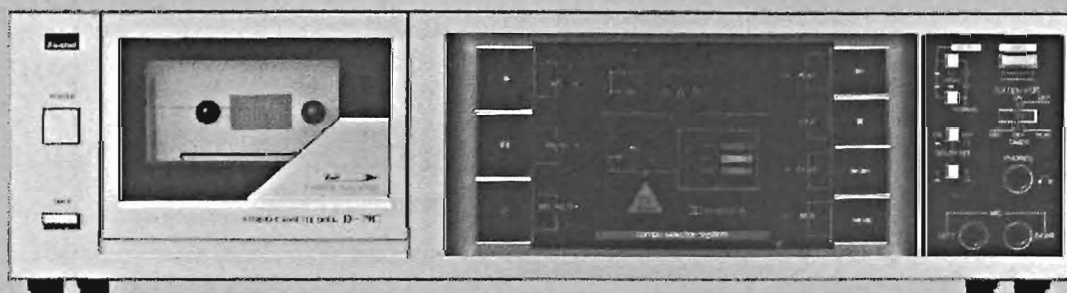


# SERVICE MANUAL

STEREO CASSETTE DECK

## SANSUI D-79C

(Silver & Black Model)



### CAUTION

1. Parts identified by the  $\triangle$  symbol on the schematic diagram and the parts list are critical for safety. Use only replacement parts that have critical characteristics recommended by the manufacturer.
2. Make leakage-current or resistance measurements to determine that exposed parts are acceptably insulated from the supply circuit before returning the appliance to the customer.

### • SPECIFICATIONS

Track .....	4-Track (2-Channel Stereo)
Tape Speed .....	4.8 cm/sec. (1-7/8 ips)
Heads (2-head configuration)	
Rec/pb head .....	HIGH-Bs hard permalloy
Erase head .....	Double-gap ferrite
Motor .....	Capstan: Electronically Controlled DC Motor Reels: DC Motor
Wow and flutter .....	within 0.05% WRMS
Fast wind time .....	approximately 80 seconds (C-60)
Frequency response (—20 VU recording/playback)	
Normal Tape (LH) .....	20 to 15,000 Hz (30 to 14,000 Hz $\pm$ 3 dB)
Chrome tape .....	20 to 17,000 Hz (30 to 16,000 Hz $\pm$ 3 dB)
Metal Tape .....	20 to 18,000 Hz (30 to 17,000 Hz $\pm$ 3 dB)
Signal to noise ratio (Record/Playback)	
Metal Tape (without Dolby Noise Reduction Effect)	..... better than 58 dB (weighted)
(With Dolby Noise Reduction) B	..... better than 68 dB (above 5 kHz)
(With Dolby Noise Reduction) C	..... better than 78 dB (above 1 kHz)
Erasure factor (Metal Tape)	..... more than 72 dB at 1 kHz
Input sensitivity and impedance (0 VU, 1 kHz)	
MIC .....	0.3 mV/200 $\Omega$ ~ 5 k $\Omega$
LINE IN (REC) .....	150 mV/47 k $\Omega$
Output level (0 VU, 1 kHz)	
LINE OUT (PLAY) .....	225 mV
Power requirements	
Power voltage .....	120/220/240 V (50/60 Hz) For U.S.A. and Canada
.....	120 V (60 Hz)
Power consumption .....	15 W
Dimensions .....	430 mm (16-15/16") W 118 mm (4-11/16") H 223 mm (8-13/16") D
Weight .....	3.6 kg (7.9 lbs.) net 4.4 kg (9.7 lbs.) packed

\* Design and specifications subject to changes without notice for improvements.

\* Noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation.

"Dolby" and the double D symbol are trade marks of Dolby Laboratories Licensing Corporation.

*Sansui*

SANSUI ELECTRIC CO., LTD.

## CAUTION

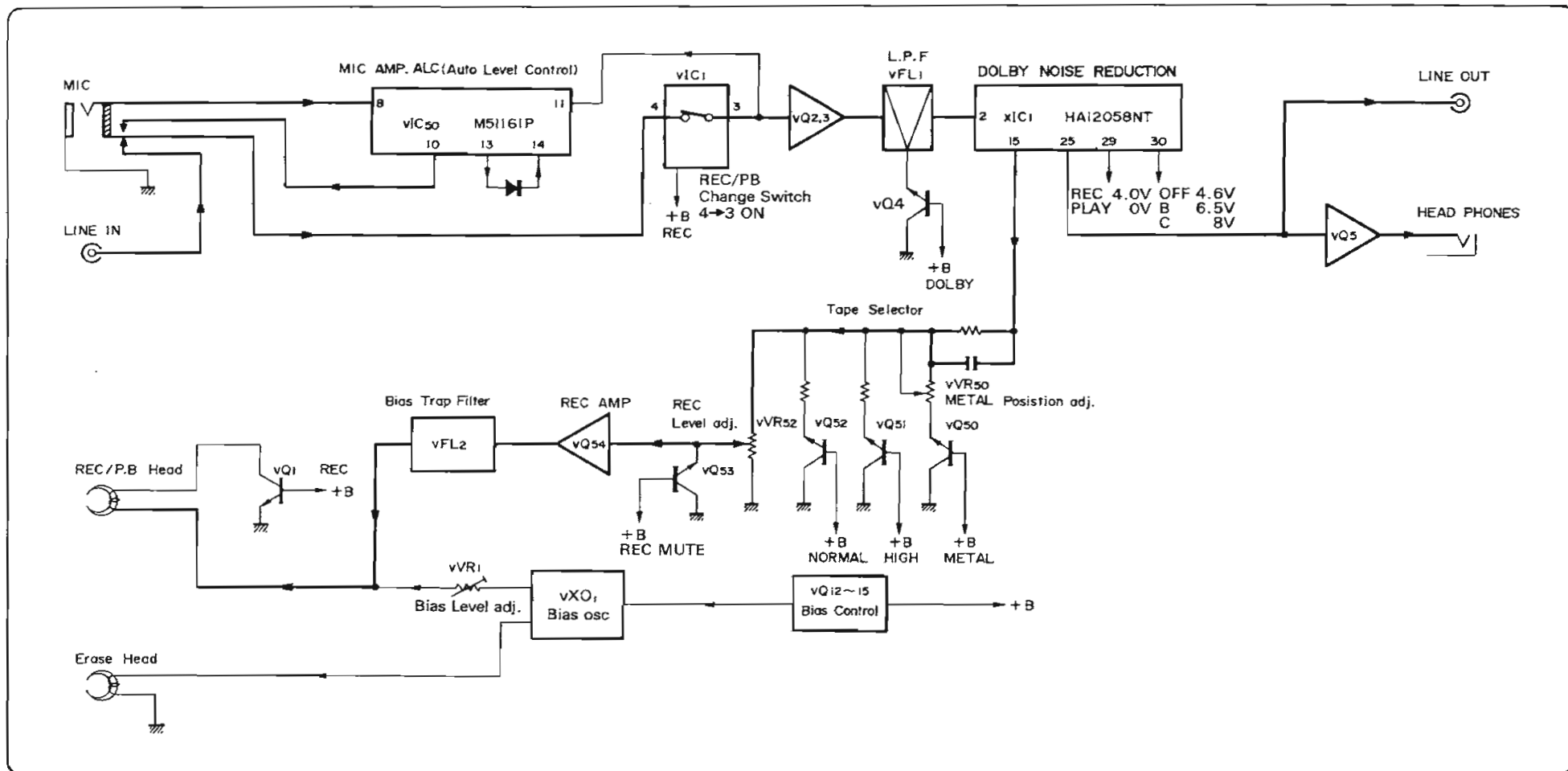
1. The symbols, UL, CSA, SA, BS, UK, EU, AS and XX (EXPORT) on the parts list and the schematic diagram mean followings respectively.
  - UL..... Manufactured for U.S.A market.  
(Underwriters Laboratories approved model.)
  - CSA..... Manufactured for Canadian market.
  - SA..... Manufactured for South African market.
  - BS, UK ..... Manufactured for United Kingdom market.
  - EU ..... Manufactured for European market.
  - AS..... Manufactured for Australian market.
  - XX (EXPORT) ..... Standard Version.
  - NON MARK ..... Common Parts.
  
2. Some printed circuit boards are not supplied as the assembled. To separate these in this service manual, the stock No's are not indicated at the ends of the board names. However, the individual parts on the circuit boards are provided by orders.
  
3. Since some of capacitors and resistors are omitted from parts lists in this service manual, refer to the Common Parts List for capacitors & resistors, which was issued on February 1983.
  
4. Abbreviations in this service manual are as follows.

### •Abbreviations List

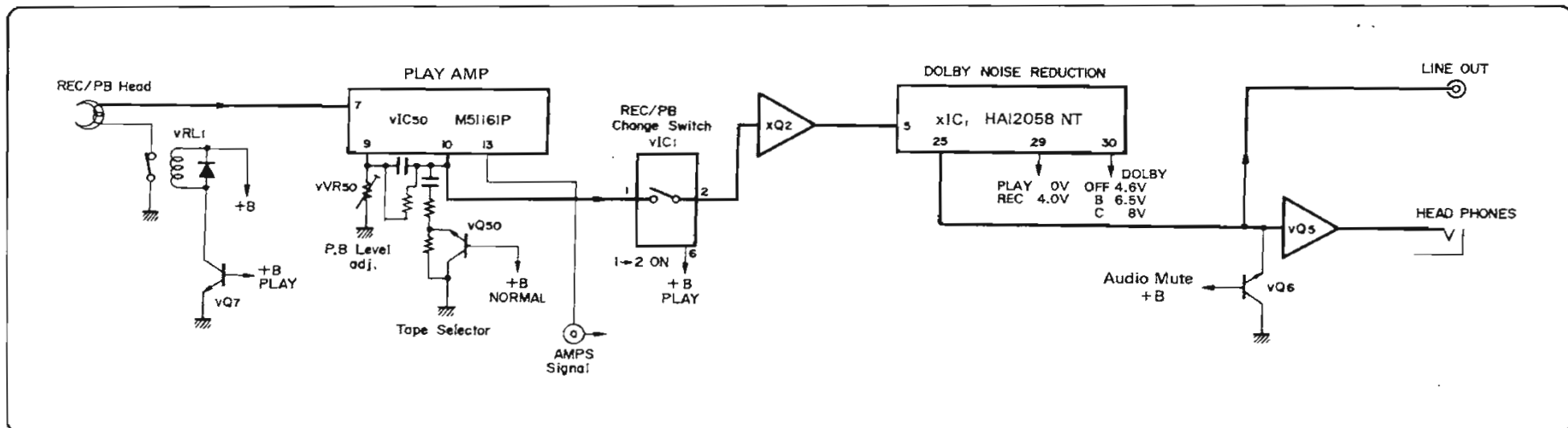
C.R. : Carbon Resistor	E.B.L. : Low Leak Bi-Polar Electrolytic Capacitor
S.R. : Solid Resistor	Ta.C. : Tantalum Capacitor
Ce.R. : Cement Resistor	F.C. : Film Capacitor
M.R. : Metal Film Resistor	M.P. : Metalized Paper Capacitor
F.R. : Fusing Resistor	P.C. : Polystyrene Capacitor
N.I.R. : Non-Inflammable Resistor	G.C. : Gimmic Capacitor
A.R. : Array Resistor	A.C. : Array Capacitor
C.C. : Ceramic Capacitor	V.R. : Variable Resistor
C.T. : Ceramic Capacitor, Temoerature Compensation	S.V.R. : Semi Variable Resistor
E.C. : Electrolytic Capacitor	SW. : Switch
E.L. : Low Leak Electrolytic Capacitor	Chip R. : Chip Resistor
E.B. : Bi-Polar Electrolytic Capacitor	Chip C. : Chip Capacitor

# 1. BLOCK DIAGRAM

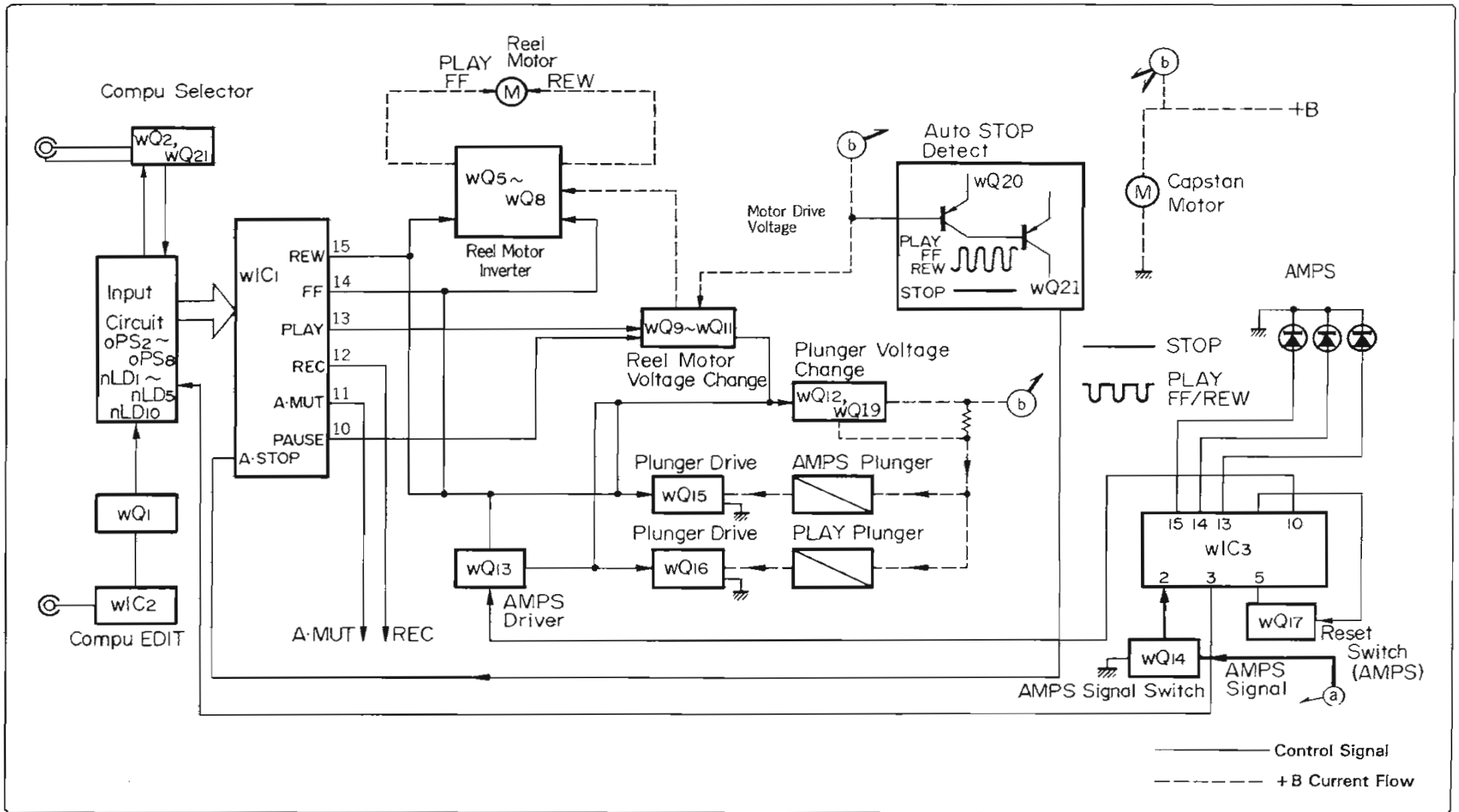
## 1-1. Recording Operation



## 1-2. Playback Operation



### 1-3. Logic Control Operation



## 2. TRANSISTOR CONDITION OF LOGIC CONTROL CIRCUIT

•Input/Output Table of TC9143P on Page 4 and Schematic Diagram on page 13, 14.

