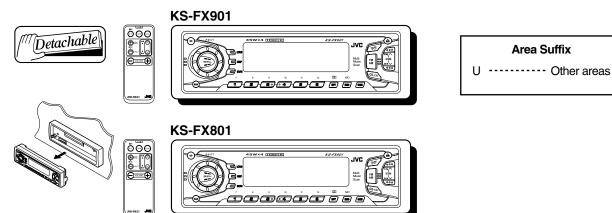
Area Suffix

JVC SERVICE MANUAL

CASSETTE RECEIVER

KS-FX901/KS-FX801



Difference	Front	Trim	LCD
point	panel	plate	color
KS-FX901	Light Gold	Light Gold	Multi color
KS-FX801	Metallic Gray	Gray	White

Contents

Safety precaution ····· 1- 2	-
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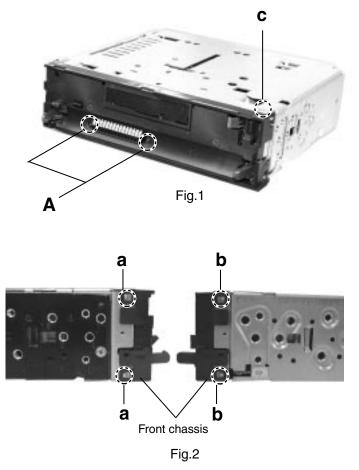
Safety precaution

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 preforming repair of this system.

Disassembly method

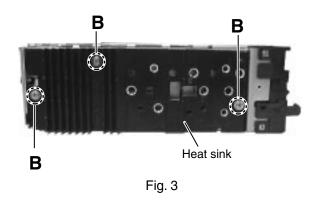
■ Removing the front chassis (See Fig.1~2)

- 1. Remove the two screws **A** attaching the front chassis.
- 2. Insert a screwdriver to the two joints **a** on the side of the front chassis, two joints **b** on the right side and one joint **c** from upside, then detach the front chassis toward the front side.



Removing the heat sink (See Fig.3)

1. Remove the three screws **B** attaching the heat sink on the left side of the body, and remove the heat sink.



Removing the bottom cover (See Fig.4)

- 1. Turn the body upside down.
- 2. Insert a screwdriver to the two joints **d** and two joints **e** on both sides of the body and the joint **f** on the back of the body, then detach the bottom cover from the body.

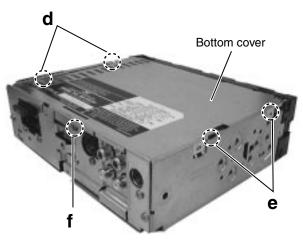
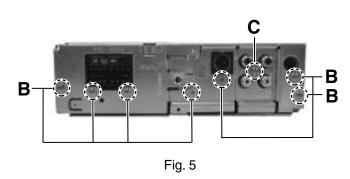


Fig. 4

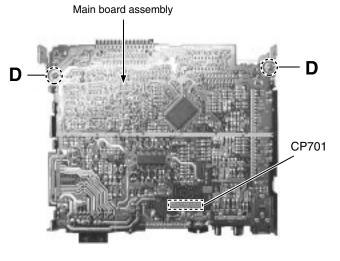
Removing the rear panel (See Fig.5)

- 1. Remoe the front chassis.
- 2. Remove the heat sink.
- 3. Remove the bottom cover.
- 4. Remove the seven screws **B** attaching the rear panel and one screw **C** attaching the pine jack on the back of the body.



Removing the main amplifier board assembly (See Fig.6)

- 1. Remove the front chassis.
- 2. Remove the bottom cover.
- 3. Remove the rear panel.
- 4. Remove the two screws **D** attaching the main amplifier board assembly on the top cover.
- 5. Disconnect connector CP701 on the main amplifier board assembly from the cassette mechanism assembly.



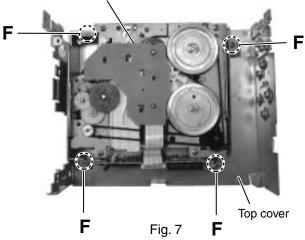


Removing the Cassette mechanism assembly (See Fig.7)

1. Remove the front chassis.

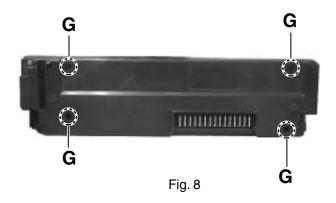
- 2. Remove the bottom cover.
- 3. Remove the main amplifier board assembly.
- 4. Remove the fore screws **F** attaching the cassette mechanism assembly from the top cover.

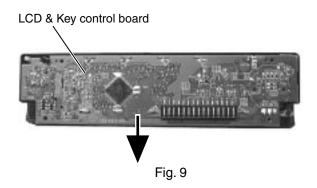
Cassette mechanism assembly



Removing the control switch board (See Fig.8 and 9)

- 1. Remove the front panel unit from the main body.
- 2. Remove the four screws **G** attaching the rear cover on the back of the front panel unit.
- 3. Remove the control switch board from the front panel unit.





<Removal of the cassette mechanism>

Removing the head amplifier board. (See Fig.1 and 2)

- 1. For the 6pin wire extending from connector CN402 on the head amplifier board, disconnect it from the head relay board.
- 2. Disconnect the card wire from connector CN403 on the head amplifier board.
- 3. Remove the screw **A** attaching the head amplifier board.
- 4. Move the tab **a** as shown in Fig.2 and remove the head amplifier board while moving it in the direction of the arrow.

Removing the cassette mechanism assembly (See Fig.1 to 3)

- 1. Disconnect the 6pin wire from connector CN402 and the card wire from CN403 on the head amplifier board (Refer to Fig.1 and 2).
- 2. Remove the four screws **B** on the bottom of the cassette mechanism.

