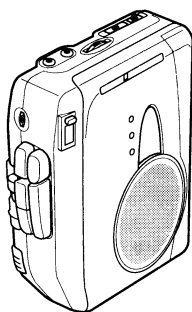


HS-JS195

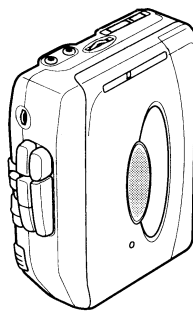
YZF YL YH YJ YZ

HS-JS185

YL YH YZ



HS-JS195



HS-JS185

SERVICE MANUAL

STEREO RADIO
CASSET RECORDER

BASIC TAPE MECHANISM : TN-9XR-112

aiwa

S/M Code No. 09-986-288-30I

SPECIFICATONS

<HS-JS185>

Frequency range: FM 87.5 -108 MHz AM 530 -1605 kHz (JS165)
FM 65 -108 MHz AM 530-1605 kHz (JS165V)

Maxlimum output: 10 mW+10 mW(EIAJ 32 ohms)
12 mW+12 mW(EIAJ 16 ohms)

Power sources: DC 3 V using two R6 (size AA) dry cell batteres,AC house current using an optional AC adaptor AC-620/AC-300/AC-302

Maximum dimensions: 120.7(W) x 91.5(H) x 37.8(D) mm
(4 $\frac{7}{8}$ x 3 $\frac{5}{8}$ x 1 $\frac{1}{2}$ in.)

Weight: Approx.170 g(6 oz) excludingthebatteries

<HS-JS195>

Frequency range: FM 87.5 -108 MHz AM 530 -1605 kHz

Speaker: Diameter 36 mm,4 ohms

Maximum output: 10 mW+10 mW (EIAJ 32 ohms)
12 mW+12 mW (EIAJ 16 ohms)
100 mW (EIAJ 4 ohms)

Power sources: DC 3 V using two R6 (size AA) dry cell batteries,AC house current using an optional AC adaptor AC-620/AC-300 /AC-302

Battery life: EIAJ 1 mW playbaok
Using the manganese batteries (R6P), approx.5 hours
Using the alkaline batteries (LR6), approx.20 hours
EIAJ 10 mW playback
Using the manganese batteries (R6P), approx.3 hours
Using the alkaline batteries (LR6), approx.15 hours
EIAJ recording
Using the manganese batteries (R6P), approx.4 hours
Using the alkaline batteries (LR6), approx.18 hours

Maximum dimensions:120.7 (W) x 915 (H) x 395 (D) mm
(4 $\frac{7}{8}$ x 3 $\frac{5}{8}$ x 1 $\frac{9}{16}$ in.)

Weight: Approx.180 g (6.3 oz) excluding the batteries

• Design and specifications are subject to change without notice.

ACCESSORIES LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	87-B30-068-010		HEADPHONE, HP-M007(T)<195>
1	87-B30-123-010		HEADPHONE, HP-M006(T)<185>
2	84-447-019-110		CLIP, BELT
3	87-HJ9-914-010		IB, EF-195<195YZF>
3	87-HJ9-911-010		IB, EGF-195<195YZ>
3	87-HJ9-910-010		IB, ESC-195<195YH, 195YJ>
3	87-HJ9-909-010		IB, ESP-195<195YL>
3	87-HJ9-913-010		IB, PHNCZ-195<195YZ>
3	87-HJ9-912-010		IB, SID-195<195YZ>
3	87-HJA-910-010		IB, EGF<185YZ>
3	87-HJA-909-010		IB, ESC-185<185YH>
3	87-HJA-908-010		IB, ESP-185<185YL>
3	87-HJA-912-010		IB, PHNCZ<185YZ>
3	87-HJA-911-010		IB, SID<185YZ>

