

# JVC

# SERVICE MANUAL

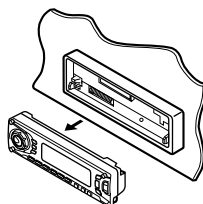
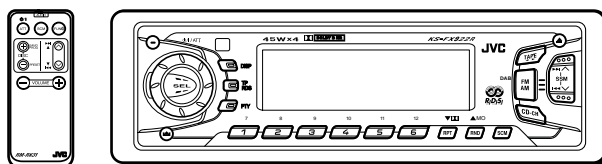
## CASSETTE RECEIVER



# KS-FX922R

**Area Suffix**  
E ... Continental Europe

KS-FX922R



## Contents

Safety precaution .....	1-2
Location of main parts .....	1-3
Disassembly method .....	1-4
Adjustment method .....	1-11
Description of major ICs .....	1-15

## 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

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 -----  $4\Omega$ (2Speakers connection)  
 Line out -----  $20k\Omega$

### ■ 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( $1\mu V$ ,  $50\Omega$ /open terminal).

### ■ Tuner section

#### BAND STEP

FM : 100kHz (Seek), 50kHz (Manual)

AM : 9kHz step

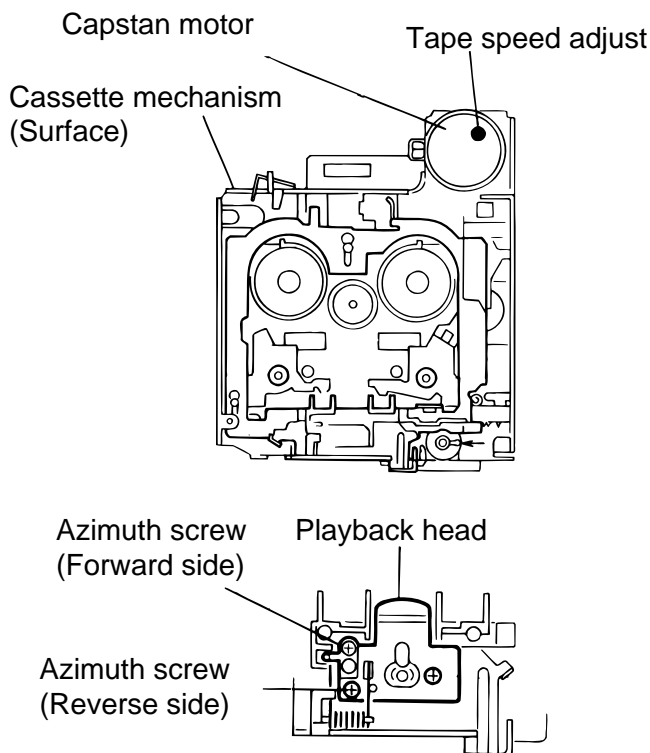
#### Preset Memory Initialization

Band	Preset Memory					
	M1	M2	M3	M4	M5	M6
FM(MHz)	87.5	89.9	97.9	105.9	108.0	87.5
AM(kHz)	153	216	603	999	1404	1620

#### DUMMY LOAD

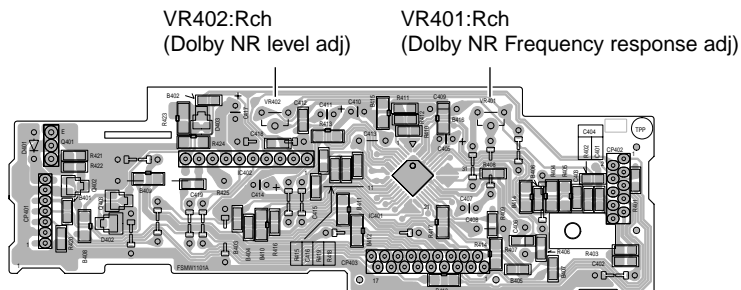
Exclusive dummy load should be used for AM and FM dummy load, there is a loss of 6dB between SSG output and antenna input. The loss of 6dB need not be considered since direct reading of figures are applied in this working standard.