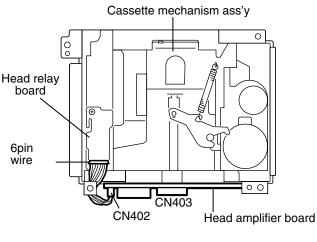
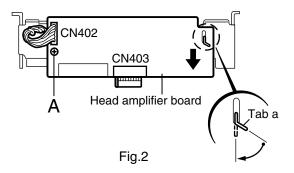


Fig.1



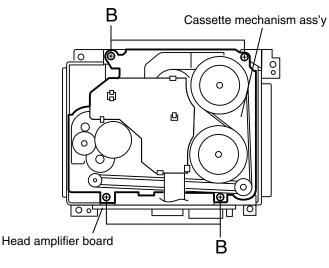
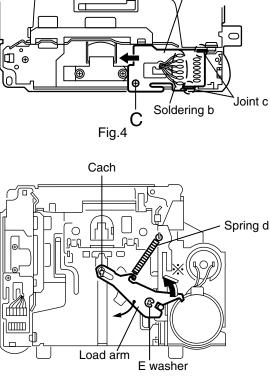


Fig.3

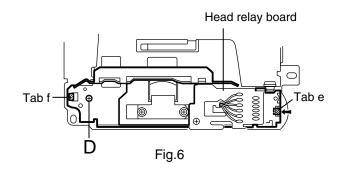
Head relay board

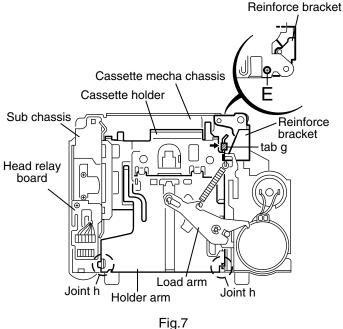
Removing the head relay board

- (See Fig.4)
- 1. Unsolder the soldering **b** on the head relay board.
- 2. Remove the screw **C** attaching the head relay board.
- 3. Remove the head relay board in the direction of the arrow while releasing the two joints c.









Removing the load arm (See Fig.5)

- 1. Remove the E washer attaching the load arm using a pincette or something like that and remove the spring d.
- 2. Move the part of the load arm marked ³/₂ upwards to release it from the axis of rotation. Then rotate the load arm in the direction of the arrow to remove it from the cach.

Removing the sub chassis (See Fig.6)

- · Prior to performing the following procedure, remove the head relay board.
- 1. Remove the screw **D** attaching the sub chassis.
- 2. Push the tab **e** in the direction of the arrow to detach the one side of the sub chassis. Then release the sub chassis from the tab f.

■Removing the cassette holder and the holder arm in the eject mode (See Fig.7 and 8)

- · Prior to performing the following procedure, remove the head relay board, the load arm and the sub chassis.
- 1. Remove the screw E attaching the reinforce bracket.
- 2. Remove the reinforce bracket.
- 3. Push the tab g fixing the cassette holder in the direction of the arrow and open the cassette holder and the holder arm upward until they stop at an angle of 45 degrees. Move the two joints h to the side and remove the cassette holder and the holder arm from the shaft.

■Removing the play head (See Fig.9)

- Prior to performing the following procedure, remove the head relay board and the sub chassis.
- 1. Remove the two screws **F** attaching the play head (The spring under the play head comes off at the same time).

Removing the pinch roller ass'y (See Fig.9)

- Prior to performing the following procedure, remove the head relay board and the sub chassis.
- 1. Push each tab **i** in the direction of the arrow and pull out the pinch rollers on both sides.

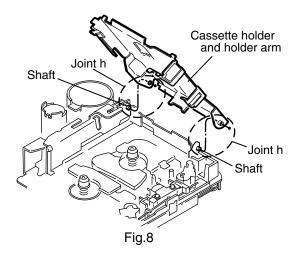
Removing the reel disc board

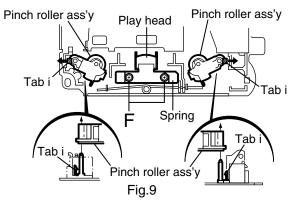
(See Fig.10)

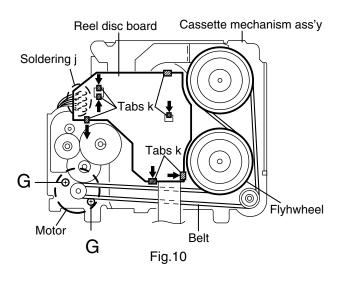
- 1. Unsolder the soldering **j** on the reel disc board.
- 2. Push the seven tabs **k** on the bottom of the cassette mechanism assembly in the direction of the arrow.

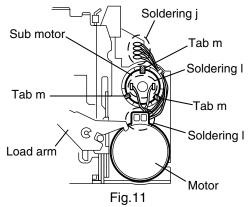
Removing the motor and the sub motor (See Fig.10 and 11)

- 1. Unsolder the two soldering I of the motor and the sub motor.
- 2. Release the sub motor from the three tabs **m**. Push the sub motor upward and pull out it.
- 3. Remove the belt on the bottom of the cassette mechanism assembly and remove the two screws **G** attaching the motor.
 - ATTENTION: The motors can be detached before removing the load arm.





