

TCM-S63/S64V/S65/S66V

SERVICE MANUAL

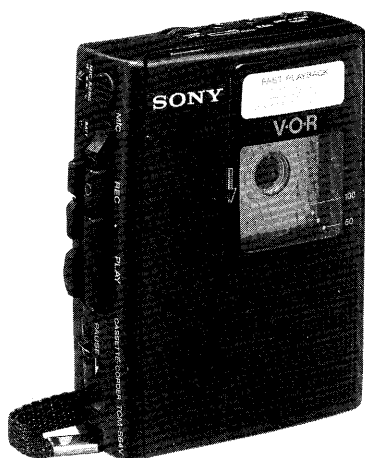


PHOTO : S64V



PHOTO : S66V

US Model
TCM-S63/S64V/S66V
Canadian Model
TCM-S65/S66V
AEP Model
TCM-S65/S66V
UK Model
TCM-S65/S66V
E Model
TCM-S63/S64V
Tourist Model
TCM-S66V

Model Name Using Similar Mechanism	NEW
Tape Transport Mechanism Type	MT-S63

SPECIFICATIONS

Recording system 2-track 1 channel monaural
Frequency response 250 – 8,300 Hz
Speaker Approx. 3.6 cm (1 7/16 in.) dia.
Power output 130 mW (at 10% harmonic distortion)
Input Microphone input jack (minijack) sensitivity 0.2 mV for 3 kΩ or lower impedance microphone (TCM-S64V/S66V)

Output Earphone jack (minijack) for 8 – 300 Ω earphone
Power requirements 3 V DC, two R6 (size AA) batteries

DC IN 3V jack accepts:

• Sony AC-E30M AC power adaptor (not supplied) for use on:

Canada, US	120 V AC, 60 Hz
U.K.	240 V AC, 50 Hz
European countries	220 V AC, 60 Hz or 220 V AC, 50 Hz

• Sony DCC-E130L car battery cord (not supplied) for use on 12 V car battery.

Battery life

Batteries	Recording
Sony batteries SUM-3 (NS)	Approx. 4 hours
Sony alkaline batteries AM3(N)	Approx. 12 hours

Dimensions

TCM-S63/S64V:

Approx. 93.6 × 119.7 × 39.1 mm (3 3/4 × 4 3/4 × 1 5/16 in.) (w/h/d)

TCM-S65/S66V:

Approx. 93.6 × 120.1 × 39.1 mm (3 3/4 × 4 7/8 × 1 5/16 in.) (w/h/d)

Mass

incl. projecting parts and controls

Approx. 275g (9.8 oz.)

Incl. batteries

Supplied accessories

AC power adaptor (1) (TCM-S66V)
Battery charge adaptor (1) (TCM-S66V)
Rechargeable batteries (2) (TCM-S66V)

Optional accessories

Car battery cord DCC-E130L
Monaural earphone ME-81, ME-L82
Connecting cord RK-G64HG
Electret condenser microphone ECM-T10 (TCM-S64V/S66V (Except US))
Electret condenser microphone ECM-011 (TCM-S64V/S66V (US))
AC power adaptor AC-E30M

Your dealer may not handle some of the listed optional accessories. Please ask the dealer for detailed information.

Design and specifications subject to change without notice.

Note

This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.



CASSETTE-CORDER
SONY®

Operating with Batteries

When to replace the batteries

When the batteries become weak, the BATT indicator will glow faintly and the playback sound will become distorted or unstable.

In this case, replace both batteries with new ones.

Concerning the battery life, see "Specifications".

Operating on House Current

Note on the AC power adaptor

Use only the AC-E30M AC power adaptor (not supplied).

Do not use any other AC power adaptor.

Polarity of the plug
(Unified polarity type)



Note

Power will be supplied through the AC power adaptor or the car battery cord when it is connected to the unit instead of the installed batteries.

Make sure that the AC power adaptor or the car battery cord is disconnected from the unit when you wish to use the unit with the installed batteries.

SERVICE NOTE

● Repairing printed resistor

Cut both side of the resistor and solder the carbon resistor having same value in place of printed one of the conductor side.

1/32W carbon resistor is supplied for the replacing part of the printed resistor.

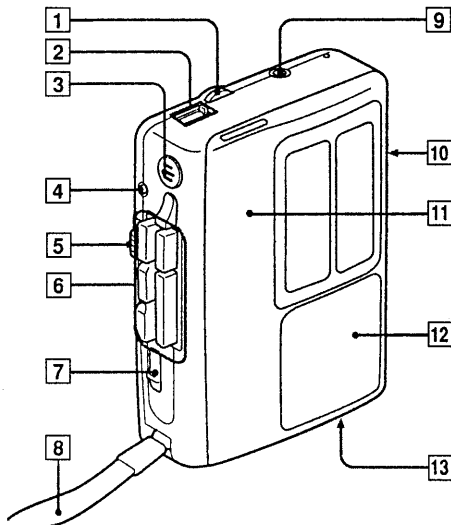
Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

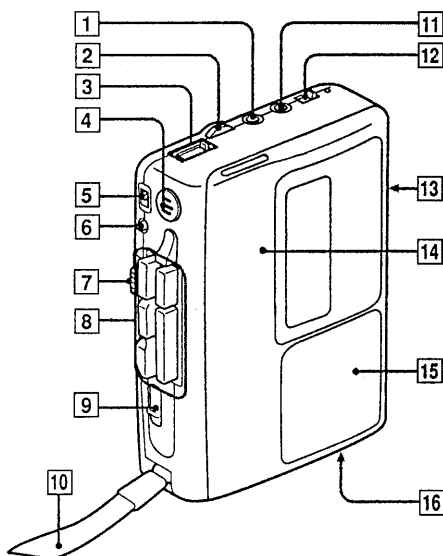
SECTION 1 GENERAL

This section is extracted from instruction manual.

1-1. PARTS IDENTIFICATION



- 1 VOL (volume) control
- 2 **COUNTER (tape counter) and counter reset button (TCM-S65)**
For indexing the tape contents. Before recording, press the counter reset button to set the tape counter to "000"
- 3 **MIC (built-in microphone)**
- 4 **BATT (battery) indicator**
- 5 FAST PB (fast playback) switch
- 6 **Tape operation buttons**
● REC (record)/▶ PLAY/■ STOP/▶▶ FF/CUE (fast forward/cue)/
◀◀ REW/REVIEW (rewind/review) buttons
- 7 **PAUSE** switch
- 8 **Handstrap (TCM-S65)**
- 9 **EAR (earphone) jack**
- 10 **Battery compartment (rear)**
- 11 **Cassette holder**
- 12 **Speaker (built-in)**
- 13 **DC IN 3V (external power input) jack**



- 1 **MIC (microphone) (plug in power) jack**
- 2 VOL (volume) control
- 3 **COUNTER (tape counter) and counter reset button (TCM-S66V)**
For indexing the tape contents. Before recording, press the counter reset button to set the tape counter to "000".
- 4 **MIC (built-in microphone)**
- 5 **MIC SENS (microphone sensitivity) switch**
- 6 **BATT (battery) indicator**
- 7 FAST PB (fast playback) switch
- 8 **Tape operation buttons**
● REC (record)/▶ PLAY/■ STOP/▶▶ FF/CUE (fast forward/cue)/
◀◀ REW/REVIEW (rewind/review) button
- 9 **PAUSE** switch
- 10 **Handstrap**
- 11 **EAR (earphone) jack**
- 12 **VOR (Voice Operated Recording) switch**
- 13 **Battery compartment (rear)**
- 14 **Cassette holder**
- 15 **Speaker (built-in)**
- 16 **DC IN 3V (external power input) jack**

SECTION 2
MECHANICAL ADJUSTMENTS

PRECAUTION

- 1. Clean the following parts with a denatured-alcohol-moistened swab:

record/playback head

erase head

capstanidlers

pinch roller

rubber belts
- 2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
- 3. Do not use a magnetized screwdriver for the adjustments.
- 4. After the adjustments, apply suitable locking compound to the parts adjusted.
- 5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Power Supply Voltage : 3V dc

Torque Measurement

Torque	Meter Reading	Torque Meter
Forward	More than 23 – 45 g-cm (More than 0.32 – 0.62 oz-inch)	CQ-102C
Fast Forward and Rewind	More than 60 g-cm (More than 0.83 oz-inch)	CQ-201B
Back Tension	1.5 – 3.5 g-cm (0.021 – 0.049 oz-inch)	CQ-102C

Tape Tension Measurement

Meter	Meter Reading
CQ-403A	More than 60g(2.12 oz)

SECTION 3
ELECTRICAL ADJUSTMENTS

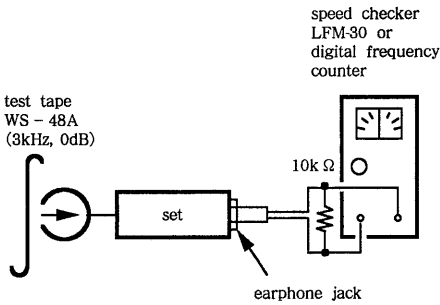
Test tape

Type	Signal	Used for
WS-48A	3kHz, 0dB	tape speed adjustment

Tape Speed Adjustment

Setting:
VOL control: mechanical mid

Procedure:
Mode: playback

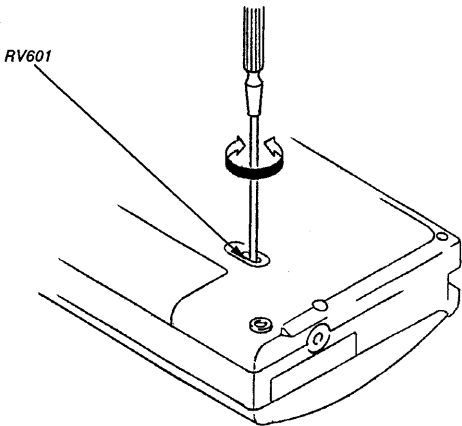


Specification:

Speed checker	Digital frequency counter
- 0.5 to +1.5%	3,000 ± 15 Hz

Frequency difference between the beginning and the end of the tape should be within 1% (30Hz).

