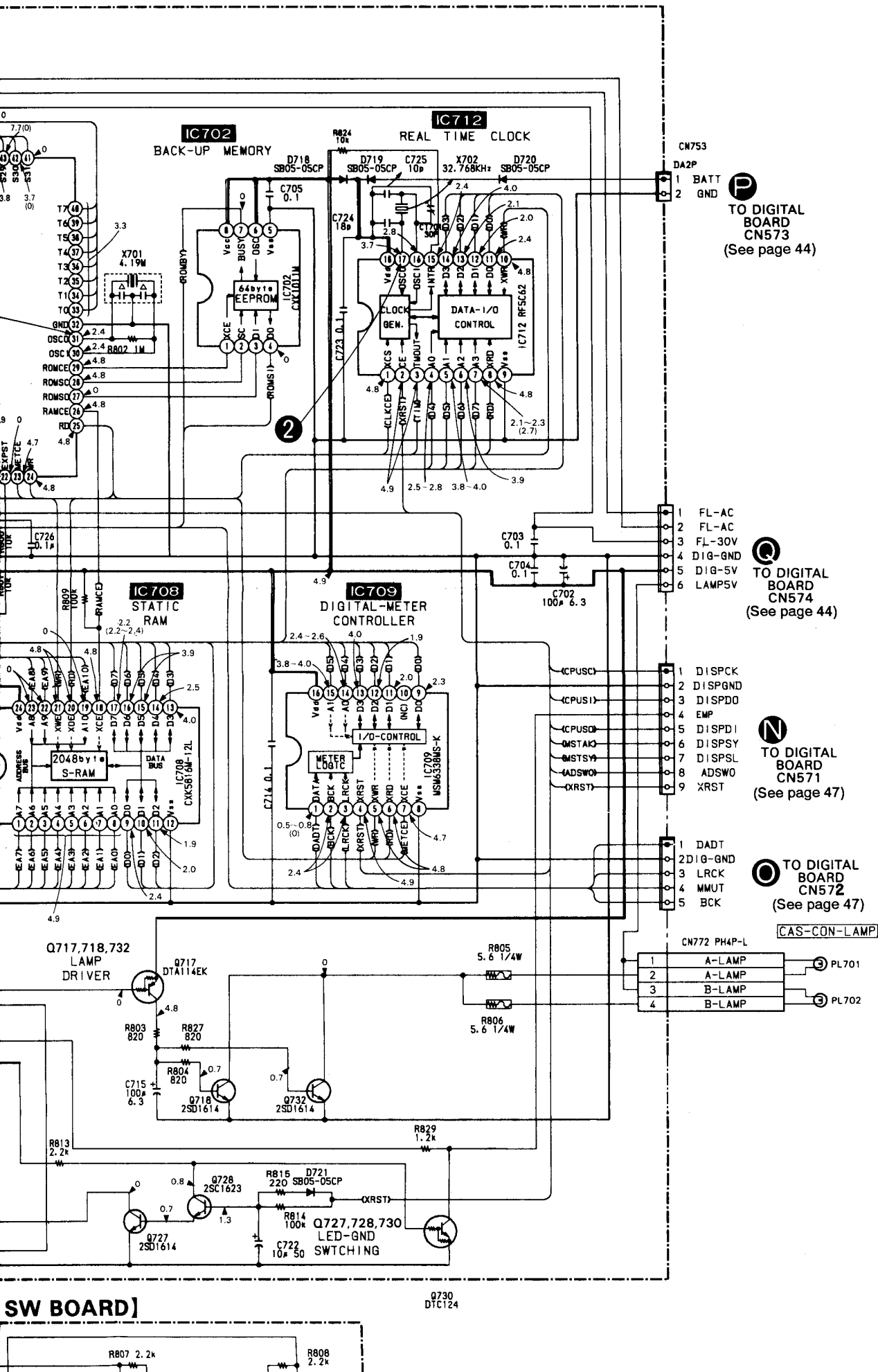
Tel: ++385-31-856-842

Tel/fax: ++385-31-856-139

Mob: 098-788-319

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IC703 IC704

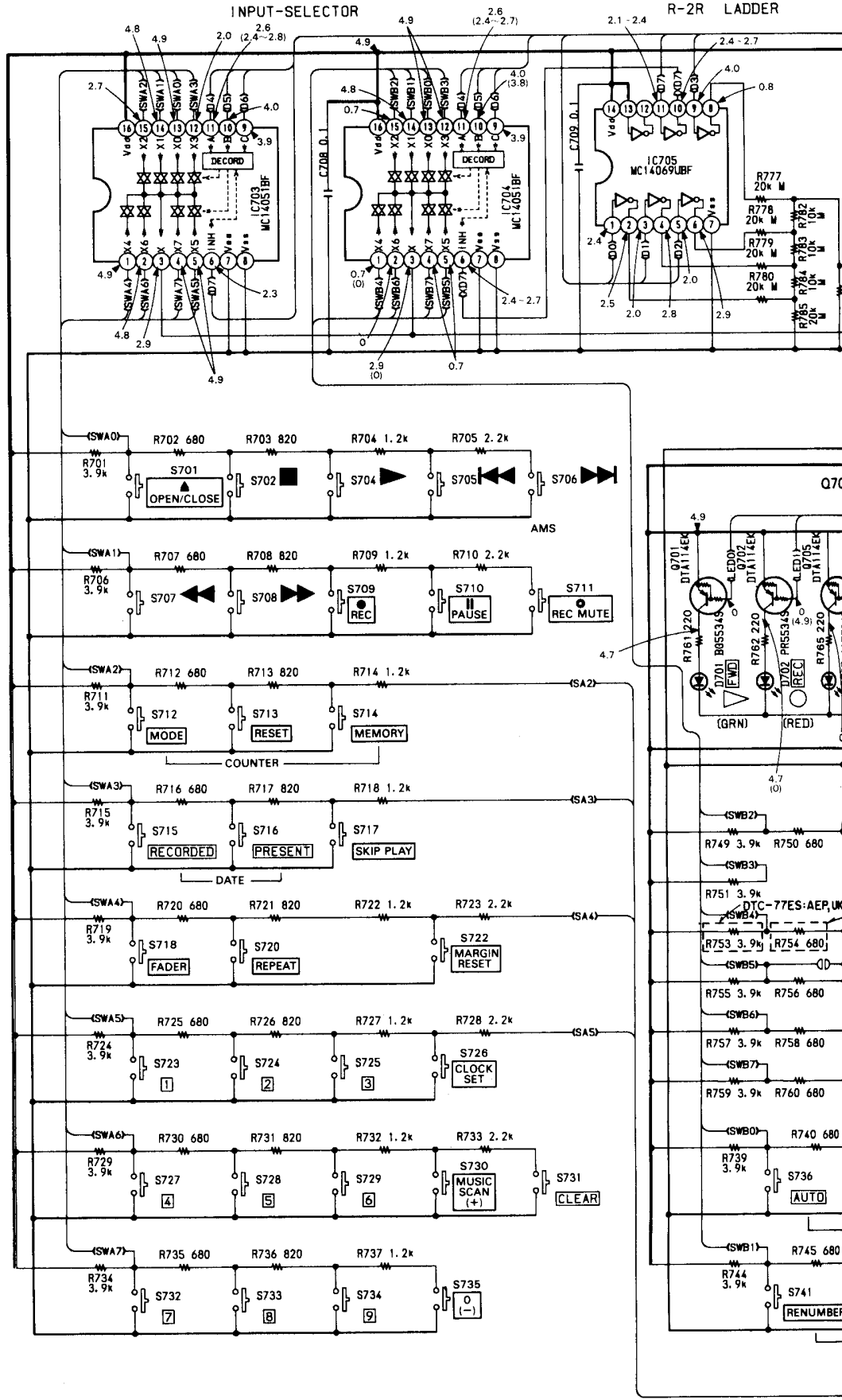
KEY-SCAN

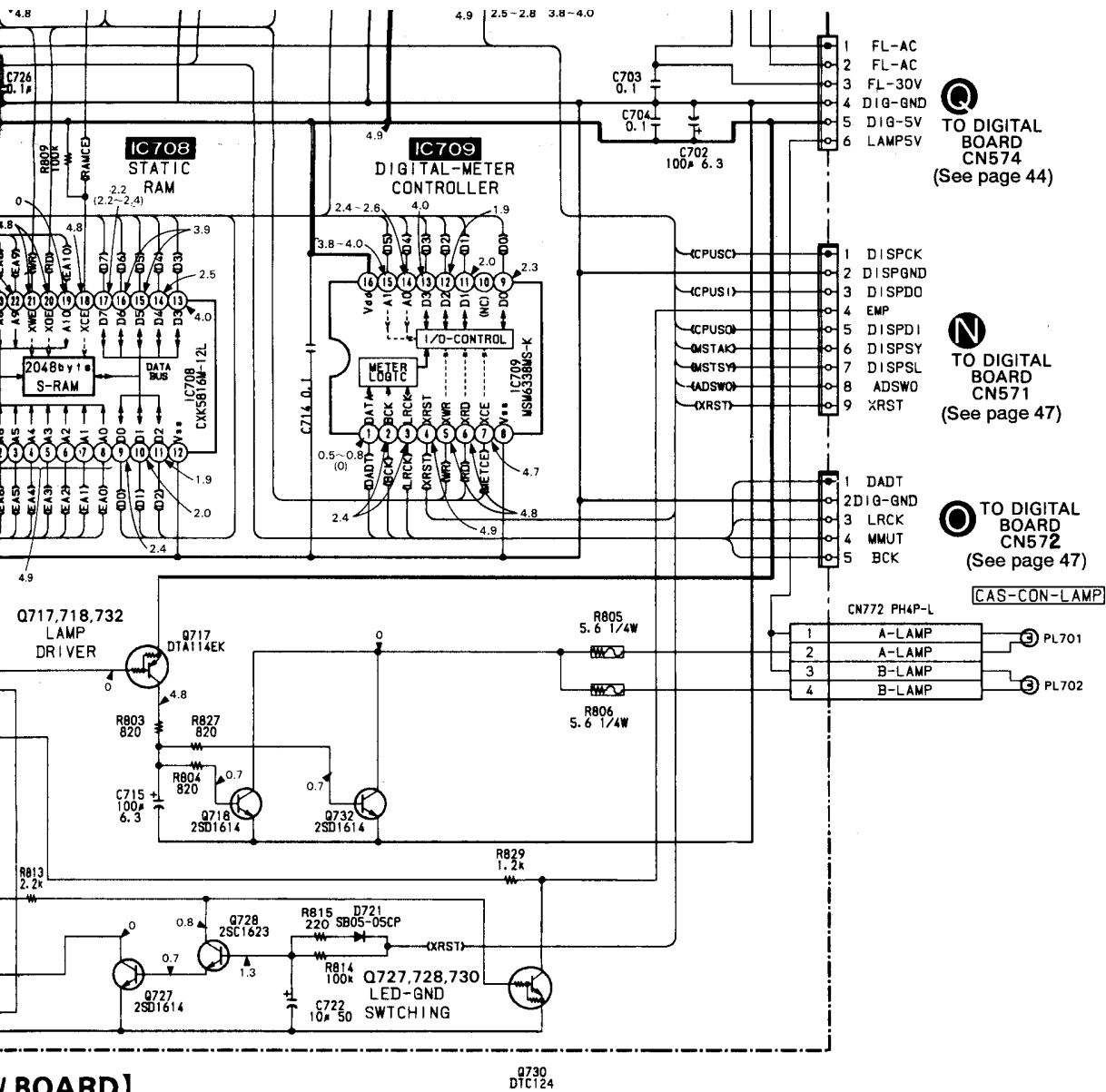
INPUT-SELECTOR

IC705

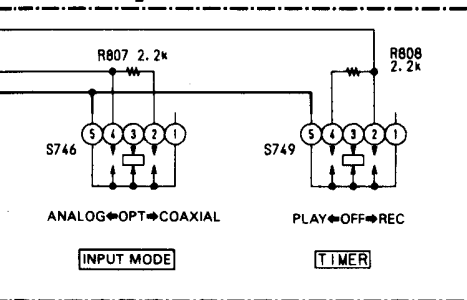
REFERENCE-VOLTAGE

R-2R LADDER

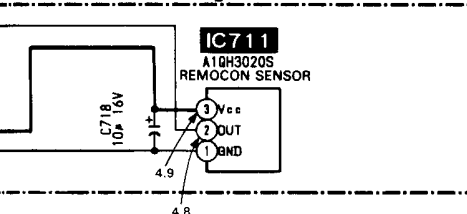




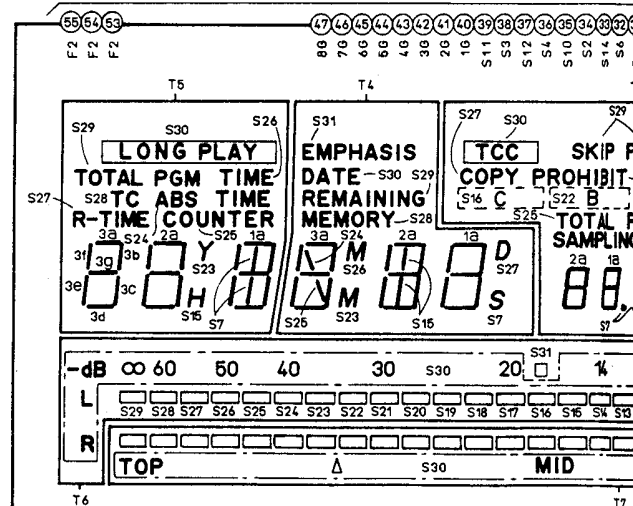
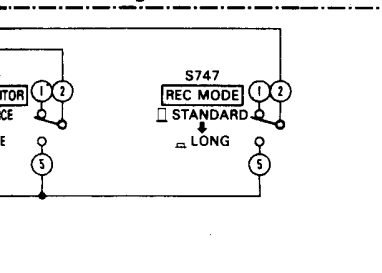
[BOARD]



[RECEIVE BOARD]



[BOARD]



FL701 INTERNAL CONNECTION

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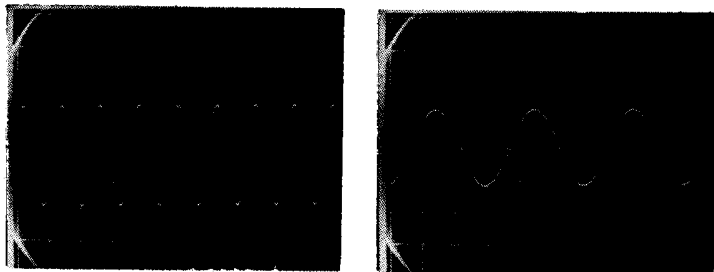
N

O

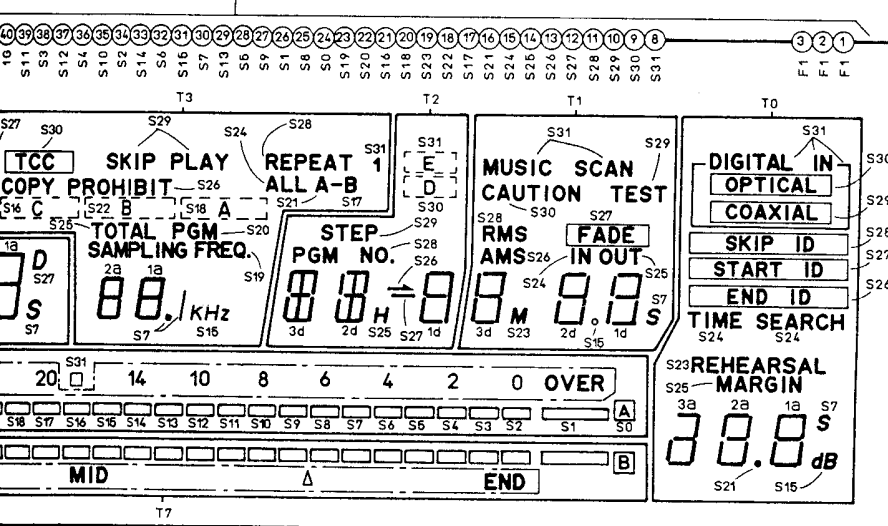
P

- **Semiconductor Location**

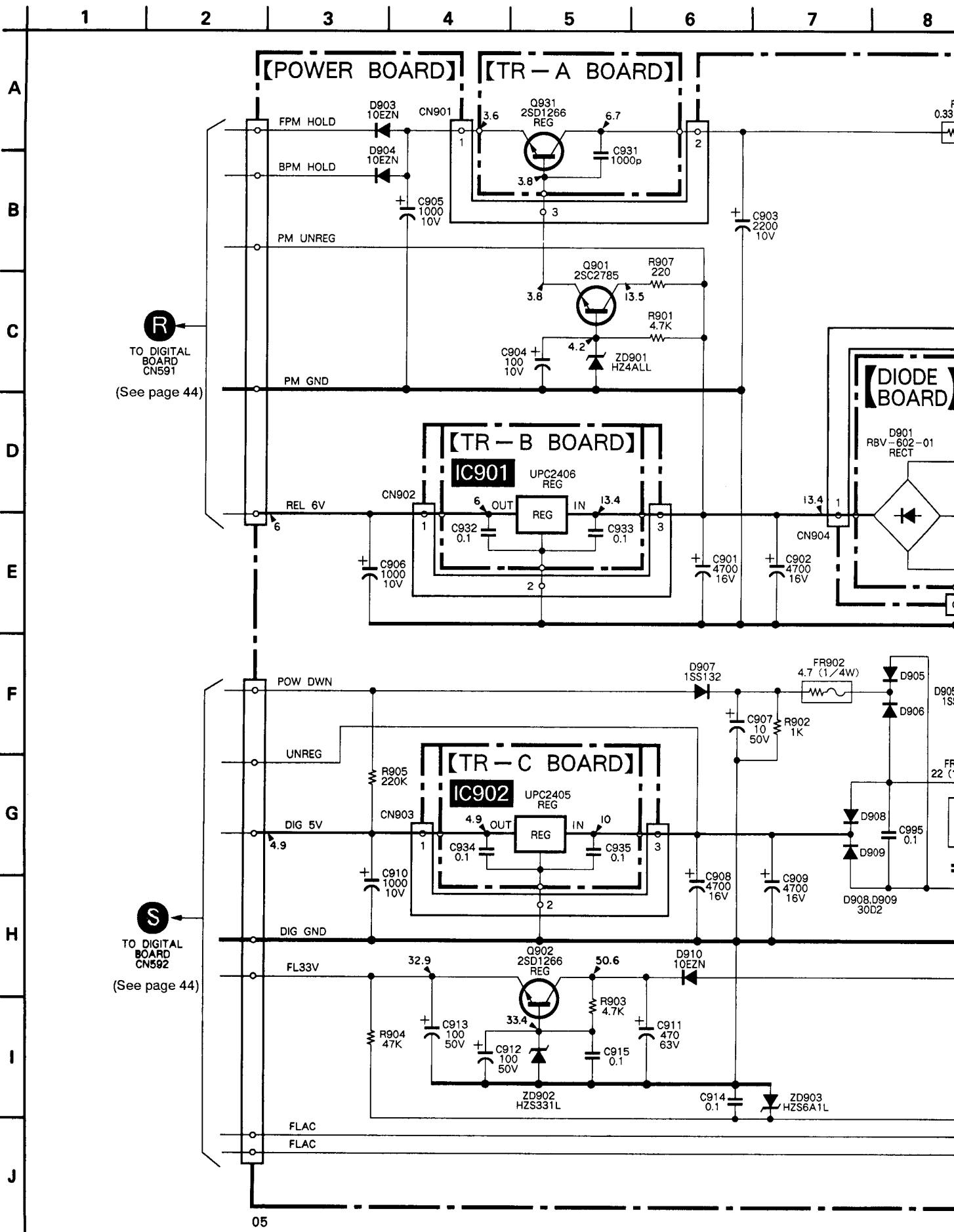
Ref. No.	Location	Ref. No.	Location
D701	C-23	Q701	C-14
D702	C-31	Q702	C-6
D705	C-25	Q705	C-11
D706	G-30	Q706	G-7
D707	G-31	Q707	G-6
D709	G-30	Q709	H-8
D710	F-30	Q710	G-8
D711	F-30	Q711	G-8
D712	E-30	Q712	F-8
D713	G-31	Q713	E-10
D714	F-31	Q714	E-10
D715	F-31	Q715	E-9
D716	E-31	Q716	E-9
D718	E-7	Q717	D-16
D719	E-7	Q718	C-16
D720	G-6	Q719	H-15
D721	E-8	Q720	H-14
		Q721	H-14
IC701	F-28	Q722	H-14
IC702	F-26	Q723	G-13
IC703	G-21	Q724	G-13
IC704	G-16	Q725	G-13
IC705	F-21	Q726	G-12
IC706	F-16	Q727	F-6
IC707	F-25	Q728	E-6
IC708	E-23	Q730	D-6
IC709	F-14	Q732	C-16
IC711	B-34		
IC712	C-8		

