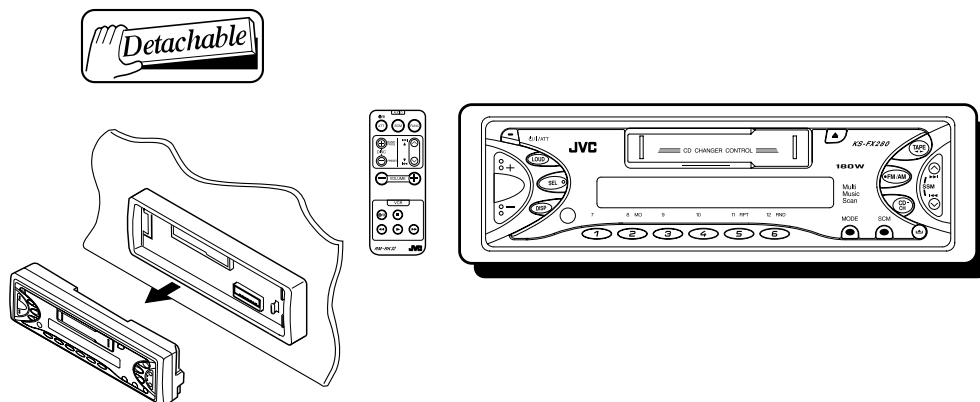


JVC

SERVICE MANUAL

CASSETTE RECEIVER

KS-FX280




Area Suffix

J ----- Northern America

Contents

Safety precaution	1-2
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Safety precaution

 **CAUTION** Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of performing repair of this system.

Disassembly method

<Main body>

■ Removing the front panel assembly (See Fig.1)

1. Press the eject button in the lower right part of the front panel. Remove the front panel assembly from the body.

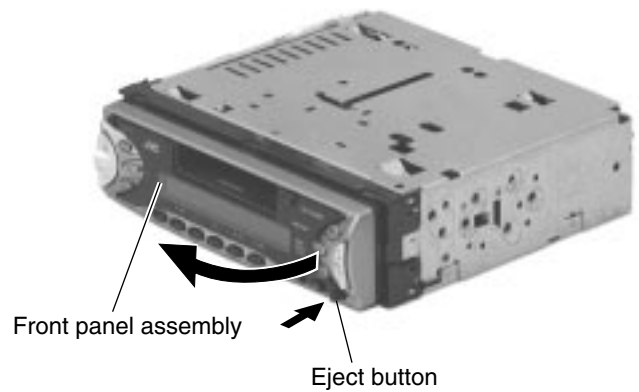


Fig.1

■ Removing the front chassis assembly (See Fig.2 and 3)

- Prior to performing the following procedure, remove the front panel assembly.

1. Release the four joint tabs **a** on both sides of the front chassis assembly and remove the front chassis assembly toward the front.

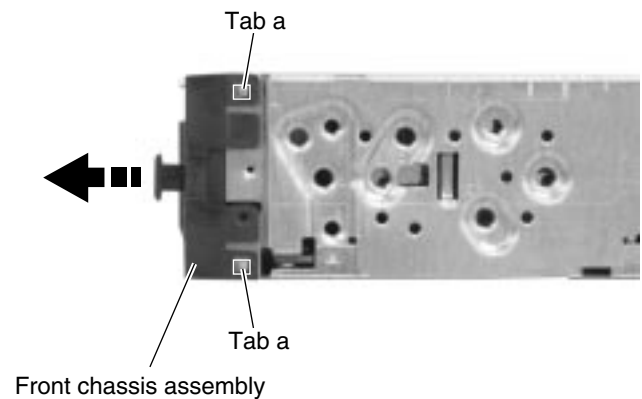


Fig.2

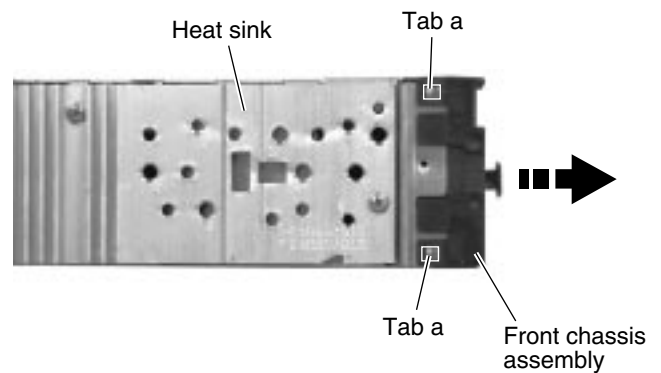


Fig.3

■ Removing the heat sink (See Fig.4)

1. Remove the three screws **A** on the left side of the body.

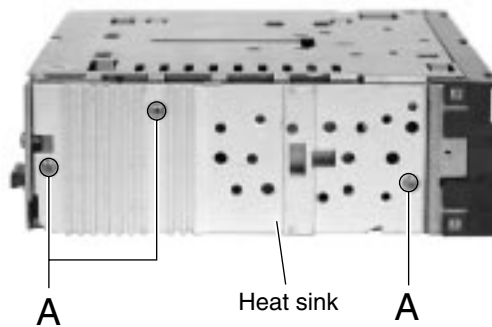


Fig.4

■ Removing the bottom cover (See Fig.5 and 6)

- Prior to performing the following procedure, remove the front panel assembly, the front chassis assembly and the heat sink.

1. Turn over the body and unjoint the five joints **b** with the bottom cover and the body using a screwdriver.

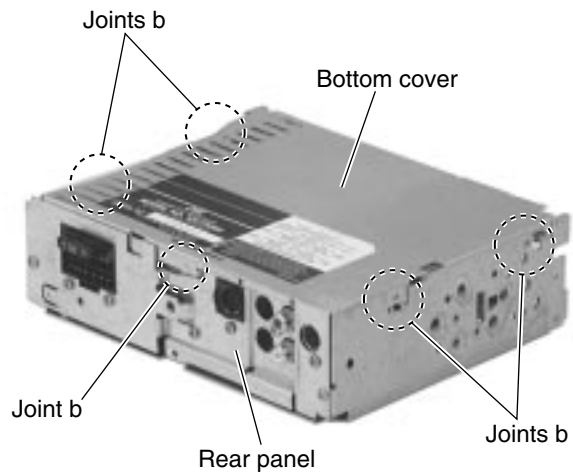


Fig.5

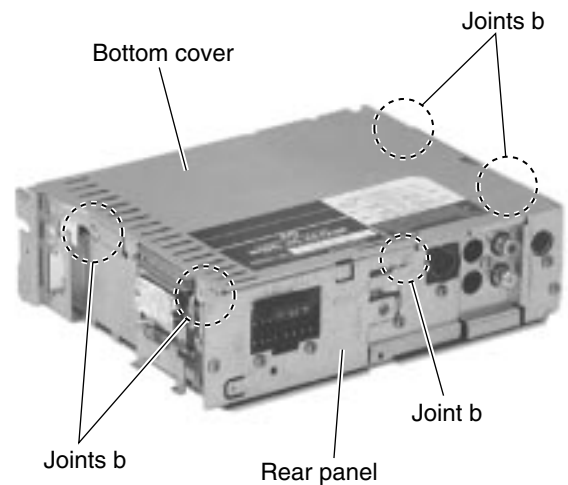
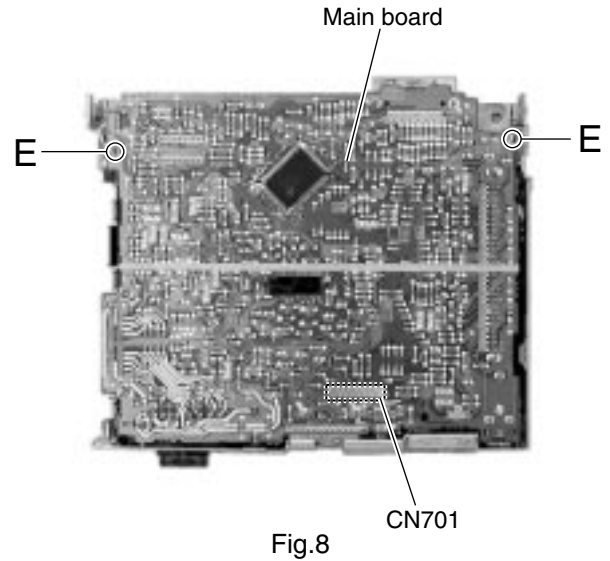
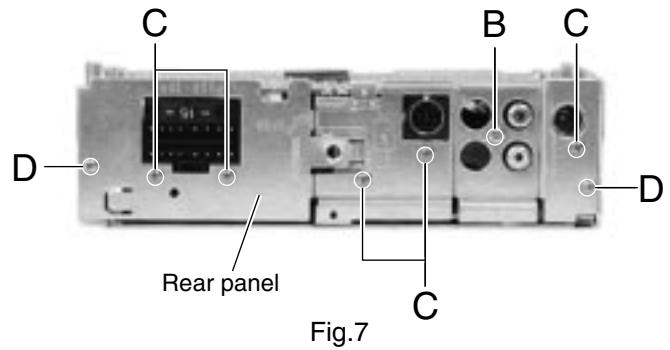


Fig.6

■ Removing the main board (See Fig.7 and 8)

• Prior to performing the following procedure, remove the front panel assembly, the front chassis assembly, the heat sink and the bottom cover.

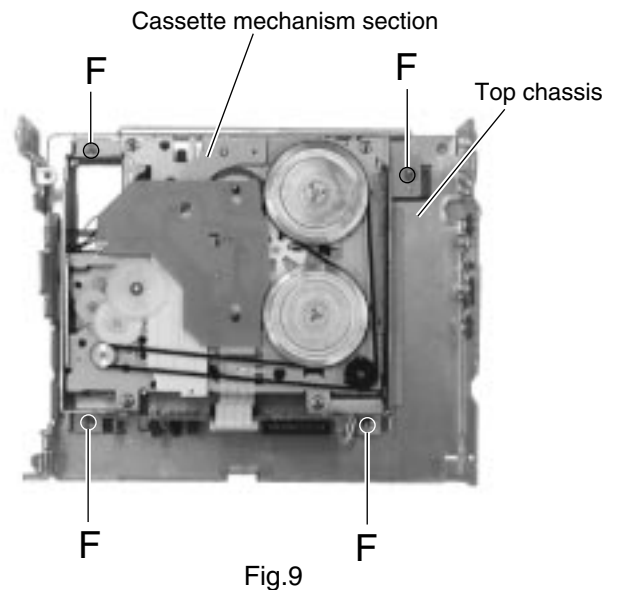
1. Remove the screw **B**, the five screws **C** and the two screws **D** attaching the rear panel on the back of the body. Remove the rear panel.
2. Remove the two screws **E** attaching the main board on the bottom of the body. Disconnect connector CN701 on the main board in the direction of the arrow.



■ Removing the cassette mechanism section (See Fig.9)

• Prior to performing the following procedure, remove the front panel assembly, the front chassis assembly, the heat sink, the bottom cover and the main board.

1. Remove the four screws **F** attaching the cassette mechanism section on the back of the top chassis.



■ **Removing the control switch board**
(See Fig.10 to 12)

• Prior to performing the following procedure, remove the front panel assembly.

1. Remove the four screws **G** attaching the rear cover on the back of the front panel assembly.
2. Unjoint the eleven joints **c** with the front panel and the rear cover.
3. Remove the control switch board on the back of the front panel.

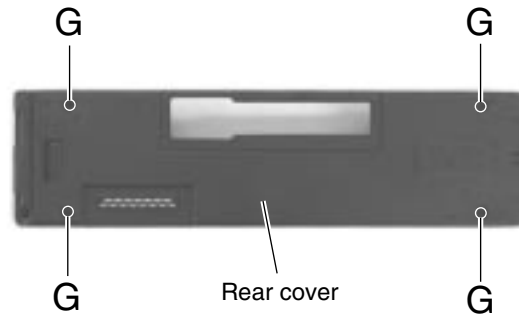


Fig.10

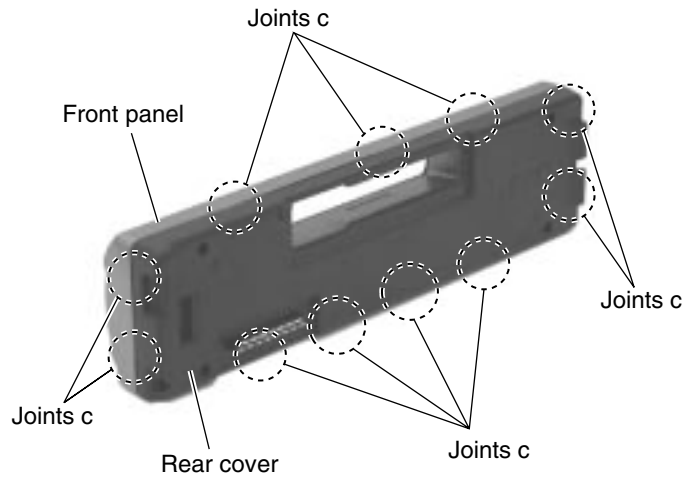


Fig.11

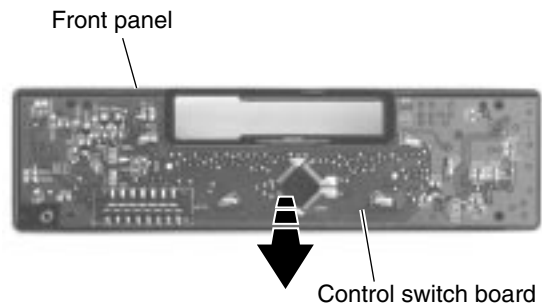


Fig.12

REFERENCE: Prior to performing the following procedures, turn the mode gear on the bottom of the body until the respective part comes to the EJECT position (Refer to Fig.1).