ELECTRICAL MAIN PARTS LIST

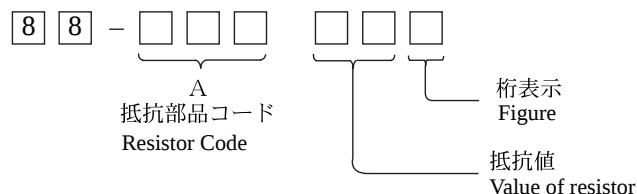
DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
IC				C307	87-010-482-010		CAP, E 220-4V
	87-001-379-010	IC, TA8122AF		C308	87-010-482-010		CAP, E 220-4V
	87-A20-607-040	IC, CXA2500		C309	87-010-482-010		CAP, E 220-4V
	87-001-371-080	IC, LA4533M		C310	87-010-115-010		CAP, E 100-4V
	87-017-370-080	IC, MM1038AFF		C311	87-010-401-010		CAP, E 1-50V
	87-002-232-080	IC, NJM2073M<195>		C312	87-010-401-010		CAP, E 1-50V
	87-017-643-080	IC, MM1206XF<195>		C404	87-010-482-010		CAP, E 220-4V
TRANSISTOR				C501	87-010-067-080		CAP, E 0.1-50V<195>
	89-413-284-080	TR, 2SD1328T		C503	87-010-482-010		CAP, E 220-4V<195>
	87-026-263-080	C-TR, RN1410		C505	87-010-075-040		CAP, E 10-16V<195>
	87-026-268-080	C-TR, RN2411		CD3	87-A90-466-010		FLTR, CDF107E
MAIN C.B				CF1	87-A90-128-010		CERA, FIL CFAL-455
	S7-J09-250-000	BATT, CONTACT(+)		CF2	85-HRL-625-010		FLTR, SK107M2-AE20
	S7-J09-260-000	BATT, CONTACT(-)		J201	87-A60-361-010		JACK, HP 3.5MM
BPF1	87-030-312-010	FILTER BANDPASS, GFMB3-1		J301	87-A60-361-010		JACK, HP 3.5MM
C102	87-010-044-080	CAP, E 47-4V		J303	87-A60-360-010		JACK, DC DIA4.5
C103	87-016-350-040	CAP, E 470-4V		L1	87-HJ9-609-010		COIL, AM BAR ANT
C113	87-010-401-010	CAP, E 1-50V		L2	87-HJ9-605-010		COIL, FM RF(EX)
C201	87-010-115-010	CAP, E 100-4V		L3	87-HJ9-604-010		COIL, FM OSC(EX)
C202	87-010-115-010	CAP, E 100-4V		L4	87-A90-180-010		IFT, AM OSC 5P
C203	87-010-067-080	CAP, E 0.1-50V		L5	87-A90-177-010		IFT, AM IF 5P
C204	87-010-067-080	CAP, E 0.1-50V		L6	87-A50-096-010		COIL, ANT CH5KSY
C209	87-010-482-010	CAP, E 220-4V		L7	87-003-089-010		COIL, 47UH FL5R200F
C210	87-010-482-010	CAP, E 220-4V		L251	87-007-189-010		COIL, OSC 50KHZ
C215	87-010-401-010	CAP, E 1-50V		S1	87-036-322-010		SW, SLIDE 2P3T
C216	87-010-401-010	CAP, E 1-50V		S2	87-A90-519-010		SW, SLIDE 2P2T
C217	87-010-401-010	CAP, E 1-50V		S3	87-A90-519-010		SW, SLIDE 2P2T
C218	87-010-401-010	CAP, E 1-50V		S4	87-A90-519-010		SW, SLIDE 2P2T
C219	87-010-401-010	CAP, E 1-50V		S5	87-A90-519-010		SW, SLIDE 2P2T
C220	87-010-401-010	CAP, E 1-50V		S6	87-036-123-010		SW, SLIDE 1P2T
C221	87-010-115-010	CAP, E 100-4V		S7	87-A90-520-010		SW, SL 2-4-2
C222	87-010-115-010	CAP, E 100-4V		SFR401	87-A90-518-010		SFR, 1K V
C223	87-010-044-080	CAP, E 47-4V		VC1	87-A90-181-010		TUN-CAP, 20-80-160 16X16
C227	87-010-067-080	CAP, E 0.1-50V		VR301	87-A90-521-010		VR, RTRY 10KH
C228	87-010-067-080	CAP, E 0.1-50V		X4	87-030-411-010		VIB, CER 19KHZ CMU2-456A01
C232	87-010-044-080	CAP, E 47-4V		LED C.B			
C235	87-016-350-040	CAP, E 470-4V		LED301	87-017-827-080		C-LED SEC1201C<185>
				LED601	87-017-828-080		C-LED, SEC1401C<195>
				LED602	87-017-829-080		C-LED, SEC1901C<195>
				LED603	87-017-827-080		C-LED SEC1201C<195>

- ・コネクタについては、初回発注の扱いとはせず、受注後に業者へ発注し、供給致します。
- ・Regarding connectors, they are not stocked as they are not the initial order items.
The connectors are available after they are supplied from connector manufacturers upon the order is received.