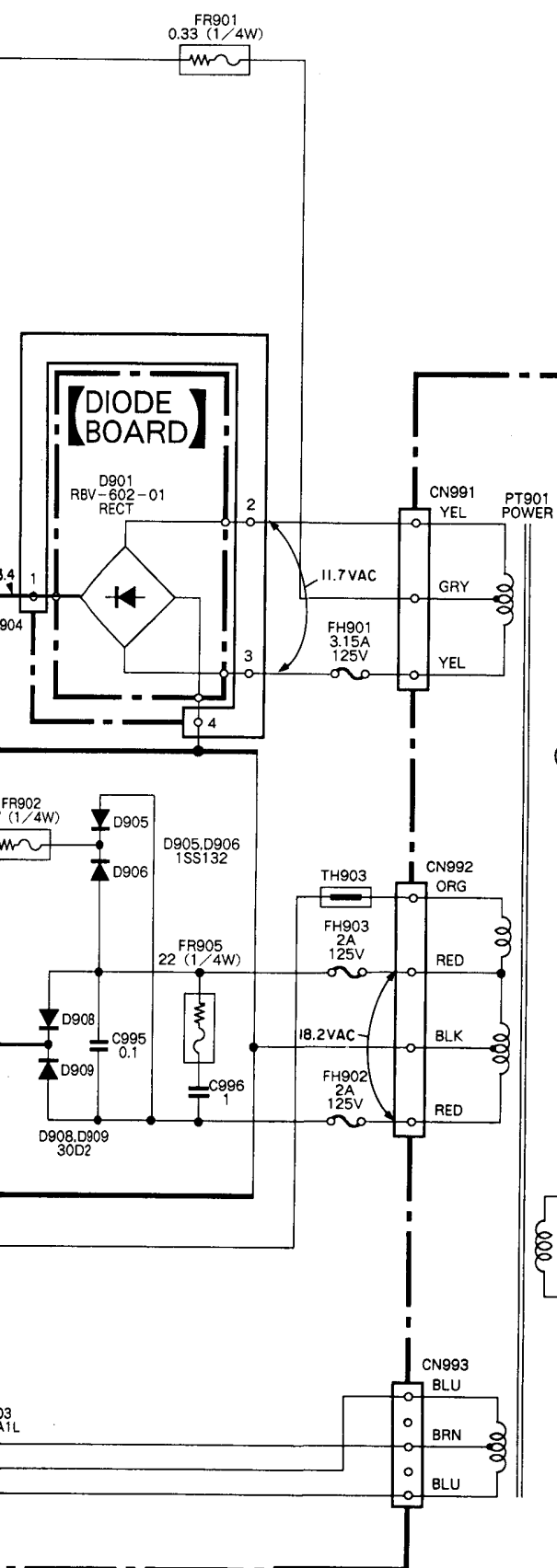


① 1V/div 0.2 μ sec/div REC ② 0.5V/div 10 μ sec/div REC

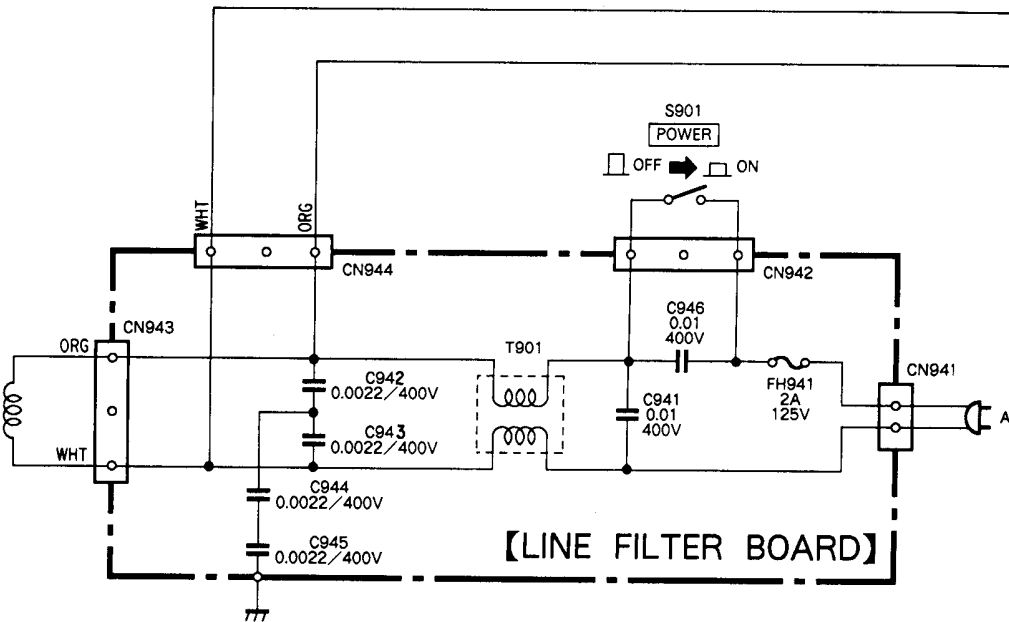
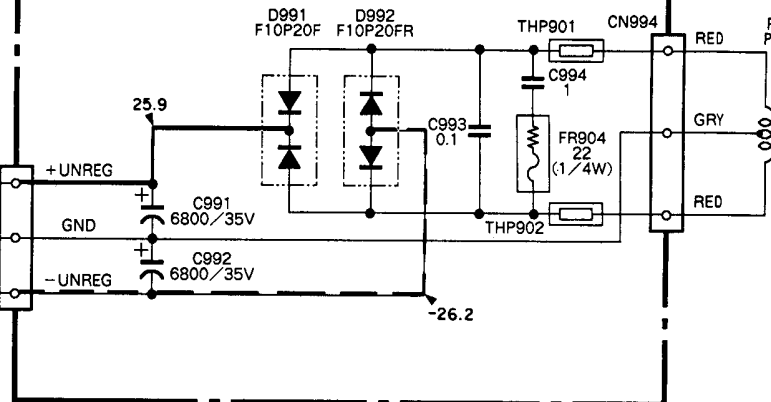


4-12. SCHEMATIC DIAGRAM - POWER SECTION - • See page 31 for note.

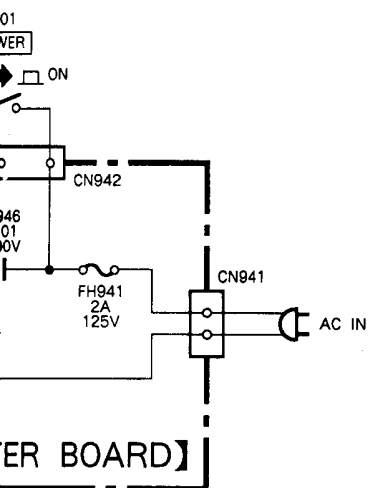
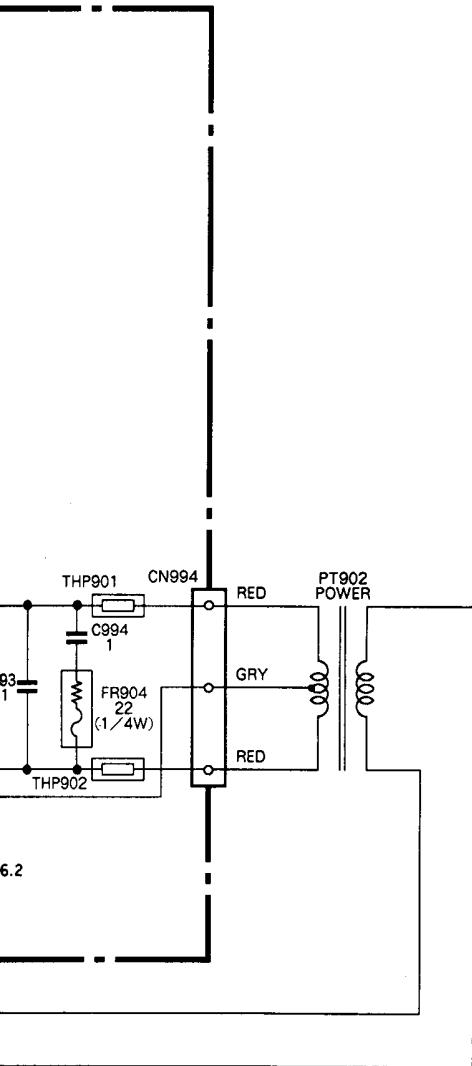




TO AUDIO BOARD
(See page 42)



14 15 16 17 18 19 20 21 22



SECTION 5

EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.

- Color Indication of Appearance Parts

Example:

Example:
KNOB, BALANCE (WHITE) ... (RED)

Parts Colored

Cabinet's Color

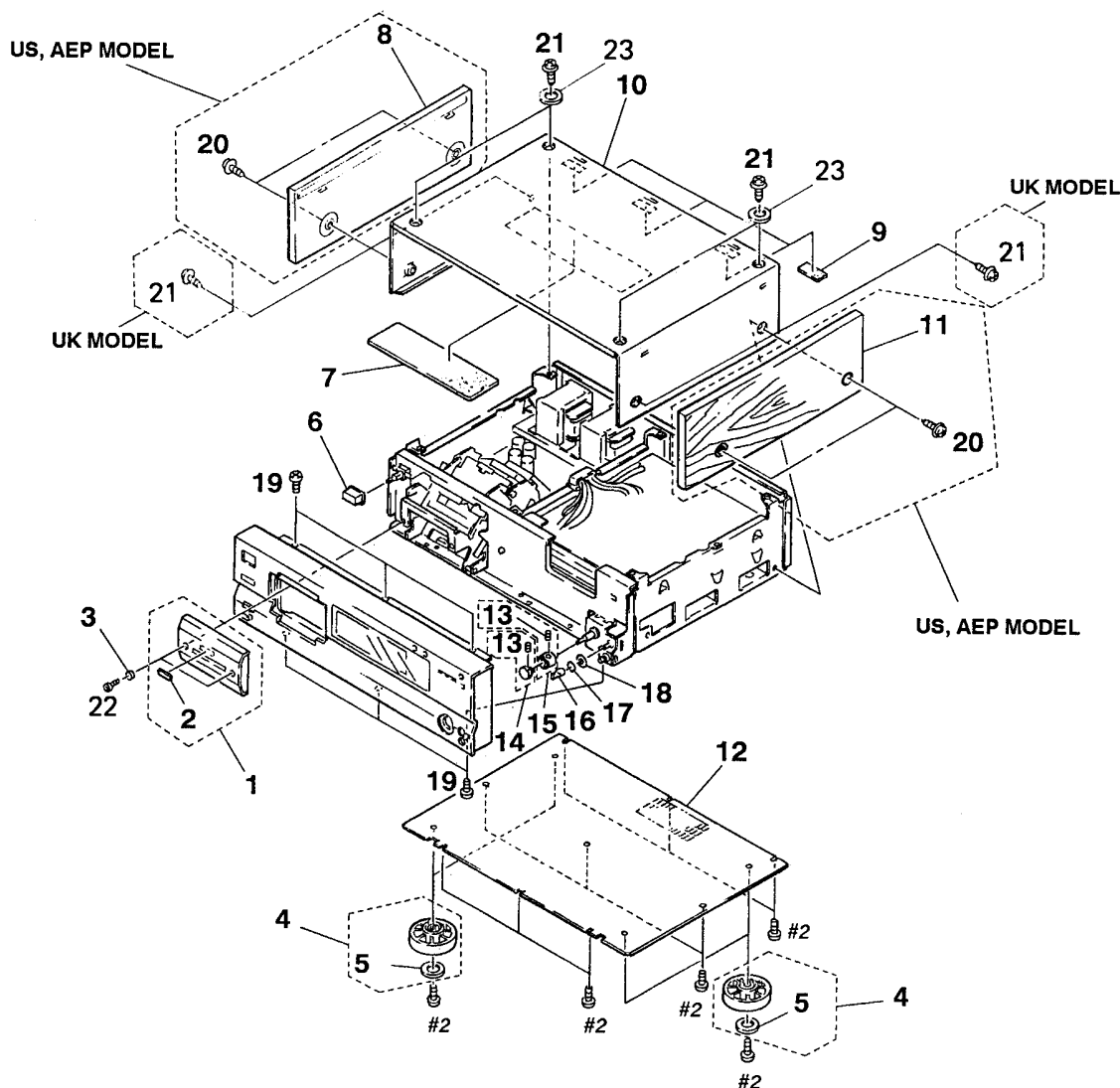
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- The mechanical parts with no reference number in the exploded views are not supplied.

- Hardware (# mark) list is given in the last of this parts list.

The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

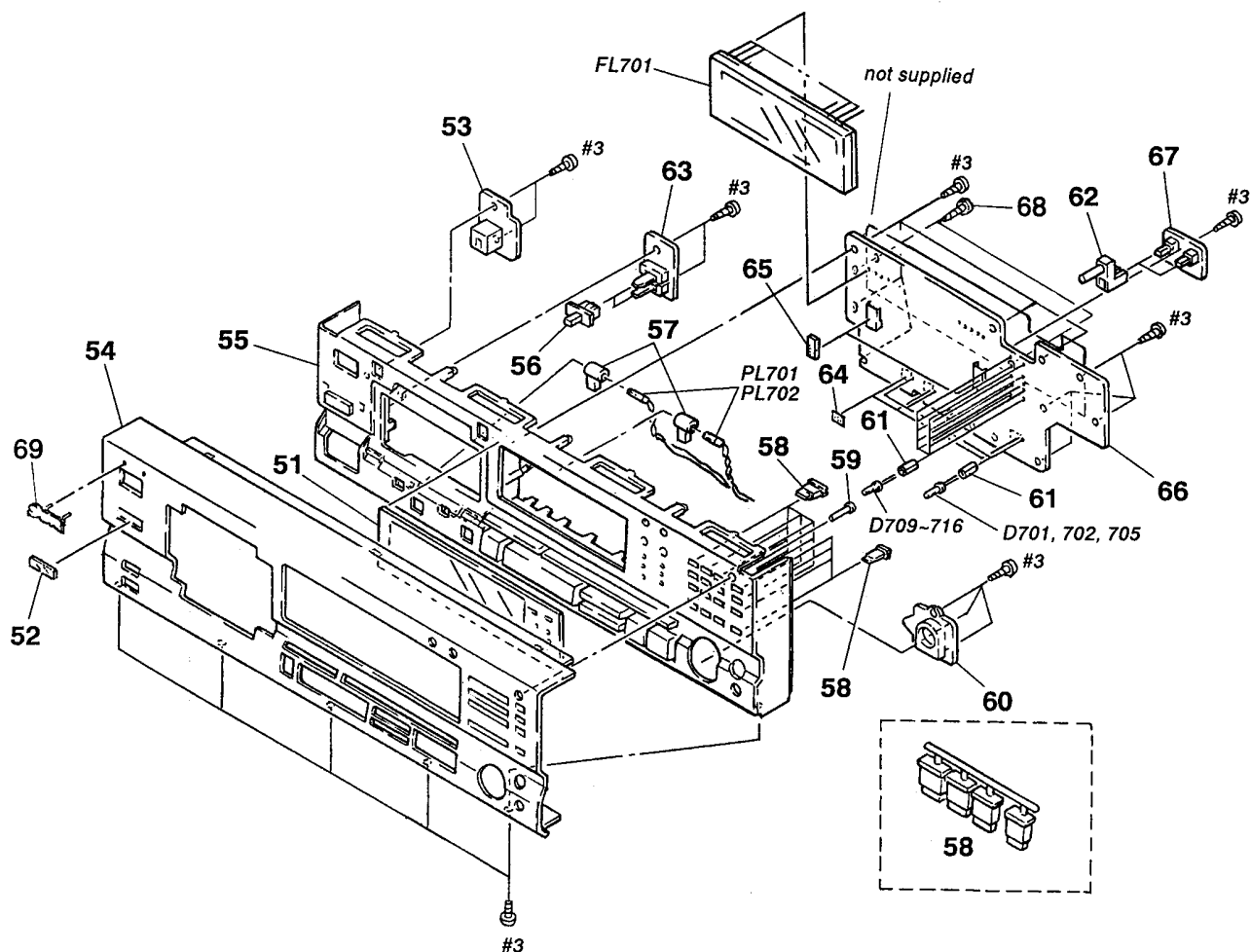
5-1. CABINET SECTION



<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
1	A-2003-671-A	PANEL (CASSETTE) ASSY... (BLACK)		12	* 4-931-433-11	PLATE, BOTTOM	
	A-2003-903-A	PANEL (CASSETTE) ASSY... (GOLD)		13	3-701-508-01	SET SCREW, DOUBLE POINT 3X4	
2	4-936-615-01	PLATE (DAT LOGO), ORNAMENTAL... (BLACK)		14	X-3362-380-1	KNOB (REC-R) ASSY... (BLACK)	
	4-936-615-11	PLATE (DAT LOGO), ORNAMENTAL... (GOLD)			X-3363-175-1	KNOB (REC-R) ASSY... (GOLD)	
3	4-884-635-00	BASE, ORNAMENTAL... (BLACK)		15	X-3362-381-1	KNOB (REC-L) ASSY... (BLACK)	
	4-884-635-21	BASE, ORNAMENTAL... (GOLD)			X-3363-178-1	KNOB (REC-L) ASSY... (GOLD)	
4	X-3304-938-2	FOOT ASSY... (BLACK)		16	3-354-931-01	KNOB (DIA. 10)... (BLACK)	
	X-4928-110-1	FOOT ASSY... (GOLD)			3-354-931-31	KNOB (DIA. 10)... (GOLD)	
5	4-923-836-11	CUSHION		17	3-356-935-01	SPRING	
6	4-923-520-01	KNOB, POWER... (BLACK)		18	* 4-604-335-01	PLATE, BLIND (A)	
	4-923-520-12	KNOB, POWER... (GOLD)		19	3-703-685-21	SCREW (+BV 3X8)	
7	* 4-936-612-01	RUBBER (DAMPER)		20	4-933-446-01	SCREW (SIDE PANEL) (EXCEPT UK)	
8	X-3362-385-1	PANEL (L) ASSY, SIDE... (BLACK)	(US, AEP)	21	3-704-366-01	SCREW (CASE) (M3X8)... (BLACK)	
	X-3363-177-1	PANEL (L) ASSY, SIDE... (GOLD)			3-704-366-11	SCREW (CASE) (M3X8)... (GOLD)	
9	3-831-441-XX	CUSHION, SPEAKER		22	7-621-996-05	BOLT, HEXAGON SOCKET 2.6X5... (BLACK)	
10	4-925-039-41	CASE... (BLACK)			4-901-727-00	BOLT (M2.6X5), HOLE, HEXAGON... (GOLD)	
	3-369-901-01	CASE... (GOLD)		23	4-928-025-41	ESCUTCHEON (TOP PLATE)... (GOLD)	
11	X-3362-386-1	PANEL (R) ASSY, SIDE... (BLACK)	(US, AEP)				
	X-3363-178-1	PANEL (R) ASSY, SIDE... (GOLD)					