■ Removing the reinforce bracket (See Fig.1 and 2)

1. Remove the screw **A** attaching the reinforce bracket on the bottom of the body.
2. To release joint **a**, turn and detach the reinforce bracket from the side bracket assembly as shown in Fig.2

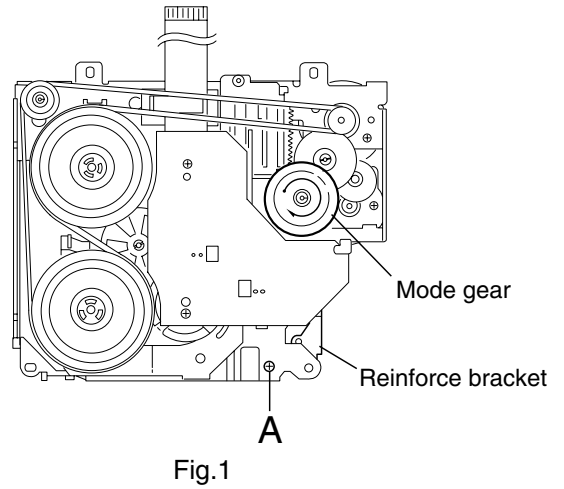


Fig.1

■ Removing the cassette guide (See Fig.3)

1. Turn the mode gear to set to RVS play or subsequent mode.
2. Remove the cassette guide from the main chassis while releasing each two joint tabs **b** in the direction of the arrow.

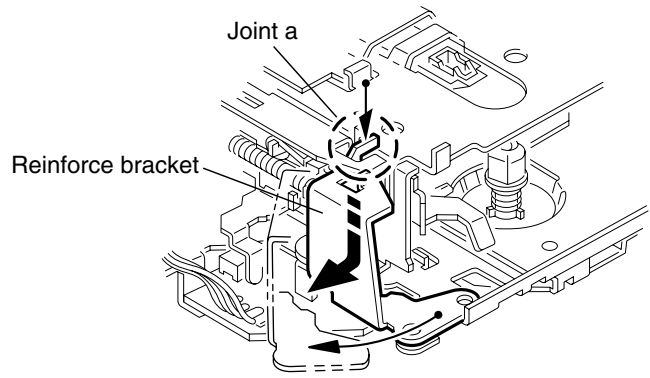


Fig.2

■ Removing the head board (See Fig.4)

1. Remove the screw **B** on the upper side. Unsolder the wires on the under side of the head board, if necessary.

REFERENCE: When reassembling, twist the wires by turning the head board twice remarked **c** and pass through the notch **d** as shown in Fig.4.

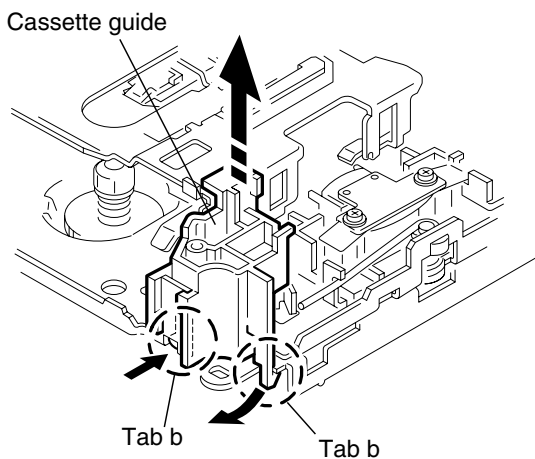


Fig.3

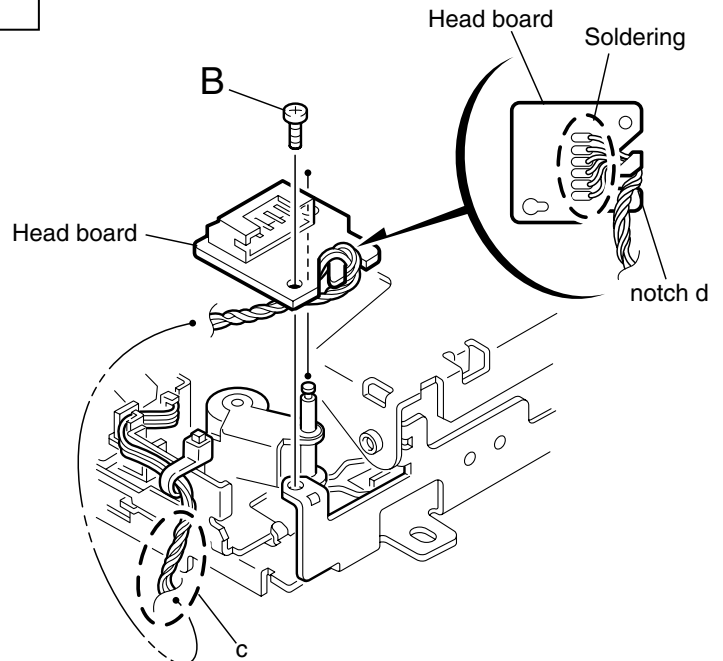


Fig.4

■ **Removing the load arm (See Fig.5)**

1. Remove the E-washer attaching the load arm.
2. Move the load arm in the direction of the arrow and release the joint e on the cassette catch.

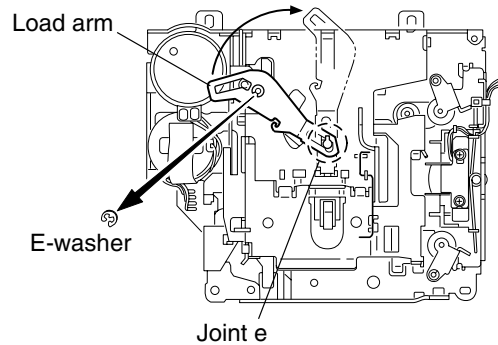


Fig.5

■ **Removing the cassette hanger assembly / cassette holder (See Fig.6 to 9)**

1. Check the mode is set to EJECT. Push down the front part of the cassette holder and move in the direction of the arrow to release the joint f.
2. Move the rear part of the cassette hanger assembly in the direction of the arrow to release it from the two joint bosses g.
3. Release the holder stabilizer spring from the hooks h and i, then pull out from the cassette hanger assembly.
4. Bring up the rear side of the cassette hanger assembly to release the joint j and k.
5. Pull out the cassette catch from the cassette hanger assembly.

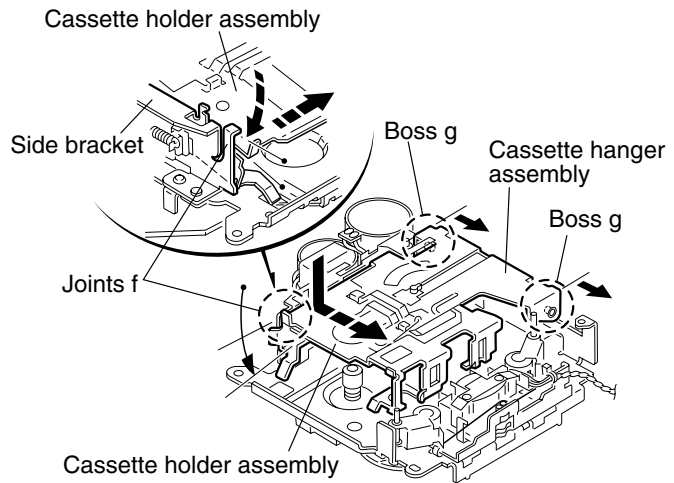


Fig.6

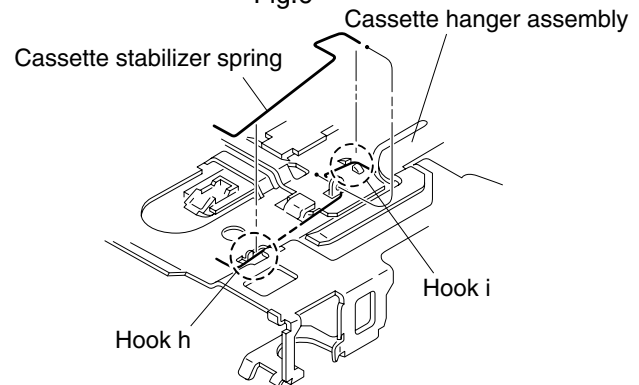


Fig.7

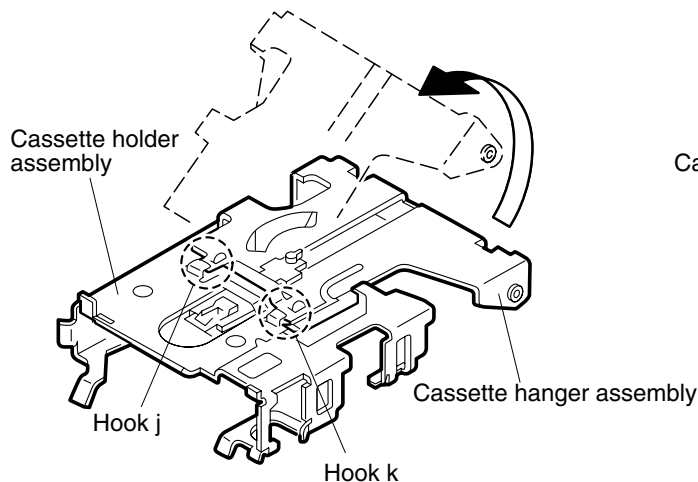


Fig.8

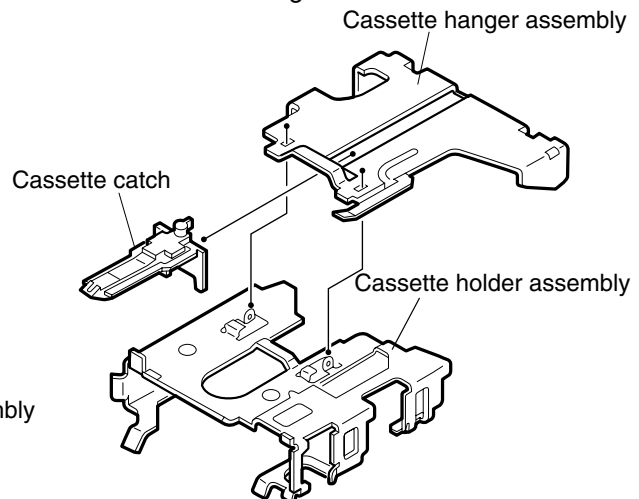


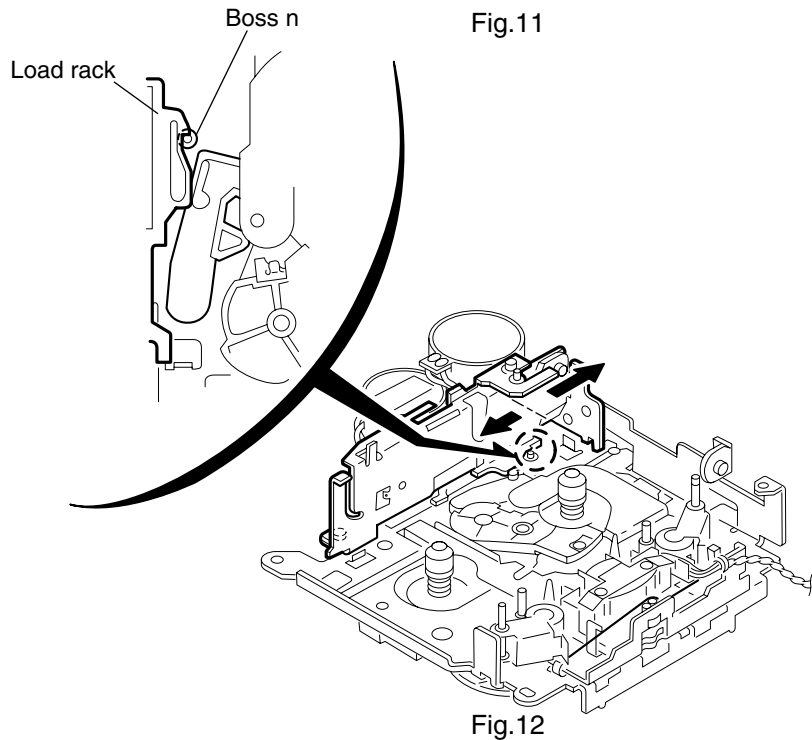
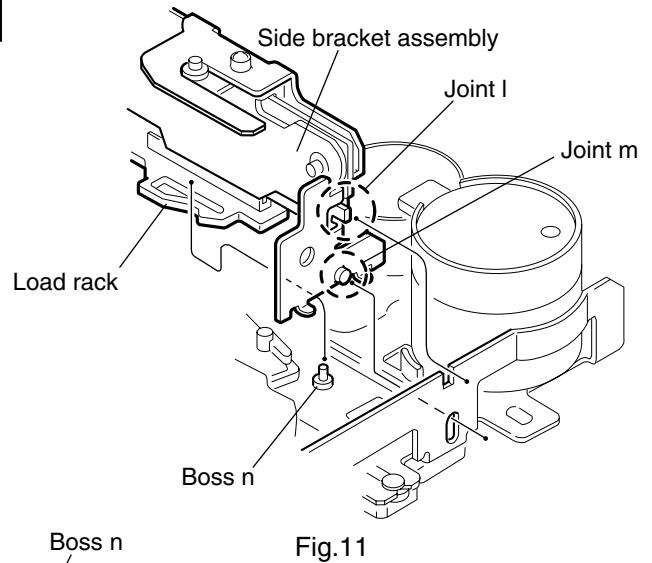
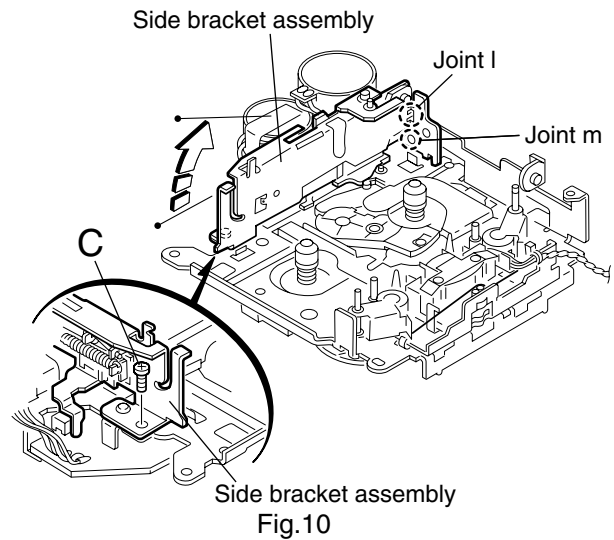
Fig.9

**■ Removing the side bracket assembly
(See Fig.10 to 12)**

1. Remove the screw **C** attaching the side bracket assembly.
2. Detach the front side of the side bracket assembly upward and pull out forward to release the joint **l** and **m** in the rear.