### ■ Arrangement of Adjusting Cassette Mechanism Section



## ■ Arrangement of adjusting

Head amplifier board section (Reverse side)



## ■ 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..

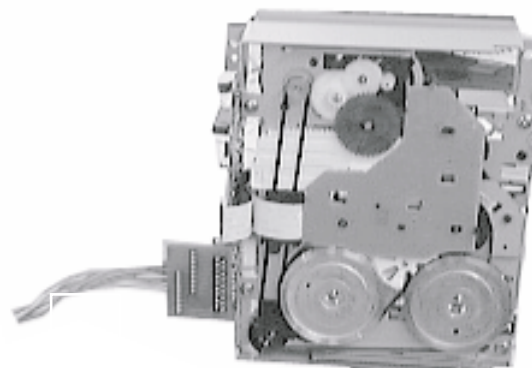
## ■ Disassembly method

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.

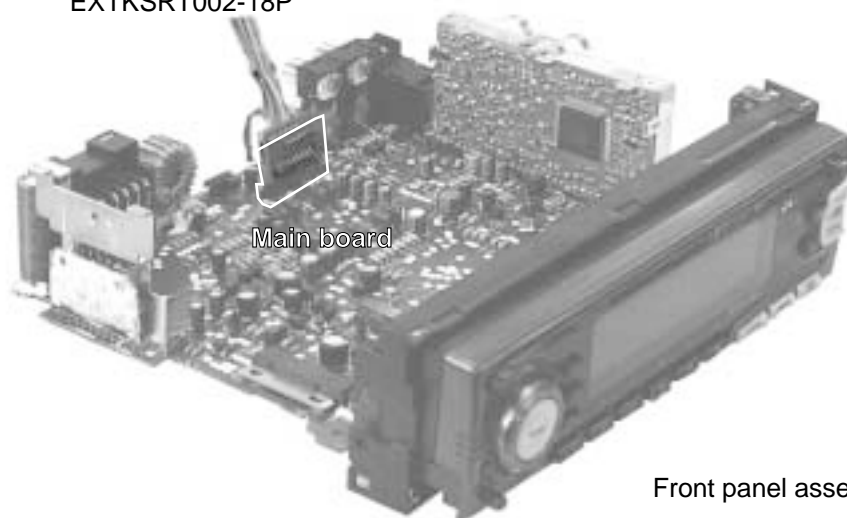
Note