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5-2. FRONT PANEL SECTION

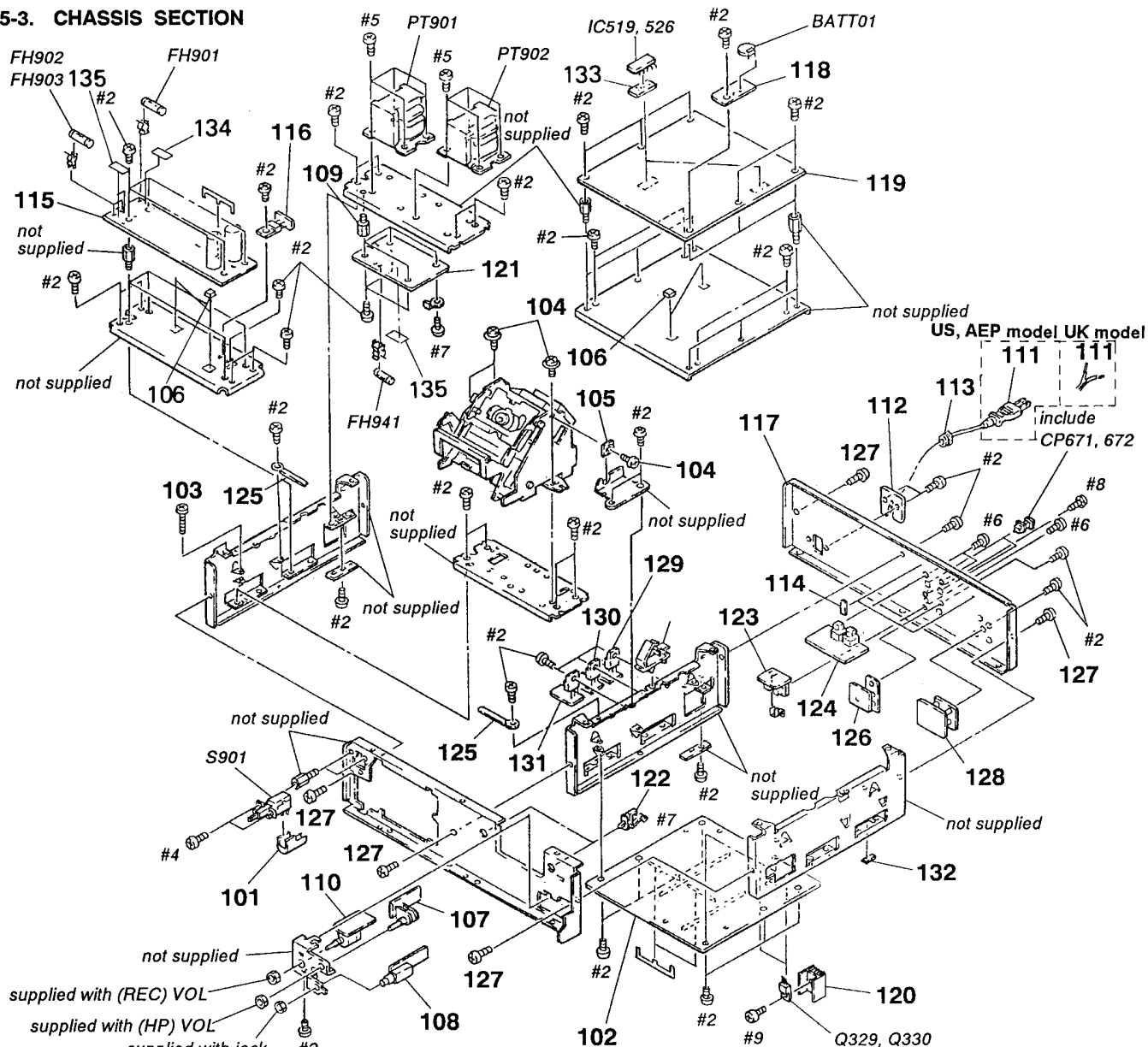


Ref. No.	Part No.	Description	Remark
51	3-364-924-01	WINDOW (FL TUBE)	
52	3-364-919-01	FILTER	
53	* 1-637-609-11	OPTICAL RECEIVE BOARD	
54	3-364-943-01	PANEL (FRONT)... (BLACK) (77ES: AEP)	
	3-364-943-12	PANEL (FRONT) (87ES)	
	3-364-943-21	PANEL (FRONT) (77ES: UK)	
	3-364-943-31	PANEL (FRONT)... (GOLD) (77ES: AEP)	
55	X-3362-388-1	ESCUTCHEON (PANEL) ASSY... (BLACK)	
	X-3363-174-1	ESCUTCHEON (PANEL) ASSY... (GOLD)	
56	3-307-538-21	KNOB, SWITCH, TIMER... (BLACK)	
	3-307-538-81	KNOB, SWITCH, TIMER... (GOLD)	
57	* 3-365-031-01	COVER, LAMP	
58	3-364-927-01	BUTTON (10 KEY)... (BLACK)	
	3-364-927-11	BUTTON (10 KEY)... (GOLD)	
59	4-934-031-01	BUTTON (DISPLAY)... (BLACK)	
	4-934-031-21	BUTTON (DISPLAY)... (GOLD)	

Ref. No.	Part No.	Description	Remark
60	3-364-928-01	ESCUTCHEON (R. V)... (BLACK)	
	3-364-928-11	ESCUTCHEON (R. V)... (GOLD)	
61	* 4-911-676-01	SPACER, LED	
62	4-923-879-01	BUTTON (DIA. 4)... (BLACK)	
	4-923-879-21	BUTTON (DIA. 4)... (GOLD)	
63	* 1-637-608-11	SLIDE SW BOARD	
64	3-831-441-11	CUSHION	
65	9-911-839-XX	CUSHION	
66	* A-2006-536-A	CONTROL SW BOARD, COMPLETE (US)	
	* A-2006-557-A	CONTROL SW BOARD, COMPLETE (AEP, UK)	
67	* 1-637-610-11	PUSH SW BOARD	
68	3-531-576-01	RIVET	
69	4-908-848-01	EMBLEM, SONY	
PL701	1-518-664-11	LAMP, PILOT	
PL702	1-518-664-11	LAMP, PILOT	

(BLACK)
(GOLD)
)

5-3. CHASSIS SECTION

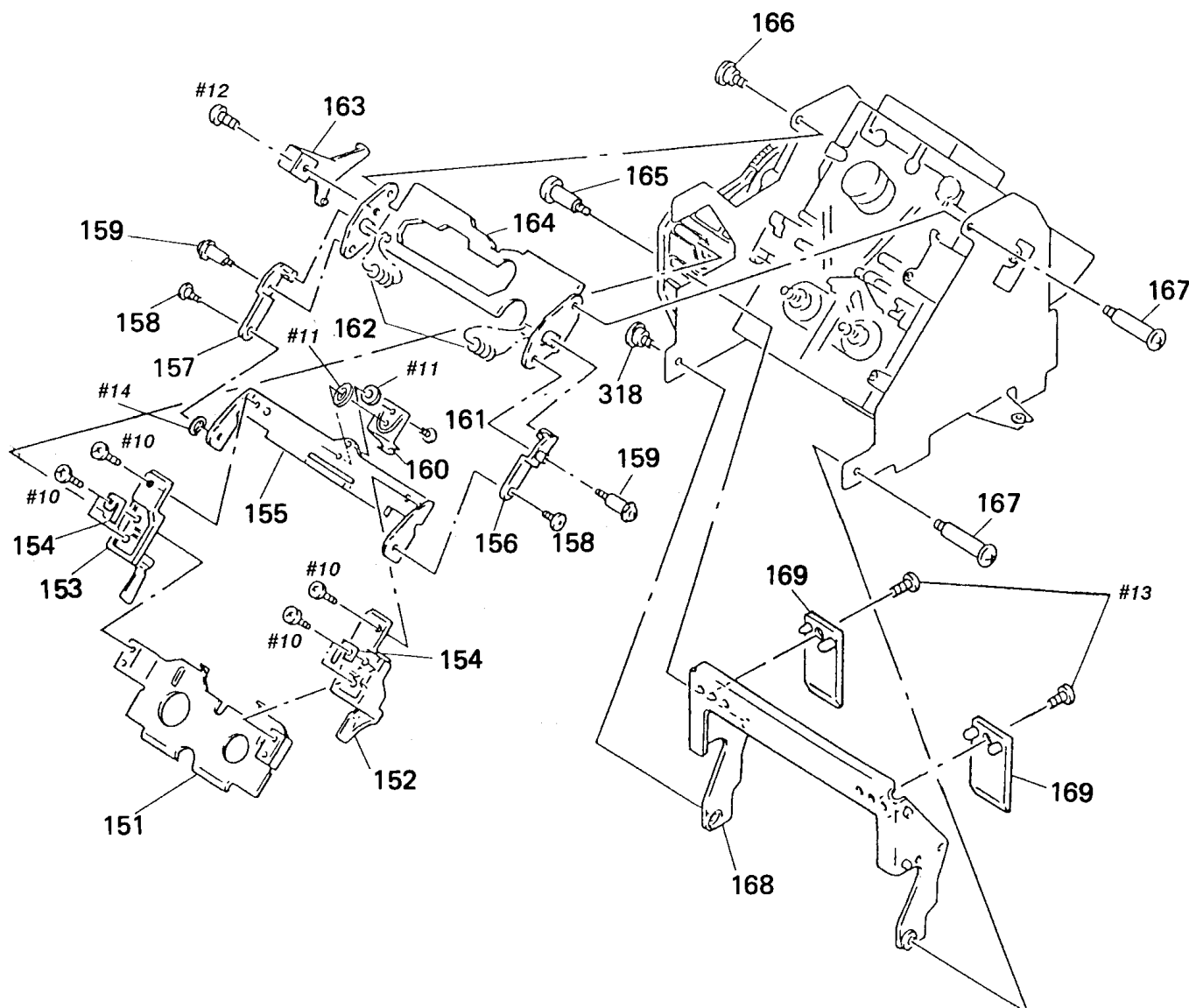


Ref. No.	Part No.	Description
101	3-575-524-00	COVER, POWER SWITCH
102	* A-2006-537-A	AUDIO BOARD, COMPLETE
103	3-704-242-01	SCREW, TERMINAL, +BVTP CLAW
104	4-886-821-11	SCREW, S TIGHT, +PTTWH 3X6
105	4-931-466-01	SPACER
106	9-911-839-XX	CUSHION
107	* 1-637-613-11	HP VOL BOARD
108	* 1-637-614-11	HP JACK BOARD
109	* 3-363-575-31	SUPPORT
110	* 1-637-615-11	REC VOL BOARD
111	△1-559-479-11	CORD, POWER (US)
	△1-575-912-11	CORD, POWER (AEP)
	△1-575-913-11	CORD, POWER (UK)
112	* 4-923-873-01	BRACKET, CORD STOPPER
113	△3-703-244-00	BUSHING (2104), CORD (AEP, UK)
	△4-916-783-01	BUSHING, CORD (US)
114	4-860-518-00	PAPER, VIBRATION PROOF (E)
115	* A-2006-344-A	POWER BOARD, COMPLETE
116	* 1-637-625-11	DIODE BOARD
117	* 3-364-938-11	PANEL, BACK (87ES)
	* 3-364-938-31	PANEL, BACK (77ES: UK)
	* 3-364-938-41	PANEL, BACK (77ES: AEP)
118	* 1-637-626-11	BATTERY BOARD
119	* A-2006-587-A	DIGITAL BOARD, COMPLETE
120	4-931-401-01	HEAT SINK, V. OUT
121	* 1-637-621-11	LINE FILTER BOARD
122	* 3-329-937-02	CLIP, WIRE
123	* 1-637-617-11	DIGITAL OUT BOARD

Ref. No.	Part No.	Description
124	* 1-637-618-11	D-I/O OPT BOARD
125	3-703-150-11	STOPPER, WIRING
126	* 1-637-616-11	COA IN BOARD
127	3-703-685-21	SCREW (+BV 3X8)
128	* 1-637-620-11	LINE IN BOARD
129	* 1-637-622-11	TR-A BOARD
130	* 1-637-623-11	TR-B BOARD
131	* 1-637-624-11	TR-C BOARD
132	9-911-843-XX	CUSHION, FLYWHEEL
133	1-543-843-11	FERRITE BOARD, MULTI HOLE
134	3-701-947-16	LABEL (T3.15A) FUSE (AEP, UK)
135	* 3-701-947-14	LABEL (T2A), FUSE (AEP, UK)
BATT01	△1-528-229-11	BATTERY, LITHIUM (CR-2450)
FH901	△1-532-745-11	FUSE, GLASS TUBE (3.15A 125V) (US)
	△1-532-237-00	FUSE, TIME-LAG (T3.15A 250V) (AEP, UK)
FH902	△1-532-203-00	FUSE, TIME-LAG (T2A 250V) (AEP, UK)
	△1-532-743-11	FUSE, GLASS TUBE (2A, 125V) (US)
FH903	△1-532-203-00	FUSE, TIME-LAG (T2A 125V) (AEP, UK)
	△1-532-743-11	FUSE, GLASS TUBE (2A, 250V) (US)
FH941	△1-532-743-11	FUSE, GLASS TUBE (2A, 125V) (US)
	△1-532-203-00	FUSE, TIME-LAG (T2A 250V) (AEP, UK)
PT901	△1-450-450-11	TRANSFORMER, POWER (D) (US)
	△1-450-603-11	TRANSFORMER, POWER (AEP, UK)
PT902	△1-450-449-11	TRANSFORMER, POWER (A) (US)
	△1-450-604-11	TRANSFORMER, POWER (A) (AEP, UK)
S901	△1-554-920-11	SWITCH, PUSH (AC POWER) (1 KEY)

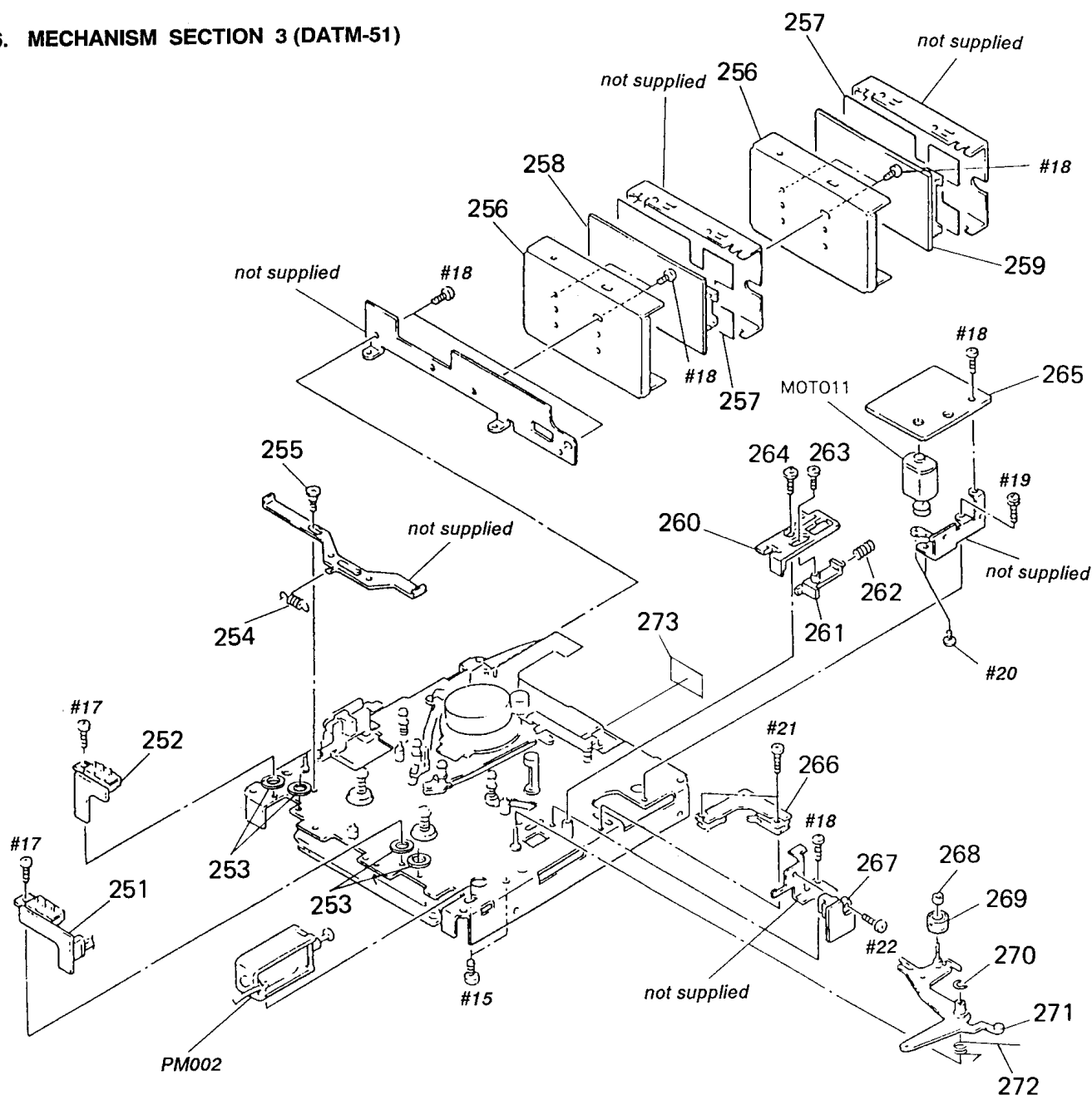
Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