CAUTION: When reassembling, make sure that the boss **n** of the main chassis is set in the notch of the load rack under the side bracket assembly. Do not reattach the load rack on the boss **n**.

CAUTION: After reattaching the side bracket assembly, confirm operation.



**■ Removing the pinch arm (F) assembly
(See Fig.13 and 14)**

1. Remove the polywasher and pull out the pinch arm (F) assembly.
2. Remove the compulsion spring.

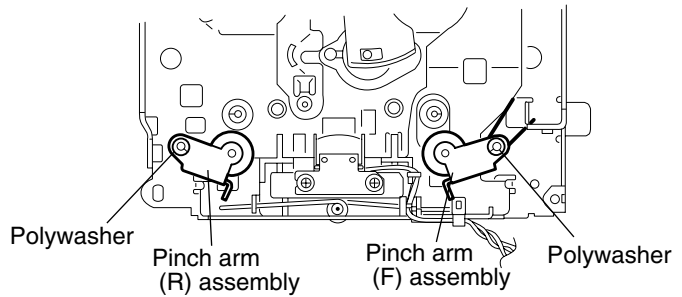


Fig.13

**■ Removing the pinch arm (R) assembly
(See Fig.13 and 15)**

1. Remove the polywasher and pull out the pinch arm (R) assembly.

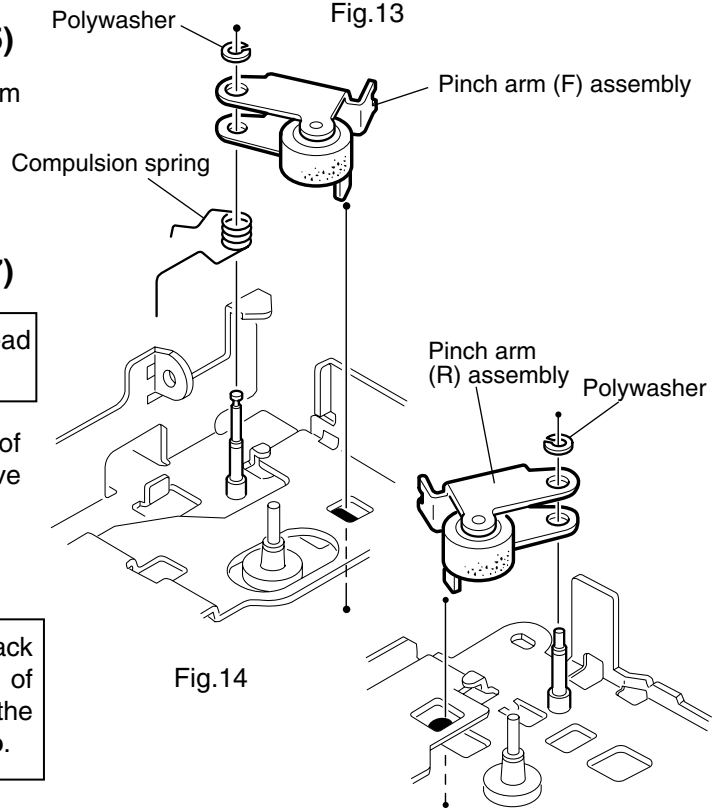


Fig.14

Fig.15

**■ Removing the slide chassis assembly
(See Fig.16 and 17)**

REFERENCE: It is not necessary to remove the head and the tape guide.

1. Move the slide chassis assembly in the direction of the arrow to release the two joints **o** and remove from the main chassis.
2. Remove the rack link.

CAUTION: When reassembling, first reattach the rack link, and next fit the boss **p** and hook **q** of the slide chassis assembly to the hole of the main chassis, and engage the two joints **o**.

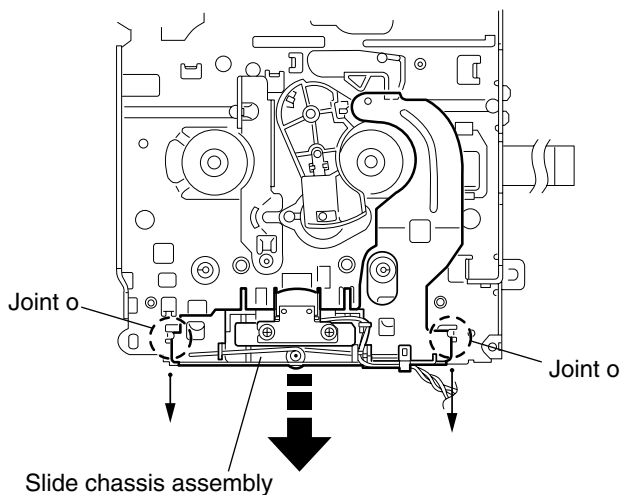


Fig.16

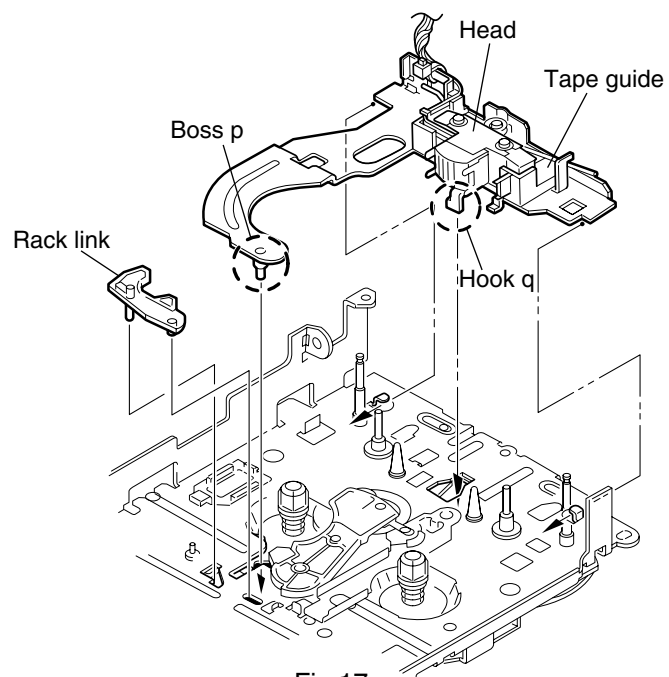


Fig.17

**■ Removing the head / tape guide
(See Fig.18 and 19)**

REFERENCE:It is not necessary to remove the slide chassis assembly.

1. Remove the band attaching the wire to the head.
2. Remove the two screws **D**, the head and the head support spring.
3. Remove the pinch arm spring from the tape guide.
4. Remove the tape guide and the pinch spring arm.

CAUTION: When reattaching the pinch arm spring, set both end of it to the pinch spring arm (remarked **r**).

CAUTION: When reattaching the head, set the wires into the groove of the tape guide (Fig.18).

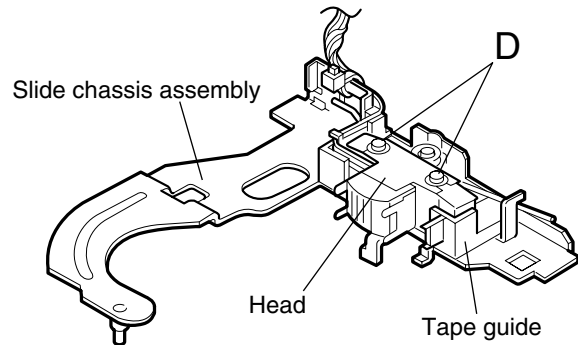


Fig.18

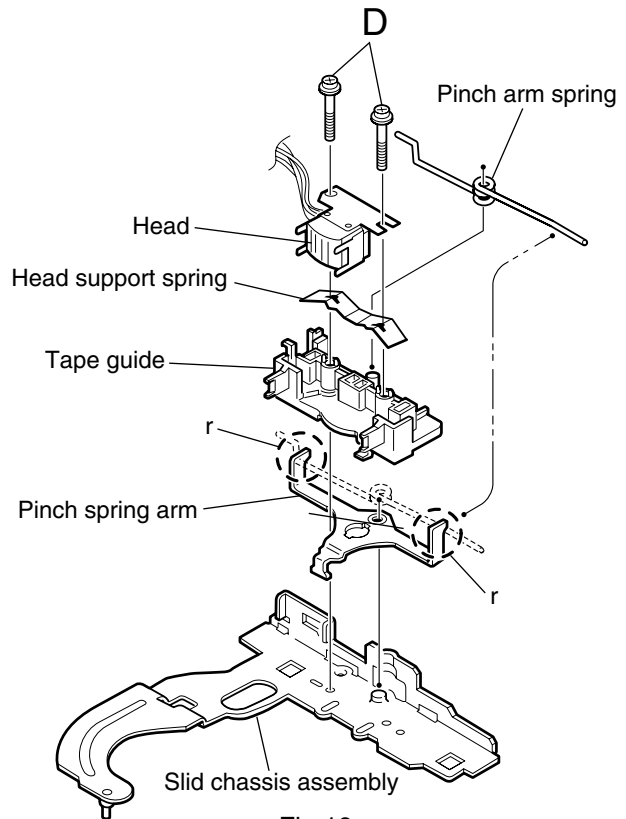


Fig.19

**■ Removing the flywheel assembly (F) & (R)
(See Fig.20 and 21)**

REFERENCE:It is not necessary to remove the slide chassis assembly.

1. Remove the belt at the bottom.
2. Remove the two polywashers on the upper side.
3. Pull out each flywheel assembly downward.

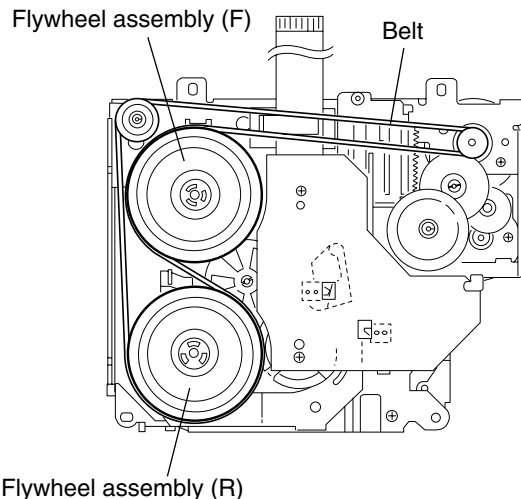


Fig.20

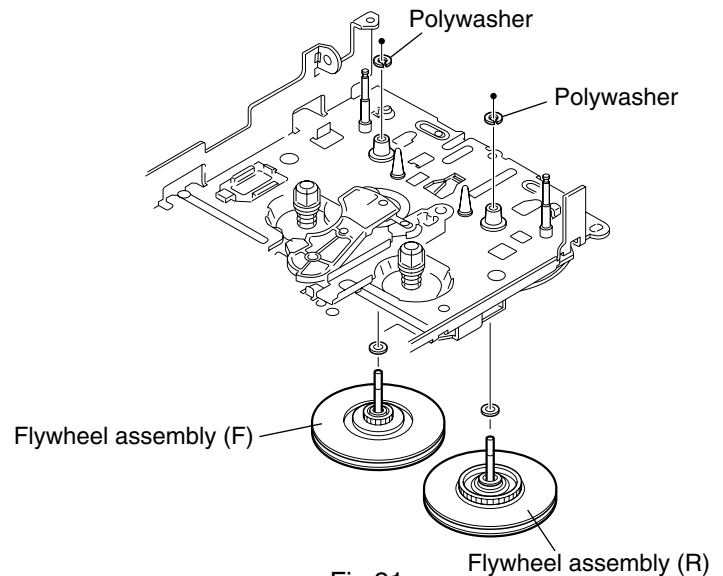


Fig.21

Disassembling the flywheel assembly (F)
(See Fig.22 and 23)

1. Push and turn counterclockwise the spring holder (F) to release the three joints **s** on the bottom of the flywheel.
2. The spring holder (F), the TU spring and the friction gear play come off.
3. Remove the polywasher and felt.

Disassembling the flywheel assembly (R)
(See Fig.22 and 24)

1. Push and turn clockwise the spring holder (R) to release the three joints **t** on the bottom of the flywheel.
2. The spring holder (R), the FF spring and the friction gear FF come off.
3. Remove the polywasher and the felt.

Removing the reel board
(See Fig.25 and 26)

1. Remove the two screws **E** attaching the reel board.
2. Move the reel board in the direction of the arrow to release the joint **u**.
3. Unsolder the wires if necessary.

CAUTION: When reattaching, confirm operation of the MODE switch and the ST-BY switch.

The mode position between EJECT and ST-BY is optimum for reattaching.

Connect the card wire extending from the reel board to the FFC pad before reattaching the reel board.