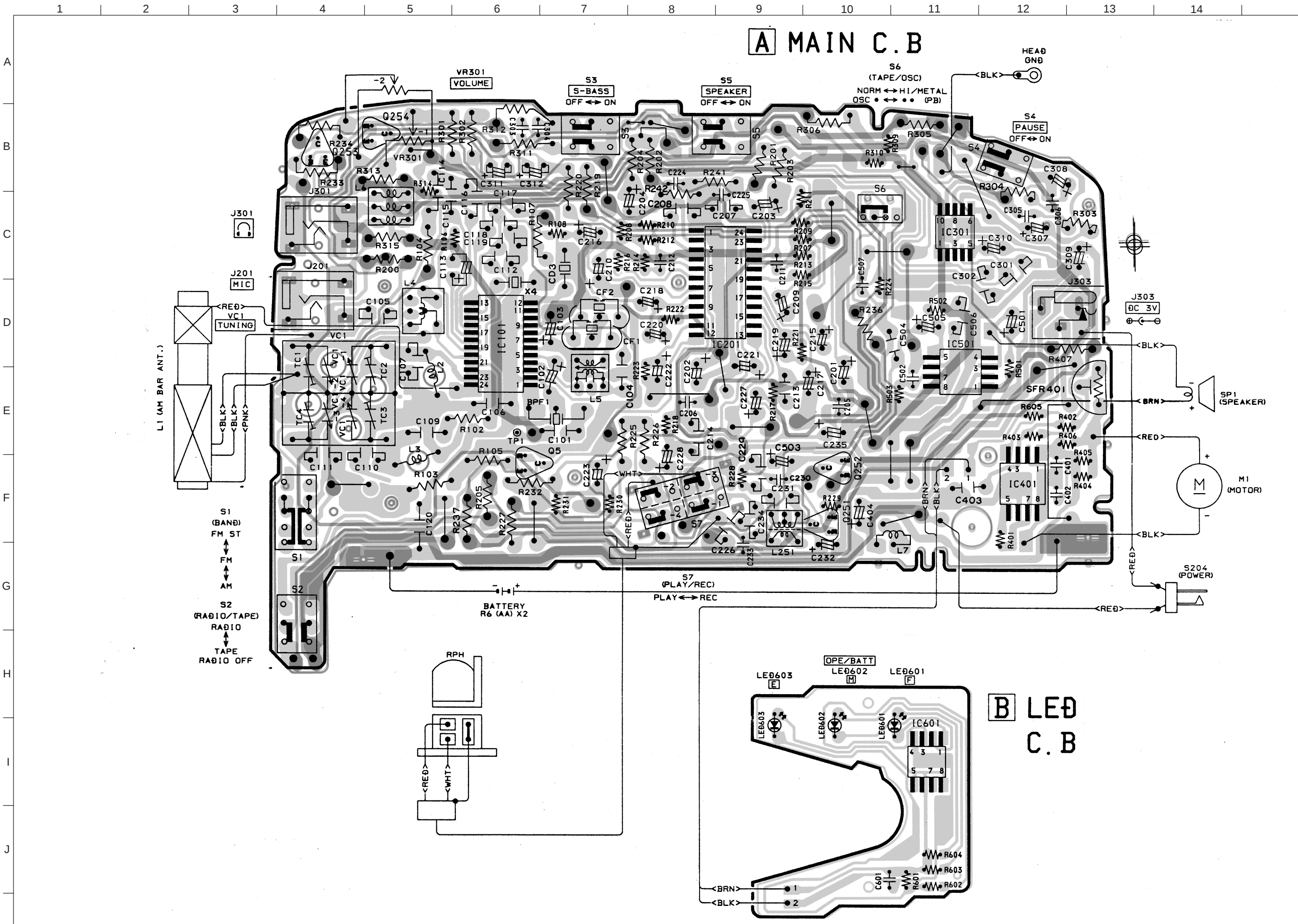
○ チップ抵抗部品コード / CHIP RESISTOR PART CODE

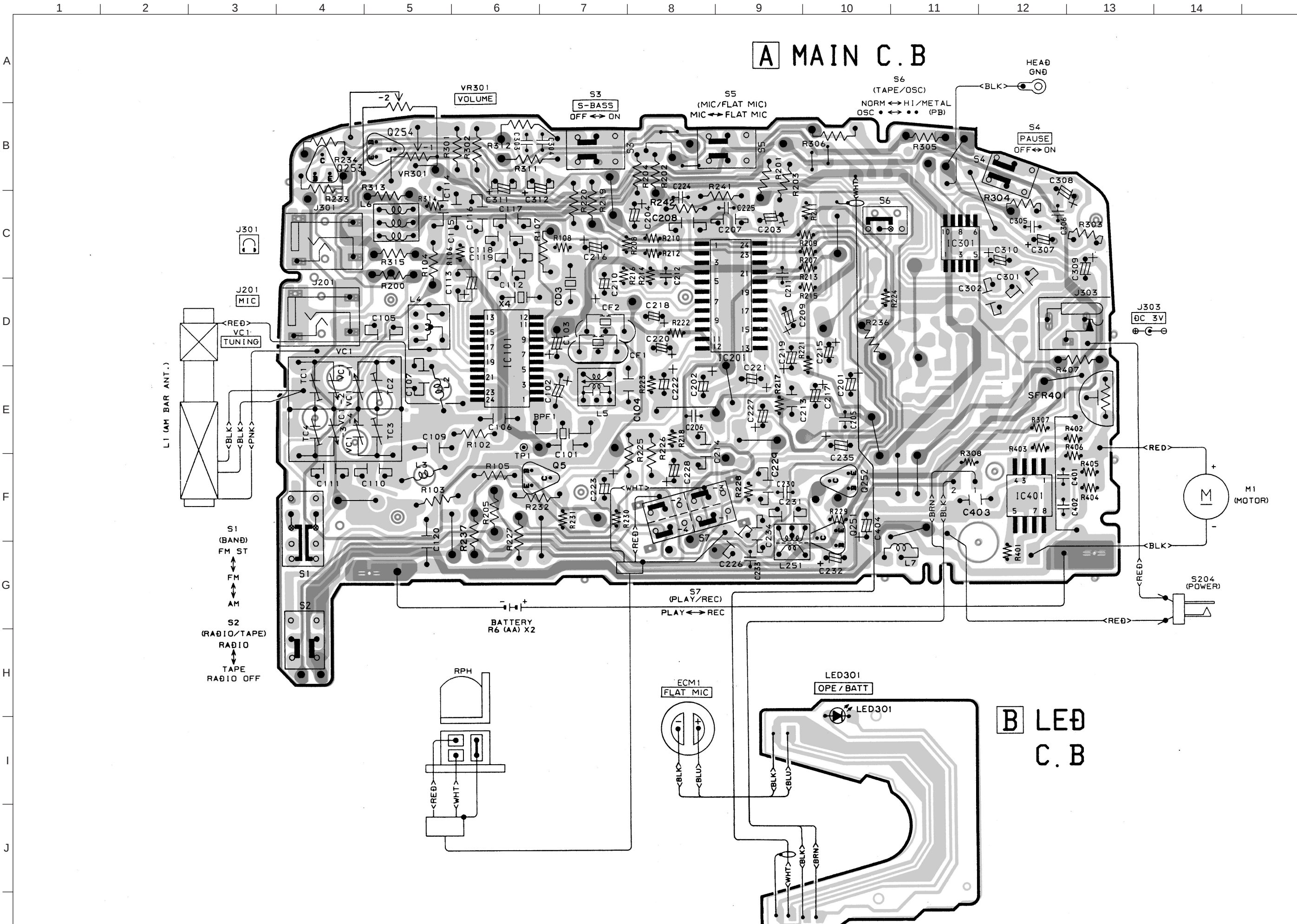
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