Adjustment Location : Main Board



SECTION 4
DIAGRAM

4-1. PRINTED WIRING BOARDS

• SEMICONDUCTOR
LOCATION

Ref. No.	Location
D101	G - 9
D102	G - 9
D401	H - 11
IC101	G - 9
IC501	E - 10
IC601	D - 5
Q101	D - 9
Q102	G - 10
Q501	D - 9
Q502	E - 8
Q503	F - 10

• SEMICONDUCTOR
LEAD LAYOUT

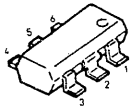
LA5523



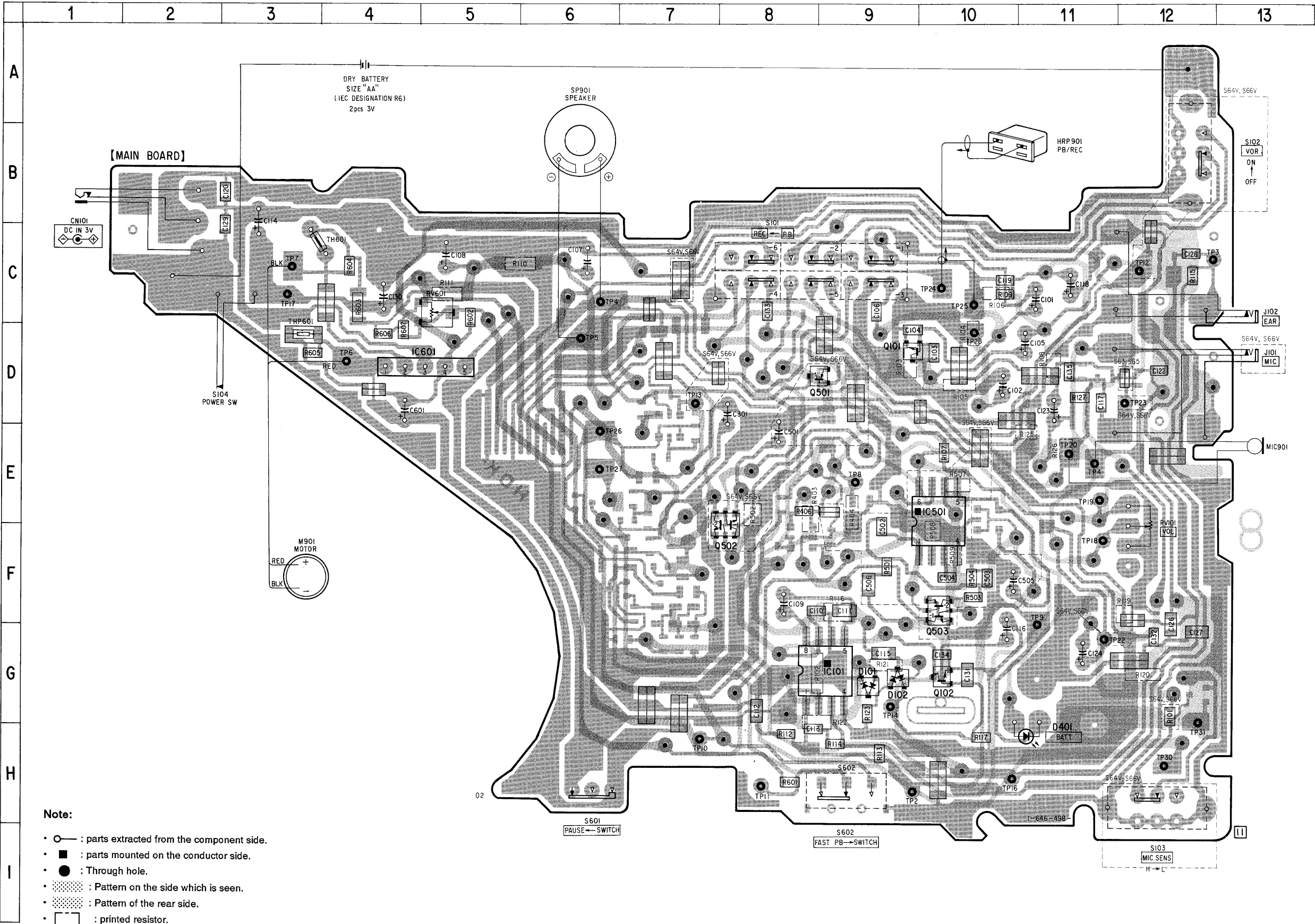
2SD1819A-R
UN5119



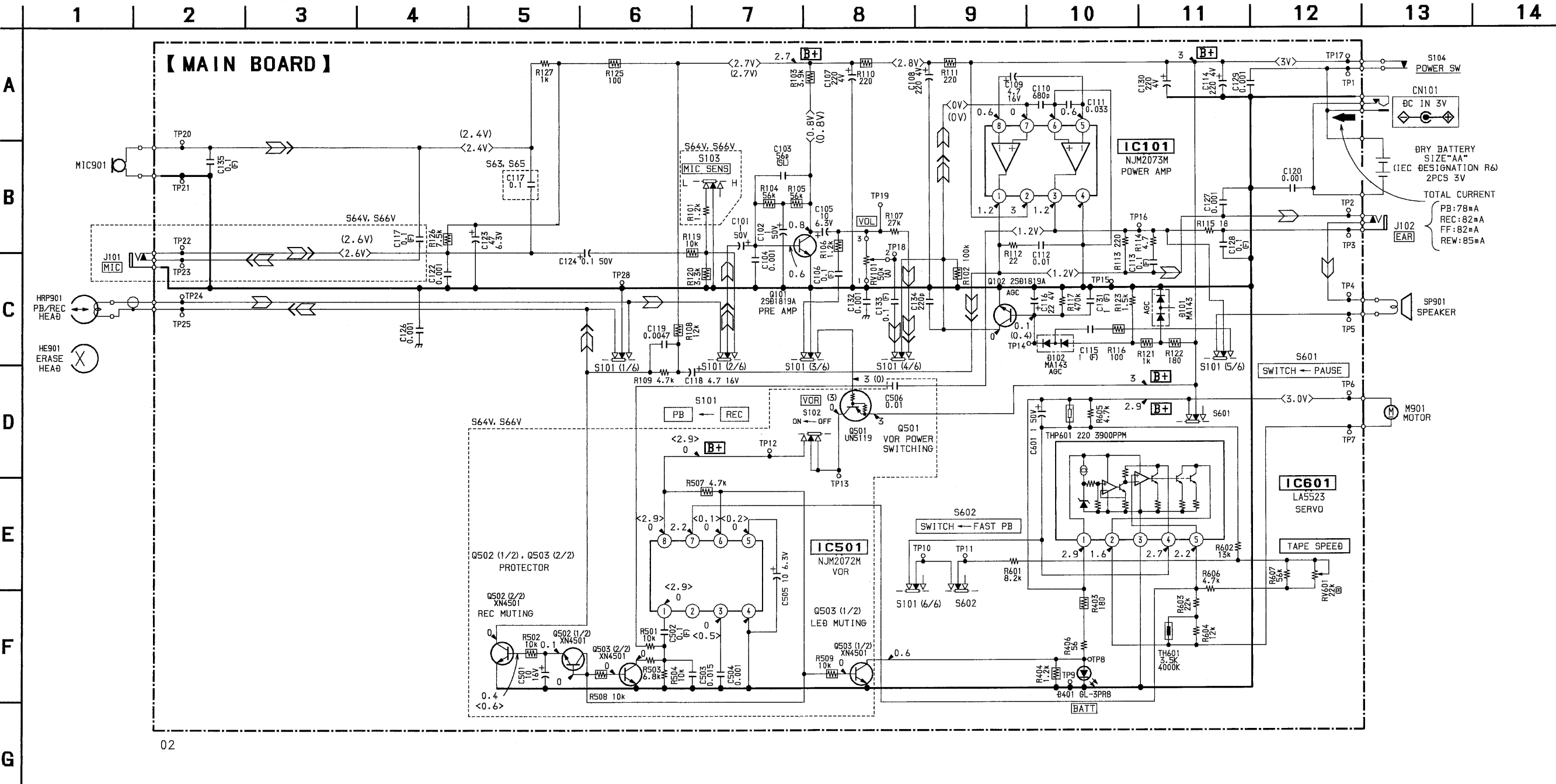
XN4501



1SS226



4-2. SCHEMATIC DIAGRAMS



Note :

- All capacitors are in μF unless otherwise noted. pF: $\mu \mu F$ 50WV 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.
- : printed resistor.
- : B+ Line
- : adjustment for repair.
- Total current is measured with no cassette installed.
- Power voltage is dc 3V and fed with regulated dc power supply from external power voltage jack.

- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark : PLAY
- () : REC
- < > : VOR ON
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Signal path.
- : PB
- : REC

SECTION 5 EXPLODED VIEWS

NOTE :

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

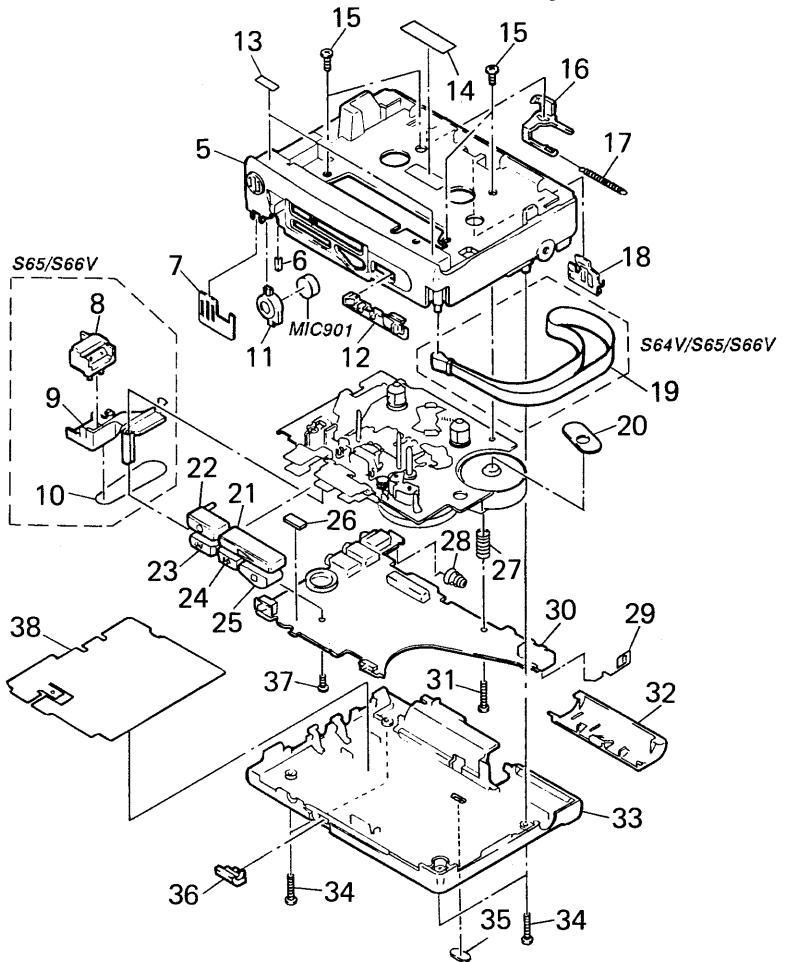
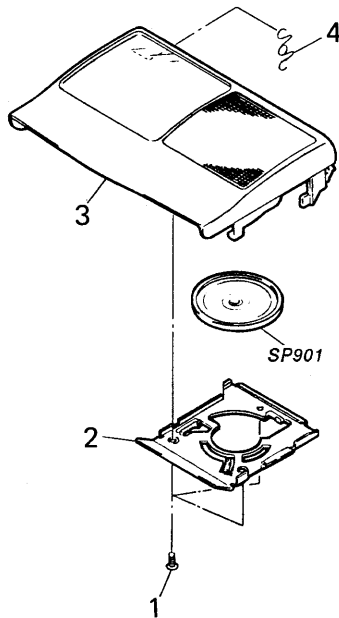
- The construction parts of an assembled part are indicated with a collation number in the remark column.

- Color indication of Appearance Parts
Example :

↑ ↑
KNOB, BALANCE (WHITE)....(RED)

Parts color Cabinet's color

5-1. CABINET SECTION



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

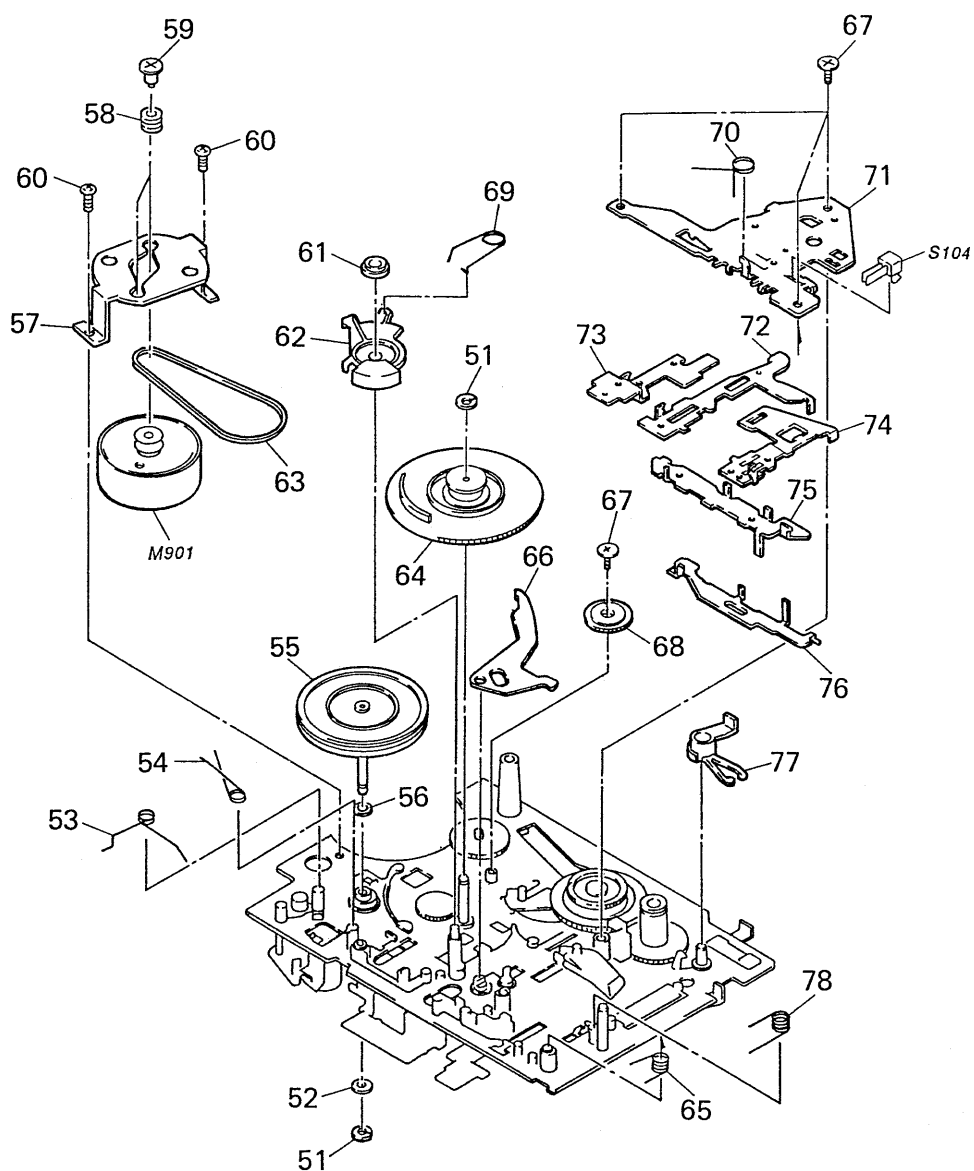
- The mechanical parts with no reference number in the exploded views are not supplied.

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

Ref.No.	Part No.	Description	Remark
1	3-318-382-01	SCREW (1.7X3), TAPPING	
* 2	3-385-848-01	BRACKET (SPK2) (S65, S66V)	
* 2	3-385-872-01	BRACKET (SPK1) (S63, S64V)	
3	X-3366-079-1	LID (A2) ASSY, CASSETTE (S64V)	
3	X-3366-081-1	LID (B2) ASSY, CASSETTE (S66V)	
3	X-3366-082-1	LID (B1) ASSY, CASSETTE (S65)	
3	X-3366-083-1	LID (A1) ASSY, CASSETTE (S63)	
4	3-346-509-11	SPRING, CASSETTE-UP	
5	3-385-886-01	CABINET (FRONT) (S63:US)	
5	3-385-886-11	CABINET (FRONT) (S64V:US)	
5	3-385-886-21	CABINET (FRONT) (S65)	
5	3-385-886-31	CABINET (FRONT) (S66V)	
* 6	3-389-321-01	CUSHION (GND)	
* 7	3-389-319-02	PAPER, CONDUCTION	
8	1-548-582-11	COUNTER, TAPE (SMALL TYPE) (S65, S66V)	
9	3-386-077-01	BRACKET (COUNTER) (S65, S66V)	
10	3-386-076-01	BELT (COUNTER) (S65, S66V)	
11	3-385-873-01	CUSHION (MICROPHONE NOM)	
12	3-385-870-01	KNOB (PAUSE)	
13	3-831-441-XX	CUSHION	
14	3-578-101-21	PLATE, ORNAMENTAL	
15	3-318-203-61	SCREW (B1.7X4), TAPPING	
16	3-385-866-01	LEVER (CLAW DETECTION)	
7	3-385-855-01	SPRING (CLAW DETECTION), TENSION	