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

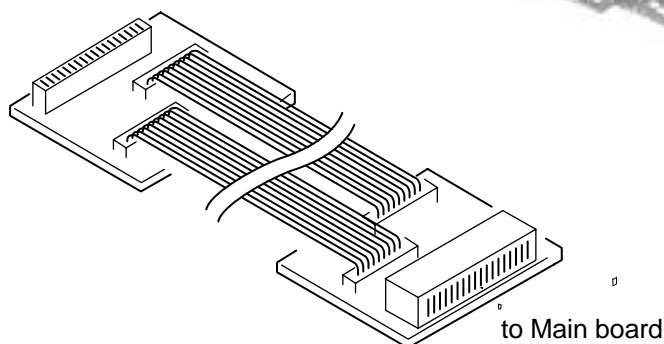
Cassette mechanism



Extension cord  
EXTKSRT002-18P



to Cassette mechanism

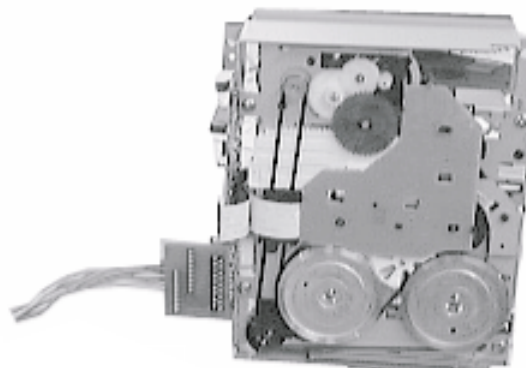


Front panel assembly

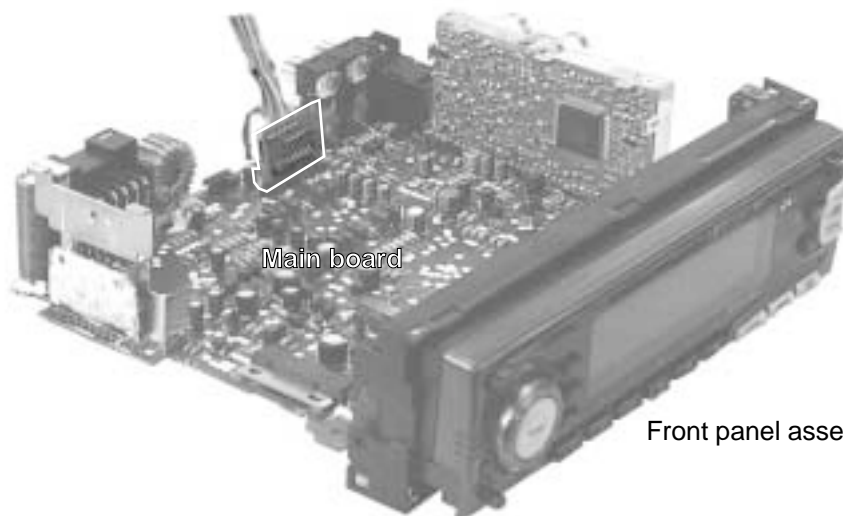
## ■ Extension cord

The mechanism should be directly connected to the board using the extension wire.  
EXT-KSRT002-18P