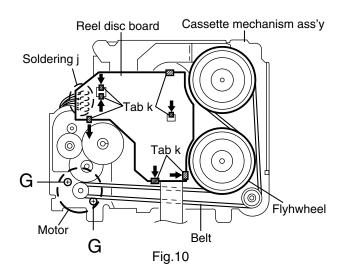


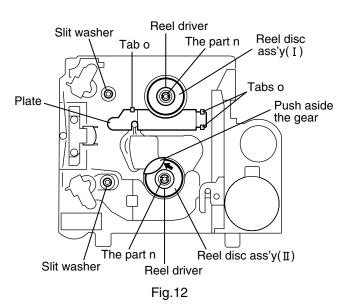


Removing the flywheel

(See Fig.10 and 12)

- 1. Prior to performing the following procedure, remove the head relay board, the load arm, the sub chassis, the cassette holder, the holder arm and the reel disc board.
- 2. Remove the belt on the bottom of the cassette mechanism ass'y.
- 3. Remove the slit washer attaching the flywheel on the upper side of the cassette mechanism ass'y and pull out the flywheel downward. Then remove another flywheel in the same way.
 - ATTENTION: When reassembling, make sure to use a new slit washer.





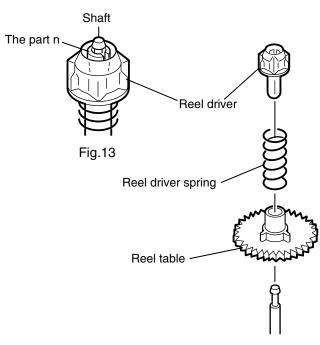


Fig.14

■ Removing the reel disc ass'y(I) (See Fig.12 to 14)

- Prior to performing the following procedure, remove the head relay board, the load arm, the sub chassis, the cassette holder and the holder arm.
- Disengage the part n inside of the reel driver which engages with the shaft, using a pincette or something like that. Then remove the reel driver from the shaft.
- 2. Remove the reel driver spring and the reel table.

■Removing the reel disc ass'y(II) (See Fig.12 to 15)

ATTENTION: Prior to performing the following procedure, remove the reel disc (I).

- 1. Release the plate from the three tabs \mathbf{o} .
- 2. Push aside the gear over the reel table using a pincette or something like that.
- 3. Remove the reel disc ass'y (II) as with the reel disc ass'y (I).
 - ATTENTION: Do not break the front panel tab fitted to the metal cover.

Push aside the gear and reattach the reel disc Ass'y(${\tt I}$).

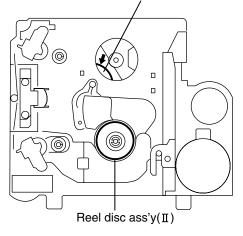


Fig.15

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

MC-109C For TAPA CURL confirmation
(without Padd type) VT724For 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	. 4 Ω (2Speakers connection)
Line out	20k Ω

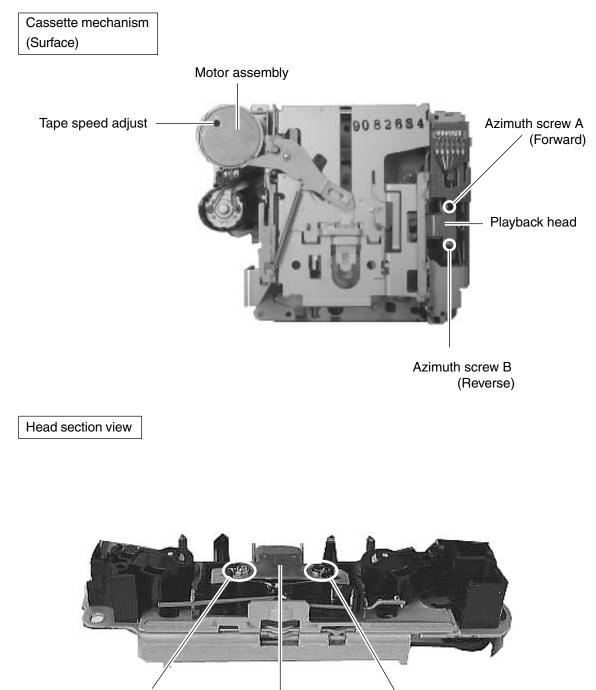
■Standard volume position

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	1000kHz/62dB,INT/400Hz,30%
	modulation signal on receiving.
FM mono mode	97.5MHz/66dB,INT/400Hz,22.5kHz
	deviation pilot off mono
FM stereo mode	1kHz,67.5kHz dev. pilot7.5kHz dev.
Output level	0dB(1 μ V,50 Ω /open terminal)

KS-FX901/KS-FX801

■ Arrangement of adjusting & test points



Azimuth screw B (Reverse)

Playback Head

Azimuth screw A

(Forward)

■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.

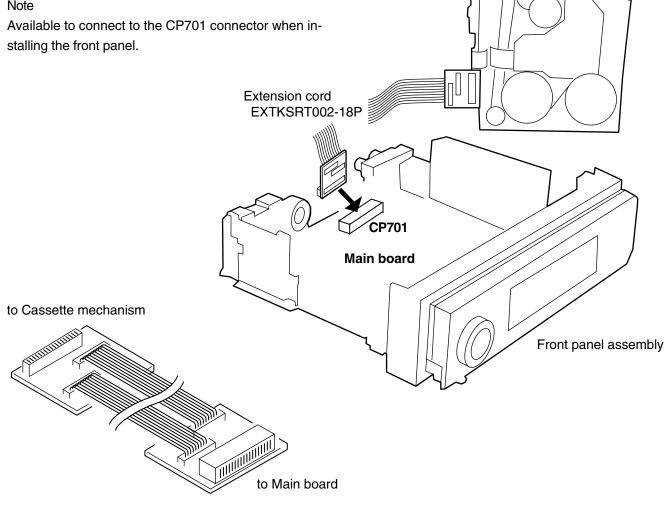
Check for mechanism driving section such as motor ,etc..