Ref.No.	Part No.	Description	Remark
18	3-385-867-01	SPRING (CASSETTE RETAINER), LEAF	
19	3-320-982-01	STRAP, HAND (S64V, S65, S66V)	
* 20	3-389-320-01	SHEET, MOTOR	
21	3-385-859-01	BUTTON (PLAY)	
22	3-385-858-01	BUTTON (REC)	
23	3-385-861-01	BUTTON (REW)	
24	3-385-860-01	BUTTON (FF)	
25	3-385-862-01	BUTTON (STOP)	
* 26	3-385-856-01	CUSHION (LED)	
27	3-386-123-01	SPRING (PC BOARD GROUND)	
28	3-385-864-01	SPRING, BATTERY COIL	
29	3-385-863-01	TERMINAL, BATTERY	
* 30	A-3016-285-A	MAIN BOARD, COMPLETE (S64V, S66V)	
* 30	A-3016-286-A	MAIN BOARD, COMPLETE (S63, S65)	
31	3-386-078-02	SCREW	
32	3-385-876-01	LID, BATTERY CASE	
33	3-385-869-01	CABINET (REAR)	
34	3-334-565-01	SCREW (B1.7X10), TAPPING	
35	3-358-363-11	PLATE, BLIND	
36	3-385-857-01	KNOB (F-PB)	
37	3-345-648-03	SCREW (M1.4X4.0), TOOTHED LOCK	
38	3-385-871-01	PAPER, SHIELD	
MIC901	1-542-136-11	MICROPHONE, ELECTRET CONDEDSER	
SP901	1-544-657-11	SPEAKER (3.6CM)	

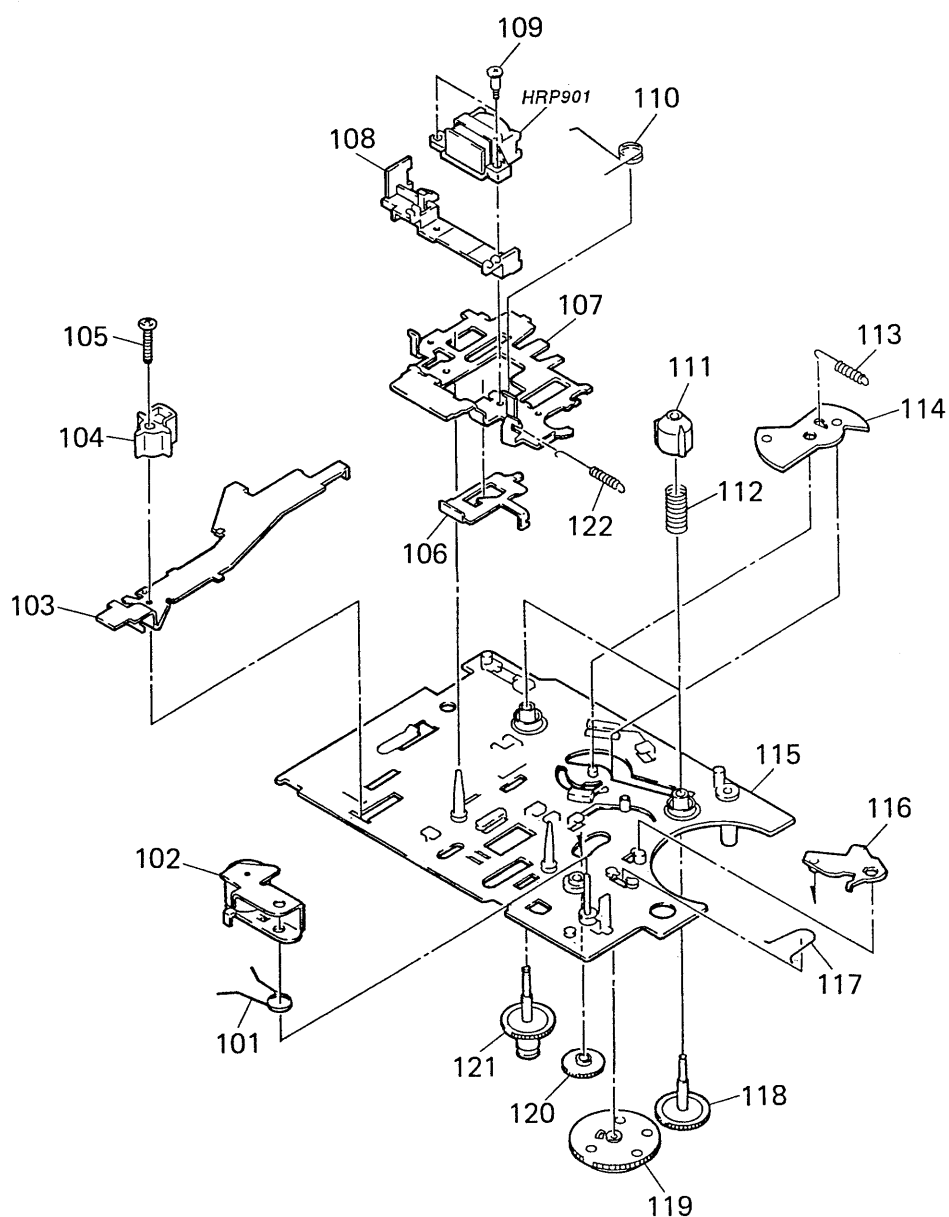
5-2. MECHANISM SECTION-1
(MT-S63)



Ref. No.	Part No.	Description	Remark
51	3-385-743-01	WASHER	
52	3-385-753-01	WASHER	
53	3-385-732-01	SPRING	
54	3-385-733-01	SPRING	
55	X-3366-064-1	ASSY, FLYWHEEL	
56	3-385-754-01	P WASHER	
57	3-385-748-01	BRACKET, MOTOR	
58	3-385-749-01	RUBBER, MOTOR	
59	3-385-750-01	SCREW	
60	3-385-751-01	SCREW	
61	3-385-746-01	BUSH, GEAR	
62	3-385-744-01	LEVER, AS	
63	3-385-752-01	BELT	
64	X-3366-063-1	ASSY, FRICTION	
65	3-385-734-01	SPRING	

Ref. No.	Part No.	Description	Remark
* 66	3-385-735-01	LEVER, FR	
67	3-385-728-01	SCREW	
68	3-385-727-01	GEAR, FF	
69	3-385-745-01	SPRING	
70	3-385-742-01	SPRING	
* 71	3-385-741-01	GUIDE LEVER	
* 72	3-385-740-01	LEVER, FF	
* 73	3-385-731-01	LEVER, STOP	
* 74	3-385-739-01	LEVER, REW	
* 75	3-385-737-01	LEVER, LOCK	
* 76	3-385-736-01	LEVER, SWITCH	
77	3-385-730-01	ARM, REC	
78	3-385-738-01	SPRING	
M901	X-3366-095-1	MOTOR ASSY	
S104	1-692-400-11	SWITCH, LEAF	

5-3. MECHANISM SECTION-2
(MT-S63)



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
101	3-385-726-01	SPRING		113	3-385-717-01	SPRING	
102	X-3366-062-1	ASSY, PINCH ARM		114	X-3366-060-1	ASSY, CENTER ARM	
* 103	3-385-724-01	LEVER, REC		115	X-3366-058-1	ASSY, MECHA CHASSIS	
104	X-3366-061-1	ASSY, E/H C		116	X-3366-059-1	ASSY, PLAY ARM	
105	3-385-725-01	SCREW		117	3-385-712-01	SPRING	
* 106	3-385-719-01	PLATE, PLAY		118	3-385-713-01	GEAR, REEL	
* 107	3-385-718-01	CHASSIS, HEAD		119	X-3366-065-1	ASSY, GEAR FR	
108	3-385-721-01	GUIDE, HEAD		120	3-385-729-01	GEAR, PLAY	
109	3-385-723-01	SCREW		121	3-385-714-01	GEAR, REEL	
110	3-385-720-01	SPRING		122	3-385-756-01	SPRING	
111	3-385-716-01	REEL		HRP901 1-543-607-21 HEAD, MAGNETIC (REC/PB)			
112	3-385-715-01	SPRING					

MAIN

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, -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 indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark
*	A-3016-285-A	MAIN BOARD, COMPLETE (S64V, S66V) *****	
*	A-3016-286-A	MAIN BOARD, COMPLETE (S63, S65) *****	
*	3-385-856-01	CUSHION (LED)	
		< CAPACITOR >	
C101	1-126-301-11	ELECT 1uF	20% 50V
C102	1-126-160-11	ELECT 1uF	20% 50V
C103	1-162-950-11	CERAMIC CHIP 56PF	5% 50V
C104	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C105	1-126-157-11	ELECT 10uF	20% 16V
C106	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C107	1-104-402-21	ELECT 220uF	20% 4V
C108	1-124-635-00	ELECT 220uF	20% 4V
C109	1-126-163-11	ELECT 4.7uF	20% 50V
C110	1-162-963-11	CERAMIC CHIP 680PF	10% 50V
C111	1-163-989-11	CERAMIC CHIP 0.033uF	10% 25V
C112	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C113	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C114	1-124-635-00	ELECT 220uF	20% 4V
C115	1-164-346-11	CERAMIC CHIP 1uF	16V
C116	1-124-430-00	ELECT 22uF	20% 4V
C117	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C118	1-126-163-11	ELECT 4.7uF	20% 50V
C119	1-162-968-11	CERAMIC CHIP 0.0047uF	10% 50V
C120	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C122	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C123	1-126-154-11	ELECT 47uF	20% 6.3V
C124	1-124-463-00	ELECT 0.1uF	20% 50V
C126	1-163-009-11	CERAMIC CHIP 0.001uF	10% 50V
C127	1-163-009-11	CERAMIC CHIP 0.001uF	10% 50V
C128	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C129	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C130	1-124-635-00	ELECT 220uF	20% 4V
C131	1-164-346-11	CERAMIC CHIP 1uF	16V
C132	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V