Cassette mechanism



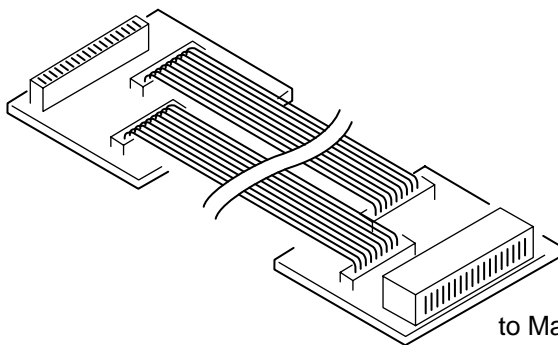
Extension cord  
EXTKSRT002-18P



Main board

Front panel assembly

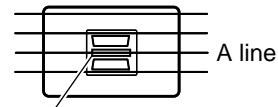
to Cassette mechanism



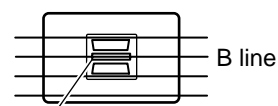
to Main board

EXTKSRT002-18P

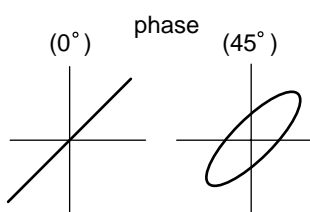
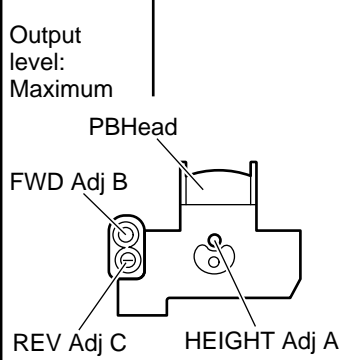
Item	Conditions	Adjustment and Confirmation methods	S.Values	Adjust
<p>1. Head azimuth adjustment</p>	<p>Test tape: SCC-1659 VT703(10kHz)</p>	<p>◆ Head height adjustment ※ Adjust the azimuth directly. When you adjust the height using a mirror tape, remove the cassette housing from the mechanism chassis. After installing the cassette housing, perform the azimuth adjustment.</p> <ol style="list-style-type: none"> <li>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.</li> <li>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.)</li> <li>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.</li> </ol> <p>◆ Head azimuth adjustment</p> <ol style="list-style-type: none"> <li>1. Load VTT724 (VT724) (1kHz) and play it back in the reverse play mode. Set the Rch output level to max.</li> <li>2. Load VTT703 (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°.</li> <li>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.)</li> <li>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.)</li> <li>5. When VTT721 (VT721) (315Hz) is played back, the level difference between channels should be within 1.5dB.</li> </ol>	<p>S.Values</p>	<p>Adjust</p>
<p>2. Tape speed and wow flutter confirmation</p>	<p>Test tape: VTT712 (3kHz)</p>	<ol style="list-style-type: none"> <li>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).</li> <li>2. In case of out of specification, adjust the motor with a built-in volume resistor.</li> </ol>	<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: VTT724 (1kHz) VTT739 (63Hz / 1kHz / 10kHz)</p>	<ol style="list-style-type: none"> <li>1. Play test tape VTT724, and set the volume position at 2V.</li> <li>2. Play test tape VTT739 and confirm. 1kHz / 10kHz: -1 ± 3dB, 1kHz / 63Hz: 0 ± 3dB,</li> <li>3. When 10kHz is out of specification, it will be necessary to read adjust the azimuth.</li> </ol>	<p>Speaker out 1kHz / 63Hz : 0 ± 3db 1kHz / 10kHz : -1 ± 3db</p>	



Head shield  
The head is at low position during.