■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

Cassette mechanism



EXTKSRT002-18P

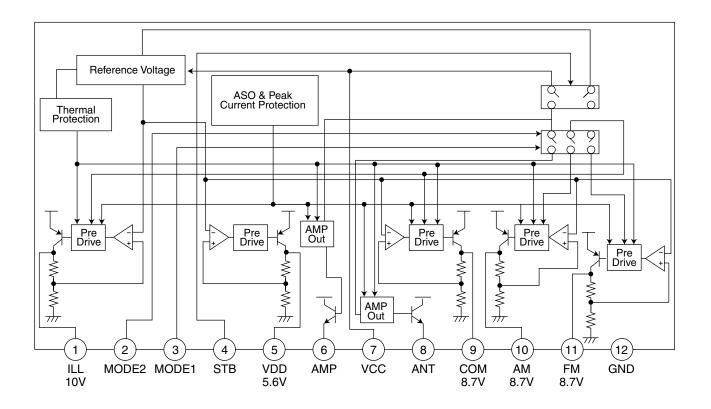
■Mechanism adjustment section

Item	Adjusting & Confirmation Methods	Adjust	Std. Value
1. Tape running adjustment	 a) At Forward playmode, using mirror tape, make adjustment with Azimuth screw A and Azimuth screw B, without curl of 4 parts of head tape guide. b) At Reverse play mode, using mirror tape, make adjustment with Azimuth screw A and Azimuth screw B, without tape curl of 4 parts of head guide. c) At Forward / Reverse play mode, make confirmation of no tape curl of 4 parts of head tape guide. 		Azimuth screw A Azimuth screw B
2. Azimuth adjustment confirmation	 a) At forward play mode, make adjustment of peak of Lch / Rch output with Azimuth screw A. * For Oscilloscope litharge corrugation, set 45° as standard. b) At Reverse play mode, make adjustment of peak of Lch / Rch output with Azimuth screw B. * For Oscilloscope litharge corrugation, set 45 as standard. c) With AC volt meter confirm the difference of output for 4ch between Lch / Rch at forward play mode and Lch / Rch Reverse play mode being within 3.0dB. d) After operation, make confirmation of Lch / Rch azimuth output being within 1.0dB from adjustment value. 	0° Phas	<u>56</u> 45°
	Tape guide		4
2.Tape Speed and Wow & Flutter	 Check to see if the reading of the frequency counter & W ow flutter meter is within 2940-3090 Hz(FWD/REV), and less than 0.35% (JIS RMS). In case of out of specification, adjust the motor with a built- in volume resistor. 	Built-in volume resistor	Tape Speed 2940-3090Hz Wow&Flutter Less than 0.35% (JIS RMS)
3. Playback Frequency response	 Play the test tape (VT724 : 1kHz) back and set the volume position at 2V. Play the test tape (VT739) back and confirm 0±3dB at1kHz/ 10kHz and -4+2dB at 1kHz/63Hz. When 10kHz is out of specification, it will be necessary to read adjust the azimuth. 		Speaker out 1kHz/10kHz : 0dB±3dB, 63Hz/1kHz : -4dB+2dB,

Description of major ICs

AN80T05 (IC901) : Regulator

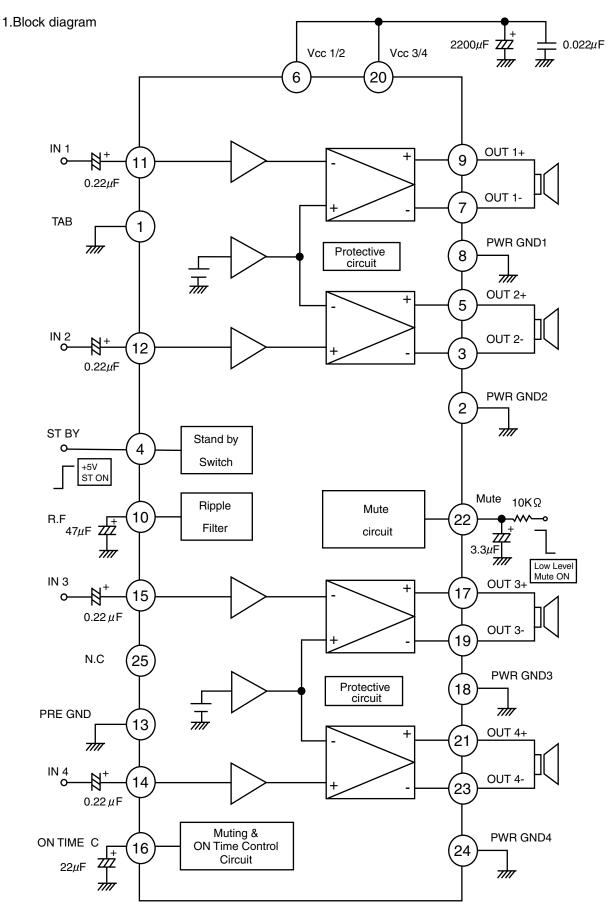
1.Terminal layout & Block diagram



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

■ LA4743K (IC301) : Power amp.