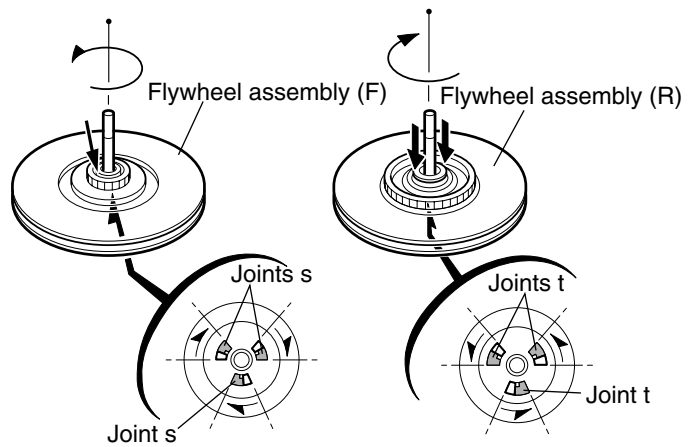


Fig.22

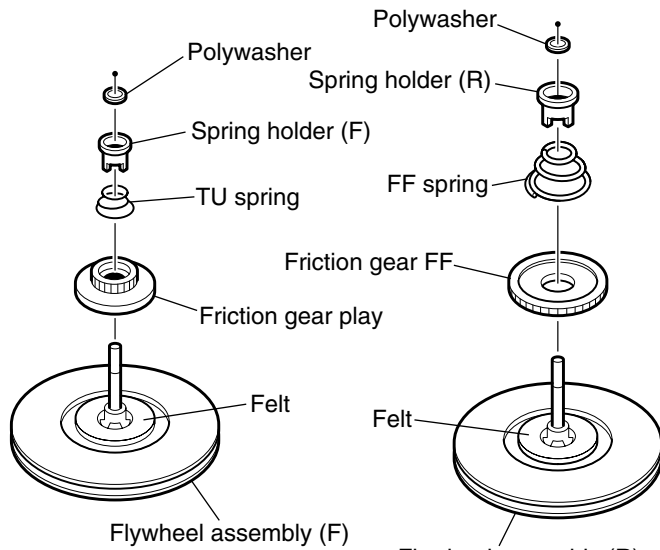


Fig.23

Fig.24

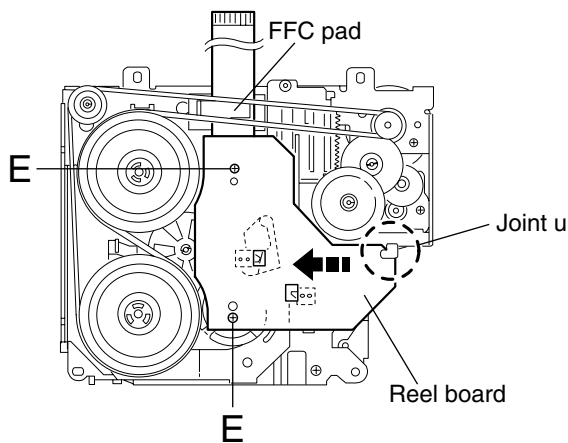


Fig.25

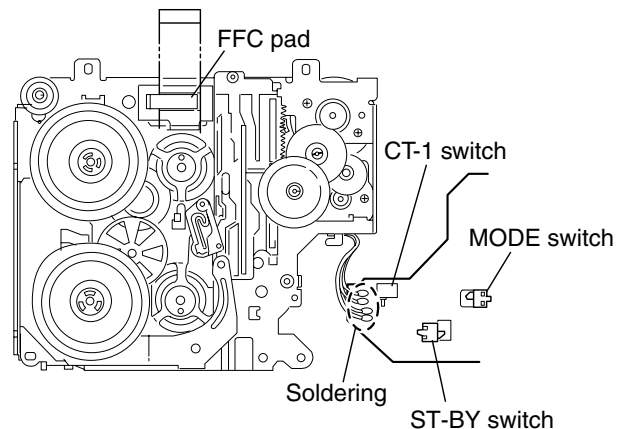


Fig.26

■ Removing the gear base arm / gear base link assembly (See Fig.27 to 29)

1. Move the gear base arm in the direction of the arrow.
2. Insert a slotted screwdriver to the gear base spring under the gear base arm, and release the gear base arm upward from the boss on the gear base assembly.
3. Remove the gear base arm from the main chassis while releasing the two joints **v**.
4. Move the gear base link assembly in the direction of the arrow to release the two joints **w**.

REFERENCE:When reattaching the gear base arm, make sure that the boss on the gear base assembly is inside the gear base spring.

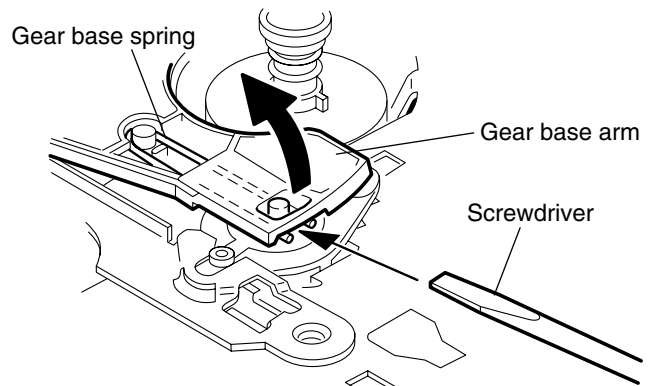
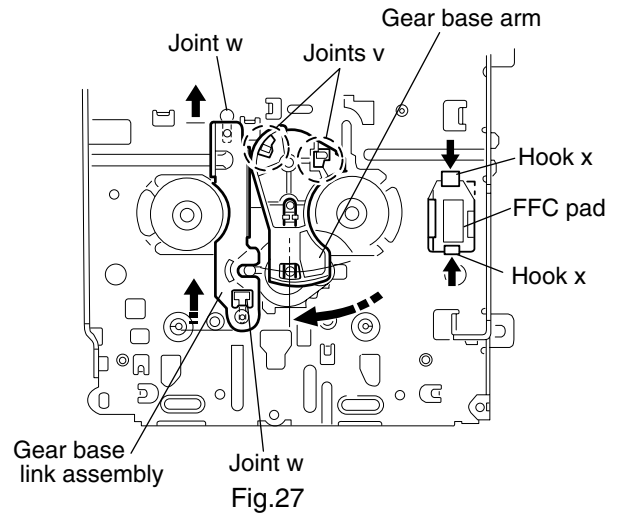


Fig.28

■ Removing the FFC pad (See Fig.27 and 29)

1. Push each joint hook **x** of the FFC pad and remove toward the bottom.

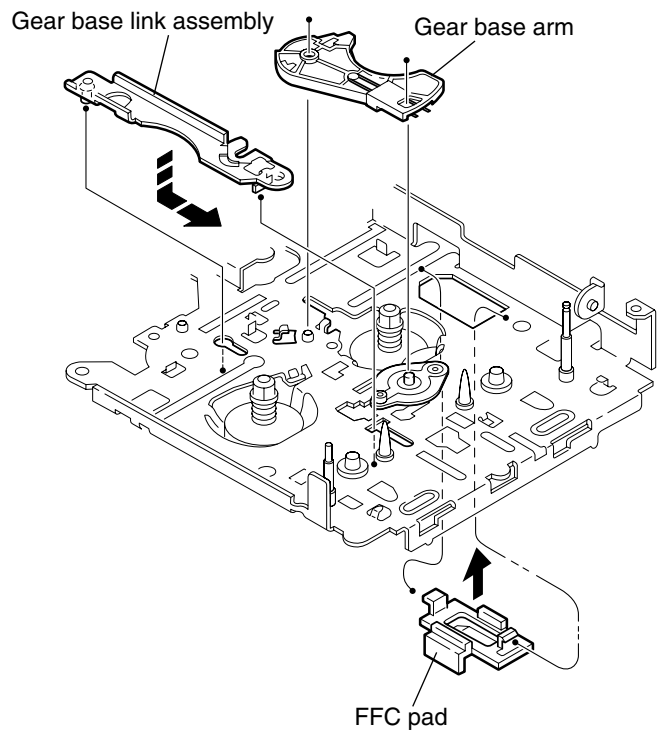


Fig.29

■ Removing the mode gear
(See Fig.30 and 33)

1. Remove the polywasher on the bottom and pull out the mode gear.

■ Removing the mode switch actuator
(See Fig.30, 31 and 33)

1. Pull out the mode switch actuator at the bottom.

REFERENCE:When reattaching the mode switch actuator to the main chassis, make sure to set on the shaft and insert **y** into the slot **z**.

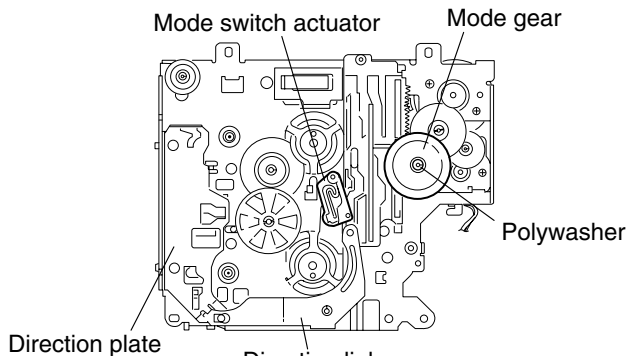


Fig.30

■ Removing the direction link / direction plate (See Fig.31 to 33)

1. Remove the polywasher attaching the direction link.
2. Bring up the direction link to release the three joints **a'**, **b'** and **c'** at a time.
3. Move the direction plate in the direction of the arrow to release the two joints **d'**.

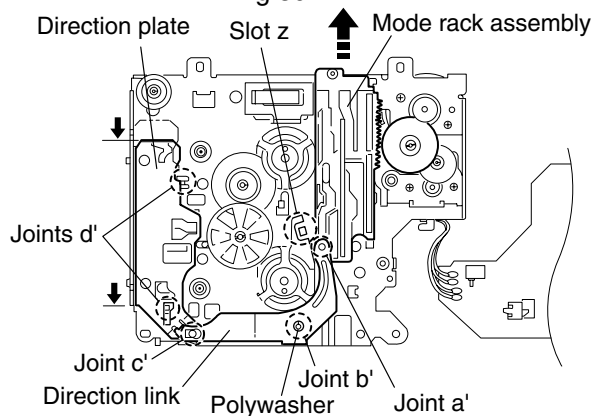


Fig.31

REFERENCE:When reattaching the direction plate, engage the two joints **d'** and move in the direction of the arrow (See Fig.32).

REFERENCE:When reattaching the direction link, move the direction plate in the direction of the arrow and engage the three joint **a'**, **b'** and **c'** at a time (See Fig.33).

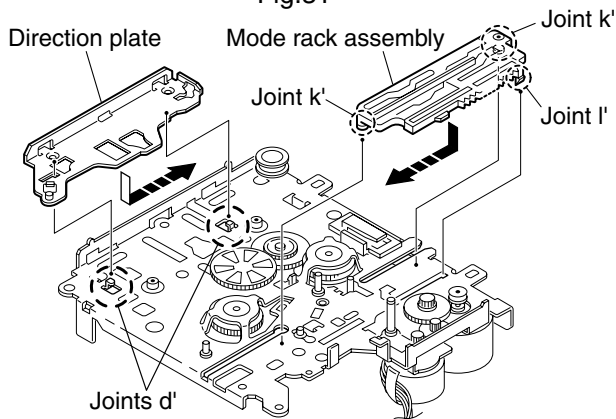


Fig.32

■ Removing the mode rack assembly
(See Fig.31 and 32)

1. Move the mode rack assembly in the direction of the arrow to release the two joints **k'** and the joint **l'**.

REFERENCE:When reattaching, set the two **k'** on the bottom of the mode rack assembly into the slots of the main chassis and move in the direction of the arrow (See Fig.32).

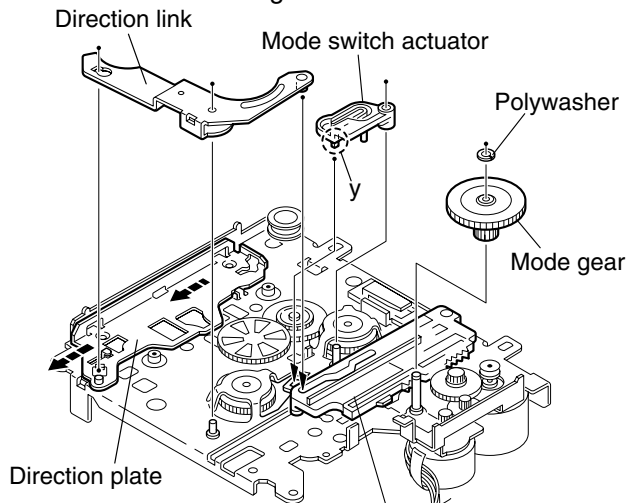


Fig.33

■ Removing the gear base assembly / take up gear / reflector gear (See Fig.34 to 36)

1. Push in the pin **e'** of the gear base assembly on the upper side of the body and move the reflector gear toward the bottom, then pull out.
2. Remove the polywasher on the bottom and pull out the take up gear.
3. Move the gear base assembly in the direction of the arrow to release it from the two slots **f'** of the main chassis.

REFERENCE: The parts are damaged when removed. Please replace with new ones.

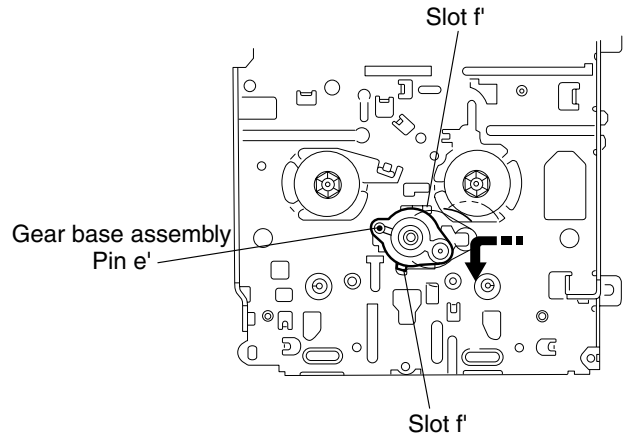


Fig.34

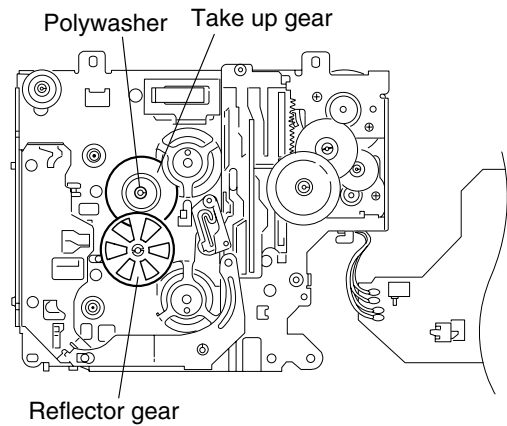


Fig.35

■ Removing the reel driver / reel spindle (See Fig.36)

1. Draw out the reel driver from the shaft on the main chassis and remove the reel driver spring and the reel spindle respectively.

CAUTION: The reel driver is damaged when removed. Please replace with a new one.