Ref. No.	Part No.	Description	Remark
C133	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C134	1-162-960-11	CERAMIC CHIP 220PF	10% 50V
C135	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C501	1-126-157-11	ELECT 10uF	20% 16V (S64V, S66V)
C502	1-164-156-11	CERAMIC CHIP 0.1uF	25V (S64V, S66V)
C503	1-164-245-11	CERAMIC CHIP 0.015uF	10% 25V (S64V, S66V)
C504	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V (S64V, S66V)
C505	1-126-157-11	ELECT 10uF	20% 16V (S64V, S66V)
C506	1-164-232-11	CERAMIC CHIP 0.01uF	50V (S64V, S66V)
C601	1-126-160-11	ELECT 1uF	20% 50V
		< CONNECTOR >	
CN101	1-580-919-11	JACK, DC(POLARITY UNIFIED TYPE) (DC IN 3V)	
		< DIODE >	
D101	8-719-800-76	DIODE 1SS226	
D102	8-719-800-76	DIODE 1SS226	
D401	8-719-812-41	LED TLR124 (BATT)	
		< IC >	
IC101	8-759-701-02	IC NJM2073M	
IC501	8-759-701-51	IC NJM2072M (S64V, S66V)	
IC601	8-759-801-12	IC LA5523	
		< JACK >	
J101	1-569-215-31	JACK (MIC) (S64V, S66V)	
J102	1-569-215-31	JACK (EAR)	

Ref. No.	Part No.	Description	Remark		
< JUMPER RESISTOR >					
JR1	1-216-295-00	METAL CHIP	0	5%	1/10W (S64V, S66V)
JR2	1-216-864-11	METAL CHIP	0	5%	1/16W (S63, S65)
JR3	1-216-296-00	METAL CHIP	0	5%	1/8W
JR4	1-216-296-00	METAL CHIP	0	5%	1/8W
JR5	1-216-296-00	METAL CHIP	0	5%	1/8W
JR6	1-216-296-00	METAL CHIP	0	5%	1/8W
JR7	1-216-296-00	METAL CHIP	0	5%	1/8W (S64V, S66V)
JR9	1-216-295-00	METAL CHIP	0	5%	1/10W
JR10	1-216-296-00	METAL CHIP	0	5%	1/8W (S64V, S66V)
JR11	1-216-296-00	METAL CHIP	0	5%	1/8W
JR13	1-216-864-11	METAL CHIP	0	5%	1/16W (S64V, S66V)
JR15	1-216-296-00	METAL CHIP	0	5%	1/8W (S64V, S66V)
JR16	1-216-295-00	METAL CHIP	0	5%	1/10W (S64V, S66V)
JR17	1-216-296-00	METAL CHIP	0	5%	1/8W
JR18	1-216-295-00	METAL CHIP	0	5%	1/10W
JR20	1-216-295-00	METAL CHIP	0	5%	1/10W
JR21	1-216-296-00	METAL CHIP	0	5%	1/8W
JR24	1-216-295-00	METAL CHIP	0	5%	1/10W
JR25	1-216-296-00	METAL CHIP	0	5%	1/8W
JR27	1-216-296-00	METAL CHIP	0	5%	1/8W
JR29	1-216-296-00	METAL CHIP	0	5%	1/8W
JR30	1-216-296-00	METAL CHIP	0	5%	1/8W
< TRANSISTOR >					
Q101	8-729-402-32	TRANSISTOR	2SD1819A-R		
Q102	8-729-402-32	TRANSISTOR	2SD1819A-R		
Q501	8-729-425-21	TRANSISTOR	UN5119	(S64V, S66V)	
Q502	8-729-402-81	TRANSISTOR	XN4501	(S64V, S66V)	
Q503	8-729-402-81	TRANSISTOR	XN4501	(S64V, S66V)	
< RESISTOR >					
R101	1-216-822-11	METAL CHIP	1. 2K	5%	1/16W (S64V, S66V)
R102	1-249-441-11	CARBON	100K	5%	1/4W
R103	1-249-424-11	CARBON	3. 9K	5%	1/4W
R104	1-249-438-11	CARBON	56K	5%	1/4W
R105	1-249-438-11	CARBON	56K	5%	1/4W
R106	1-249-418-11	CARBON	1. 2K	5%	1/4W
R107	1-216-838-11	METAL CHIP	27K	5%	1/16W
R108	1-249-430-11	CARBON	12K	5%	1/4W

Ref.No.	Part No.	Description	Remark		
R109	1-216-829-11	METAL CHIP	4. 7K	5%	1/16W
R110	1-249-409-11	CARBON	220	5%	1/4W
R111	1-249-409-11	CARBON	220	5%	1/4W
R112	1-216-801-11	METAL CHIP	22	5%	1/16W
R113	1-216-813-11	METAL CHIP	220	5%	1/16W
R114	1-216-793-11	METAL GLAZE	4. 7	5%	1/16W
R115	1-216-800-11	METAL GLAZE	18	5%	1/16W
R116	1-249-405-11	CARBON	100	5%	1/4W
R117	1-216-853-11	METAL CHIP	470K	5%	1/16W
R119	1-249-429-11	CARBON	10K	5%	1/4W
R120	1-249-423-11	CARBON	3. 3K	5%	1/4W
R121	1-249-417-11	CARBON	1K	5%	1/4W
R122	1-249-408-11	CARBON	180	5%	1/4W
R123	1-216-823-11	METAL CHIP	1. 5K	5%	1/16W
R125	1-249-405-11	CARBON	100	5%	1/4W
R126	1-215-442-00	METAL	7. 5K	1%	1/6W
R127	1-216-821-11	METAL CHIP	1K	5%	1/16W
R403	1-249-408-11	CARBON	180	5%	1/4W
R404	1-249-418-11	CARBON	1. 2K	5%	1/4W
R406	1-216-806-11	METAL GLAZE	56	5%	1/16W
R501	1-216-833-11	METAL CHIP	10K	5%	1/16W (S64V, S66V)
R502	1-249-429-11	CARBON	10K	5%	1/4W (S64V, S66V)
R503	1-216-831-11	METAL CHIP	6. 8K	5%	1/16W (S64V, S66V)
R504	1-216-833-11	METAL CHIP	10K	5%	1/16W (S64V, S66V)
R507	1-249-425-11	CARBON	4. 7K	5%	1/4W (S64V, S66V)
R508	1-249-429-11	CARBON	10K	5%	1/4W (S64V, S66V)
R509	1-249-429-11	CARBON	10K	5%	1/4W (S64V, S66V)
R601	1-216-832-11	METAL CHIP	8. 2K	5%	1/16W
R602	1-216-994-11	METAL GLAZE	13K	5%	1/16W
R603	1-216-230-00	METAL GLAZE	22K	5%	1/8W
R604	1-216-834-11	METAL CHIP	12K	5%	1/16W
R605	1-216-829-11	METAL CHIP	4. 7K	5%	1/16W
R606	1-216-829-11	METAL CHIP	4. 7K	5%	1/16W
R607	1-216-842-11	METAL CHIP	56K	5%	1/16W
< VARIABLE RESISTOR >					
RV101	1-223-293-11	RES, VAR, CARBON 50K (VOL)			
RV601	1-238-665-11	RES, ADJ, CERMET 22K (TAPE SPEED)			
< SWITCH >					
S101	1-571-151-11	SWITCH, SLIDE (REC/PB)			

MAIN

Ref. No.	Part No.	Description	Remark
S102	1-571-478-11	SWITCH, SLIDE (VOR) (S64V, S66V)	
S103	1-571-478-11	SWITCH, SLIDE (MIC SENS) (S64V, S66V)	
S601	1-570-675-11	SWITCH, SLIDE (PAUSE/SWITCH)	
S602	1-692-397-21	SWITCH, SLIDE (FAST PB/SWITCH)	
< THERMISTOR >			
TH601	1-808-980-11	THERMISTOR	
< THERMISTOR (POSITIVE) >			
THP601	1-810-007-11	THERMISTOR, POSITIVE	

MISCELLANEOUS			

8	1-548-582-11	COUNTER, TAPE (SMALL TYPE) (S65, S66V)	
HRP901	1-543-607-21	HEAD, MAGNETIC (REC/PB)	
M901	X-3366-095-1	MOTOR ASSY	
MIC901	1-542-136-11	MICROPHONE, ELECTRET CONDEDSER	
S104	1-692-400-11	SWITCH, LEAF	
SP901	1-544-657-11	SPEAKER (3.6CM)	

ACCESSORIES & PACKING MATERIALS			

	1-528-179-11	BATTERY, STORAGE, NI-CD (S66V:US)	
	1-528-405-11	ADAPTOR, BATTERY CHARGE (S66V:US)	
	1-693-073-11	ADAPTOR, AC (AC-E350) (S66V:US)	
*	3-387-157-01	CUSHION	
		(S63:E, Saudi Arabia/S65, S66V:AEP, UK)	
*	3-387-163-01	INDIVIDUAL CARTON (S65:AEP, UK)	
*	3-387-167-01	INDIVIDUAL CARTON (S66V:AEP, UK)	
*	3-387-183-01	CUSHION (TOP) (S63, S64V:US)	
*	3-387-184-01	CUSHION (BOTTOM) (S63, S64V:US)	
	3-756-196-11	MANUAL, INSTRUCTION	
		(ENGLISH, FRENCH, SPANISH, PORTUGUESE)	
		(S64V:E, Saudi Arabia/S66V:Canadian, AEP, UK, Tourist)	
	3-756-196-21	MANUAL, INSTRUCTION	
		(ENGLISH) (S63, S64V, S66V:US)	
	3-756-196-41	MANUAL, INSTRUCTION	
		(GERMAN, DUTCH, SWEDISH, ITALIAN) (S66V:AEP)	
	3-756-196-51	MANUAL, INSTRUCTION	
		(ENGLISH, FRENCH, SPANISH, PORTUGUESE)	
		(S63:E, Saudi Arabia, S65)	
	3-756-196-61	MANUAL, INSTRUCTION	
		(GERMAN, DUTCH, SWEDISH, ITALIAN) (S65:AEP)	