→ Contraction (Contraction) - Contraction (

3.Pin function

LA4743B

Pin No.	Symbol	Function
1	TAB	Header of IC
2	GND	Power GND
3	OUTRR-	Outpur(-) for front Rch
4	STBY	Stand by input
5	OUTRR+	Output (+) for front Rch
6	VCC1/2	Power input
7	OUTRF-	Output (-) for rear Rch
8	GND	Power GND
9	OUTRF+	Output (+) for rear Rch
10	RIPPLE	Ripple filter
11	INRF	Rear Rch input
12	INRR	Front Rch input
13	SGND	Signal GND
14	INLR	Front Lch input
15	INLF	Rear Lch input
16	ONTIME	Power on time control
17	OUTLF+	Output (+) for rear Lch
18	GND	Power GND
19	OUTLF-	Output (-) for rear Lch
20	VCC3/4	Power input
21	OUTLR+	Output (+) for front
22	MUTE	Muting control input
23	OUTLR-	Output (-) for front
24	GND	Power GND
25	NC	Non connection

■ LC72366-9987 (IC701) : System CPU

1. Pin layout

25	24	~	1	80	
ł				۲	
40	41	~	64	65	

2. Pin function

Pin No.	Symbol	I/O	Function
1	XIN	Ι	Crystal oscillator input port
2	GND	-	Connect to GND
3	J-BUS SI	Ι	Data input for J-BUS information
4	J-BUS SO	0	Data output for J-BUS information
5	J-BUS SCK	0	Clock output for J-BUS information
6	J-BUS I/O	0	Switching signal output for J-BUS information I/O, H:Out L:In
7	TEL-MUTE	Ι	Telephone mute signal input
8	LCD SO	0	Data output for LCD driver
9	LCD SCK	0	Information clock output for LCD driver data
10	LCD CE	0	Chip enable output for LCD driver
11	DIMMER IN	-	None connection
12	EVOL SO	0	Data output for electrical volume
13	EVOL SCK	0	Clock output for electrical volume information
14	OPEN	Ι	Door open detect input
15	POWER ANT	Ι	Power ant ON signal input
16	MUTE	Ι	Mute signal input
17	CD ILLUM	-	Non connection
18	DEMEROUT	0	DIMMER control signal output
19	NC	-	Non connection
20	NC	-	Non connection
21	NC	-	Non connection
22	NC	-	Non connection
23	NC	-	Non connection
24	NC	-	Non connection
25	KS1	-	Non connection
26	KS0	0	Diode matrix output port for initial establishing
27	K3	Ι	Diode matrix output port for initial establishing
28	K2	Ι	Diode matrix output port for initial establishing
29	K1	-	Non connection
30	K0	Ι	Diode matrix output port for initial establishing
31	Vdd	-	5V power supply port (+B)
32	TEST	Ι	Turn on all light indicator of LCD, L: All light a LED indicator
33	FF/REW MODE	0	FF/REW mode select signal output
34	SEEK/STOP	0	H:Auto seek, L: Stop Use both as IF count REQ and Seek/Stop
35	MONO	0	Forced monaural output port, H:Turn on Forced monaural
36	RADIO/TAPE	-	Non connection
37	BEEP LEVEL	-	Non connection
38	PWR-CNT	0	"H" : Turn on power
39	ACC	-	Non connection
40	KICK	-	Non connection

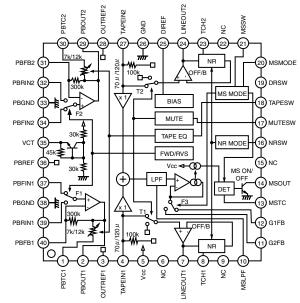
KS-FX901/KS-FX801

LC72366-9987(2/2)