チップ抵抗
Chip resistor

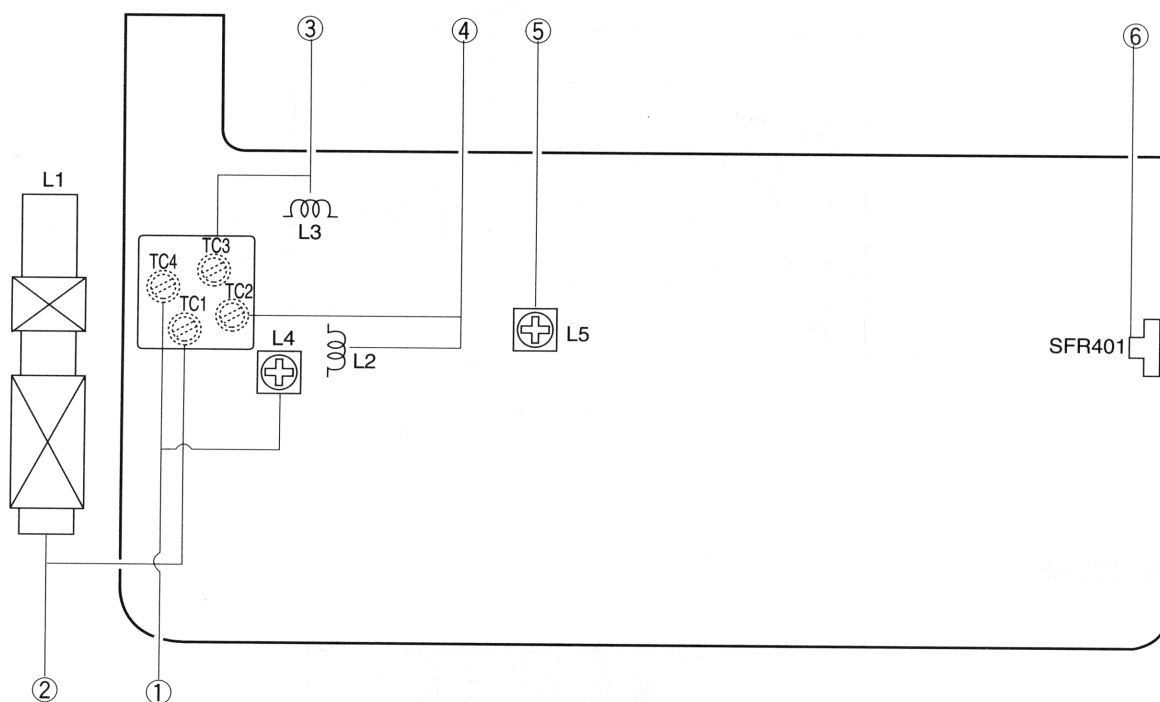
容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法 / Dimensions (mm)				抵抗コード : A Resistor Code : A
				外形 / Form	L	W	t	
1/16W	1608	5%	CJ		1.6	0.8	0.45	108
1/10W	2125	5%	CJ		2	1.25	0.45	118
1/8W	3216	5%	CJ		3.2	1.6	0.55	128





ADJUSTMENT

A MAIN C.B



TUNER SECTION

1. AM Freq. Range Adjustment

L4	515 kHz
TC4	1635 kHz

2. AM Tracking Adjustment

L1	630 kHz
TC1	1440 kHz

3. FM Freq. Range Adjustment

L3	87.4 MHz
TC3	108.3 MHz

4. FM Tracking Adjustment

L2	88 MHz
TC2	108 MHz

5. AM IF Adjustment

L5	455 kHz
----------	---------

TAPE DECK SECTION

6. Tape Speed Adjustment

- Conditions:
- Test tape: TTA-100
 - Test point: J1 (PHONES jack)
 - Adjustment location: SFR401

Method: Playback the test tape and adjust so that the output frequency is 3000 Hz.

PRACTICAL SERVICE FIGURE

TUNER SECTION

<FM SECTION>

Sensitivity:

(IHF, THD 3%)	Less than 19 dB (88 MHz)
	Less than 18 dB (98 MHz)
	Less than 17 dB (108 MHz)

Intermediate Frequency:	10.7 MHz
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<AM SECTION>

Sensitivity:

(S/N 10 dB)	Less than 54 dB (630 kHz)
	Less than 53 dB (999 kHz)
	Less than 51 dB (1440 kHz)

Intermediate Frequency:	455 kHz
-------------------------	---------

TAPE SECTION

Distortion:

Less than 3.0% (PB)

S/N Ratio:

More than 45 dB (PB, DC)

Nose Level:

Less than 30 mV (PB, DC)

Less than 18 mV (PB, AC)

Erasing Ratio:

More than 45 dB

Tape Speed:

3015 Hz + 60 Hz

Wow & Flutter:

Less than 0.55% (RMS)

Take-up Torque:

20 ~ 50 g-cm (FWD)

FF & Rew Torque:

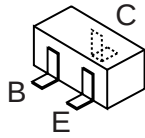
More than 55 g-cm

Test Tape:

TTA-100

NORMAL TTA-602

TRANSISTOR ILLUSTRATION



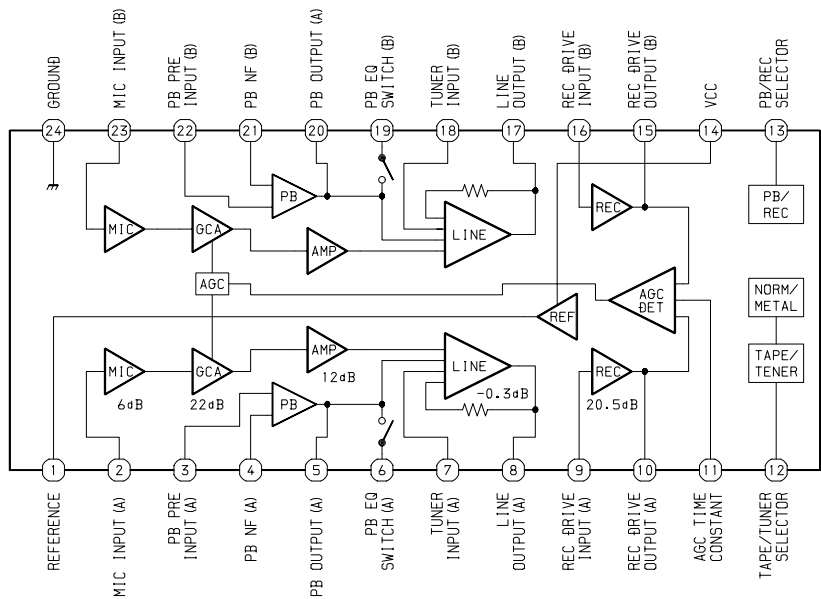
2SD1328

RN1410

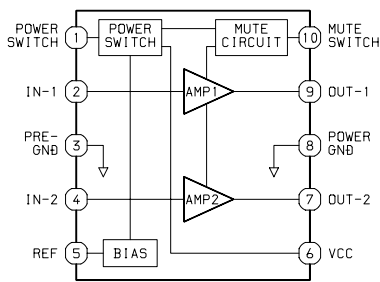
RN2411

IC BLOCK DIAGRAM

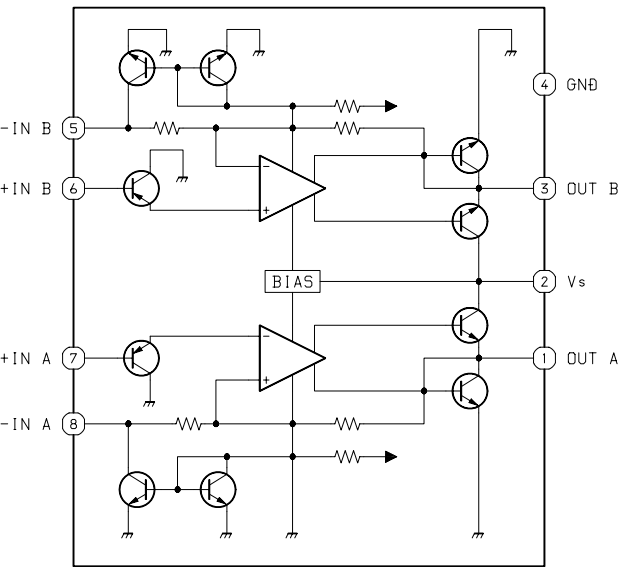
IC,CXA2500



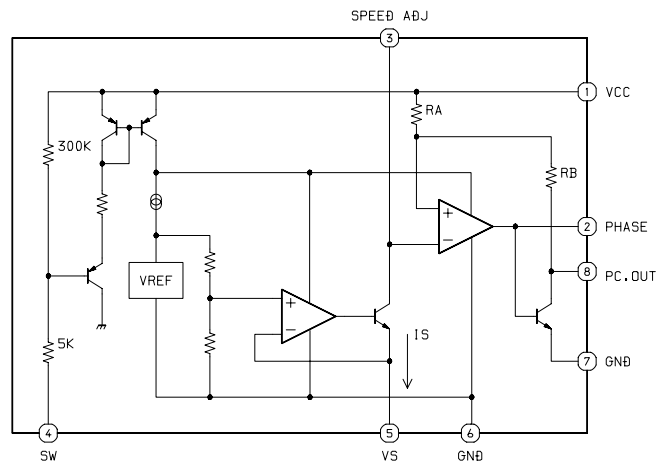
IC.LA4553



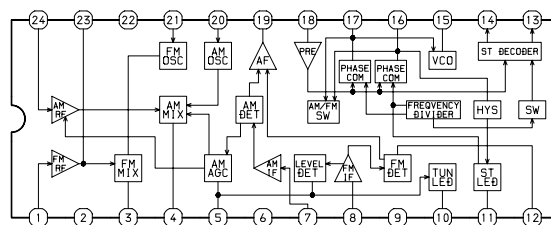