Function	Parts No. wQ												
	5	6	7	8	10	11	12	13	14	15	16	17	19
F·F	○			○		○	●		○	○			●
REW		○	○			○	●		○	○			●
PLAY	○			○	○		●		○		○		●
REC/PLAY	○			○	○		●		○		○		●
AMPS·FF	○			○	○	○	●	○		○	○	□	●
AMPS·REW		○	○			○	●	○		○	○	□	●
PAUSE						○			○				
STOP						○			○				

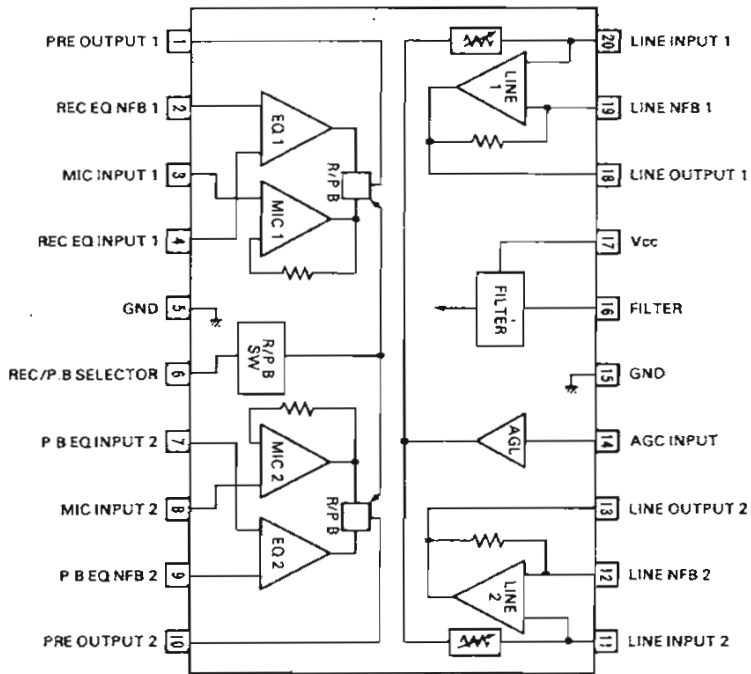
○ ON  
 ● ON (During the time determined by a time constant of capacitor and resistor)  
 □ ON (When the AMPS is Reset)

- wQ1: PAUSE Switch for Compu Edit. (When the muting signal from the turntable is applied to COMPU EDIT. Terminal, wQ1 is turned ON.)
- wQ2: Stop Switch for COMPU SELECTOR (When the PHONO or TUNER button of Amplifier <Receiver> is pushed during tape play back, wQ2 is turned ON, to stop the Cassette Deck Automatically.)
- wQ3: TIMER Operation driver (When TIMER operation is performed, wQ3 is turned ON during the time determined by a time constant of capacitor and resistor.)
- wQ4: Reset Switch for IC TC-9143 (When Power Switch is pushed, wQ4 is turned ON during the time determined by a time constant of capacitor and resistor, therefore Input pin No. 6 of the control IC is kept at a L-voltage level.)

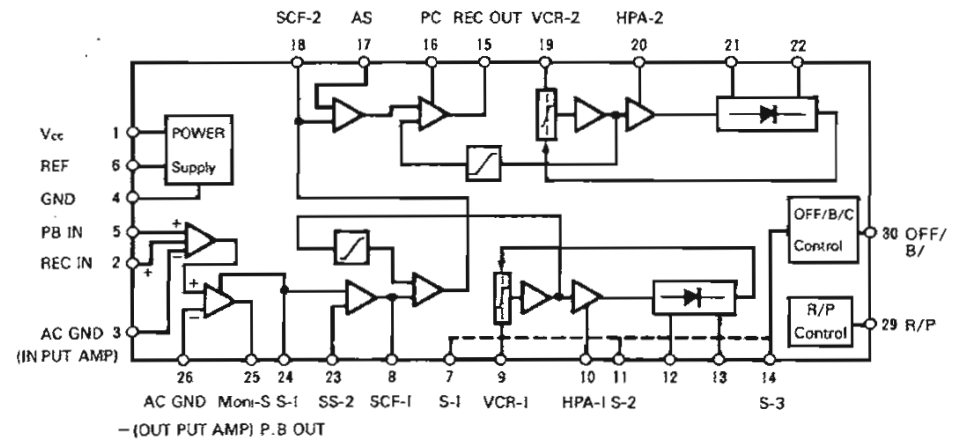
- wQ9: Reel Motor voltage change (When operation mode is FF, REW, AMPS FF or AMPS REW, Emitter voltage of the transistor changes to H-voltage level.)
- wQ18: Prevention Switch for COMPU SELECTOR (wQ18 is turned ON when the mode is REC/PLAY therefore input selector of amplifier <Receiver> is not set to the TAPE-1.)
- wQ20: Current Detector for Auto Stop. (Reel Motor Current is amplified and wave-form shaped, and it is outputted Pin No. 8 <A-STOP> of IC TC9143P.)

### 3. INTERIOR BLOCK DIAGRAM OF IC

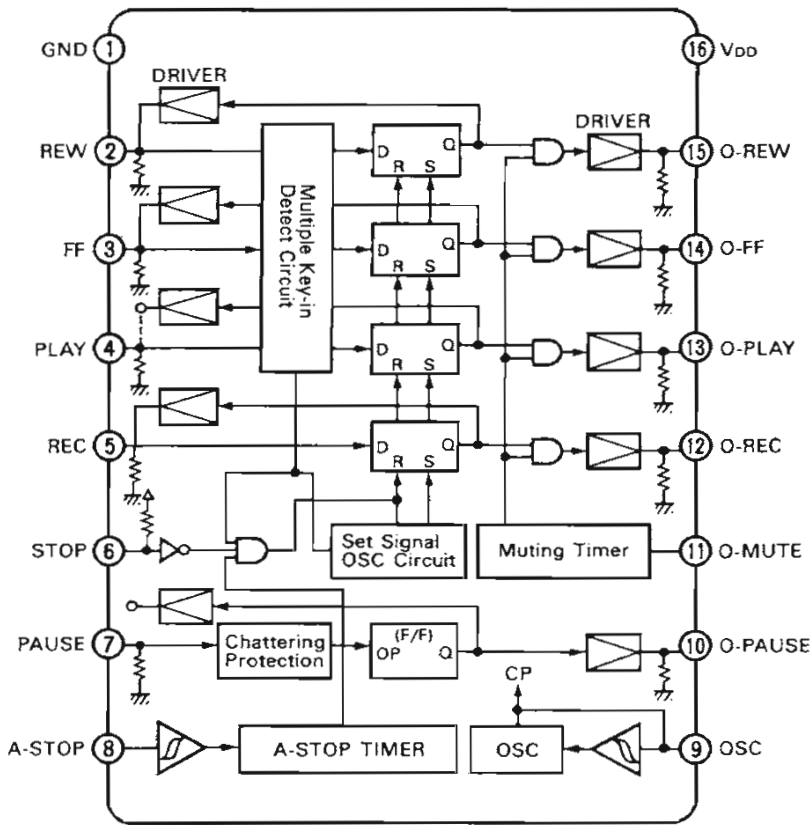
•M51161P (MIC Amp. & PLAY EQ.)



•HA12058NT (Dolby B & C type Noise Reduction)



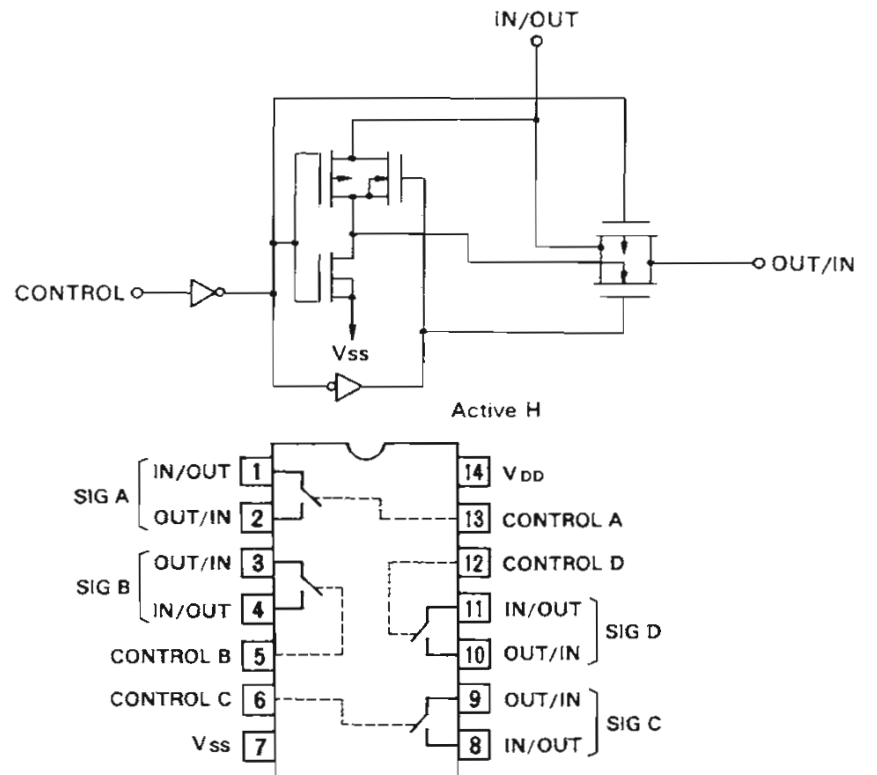
•TC9143P (Logic Control)



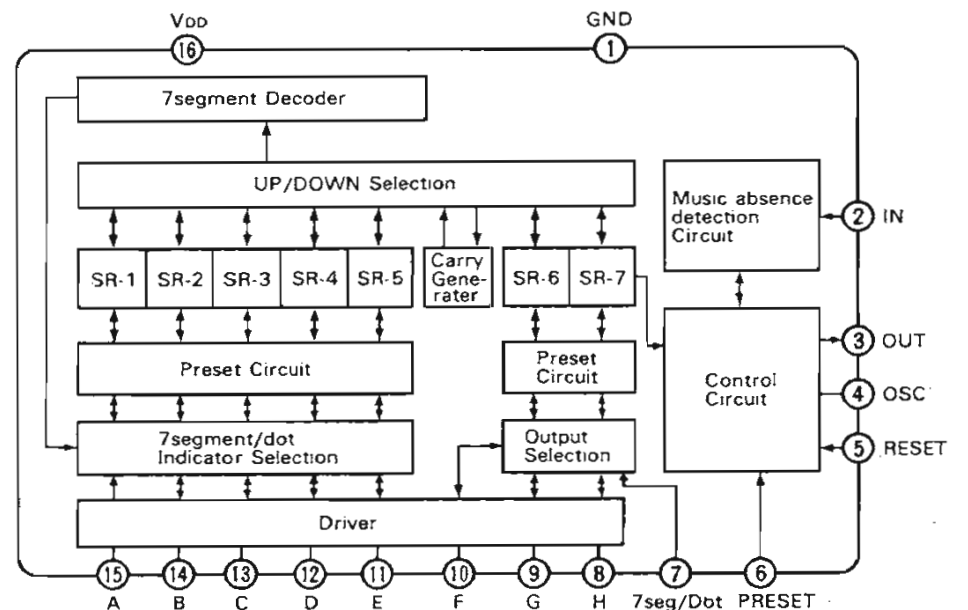
•Input/Output Table of TC9143P  
(The "○" mark denote H-Level Output)

KEY INPUT	O-FF	O-REW	O-PLAY	O-REC	O-MUTE	O-PAUSE
STOP					○	
FF	○				○	
REW		○			○	
PLAY			○			
REC				○		
REC/PLAY			○	○		
PAUSE	STOP				○	○
	PLAY				○	○
	REC				○	○
	REC/PLAY				○	○
A-STOP					○	

•MSM4066RS (Analog Switch)



•TC9138P (AMPS)



## 4. ADJUSTMENTS

### 4-1 Tape Speed Adjustment

- Note:** 1. Use Sansui Test Tape, SCT-S3K (3 kHz signals are recorded on the tape).  
2. Connections are shown in Fig. 4-1.