Pin No. Port Name I/O Function 41 MOTOR 0 Main motor output (H: Transport L: Stop 42 SUBMO+ 0 Sub-motor output (-), Loading direction to transport output 43 SUBMO+ 0 Sub-motor output (-), Eject direction to transport output 44 BEEP - Non connection 45 TAPE IN 1 Switch for detecting to input cassette, L: Cassette in 46 STANDBY 1 Switch for detecting tape end position 47 REEL 1 Switch for detecting forward/reverse , H:FWD L:REV 50 MS 1 Moinput port, Station detector, Stereo signal input, H:SD 51 SD/ST 1 Station detector, Stereo signal input, H:SD Station detector, Stereo signal input, H:SD 52 DETACH Q Front panel detect Station detector, Stereo signal port, H:FM L:AM 54 ENC2 1 Connect to encoder 2 Station detector, Stereo signal port, H:FM L:AM 55 J-BUS INT 1 Cut in signal detecting sort, H:FM L:AM Stereo signal input 56 REMOCON Non connection No	l.		<u>г г</u>	LC72366-9987(2/2)	
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 standby position 46 STANDBY I Switch for detecting tape end position 47 REEL I Switch for detecting forward/reverse , H:FWD L:REV 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 J-BUS INT I Cunnect to encoder 1 54 ENC2 I Connect to encoder 2 55 J-BUS INT I Cut in signal detecting port, H:FM L:AM 58 DOLBY Non connection 60 NC Non connection 61 MEM DET I Back-up power supp	Pin No.	Port Name	I/O	Function	
43 SUBMO- 0 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 tape end 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 ENC1 I Connect to encoder 2 54 JBUS INT I Cut in signal detecting port from J-Bus information 56 REMOCON - Non connection 57 FM/AM O FM/AM mode switching signal port, H:FM L:AM 58 DOLBY - Non connection 60 NC - Non connection 61 MEM DET I Back-up	41	MOTOR	0	Main motor output, H:Transport L: Stop	
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 ENC1 I Connect to encoder 1 54 ENC2 I Connect to encoder 2 55 J-BUS INT I Cut in signal detecting port from J-Bus information 56 REMOCON Non connection Non connection 61 MEM DET I Back-up power supply detecting port, H:FM L:AM 58 DOLBY Non connection I 61 MEM DET I Back-up power supply detecting port, H:input L:no input 62 LEVELMETER	42	SUBMO+	0	Sub-motor output(+), Loading direction to transport output	
TAPE IN 1 Switch for detecting to input cassette, L: Cassette in 46 STANDBY 1 Switch for detecting standby position 47 REEL 1 Switch for detecting tape end position 48 MODE 1 Detecting mode position input 49 F/R 1 Switch for detecting forward/reverse, H:FWD L:REV 50 MS 1 MS input port, 51 SD/ST 1 Station detector, Stereo signal input, H:SD 52 DETACH 0 Front panel detect 53 ENC1 1 Connect to encoder 1 54 ENC2 1 Connect to encoder 2 55 J-BUS INT 1 Cut in signal detecting port from J-Bus information 56 REMOCON Non connection 1 57 FM/AM 0 FM/AM mode switching signal port, H:FM L:AM 58 DOLBY Non connection 1 60 NC Non connection 1 61 MEM DET 1 Back-up power supply detecting port, H:input L:no input 62 LEVELMETER 1 Sm	43	SUBMO-	0	Sub-motor output(-), Eject direction to transport output	
46 STANDBY 1 Switch for detecting standby position 47 REEL 1 Switch for detecting tape end position 48 MODE 1 Detecting mode position input 48 MODE 1 Detecting mode position input 49 F/R 1 Switch for detecting forward/reverse , H:FWD L:REV 50 MS 1 MS input port, 51 SD/ST 1 Station detector, Stereo signal input, H:SD 52 DETACH 0 Front panel detect 53 ENC1 1 Connect to encoder 1 54 ENC2 1 Connect to encoder 2 55 J-BUS INT 1 Cut in signal detecting port from J-Bus information 56 REMOCON Non connection 60 57 FM/AM 0 FM/AM mode switching signal port, H:FM L:AM 58 DOLBY Non connection 60 60 NC - Non connection 61 MEM DET 1 Back-up power supply detecting port, H:input L:no input 62 LEVELMETER 1 Smeter vo	44	BEEP	-	Non connection	
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 ENC1 I Connect to encoder 1 54 ENC2 I Connect to encoder 2 55 J-BUS INT I Cut in signal detecting port from J-Bus information 56 REMOCON Non connection Non connection 57 FM/AM O FM/AM mode switching signal port, H:FM L:AM 58 DOLBY Non connection Non 60 NC Non connection Non 61 MEM DET I Back-up power supply detecting port, H:input L:no input 62 LEVELMETER I Smeter voltage input 64 KEY2 I Key 2 input port 65 KEY1 I Key 0 input port </td <td>45</td> <td>TAPE IN</td> <td>I</td> <td>Switch for detecting to input cassette, L: Cassette in</td>	45	TAPE IN	I	Switch for detecting to input cassette, L: Cassette in	
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 ENC1 I Connect to encoder 1 54 ENC2 I Connect to encoder 2 55 J-BUS INT I Cut in signal detecting port from J-Bus information 56 REMOCON Non connection 57 FM/AM O FM/AM mode switching signal port, H:FM L:AM 58 DOLBY Non connection Non connection 60 NC Non connection Non 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 <td>46</td> <td>STANDBY</td> <td>I</td> <td>Switch for detecting standby position</td>	46	STANDBY	I	Switch for detecting standby position	
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 0 Front panel detect 53 ENC1 I Connect to encoder 1 54 ENC2 I Connect to encoder 2 55 J-BUS INT I Cut in signal detecting port from J-Bus information 56 REMOCON Non connection 57 FM/AM O FM/AM mode switching signal port, H:FM L:AM 58 DOLBY Non connection Non connection 60 NC Non connection Non 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 Smeter voltage input 64 KEY2 I Key 0 input port 65 KEY1 I Key 1 input port 66 KEY0 I Voltage sensor port	47	REEL	I	Switch for detecting tape end position	
50 MS I MS input port, 51 SD/ST I Station detector, Stereo signal input, H:SD 52 DETACH O Front panel detect 53 ENC1 I Connect to encoder 1 54 ENC2 I Connect to encoder 2 55 J-BUS INT I Cut in signal detecting port from J-Bus information 56 REMOCON Non connection 57 FM/AM O FM/AM mode switching signal port, H:FM L:AM 58 DOLBY Non connection 59 NC Non connection 60 NC Non connection 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 Hold port for Acc detecting, L: Hold mode 67 ACDET I Hold port for	48	MODE	I	Detecting mode position input	
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52 DETACH O Front panel detect 53 ENC1 I Connect to encoder 1 54 ENC2 I Connect to encoder 2 55 J-BUS INT I Cut in signal detecting port from J-Bus information 56 REMOCON Non connection 57 FM/AM O FM/AM mode switching signal port, H:FM L:AM 58 DOLBY Non connection 59 NC Non connection 60 NC Non connection 61 MEM DET I 62 LEVELMETER I 63 S.METER I 64 KEY2 I 65 KEY1 I 66 KEY0 I 67 ACCDET I 68 SENSE I 69 AM IF COUNT Non connection 71 NC Non connection 72 NC Non connection 73 Vdd SV power supply detecting 74 AM OSC I 75	50	MS	I	MS input port,	
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54 ENC2 I Connect to encoder 2 55 J-BUS INT I Cut in signal detecting port from J-Bus information 56 REMOCON Non connection 57 FM/AM O FM/AM mode switching signal port, H:FM L:AM 58 DOLBY Non connection 59 NC Non connection 60 NC Non connection 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 KEY1 Key 1 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 71 NC Non connection 72 NC Non connection 73 Vdd 5V power supply (+B) <td>52</td> <td>DETACH</td> <td>0</td> <td></td>	52	DETACH	0		
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57 FM/AM O FM/AM mode switching signal port, H:FM L:AM 58 DOLBY Non connection 59 NC Non connection 60 NC Non connection 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 75 FM OSC I 74 MOSC <td>55</td> <td>J-BUS INT</td> <td>I</td> <td>Cut in signal detecting port from J-Bus information</td>	55	J-BUS INT	I	Cut in signal detecting port from J-Bus information	
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65KEY1IKey 1 input port66KEY0IKey 0 input port67ACCDETIHold port for Acc detecting, L: Hold mode68SENSEIVoltage sensor port69AM IF COUNT-Non connection70FM IF COUNTIFM frequency detecting71NC-Non connection72NC-Non connection73Vdd-5V power supply (+B)74AM OSCINon connection75FM OSCIFM limited signal input76VSS-Ground port for power supply77NC-Non connection78E0OError signal output port for PLL79TEST1-Test port for LSI, To connect ground	63	S.METER	Ι		
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67ACCDETIHold port for Acc detecting, L: Hold mode68SENSEIVoltage sensor port69AM IF COUNT-Non connection70FM IF COUNTIFM frequency detecting71NC-Non connection72NC-Non connection73Vdd-5V power supply (+B)74AM OSCINon connection75FM OSCIFM limited signal input76VSS-Ground port for power supply77NC-Non connection78E0OError signal output port for PLL79TEST1-Test port for LSI, To connect ground	65	KEY1	Ι		
68SENSEIVoltage sensor port69AM IF COUNT-Non connection70FM IF COUNTIFM frequency detecting71NC-Non connection72NC-Non connection73Vdd-5V power supply (+B)74AM OSCINon connection75FM OSCIFM limited signal input76VSS-Ground port for power supply77NC-Non connection78E0OError signal output port for PLL79TEST1-Test port for LSI, To connect ground	66	KEY0	Ι		
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74AM OSCINon connection75FM OSCIFM limited signal input76VSS-Ground port for power supply77NC-Non connection78E0OError signal output port for PLL79TEST1-Test port for LSI, To connect ground		NC	-		
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		Vdd	-		
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77 NC - Non connection 78 E0 O Error signal output port for PLL 79 TEST1 - Test port for LSI, To connect ground		FM OSC	Ι	•	
78 E0 O Error signal output port for PLL 79 TEST1 - Test port for LSI, To connect ground		VSS	-		
79 TEST1 - Test port for LSI, To connect ground		NC	-		
		E0	0	• • •	
80 XOUT O 4.5MHz crystal oscillator output		TEST1	-		
	80	XOUT	0	4.5MHz crystal oscillator output	