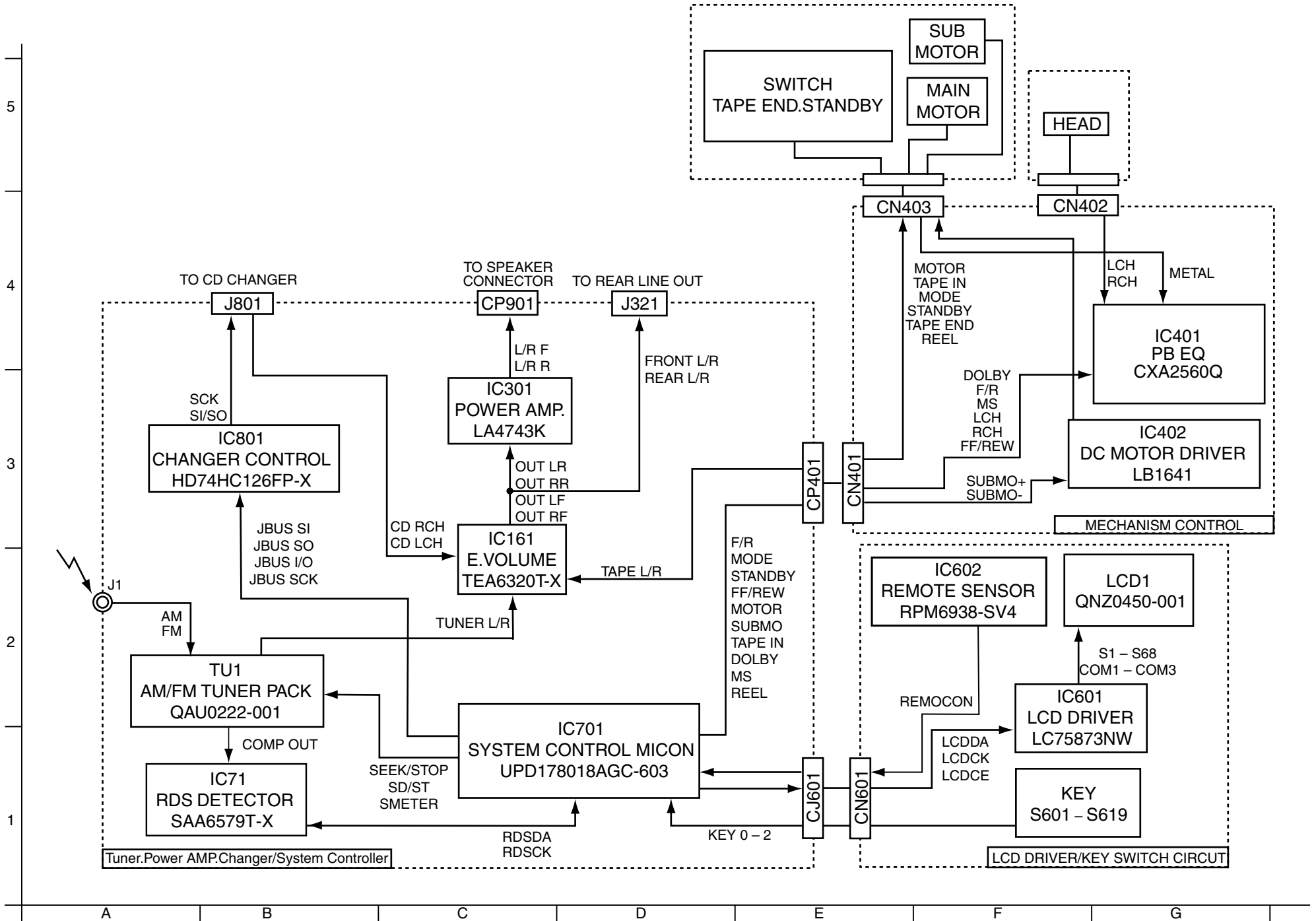


Head shield  
The head is at High position during REV.



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

# Block Diagram



## Receiver & System control circuit section

- CONDITION—FM  
 1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL.  
 CONDITION—FM MODE: □ AM MODE
- UNLESS OTHERWISE SPECIFIED:  
 ALL RESISTORS ARE 1/10W OR 1/4W ±5% METAL GLAZE RESISTOR.  
 ALL CAPACITORS ARE 50V OR 25V CERAMIC CAPACITOR.  
 ALL RESISTANCE VALUES ARE IN OHM.  
 ALL CAPACITANCE VALUES ARE IN UF (P=PF)  
 ALL CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(UF)/RATED VOLTAGE(V)  
 TF — T. F. CAPACITOR  
 Z — N. F. CAPACITOR