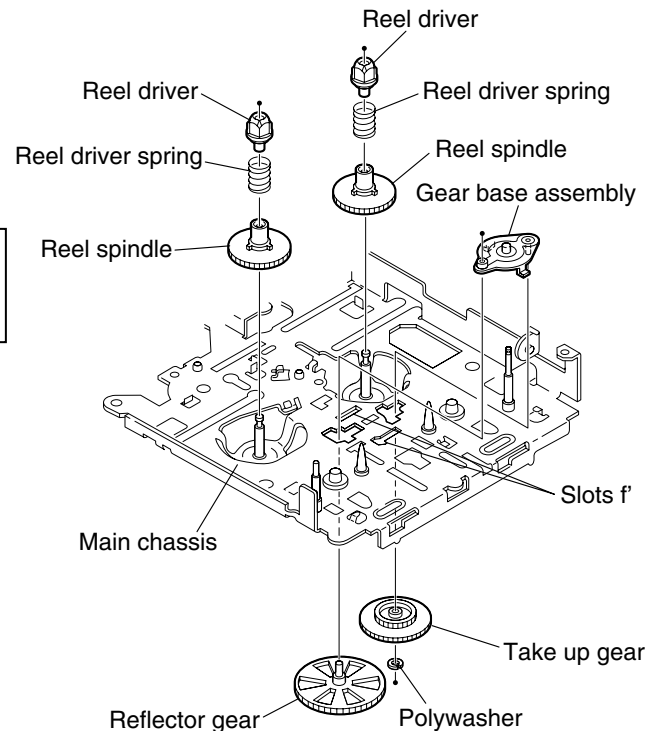


Fig.36

■ Removing the side bracket assembly
(See Fig.37 to 41)

1. Remove the eject cam plate spring.
2. Push the joint **g'** through the slot to remove the load rack downward.
3. Move the eject cam limiter in the direction of the arrow to release it from the boss **h'** of the side bracket assembly and from the two joints **i'**.
4. Move the eject cam plate in the direction of the arrow to release the joint **j'**.

CAUTION: When reassembling, confirm operation of each part before reattaching the eject cam plate spring.

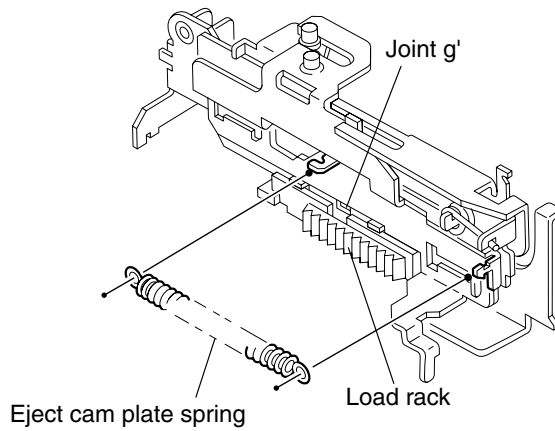


Fig.37

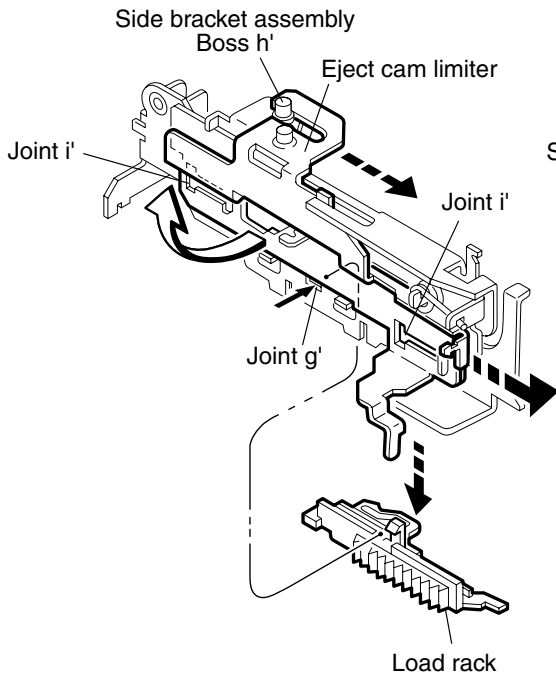


Fig.38

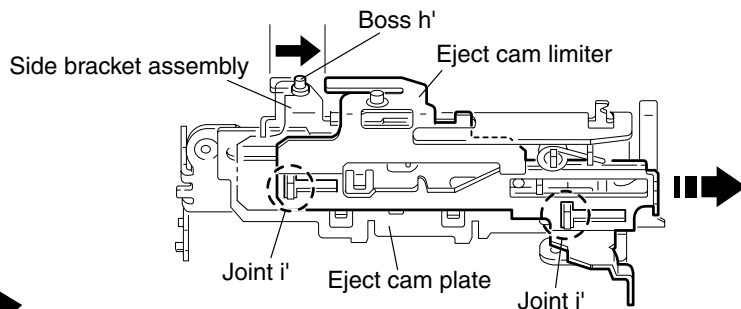


Fig.39

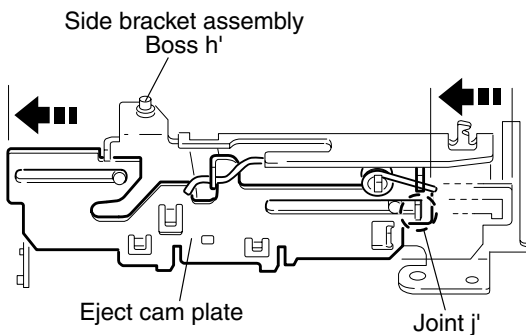


Fig.40

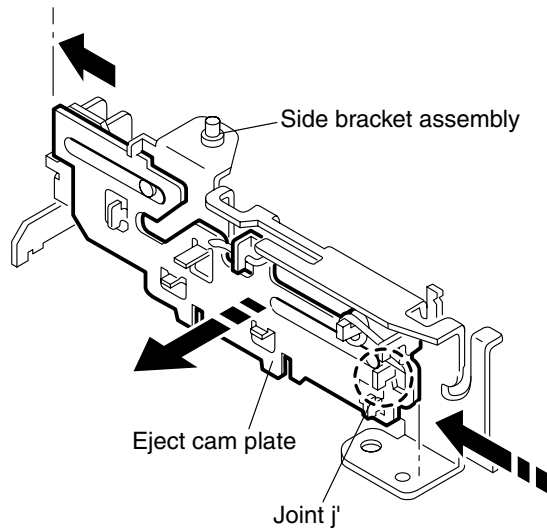


Fig.41

■ Removing the main motor assembly / sub motor assembly (See Fig.42 to 44)

1. Remove the belt at the bottom.
2. Remove the polywasher and pull out the mode gear.
3. Pull out the reduction gear (B).
4. Remove the polywasher and pull out the reduction gear (A).
5. Remove the two screws **F** attaching the main motor assembly.
6. Remove the two screws **G** attaching the sub motor assembly.
7. Unsolder the wires on the reel board if necessary.

CAUTION: When reassembling, adjust the length of the wires extending from the sub motor assembly by attaching them to the side of the sub motor assembly with the wires extending from the main motor assembly using a spacer.

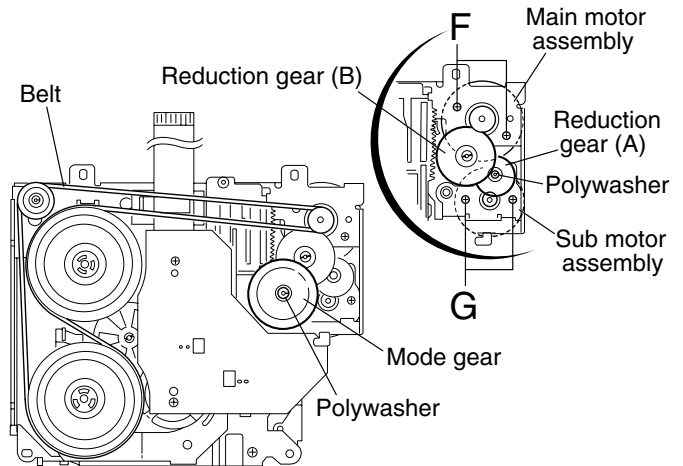


Fig.42

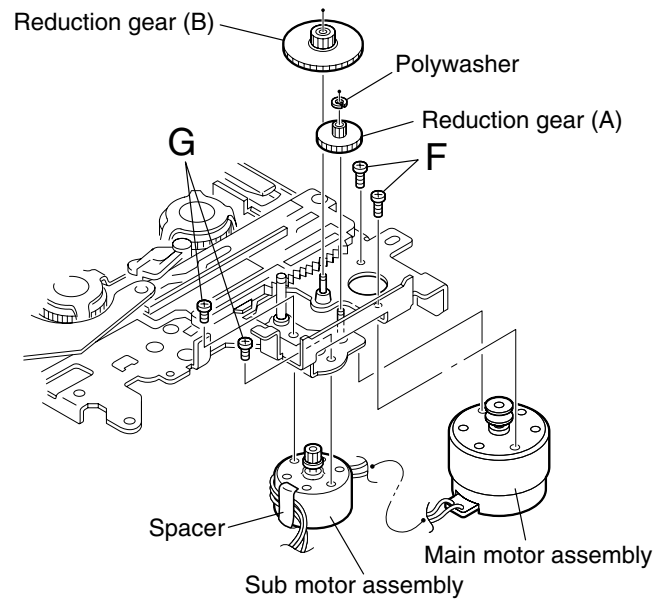


Fig.43

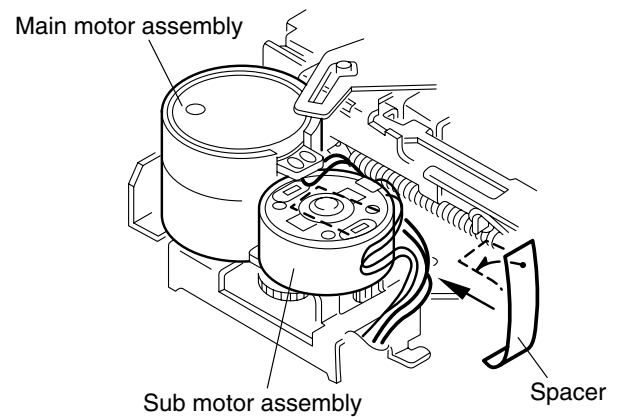


Fig.44

Adjustment method

■ Test Instruments required for adjustment

1. Digital oscilloscope(100MHz)
2. Frequency Counter meter
3. Electric voltmeter
4. Wow & flutter meter
5. Test Tapes

- VT724 ----- for DOLBY level measurement
 VT739 ----- For playback frequency measurement
 VT712 --- For wow flutter & tape speed measurement
 VT703 ----- For head azimuth measurement
6. Torque gauge ----- Cassette type for CTG-N
 (mechanism adjustment)

■ Measuring conditions(Amplifier section)

- Power supply voltage ----- DC14.4V(10.5~16V)
 Load impedance ----- 4Ω(2Speakers connection)
 Line out ----- 20k Ω

■ Standard volume position

Balance and Bass, Treble volume .Fader

:Center(Indication"0")

Loudness, Dolby NR, Sound, Cruise:Off

Volume position is about 2V at speaker output with following conditions. Playback the test tape VT721.

AM mode 999kHz/62dB, INT/400Hz, 30% modulation signal on receiving.

FM mono mode 97.9MHz/66dB, INT/400Hz, 22.5kHz deviation pilot off mono.

FM stereo mode 1kHz, 67.5kHz dev. pilot 7.5kHz dev.

Output level 0dB(1 μV, 50 Ω/open terminal).

■ Tuner area

Band range

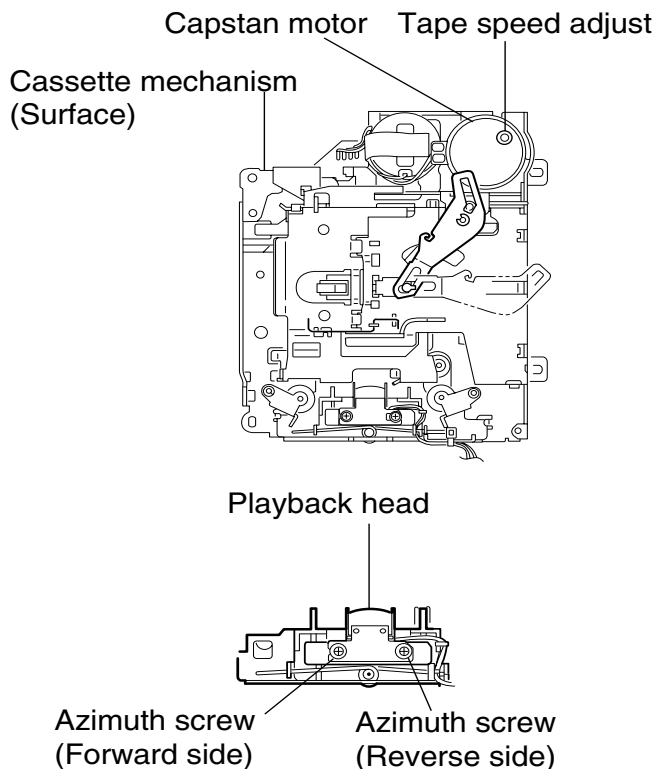
FM : 87.5MHz to 107.9MHz

AM : 530kHz to 1710kHz

DUMMY LOAD

Exclusive dummy load should be used for AM and FM dummy load, there is a loss of 6dB between SSG output and antenna input. The loss of 6dB need not be considered since direct reading of figures are applied in this working standard.

■ Arrangement of Adjusting Cassette Mechanism Section

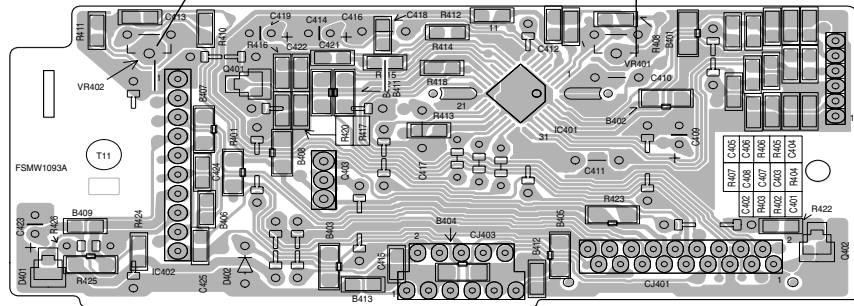


■ Arrangement of adjusting

Head amplifier board section (Reverse side)

VR402:Rch
(Dolby NR level adj)

VR401:Rch
(Dolby NR Frequency response adj)



■ Information for using a car audio service jig

1. We're advancing efforts to make our extension cords common for all car audio products. Please use this type of extension cord as follows.
2. As a U-shape type top cover is employed, this type of extension cord is needed to check operation of the mechanism assembly after disassembly.
3. Extension cord : EXTKSRT002-18P (18 pin extension cord) For connection between mechanism assembly and main board assembly.
Check for mechanism driving section such as motor ,etc..