Fig. 4-1

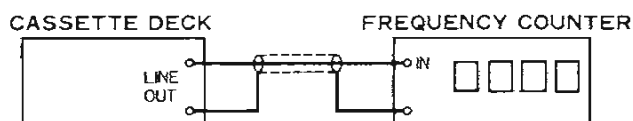
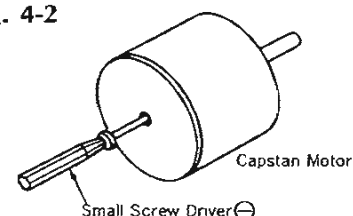


Fig. 4-2



STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS
1.	TAPE SPEED Adj.	LINE OUT Frequency counter	Playback the TEST TAPE SCT-S3K.	Turn semi-variable resistor as Fig. 4-2.	3000Hz ± 45Hz	Use small screw driver.

### 4-2. Playback Adjustment

- Note:** 1. Before this adjustment, clean REC/P.B. head surface.  
2. For this adjustment, use Sansui Test Tape, SCT-F10K, SCT-L400 and SCT-F1K.  
3. Set the Dolby NR switch to be OFF.  
4. Connections are shown in Fig. 4-3.

Fig. 4-3

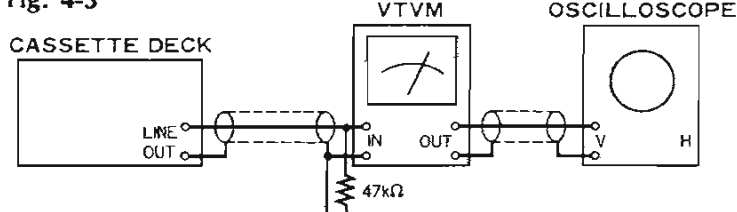
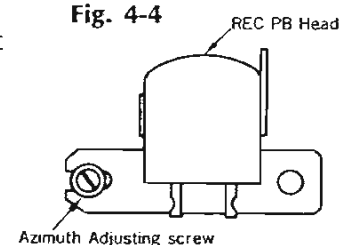


Fig. 4-4



STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS
1.	REC/P.B. Head Adj.	LINE OUT VTVM, Scope	Playback the TEST TAPE-SCT-F10K	Adjust the azimuth adjusting screw in Fig. 4-4.	MAX. Output on both channels.	Refer to removal of Lid Ass'y on Page 6. After this adjustment, lock the screw with paint.
2.	Playback Level Adj.	Same as above	Set TAPE SELECTOR to NORMAL position. Playback the TEST TAPE SCT-L400	Adjust each vVR50 on L-CH (F-3816) and R-CH (F-3816).	320mV ± 2dB	See Top View on page 10.
3.	High Frequency Equalization Check	Same as above	Set TAPE SELECTOR to NORMAL position. Playback the TEST TAPE SCT-F1K.	_____	_____	Read output levels on both channels.
			Playback the TEST TAPE SCT-F10K	_____	_____	Confirm that the output levels are within ± 3dB comparing with the above readings.

**Note:** On STEP 3, set the TAPE SELECTOR to HIGH (CrO<sub>2</sub>) position during playback of SCT-10KN, and confirm the indication on VTVM drops approximately 4dB ~ 5dB.

#### ◆ List of Sansui Test Tape

Name of TEST TAPE	Recorded Frequency	Description	Equivalent To
SCT-F40	40 Hz	Playback Frequency Response Check	—
SCT-F1K	1 kHz	High Frequency Equalization Check	—
SCT-F10K	10 kHz	REC/PB Head Adjustment	—
SCT-L400	400 Hz	Playback Level and Indicator Level Adjustment	—
SCT-S3K	3 kHz	Speed Check and Wow & Flutter Check	—
*SCT-AD NORMAL	—	Recording Bias Adjustment	TDK AD
*SCT-SA HIGH	—	REC/PB Level Adjustment	TDK SA
*SCT-MA METAL	—	Frequency Response Check	TDK MA

#### ◆ TAPE SELECTOR Position

NORMAL		HIGH	
FUJI	FL, FXI	FUJI	FX II
MAXELL	UL, UD, XL I, XL I-S	MAXELL	XL II, XL II-S
TDK	D, AD, OD	TDK	SA, SA-X
SCOTCH	TARTAN CRYSTAL MASTER 120	SCOTCH	MASTER 70
SONY	AHF, BHF, CHF Low-Noise	SONY	JHF
AGFA	SUPER SUPER COLOR SUPER FERRO DYNAMIC	AGFA	STEREO CHROM
BASF	LN Super LH I	BASF	SCR
METAL			
		MAXELL	MX
		TDK	MA-R, MA
		SCOTCH	Metafine
		SONY	METALLIC

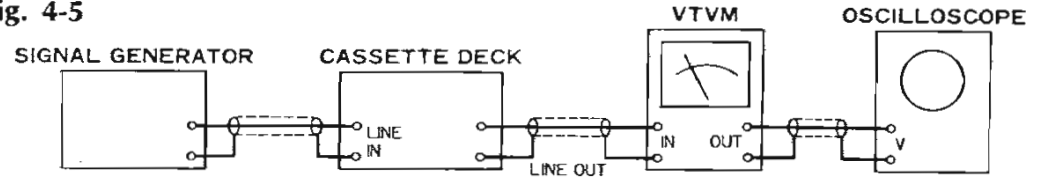
**Note:** Some reference tapes marked \* are not supplied. As these are equivalent to ones indicated above, please obtain these blank tapes on your side as possible.



**2) REC Level & Frequency Response Adjustment**

**Note:** 1. Connections are shown in Fig. 4-5.  
2. Set the Dolby NR switch..... C.

Fig. 4-5



STEP	SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUSTMENT	REMARKS
1.	REC Level Adj.	Feed 1 kHz, 15mV (-20dB) from S.G. into LINE IN.	LINE OUT, VTVM Scope	Load the TEST TAPE SCT-SA. Set TAPE SELECTOR to HIGH position. 1. Depress REC and PAUSE buttons. 2. Confirm Output level. 3. Push the PAUSE button, then record the 1kHz signal. 4. Play back the 1kHz signal. 5. Confirm that both output levels equal.	1. If not, vVR52 (L-ch) and vVR52 (R-ch) until output levels will be equal.	vVR52 (L-ch), and vVR52 (R-ch) are shown in Top View on Page 10.
2.	Frequency Response Adj.	Feed 1kHz 15mV (-20dB) and 10kHz 15mV (-20dB) from S.G. into LINE IN.	Same as above	Load the TEST TAPE SCT-SA. Set TAPE SELECTOR to HIGH position. 1. Record the 1kHz and 10kHz signals from S.G. 2. Play back the 1kHz and 10kHz signals, then confirm that both output levels equal.	1. If not, adjust vVR1L for L-CH and vVR1R for R-CH slightly until the output levels equal.	vVR1 (L-ch), and vVR1 (R-ch) are shown in Top View on Page 10.
3.	METAL Position REC Level Adj.	Feed 1kHz, 15mV (-20dB) from S.G. into LINE IN	Same as above	Load the TEST TAPE SCT-MA. Set TAPE SELECTOR to METAL Position. 1. Depress REC and PAUSE buttons. 2. Confirm output level. 3. Push the PAUSE button, then record. 4. Play back the 1kHz Signal. 5. Confirm that both output levels equal.	1. If not vVR50 (L-ch, F-4350), and vVR50 (R-ch, F-4350) until output levels will be equal.	vVR50 (L-ch, F-4350), and vVR50 (R-ch, F-4350) are shown in Top View on Page 10.

**◆ Removal and Attachment of Lid Ass'y**

Depress the EJECT button to open the cassette holder, and pull the Lid up and then toward you to remove it as shown in the figure.

Re-attach the Lid to the cassette holder as shown in the figure.

Fig. 4-6

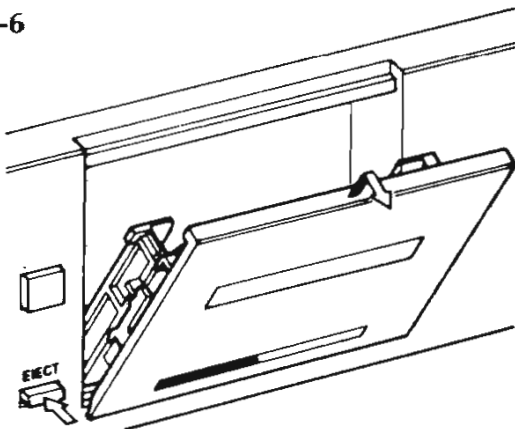
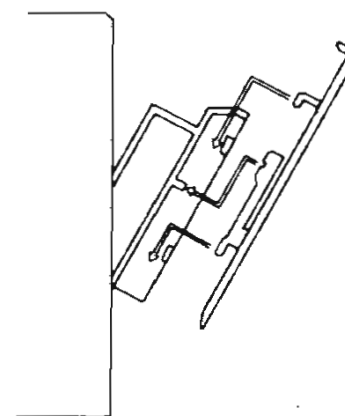