5-4. MECHANISM SECTION 1



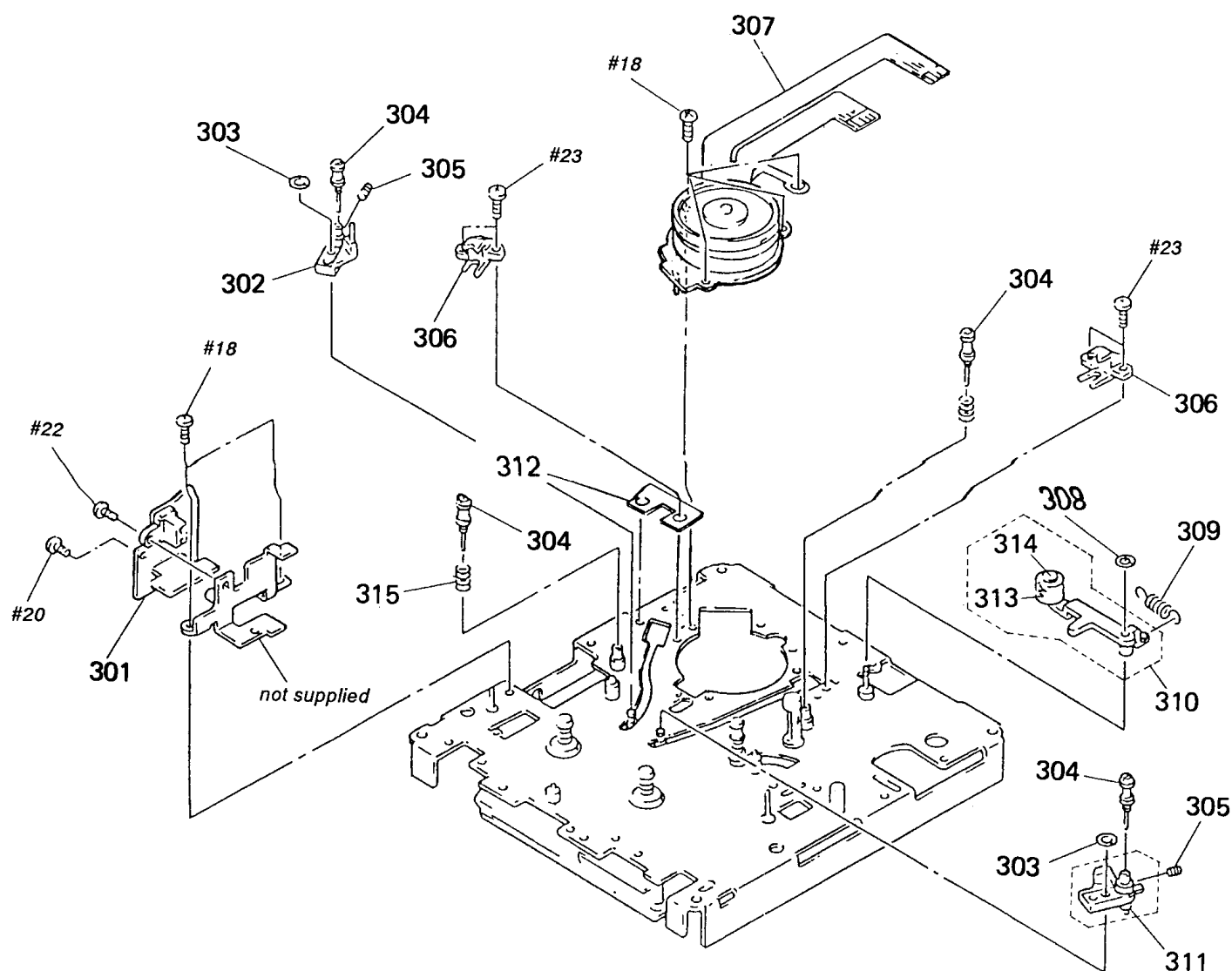
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	4-931-476-01	HOLDER (LOWER)		161	3-352-517-01	SCREW (M2X2.5)	
152	4-931-486-01	HOLDER (C-RIGHT)		162	3-537-214-00	SPRING, COMPRESSION	
153	4-931-484-01	HOLDER (C-LEFT)		163	* X-3362-941-1	JOINT ASSY	
154	3-366-308-01	SPRING (SIDE), PLATE		164	3-369-235-01	PLATE, FULCRUM	
155	* 4-931-485-01	HOLDER (C-INNER)		165	4-931-471-01	SCREW (STEP)	
156	4-931-481-01	ARM (LIMITER L)		166	2-236-956-00	SCREW, STEP	
157	4-931-473-01	ARM (LIMITER R)		167	4-931-463-01	SCREW (STEP)	
158	3-312-161-00	SCREW, STEP, PRECISION		168	4-931-474-01	HOLDER (WINDOW)	
159	4-918-991-01	SCREW, STEP		169	4-931-469-01	PLATE, ORNAMENTAL	
160	4-931-461-01	SPRING (CENTER), LEAF					

5-6. MECHANISM SECTION 3 (DATM-51)



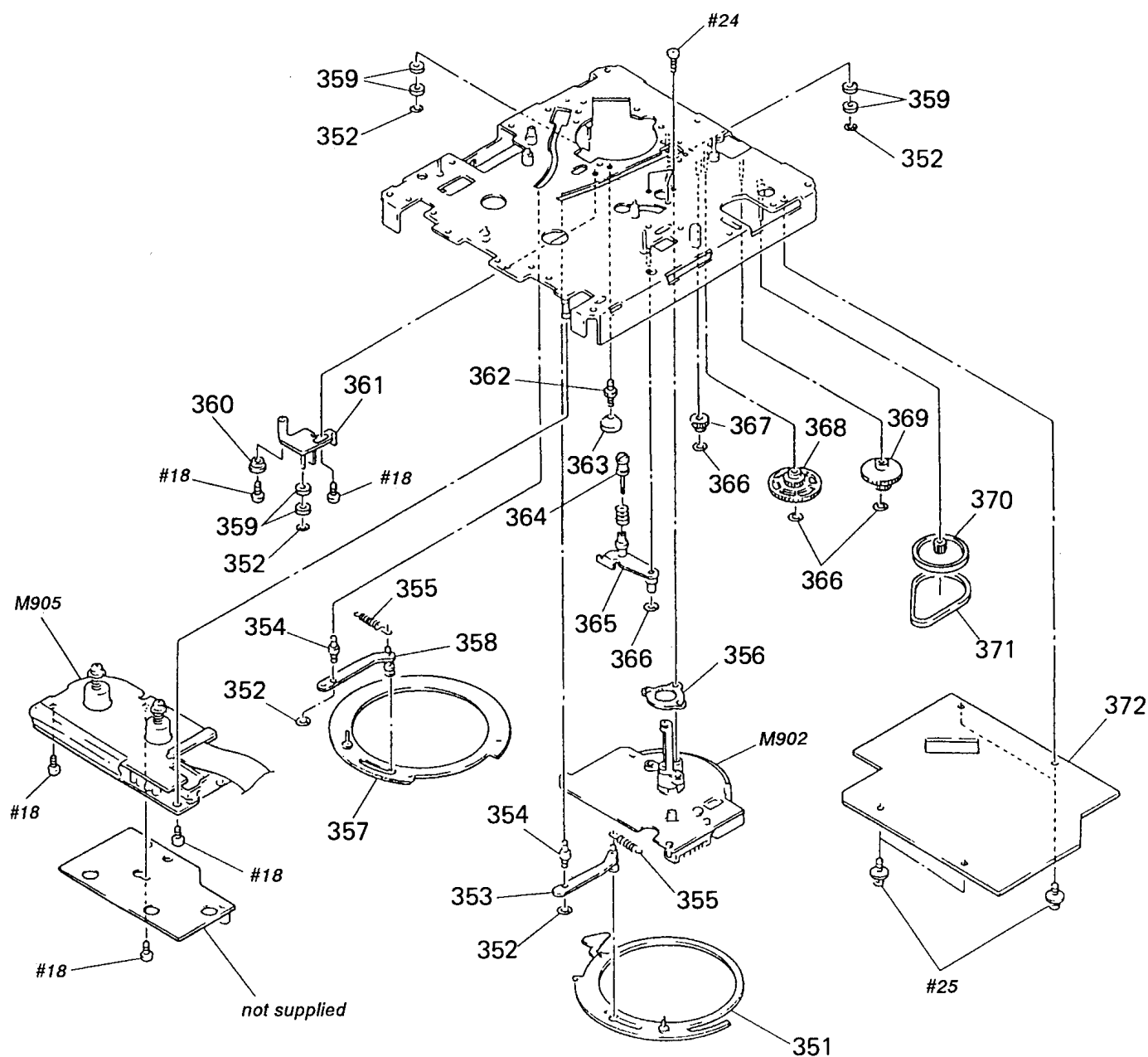
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
251	* 1-637-605-11	T-SW BOARD		264	3-703-502-11	SCREW	
252	* 1-637-604-11	S-SW BOARD		265	* 1-637-601-11	LOADING MOTOR BOARD	
253	3-344-781-01	WASHER, POLYETHYLENE		266	* 1-637-606-11	LOAD-SW BOARD	
254	3-307-375-00	SPRING, TENSION		267	* 1-637-603-11	T-END BOARD	
255	3-312-161-00	SCREW, STEP, PRECISION		268	3-337-626-01	CAP, PINCH ROLLER	
256	* 3-337-686-11	CASE (LOWER), SHIELD		269	X-3337-610-1	PINCH ROLLER ASSY	
257	* 3-362-537-01	SHEET (RF)		270	3-701-436-11	WASHER, STOPPER	
258	* A-2006-207-A	AMPLIFIER BOARD, COMPLETE		271	X-3362-021-1	LEVER (PINCH ROLLER) ASSY	
259	* A-2006-206-A	AMPLIFIER BOARD, COMPLETE		272	3-367-352-01	SPRING (PINCH)	
260	3-362-148-01	SLIDER (PINCH)		273	3-366-886-01	SHEET (RF BRACKET)	
261	3-362-149-01	SLIDER (LIMITER)		MOTO11	A-2003-660-A	MOTOR ASSY (LOADING)	
262	3-564-035-00	SPRING, COMPRESSION		PM002	1-454-522-11	SOLENOID, PLUNGER	
263	2-623-756-01	SCREW, (B1.7X3), TAPPING					

5-7. MECHANISM SECTION 4 (DATM-51)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
301	* 1-637-602-11	S-END BOARD		309	3-307-375-00	SPRING, TENSION	
302	X-3362-028-1	SLANT BLOCK (L2) ASSY		310	A-2003-487-A	ARM (CLEANING) ASSY	
303	3-325-698-01	RING, RETAINING		311	X-3362-029-1	SLANT BLOCK (R2) ASSY	
304	X-3362-027-1	GUIDE ASSY, ROLLER		312	3-701-437-01	SHEET (CATCHER)	
305	3-362-152-01	SCREW (RETURN GUIDE BOSS)		313	3-352-518-01	ROLLER (CLEANER)	
306	* 3-337-685-01	CATCHER		314	3-353-812-01	COLLAR (ROLLER)	
307	8-848-549-11	DRUM ASSY DOU-15A-R		315	3-573-470-00	SPRING, COMPRESSION	
308	3-701-436-11	WASHER, STOPPER					

5-8. MECHANISM SECTION 5 (DATM-51)



Ref. No.	Part No.	Description	Remark
351	X-3362-204-1	GEAR (LOAD) ASSY	
352	3-559-408-11	WASHER, POLYETHYLENE, DIA. 1.2	
353	* X-3362-025-1	LEVER (LOADING R) ASSY	
354	3-362-151-01	BOSS (GUIDE)	
355	3-337-653-01	SPRING, TENSION	
356	* 3-362-156-01	BRACKET (CAPSTAN)	
357	X-3337-602-1	RING (LEFT) ASSY, LOADING	
358	* X-3362-024-1	LEVER (LOADING L) ASSY	
359	3-337-622-01	ROLLER, RING	
360	* 3-362-158-01	COLLAR (RING ADJUSTMENT)	
361	* X-3362-023-1	ARM (RING ROLLER) ASSY	
362	* 3-362-159-01	SHAFT (RING ADJUSTMENT)	
363	3-362-160-01	NUT (RING ADJUSTMENT)	

Ref. No.	Part No.	Description	Remark
364	X-3362-027-1	GUIDE ASSY, ROLLER	
365	* X-3362-020-1	LEVER (F GUIDE) ASSY	
366	3-701-436-11	WASHER, STOPPER	
367	3-345-182-01	GEAR (LOADING B)	
368	3-345-181-01	GEAR (LOADING A)	
369	3-362-155-01	GEAR (A)	
370	4-932-338-01	PULLEY (A)	
371	4-913-325-01	BELT, TAKE-UP	
372	* A-2006-382-A	MD BOARD, COMPLETE	
M902	8-835-306-01	MOTOR, DC U-17A	
M905	* 8-835-205-01	MOTOR, DC U-2A	

RF AMP (REC/PB)

SECTION 6
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F: nonflammable

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A..., uPA...: μ PA...,
uPB...: μ PB..., uPC...: μ PC...,
uPD...: μ PD...
- CAPACITORS
uF: μ F
- COILS
uH: μ H

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

When including parts by reference number, please include the board name.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* A-2006-206-A RF AMP (REC/PB) BOARD, COMPLETE *****				< CONNECTOR >			
		< CAPACITOR >		CN951	1-569-349-11	CONNECTOR, F.P.C 6P	
				CN952	* 1-564-728-11	PIN, CONNECTOR (SMALL TYPE)12P	
				< IC >			
C951	1-164-005-11	CERAMIC CHIP 0.47uF	25V	IC951	8-752-032-26	IC CXA1045Q-Z	
C953	1-163-038-00	CERAMIC CHIP 0.1uF	25V	< COIL >			
C954	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	L951	1-408-777-00	INDUCTOR CHIP 10uH	
C955	1-164-005-11	CERAMIC CHIP 0.47uF	25V	L952	1-408-791-00	INDUCTOR CHIP 150uH	
C956	1-124-778-00	ELECT CHIP 22uF	20% 6.3V	L953	1-408-791-00	INDUCTOR CHIP 150uH	
				< RESISTOR >			
C957	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R951	1-216-056-00	METAL GLAZE 2K	5% 1/10W
C958	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	R952	1-216-056-00	METAL GLAZE 2K	5% 1/10W
C959	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	R953	1-216-057-00	METAL CHIP 2.2K	5% 1/10W
C960	1-163-011-11	CERAMIC CHIP 0.0015uF	10% 50V	R954	1-216-057-00	METAL CHIP 2.2K	5% 1/10W
C961	1-164-232-11	CERAMIC CHIP 0.01uF	50V	R955	1-216-089-00	METAL CHIP 47K	5% 1/10W
C962	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V	R956	1-216-083-00	METAL CHIP 27K	5% 1/10W
C963	1-164-232-11	CERAMIC CHIP 0.01uF	50V	R957	1-216-063-00	METAL CHIP 3.9K	5% 1/10W
C965	1-164-298-11	CERAMIC CHIP 0.15uF	10% 25V	R958	1-216-085-00	METAL CHIP 33K	5% 1/10W
C966	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R959	1-216-067-00	METAL CHIP 5.6K	5% 1/10W
C967	1-124-778-00	ELECT CHIP 22uF	20% 6.3V	R960	1-216-079-00	METAL CHIP 18K	5% 1/10W
C968	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R961	1-216-079-00	METAL CHIP 18K	5% 1/10W
C969	1-164-005-11	CERAMIC CHIP 0.47uF	25V	R962	1-216-067-00	METAL CHIP 5.6K	5% 1/10W
C971	1-164-298-11	CERAMIC CHIP 0.15uF	10% 25V	R963	1-216-085-00	METAL CHIP 33K	5% 1/10W
C973	1-164-232-11	CERAMIC CHIP 0.01uF	50V	R964	1-216-083-00	METAL CHIP 27K	5% 1/10W
C974	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V	R965	1-216-063-00	METAL CHIP 3.9K	5% 1/10W
C975	1-164-232-11	CERAMIC CHIP 0.01uF	50V	R966	1-216-089-00	METAL CHIP 47K	5% 1/10W
C976	1-163-011-11	CERAMIC CHIP 0.0015uF	10% 50V	R967	1-216-089-00	METAL CHIP 47K	5% 1/10W
C977	1-163-020-00	CERAMIC CHIP 0.0082uF	10% 50V	R968	1-216-089-00	METAL CHIP 47K	5% 1/10W
C978	1-162-638-11	CERAMIC CHIP 1uF	16V	R969	1-216-075-00	METAL CHIP 12K	5% 1/10W
C979	1-163-020-00	CERAMIC CHIP 0.0082uF	10% 50V	R970	1-216-082-00	METAL GLAZE 24K	5% 1/10W
C980	1-163-809-11	CERAMIC CHIP 0.047uF	10% 25V	R971	1-216-748-11	METAL CHIP 39K	5% 1/10W
C981	1-163-809-11	CERAMIC CHIP 0.047uF	10% 25V	R972	1-216-295-00	METAL CHIP 0	5% 1/10W
C982	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	R973	1-216-073-00	METAL CHIP 10K	5% 1/10W
C983	1-164-232-11	CERAMIC CHIP 0.01uF	50V	R974	1-216-073-00	METAL CHIP 10K	5% 1/10W
C984	1-163-005-11	CERAMIC CHIP 470PF	10% 50V				
C985	1-163-005-11	CERAMIC CHIP 470PF	10% 50V				

RF AMP (REC/PB)

RF AMP (PB)

AUDIO

Ref.No.	Part No.	Description	Remark
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< VARIABLE RESISTOR >

RV951	1-238-237-11	RES, ADJ, CERMET 470	
RV952	1-238-237-11	RES, ADJ, CERMET 470	

* A-2006-207-A RF AMP (PB) BOARD, COMPLETE

< CAPACITOR >

C51	1-124-779-00	ELECT CHIP	10uF	20%	16V
C52	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C53	1-162-638-11	CERAMIC CHIP	1uF		16V
C54	1-164-299-11	CERAMIC CHIP	0.22uF	10%	25V
C55	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V

C57	1-124-779-00	ELECT CHIP	10uF	20%	16V
C58	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C59	1-164-299-11	CERAMIC CHIP	0.22uF	10%	25V
C60	1-162-638-11	CERAMIC CHIP	1uF		16V
C61	1-163-117-00	CERAMIC CHIP	100PF	5%	50V

C62	1-124-779-00	ELECT CHIP	10uF	20%	16V
C63	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C64	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C66	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C69	1-124-779-00	ELECT CHIP	10uF	20%	16V

C70	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C71	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C72	1-163-038-00	CERAMIC CHIP	0.1uF		25V

< CONNECTOR >

CN51	1-569-349-11	CONNECTOR, F.P.C 6P	
CN52	* 1-564-725-11	PIN, CONNECTOR (SMALL TYPE) 9P	

< IC >

IC51	8-752-039-01	IC CXA1364R	
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< COIL >

L51	1-408-781-00	INDUCTOR, CHIP 22uH	
L52	1-408-789-21	INDUCTOR, CHIP 100uH	
L53	1-408-781-00	INDUCTOR, CHIP 22uH	

< TRANSISTOR >

Q51	8-729-901-01	TRANSISTOR DTC144EK	
Q52	8-729-901-01	TRANSISTOR DTC144EK	
Q53	8-729-901-01	TRANSISTOR DTC144EK	
Q54	8-729-901-01	TRANSISTOR DTC144EK	
Q55	8-729-901-01	TRANSISTOR DTC144EK	

Ref.No.	Part No.	Description	Remark
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< RESISTOR >

R51	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R52	1-216-077-00	METAL CHIP	15K	5%	1/10W
R53	1-216-077-00	METAL CHIP	15K	5%	1/10W
R54	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R55	1-216-083-00	METAL CHIP	27K	5%	1/10W

R56	1-216-089-00	METAL CHIP	47K	5%	1/10W
R57	1-216-084-00	METAL GLAZE	30K	5%	1/10W
R58	1-216-085-00	METAL CHIP	33K	5%	1/10W
R59	1-216-085-00	METAL CHIP	33K	5%	1/10W
R60	1-216-748-11	METAL CHIP	39K	5%	1/10W

R61	1-216-075-00	METAL CHIP	12K	5%	1/10W
R62	1-216-077-00	METAL CHIP	15K	5%	1/10W
R63	1-216-065-00	METAL CHIP	4.7K	5%	1/10W

* A-2006-537-A AUDIO BOARD, COMPLETE

1-568-129-11 BAR, BUS 8P
 * 1-568-130-11 BAR, BUS 3P
 7-682-147-15 SCREW, TR
 * 3-346-266-12 PLATE, GROUND
 * 4-931-401-01 HEAT SINK, V. OUT