CXA2560Q (IC401) : Dolby B type noise reduction system with play back equalizer amp.

1.Pin layout & Block diagram

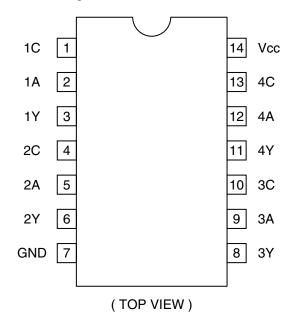


2. Pin function

Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	PBTC1	-	Playback equalizer amplifier	25	DIREF	-	Resistance for setting the
			capacitance				reference
2	PBOUT1	0	Playback equalizer amplifier	26	GND	-	Ground
			output	27	TAPEIN2	Ι	TAPE input
3	OUTREF1	0	Output reference	28	OUTREF2	0	Output reference
4	TAPEIN1	Ι	TAPE input	29	PBOUT2	0	Playback equalizer amplifier
5	Vcc	-	Power supply				output
6	NC	-		30	PBTC2	-	Playback equalizer amplifier
7	LINEOUT1	0	Line output				capacitance
8	TCH1	-	Time constant for the HLS	31	PBFB2	I	Playback equalizer amplifier
9	NC	-					feedback
10	MSLPF	-	Cut-off frequency adjustment	32	PBRIN2	I	Playback equalizer amplifier
			of the music sensor LPF				input
11	G2FB	-	Music signal interval detection	33	PBGND	-	Playback equalizer amplifier
12	G1FB	-	Music signal interval detection				ground
13	MSTC	-	Time constant for detecting	34	PBFIN2	I	Playback equalizer amplifier
			music signal interval				input
14	MSOUT	0	Music sensor out	35	VCT	0	Center
15	NC	-	No use	36	PBREF	0	Playback equalizer amplifier
16	NRSW	I	Dolby NR control				reference
17	MUTESW	Ι	Mute function control	37	PBFIN1	I	Playback equalizer amplifier
18	TAPESW	I	Playback equalizer amplifier				input
			control	38	PBGND	-	Playback equalizer amplifier
19	DRSW		Head select control				ground
20	MSMODE	Ι	Music sensor mode control	39	PBRIN1	I	Playback equalizer amplifier
21	MSSW	Ι	Music sensor control				input
22	NC	-		40	PBFB1	I	Playback equalizer amplifier
23	TCH2	-	Time constant for the HLS				feedback
24	LINEOUT2	0	Line output				