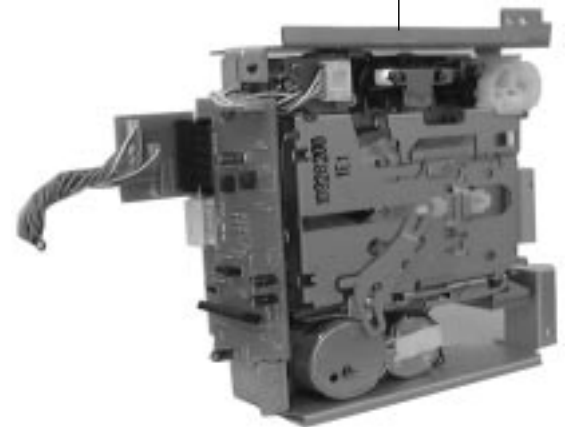
■ Disassembly method

1. Remove the bottom cover.
2. Remove the front panel assembly.
3. Remove the top cover .
4. Install the front panel.
5. Confirm that current is being carried by connecting an extension cord jig.

Note

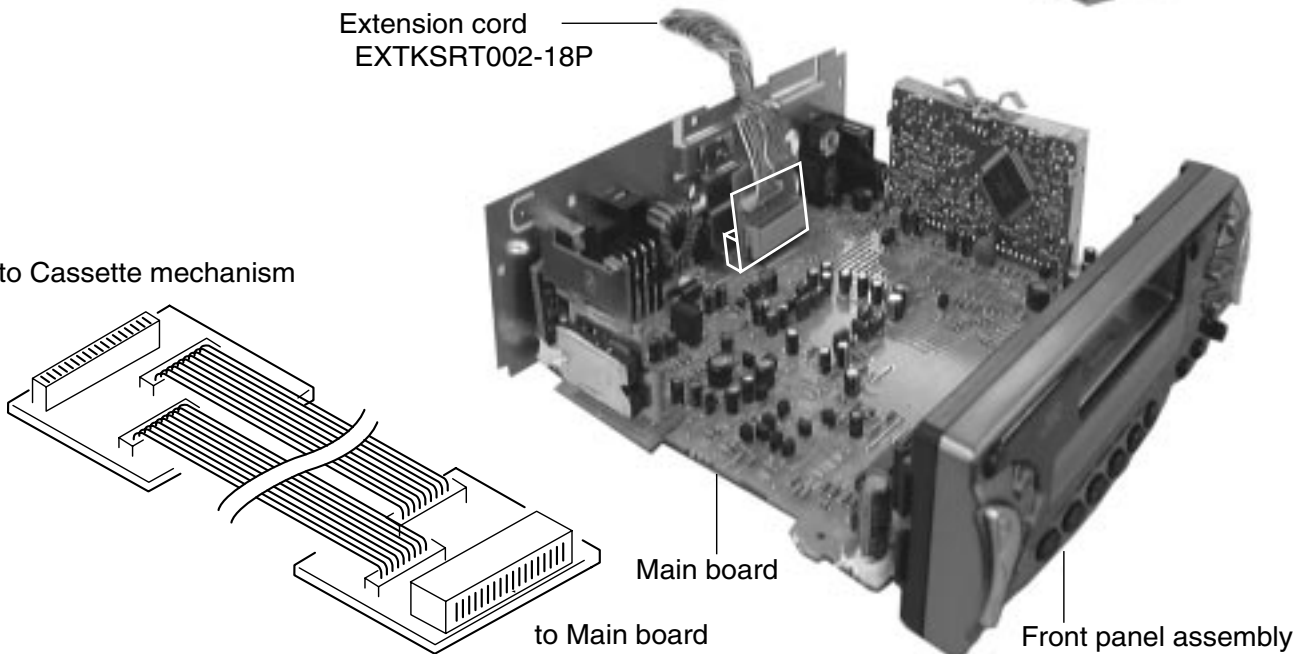
Available to connect to the CP701 connector when installing the front panel.

Cassette mechanism



Extension cord
EXTKSRT002-18P

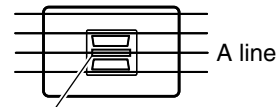
to Cassette mechanism



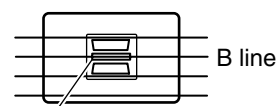
to Main board

Front panel assembly

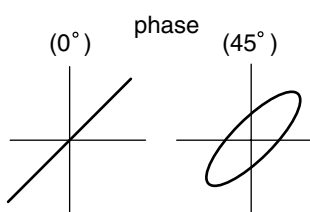
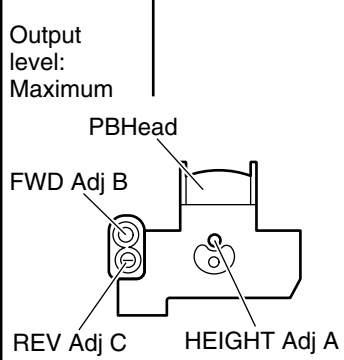
Item	Conditions	Adjustment and Confirmation methods	S.Values	Adjust
<p>1. Head azimuth adjustment</p>	<p>Test tape: SCC-1659 VT703(10kHz)</p>	<p>◆ Head height adjustment ※ Adjust the azimuth directly. When you adjust the height using a mirror tape, remove the cassette housing from the mechanism chassis. After installing the cassette housing, perform the azimuth adjustment.</p> <ol style="list-style-type: none"> 1. Load the SCC-1659 mirror tape. Adjust with height adjustment screw A and azimuth adjustment screw B so that line A of the mirror tape runs in the center between Lch and Rch in the reverse play mode. 2. After switching from REV to FWD then to REV, check that the head position set in procedure 1 is not changed. (If the position has shifted, adjust again and check.) 3. Adjust with azimuth adjustment screw B so that line B of the mirror tape runs in the center between Lch and Rch in the forward play mode. <p>◆ Head azimuth adjustment</p> <ol style="list-style-type: none"> 1. Load VT724 (1kHz) and play it back in the reverse play mode. Set the Rch output level to max. 2. Load VT703 (10kHz) and play it back in the forward play mode. Adjust the Rch and Lch output levels to max, with azimuth adjustment screw B. In this case, the phase difference should be within 45°. 3. Engage the reverse mode and adjust the output level to max, with azimuth adjustment screw C. (The phase difference should be 45° or more.) 4. When switching between forward and reverse modes, the difference between channels should be within 3dB. (Between FWD L and R, REV L and R.) 5. When VT721 (315Hz) is played back, the level difference between channels should be within 1.5dB. 	<p>S.Values</p>	<p>Adjust</p>
<p>2. Tape speed and wow flutter confirmation</p>	<p>Test tape: VT712 (3kHz)</p>	<ol style="list-style-type: none"> 1. Check to see if the reading of the F, counter / wow flutter meter is within 3015~3045(FWD / REV), and less than 0.35% (JIS RMS). 2. In case of out of specification, adjust the motor with a built-in volume resistor. 	<p>Tape speed: 3015 ~3045Hz Wow flutter: less than 0.35%</p>	<p>Built-in volume resistor</p>
<p>3. Playback frequency response confirmation</p>	<p>Test tape: VT724 (1kHz) VT739 (63Hz / 1kHz / 10kHz)</p>	<ol style="list-style-type: none"> 1. Play test tape VT724, and set the volume position at 2V. 2. Play test tape VT739 and confirm. 1kHz / 10kHz: $-1 \pm 3\text{dB}$, 1kHz / 63Hz: $0 \pm 3\text{dB}$, 3. When 10kHz is out of specification, it will be necessary to read adjust the azimuth. 	<p>Speaker out 1kHz / 63Hz : $0 \pm 3\text{dB}$ 1kHz / 10kHz : $-1 \pm 3\text{dB}$</p>	



Head shield
The head is at low position during.



Head shield
The head is at High position during REV.

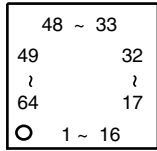


The tuner section is of an adjustment-free design. In case the tuner is in trouble, replace the tuner pack.

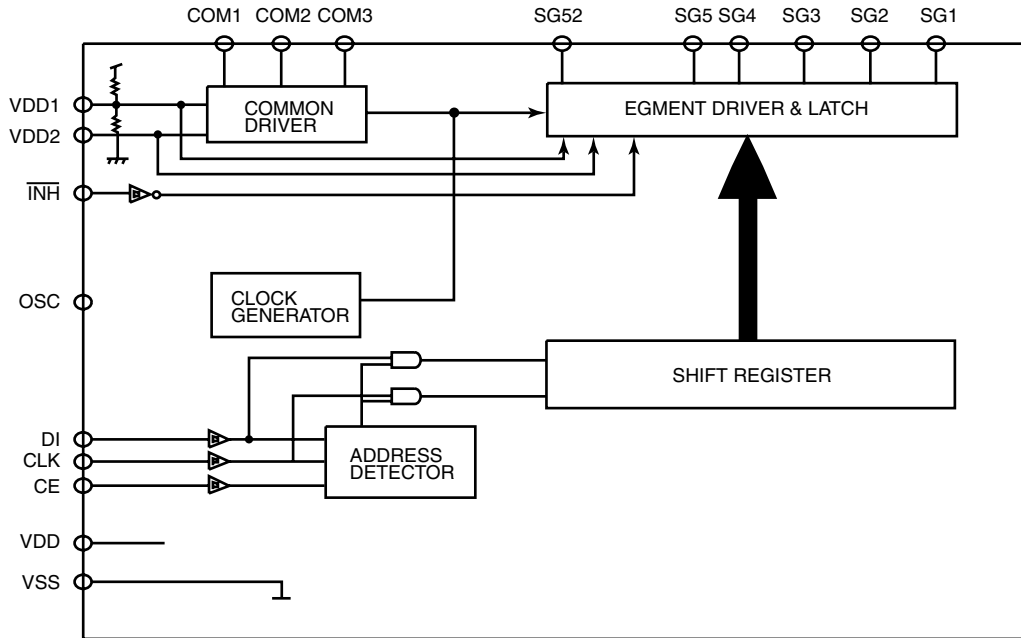
Description major of Ics

■ PT6523LQ (IC651) : LCD driver

1.Pin layout



2.Block diagram



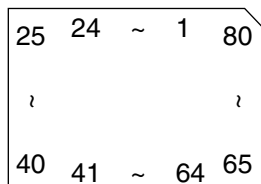
3.Pin function

Pin No.	Pin Name	I/O	Description
1 ~ 52	SG1 ~ SG52	O	Segment output pins
53 ~ 55	COM1 ~ COM3	O	Common driver output pins
56	VDD	-	Power supply
57	$\overline{\text{INH}}$	I	Display OFF control input pin. When this pin is "LOW", the display is forcibly turned OFF. (SG1 to SG52, COM1 to COM3 are set to "LOW"). When this pin is set to "High", the display is ON. (See Note 1*)
58	VDD1	I	Used for the 2/3 bias voltage when the bias voltages are provided externally. Connect to VDD2 when 1/2 bias is used.
59	VDD2	I	Used for 1/3 bias voltage when the bias voltages are provided externally. Connect to VDD1 when 1/2 bias is used.
60	VSS	-	Ground pin
61	OSC	I/O	Oscillation Input/Output pin
62	CE	I	Chip enable pin
63	CLK	I	Synchronization clock
64	DI	I	Transfer data pin

*Note 1: When $\overline{\text{INH}}$ ="LOW" : Serial data transfers can be performed when the display is forcibly OFF.