< CAPACITOR >

C101	1-124-915-11	ELECT	10uF	20%	63V
C102	1-136-153-00	FILM	0.01uF	5%	50V
C103	1-136-153-00	FILM	0.01uF	5%	50V
C167	1-136-811-11	FILM	330PF	5%	100V
C168	1-136-811-11	FILM	330PF	5%	100V

C169	1-136-810-11	FILM	220PF	5%	100V
C170	1-136-810-11	FILM	220PF	5%	100V
C171	1-136-234-11	FILM	0.0062uF	3%	100V
C172	1-136-808-11	FILM	100PF	5%	100V
C173	1-136-234-11	FILM	0.0062uF	3%	100V

C174	1-136-808-11	FILM	100PF	5%	100V
C175	1-136-228-11	FILM	0.0012uF	3%	100V
C176	1-136-233-11	FILM	0.0047uF	3%	100V
C177	1-124-918-11	ELECT	47uF	20%	63V
C178	1-109-621-00	MICA	220PF		500V

C201	1-124-915-11	ELECT	10uF	20%	63V
C202	1-136-153-00	FILM	0.01uF	5%	50V
C203	1-136-153-00	FILM	0.01uF	5%	50V
C267	1-136-811-11	FILM	330PF	5%	100V
C268	1-136-811-11	FILM	330PF	5%	100V

C269	1-136-810-11	FILM	220PF	5%	100V
C270	1-136-810-11	FILM	220PF	5%	100V
C271	1-136-234-11	FILM	0.0062uF	3%	100V
C272	1-136-808-11	FILM	100PF	5%	100V
C273	1-136-234-11	FILM	0.0062uF	3%	100V

AUDIO

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C274	1-136-808-11	FILM	100PF	5%	100V	C354	1-124-122-11	ELECT	100uF	20%	50V
C275	1-136-228-11	FILM	0.0012uF	3%	100V	C355	1-136-165-00	FILM	0.1uF	5%	50V
C276	1-136-233-11	FILM	0.0047uF	3%	100V	C356	1-136-165-00	FILM	0.1uF	5%	50V
C277	1-124-918-11	ELECT	47uF	20%	63V	C357	1-124-122-11	ELECT	100uF	20%	50V
C278	1-109-621-00	MICA	220PF	1%	500V	C358	1-136-165-00	FILM	0.1uF	5%	50V
C301	1-124-915-11	ELECT	10uF	20%	63V	C359	1-124-122-11	ELECT	100uF	20%	50V
C302	1-136-165-00	FILM	0.1uF	5%	50V	C360	1-136-165-00	FILM	0.1uF	5%	50V
C303	1-136-165-00	FILM	0.1uF	5%	50V	C361	1-124-122-11	ELECT	100uF	20%	50V
C304	1-136-165-00	FILM	0.1uF	5%	50V	C362	1-136-165-00	FILM	0.1uF	5%	50V
C305	1-136-165-00	FILM	0.1uF	5%	50V	C363	1-136-153-00	FILM	0.01uF	5%	50V
C306	1-124-484-11	ELECT	220uF	20%	35V	C364	1-162-284-31	CERAMIC	150PF	10%	50V
C307	1-124-484-11	ELECT	220uF	20%	35V	C365	1-162-199-31	CERAMIC	10PF	5%	50V
C310	1-124-713-11	ELECT	470uF	20%	35V	C366	1-124-122-11	ELECT	100uF	20%	50V
C311	1-136-165-00	FILM	0.1uF	5%	50V	C367	1-162-211-31	CERAMIC	33PF	5%	50V
C312	1-124-713-11	ELECT	470uF	20%	35V	C368	1-162-199-31	CERAMIC	10PF	5%	50V
C313	1-136-165-00	FILM	0.1uF	5%	50V	C370	1-136-157-00	FILM	0.022uF	5%	50V
C314	1-124-484-11	ELECT	220uF	20%	35V	C371	1-136-165-00	FILM	0.1uF	5%	50V
C315	1-136-165-00	FILM	0.1uF	5%	50V	C372	1-136-165-00	FILM	0.1uF	5%	50V
C316	1-136-165-00	FILM	0.1uF	5%	50V	C373	1-136-157-00	FILM	0.022uF	5%	50V
C317	1-124-918-11	ELECT	47uF	20%	63V	C374	1-136-177-00	FILM	1uF	5%	50V
C318	1-136-165-00	FILM	0.1uF	5%	50V	C375	1-136-165-00	FILM	0.1uF	5%	50V
C319	1-136-165-00	FILM	0.1uF	5%	50V	C376	1-124-484-11	ELECT	220uF	20%	35V
C320	1-136-165-00	FILM	0.1uF	5%	50V	C377	1-124-484-11	ELECT	220uF	20%	35V
C325	1-124-517-11	ELECT	470uF	20%	50V	C378	1-124-713-11	ELECT	470uF	20%	35V
C326	1-124-517-11	ELECT	470uF	20%	50V	C379	1-124-713-11	ELECT	470uF	20%	35V
C327	1-124-130-00	ELECT	100uF	20%	63V	C380	1-124-915-11	ELECT	10uF	20%	63V
C328	1-124-130-00	ELECT	100uF	20%	63V	C381	1-124-713-11	ELECT	470uF	20%	35V
C329	1-107-210-00	MICA	22PF	5%	500V	C382	1-136-165-00	FILM	0.1uF	5%	50V
C330	1-107-210-00	MICA	22PF	5%	500V	C383	1-136-165-00	FILM	0.1uF	5%	50V
C331	1-124-922-11	ELECT	1000uF	20%	63V	C384	1-136-165-00	FILM	0.1uF	5%	50V
C332	1-124-922-11	ELECT	1000uF	20%	63V	C385	1-136-165-00	FILM	0.1uF	5%	50V
C333	1-124-484-11	ELECT	220uF	20%	35V	C386	1-124-484-11	ELECT	220uF	20%	35V
C334	1-136-165-00	FILM	0.1uF	5%	50V	C387	1-124-484-11	ELECT	220uF	20%	35V
C337	1-124-122-11	ELECT	100uF	20%	50V	C389	1-124-122-11	ELECT	100uF	20%	50V
C338	1-136-165-00	FILM	0.1uF	5%	50V	C390	1-136-157-00	FILM	0.022uF	5%	50V
C339	1-136-165-00	FILM	0.1uF	5%	50V	C391	1-136-177-00	FILM	1uF	5%	50V
C340	1-136-165-00	FILM	0.1uF	5%	50V	C392	1-136-165-00	FILM	0.1uF	5%	50V
C341	1-124-122-11	ELECT	100uF	20%	50V	C393	1-136-165-00	FILM	0.1uF	5%	50V
C342	1-136-165-00	FILM	0.1uF	5%	50V	C394	1-136-165-00	FILM	0.1uF	5%	50V
C343	1-136-165-00	FILM	0.1uF	5%	50V	C395	1-162-179-11	CERAMIC	0.1uF		50V
C344	1-124-122-11	ELECT	100uF	20%	50V	< CONNECTOR >					
C345	1-136-165-00	FILM	0.1uF	5%	50V	CN96	* 1-564-506-11	PLUG, CONNECTOR 3P			
C346	1-124-122-11	ELECT	100uF	20%	50V	CN101	* 1-564-505-11	PLUG, CONNECTOR 2P			
C347	1-136-165-00	FILM	0.1uF	5%	50V	CN102	* 1-564-505-11	PLUG, CONNECTOR 2P			
C348	1-124-122-11	ELECT	100uF	20%	50V	CN103	* 1-564-506-11	PLUG, CONNECTOR 3P			
C349	1-136-165-00	FILM	0.1uF	5%	50V	CN104	* 1-564-505-11	PLUG, CONNECTOR 2P			
C350	1-124-122-11	ELECT	100uF	20%	50V	CN201	* 1-564-505-11	PLUG, CONNECTOR 2P			
C351	1-136-165-00	FILM	0.1uF	5%	50V	CN202	* 1-564-505-11	PLUG, CONNECTOR 2P			
C352	1-136-165-00	FILM	0.1uF	5%	50V	CN203	* 1-564-506-11	PLUG, CONNECTOR 3P			
C353	1-136-165-00	FILM	0.1uF	5%	50V	CN204	* 1-564-505-11	PLUG, CONNECTOR 2P			

AUDIO

Ref. No.	Part No.	Description	Remark
CN351	* 1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P	
CN352	* 1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P	
< DIODE >			
D101	8-719-107-94	DIODE 1SS202-1	
D102	8-719-107-94	DIODE 1SS202-1	
D201	8-719-107-94	DIODE 1SS202-1	
D202	8-719-107-94	DIODE 1SS202-1	
D325	8-719-902-87	DIODE EQB01-08Q	
D326	8-719-902-87	DIODE EQB01-08Q	
D349	8-719-200-77	DIODE 10E2N	
D350	8-719-114-30	DIODE RD5.1JSB2	
D351	8-719-901-59	DIODE KV1320	
D352	8-719-903-27	DIODE 1SS168	
D353	8-719-107-94	DIODE 1SS202-1	
D354	8-719-107-94	DIODE 1SS202-1	
D355	8-719-107-94	DIODE 1SS202-1	
D356	8-719-107-94	DIODE 1SS202-1	
D357	8-719-200-82	DIODE 11ES2	
D358	8-719-200-82	DIODE 11ES2	
D359	8-719-107-94	DIODE 1SS202-1	
< IC >			
IC101	8-759-602-83	IC M5238P	
IC102	8-759-504-50	IC LF412CN/SL161841	
IC151	8-759-900-72	IC NE5532P	
IC152	8-759-900-72	IC NE5532P	
IC153	8-759-981-98	IC RC4560DD	
IC201	8-759-602-83	IC M5238P	
IC202	8-759-504-50	IC LF412CN/SL161841	
IC251	8-759-900-72	IC NE5532P	
IC252	8-759-900-72	IC NE5532P	
IC253	8-759-981-98	IC RC4560DD	
IC301	8-759-231-53	IC TA7805S	
IC302	8-759-604-47	IC M5F7905L	
IC303	8-759-231-53	IC TA7805S	
IC304	8-759-999-09	IC CS5326-KP	
IC305	8-759-916-55	IC SN74HC175AN	
IC348	8-752-335-51	IC CXD2552Q-1	
IC349	8-752-335-51	IC CXD2552Q-1	
IC350	8-759-999-32	IC SM5813APT	
IC351	8-759-917-18	IC SN74HCU04AN	
IC354	8-759-900-72	IC NE5532P	
IC355	8-759-634-55	IC M5F7805L-720	
IC356	8-759-604-30	IC M5F7808L	
IC357	8-759-917-11	IC SN74HC393AN	
IC358	8-759-250-81	IC TC5081AP	
IC359	8-759-233-64	IC TC74HCU04AF	
IC360	8-759-239-47	IC TC74HC123AP	
IC361	8-759-916-29	IC SN74HC74N	

Ref. No.	Part No.	Description	Remark
< COIL >			
L351	1-410-324-11	INDUCTOR 4.7uH	
L352	1-460-042-11	COIL (WITH CORE)	
L353	1-460-042-11	COIL (WITH CORE)	
L355	1-410-324-11	INDUCTOR 4.7uH	
< TRANSISTOR >			
Q325	8-729-204-90	TRANSISTOR 2SK246-GR1	
Q326	8-729-204-90	TRANSISTOR 2SK246-GR1	
Q327	8-729-803-82	TRANSISTOR 2SC3468-E	
Q328	8-729-803-76	TRANSISTOR 2SA1371-E	
Q329	8-729-127-53	TRANSISTOR 2SC2275-P	
Q330	8-729-190-53	TRANSISTOR 2SA985A-P	
Q331	8-729-803-76	TRANSISTOR 2SA1371-E	
Q332	8-729-803-82	TRANSISTOR 2SC3468-E	
Q333	8-729-803-82	TRANSISTOR 2SC3468-E	
Q334	8-729-803-76	TRANSISTOR 2SA1371-E	
Q350	8-729-127-53	TRANSISTOR 2SC2275-P	
Q351	8-729-900-61	TRANSISTOR DTA114ES	
Q352	8-729-200-56	TRANSISTOR 2SK241-GR	
Q353	8-729-200-56	TRANSISTOR 2SK241-GR	
Q354	8-729-900-61	TRANSISTOR DTA114ES	
Q355	8-729-900-80	TRANSISTOR DTC114ES	
Q356	8-729-900-61	TRANSISTOR DTA114ES	
Q357	8-729-900-80	TRANSISTOR DTC114ES	
Q358	8-729-900-80	TRANSISTOR DTC114ES	
Q359	8-729-900-61	TRANSISTOR DTA114ES	
< RESISTOR >			
R103	1-246-545-00	CARBON 1.0M 5% 1/4W	
R104	1-247-717-11	CARBON 2.2K 5% 1/4W	
R105	1-249-462-11	CARBON 22K 5% 1/4W	
R106	1-249-469-11	CARBON 100K 5% 1/4W	
R107	1-249-520-11	CARBON 47 5% 1/4W	
R108	1-249-512-11	CARBON 22 5% 1/4W	
R109	1-249-524-11	CARBON 68 5% 1/4W	
R150	1-249-946-11	CARBON 9.1K 1% 1/4W	
R151	1-249-946-11	CARBON 9.1K 1% 1/4W	
R152	1-249-946-11	CARBON 9.1K 1% 1/4W	
R153	1-249-946-11	CARBON 9.1K 1% 1/4W	
R154	1-247-721-11	CARBON 4.7K 5% 1/4W	
R155	1-247-721-11	CARBON 4.7K 5% 1/4W	
R156	1-247-721-11	CARBON 4.7K 5% 1/4W	
R157	1-247-721-11	CARBON 4.7K 5% 1/4W	
R158	1-249-948-11	CARBON 11K 1% 1/4W	
R159	1-249-948-11	CARBON 11K 1% 1/4W	
R160	1-249-941-11	CARBON 5.6K 1% 1/4W	
R161	1-249-932-11	CARBON 2.4K 1% 1/4W	
R162	1-246-545-00	CARBON 1.0M 5% 1/4W	

AUDIO

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R163	1-249-941-11	CARBON	5. 6K	1%	1/4W	R303	1-249-504-11	CARBON	10	5%	1/4W
R164	1-249-941-11	CARBON	5. 6K	1%	1/4W	R325	1-247-706-11	CARBON	330	5%	1/4W
R165	1-249-941-11	CARBON	5. 6K	1%	1/4W	R326	1-247-706-11	CARBON	330	5%	1/4W
R166	1-249-932-11	CARBON	2. 4K	1%	1/4W	R327	1-247-710-11	CARBON	560	5%	1/4W
R167	1-246-545-00	CARBON	1. 0M	5%	1/4W	R328	1-247-710-11	CARBON	560	5%	1/4W
R168	1-249-556-11	CARBON	1. 5K	5%	1/4W	R329	1-249-466-11	CARBON	56K	5%	1/4W
R169	1-249-556-11	CARBON	1. 5K	5%	1/4W	R330	1-249-466-11	CARBON	56K	5%	1/4W
R170	1-249-469-11	CARBON	100K	5%	1/4W	R331	1-247-719-11	CARBON	3. 3K	5%	1/4W
R171	1-249-529-11	CARBON	110	5%	1/4W	R332	1-247-719-11	CARBON	3. 3K	5%	1/4W
R172	1-249-529-11	CARBON	110	5%	1/4W	R333	1-249-798-11	CARBON	680	5%	1/2W
R173	1-247-721-11	CARBON	4. 7K	5%	1/4W	R334	1-249-798-11	CARBON	680	5%	1/2W
R174	1-249-462-11	CARBON	22K	5%	1/4W	R335	1-247-751-11	CARBON	820	5%	1/2W
R175	1-247-700-11	CARBON	100	5%	1/4W	R336	1-247-751-11	CARBON	820	5%	1/2W
R177	1-249-497-11	CARBON	33K	5%	1/4W	R353	1-247-716-11	CARBON	1. 8K	5%	1/4W
R203	1-246-545-00	CARBON	1. 0M	5%	1/4W	R354	1-249-417-11	CARBON	1K	5%	1/4W
R204	1-247-717-11	CARBON	2. 2K	5%	1/4W	R355	1-249-417-11	CARBON	1K	5%	1/4W
R205	1-249-462-11	CARBON	22K	5%	1/4W	R356	1-249-423-11	CARBON	3. 3K	5%	1/4W
R206	1-249-469-11	CARBON	100K	5%	1/4W	R357	1-249-423-11	CARBON	3. 3K	5%	1/4W
R207	1-249-520-11	CARBON	47	5%	1/4W	R358	1-249-433-11	CARBON	22K	5%	1/4W
R208	1-249-512-11	CARBON	22	5%	1/4W	R359	1-249-435-11	CARBON	33K	5%	1/4W
R209	1-249-524-11	CARBON	68	5%	1/4W	R360	1-249-417-11	CARBON	1K	5%	1/4W
R250	1-249-946-11	CARBON	9. 1K	1%	1/4W	R361	1-247-903-00	CARBON	1M	5%	1/4W
R251	1-249-946-11	CARBON	9. 1K	1%	1/4W	R362	1-247-903-00	CARBON	1M	5%	1/4W
R252	1-249-946-11	CARBON	9. 1K	1%	1/4W	R363	1-249-429-11	CARBON	10K	5%	1/4W
R253	1-249-946-11	CARBON	9. 1K	1%	1/4W	R364	1-249-428-11	CARBON	8. 2K	5%	1/4W
R254	1-247-721-11	CARBON	4. 7K	5%	1/4W	R365	1-249-441-11	CARBON	100K	5%	1/4W
R255	1-247-721-11	CARBON	4. 7K	5%	1/4W	R366	1-249-417-11	CARBON	1K	5%	1/4W
R256	1-247-721-11	CARBON	4. 7K	5%	1/4W	R367	1-249-417-11	CARBON	1K	5%	1/4W
R257	1-247-721-11	CARBON	4. 7K	5%	1/4W	R368	1-249-417-11	CARBON	1K	5%	1/4W
R258	1-249-948-11	CARBON	11K	1%	1/4W	R369	1-247-903-00	CARBON	1M	5%	1/4W
R259	1-249-948-11	CARBON	11K	1%	1/4W	R370	1-249-417-11	CARBON	1K	5%	1/4W
R260	1-249-941-11	CARBON	5. 6K	1%	1/4W	R371	△ 1-212-857-00	FUSIBLE	10	5%	1/4W F
R261	1-249-932-11	CARBON	2. 4K	1%	1/4W	R372	△ 1-212-857-00	FUSIBLE	10	5%	1/4W F
R262	1-246-545-00	CARBON	1. 0M	5%	1/4W	R373	1-249-416-11	CARBON	820	5%	1/4W
R263	1-249-941-11	CARBON	5. 6K	1%	1/4W	R374	1-249-416-11	CARBON	820	5%	1/4W
R264	1-249-941-11	CARBON	5. 6K	1%	1/4W	R375	1-249-416-11	CARBON	820	5%	1/4W
R265	1-249-941-11	CARBON	5. 6K	1%	1/4W	R376	1-249-413-11	CARBON	470	5%	1/4W
R266	1-249-932-11	CARBON	2. 4K	1%	1/4W	R377	1-249-413-11	CARBON	470	5%	1/4W
R267	1-246-545-00	CARBON	1. 0M	5%	1/4W	R378	1-249-413-11	CARBON	470	5%	1/4W
R268	1-249-556-11	CARBON	1. 5K	5%	1/4W	R379	1-249-413-11	CARBON	470	5%	1/4W
R269	1-249-556-11	CARBON	1. 5K	5%	1/4W	R380	1-249-413-11	CARBON	470	5%	1/4W
R270	1-249-469-11	CARBON	100K	5%	1/4W	R381	1-247-887-00	CARBON	220K	5%	1/4W
R271	1-249-529-11	CARBON	110	5%	1/4W	R382	1-249-413-11	CARBON	470	5%	1/4W
R272	1-249-529-11	CARBON	110	5%	1/4W	R385	1-249-429-11	CARBON	10K	5%	1/4W
R273	1-247-721-11	CARBON	4. 7K	5%	1/4W	R386	1-249-441-11	CARBON	100K	5%	1/4W
R274	1-249-462-11	CARBON	22K	5%	1/4W	R387	1-249-413-11	CARBON	470	5%	1/4W
R275	1-247-700-11	CARBON	100	5%	1/4W	R388	1-249-425-11	CARBON	4. 7K	5%	1/4W
R277	1-249-497-11	CARBON	33K	5%	1/4W	R389	1-249-441-11	CARBON	100K	5%	1/4W
R301	1-249-460-11	CARBON	15K	5%	1/4W	R390	1-249-407-11	CARBON	150	5%	1/4W
R302	1-247-704-11	CARBON	220	5%	1/4W	R391	1-249-409-11	CARBON	220	5%	1/4W