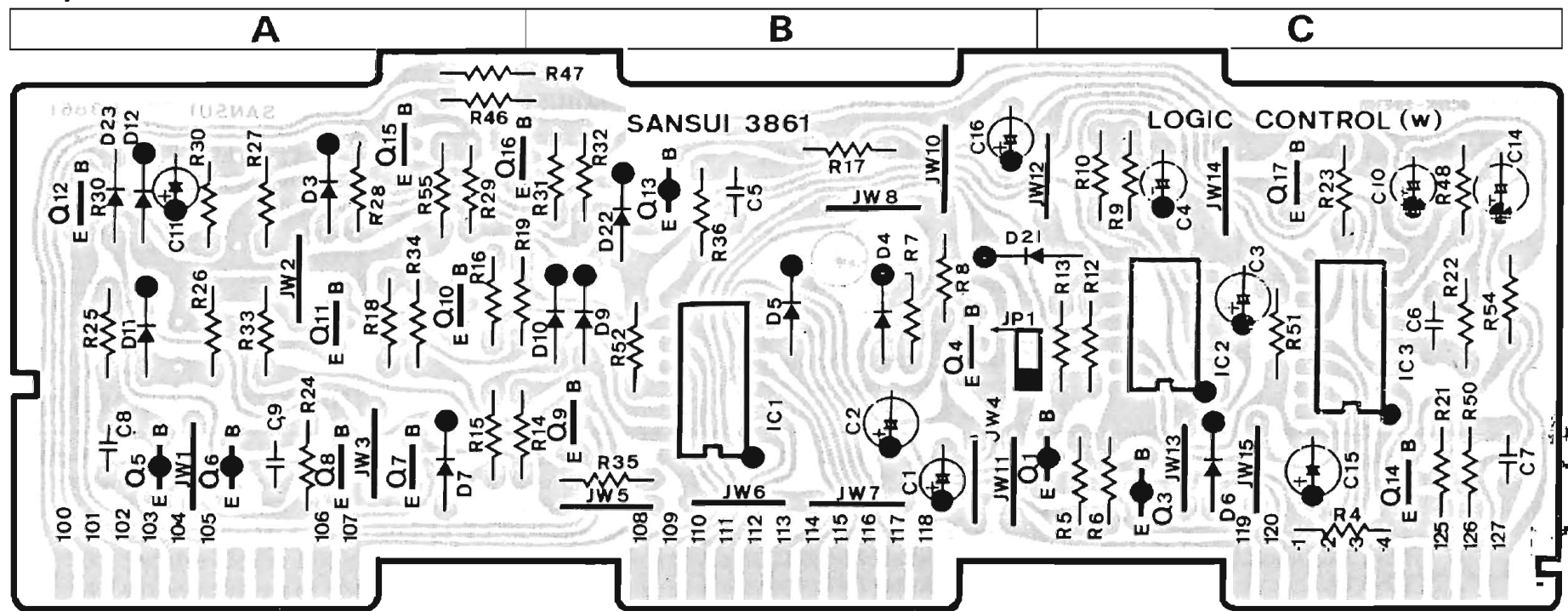
Fig. 4-7



# 5. PARTS LOCATION & PARTS LIST

## 5-1. F-3861 Mechanism Control Circuit Board (Stock No. 00775101)

Component Side



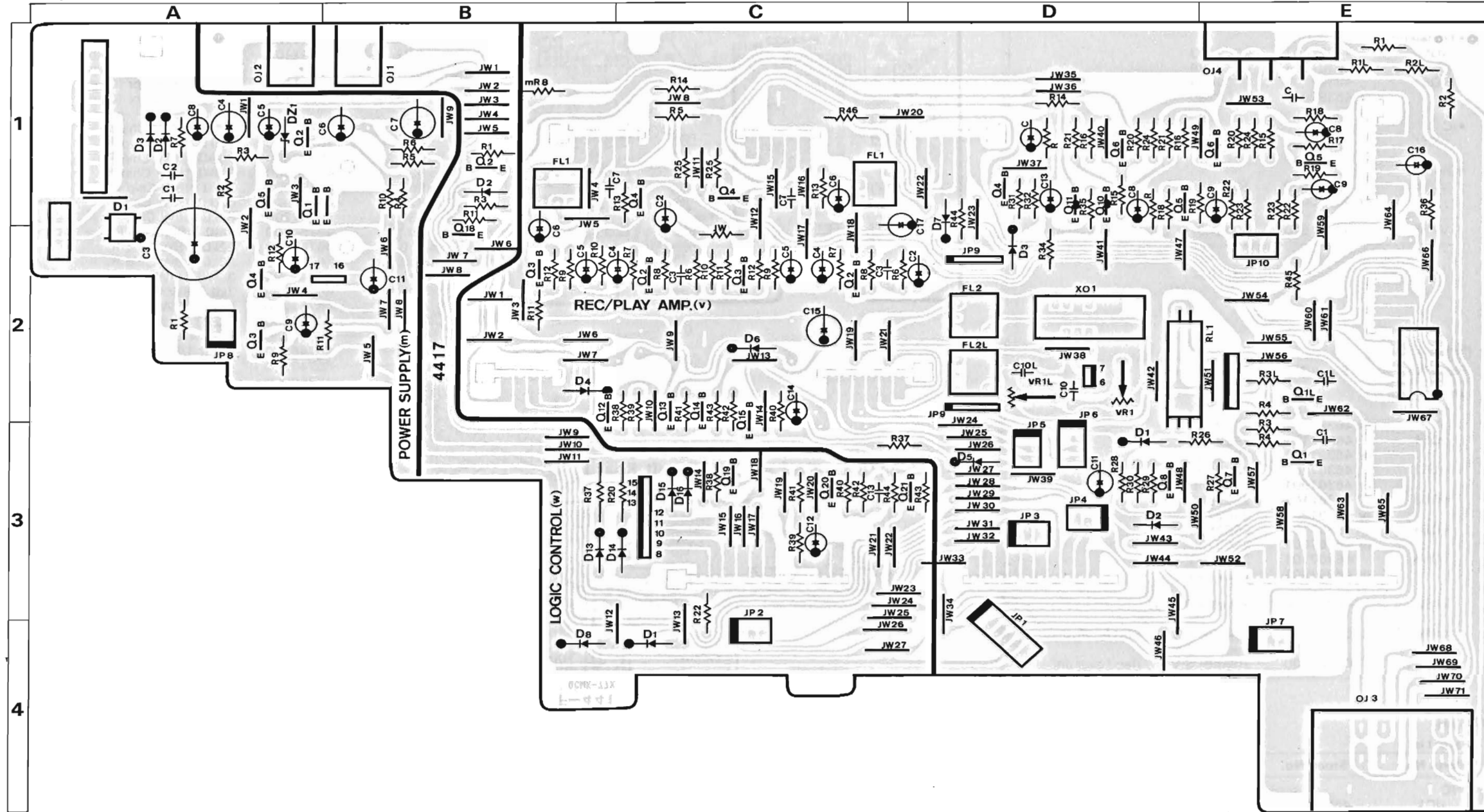
Parts List

Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
<b>•Transistor</b>			<b>•Diode</b>		
wQ1	46367001	2SA1115	wD3	03117600	1S2473
	or 46392001	2SA1175		or 46086000	1S1588
wQ3	46367001	2SA1115	wD4	03117600	1S2473
	or 46392001	2SA1175		or 46086000	1S1588
wQ4	46367101	2SC2603	wD5	03117600	1S2473
	or 46391901	2SC2785		or 46086000	1S1588
wQ5	46367001	2SA1115	wD6	03117600	1S2473
	or 46392001	2SA1175		or 46086000	1S1588
wQ6	46367001	2SA1115	wD7	03117600	1S2473
	or 46392001	2SA1175		or 46086000	1S1588
wQ7	46367101	2SC2603	wD9	03117600	1S2473
	or 46391901	2SC2785		or 46086000	1S1588
wQ8	46367101	2SC2603	wD10	03117600	1S2473
	or 46391901	2SC2785		or 46086000	1S1588
wQ9	03085201	2SD438	wD11	03117600	1S2473
wQ10	46367101	2SC2603		or 46086000	1S1588
	or 46391901	2SC2785	wD12	03117600	1S2473
wQ11	46367101	2SC2603		or 46086000	1S1588
	or 46391901	2SC2785	wD21	03117600	1S2473
wQ12	46367101	2SC2603		or 46086000	1S1588
	or 46391901	2SC2785	wD22	03117600	1S2473
wQ13	46367001	2SA1115		or 46086000	1S1588
	or 46392001	2SA1175	wD23	03117600	1S2473
wQ14	46367101	2SC2603		or 46086000	1S1588
	or 46391901	2SC2785	wD24	03117600	1S2473
wQ15	46359801	2SC2001		or 46086000	1S1588
wQ16	46359801	2SC2001			
wQ17	46367101	2SC2603			
	or 46391901	2SC2785			
<b>•IC</b>					
wIC1	46406700	TC9143P			
wIC2	46427100	μPD4023BC			
	or 46165600	MSM4023RS			
wIC3	46369800	TC9138AP			



5-2. F-4417 Main Circuit Board (Stock No. 00774601)

Component Side



Parts List

Parts No.	Stock No.	Description
•Transistor		
△ mQ1	03083901	2SD313AL
mQ2	46367101	2SC2603
	or 46391901	2SC2785
△ mQ3	03085201	2SD438
△ mQ4	03085201	2SD438
mQ5	46367101	2SC2603
	or 46391901	2SC2785
•Diode		
△ mD1	46273600	DBB10-B
mD2	03117600	1S2473
	or 46086000	1S1588
mD3	03117600	1S2473
	or 46086000	1S1588

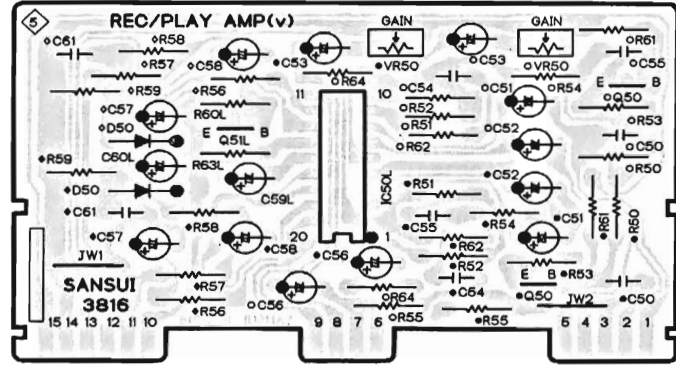
Parts No.	Stock No.	Description
•Zener Diode		
mDZ1	46111500	05Z5.6-Y
•Fuse		
△ mF1	07184600	Fuse 250V 800mA <EU.BS.AS>
•Resistor		
△ mR1	46228000	15Ω 1/2W N.I.R.
△ mR9	46235300	47Ω 1/2W N.I.R.
•Jack		
oJ1	46411800	Mini Jack, COMPU SELECTOR
oJ2	46411800	Mini Jack, COMPU EDIT
oJ3	46212000	jack, MIC
oJ4	46371500	4P Input/Output Terminal Board, LINE IN.LINE OUT
•Transistor		
vQ1	46359801	2SC2001

Parts No.	Stock No.	Description
vQ2	46367101	2SC2603
	or 46391901	2SC2785
vQ3	46367101	2SC2603
	or 46391901	2SC2785
vQ4	46367101	2SC2603
	or 46391901	2SC2785
vQ5	46367101	2SC2603
	or 46391901	2SC2785
vQ6	46367101	2SC2603
	or 46391901	2SC2785
vQ7	46367101	2SC2603
	or 46391901	2SC2785
vQ8	46367101	2SC2603
	or 46391901	2SC2785
vQ9	46367101	2SC2603
	or 46391901	2SC2785

Parts No.	Stock No.	Description
vQ10	46367001	2SA1115
	or 46392001	2SA1175
vQ11	46367001	2SA1115
	or 46392001	2SA1175
vQ12	46367101	2SC2603
	or 46391901	2SC2785
vQ13	46367101	2SC2603
	or 46391901	2SC2785
vQ14	46367001	2SA1115
	or 46392001	2SA1175
vQ15	46367101	2SC2603
	or 46391901	2SC2785
•IC		
viC1	07264600	MSM4066RS
•Diode		
vD1	03117600	1S2473
	or 46086000	1S1588
vD2	03117600	1S2473
	or 46086000	1S1588
vD3	03117600	1S2473
	or 46086000	1S1588
vD4	03117600	1S2473
	or 46086000	1S1588
vD5	03117600	1S2473
	or 46086000	1S1588
vD6	03117600	1S2473
	or 46086000	1S1588
vD7	03117600	1S2473
	or 46086000	1S1588
vD8	03117600	1S2473
	or 46086000	1S1588
vXO1	46502600	OSC Block
vFL1	46177500	Dolby Filter
	or 46177501	Dolby Filter
vFL2	07237900	Bias Filter
		Bias Trap
vVR1	10371000	100kΩ(B) S.V.R., Bias adj.
vRL1	11504700	Relay
•Transistor		
wQ2	46367101	2SC2603
	or 46391901	2SC2785
wQ18	46367101	2SC2603
	or 46391901	2SC2785
wQ19	46367001	2SA1115
	or 46392001	2SA1175
wQ20	46367001	2SA1115
	or 46392001	2SA1175
wQ21	46367001	2SA1115
	or 46392001	2SA1175
•Diode		
wD1	03117600	1S2473
	or 46086000	1S1588
wD2	03117600	1S2473
	or 46086000	1S1588
wD8	03117600	1S2473
	or 46086000	1S1588
wD13	03117600	1S2473
	or 46086000	1S1588
wD14	03117600	1S2473
	or 46086000	1S1588
wD15	03117600	1S2473
	or 46086000	1S1588
wD16	03117600	1S2473
	or 46086000	1S1588
△ wR20	46249200	82Ω 1W N.I.R.
△ wR37	46249200	82Ω 1W N.I.R.

5-3. F-3816 Mic Amp & Auto Level Control Circuit Board (Stock No. 00727501)

Component Side



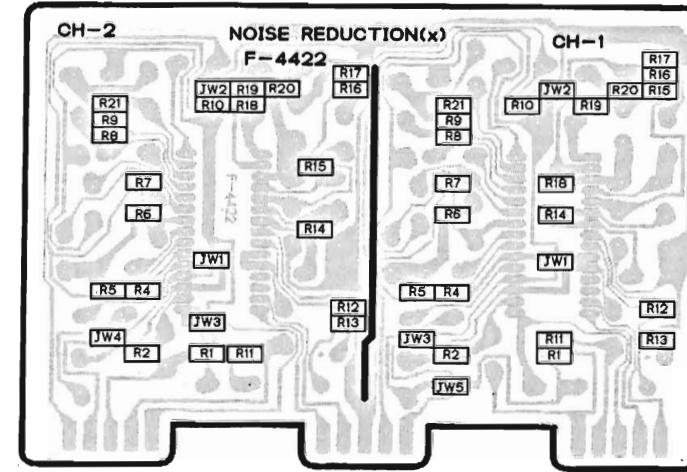
\*Note: On this circuit board, the right channel is specified by "●" or "◆" mark on top of the parts No.

Parts List

Parts No.	Stock No.	Description
•Transistor		
vQ50	46367101	2SC2603
	or 46391901	2SC2785
vQ51	46367101	2SC2603
	or 46391901	2SC2785
•IC		
vIC50	46362100	M51161P
•Diode		
vD50	03117600	1S2473
	or 46086000	1S1588
vVR50	07261500	500Ω (B) S.V.R., P.B. Level adj.

<F-4422>

Pattern Side <Chip Resistor-Cross Conductor Side>

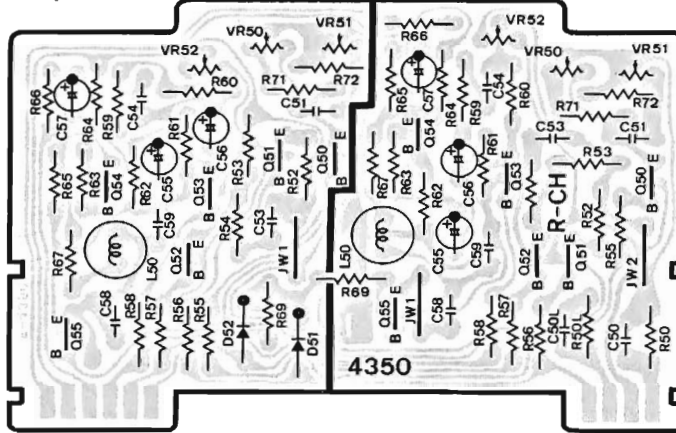


Parts List

Parts No.	Stock No.	Description
xJW1	46741100	Cross Conductor (Chip)
xJW2	46741100	Cross Conductor (Chip)
xJW3	46741100	Cross Conductor (Chip)
xJW4	46741100	Cross Conductor (Chip)
xJW5	46741100	Cross Conductor (Chip)
xR1	46754000	4/0kΩ 1/8W Chip R.
xR2	46749400	5.6kΩ 1/8W Chip R.
xR4	46749800	8.2kΩ 1/8W Chip R.
xR5	46748800	3.3kΩ 1/8W Chip R.
xR6	46750900	24kΩ 1/8W Chip R.
xR7	46749500	6.2kΩ 1/8W Chip R.
xR8	46752200	82kΩ 1/8W Chip R.
xR9	46754800	1MΩ 1/8W Chip R.
xR10	46752200	82kΩ 1/8W Chip R.
xR11	46752200	82kΩ 1/8W Chip R.
xR12	46748800	3.3kΩ 1/8W Chip R.
xR13	46747600	1kΩ 1/8W Chip R.
xR14	46752200	82kΩ 1/8W Chip R.
xR15	46749500	6.2kΩ 1/8W Chip R.
xR16	46752200	82kΩ 1/8W Chip R.
xR17	46746800	470Ω 1/8W Chip R.
xR18	46749200	4.7kΩ 1/8W Chip R.
xR19	46750000	10kΩ 1/8W Chip R.
xR20	46752000	68kΩ 1/8W Chip R.
xR21	46754800	1MΩ 1/8W Chip R.

5-4. F-4350 REC Amp. Circuit Board (Stock No. 00775401)

Component Side

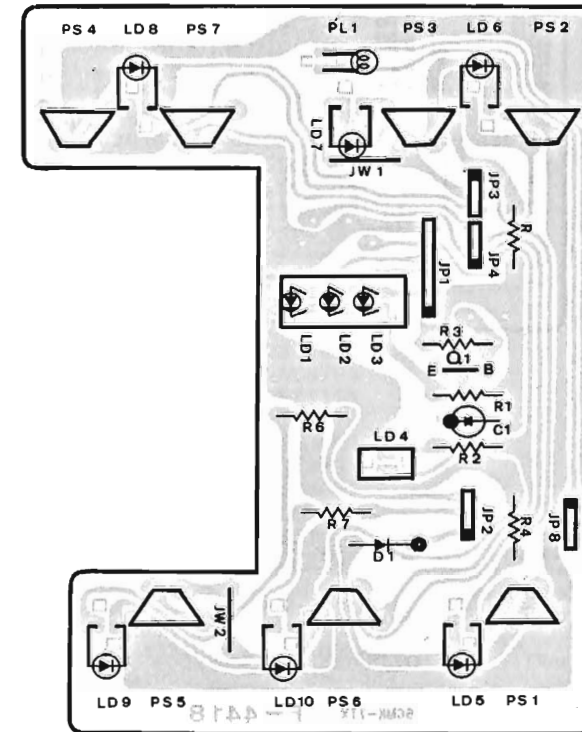


Parts List

Parts No.	Stock No.	Description
•Transistor		
vQ50	46367101	2SC2603
	or 46391901	2SC2785
vQ51	46367101	2SC2603
	or 46391901	2SC2785
vQ52	46367101	2SC2603
	or 46391901	2SC2785
vQ53	46367101	2SC2603
	or 46391901	2SC2785
vQ54	46367101	2SC2603
	or 46391901	2SC2785
vQ55	46367101	2SC2603
	or 46391901	2SC2785
vL50	46313900	Inductor 2.7mH
vVR50	07262100	50kΩ(B) S.V.R., METAL Position Rec Level adj.
vVR52	07262000	20kΩ(B) S.V.R., Rec Level adj.