■ LC72366-9A74 (IC701) : System CPU

1. Pin layout



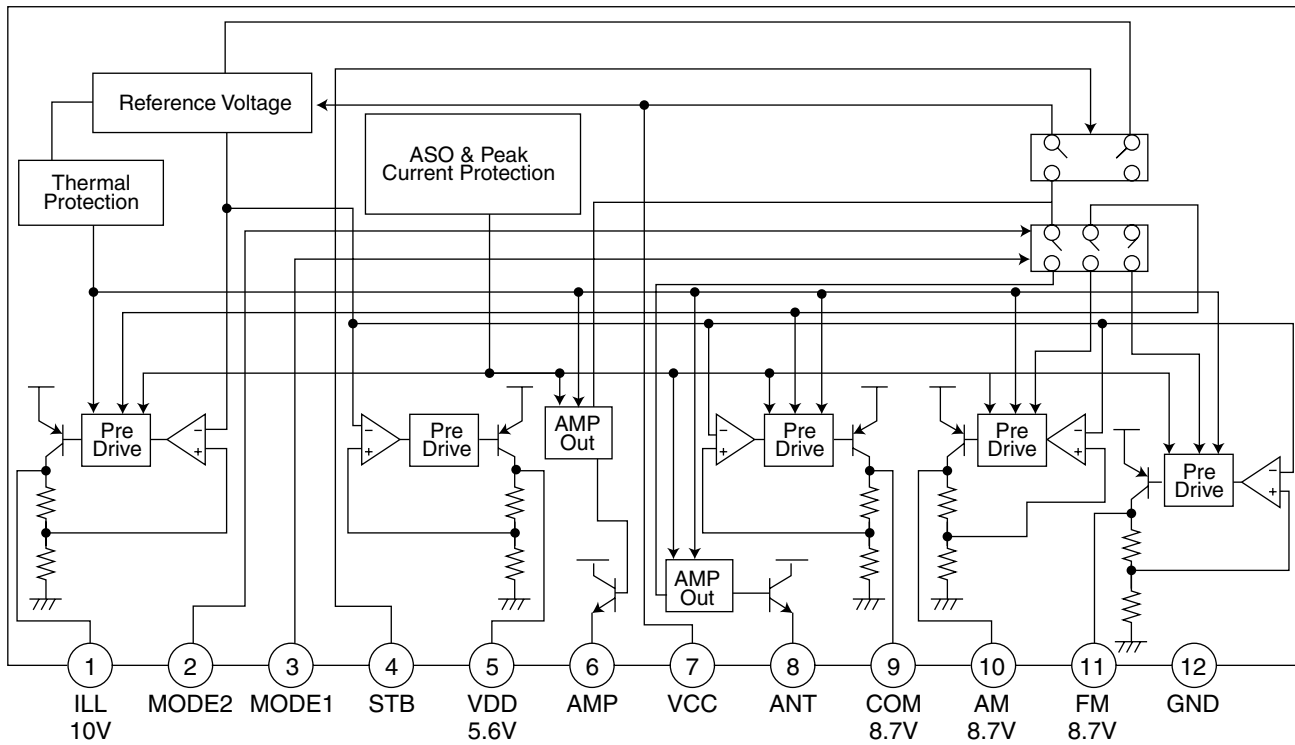
2. Pin function

Pin No.	Symbol	I/O	Function
1	XIN	I	Crystal oscillator input port
2	GND	-	Connect to GND
3	J-BUS SI	I	Data input for J-BUS information
4	J-BUS SO	O	Data output for J-BUS information
5	J-BUS SCK	O	Clock output for J-BUS information
6	J-BUS I/O	O	Switching signal output for J-BUS information I/O, H:Out L:In
7	NC	-	None connection
8	LCD SO	O	Data output for LCD driver
9	LCD SCK	O	Information clock output for LCD driver data
10	LCD CE	O	Chip enable output for LCD driver
11	DIMMER IN	-	None connection
12	EVOL SO	O	Data output for electrical volume
13	EVOL SCK	O	Clock output for electrical volume information
14	NC	-	Non connection
15	TUNER ILLUM	-	Non connection
16	TAPE ILLUM	-	Non connection
17	CD ILLUM	-	Non connection
18	DIMMER OUT	-	Non connection
19	NC	-	Non connection
20	OPEN	-	Non connection
21	NC	-	Non connection
22	NC	-	Non connection
23	NC	-	Non connection
24	NC	-	Non connection
25	KS1	-	Non connection
26	KS0	O	Diode matrix output port for initial establishing
27	K3	I	Diode matrix output port for initial establishing
28	K2	I	Diode matrix output port for initial establishing
29	K1	-	Non connection
30	K0	I	Diode matrix output port for initial establishing
31	Vdd	-	5V power supply port (+B)
32	TEST	I	Turn on all light indicator of LCD, L: All light a LED indicator
33	FF/REW MODE	O	FF/REW mode select signal output
34	SEEK/STOP	O	H:Auto seek, L: Stop Use both as IF count REQ and Seek/Stop
35	MONO	O	Forced monaural output port, H:Turn on Forced monaural
36	RADIO/TAPE	-	Non connection
37	BEEP LEVEL	-	Non connection
38	PWR-CNT	O	"H" : Turn on power
39	ACC	-	Non connection
40	KICK	-	Non connection

Pin No.	Port Name	I/O	Function
41	MOTOR	O	Main motor output, H:Transport L: Stop
42	SUBMO+	O	Sub-motor output(+), Loading direction to transport output
43	SUBMO-	O	Sub-motor output(-), Eject direction to transport output
44	BEEP	-	Non connection
45	TAPE IN	I	Switch for detecting to input cassette, L: Cassette in
46	STANDBY	I	Switch for detecting standby position
47	REEL	I	Switch for detecting tape end position
48	MODE	I	Detecting mode position input
49	F/R	I	Switch for detecting forward/reverse , H:FWD L:REV
50	MS	I	MS input port,
51	SD/ST	I	Station detector, Stereo signal input, H:SD
52	DETACH	O	Front panel detect
53	NC	-	Non connection
54	NC	-	Non connection
55	J-BUS INT	I	Cut in signal detecting port from J-Bus information
56	REMOCON	I	Remocon input
57	FM/AM	O	FM/AM mode switching signal port, H:FM L:AM
58	DOLBY	O	Dolby NR control
59	NC	-	Non connection
60	MUTE	O	Mute output port, L:Mute
61	MEM DET	I	Back-up power supply detecting port, H:input L:no input
62	LEVELMETER	I	Pressure voice level voltage input for level meter.
63	S.METER	I	S meter voltage input
64	KEY2	I	Key 2 input port
65	KEY1	I	Key 1 input port
66	KEY0	I	Key 0 input port
67	ACCDET	I	Hold port for Acc detecting, L: Hold mode
68	SENSE	I	Voltage sensor port
69	AM IF COUNT	-	Non connection
70	FM IF COUNT	I	FM frequency detecting
71	NC	-	Non connection
72	NC	-	Non connection
73	Vdd	-	5V power supply (+B)
74	AM OSC	I	Non connection
75	FM OSC	I	FM limited signal input
76	VSS	-	Ground port for power supply
77	NC	-	Non connection
78	E0	O	Error signal output port for PLL
79	TEST1	-	Test port for LSI, To connect ground
80	XOUT	O	4.5MHz crystal oscillator output

■ AN80T05 (IC901) : Regulator

1. Terminal layout & Block diagram

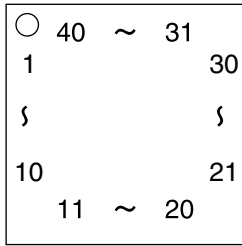


2. Pin function

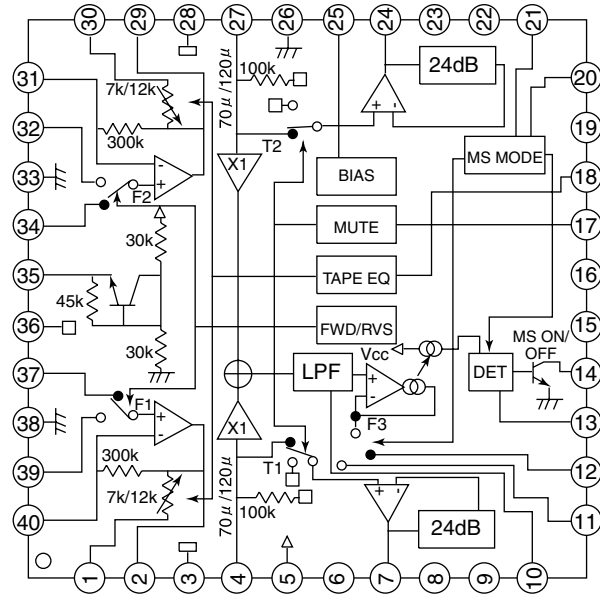
Pin No.	Symbol	Function
1	ILL	10V power supply for illumination.
2	MODE2	When 5V is input, becomes AM. and the antenna output is turned on.
3	MODE1	When 5V is input, becomes AM. and the output of FM is switched.
4	STB	When 5V is input, outputs to ILL, COM, and AMP. It is 0V usually.
5	VDD	5.6V power supply.
6	AMP	Power supply supply to remote amplifier
7	VCC	Back up. connects with ACC with it.
8	ANT	Power supply supply to auto antenna.
9	COM	8.7V power supply.
10	AM	The power supply of 8.7V to AM.
11	FM	The power supply of 8.7V to FM.
12	GND	Ground

■ CXA2559Q (IC401) : Playback equalizer amplifier with music sensor

1.Pin layout



2.Blockdiagram

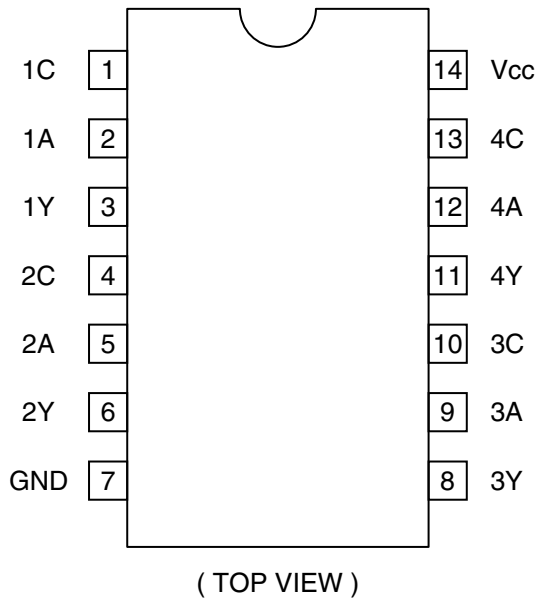


3.Pin function

Pin No.	Symbol	I/O	Function
1	PBTC1	-	Terminal of capacity of reproduction equalizer reproduction
2	PBOUT1	O	Equalizer output terminal
3	OUTREF1	O	Output standard terminal
4	TAPEIN1	I	Tape input terminal
5	Vcc	-	Power supply terminal
6	NC	-	Non connection
7	LINEOUT1	O	Line-out output terminal
8,9	NC	-	Non connection
10	MSLPF	-	Detection LPF terminal between tunes
11	G2FB	-	Detection level set terminal between tunes
12	G11FB	-	Detection level set terminal between tunes
13	MSTC	-	Time constant connection terminal for the detection between tunes
14	MSOUT	O	Detection output terminal between tunes
15,16	NC	-	Non connection
17	MUTESW	I	Mute function control terminal
18	TAPESW	I	Reproduction equalizer control terminal
19	DRSW	I	Head change control terminal
20	MSMODE	I	Detection mode control terminal between tunes
21	MSSW	I	Detection function control terminal between tunes
22,23	NC	-	Non connection
24	LINEOUT2	O	Line-out output terminal
25	DIREF	-	Resistance connection terminal for standard current setting
26	GND	-	Earth terminal
27	TAPEIN2	I	Tape input terminal
28	OUTREF2	O	Output standard terminal
29	PBOUT2	O	Reproduction equalizer output terminal
30	PBTC2	-	Terminal of capacity of reproduction equalizer
31	PBFB2	I	Reproduction equalizer return terminal
32	PNRIN2	I	Reproduction equalizer input terminal
33	PBGND	-	Reproduction equalizer system earth terminal
34	PBFIN2	I	Reproduction equalizer input terminal
35	VCT	O	Middle point terminal
36	PBREF	O	Reproduction equalizer standard terminal
37	PBFIN1	I	Reproduction equalizer input terminal
38	PBGND	-	Reproduction equalizer system earth terminal
39	PBRIN1	I	Reproduction equalizer input terminal
40	PBFB1	I	Reproduction equalizer return terminal