Note: The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

AUDIO

BATTERY

CONTROL SW

Ref. No. Part No. Description Remark

< RELAY >

RY150 1-515-727-11 RELAY
RY250 1-515-727-11 RELAY
RY351 1-515-727-11 RELAY
RY352 1-515-772-11 RELAY

* 1-637-626-11 BATTERY BOARD

* A-2006-557-A CONTROL SW BOARD, COMPLETE (AEP, UK)

* A-2006-536-A CONTROL SW BOARD, COMPLETE (US)

9-911-839-XX CUSHION
* 4-911-676-01 SPACER, LED

< CAPACITOR >

C702 1-126-206-11 ELECT CHIP 100uF 20% 6.3V
C703 1-163-038-00 CERAMIC CHIP 0.1uF 25V
C704 1-163-038-00 CERAMIC CHIP 0.1uF 25V
C705 1-163-038-00 CERAMIC CHIP 0.1uF 25V
C706 1-126-206-11 ELECT CHIP 100uF 20% 6.3V

C708 1-163-038-00 CERAMIC CHIP 0.1uF 25V
C709 1-163-038-00 CERAMIC CHIP 0.1uF 25V
C710 1-163-109-00 CERAMIC CHIP 47PF 5% 50V
C711 1-163-038-00 CERAMIC CHIP 0.1uF 25V
C712 1-163-038-00 CERAMIC CHIP 0.1uF 25V

C713 1-163-038-00 CERAMIC CHIP 0.1uF 25V
C714 1-163-038-00 CERAMIC CHIP 0.1uF 25V
C715 1-126-206-11 ELECT CHIP 100uF 20% 6.3V
C722 1-124-779-00 ELECT CHIP 10uF 20% 16V
C723 1-163-038-00 CERAMIC CHIP 0.1uF 25V

C724 1-163-099-00 CERAMIC CHIP 18PF 5% 50V
C725 1-163-227-11 CERAMIC CHIP 10PF 5% 50V
C726 1-163-038-00 CERAMIC CHIP 0.1uF 25V

< CONNECTOR >

CN772 * 1-564-720-11 PIN, CONNECTOR (SMALL TYPE) 4P
CN773 * 1-564-339-00 PIN, CONNECTOR 5P

< TRIMMER >

CT701 1-141-334-11 CAP, VAR, TRIMMER

< DIODE >

D701 8-719-304-16 DIODE SEL2510W-D

Ref. No. Part No. Description Remark

D702 8-719-918-76 DIODE GL-3PR9
D705 8-719-934-34 DIODE AA3432S
D706 8-719-934-34 DIODE AA3432S
D707 8-719-304-16 DIODE SEL2510W-D
D709 8-719-934-34 DIODE AA3432S

D710 8-719-934-34 DIODE AA3432S
D711 8-719-934-34 DIODE AA3432S
D712 8-719-934-34 DIODE AA3432S
D713 8-719-934-34 DIODE AA3432S
D714 8-719-934-34 DIODE AA3432S

D715 8-719-934-34 DIODE AA3432S
D716 8-719-934-34 DIODE AA3432S
D718 8-719-938-75 DIODE SB05-05CP-TA
D719 8-719-938-75 DIODE SB05-05CP-TA
D720 8-719-938-75 DIODE SB05-05CP-TA
D721 8-719-938-75 DIODE SB05-05CP-TA

< INDICATOR >

FL701 1-519-601-11 INDICATOR TUBE, FLUORESCENT

< IC >

IC701 8-759-513-16 IC MSC62408-020GS-K
IC702 8-752-326-33 IC CXK1011M
IC703 8-759-009-05 IC MC14051BF
IC704 8-759-009-05 IC MC14051BF
IC705 8-759-009-10 IC MC14069UBF

IC706 8-759-502-84 IC LM393M
IC707 8-759-630-70 IC M50782FP
IC708 8-752-323-64 IC CXK5816M-12L
IC709 8-759-500-05 IC MSM6338MS-K
IC712 8-759-504-23 IC RF5C62

< TRANSISTOR >

Q701 8-729-901-04 TRANSISTOR DTA114EK
Q702 8-729-901-04 TRANSISTOR DTA114EK
Q705 8-729-901-04 TRANSISTOR DTA114EK
Q706 8-729-901-04 TRANSISTOR DTA114EK
Q707 8-729-901-04 TRANSISTOR DTA114EK
Q709 8-729-901-04 TRANSISTOR DTA114EK
Q710 8-729-901-04 TRANSISTOR DTA114EK
Q711 8-729-901-04 TRANSISTOR DTA114EK
Q712 8-729-901-04 TRANSISTOR DTA114EK
Q713 8-729-901-04 TRANSISTOR DTA114EK

Q714 8-729-901-04 TRANSISTOR DTA114EK
Q715 8-729-901-04 TRANSISTOR DTA114EK
Q716 8-729-901-04 TRANSISTOR DTA114EK
Q717 8-729-901-04 TRANSISTOR DTA114EK
Q718 8-729-807-16 TRANSISTOR 2SD1621-R

Q719 8-729-900-98 TRANSISTOR DTC143TK
Q720 8-729-900-98 TRANSISTOR DTC143TK
Q721 8-729-900-98 TRANSISTOR DTC143TK

CONTROL SW

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
Q722	8-729-900-98	TRANSISTOR DTC143TK				R742	1-216-051-00	METAL CHIP 1.2K	5%	1/10W	
Q723	8-729-900-98	TRANSISTOR DTC143TK				R743	1-216-057-00	METAL CHIP 2.2K	5%	1/10W	
Q724	8-729-900-98	TRANSISTOR DTC143TK				R744	1-216-063-00	METAL CHIP 3.9K	5%	1/10W	
Q725	8-729-900-98	TRANSISTOR DTC143TK				R745	1-216-045-00	METAL CHIP 680	5%	1/10W	
Q726	8-729-900-98	TRANSISTOR DTC143TK				R746	1-216-047-00	METAL CHIP 820	5%	1/10W	
Q727	8-729-807-16	TRANSISTOR 2SD1621-R				R747	1-216-051-00	METAL CHIP 1.2K	5%	1/10W	
Q728	8-729-100-66	TRANSISTOR 2SC1623-L6				R749	1-216-063-00	METAL CHIP 3.9K	5%	1/10W	
Q730	8-729-901-00	TRANSISTOR DTC124EK				R750	1-216-045-00	METAL CHIP 680	5%	1/10W	
Q732	8-729-807-16	TRANSISTOR 2SD1621-R				R751	1-216-063-00	METAL CHIP 3.9K	5%	1/10W	
< RESISTOR >						R753	1-216-063-00	METAL CHIP 3.9K	5%	1/10W (AEP, UK)	
R701	1-216-063-00	METAL CHIP 3.9K	5%	1/10W		R754	1-216-045-00	METAL CHIP 680	5%	1/10W (US)	
R702	1-216-045-00	METAL CHIP 680	5%	1/10W		R755	1-216-063-00	METAL CHIP 3.9K	5%	1/10W	
R703	1-216-047-00	METAL CHIP 820	5%	1/10W		R756	1-216-045-00	METAL CHIP 680	5%	1/10W	
R704	1-216-051-00	METAL CHIP 1.2K	5%	1/10W		R757	1-216-063-00	METAL CHIP 3.9K	5%	1/10W	
R705	1-216-057-00	METAL CHIP 2.2K	5%	1/10W		R758	1-216-045-00	METAL CHIP 680	5%	1/10W	
R706	1-216-063-00	METAL CHIP 3.9K	5%	1/10W		R759	1-216-063-00	METAL CHIP 3.9K	5%	1/10W	
R707	1-216-045-00	METAL CHIP 680	5%	1/10W		R760	1-216-045-00	METAL CHIP 680	5%	1/10W	
R708	1-216-047-00	METAL CHIP 820	5%	1/10W		R761	1-216-033-00	METAL CHIP 220	5%	1/10W	
R709	1-216-051-00	METAL CHIP 1.2K	5%	1/10W		R762	1-216-033-00	METAL CHIP 220	5%	1/10W	
R710	1-216-057-00	METAL CHIP 2.2K	5%	1/10W		R765	1-216-033-00	METAL CHIP 220	5%	1/10W	
R711	1-216-063-00	METAL CHIP 3.9K	5%	1/10W		R766	1-216-033-00	METAL CHIP 220	5%	1/10W	
R712	1-216-045-00	METAL CHIP 680	5%	1/10W		R767	1-216-033-00	METAL CHIP 220	5%	1/10W	
R713	1-216-047-00	METAL CHIP 820	5%	1/10W		R769	1-216-033-00	METAL CHIP 220	5%	1/10W	
R714	1-216-051-00	METAL CHIP 1.2K	5%	1/10W		R770	1-216-033-00	METAL CHIP 220	5%	1/10W	
R715	1-216-063-00	METAL CHIP 3.9K	5%	1/10W		R771	1-216-033-00	METAL CHIP 220	5%	1/10W	
R716	1-216-045-00	METAL CHIP 680	5%	1/10W		R772	1-216-033-00	METAL CHIP 220	5%	1/10W	
R717	1-216-047-00	METAL CHIP 820	5%	1/10W		R773	1-216-033-00	METAL CHIP 220	5%	1/10W	
R718	1-216-051-00	METAL CHIP 1.2K	5%	1/10W		R774	1-216-033-00	METAL CHIP 220	5%	1/10W	
R719	1-216-063-00	METAL CHIP 3.9K	5%	1/10W		R775	1-216-033-00	METAL CHIP 220	5%	1/10W	
R720	1-216-045-00	METAL CHIP 680	5%	1/10W		R776	1-216-033-00	METAL CHIP 220	5%	1/10W	
R721	1-216-047-00	METAL CHIP 820	5%	1/10W		R777	1-216-682-11	METAL CHIP 20K	0.5%	1/10W	
R722	1-216-051-00	METAL CHIP 1.2K	5%	1/10W		R778	1-216-682-11	METAL CHIP 20K	0.5%	1/10W	
R723	1-216-057-00	METAL CHIP 2.2K	5%	1/10W		R779	1-216-682-11	METAL CHIP 20K	0.5%	1/10W	
R724	1-216-063-00	METAL CHIP 3.9K	5%	1/10W		R780	1-216-682-11	METAL CHIP 20K	0.5%	1/10W	
R725	1-216-045-00	METAL CHIP 680	5%	1/10W		R781	1-216-073-00	METAL CHIP 10K	5%	1/10W	
R726	1-216-047-00	METAL CHIP 820	5%	1/10W		R782	1-216-675-11	METAL CHIP 10K	0.5%	1/10W	
R727	1-216-051-00	METAL CHIP 1.2K	5%	1/10W		R783	1-216-675-11	METAL CHIP 10K	0.5%	1/10W	
R728	1-216-057-00	METAL CHIP 2.2K	5%	1/10W		R784	1-216-675-11	METAL CHIP 10K	0.5%	1/10W	
R729	1-216-063-00	METAL CHIP 3.9K	5%	1/10W		R785	1-216-682-11	METAL CHIP 20K	0.5%	1/10W	
R730	1-216-045-00	METAL CHIP 680	5%	1/10W		R786	1-216-682-11	METAL CHIP 20K	0.5%	1/10W	
R731	1-216-047-00	METAL CHIP 820	5%	1/10W		R787	1-216-097-00	METAL CHIP 100K	5%	1/10W	
R732	1-216-051-00	METAL CHIP 1.2K	5%	1/10W		R788	1-216-097-00	METAL CHIP 100K	5%	1/10W	
R733	1-216-057-00	METAL CHIP 2.2K	5%	1/10W		R789	1-216-097-00	METAL CHIP 100K	5%	1/10W	
R734	1-216-063-00	METAL CHIP 3.9K	5%	1/10W		R790	1-216-097-00	METAL CHIP 100K	5%	1/10W	
R735	1-216-045-00	METAL CHIP 680	5%	1/10W		R791	1-216-097-00	METAL CHIP 100K	5%	1/10W	
R736	1-216-047-00	METAL CHIP 820	5%	1/10W		R792	1-216-097-00	METAL CHIP 100K	5%	1/10W	
R737	1-216-051-00	METAL CHIP 1.2K	5%	1/10W		R793	1-216-097-00	METAL CHIP 100K	5%	1/10W	
R739	1-216-063-00	METAL CHIP 3.9K	5%	1/10W		R794	1-216-097-00	METAL CHIP 100K	5%	1/10W	
R740	1-216-045-00	METAL CHIP 680	5%	1/10W		R795	1-216-097-00	METAL CHIP 100K	5%	1/10W	
R741	1-216-047-00	METAL CHIP 820	5%	1/10W		R796	1-216-089-00	METAL CHIP 47K	5%	1/10W	

CONTROL SW

DIGITAL

Ref. No.	Part No.	Description	Remark
R797	1-216-089-00	METAL CHIP	47K 5% 1/10W
R800	1-216-073-00	METAL CHIP	10K 5% 1/10W
R801	1-216-073-00	METAL CHIP	10K 5% 1/10W
R802	1-216-121-00	METAL CHIP	1M 5% 1/10W
R803	1-216-047-00	METAL CHIP	820 5% 1/10W
R804	1-216-047-00	METAL CHIP	820 5% 1/10W
R805	△1-212-851-00	FUSIBLE	5.6 5% 1/4W F
R806	△1-212-851-00	FUSIBLE	5.6 5% 1/4W F
R809	1-216-097-00	METAL CHIP	100K 5% 1/10W
R810	1-216-073-00	METAL CHIP	10K 5% 1/10W
R811	1-216-051-00	METAL CHIP	1.2K 5% 1/10W
R813	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
R814	1-216-097-00	METAL CHIP	100K 5% 1/10W
R815	1-216-033-00	METAL CHIP	220 5% 1/10W
R816	1-216-073-00	METAL CHIP	10K 5% 1/10W
R817	1-216-073-00	METAL CHIP	10K 5% 1/10W
R818	1-216-073-00	METAL CHIP	10K 5% 1/10W
R819	1-216-073-00	METAL CHIP	10K 5% 1/10W
R820	1-216-073-00	METAL CHIP	10K 5% 1/10W
R821	1-216-073-00	METAL CHIP	10K 5% 1/10W
R822	1-216-073-00	METAL CHIP	10K 5% 1/10W
R823	1-216-073-00	METAL CHIP	10K 5% 1/10W
R824	1-216-073-00	METAL CHIP	10K 5% 1/10W
R827	1-216-047-00	METAL CHIP	820 5% 1/10W
R829	1-216-051-00	METAL CHIP	1.2K 5% 1/10W

< SWITCH >

S701	1-554-596-21	SWITCH, KEY BOARD (▲ OPEN/CLOSE)
S702	1-554-596-21	SWITCH, KEY BOARD (■)
S704	1-554-596-21	SWITCH, KEY BOARD (▶)
S705	1-554-596-21	SWITCH, KEY BOARD (◀◀)
S706	1-554-596-21	SWITCH, KEY BOARD (▶▶)
S707	1-554-596-21	SWITCH, KEY BOARD (◀◀)
S708	1-554-596-21	SWITCH, KEY BOARD (▶▶)
S709	1-554-596-21	SWITCH, KEY BOARD (● REC)
S710	1-554-596-21	SWITCH, KEY BOARD (⏸ PAUSE)
S711	1-554-596-21	SWITCH, KEY BOARD (○ REC MUTE)
S712	1-554-596-21	SWITCH, KEY BOARD (COUNTER MODE)
S713	1-554-596-21	SWITCH, KEY BOARD (COUNTER RESET)
S714	1-554-596-21	SWITCH, KEY BOARD (COUNTER MEMORY)
S715	1-554-596-21	SWITCH, KEY BOARD (DATE RECORDED)
S716	1-554-596-21	SWITCH, KEY BOARD (DATE PRESENT)
S717	1-554-596-21	SWITCH, KEY BOARD (SKIP PLAY)
S718	1-554-596-21	SWITCH, KEY BOARD (FADER)
S720	1-554-596-21	SWITCH, KEY BOARD (REPEAT)
S722	1-554-596-21	SWITCH, KEY BOARD (MARGIN RESET)
S723	1-554-596-21	SWITCH, KEY BOARD (1)
S724	1-554-596-21	SWITCH, KEY BOARD (2)
S725	1-554-596-21	SWITCH, KEY BOARD (3)
S726	1-554-596-21	SWITCH, KEY BOARD (CLOCK SET)
S727	1-554-596-21	SWITCH, KEY BOARD (4)

Ref. No.	Part No.	Description	Remark
S728	1-554-596-21	SWITCH, KEY BOARD (5)	
S729	1-554-596-21	SWITCH, KEY BOARD (6)	
S730	1-554-596-21	SWITCH, KEY BOARD (MUSIC SCAN/+)	
S731	1-554-596-21	SWITCH, KEY BOARD (CLEAR)	
S732	1-554-596-21	SWITCH, KEY BOARD (7)	
S733	1-554-596-21	SWITCH, KEY BOARD (8)	
S734	1-554-596-21	SWITCH, KEY BOARD (9)	
S735	1-554-596-21	SWITCH, KEY BOARD (0/-)	
S736	1-554-596-21	SWITCH, KEY BOARD (START ID AUTO)	
S737	1-554-596-21	SWITCH, KEY BOARD (START ID WEITE)	
S738	1-554-596-21	SWITCH, KEY BOARD (SKIP ID WRITE)	
S739	1-554-596-21	SWITCH, KEY BOARD (END ID WRITE)	
S740	1-554-596-21	SWITCH, KEY BOARD (DISPLAY MODE)	
S741	1-554-596-21	SWITCH, KEY BOARD (START ID RENUMBER)	
S742	1-554-596-21	SWITCH, KEY BOARD (START ID ERASE)	
S743	1-554-596-21	SWITCH, KEY BOARD (SKIP ID ERASE)	
S744	1-554-596-21	SWITCH, KEY BOARD (END ID ERASE)	
		< CRYSTAL >	
X701	1-567-775-11	VIBRATOR, CERAMIC (4.19MHZ)	
X702	1-567-098-00	CRYSTAL (32.8KHZ)	