5-6. F-4418 Control Switch Circuit Board

Component Side



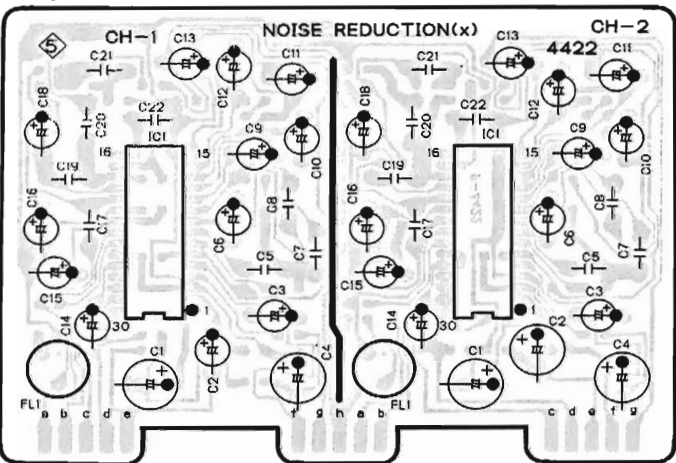
Parts No.	Stock No.	Description
•L.E.D.		
nLD1	07250900	TLG-123A (Green)
	or 46470300	SEL2410E (Green)
nLD2	07251000	TLY-123 (Yellow)
	or 46470400	SEL2910A (Yellow)
nLD3	46176900	TLS-123 (Red)
	or 46470200	SEL2210S (Red)
nLD4	07251000	TLY-123 (Yellow)
	or 46470400	SEL2910A (Yellow)
nLD5	46176900	TLS-123 (Red)
	or 46470200	SEL2210S (Red)
nLD6	46176900	TLS-123 (Red)
	or 46470200	SEL2210S (Red)
nLD7	46176900	TLS-123 (Red)
	or 46470200	SEL2210S (Red)
nLD8	46176900	TLS-123 (Red)
	or 46470200	SEL2210S (Red)
nLD9	46176900	TLS-123 (Red)
	or 46470200	SEL2210S (Red)
nLD10	46176900	TLS-123 (Red)
	or 46470200	SEL2210S (Red)
nPL1	46286600	Pilot Lamp 150mA 12V
•Diode		
oD2	03117600	1S2473
	or 46086000	1S1588
oPS1	46395900	Push SW., REC MUT
oPS2	46395900	Push SW., REW
oPS3	46395900	Push SW., F. FWD
oPS4	46395900	Push SW., PLAY
oPS5	46395900	Push SW., REC
oPS6	46395900	Push SW., PAUSE
oPS7	46395900	Push SW., STOP

Parts List

Parts No.	Stock No.	Description
•Transistor		
nQ1	46367101	2SC2603
	or 46391901	2SC2785
•Diode		
nD1	03117600	1S2473
	or 46086000	1S1588

5-5. F-4422 Noise Reduction Circuit Board (Stock No. 00775301)

Component Side

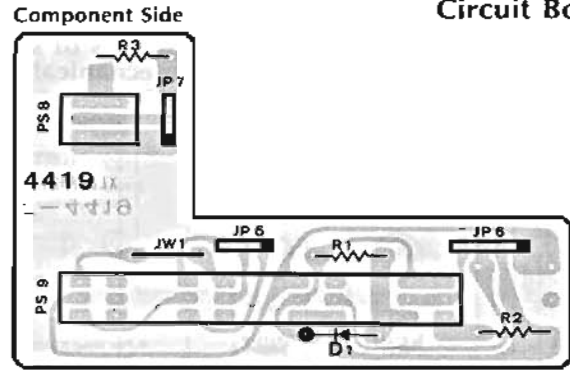


Parts List

Parts No.	Stock No.	Description
•IC		
xIC1	46671900	HA12058NT
xFL1	46177600	Trap Filter (19.8 kHz)



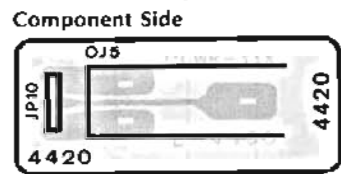
5-7. F-4419 AMPS & DOLBY NR Switch Circuit Board



**Parts List**

Parts No.	Stock No.	Description
•Diode		
oD1	03117600 or 46086000	1S2473 1S1588
oPS8	46408700	Push SW., AMPS
oPS9	46926000	Push SW., METAL/HIGH/ NORMAL-DOLBY NR

5-8. F-4420 Headphones Jack Circuit Board

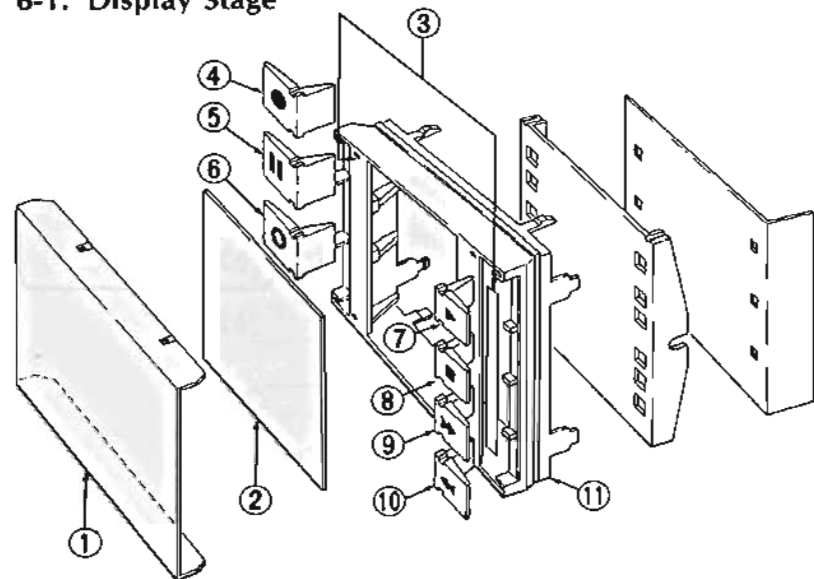


**Parts List**

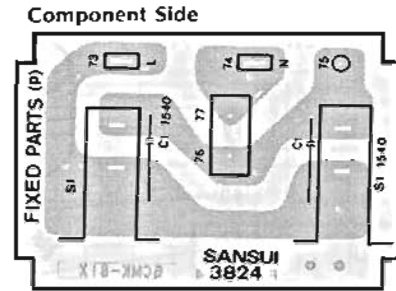
Parts No.	Stock No.	Description
oJ5	46265700	Jack, PHONES

6. OTHER PARTS

6-1. Display Stage



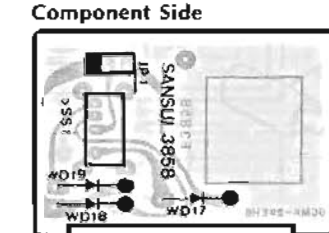
5-9. F-3824 Power Switch Circuit Board



**Parts List**

Parts No.	Stock No.	Description
△pC1	46425800	10000pF 400V C.C.
△pZ30	07204700	Slide SW., Voltage Selector <EU,BS>
△pS1	46360300	Push SW., POWER

5-10. F-3858 COMPU EDIT & TIMER Switch Circuit Board



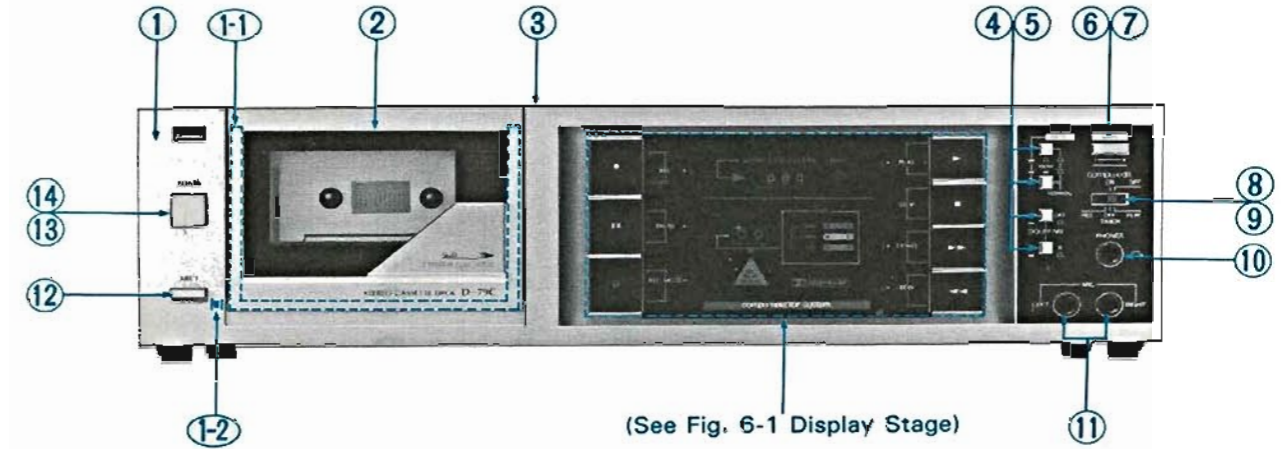
**Parts List**

Parts No.	Stock No.	Description
oS1	46408600	Slide SW., TIMER-COMPU EDIT.
•Diode		
wD17	03117600 or 46086000	1S2473 1S1588
wD18	03117600 or 46086000	1S2473 1S1588
wD19	03117600 or 46086000	1S2473 1S1588

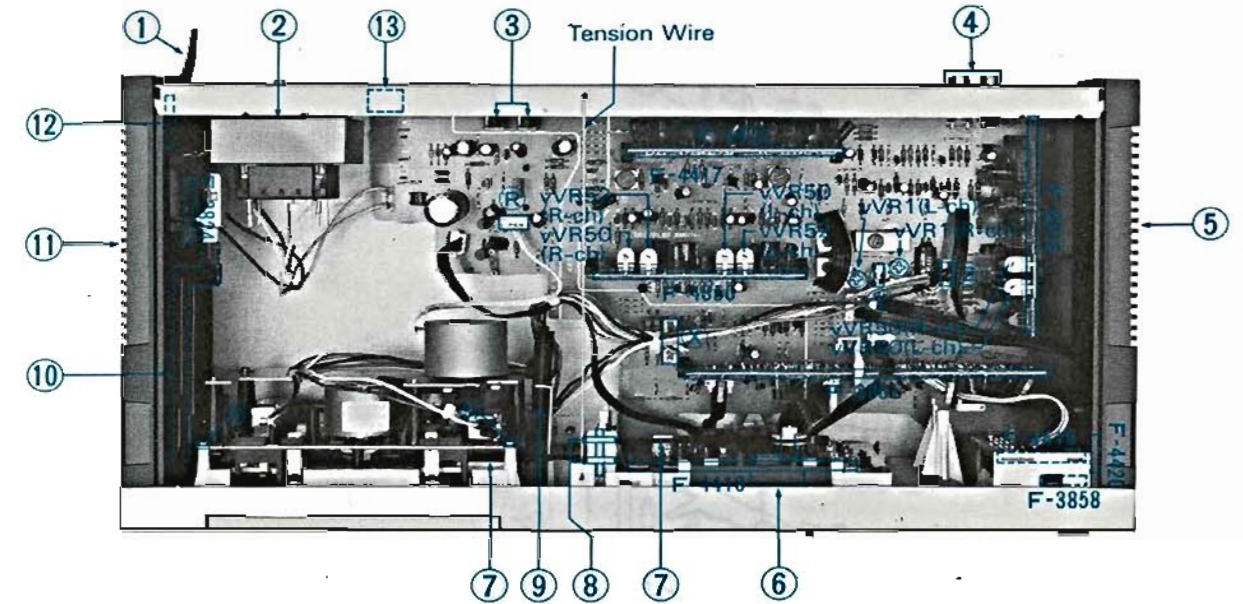
**Parts List <Display Stage>**

Parts No.	Stock No.	Description
1	47443120	Display Cover
2	47443000	Display Panel
3	47071410	Cushion Rubber
4	47434400	Push Knob, REC
5	47434500	Push Knob, PAUSE
6	47434600	Push Knob, REC MUT
7	47413100	Push Knob, PLAY
8	47431800	Push Knob, STOP
9	47420100	Push Knob, F. FWD
10	47420200	Push Knob, REW
11	07921900	Display Holder

6-2. Front View



6-3. Top View



**Parts List <Front View>**

Parts No.	Stock No.	Description
1	47526900	Front Panel Ass'y (Silver Model)
	47527000	Front Panel Ass'y (Black Model)
1-1	07992310	Cassette Well
1-2	47079700	Cassette Well Spring
2	47413500	Cassette Lid Ass'y (Silver Model)
	47413600	Cassette Lid Ass'y (Black Model)
3	07966900	Bonnet
4	47234600	Push Knob, METAL/HIGH/ NORMAL-DOLBY NR (Silver Model)
	07917300	Push Knob, METAL/HIGH/ NORMAL-DOLBY NR (Black Model)
5	46926000	Push SW., METAL/HIGH/ NORMAL-DOLBY NR
6	47374000	Push Knob, AMPS
7	46408700	Push SW., AMPS
8	07945710	Slide Knob, COMPU EDIT. TIMER
9	46408600	Slide SW., COMPU EDIT. TIMER
10	46265700	Jack, PHONES
11	46212000	Jack, MIC
12	07945400	Push Knob, EJECT (Silver Model)
	07945500	Push Knob, EJECT (Black Model)
13	07971210	Push Knob, POWER (Silver Model)
	07911210	Push Knob, POWER (Black Model)
△ 14	46360300	Push SW., POWER