IC,NJM2073M



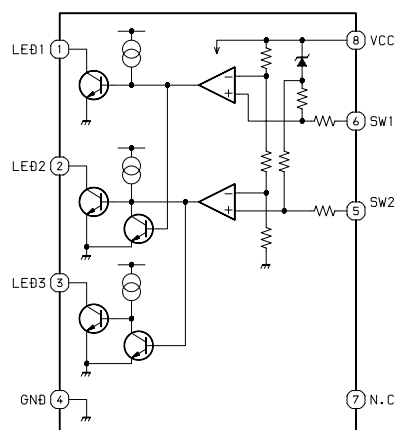
IC.MM1038AF



IC.TA8122AF

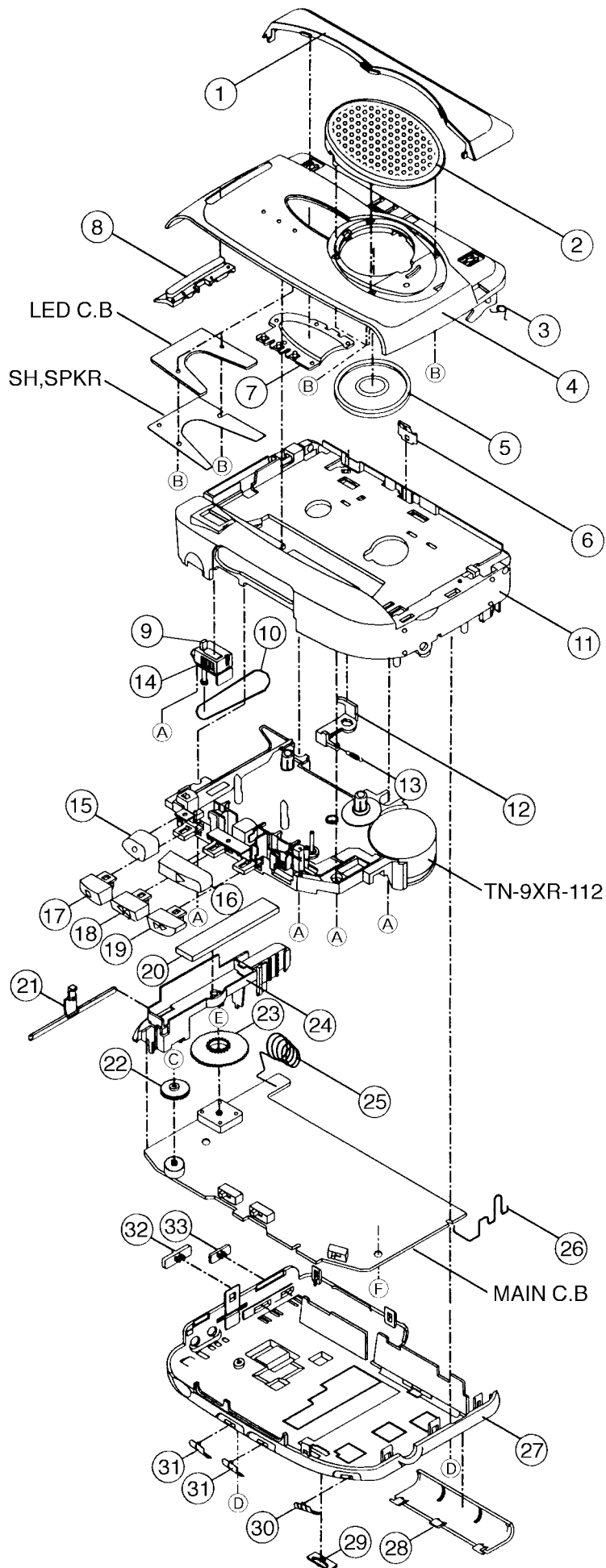


IC.MM1206XF



BATTERY REMAIN VOLUME	2.50V 2.25V		
	L	H	H
LE01	L	H	H
LE02	H	L	H
LE03	H	H	L

MECHANICAL EXPLODED VIEW 1/1 (HS-JS195)

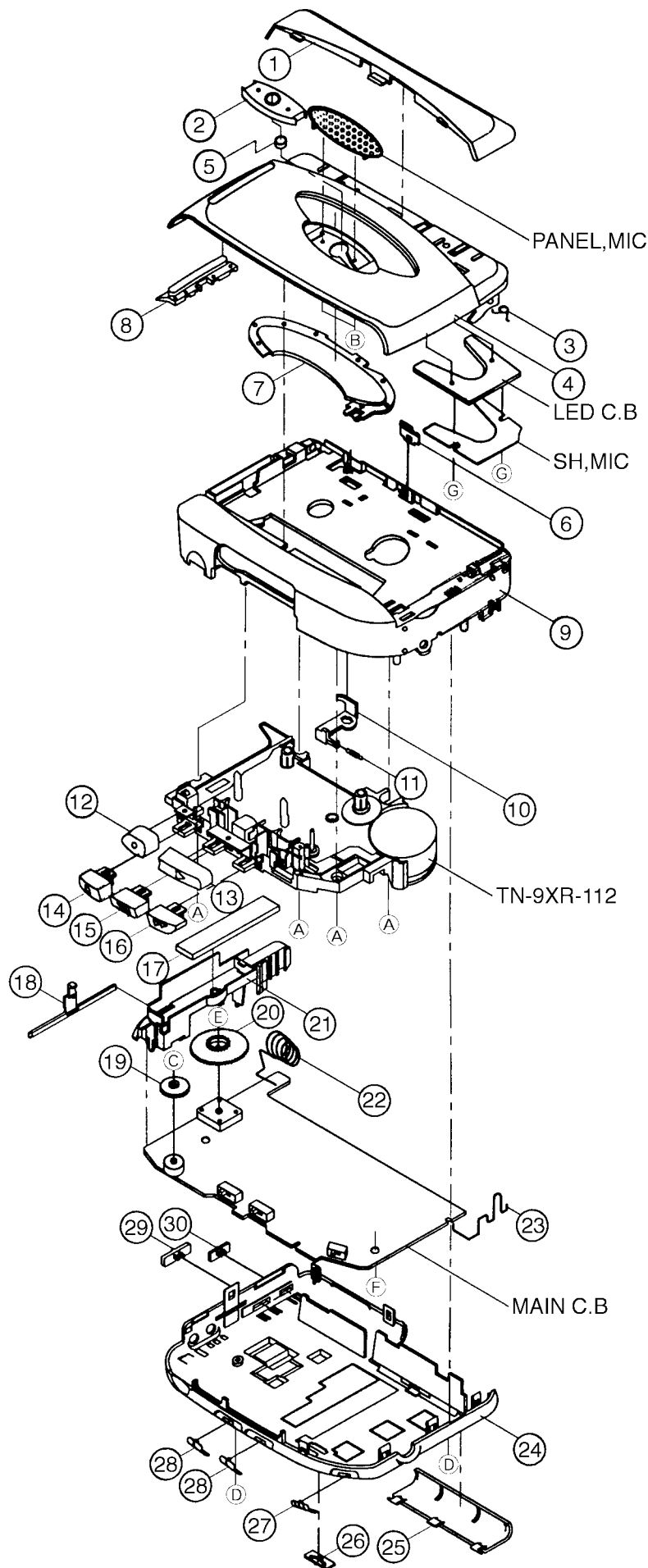


MECHANICAL PARTS LIST 1/1(HS-JS195)