TCM-S63/S64V/S65/S66V

SONY® SERVICE MANUAL

SUPPLEMENT-1

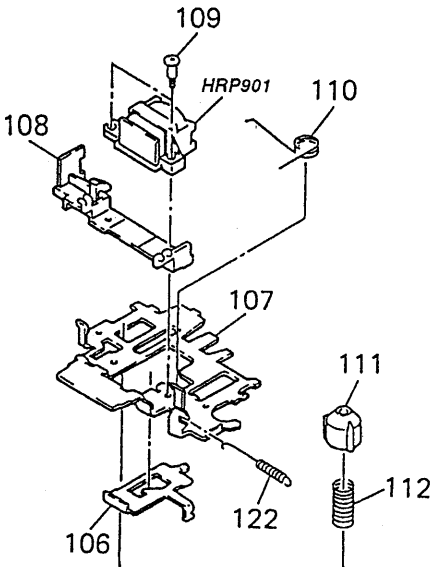
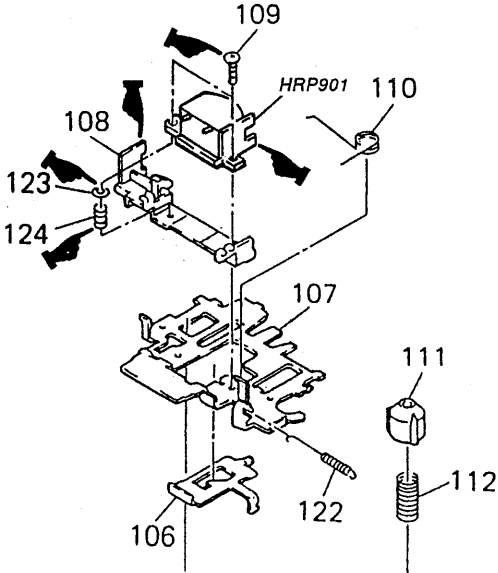
File this Supplement with the Service Manual.

Subject : Change of REC/PB Head

US Model
TCM-S63/S64V/S66V
Canadian Model
TCM-S65/S66V
AEP Model
TCM-S65/S66V
UK Model
TCM-S65/S66V
E Model
TCM-S63/S64V
Tourist Model
TCM-S66V

Page 11

 or under line : changed portion

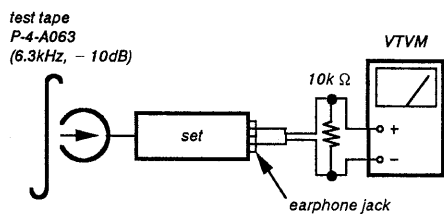
Former			New		
					
Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
108	3-385-721-01	GUIDE, HEAD	108	<u>3-907-591-01</u>	GUIDE, HEAD
109	3-385-723-01	SCREW	109	<u>3-907-592-01</u>	SCREW
123	_____		123	<u>3-907-593-01</u>	WASHER
124	_____		124	<u>3-907-594-01</u>	SPRING
HRP901	1-543-607-21	HEAD, MAGNETIC (REC/PB)	HRP901	<u>1-543-410-11</u>	HEAD, MAGNETIC (REC/PB)

The record/playback head azimuth adjustment is requested due to this change.

Record/playback Head Azimuth Adjustment

Procedure :

1. Mode : Playback

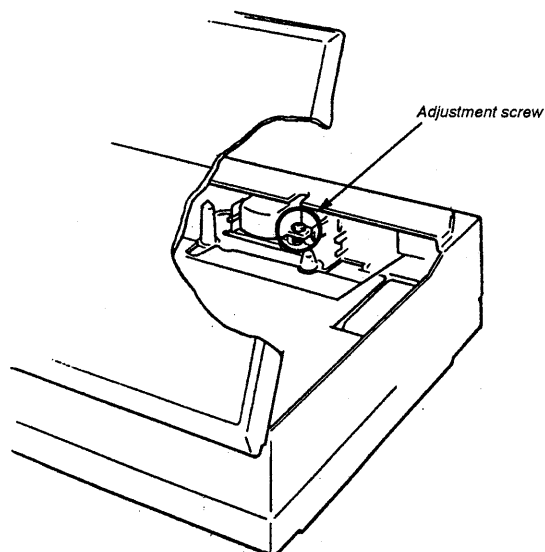


2. Turn the adjustment screw to obtain the maximum reading on VTVM.

Note : Several peaks may appear, but take the maximum.

3. After the adjustment, lock the adjustment screw with suitable locking compound.

Adjustment Location :



TCM-S63/S64V/S65/S66V

SONY[®] SERVICE MANUAL

US Model
TCM-S63/S64V/S66V
Canadian Model
TCM-S64V/S65/S66V
AEP Model
TCM-S65/S66V
UK Model
TCM-S65/S66V
E Model
TCM-S63/S64V
Tourist Model
TCM-S66V

SUPPLEMENT-2

File the Supplement with the Service Manual and Supplement-1.

Subject :

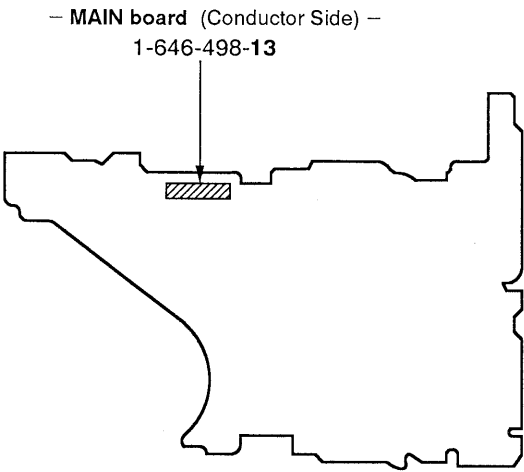
1. CHANGE OF BOARD
2. A CANADIAN MODEL HAS BEEN ADDED FOR TCM-S64V.
3. CORRECTION

(ECN-MT300499)

1. CHANGE OF BOARD

The main board have been changed.
Printed wiring boards and schematic diagram of new type, and changed parts list are described in this Supplement-2.
Refer to original service manual previously issued for the other information.

NEW TYPE IDENTIFICATION



1-1. PRINTED WIRING BOARDS

- SEMICONDUCTOR LOCATION

Ref. No.	Location
D101	G - 9
D102	G - 9
D401	H - 11
IC101	G - 9
IC501	E - 10
IC601	D - 5
Q101	D - 9
Q102	G - 10
Q501	D - 9
Q502	E - 8
Q503	F - 10

- **SEMICONDUCTOR LEAD LAYOUTS**

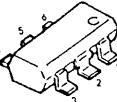
LA5523



2SC1623-L5L6
2SD1819A-R
UN5119



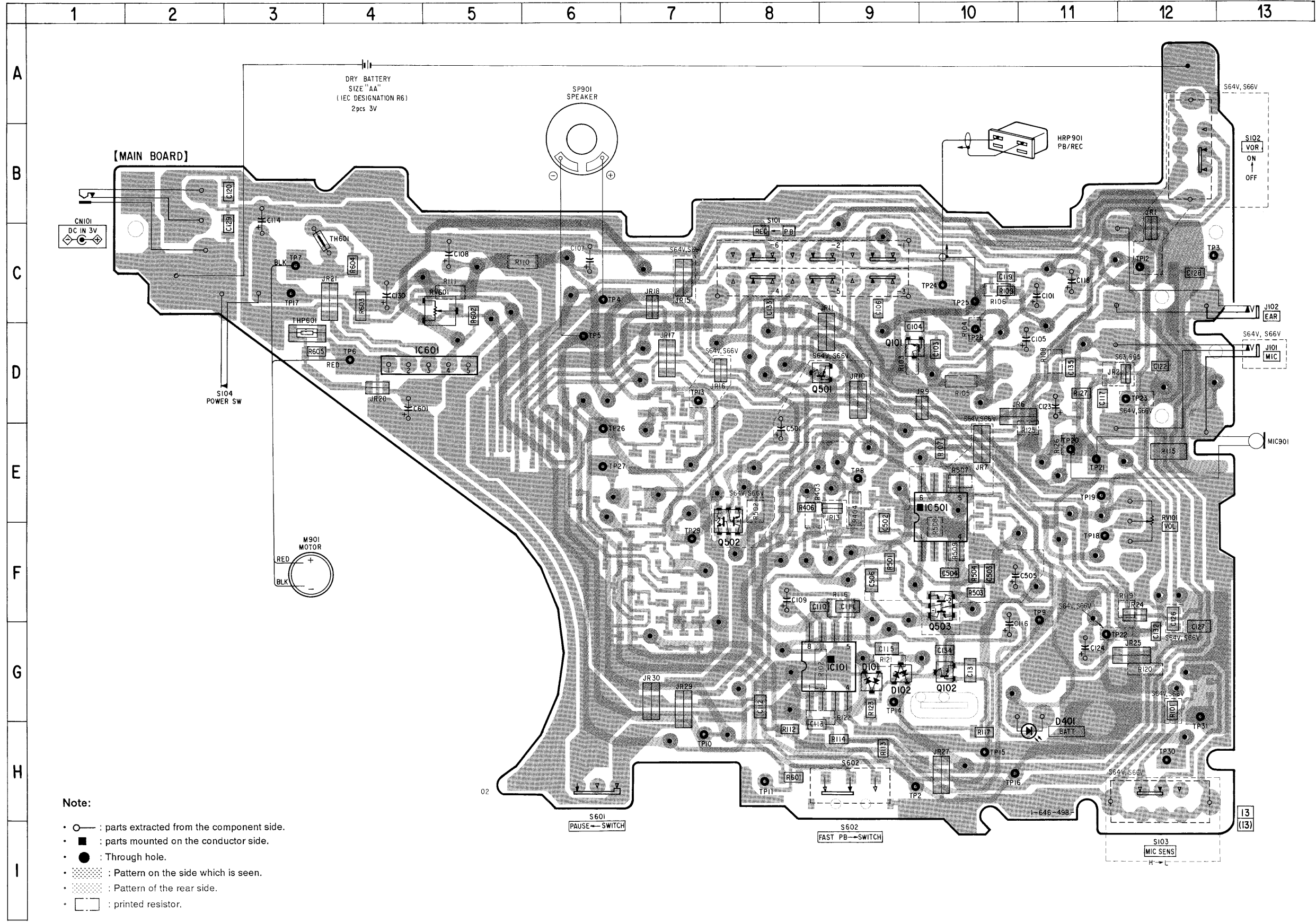
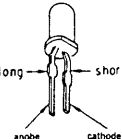
XN4501