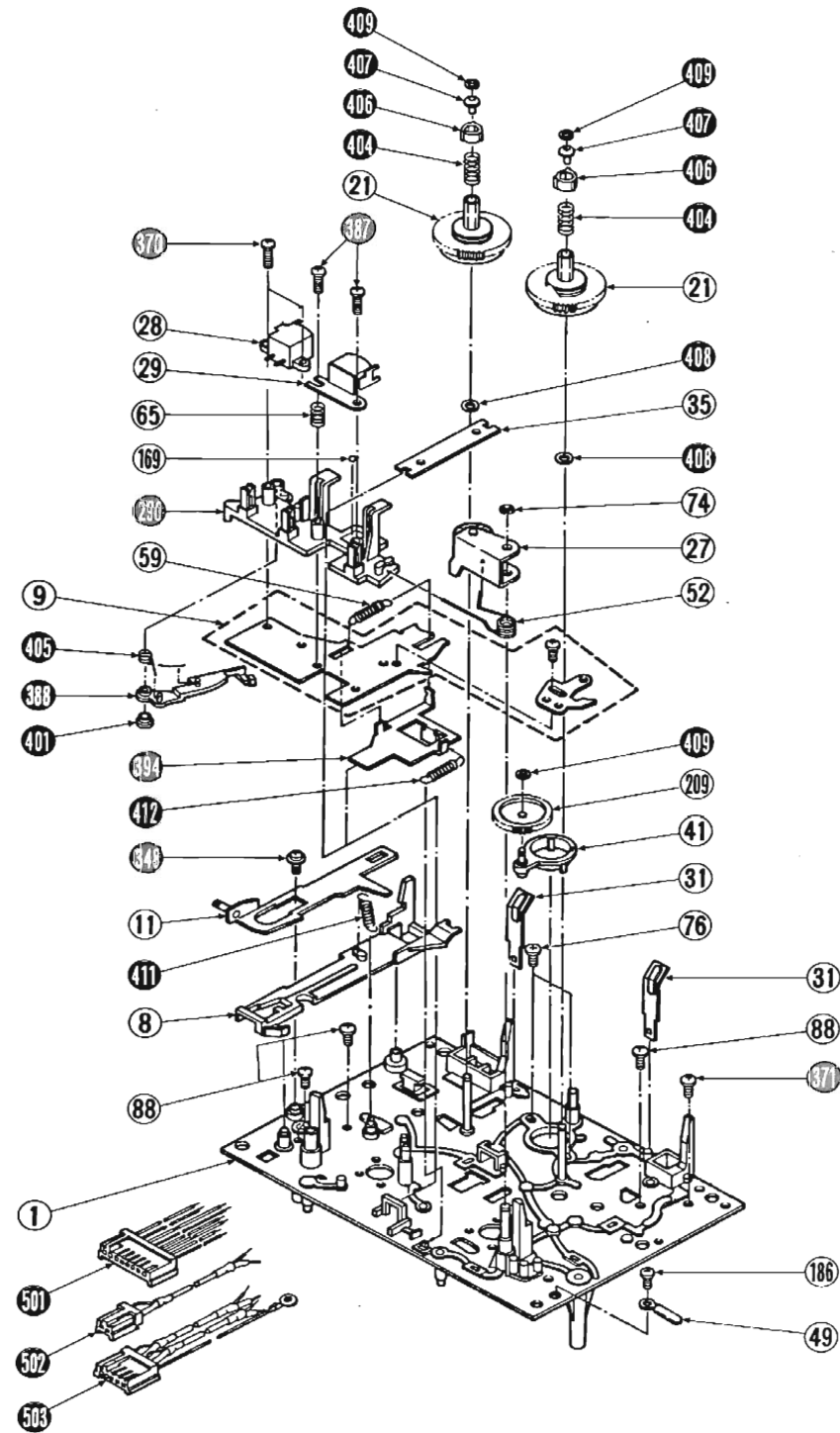
**Parts List <Top View>**

Parts No.	Stock No.	Description
△ 1	38005400	Power Supply Cord <XX, CSA>
△	38004700	Power Supply Cord <UL>
△	38004500	Power Supply Cord <EU>
△	38004300	Power Supply Cord <BS>
△ 2	07204200	Power Supply Cord <AS>
△	15011701	Power Transformer <XX>
△	15011702	Power Transformer <UL,CSA>
△	15011705	Power Transformer <EU,BS,AS>
3	46411800	Mini Jack, COMPU EDIT- COMPU SELECTOR
4	46371500	4P Input/Output Terminal Board LINE IN/LINE OUT
5	07952700	Side Panel (Right)
6	46370400	Tape Counter
7	07976700	Belt, Counter
8	07920600	Pully
9	46370300	Eject Dumper
10	07920700	Joint Shaft, Power SW.
11	07952600	Side Panel (Left)
12	07917700	Power Supply Cord Cover
△ 13	07204700	Slide SW., Voltage Selector <EU,BS>

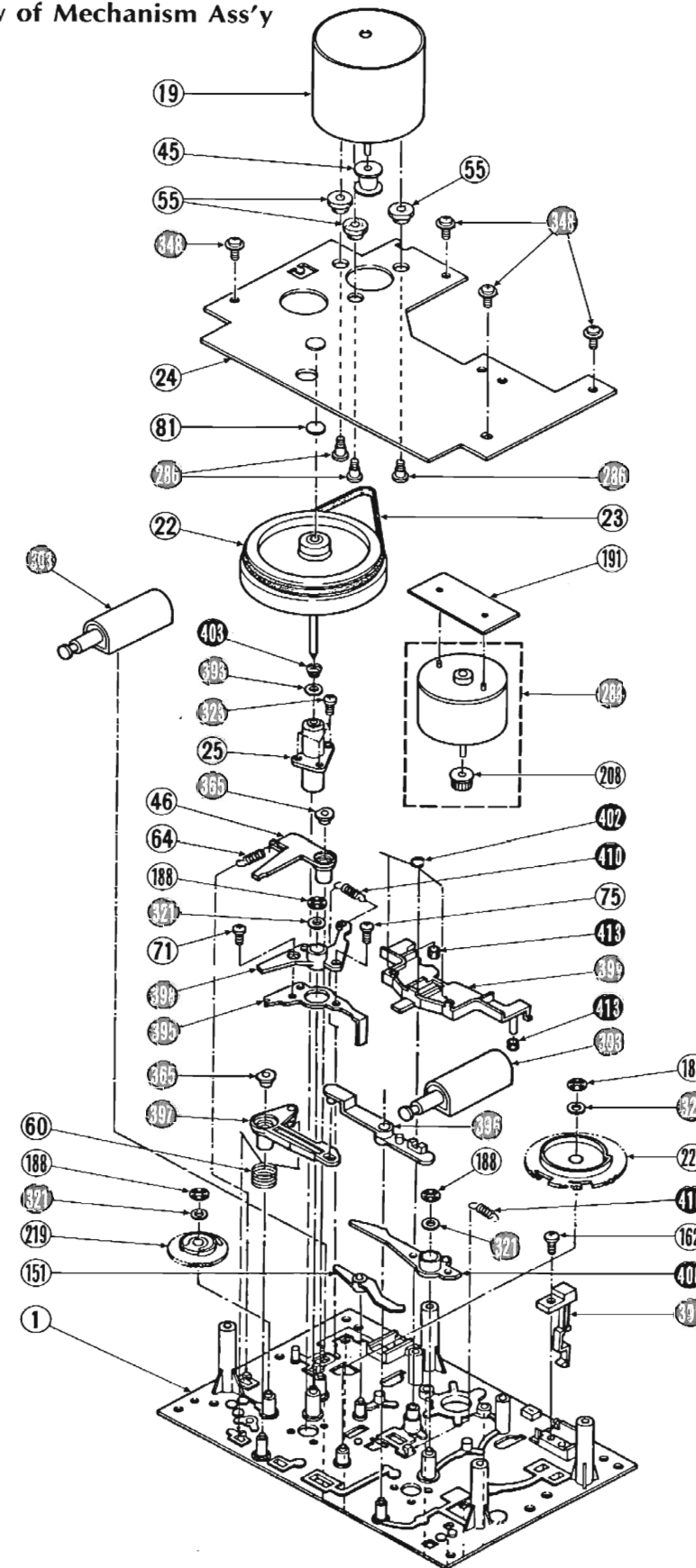
# 7. EXPLODED VIEW & PARTS LIST

### 7-1. Front View of Mechanism Ass'y

• Though every part included in mechanism ass'y is numbered in exploded view, parts unlisted in the parts list are not supplied.



### 7-2. Rear View of Mechanism Ass'y



- ① ~ ⑤⑨
- ⑥⑩ ~ ②②⑨
- ②③⑩ ~ ③⑨⑨
- ④①① ~ ⑤①③

### •Shapes of standard mechanical parts

1. Pan Head Tapping Screw . . . PT Type	
2. Washer Head Tapping Screw . . . WT Type	
3. Pan Head Screw . . . P Type	
4. Pan Head SEMS A Screw . . . PSA Type	
5. Pan Head SEMS B Screw . . . PSB Type	
6. Binding Head SEMS F Screw . . . BSF Type	
7. Binding Head Screw . . . B Type	
8. Flat Counter Sunk Head Screw . F Type	
9. Flat Counter Sunk Wood Screw . . . FC Type	
10. Round Head Wood Screw . . . RH Type	
11. Hex. Socket Setscrew . . . SC Type	
12. Slot Type Setscrew . . . SS Type	
13. Binding Head SEMS B Screw . . . BSB Type	
14. Spring Washer . . . S Type	
15. Plain Washer . . . P Type	
16. Retaining Ring (E Washer). . . E Type	
17. Toothed Lock Washer (External) . . . TLE Washer	
18. Wave Washer	
19. Hexagon Nut H Type Nut	

Parts List <Mechanism Ass'y>

Parts No.	Stock No.	Description
8	47014400	Slider Lock Plate
19	37008500	Capstan Motor
21	47014600	Reel Hub
22	47014700	Flywheel Ass'y (capstan)
23	47014800	Capstan belt
27	47015000	Pinch Roller Ass'y
28	07997400	Erase Head
29	47155700	Rec/PB Head
31	47015100	Cassette Holder Spring
35	47015200	Slider Hold Plate Spring
41	47015300	Idler Gear Arm
45	47015400	Pulley, capstan motor
46	47015500	AMPS Lock Lever
52	47015600	Pinch Roller Spring
55	47015700	Cushion, Motor
59	47015800	Play Slider Plate Spring
60	47015900	Play Lock Lever Spring
64	47016000	AMPS Lock Lever Spring
65	47016100	Head Adjust Spring
71	07736400	Binding Head Screw M2.6×3
74	00489000	E ring d=2.0
75	47016200	Binding Head Screw M2.6×5
76	00421400	Binding Head Screw M2.6×8
88	00421200	Binding Head Screw M2.6×4
151	47016300	Brake lever
162	00440600	pan Head Tapping Screw M2.6×8
169	09462700	Steel Ball d=3.0
186	47016200	Binding Head Screw M2.6×5
188	51822900	CS Type Ring d=3.0
209	47016500	Idler Gear
219	47016600	Cam Gear, AMPS
221	47016700	Cam Gear, Play
286	47016800	Special Screw M2.6×1
288	47016900	Reel Motor Ass'y (with Gear)
290	47017000	Head Base
303	47213500	Plunger Solenoid, Play AMPS
321	00466400	Plain Washer d=3.0
323	47017200	Binding Head Tapping Screw M2.6×3
348	47004600	Washer Head Tapping Screw M2.6×8
365	47017300	Bush
370	47017400	Binding Head Delite Screw M2.0×14
387	47017500	Binding Head Delite Screw M2.0×13
388	47017600	Kick Lever Ass'y
391	47017700	Leaf Switch, rec prevention
393	47017800	Washer d=2.5
396	47018000	Plunger Lever
397	47018100	Lock Plate Lever
398	47018200	AMPS Lever
399	47018300	Brake Slider
400	47018400	Play Lever
401	47018500	Spacer
402	47018600	Brake Spring
403	47018700	Flywheel Spring
404	47018800	Reel Spring
405	47018900	Kick Lever Spring
406	47019000	Reel Collar
407	47019100	Reel Cap
408	07613000	Thrust Washer d=2.0
409	47019200	Thrust Washer d=1.6
410	47019300	Play lever Spring
411	47019400	Lock Slider Spring
412	47019500	Play Slider Spring
413	47019600	Cushion, Brake

## 8. MAIN PARTS REPLACEMENT

(See EXPLODED VIEW and Top View on Page 10)

### A. Mechanism assembly

- 1) Remove the bonnet and the bottom plate.
- 2) Extract four connectors ㉔, ㉕, ㉖ and ㉗.
- 3) Remove four screws ㉘ fixing mechanism assembly.
- 4) Pull out the mechanism assembly from the rear panel side.

### B. Reel motor ㉙

- 1) Pull out the mechanism assembly from the rear panel side.
- 2) Remove two screws ㉚ fastening reel motor and idler gear arm ㉛.
- 3) Pull out reel motor from the back side.

### C. Idler Gear ㉜

- 1) Pull out the mechanism assembly, from the rear panel side.
- 2) Remove the washer ㉝, retaining the idler gear.
- 3) Remove the idler gear from the idler gear arm.

### D. Reel Hub ㉞, Cushion (brake) ㉟

- 1) Pull out the mechanism assembly from the rear panel side.
- 2) Remove the thrust washer ㊱ reel cap ㊲, reel collar ㊳ and reel spring ㊴ and pull out the reel hub.
- 3) Extract the cushion (brake) from the brake slider.