HD74HC126P (IC801) : Changer control

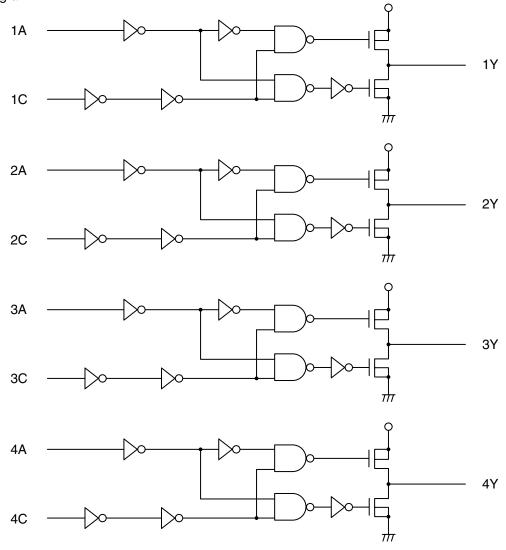
1.Pin arrangement



2. Pin function

Inp	out	Output				
С	А	Y				
L	х	Z				
Н	L	L				
н	н	Н				

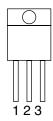
3. Block diagram

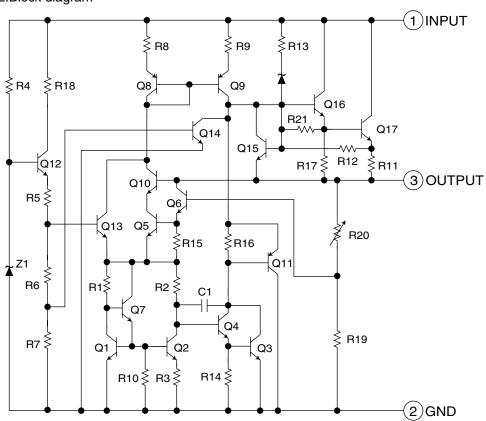


KIA7810PI (IC902) : Regulator



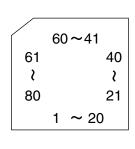
2.Block diagram

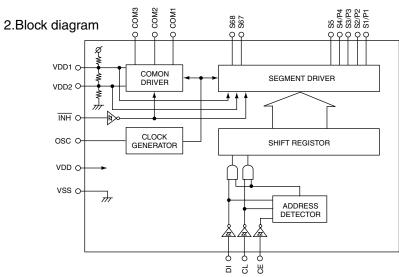




■ LC75873NW (IC601) : LCD driver

1.Pin layout



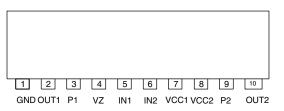


3.Pin function

Pin No.	Pin name	I/O	Description	
79,80 1,2,3 to 66	S5 to S68		Segment outouts for displaying the display data transferred by serial data input. The S1/P1 to S4/P4 pins can be used as general- purpose output ports under serial data control.	
67 78 69	COM1 COM2 COM3	ο	Common driver outputs. The frame frequency f0 is given by : f0 = (FOSC/384)Hz.	
74	OSC	I/O	Oscillator connection An oscillator circuit is formed by connecting an external resistor and capacitor to this pin.	
76 77 78	CE CL DI	 	Serial data transfer inputs. Connected to the controller. CE:Chip enable CL:Synchronization clock DI:Transfer data	
75	ĪNH	1	Display off control input • INH= "L"(VSS) •••• Display forced off S1/P1 to S4/P4 = "L" (These pins are forcibly set to the segment output port function and held at the low level.) S5 to S68 = "L" COM1 to COM3"L" • INH = "H"(HDD) ••• Display on However, serial data transfer is possible when the display is forced off by this pin.	
71	VDD1	I	Used for applying the LCD drive 2/3 bias voltage externally. Must be connected to VDD2 when a 1/2 bias drive scheme is used.	
72	VDD2	I	Used for applying the LCD drive 1/3 bias voltage externally. Must be connected to VDD1 when a 1/2 bias drive scheme is used.	
70	VDD	-	Power supply connection. Provide a voltage of between 3.0 and 6.0V.	
73	VSS	-	Power supply connection. Connect to ground.	

■ LB1641 (IC402) : DC motor driver

1. Pin layout

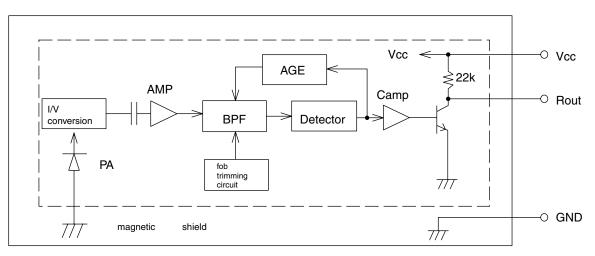


2. Pin function

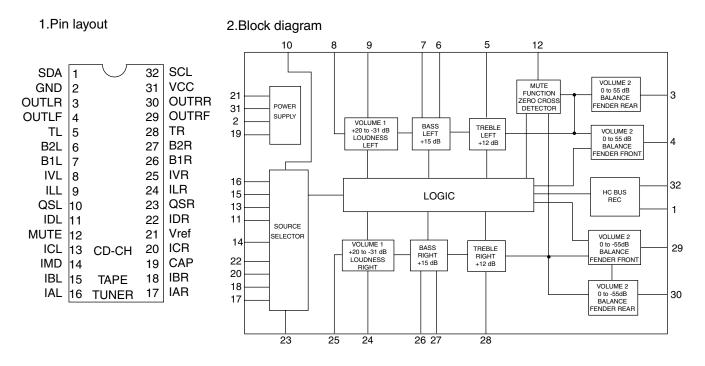
Input		Out	put	Mode	
IN1	IN2	OUT1	OUT2	woue	
0	0	0	0	Brake	
1	0	1	0	CLOCKWISE	
0	1	0	1	COUNTER-CLOCKWISE	
1	1	0	0	Brake	

■ RPM6938-SV4 (IC602) : Remote sensor

1.Block diagram



TEA6320T-X (IC161) : E.volume



3.Pin functions

Pin No.	Symbol	I/O	Functions	Pin No.	Symbol	I/O	Functions
1	SDA	I/O	Serial data input/output.		IAR	I	Input A right source.
2	GND	-	Ground.	18	IBR	I	Input B right source.
3	OUTLR	0	output left rear.	19	CAP	-	Electronic filtering for supply.
4	OUTLF	0	output left front.	20	ICR	I	Input C right source.
5	TL	Ι	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	0	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	0	Output source selector. left channel.	26	B1R	-	Bass control capacitor right channel
11	IDL	-	Not used	27	B2R	0	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	0	Output right front.
14	IMO	-	Not used	30	OUTRR	0	Output right rear.
15	IBL	Ι	Input B left source.	31	Vcc	-	Supply voltage.
16	IAL	Ι	Input A left source.	32	SCL	I	Serial clock input.