1SS226



TLR124



MAIN BOARD

TP20 TP21 TP22 TP23 TP24 TP25 TP28 TP19 TP18 TP17 TP16 TP15 TP14 TP13 TP12 TP11 TP10 TP9 TP8 TP7 TP6 TP5 TP4 TP3 TP2 TP1

MIC901 J101 MTC S64V, S66V C117 0.1 C123 47 6.3V C124 0.1 50V C101 50V C105 6.3V C106 0.001 C107 220 4V C108 220 4V C109 220 4V C110 680p C111 0.033 C112 22 C113 0.1 C114 220 4V C115 0.47 6.3V C116 1.5k C117 0.1 C118 4.7 16V C119 0.0047 C120 0.001 C121 0.001 C122 0.001 C123 47 6.3V C124 0.1 50V C125 220 4V C126 220 4V C127 0.001 C128 0.001 C129 0.001 C130 220 4V C131 220 4V C132 0.1 C133 0.1 C134 220 4V C135 220 4V C136 220 4V C137 220 4V C138 220 4V C139 220 4V C140 220 4V C141 220 4V C142 220 4V C143 220 4V C144 220 4V C145 220 4V C146 220 4V C147 220 4V C148 220 4V C149 220 4V C150 220 4V C151 220 4V C152 220 4V C153 220 4V C154 220 4V C155 220 4V C156 220 4V C157 220 4V C158 220 4V C159 220 4V C160 220 4V C161 220 4V C162 220 4V C163 220 4V C164 220 4V C165 220 4V C166 220 4V C167 220 4V C168 220 4V C169 220 4V C170 220 4V C171 220 4V C172 220 4V C173 220 4V C174 220 4V C175 220 4V C176 220 4V C177 220 4V C178 220 4V C179 220 4V C180 220 4V C181 220 4V C182 220 4V C183 220 4V C184 220 4V C185 220 4V C186 220 4V C187 220 4V C188 220 4V C189 220 4V C190 220 4V C191 220 4V C192 220 4V C193 220 4V C194 220 4V C195 220 4V C196 220 4V C197 220 4V C198 220 4V C199 220 4V C200 220 4V C201 220 4V C202 220 4V C203 220 4V C204 220 4V C205 220 4V C206 220 4V C207 220 4V C208 220 4V C209 220 4V C210 220 4V C211 220 4V C212 220 4V C213 220 4V C214 220 4V C215 220 4V C216 220 4V C217 220 4V C218 220 4V C219 220 4V C220 220 4V C221 220 4V C222 220 4V C223 220 4V C224 220 4V C225 220 4V C226 220 4V C227 220 4V C228 220 4V C229 220 4V C230 220 4V C231 220 4V C232 220 4V C233 220 4V C234 220 4V C235 220 4V C236 220 4V C237 220 4V C238 220 4V C239 220 4V C240 220 4V C241 220 4V C242 220 4V C243 220 4V C244 220 4V C245 220 4V C246 220 4V C247 220 4V C248 220 4V C249 220 4V C250 220 4V C251 220 4V C252 220 4V C253 220 4V C254 220 4V C255 220 4V C256 220 4V C257 220 4V C258 220 4V C259 220 4V C260 220 4V C261 220 4V C262 220 4V C263 220 4V C264 220 4V C265 220 4V C266 220 4V C267 220 4V C268 220 4V C269 220 4V C270 220 4V C271 220 4V C272 220 4V C273 220 4V C274 220 4V C275 220 4V C276 220 4V C277 220 4V C278 220 4V C279 220 4V C280 220 4V C281 220 4V C282 220 4V C283 220 4V C284 220 4V C285 220 4V C286 220 4V C287 220 4V C288 220 4V C289 220 4V C290 220 4V C291 220 4V C292 220 4V C293 220 4V C294 220 4V C295 220 4V C296 220 4V C297 220 4V C298 220 4V C299 220 4V C300 220 4V C301 220 4V C302 220 4V C303 220 4V C304 220 4V C305 220 4V C306 220 4V C307 220 4V C308 220 4V C309 220 4V C310 220 4V C311 220 4V C312 220 4V C313 220 4V C314 220 4V C315 220 4V C316 220 4V C317 220 4V C318 220 4V C319 220 4V C320 220 4V C321 220 4V C322 220 4V C323 220 4V C324 220 4V C325 220 4V C326 220 4V C327 220 4V C328 220 4V C329 220 4V C330 220 4V C331 220 4V C332 220 4V C333 220 4V C334 220 4V C335 220 4V C336 220 4V C337 220 4V C338 220 4V C339 220 4V C340 220 4V C341 220 4V C342 220 4V C343 220 4V C344 220 4V C345 220 4V C346 220 4V C347 220 4V C348 220 4V C349 220 4V C350 220 4V C351 220 4V C352 220 4V C353 220 4V C354 220 4V C355 220 4V C356 220 4V C357 220 4V C358 220 4V C359 220 4V C360 220 4V C361 220 4V C362 220 4V C363 220 4V C364 220 4V C365 220 4V C366 220 4V C367 220 4V C368 220 4V C369 220 4V C370 220 4V C371 220 4V C372 220 4V C373 220 4V C374 220 4V C375 220 4V C376 220 4V C377 220 4V C378 220 4V C379 220 4V C380 220 4V C381 220 4V C382 220 4V C383 220 4V C384 220 4V C385 220 4V C386 220 4V C387 220 4V C388 220 4V C389 220 4V C390 220 4V C391 220 4V C392 220 4V C393 220 4V C394 220 4V C395 220 4V C396 220 4V C397 220 4V C398 220 4V C399 220 4V C400 220 4V C401 220 4V C402 220 4V C403 220 4V C404 220 4V C405 220 4V C406 220 4V C407 220 4V C408 220 4V C409 220 4V C410 220 4V C411 220 4V C412 220 4V C413 220 4V C414 220 4V C415 220 4V C416 220 4V C417 220 4V C418 220 4V C419 220 4V C420 220 4V C421 220 4V C422 220 4V C423 220 4V C424 220 4V C425 220 4V C426 220 4V C427 220 4V C428 220 4V C429 220 4V C430 220 4V C431 220 4V C432 220 4V C433 220 4V C434 220 4V C435 220 4V C436 220 4V C437 220 4V C438 220 4V C439 220 4V C440 220 4V C441 220 4V C442 220 4V C443 220 4V C444 220 4V C445 220 4V C446 220 4V C447 220 4V C448 220 4V C449

- All capacitors are in μF unless otherwise noted. pF: $\mu \mu F$
50WV 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.
- : printed resistor.
- : B+ Line
- : adjustment for repair.
- Total current is measured with no cassette installed.
- Power voltage is dc 3V and fed with regulated dc power supply from external power voltage jack.

- Voltage and waveforms are dc with respect to ground under no-signal conditions.
no mark : PLAY
() : REC
() : VOR ON
- Voltages are taken with a VOM (Input impedance $10M \Omega$).
Voltage variations may be noted due to normal production tolerances.
- Signal path.
 : PB
 : REC