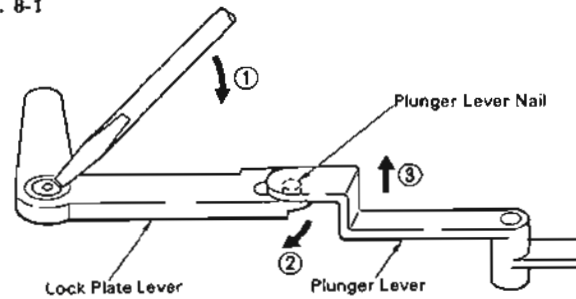
### E. Capstan Motor ㊵, Flywheel ㊶

- 1) Pull out the mechanism assembly from the rear panel side.
- 2) Remove four screws ㊷ fixing the capstan motor mounting plate.
- 3) Remove three screws ㊸ fastening capstan motor.
- 4) Remove the capstan motor.
- 5) Pull out the flywheel from mechanism assembly.

### F. Play Cam Gear ㊹ (See Fig. 8-1)

- 1) Perform the same manner as for the flywheel.
- 2) Remove the bush ㊺ fastening the lock plate lever ㊻.
- 3) Take out the plunger lever nail from the lock plate lever.
- 4) Remove the lock plate lever.
- 5) Remove the CS type ring ㊼ retaining the play cam gear.
- 6) Take out the plain washer ㊽ and extract the play cam gear.

Fig. 8-1



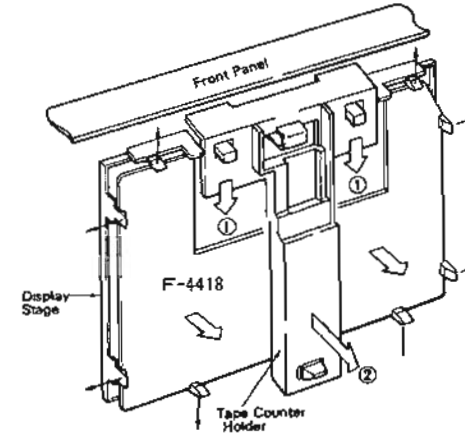
### G. AMPS Cam Gear ㊾

- 1) Perform the same manner as for the flywheel.
- 2) Remove the AMPS lock lever spring ㊿ from the AMPS lock lever ㉀.
- 3) Remove the bush ㉁ fastening AMPS lock lever and take out the AMPS lock lever.
- 4) Remove the CS type ring ㉂ fastening AMPS cam gear.
- 5) Remove the plain washer ㉃ and extract the AMPS cam gear.

### H. Display Stage

- 1) Remove bonnet and bottom plate.
- 2) Remove the tape counter belt and relay pulley. (See Top View on page 10)
- 3) Remove the tape counter holder from front panel (See Fig. 8-2)
- 4) Remove the circuit board F-4418 from display stage. (See Fig. 8-2)
- 5) Remove the display stage from front panel assembly.

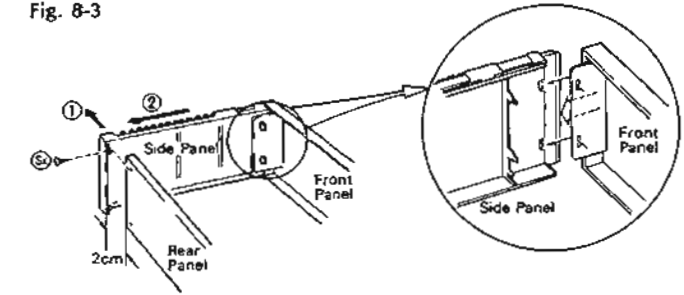
Fig. 8-2



### I. Side Panel L (R)

- 1) Remove the bonnet and the bottom plate.
- 2) Remove the screw Sx fixing side panel L (R).
- 3) Shift the position of the side panel. L (R) 2cm in the arrow direction ㉑ and then pull it the arrow direction ㉒ to remove the side panel (R). (See Fig. 8-3)

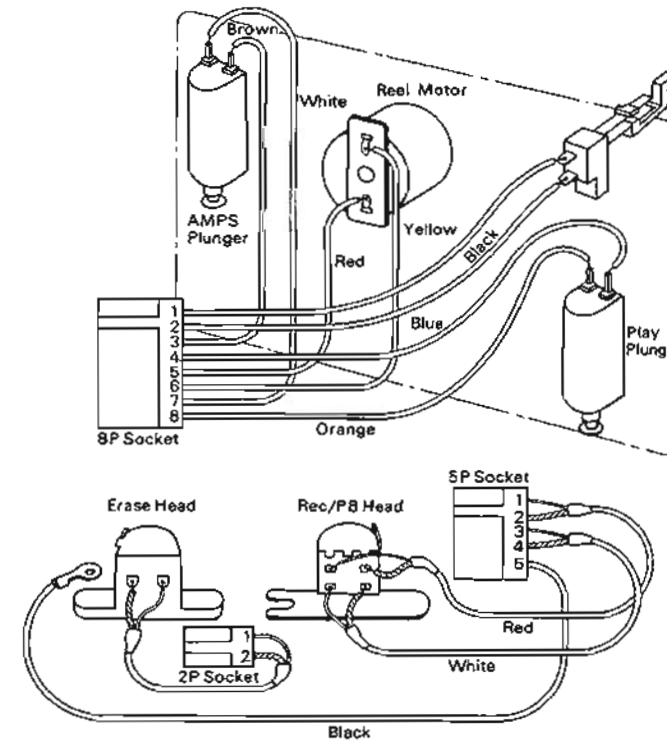
Fig. 8-3



### J. Front Panel Ass'y

- 1) Remove the bonnet and the bottom plate.
- 2) Remove the side panel L and R. (See Replacement I).
- 3) Remove tension wire. (See Top View on page 10).
- 4) Remove counter belt and relay pulley (See Top View on page 10) from front panel assembly.
- 5) Remove the mechanism assembly (See Replacement A).
- 6) Remove tape counter holder from front panel assembly (See Fig. 8-2).
- 7) Remove the circuit board F-4418 from display stage. (See Fig. 8-2)
- 8) Remove the circuit board F-4420 and F-4419 from front panel.
- 9) Remove the display stage from front panel assembly (See Replacement H).

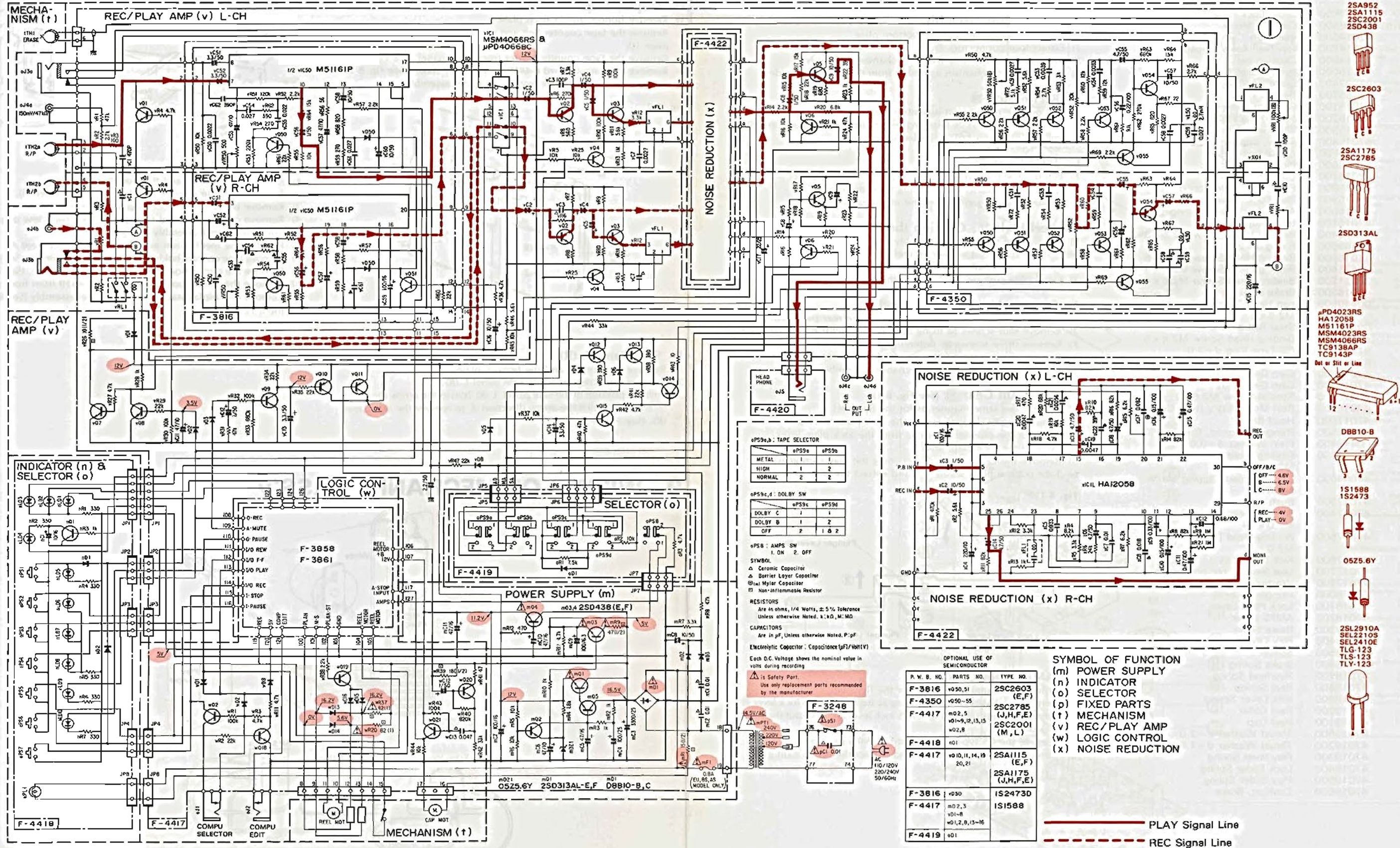
## 9. WIRING OF MECHANISM ASS'Y





10. SCHEMATIC DIAGRAM 10-1. Amp. Section

\*Design and specifications subject to change without notice for improvement.  
 \*La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.  
 \*Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.



oPS9a, b: TAPE SELECTOR

METAL	1	1
HIGH	1	2
NORMAL	2	2

oPS9c, d: DOLBY SW

DOLBY C	1	1
DOLBY B	1	2
OFF	2	1 & 2

oPS8: AMPS SW

ON	2	OFF
----	---	-----

SYMBOL

- △ Ceramic Capacitor
- ▴ Barrier Layer Capacitor
- ⊖ Mylar Capacitor
- ⊞ Non-inflammable Resistor

RESISTORS

Are in ohms, 1/4 Watts, ± 5% Tolerance  
 Unless otherwise Noted, K: kΩ, M: MΩ

CAPACITORS

Are in μf, Unless otherwise Noted, P: pF

Electrolytic Capacitor: Capacitance (μf)/VOLT(V)

Each D.C. Voltage shows the nominal value in volts during recording

⚠ Safety Part.  
 Use only replacement parts recommended by the manufacturer

OPTIONAL USE OF SEMICONDUCTOR

P. W. B. NO.	PARTS NO.	TYPE NO.
F-3816	v050,51	2SC2603 (E,F)
F-4350	v050-55	2SC2785 (J,H,F,E)
F-4417	m02,5 w01-9,12,13,15 w02,8	2SC2001 (M,L)
F-4418	m01	2SA1115 (E,F)
F-4417	w010,11,14,19 20,21	2SA1175 (J,H,F,E)
F-3816	v050	1S24730
F-4417	m02,3 v01-8 w01,2,8,13-16	1S1588
F-4419	e01	

SYMBOL OF FUNCTION

- (m) POWER SUPPLY
- (n) INDICATOR
- (o) SELECTOR
- (p) FIXED PARTS
- (t) MECHANISM
- (v) REC/PLAY AMP
- (w) LOGIC CONTROL
- (x) NOISE REDUCTION

— PLAY Signal Line  
 - - - REC Signal Line

- 2SA952
- 2SA1115
- 2SC2001
- 2SD438
- 2SC2603
- 2SA1175
- 2SC2785
- 2SD313AL
- oPD4023RS
- HA1205B
- MS1161P
- MSM4023RS
- MSM4066RS
- TC9138AP
- TC9143P
- Det or Silt or Line
- DBB10-B
- 1S1588
- 1S2473
- 05Z5.6Y
- 2SL2910A
- SEL2210S
- SEL2410E
- TLG-123
- TLV-123