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	87-HJ9-027-010		PANEL,CASS GRY
2	87-HJ9-004-010		PANEL,SPKR
3	87-HJA-206-010		SPR-T,CASS
4	87-HJ9-025-010		LID,CASS Y SIL
5	S1-440-004-210		SPKR
6	87-HJA-203-010		SPR-P,CASS
7	87-HJ9-003-010		WINDOW,CASS
8	87-HJA-007-110		WINDOW,TUN
9	87-040-196-010		COUNTER
10	87-HJ9-203-010		BELT,COUNTER
11	87-HJ9-026-010		FRAME,CENTER SIL
12	87-HJA-202-010		LEVER,REC
13	87-HJA-207-010		SPR-E,REC
14	87-HJ9-201-010		HLDR,COUNTER
15	87-HJA-040-010		BTN,REC A
16	87-HJA-010-110		BTN,PLAY
17	87-HJA-012-010		BTN,STOP
18	87-HJA-014-010		BTN,REW
19	87-HJA-013-010		BTN,FF
20	87-HJ9-609-010		COIL,AM BAR ANT
21	87-HJA-008-010		POINTER,TUN
22	87-HJA-021-010		KNOB,RTRY VOL
23	87-HJA-017-110		KNOB,RTRY TUN
24	87-HJA-201-010		CHASS,TUN
25	87-HJA-205-010		TERMINAL,BATT(-)
26	87-HJA-204-010		TERMINAL,BATT(+)
27	87-HJ9-022-210		CABI,REAR
28	87-HJA-004-010		LID,BATT
29	87-HJA-045-010		KNOB,SL BEAT GRY
30	87-HJA-044-010		KNOB,SL PAUSE GRY
31	87-HJA-043-010		KNOB,SL GRY
32	87-HJA-041-010		KNOB,SL BAND GRY
33	87-HJA-042-010		KNOB,SL POWER GRY
A	87-067-271-010		SCREW,1.7-4
B	87-352-508-310		SCREW,1.4-3.5(BLK)
C	87-264-529-310		SCREW,1.7-4(BLK)
D	87-067-769-010		SCREW,1.7-8
E	87-264-528-310		SCREW,1.7-3.5
F	87-354-529-310		SCREW,1.7-4

MECHANICAL EXPLODED VIEW 1/1 (HS-JS185)

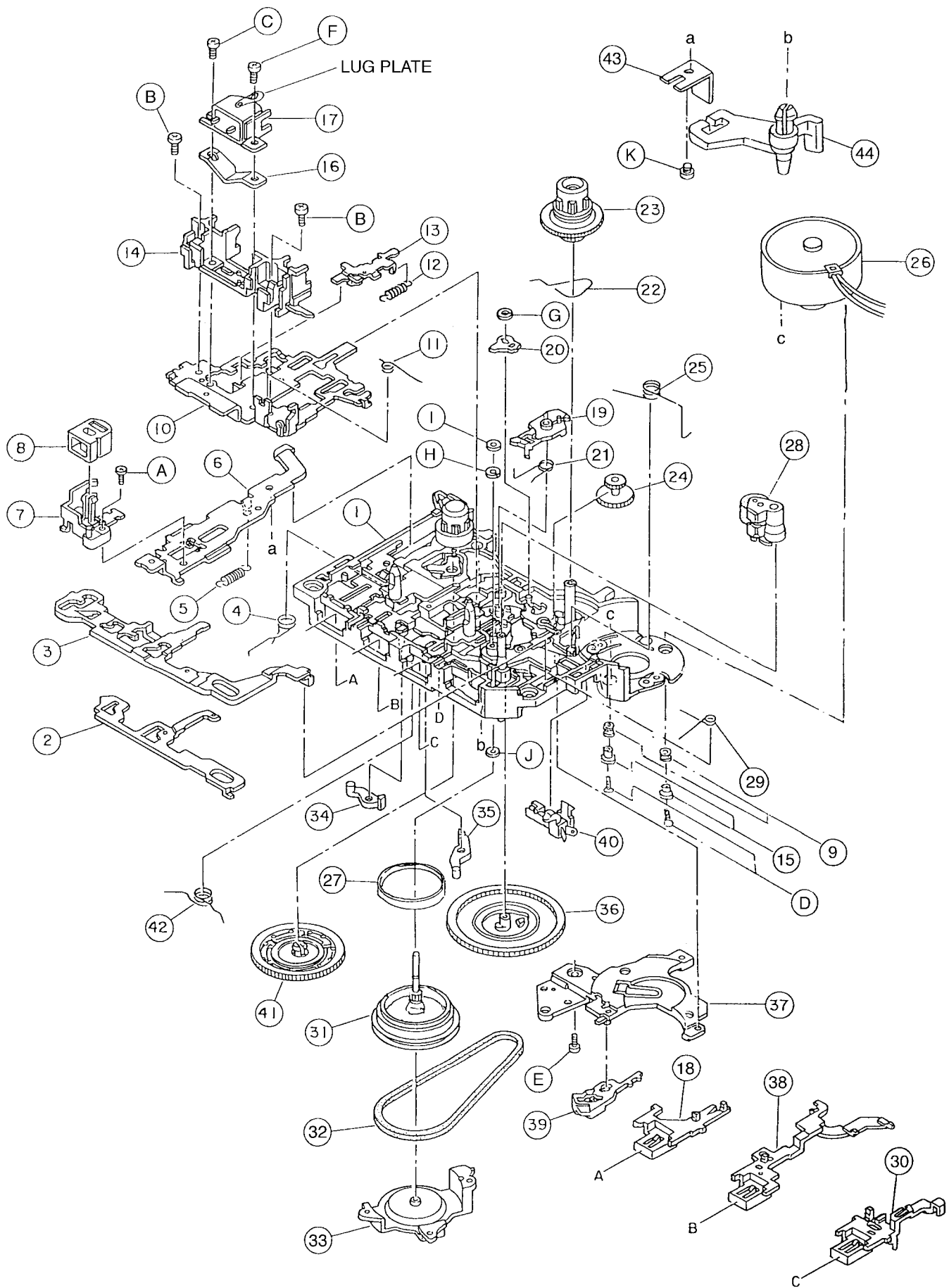


MECHANICAL PARTS LIST 1/1(HS-JS185)