* A-2006-587-A DIGITAL BOARD, COMPLETE

< CONNECTOR >

BAT501 * 1-564-336-81 PIN, CONNECTOR 2P

< CAPACITOR >

C502	1-126-022-11	ELECT	47uF	20%	16V
C503	1-136-153-00	FILM	0.01uF	5%	50V
C504	1-136-158-00	FILM	0.027uF	5%	50V
C505	1-130-473-00	MYLAR	0.0015uF	5%	50V
C506	1-126-022-11	ELECT	47uF	20%	10V
C507	1-136-153-00	FILM	0.01uF	5%	50V
C508	1-136-158-00	FILM	0.027uF	5%	50V
C509	1-130-473-00	MYLAR	0.0015uF	5%	50V
C510	1-126-022-11	ELECT	47uF	20%	10V
C511	1-162-290-31	CERAMIC	470PF	10%	50V
C512	1-130-479-00	MYLAR	0.0047uF	5%	50V
C513	1-126-049-11	ELECT	22uF	20%	10V
C514	1-162-290-31	CERAMIC	470PF	10%	50V
C515	1-130-479-00	MYLAR	0.0047uF	5%	50V
C516	1-126-049-11	ELECT	22uF	20%	10V
C517	1-136-153-00	FILM	0.01uF	5%	50V
C518	1-136-158-00	FILM	0.027uF	5%	50V
C519	1-130-473-00	MYLAR	0.0015uF	5%	50V
C520	1-136-153-00	FILM	0.01uF	5%	50V
C521	1-130-473-00	MYLAR	0.0015uF	5%	50V

Note: The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

DIGITAL

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C522	1-136-158-00	FILM	0.027uF	5%	50V	C583	1-164-159-11	CERAMIC	0.1uF		50V
C523	1-126-157-11	ELECT	10uF	20%	16V	C584	1-164-159-11	CERAMIC	0.1uF		50V
C524	1-126-022-11	ELECT	47uF	20%	16V	C585	1-126-022-11	ELECT	47uF	20%	10V
C525	1-126-022-11	ELECT	47uF	20%	16V	C586	1-162-294-31	CERAMIC	0.001uF	10%	50V
C527	1-136-165-00	FILM	0.1uF	5%	50V	C587	1-126-044-11	ELECT	1uF	20%	50V
C528	1-126-049-11	ELECT	22uF	20%	10V	C589	1-136-165-00	FILM	0.1uF	5%	50V
C529	1-124-994-11	ELECT	100uF	20%	10V	C590	1-126-022-11	ELECT	47uF	20%	10V
C535	1-136-165-00	FILM	0.1uF	5%	50V	C591	1-162-207-31	CERAMIC	22PF	5%	50V
C536	1-130-475-00	MYLAR	0.0022uF	5%	50V	C592	1-136-165-00	FILM	0.1uF	5%	50V
C537	1-136-153-00	FILM	0.01uF	5%	50V	C593	1-126-022-11	ELECT	47uF	20%	10V
C538	1-130-475-00	MYLAR	0.0022uF	5%	50V	C595	1-164-159-11	CERAMIC	0.1uF		50V
C539	1-136-153-00	FILM	0.01uF	5%	50V	C596	1-164-159-11	CERAMIC	0.1uF		50V
C540	1-126-022-11	ELECT	47uF	20%	10V	C598	1-124-994-11	ELECT	100uF	20%	10V
C542	1-164-159-11	CERAMIC	0.1uF		50V	C599	1-136-165-00	FILM	0.1uF	5%	50V
C543	1-124-994-11	ELECT	100uF	20%	10V	C600	1-136-153-00	FILM	0.01uF	5%	50V
C545	1-126-022-11	ELECT	47uF	20%	16V	C601	1-136-165-00	FILM	0.1uF	5%	50V
C546	1-164-159-11	CERAMIC	0.1uF		50V	C602	1-136-165-00	FILM	0.1uF	5%	50V
C547	1-164-159-11	CERAMIC	0.1uF		50V	C604	1-126-022-11	ELECT	47uF	20%	10V
C548	1-124-994-11	ELECT	100uF	20%	10V	C605	1-136-165-00	FILM	0.1uF	5%	50V
C549	1-124-994-11	ELECT	100uF	20%	10V	C606	1-126-157-11	ELECT	10uF	20%	16V
C550	1-164-159-11	CERAMIC	0.1uF		50V	C607	1-124-994-11	ELECT	100uF	20%	10V
C551	1-164-159-11	CERAMIC	0.1uF		50V	C608	1-164-159-11	CERAMIC	0.1uF		50V
C552	1-136-165-00	FILM	0.1uF	5%	50V	C609	1-136-153-00	FILM	0.01uF	5%	50V
C553	1-136-177-00	FILM	1uF	5%	50V	C610	1-136-157-00	FILM	0.022uF	5%	50V
C554	1-164-159-11	CERAMIC	0.1uF		50V	C611	1-136-157-00	FILM	0.022uF	5%	50V
C555	1-164-159-11	CERAMIC	0.1uF		50V	C612	1-162-294-31	CERAMIC	0.001uF	10%	50V
C556	1-162-211-31	CERAMIC	33PF	5%	50V	C613	1-162-294-31	CERAMIC	0.001uF	10%	50V
C557	1-136-165-00	FILM	0.1uF	5%	50V	C614	1-136-153-00	FILM	0.01uF	5%	50V
C558	1-161-379-00	CERAMIC	0.01uF	20%	25V	C615	1-136-153-00	FILM	0.01uF	5%	50V
C559	1-126-157-11	ELECT	10uF	20%	16V	C616	1-162-290-31	CERAMIC	470PF	10%	50V
C560	1-126-022-11	ELECT	47uF	20%	10V	C617	1-161-377-00	CERAMIC	0.0047uF	30%	16V
C561	1-164-159-11	CERAMIC	0.1uF		50V	C618	1-162-294-31	CERAMIC	0.001uF	10%	50V
C562	1-162-201-31	CERAMIC	12PF	5%	50V	C619	1-124-994-11	ELECT	100uF	20%	10V
C563	1-162-201-31	CERAMIC	12PF	5%	50V	C620	1-162-294-31	CERAMIC	0.001uF	10%	50V
C564	1-162-294-31	CERAMIC	0.001uF	10%	50V	C622	1-162-294-31	CERAMIC	0.001uF	10%	50V
C565	1-136-177-00	FILM	1uF	5%	50V	C623	1-124-994-11	ELECT	100uF	20%	10V
C566	1-124-994-11	ELECT	100uF	20%	10V	C624	1-162-294-31	CERAMIC	0.001uF	10%	50V
C567	1-164-159-11	CERAMIC	0.1uF		50V	C625	1-162-199-31	CERAMIC	10PF	5%	50V
C569	1-162-201-31	CERAMIC	12PF	5%	50V	C626	1-164-159-11	CERAMIC	0.1uF		50V
C570	1-162-201-31	CERAMIC	12PF	5%	50V	C627	1-164-159-11	CERAMIC	0.1uF		50V
C571	1-162-294-31	CERAMIC	0.001uF	10%	50V	C628	1-136-153-00	FILM	0.01uF	5%	50V
C572	1-162-199-31	CERAMIC	10PF	5%	50V	C629	1-164-159-11	CERAMIC	0.1uF		50V
C573	1-162-199-31	CERAMIC	10PF	5%	50V	C630	1-124-925-11	ELECT	2.2uF	20%	100V
C574	1-162-179-11	CERAMIC	0.1uF		50V	C631	1-136-177-00	FILM	1uF	5%	50V
C576	1-164-159-11	CERAMIC	0.1uF		50V	C634	1-162-294-31	CERAMIC	0.001uF	10%	50V
C577	1-162-294-31	CERAMIC	0.001uF	10%	50V	C635	1-162-294-31	CERAMIC	0.001uF	10%	50V
C578	1-164-159-11	CERAMIC	0.1uF		50V	C636	1-136-165-00	FILM	0.1uF	5%	50V
C579	1-124-994-11	ELECT	100uF	20%	10V	C637	1-136-165-00	FILM	0.1uF	5%	50V
C580	1-164-159-11	CERAMIC	0.1uF		50V	C638	1-136-165-00	FILM	0.1uF	5%	50V
C582	1-164-159-11	CERAMIC	0.1uF		50V	C640	1-164-159-11	CERAMIC	0.1uF		50V

DIGITAL

Ref.No.	Part No.	Description	Remark
C641	1-162-294-31	CERAMIC 0.001uF 10%	50V
C642	1-136-153-00	FILM 0.01uF 5%	50V
C644	1-162-179-11	CREAMIC 0.1uF	50V

< CONNECTOR >

CN501	* 1-564-715-11	PIN, CONNECTOR (SMALL TYPE) 13P	
CN502	* 1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P	
CN503	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN504	* 1-564-511-11	PLUG, CONNECTOR 8P	
CN505	* 1-564-506-11	PLUG, CONNECTOR 3P	

CN506	* 1-564-339-00	PIN, CONNECTOR 5P	
CN507	* 1-564-714-11	PIN, CONNECTOR (SMALL TYPE) 12P	
CN508	* 1-564-711-11	PIN, CONNECTOR (SMALL TYPE) 9P	
CN531	* 1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P	
CN532	* 1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P	

CN533	* 1-564-339-61	PIN, CONNECTOR 5P	
CN535	* 1-564-338-61	PIN, CONNECTOR 4P	
CN537	* 1-564-337-61	PIN, CONNECTOR 3P	
CN551	* 1-564-514-11	PLUG, CONNECTOR 11P	
CN552	* 1-564-514-11	PLUG, CONNECTOR 11P	

CN555	* 1-564-337-00	PIN, CONNECTOR 3P	
CN571	* 1-506-503-11	PIN, CONNECTOR 9P	
CN572	* 1-564-339-61	PIN, CONNECTOR 5P	
CN573	* 1-564-336-00	PIN, CONNECTOR 2P	
CN574	* 1-564-509-11	PLUG, CONNECTOR 6P	

CN591	* 1-564-508-11	PLUG, CONNECTOR 5P	
CN592	* 1-564-510-11	PLUG, CONNECTOR 7P	
CN593	* 1-564-339-00	PIN, CONNECTOR 5P	
CN595	* 1-564-336-61	PIN, CONNECTOR 2P	
CN596	* 1-564-336-71	PIN, CONNECTOR 2P	

< DIODE >

D501	8-719-109-72	DIODE RD3. 9ES-B2	
D502	8-719-109-66	DIODE RD3. 3ES-B2	
D505	8-719-200-77	DIODE 10E2N	

< IC >

IC501	8-752-818-41	IC CXP80524-020Q	
IC502	8-752-339-43	IC CXD2601AQ	
IC503	8-752-339-43	IC CXD2601AQ	
IC504	8-759-947-57	IC CXD1136Q	
IC505	8-752-030-63	IC CXA1046M	

IC506	8-752-330-68	IC CXK58257M-12L	
IC507	8-752-330-68	IC CXK58257M-12L	
IC508	8-759-135-80	IC uPC358C	
IC509	8-759-135-80	IC uPC358C	
IC510	8-759-135-80	IC uPC358C	

IC511	8-759-135-80	IC uPC358C	
IC512	8-759-916-20	IC SN74HC14AN	
IC513	8-759-633-65	IC M54641L	
IC514	8-759-633-65	IC M54641L	

Ref.No.	Part No.	Description	Remark
IC515	8-759-987-16	IC LM393P	
IC516	8-759-239-47	IC TC74HC123AP	
IC517	8-759-144-82	IC uPC2405HF	
IC519	8-759-036-44	IC MC74AC74N	
IC520	8-759-916-14	IC SN74HC04AN	

IC521	8-759-916-12	IC SN74HC00AN	
IC522	8-759-135-80	IC uPC358C	
IC523	8-759-917-18	IC SN74HC004AN	
IC525	8-759-916-50	IC SN74HC157AN	
IC526	8-759-916-14	IC SN74HC04AN	

IC527	8-759-916-55	IC SN74HC175AN	
IC528	8-759-916-14	IC SN74HC04AN	
IC529	8-759-906-24	IC SN74LS624N	
IC530	8-759-916-50	IC SN74HC157AN	
IC531	8-759-916-55	IC SN74HC175AN	

IC532	8-759-916-50	IC SN74HC157AN	
IC533	8-759-803-70	IC LC74HC08	
IC534	8-759-504-22	IC TDA1543	
IC535	8-759-135-80	IC uPC358C	
IC536	8-759-135-80	IC uPC358C	

< COIL >

L501	1-410-509-11	INDUCTOR 10uH	
L502	1-410-509-11	INDUCTOR 10uH	
L503	1-410-509-11	INDUCTOR 10uH	
L504	1-410-509-11	INDUCTOR 10uH	
L505	1-410-509-11	INDUCTOR 10uH	

L506	1-410-509-11	INDUCTOR 10uH	
L507	1-410-509-11	INDUCTOR 10uH	
L508	1-410-498-11	INDUCTOR 1.2uH	
L509	1-410-509-11	INDUCTOR 10uH	
L511	1-410-509-11	INDUCTOR 10uH	

L513	1-410-953-11	INDUCTOR, SMALL TYPE	
L514	1-410-509-11	INDUCTOR 10uH	
L516	* 1-410-858-11	INDUCTOR 0uH	

< TRANSISTOR >

Q1	8-729-900-80	TRANSISTOR DTC114ES	
Q2	8-729-900-80	TRANSISTOR DTC114ES	
Q501	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q502	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q503	8-729-924-90	TRANSISTOR 2SB1370-EF	

Q504	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q505	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q506	8-729-924-90	TRANSISTOR 2SB1370-EF	
Q507	8-729-900-80	TRANSISTOR DTC114ES	
Q509	8-729-900-80	TRANSISTOR DTC114ES	

Q510	8-729-801-84	TRANSISTOR 2SB1013-4	
Q511	8-729-801-93	TRANSISTOR 2SD1387-3	
Q512	8-729-900-80	TRANSISTOR DTC114ES	
Q514	8-729-900-80	TRANSISTOR DTC114ES	

DIGITAL

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
Q515	8-729-801-84	TRANSISTOR 2SB1013-4		R529	1-249-409-11	CARBON 220	5% 1/4W
Q516	8-729-801-93	TRANSISTOR 2SD1387-3		R530	1-249-409-11	CARBON 220	5% 1/4W
Q517	8-729-119-76	TRANSISTOR 2SA1175-HFE		R531	1-249-409-11	CARBON 220	5% 1/4W
Q518	8-729-924-90	TRANSISTOR 2SB1370-EF		R532	1-249-409-11	CARBON 220	5% 1/4W
Q519	8-729-900-80	TRANSISTOR DTC114ES		R533	1-249-417-11	CARBON 1K	5% 1/4W
Q520	8-729-900-80	TRANSISTOR DTC114ES		R534	1-249-441-11	CARBON 100K	5% 1/4W
Q521	8-729-119-78	TRANSISTOR 2SC2785-HFE		R535	1-249-423-11	CARBON 3.3K	5% 1/4W
Q523	8-729-119-78	TRANSISTOR 2SC2785-HFE		R536	1-249-417-11	CARBON 1K	5% 1/4W
Q524	8-729-119-78	TRANSISTOR 2SC2785-HFE		R537	1-249-429-11	CARBON 10K	5% 1/4W
Q525	8-729-119-76	TRANSISTOR 2SA1175-HFE		R538	1-249-429-11	CARBON 10K	5% 1/4W
Q526	8-729-119-78	TRANSISTOR 2SC2785-HFE		R539	1-249-419-11	CARBON 1.5K	5% 1/4W
Q527	8-729-900-80	TRANSISTOR DTC114ES		R540	1-249-407-11	CARBON 150	5% 1/4W
Q528	8-729-900-80	TRANSISTOR DTC114ES		R541	1-249-417-11	CARBON 1K	5% 1/4W
Q530	8-729-900-80	TRANSISTOR DTC114ES		R542	1-249-482-11	CARBON 4.7	5% 1/2W
Q531	8-729-900-80	TRANSISTOR DTC114ES		R543	1-249-424-11	CARBON 3.9K	5% 1/4W
Q532	8-729-900-80	TRANSISTOR DTC114ES		R549	1-249-429-11	CARBON 10K	5% 1/4W
Q533	8-729-900-80	TRANSISTOR DTC114ES		R550	1-249-417-11	CARBON 1K	5% 1/4W
Q534	8-729-119-76	TRANSISTOR 2SA1175-HFE		R551	1-249-435-11	CARBON 33K	5% 1/4W
Q535	8-729-900-80	TRANSISTOR DTC114ES		R552	1-249-435-11	CARBON 33K	5% 1/4W
(RESISTOR)				R553	1-249-423-11	CARBON 3.3K	5% 1/4W
R1	1-249-413-11	CARBON 470	5% 1/4W	R554	1-249-423-11	CARBON 3.3K	5% 1/4W
R2	1-249-429-11	CARBON 10K	5% 1/4W	R555	1-249-417-11	CARBON 1K	5% 1/4W
R501	1-249-429-11	CARBON 10K	5% 1/4W	R556	1-249-435-11	CARBON 33K	5% 1/4W
R502	1-249-429-11	CARBON 10K	5% 1/4W	R557	1-249-429-11	CARBON 10K	5% 1/4W
R503	1-249-429-11	CARBON 10K	5% 1/4W	R558	1-249-417-11	CARBON 1K	5% 1/4W
R504	1-249-429-11	CARBON 10K	5% 1/4W	R559	1-249-435-11	CARBON 33K	5% 1/4W
R505	1-249-429-11	CARBON 10K	5% 1/4W	R560	1-249-435-11	CARBON 33K	5% 1/4W
R506	1-249-429-11	CARBON 10K	5% 1/4W	R561	1-249-423-11	CARBON 3.3K	5% 1/4W
R507	1-249-441-11	CARBON 100K	5% 1/4W	R562	1-249-423-11	CARBON 3.3K	5% 1/4W
R508	1-249-429-11	CARBON 10K	5% 1/4W	R563	1-249-417-11	CARBON 1K	5% 1/4W
R509	1-249-429-11	CARBON 10K	5% 1/4W	R564	1-249-435-11	CARBON 33K	5% 1/4W
R510	1-249-417-11	CARBON 1K	5% 1/4W	R565	1-249-429-11	CARBON 10K	5% 1/4W
R511	1-249-417-11	CARBON 1K	5% 1/4W	R567	1-247-804-11	CARBON 75	5% 1/4W
R512	1-249-405-11	CARBON 100	5% 1/4W	R569	1-247-804-11	CARBON 75	5% 1/4W
R513	1-249-417-11	CARBON 1K	5% 1/4W	R570	1-249-425-11	CARBON 4.7K	5% 1/4W
R514	1-249-408-11	CARBON 180	5% 1/4W	R571	1-249-429-11	CARBON 10K	5% 1/4W
R515	1-249-441-11	CARBON 100K	5% 1/4W	R572	1-249-433-11	CARBON 22K	5% 1/4W
R516	1-249-429-11	CARBON 10K	5% 1/4W	R573	1-249-425-11	CARBON 4.7K	5% 1/4W
R517	1-249-417-11	CARBON 1K	5% 1/4W	R574	1-249-425-11	CARBON 4.7K	5% 1/4W
R518	1-249-429-11	CARBON 10K	5% 1/4W	R575	1-249-429-11	CARBON 10K	5% 1/4W
R519	1-249-417-11	CARBON 1K	5% 1/4W	R576	1-249-433-11	CARBON 22K	5% 1/4W
R520	1-249-405-11	CARBON 100	5% 1/4W	R577	1-249-425-11	CARBON 4.7K	5% 1/4W
R521	1-249-417-11	CARBON 1K	5% 1/4W	R578	1-249-433-11	CARBON 22K	5% 1/4W
R522	1-249-408-11	CARBON 180	5% 1/4W	R580	1-249-433-11	CARBON 22K	5% 1/4W
R523	1-249-429-11	CARBON 10K	5% 1/4W	R581	1-249-433-11	CARBON 22K	5% 1/4W
R524	1-249-429-11	CARBON 10K	5% 1/4W	R582	1-249-433-11	CARBON 22K	5% 1/4W
R525	1-249-429-11	CARBON 10K	5% 1/4W	R583	1-249-433-11	CARBON 22K	5% 1/4W
R526	1-249-429-11	CARBON 10K	5% 1/4W	R584	1-249-425-11	CARBON 4.7K	5% 1/4W
R527	1-249-429-11	CARBON 10K	5% 1/4W	R585	1-249-425-11	CARBON 4.7K	5% 1/4W
R528	1-249-429-11	CARBON 10K	5% 1/4W	R586	1-249-425-11	CARBON 4.7K	5% 1/4W