■ HD74HC126P (IC801) : Changer control

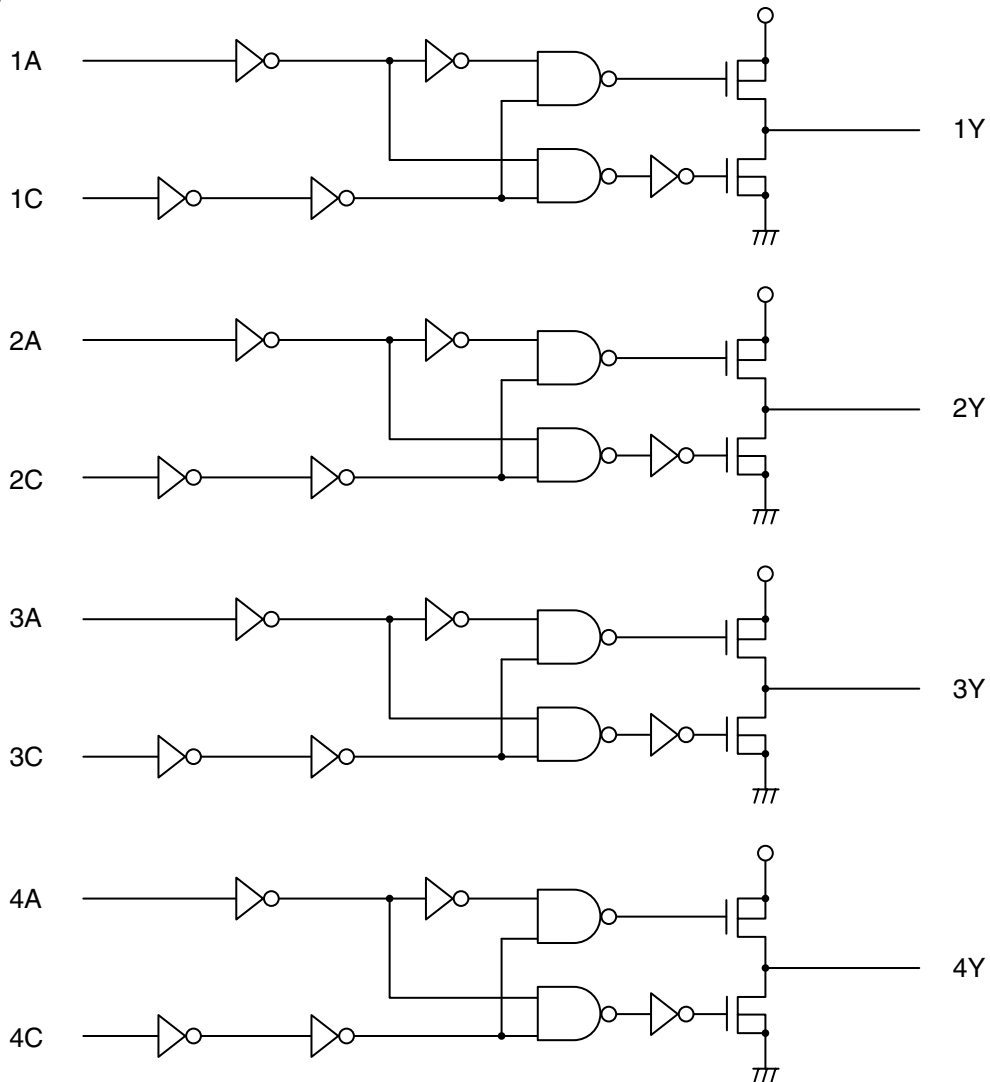
1. Pin arrangement



2. Pin function

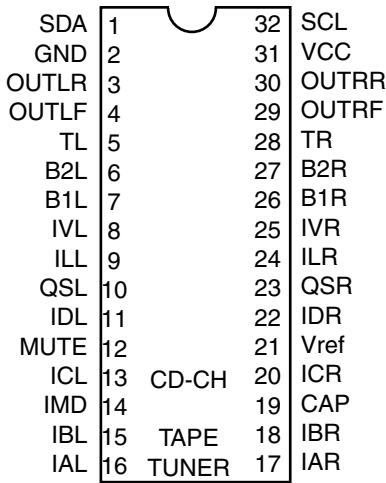
Input		Output
C	A	Y
L	X	Z
H	L	L
H	H	H

3. Block diagram

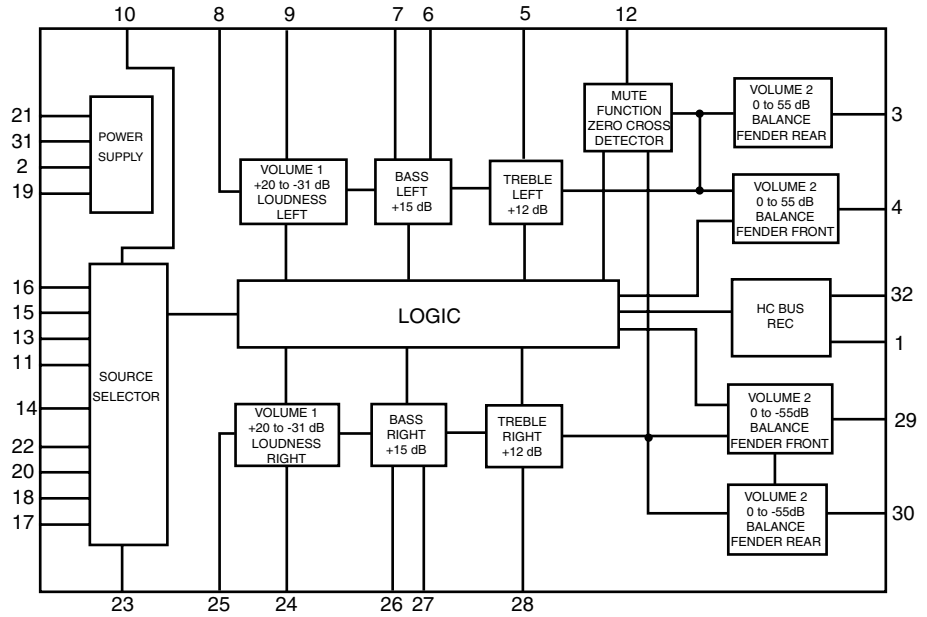


TEA6320T-X (IC161) : E.volume

1.Pin layout



2.Block diagram

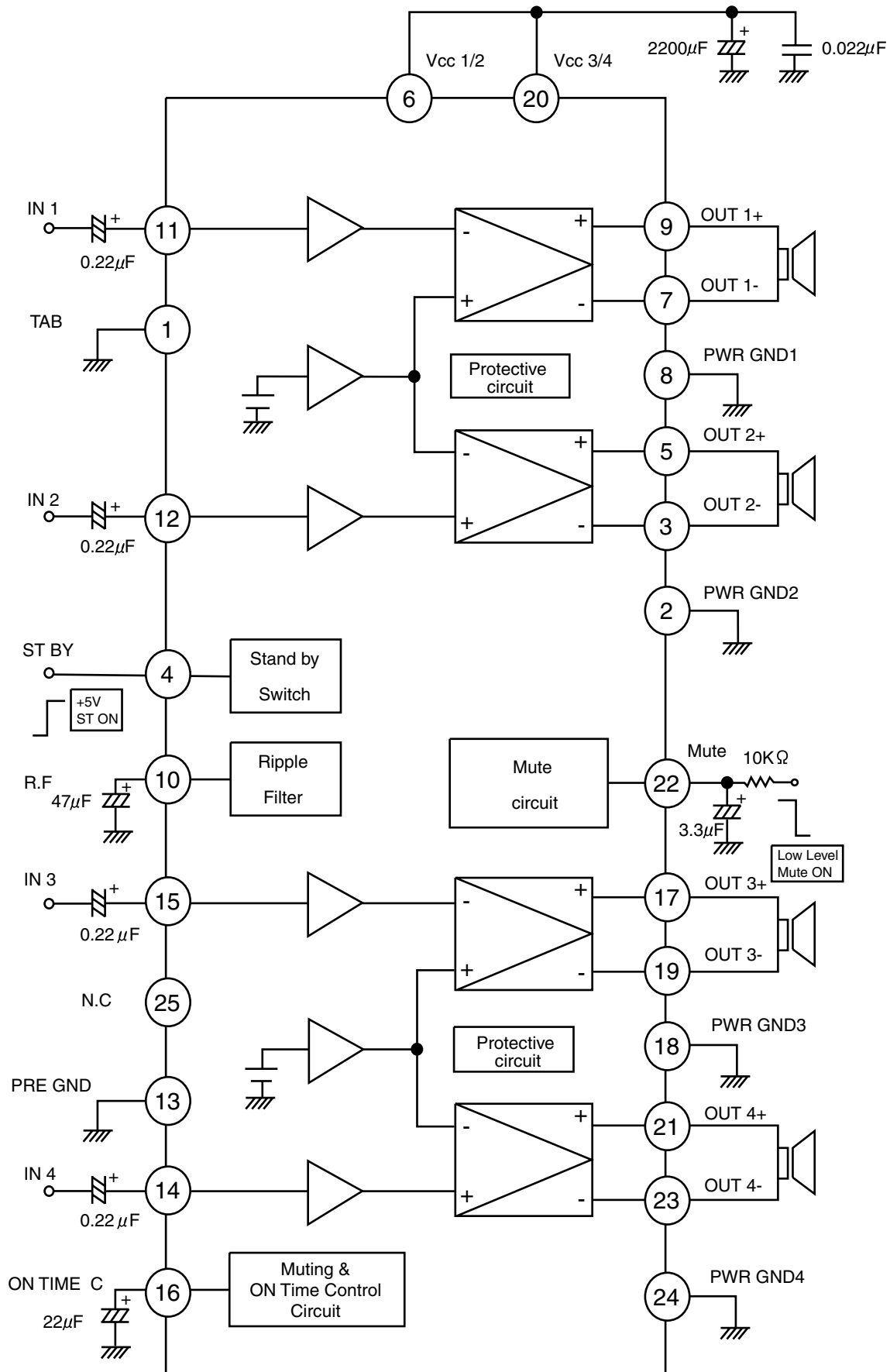


3.Pin functions

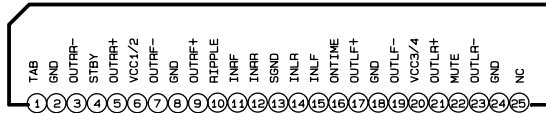
Pin No.	Symbol	I/O	Functions	Pin No.	Symbol	I/O	Functions
1	SDA	I/O	Serial data input/output.	17	IAR	I	Input A right source.
2	GND	-	Ground.	18	IBR	I	Input B right source.
3	OUTLR	O	output left rear.	19	CAP	-	Electronic filtering for supply.
4	OUTLF	O	output left front.	20	ICR	I	Input C right source.
5	TL	I	Treble control capacitor left channel or input from an external equalizer.	21	Vref	-	Reference voltage (0.5Vcc)
6	B2L	-	Bass control capacitor left channel or output to an external equalizer.	22	IDR	-	Not used
7	B1L	-	Bass control capacitor left channel.	23	QSR	O	Output source selector right channel.
8	IVL	I	Input volume 1. left control part.	24	ILR	I	Input loudness right channel.
9	ILL	I	Input loudness. left control part.	25	IVR	I	Input volume 1. right control part.
10	QSL	O	Output source selector. left channel.	26	B1R	-	Bass control capacitor right channel
11	IDL	-	Not used	27	B2R	O	Bass control capacitor right channel or output to an external equalizer.
12	MUTE	-	Not used	28	TR	I	Treble control capacitor right channel or input from an external equalizer.
13	ICL	I	Input C left source.	29	OUTRF	O	Output right front.
14	IMO	-	Not used	30	OUTRR	O	Output right rear.
15	IBL	I	Input B left source.	31	Vcc	-	Supply voltage.
16	IAL	I	Input A left source.	32	SCL	I	Serial clock input.

■ LA4743K (IC301) : Power amp

1. Block diagram



2. Terminal layout



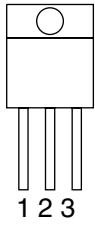
3. Pin function

LA4743K

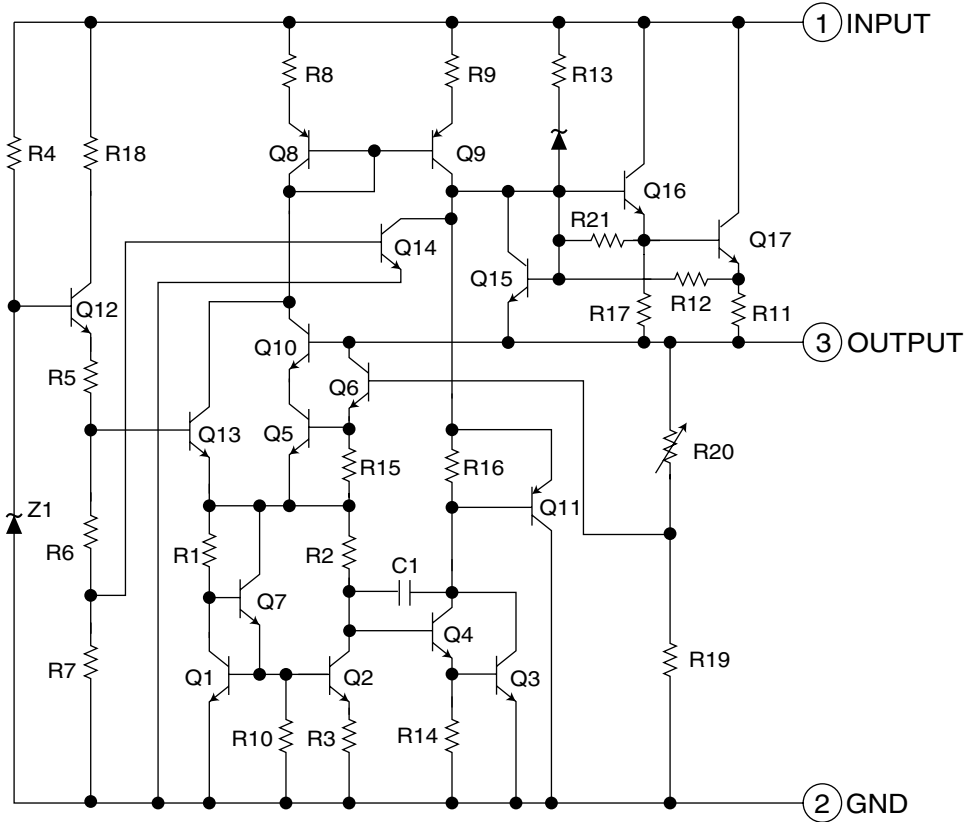
Pin No.	Symbol	Function
1	TAB	Header of IC
2	GND	Power GND
3	RFO-	Outpur(-) for front Rch
4	STBY	Stand by input
5	RFO+	Output (+) for front Rch
6	VCC1/2	Power input
7	RRO-	Output (-) for rear Rch
8	GND	Power GND
9	RRO+	Output (+) for rear Rch
10	VREF	Ripple filter
11	RRIN	Rear Rch input
12	RFIN	Front Rch input
13	SGND	Signal GND
14	LFIN	Front Lch input
15	LRIN	Rear Lch input
16	ONTIME	Power on time control
17	LRO+	Output (+) for rear Lch
18	GND	Power GND
19	LRO-	Output (-) for rear Lch
20	VCC3/4	Power input
21	LFO+	Output (+) for front
22	MUTE	Muting control input
23	LFO-GND	Output (-) for front
24	NC	Power GND
25		No connection

■ KIA7810PI (IC902) : Regulator

1.Pin layout

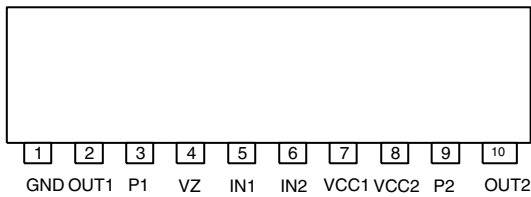


2.Block diagram



■ LB1641 (IC402) : DC motor driver

1. Pin layout

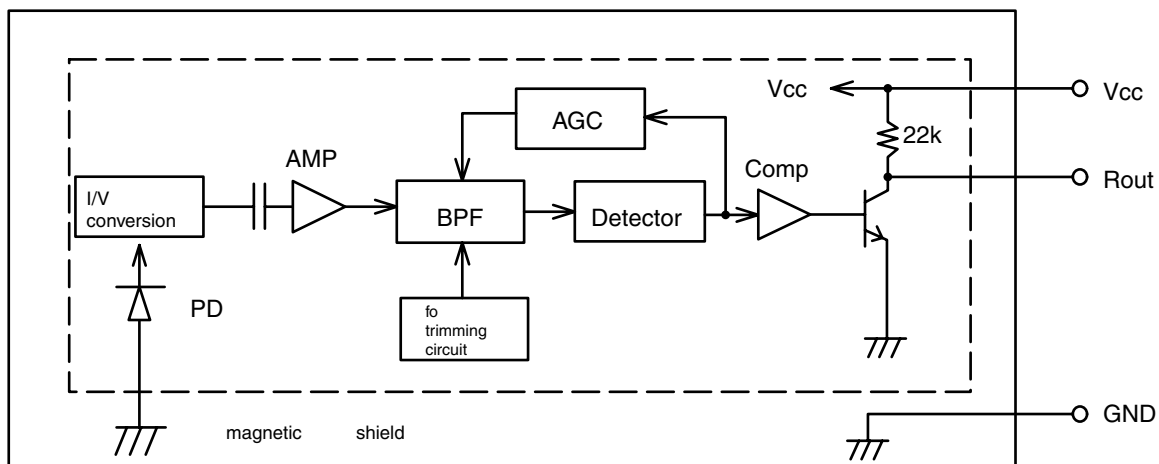


2. Pin function

Input		Output		Mode
IN1	IN2	OUT1	OUT2	
0	0	0	0	Brake
1	0	1	0	CLOCKWISE
0	1	0	1	COUNTER-CLOCKWISE
1	1	0	0	Brake

■ RPM6938-SV4 (IC652) : Remote sensor

1.Block diagram





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MOBILE ELECTRONICS DIVISION

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