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	87-HJA-046-010		PANEL,CASS GRY
2	87-HJA-208-010		HLDR,MIC
3	87-HJA-206-010		SPR-T,CASS
4	87-HJA-035-010		LID,CASS Y SIL
5	82-TP3-609-010		MIC
6	87-HJA-203-010		SPR-P,CASS
7	87-HJA-005-010		WINDOW,CASS
8	87-HJA-007-110		WINDOW,TUN
9	87-HJA-036-010		FRAME,CENTER SIL
10	87-HJA-202-010		LEVER,REC
11	87-HJA-207-010		SPR-E,REC
12	87-HJA-040-010		BTN,REC A
13	87-HJA-010-110		BTN,PLAY
14	87-HJA-012-010		BTN,STOP
15	87-HJA-014-010		BTN,REW
16	87-HJA-013-010		BTN,FF
17	87-HJA-609-010		COIL,AM BAR ANT
18	87-HJA-008-010		POINTER,TUN
19	87-HJA-021-010		KNOB,RTRY VOL
20	87-HJA-017-110		KNOB,RTRY TUN
21	87-HJA-201-010		CHAS,TUN
22	87-HJA-205-010		TERMINAL,BATT(-)
23	87-HJA-204-010		TERMINAL,BATT(+)
24	87-HJA-003-210		CABI,REAR
25	87-HJA-004-010		LID,BATT
26	87-HJA-045-010		KNOB,SL BEAT GRY
27	87-HJA-044-010		KNOB,SL PAUSE
28	87-HJA-043-010		KNOB,SL GRY
29	87-HJA-041-010		KNOB,SL BAND GRY
30	87-HJA-042-010		KNOB,SL POWER GRY
A	87-067-271-010		SCREW,1.7-4
B	87-352-508-310		SCREW,1.4-3.5(BLK)
C	87-264-529-310		SCREW,1.7-4(BLK)
D	87-067-769-010		SCREW,1.7-8
E	87-264-528-310		SCREW,1.7-3.5
F	87-354-529-310		SCREW,1.7-4
G	87-067-732-010		SCREW,1.4-3

TAPE MECHANISM EXPLODED VIEW 1/1



TAPE MECHANISM PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	S1-909-013-040		CHASSIS ASSY	31	S1-909-053-040		FLYWHEEL ASSY
2	S1-909-020-190		FR PLATE	32	S1-909-080-100		MAIN BELT
3	S1-909-020-090		LOCK PLATE	33	S1-909-050-100		FL BRACKET
4	S1-909-020-140		STOP SPRING	34	S1-909-020-150		R/C LEVER(R)
5	S1-909-120-030		REC LEVER SPRING	35	S1-909-020-160		R/C LEVER(F)
6	S1-909-120-070		REC LEVER	36	S1-909-060-120		CAM GEAR
7	S1-909-120-020		MG GUIDE	37	S1-909-020-170		R/C BRACKET
8	S6-207-100-020		HEAD E TC-230AN(SL)	38	S1-909-020-110		RWD LEVER
9	S1-852-140-020		M LUBBER	39	S1-909-020-180		FF STOPPER
10	S1-909-030-050		HEAD PANEL	40	S6-401-011-630		LEAF SW MSW-1541TA
11	S1-909-040-020		P/R SPRING	41	S1-909-077-010		RWD GEAR
12	S1-909-030-080		R/C SPRING	42	S1-909-020-130		FR SPRING
13	S1-909-030-070		R/C PLATE	43	S1-909-120-090		REC SPRING PLATE
14	S1-909-030-060		TAPE GUIDE	44	S1-909-120-100		REC SW LEVER
15	S1-852-140-030		M COLLOR	A	S9-C01-174-030		CAMERA 1.7-4
16	S1-944-030-020		HEAD SPRING PLATE	B	S9-C01-173-530		CAMERA 1.7-3.5
17	S6-202-030-410		RP HEAD MS15R-BA2N1	C	S9-P14-203-310		+/- SCREW M2-3.3
18	S1-909-020-100		STOP LEVER	D	S9-C18-300-100		CAMERA 1.7-3
19	S1-909-110-040		AUTO LEVER	E	S9-P08-173-410		PST 1.7-3.4
20	S1-909-110-020		A PUSH ARM	F	S9-P14-206-320		+/- SCREW M2-3.6
21	S1-909-110-050		M CONTROL SPRING	G	S9-W02-300-100		P WASHER CUT 1.2-3.8-0.3
22	S1-909-060-150		SENSOR SPRING C	H	S9-W08-350-200		LUMILER WASHER CUT 0.98-3-0.3
23	S1-909-063-030		T REEL ASSY	I	S9-W05-200-600		HL WASHER 1.16-3-0.2
24	S1-909-060-130		TAKE UP GEAR	J	S9-W05-200-100		HL WASHER 1.55-3-0.13
25	S1-909-030-090		HP SPRING	K	S9-C16-171-410		CAMERA 1.7-1.4
26	S1-909-083-050		MOTOR ASSY				
27	S1-909-050-130		BRAKE BELT				
28	S1-909-043-020		PINCH ROLLER ASSY				
29	S1-909-020-200		FR PLATE SPRING				
30	S1-909-020-120		FF LEVER				



サービス技術ニュース	
番号	連絡内容
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