1-3. CHANGED ELECTRICAL PARTS LIST

MAIN

Ref. No.	Former Type					New Type					Remark
	Part No.	Description				Part No.	Description				
C102	1-126-160-11	ELECT	1uF	20%	50V						Deleted
C104	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	Changed
C113	1-164-156-11	CERAMIC CHIP	0.1uF		25V	1-163-038-00	CERAMIC CHIP	0.1uF		25V	Changed
C115	1-164-346-11	CERAMIC CHIP	1uF		16V	1-164-005-11	CERAMIC CHIP	0.47uF		16V	Changed
C120	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	1-163-009-11	CERAMIC CHIP	0.001uF		50V	Changed
C128	1-164-156-11	CERAMIC CHIP	0.1uF		25V	1-163-031-11	CERAMIC CHIP	0.01uF		50V	Changed
C129	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	1-163-009-11	CERAMIC CHIP	0.001uF		50V	Changed
C502	1-164-156-11	CERAMIC CHIP	0.1uF		25V	1-163-038-00	CERAMIC CHIP	0.1uF		25V (S64V, S66V)	Changed
JR3	1-216-296-00	METAL CHIP	0	5%	1/8W						Deleted
JR4	1-216-296-00	METAL CHIP	0	5%	1/8W						Deleted
JR5	1-216-296-00	METAL CHIP	0	5%	1/8W						Deleted
Q101	8-729-402-32	TRANSISTOR	2SD1819A-R			8-729-120-28	TRANSISTOR	2SC1623-L5L6			Changed
R107	1-216-838-11	METAL CHIP	27K	5%	1/16W	1-216-083-00	METAL GLAZE	27K	5%	1/10W	Changed
R112	1-216-801-11	METAL CHIP	22	5%	1/16W	1-216-009-00	METAL GLAZE	22	5%	1/10W	Changed
R113	1-216-813-11	METAL CHIP	220	5%	1/16W	1-216-033-00	METAL GLAZE	220	5%	1/10W	Changed
R115	1-216-800-11	METAL GLAZE	18	5%	1/16W	1-216-156-00	METAL GLAZE	18	5%	1/8W	Changed
R117	1-216-853-11	METAL CHIP	470K	5%	1/16W	1-216-113-11	METAL GLAZE	470K	5%	1/10W	Changed
R123	1-216-823-11	METAL CHIP	1.5K	5%	1/16W	1-216-053-11	METAL GLAZE	1.5K	5%	1/10W	Changed
R501	1-216-883-11	METAL CHIP	10K	5%	1/16W	1-216-073-00	METAL GLAZE	10K	5%	1/10W (S64V, S66V)	Changed
R601	1-216-832-11	METAL CHIP	8.2K	5%	1/16W	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	Changed
R604	1-216-834-11	METAL CHIP	12K	5%	1/16W	1-216-075-00	METAL GLAZE	12K	5%	1/10W	Changed
R605	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	Changed
R606	1-216-829-11	METAL CHIP	4.7K	5%	1/16W						Deleted
R607	1-216-842-11	METAL CHIP	56K	5%	1/16W						Deleted

2. A CANADIAN MODEL HAS BEEN ADDED FOR TCM-S64V.

The Canadian model of the TCM-S64V is similar to the US model of the TCM-S64V. Only parts that have been added or changed are listed here.
For other information, refer to the previously issued original service manual.

EXPLODED VIEWS PARTS LIST

<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>
5	3-385-886-11	CABINET (FRONT) (S64V:Canadian)

ACCESSORIES & PACKING MATERIALS

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
*	3-387-183-01	CUSHION (TOP) (S64V:Canadian)
*	3-387-184-01	CUSHION (BOTTOM) (S64V:Canadian)
	3-756-196-31	MANUAL, INSTRUCTION (ENGLISH, FRENCH) (S64V:Canadian)

3. CORRECTION

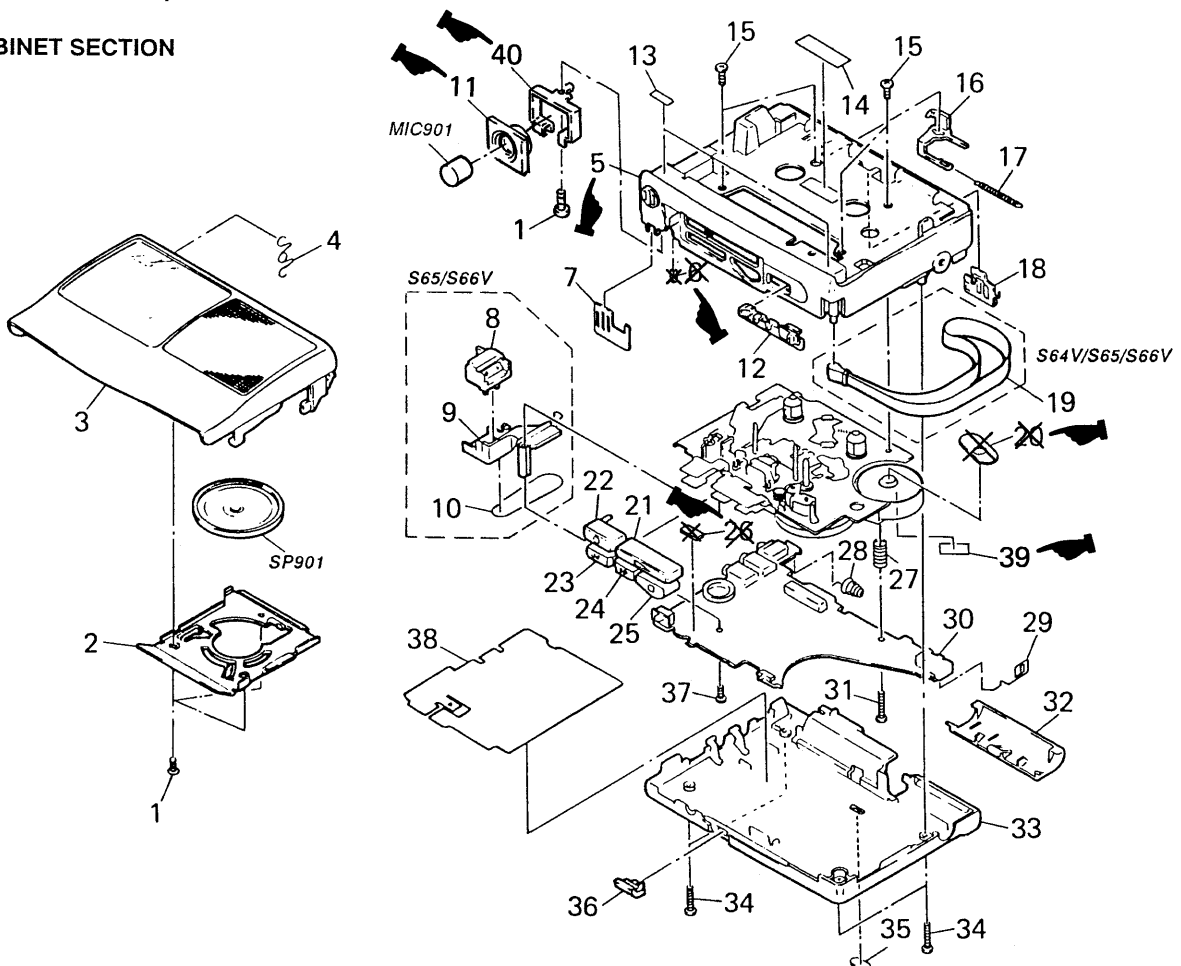
Correct your service manual as shown below.

EXPLODEED VIEWS

Page 9

👉 : Corrected portion

CABINET SECTION



EXPLODED VIEWS PARTS LIST

Ref. No.	Incorrect		Correct	
	Part No.	Description	Part No.	Description
5	3-385-886-01	CABINET (FRONT) (S63:US)	3-385-886-01	CABINET (FRONT) (S63:US)
	3-385-886-11	CABINET (FRONT) (S64V:US)	3-385-886-11	CABINET (FRONT) (S64V:US, Canadian)
	3-385-886-21	CABINET (FRONT) (S65)	3-385-886-21	CABINET (FRONT) (S65:Canadian)
	3-385-886-31	CABINET (FRONT) (S66V)	3-385-886-31	CABINET (FRONT) (S66V:US, Canadian, Tourist)
			3-385-886-61	CABINET (FRONT) (S63:E, Saudi Arabia)
			3-385-886-71	CABINET (FRONT) (S64V:E, Saudi Arabia)
			3-385-886-82	CABINET (FRONT) (S65:AEP, UK)
			3-385-886-92	CABINET (FRONT) (S66V:AEP, UK)
6	*3-389-321-01	CUSHION (GND)		
11	3-385-873-01	CUSHION (MICROPHONE NOM)	3-320-975-01	CUSHION (A), MICROPHONE
20	*3-389-320-01	SHEET, MOTOR		
26	*3-385-856-01	CUSHION (LED)		
39			*3-386-313-01	CUSHION (BATTERY CASE LID)
40			*3-904-756-02	BRACKET (M CUSHION)

ACCESSORIES & PACKING MATERIALS

Ref. No.	Incorrect		Correct	
	Part No.	Description	Part No.	Description
	*3-387-157-01	CUSHION (S63:E, Saudi Arabia, S65, S66V:AEP, UK)	*3-387-157-01	CUSHION (S63:E, Saudi Arabia/S64V:E, Saudi Arabia, S65, S66V:Canadian, AEP, UK, Tourist)
	*3-387-183-01	CUSHION (TOP) (S63, S64V:US)	*3-387-183-01	CUSHION (TOP) (S63:US, S64V:US, Canadian)
			*3-387-222-01	CUSHION (TOP) (S66V:US)
	*3-387-184-01	CUSHION (BOTTOM) (S63, S64V:US)	*3-387-184-01	CUSHION (BOTTOM) (S63:US, S64V:US, Canadian)
			*3-387-223-01	CUSHION (BOTTOM) (S66V:US)
	*3-387-163-01	INDIVIDUAL CARTON (S65:AEP, UK)	*3-387-156-01	INDIVIDUAL CARTON (S63:E, Saudi Arabia)
	*3-387-167-01	INDIVIDUAL CARTON (S66V:AEP, UK)	*3-387-159-01	INDIVIDUAL CARTON (S64V:E, Saudi Arabia)
			*3-387-161-01	INDIVIDUAL CARTON (S65:Canadian)
			*3-387-163-01	INDIVIDUAL CARTON (S65:AEP, UK)
			*3-387-165-01	INDIVIDUAL CARTON (S66V:Canadian)
			*3-387-167-01	INDIVIDUAL CARTON (S66V:AEP, UK)
			*3-387-169-01	INDIVIDUAL CARTON (S66V:Tourist)