A

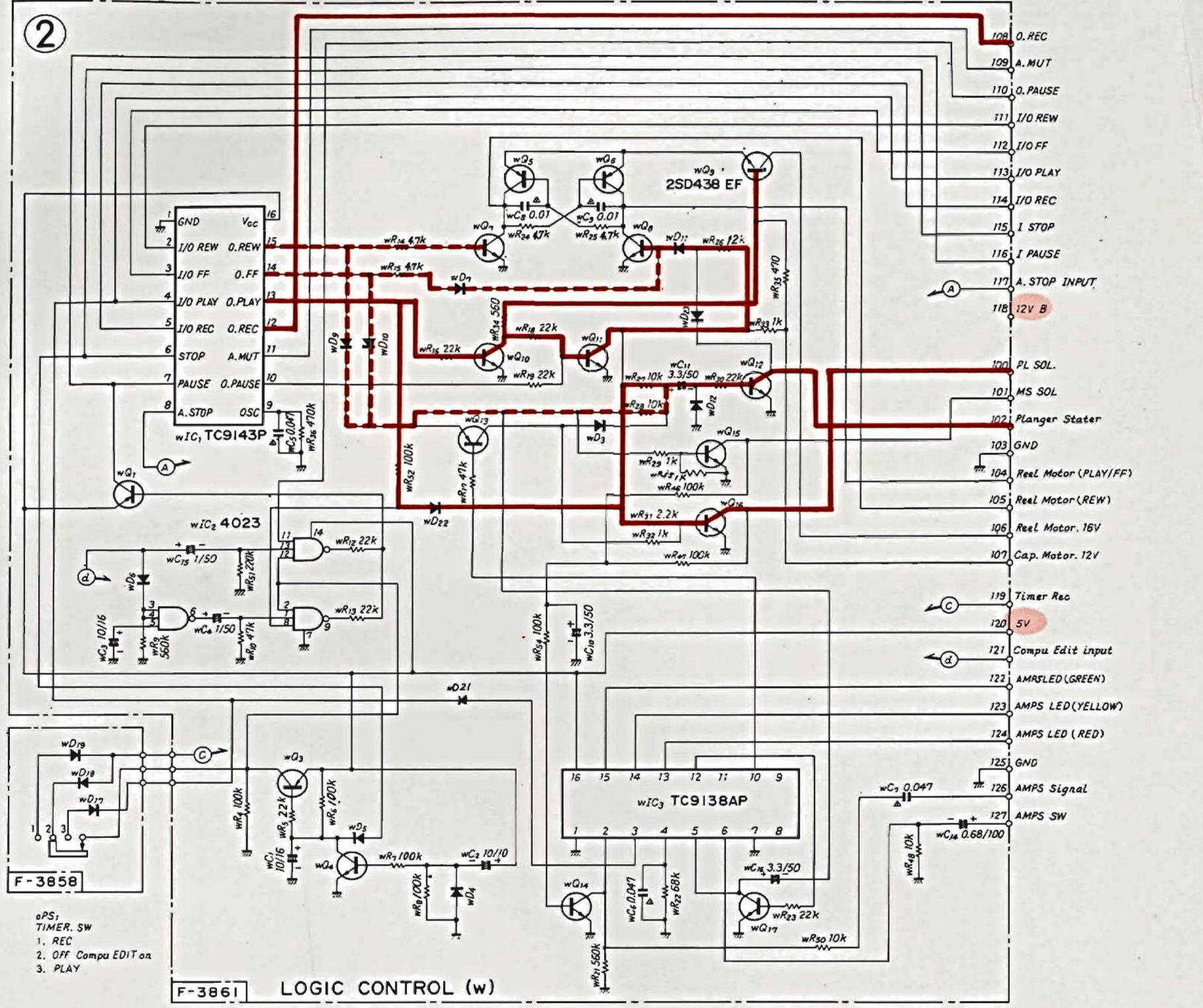
B

C

D

### 10-2. Mechanism Control Section

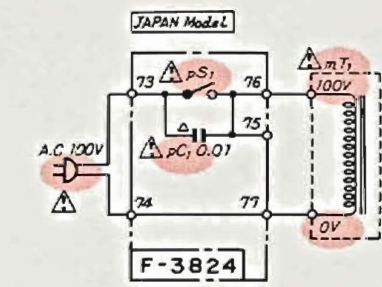
\*Design and specifications subject to change without notice for improvement.  
 \*La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.  
 \*Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.



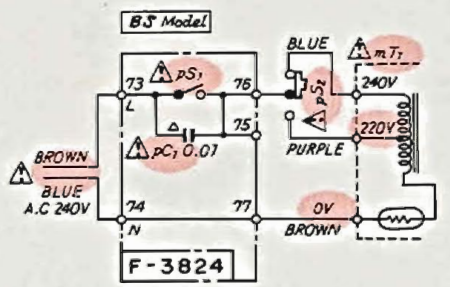
oPS;  
 TIMER. SW  
 1. REC  
 2. OFF Compu EDIT on  
 3. PLAY

F-3861 LOGIC CONTROL (w)

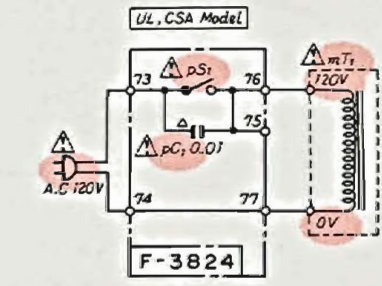
————— PLAY/REC Control Line  
 - - - - - FF/REW Control Line



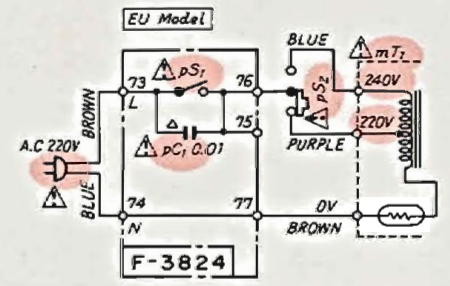
F-3824



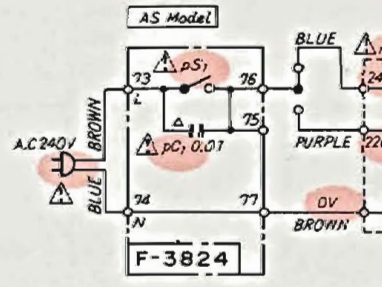
F-3824



F-3824



F-3824



F-3824

⚠ is Safety Part.  
 Use only replacement parts recommended  
 by the manufacturer.

OPTIONAL USE OF SEMICONDUCTOR

PARTS NO	TYPE NO
wD3-12, 17, 18, 19, 22	1S2473D 1S1588
wQ1, 3, 5, 6, 13	2SA1115 JHEF 2SA1175 JHEF
wQ4, 7, 8, 10, 11, 12, 14, 17	2SC2603 EF 2SC2785 JHEF
wQ15, 16	2SC2001 L, M

- 2SA952
- 2SA1115
- 2SC2001
- 2SD438
- DBB10-B
- 0525.6Y
- 2SL2910A
- SEL2210S
- SEL2410E
- TLG-123
- TLS-123
- TLY-123
- μPD4023RS
- HA12058
- M51161P
- MSM4023RS
- MSM4066RS
- TC9138AP
- TC9143P



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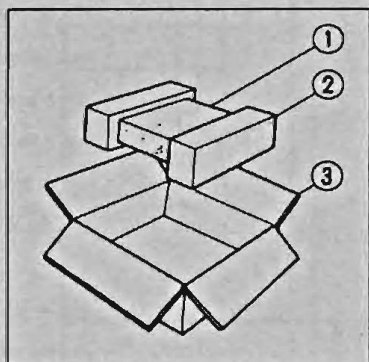
4

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## 11. PACKING LIST

Parts No.	Stock No.	Description
1	91263810	Vinyl Cover
2	07949000	Styrofoam Packing
3	47421600	Carton Case (Silver Model)
	47421700	Carton Case (Black Model)



## 12. ACCESSORY LIST

Stock No.	Description
46799800	Operating Instruction
38103300	PJP Cord
46267300	Mini Plug Cord
94300500	Head Cleaner (Cotton buds)



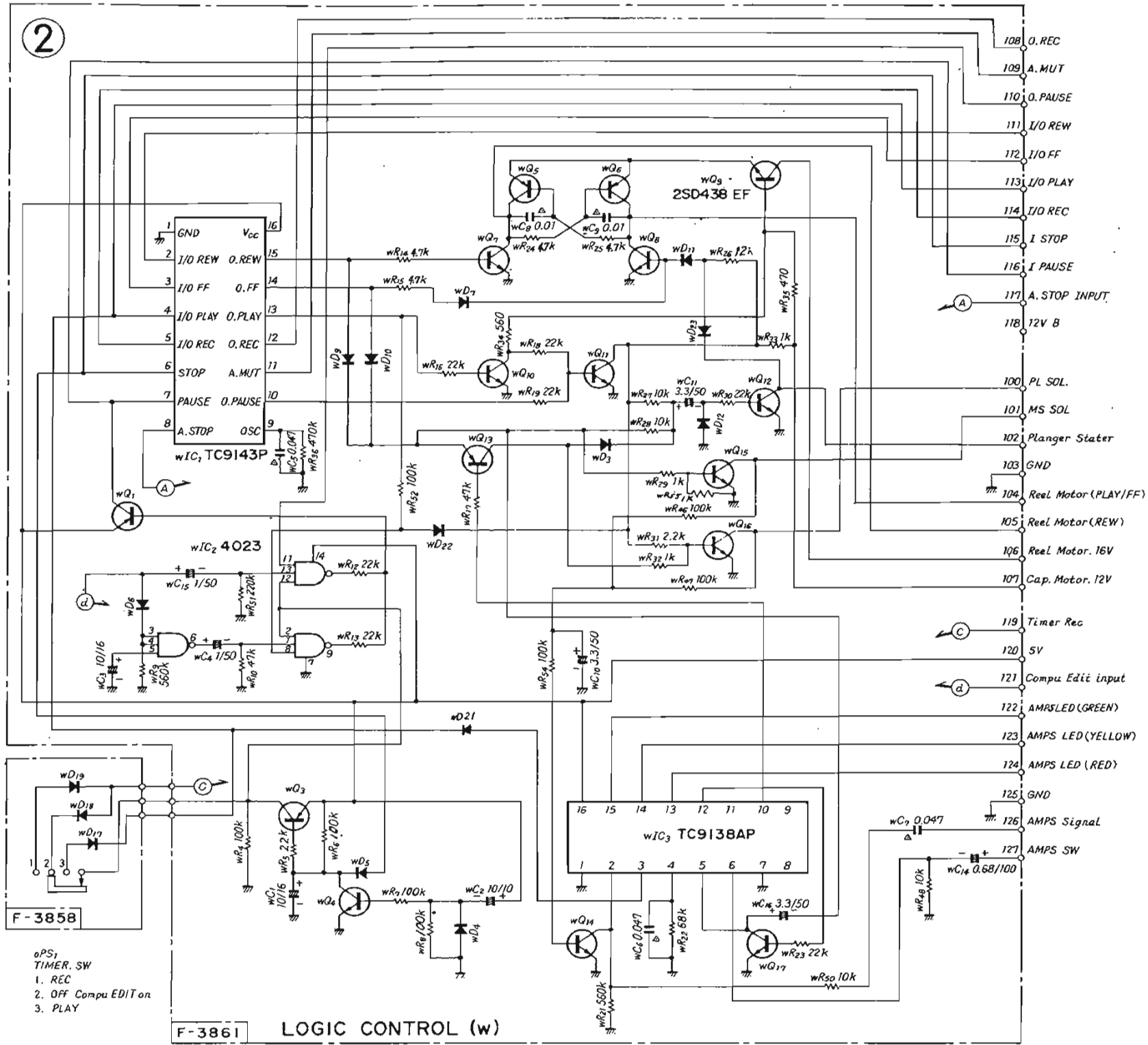
SANSUI ELECTRIC CO., LTD.:  
SANSUI ELECTRONICS CORPORATION:  
SANSUI ELECTRONICS (U.K.) LTD.:  
SANSUI ELECTRONICS G.M.B.H.:

14-1, Izumi 2-chome, Suginami-ku, Tokyo 168 Japan  
PHONE: (03) 324-8891/TELEX: 232-2076 (International Division)  
1250 Valley Brook Ave. Lyndhurst, N.J. 07071 U.S.A.  
17150 South Margay Ave. Carson, California 90746 U.S.A.  
3036 Koapaka Street. Honolulu, Hawaii 96819 U.S.A.  
Unit 10A, Lyon Industrial Estate, Rockware Avenue, Geenford, Middx UB6, OAA, England  
Pau Ehrich Strasse 8, 6074 Rödermark 2, West Germany



10-2. Mechanism Control Section

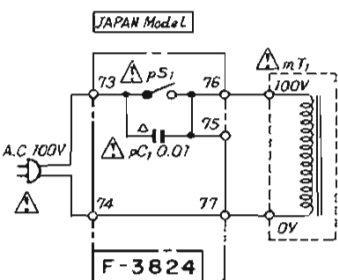
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 \*Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.



wPS1  
 TIMER SW  
 1. REC  
 2. OFF Compu EDIT on  
 3. PLAY

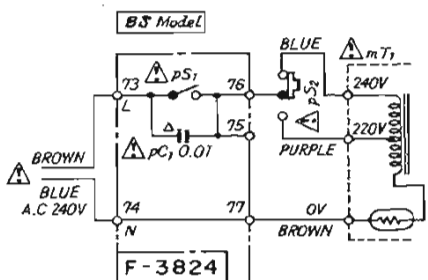
F-3861 LOGIC CONTROL (w)

PLAY/REC Control Line  
 FF/REW Control Line



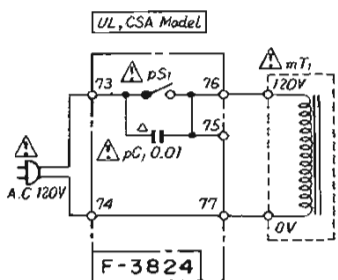
JAPAN Model

F-3824



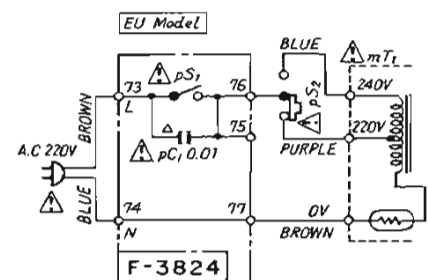
BS Model

F-3824



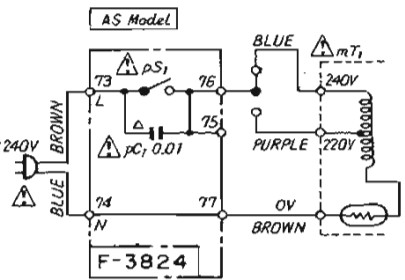
UL, CSA Model

F-3824



EU Model

F-3824



AS Model

F-3824

⚠ is Safety Part.  
 Use only replacement parts recommended by the manufacturer.

OPTIONAL USE OF SEMICONDUCTOR

PARTS NO	TYPE NO
wD3-12, 17, 18, 19, 22	IS2473D IS1588
wQ1, 3, 5, 6, 13	2SA1115 EF 2SA1175 JHEF
wQ4, 7, 8, 10, 11, 12, 14, 17	2SC2603 EF 2SC2785 JHEF
wQ15, 16	2SC2001 L, M

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