DIGITAL

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R587	1-249-417-11	CARBON	1K	5%	1/4W	R643	1-249-435-11	CARBON	33K	5%	1/4W
R588	1-249-417-11	CARBON	1K	5%	1/4W	R644	1-249-417-11	CARBON	1K	5%	1/4W
R589	1-249-425-11	CARBON	4.7K	5%	1/4W	R645	1-249-437-11	CARBON	47K	5%	1/4W
R590	1-249-425-11	CARBON	4.7K	5%	1/4W	R646	1-249-411-11	CARBON	330	5%	1/4W
R591	1-249-425-11	CARBON	4.7K	5%	1/4W	R647	1-249-437-11	CARBON	47K	5%	1/4W
R592	1-249-425-11	CARBON	4.7K	5%	1/4W	R648	1-249-439-11	CARBON	68K	5%	1/4W
R594	1-249-425-11	CARBON	4.7K	5%	1/4W	R649	1-249-405-11	CARBON	100	5%	1/4W
R595	1-249-433-11	CARBON	22K	5%	1/4W	R650	1-249-417-11	CARBON	1K	5%	1/4W
R597	1-249-425-11	CARBON	4.7K	5%	1/4W	R651	1-249-401-11	CARBON	47	5%	1/4W
R598	1-249-433-11	CARBON	22K	5%	1/4W	R652	1-249-401-11	CARBON	47	5%	1/4W
R599	1-249-429-11	CARBON	10K	5%	1/4W	R656	1-249-417-11	CARBON	1K	5%	1/4W
R600	1-249-409-11	CARBON	220	5%	1/4W	R657	1-249-401-11	CARBON	47	5%	1/4W
R601	1-249-409-11	CARBON	220	5%	1/4W	R658	1-249-417-11	CARBON	1K	5%	1/4W
R602	1-249-413-11	CARBON	470	5%	1/4W	R659	1-249-413-11	CARBON	470	5%	1/4W
R603	1-249-413-11	CARBON	470	5%	1/4W	R660	1-249-413-11	CARBON	470	5%	1/4W
R604	1-249-409-11	CARBON	220	5%	1/4W	R661	1-249-393-11	CARBON	10	5%	1/4W
R605	1-249-413-11	CARBON	470	5%	1/4W	R663	1-249-433-11	CARBON	22K	5%	1/4W
R606	1-249-417-11	CARBON	1K	5%	1/4W	R664	1-249-425-11	CARBON	4.7K	5%	1/4W
R609	1-249-425-11	CARBON	4.7K	5%	1/4W	R665	1-249-441-11	CARBON	100K	5%	1/4W
R610	1-249-437-11	CARBON	47K	5%	1/4W	R666	1-249-425-11	CARBON	4.7K	5%	1/4W
R611	1-249-421-11	CARBON	2.2K	5%	1/4W	R667	1-249-441-11	CARBON	100K	5%	1/4W
R612	1-249-417-11	CARBON	1K	5%	1/4W	R668	1-249-433-11	CARBON	22K	5%	1/4W
R614	1-249-435-11	CARBON	33K	5%	1/4W	R669	1-249-441-11	CARBON	100K	5%	1/4W
R615	1-249-429-11	CARBON	10K	5%	1/4W	R670	1-249-429-11	CARBON	10K	5%	1/4W
R616	1-249-421-11	CARBON	2.2K	5%	1/4W	R672	1-249-407-11	CARBON	150	5%	1/4W
R617	1-249-429-11	CARBON	10K	5%	1/4W	R673	1-247-891-00	CARBON	330K	5%	1/4W
R618	1-249-421-11	CARBON	2.2K	5%	1/4W	R674	1-249-417-11	CARBON	1K	5%	1/4W
R619	1-249-401-11	CARBON	47	5%	1/4W	R675	1-249-429-11	CARBON	10K	5%	1/4W
R620	1-249-409-11	CARBON	220	5%	1/4W	R676	1-249-441-11	CARBON	100K	5%	1/4W
R621	1-249-409-11	CARBON	220	5%	1/4W	R680	1-249-410-11	CARBON	270	5%	1/4W
R622	1-249-401-11	CARBON	47	5%	1/4W	R681	1-249-405-11	CARBON	100	5%	1/4W
R623	1-249-409-11	CARBON	220	5%	1/4W	< VARIABLE RESISTOR >					
R624	1-249-409-11	CARBON	220	5%	1/4W	RV501	1-238-019-11	RES, ADJ, CARBON	47K		
R625	1-247-899-11	CARBON	680K	5%	1/4W	RV502	1-238-019-11	RES, ADJ, CARBON	47K		
R627	1-249-425-11	CARBON	4.7K	5%	1/4W	RV503	1-238-016-11	RES, ADJ, CARBON	10K		
R628	1-249-417-11	CARBON	1K	5%	1/4W	RV504	1-238-016-11	RES, ADJ, CARBON	10K		
R629	1-249-433-11	CARBON	22K	5%	1/4W	RV505	1-238-015-11	RES, ADJ, CARBON	4.7K		
R630	1-249-425-11	CARBON	4.7K	5%	1/4W	RV506	1-238-015-11	RES, ADJ, CARBON	4.7K		
R631	1-249-415-11	CARBON	680	5%	1/4W	< RELAY >					
R632	1-249-439-11	CARBON	68K	5%	1/4W	RY518	1-515-640-11	RELAY (5V)			
R633	1-249-425-11	CARBON	4.7K	5%	1/4W	< CRYSTAL >					
R634	1-249-440-11	CARBON	82K	5%	1/4W	X501	1-567-816-11	VIBRATOR, CRYSTAL	(18.8MHZ)		
R635	1-249-427-11	CARBON	6.8K	5%	1/4W	X502	1-567-815-11	VIBRATOR, CRYSTAL	(22.6MHZ)		
R636	1-249-440-11	CARBON	82K	5%	1/4W	X503	1-578-667-11	VIBRATOR, CRYSTAL	(49.1MHZ)		
R637	1-249-425-11	CARBON	4.7K	5%	1/4W	*****					
R638	1-249-429-11	CARBON	10K	5%	1/4W						
R639	1-249-417-11	CARBON	1K	5%	1/4W						
R640	1-249-417-11	CARBON	1K	5%	1/4W						
R641	1-249-424-11	CARBON	3.9K	5%	1/4W						
R642	1-249-435-11	CARBON	33K	5%	1/4W						

DIGITAL I/O (OPT)

DIGITAL IN (COAX)

DIGITAL OUT (COAX)

DIODE

HEADPHONE JACK

HEADPHONE VOL

LINE FILTER

Ref.No.	Part No.	Description	Remark
* 1-637-618-11 DIGITAL I/O (OPT) BOARD *****			
< CAPACITOR >			
C677	1-162-179-11	CERAMIC 0.1uF	50V
C678	1-126-023-11	ELECT 100uF	20% 16V
C679	1-162-179-11	CERAMIC 0.1uF	50V
< IC >			
CP671	8-749-921-11	IC GP1F32R (OPTICAL IN)	
CP672	8-749-921-12	IC GP1F32T (OPTICAL OUT)	
< COIL >			
L510	1-410-509-11	INDUCTOR 10uH	
L512	1-410-509-11	INDUCTOR 10uH	

* 1-637-616-11 DIGITAL IN (COAX) BOARD *****			
< CAPACITOR >			
	1-126-059-11	ELECT 10MF	20% 50V
< JACK >			
J601	1-563-079-11	JACK, PIN 1P (DIGITAL IN)	
< RESISTOR >			
R608	1-247-804-11	CARBON 75 5%	1/4W

* 1-637-617-11 DIGITAL OUT (COAX) BOARD *****			
* 4-916-318-01 PLATE, GROUND			
< CAPACITOR >			
C182	1-162-179-11	CERAMIC 0.1uF	50V
< JACK >			
J181	1-566-922-21	JACK, PIN 1P (DIGITAL OUT)	
< RESISTOR >			
R183	1-247-804-11	CARBON 75 5%	1/4W
< COIL >			
T182	1-459-795-11	COIL (WITH CORE)	

Ref.No.	Part No.	Description	Remark
* 1-637-625-11 DIODE BOARD *****			
< DIODE >			
D901	8-719-302-38	DIODE RBV-602-01	

* 1-637-614-11 HEADPHONE JACK BOARD *****			
< CAPACITOR >			
C720	1-162-290-31	CERAMIC 470PF	10% 50V
C721	1-162-290-31	CERAMIC 470PF	10% 50V
< JACK >			
J721	1-565-327-11	JACK, LARGE TYPE 1P (PHONES)	

* 1-637-613-11 HEADPHONE VOL BOARD *****			
< VARIABLE RESISTOR >			
RV302	1-238-841-11	RES, VAR, CARBON 20K/20K (PHONE LEVEL)	

* 1-637-621-11 LINE FILTER BOARD *****			
* 1-533-213-31 HOLDER, FUSE 4-870-539-00 PLATE, GROUND			
< CAPACITOR >			
C941	△1-161-744-00	CERAMIC 0.01uF	400V
C942	△1-161-742-00	CERAMIC 0.0022uF	20% 400V
C943	△1-161-742-00	CERAMIC 0.0022uF	20% 400V
C944	△1-161-742-00	CERAMIC 0.0022uF	20% 400V
C945	△1-161-742-00	CERAMIC 0.0022uF	20% 400V
C946	△1-161-744-00	CERAMIC 0.01uF	400V
< CONNECTOR >			
CN941	* 1-564-321-00	PIN, CONNECTOR 2P	
CN942	* 1-565-395-11	PIN, CONNECTOR 3P	
CN943	* 1-564-687-11	PIN, CONNECTOR 3P	
CN944	* 1-564-687-11	PIN, CONNECTOR 3P	
< COIL >			
T901	△1-421-915-11	COIL, LINE FILTER	

LINE PIN JACK

LOAD-MOT

LOAD-SW

MD

Ref. No.	Part No.	Description	Remark

	* 1-637-620-11	LINE PIN JACK BOARD	

		< CONNECTOR >	
CN151	* 1-564-519-11	PLUG, CONNECTOR 4P	
		< JACK >	
J151	1-568-101-11	JACK, PIN 4P (LINE IN/OUT)	
		< RESISTOR >	
R153	1-249-657-11	CARBON 220 5% 1/2W	
R154	1-249-657-11	CARBON 220 5% 1/2W	

	* 1-637-601-11	LOAD-MOT BOARD	

		< CAPACITOR >	
C011	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
		< CONNECTOR >	
CN001	* 1-564-497-11	PIN, CONNECTOR 4P	
CN002	* 1-564-496-11	PIN, CONNECTOR 3P	
CN054	* 1-564-523-11	PLUG, CONNECTOR 8P	

	* 1-637-606-11	LOAD-SW BOARD	

		< SWITCH >	
S011	1-571-489-11	SWITCH, SLIDE	
S012	1-571-489-11	SWITCH, SLIDE	

	* A-2006-382-A	MD BOARD, COMPLETE	

	4-352-844-01	PIN, LEAD, COATING	
		< JUMPER >	
JW1-JW41	1-216-296-00	METAL CHIP 0 5% 1/8W	
		< CAPACITOR >	
C001	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C002	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C003	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C004	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	

Ref. No.	Part No.	Description	Remark
C005	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C006	1-124-126-00	ELECT 47uF 20% 10V	
C007	1-124-126-00	ELECT 47uF 20% 10V	
C021	1-124-925-11	ELECT 2.2uF 20% 100V	
C022	1-124-126-00	ELECT 47uF 20% 10V	
C031	1-124-126-00	ELECT 47uF 20% 10V	
C032	1-124-126-00	ELECT 47uF 20% 10V	
C033	1-124-126-00	ELECT 47uF 20% 10V	
		< CONNECTOR >	
CN003	* 1-564-505-11	PLUG, CONNECTOR 2P	
CN004	* 1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P	
CN005	* 1-564-515-11	PLUG, CONNECTOR 12P	
CN006	* 1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P	
CN007	* 1-568-369-11	HOUSING, CONNECTOR (PC BOARD) 8P	
CN008	* 1-564-338-00	PIN, CONNECTOR 4P	
CN009	* 1-564-338-61	PIN, CONNECTOR 4P	
CN051	* 1-564-715-11	PIN, CONNECTOR (SMALL TYPE) 13P	
CN052	* 1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P	
CN053	* 1-564-507-11	PLUG, CONNECTOR 4P	
		< DIODE >	
D011	8-719-104-34	DIODE 1S2836	
D012	8-719-104-34	DIODE 1S2836	
		< IC >	
IC001	8-759-107-68	IC CX20115A	
IC002	8-759-502-80	IC LM358M	
		< TRANSISTOR >	
Q001	8-729-100-66	TRANSISTOR 2SC1623L6	
Q002	8-729-101-07	TRANSISTOR 2SB798-DL	
Q003	8-729-900-53	TRANSISTOR DTC114EK	
		< RESISTOR >	
R001	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R002	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R003	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R004	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R005	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R006	1-216-058-00	METAL GLAZE 2.4K 5% 1/10W	
R007	1-216-029-00	METAL CHIP 150 5% 1/10W	
R008	1-216-059-00	METAL CHIP 2.7K 5% 1/10W	
R009	1-216-025-00	METAL CHIP 100 5% 1/10W	
R010	1-216-084-00	METAL GLAZE 30K 5% 1/10W	
R011	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R012	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R013	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R014	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R015	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R022	1-216-073-00	METAL CHIP 10K 5% 1/10W	

Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

T-SW

TRANSISTOR (A)

TRANSISTOR (B)

TRANSISTOR (C)

Ref.No.	Part No.	Description	Remark
	* 1-637-605-11	T-SW BOARD ***** < SWITCH >	
S015	1-572-459-11	SWITCH, PUSH	

	* 1-637-622-11	TRANSISTOR (A) BOARD ***** < CAPACITOR >	
C931	9-831-246-50	WIRE KIT 1uF 10% 50V < TRANSISTOR >	
Q931	8-729-111-55	TRANSISTOR 2SD1312-K	

	* 1-637-623-11	TRANSISTOR (B) BOARD ***** < CAPACITOR >	
C932	1-164-159-11	CERAMIC 0.1uF 50V	
C933	1-164-159-11	CERAMIC 0.1uF 50V	
		< IC >	
IC901	8-759-148-79	IC uPC2406HF	

	* 1-637-624-11	TRANSISTOR (C) BOARD ***** < CAPACITOR >	
C934	1-164-159-11	CERAMIC 0.1uF 50V	
C935	1-164-159-11	CERAMIC 0.1uF 50V	
		< IC >	
IC902	8-759-144-82	IC uPC2405HF	

		MISCELLANEOUS *****	
111	△1-559-479-11	CORD, POWER (US)	
	△1-575-912-11	CORD, POWER (AEP)	
	△1-575-913-11	CORD, POWER (UK)	
BATT01	1-528-229-11	BATTERY, LITHIUMCR-2450	
FH901	1-532-745-11	FUSE, GLASS TUBE (3.15A 125V) (US)	
	△1-532-237-00	FUSE, TIME-LAG (T3.15A 250V) (AEP, UK)	

Ref.No.	Part No.	Description	Remark
FH902	△1-532-203-00	FUSE, TIME-LAG (T2A 250V) (AEP, UK)	
	△1-532-743-11	FUSE, GLASS TUBE (2A, 125V) (US)	
FH903	△1-532-203-00	FUSE, TIME-LAG (T2A 125V) (AEP, UK)	
	△1-532-743-11	FUSE, GLASS TUBE (2A, 250V) (US)	
FH941	△1-532-743-11	FUSE, GLASS TUBE (2A, 125V) (US)	
	△1-532-203-00	FUSE, TIME-LAG (T2A 250V) (AEP, UK)	
M902	8-835-306-01	MOTOR, DC U-17A	
M905	* 8-835-205-01	MOTOR, DC U-2A	
MOTO11	A-2003-660-A	MOTOR ASSY	
MOTO12	A-2003-448-A	MOTOR ASSY	
PL701	1-518-664-11	LAMP, PILOT	
PL702	1-518-664-11	LAMP, PILOT	
PM002	1-454-522-11	SOLENOID, PLUNGER	
PT901	△1-450-450-11	TRANSFORMER, POWER (D) (US)	
	△1-450-603-11	TRANSFORMER, POWER (AEP, UK)	
PT902	△1-450-449-11	TRANSFORMER, POWER (A) (US)	
	△1-450-604-11	TRANSFORMER, POWER (A) (AEP, UK)	
S901	△1-554-920-11	SWITCH, PUSH (AC POWER) (1 KEY)	

ACCESSORY & PACKING MATERIAL *****			
	1-465-642-11	REMOTE COMMANDER (RM-D77A)... (BLACK)	
	1-465-823-11	REMOTE COMMANDER (RM-D77A/D)... (GOLD)	
	1-590-861-11	CORD, CONNECTION	
	* 3-369-153-01	INDIVIDUAL CARTON (87ES)	
	* 3-370-205-01	INDIVIDUAL CARTON (77ES)	
	3-703-450-01	INSTRUCTION (87ES)	
	3-704-366-01	SCREW (CASE) (M3X8) (BLACK) (US, AEP)	
	3-704-366-11	SCREW (CASE) (M3X8) (GOLD)	
	3-707-584-01	COVER, BATTERY (for RM-D77A, RM-D77A/D)	
	3-752-666-11	MANUAL, INSTRUCTION (AEP, UK) (ENGLISH, FRENCH, SPANISH, PORTUGUESE)	
	3-752-666-21	MANUAL, INSTRUCTION (US) (ENGLISH)	
	3-752-666-41	MANUAL, INSTRUCTION (AEP) (GERMAN, DUTCH, SWEDISH, ITALIAN)	
	* 4-936-624-01	CUSHION	

HARDWARE LIST			
#2	7-682-548-09	SCREW +BVTT 3X8 (S)	
#3	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	
#4	7-621-773-86	SCREW +B 2.6X4	
#5	7-682-560-04	SCREW +BVTT 4X6 (S)	
#6	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#7	7-682-548-04	SCREW, TIGHT, S	
#8	7-621-771-06	SCREW, LOCK	
#9	7-682-147-15	SCREW, TR	
#10	7-621-772-10	SCREW +B 2X4	
#11	7-688-001-01	W 2, SMALL	

Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
#12	7-682-545-09	SCREW +B 3X4	
#13	7-621-772-00	SCREW +B 2X3	
#14	7-688-001-12	W 2, MIDDLE	
#15	7-621-775-08	SCREW +B 2. 6X3	
#16	7-621-255-45	SCREW +P 2X6	
#17	7-627-852-28	+P 1. 7X3	
#18	7-621-772-08	SCREW +B 2X3	
#19	7-628-253-00	SCREW +PS 2X4	
#20	7-627-553-27	SCREW, PRECISION +P 2X2. 5	
#21	7-627-553-67	SCREW, PRECISION +P 2X5	
#22	7-621-772-20	SCREW +B 2X5	
#23	7-627-450-78	SCREW, PRECISION +K 1. 7X4	
#24	7-627-552-47	SCREW, PRECISION +P 1. 7X4	
#25	7-621-759-35	+PSW, 2. 6X5	

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Replace only with part number specified.