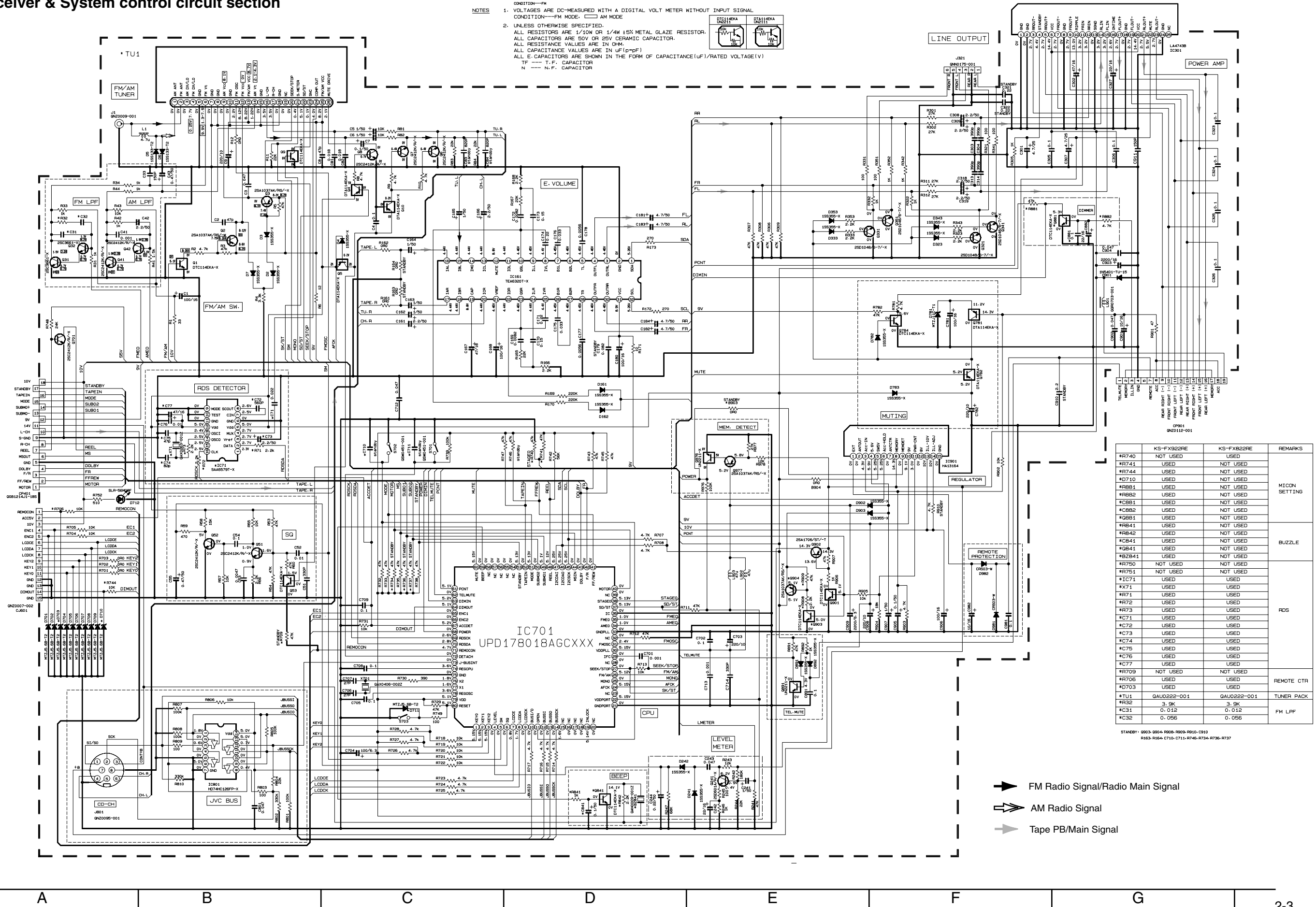
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4

3

2

1



REF ID	KS-FX922RE	KS-FX922RE	REMARKS
*R740	NOT USED	NOT USED	
*R741	USED	NOT USED	
*R744	USED	NOT USED	
*D710	USED	NOT USED	
*R881	USED	NOT USED	MICON SETTING
*R882	USED	NOT USED	
*C881	USED	NOT USED	
*C882	USED	NOT USED	
*Q881	USED	NOT USED	
*R841	USED	NOT USED	
*R842	USED	NOT USED	
*C841	USED	NOT USED	BUZZLE
*Q841	USED	NOT USED	
*R750	NOT USED	NOT USED	
*R751	NOT USED	NOT USED	
*IC71	USED	USED	
*X71	USED	USED	
*R71	USED	USED	
*R72	USED	USED	
*R73	USED	USED	
*C71	USED	USED	RDS
*C72	USED	USED	
*C73	USED	USED	
*C74	USED	USED	
*C75	USED	USED	
*C76	USED	USED	
*C77	USED	USED	
*R709	NOT USED	NOT USED	
*R706	USED	USED	REMOTE CTR
*D703	USED	USED	
*TU1	GAU0222-001	GAU0222-001	TUNER PACK
*R32	3.9K	3.9K	
*C31	0.012	0.012	FM LFP
*C32	0.056	0.056	

STANBY: 0503-0504-0505-0506-0507-0508-0509-0510-0511  
 R163-R164-C710-C711-R746-R734-R736-R737

- ➔ FM Radio Signal/Radio Main Signal
- ➔ AM Radio Signal
- ➔ Tape PB/Main Signal

■ Mecha control circuit section

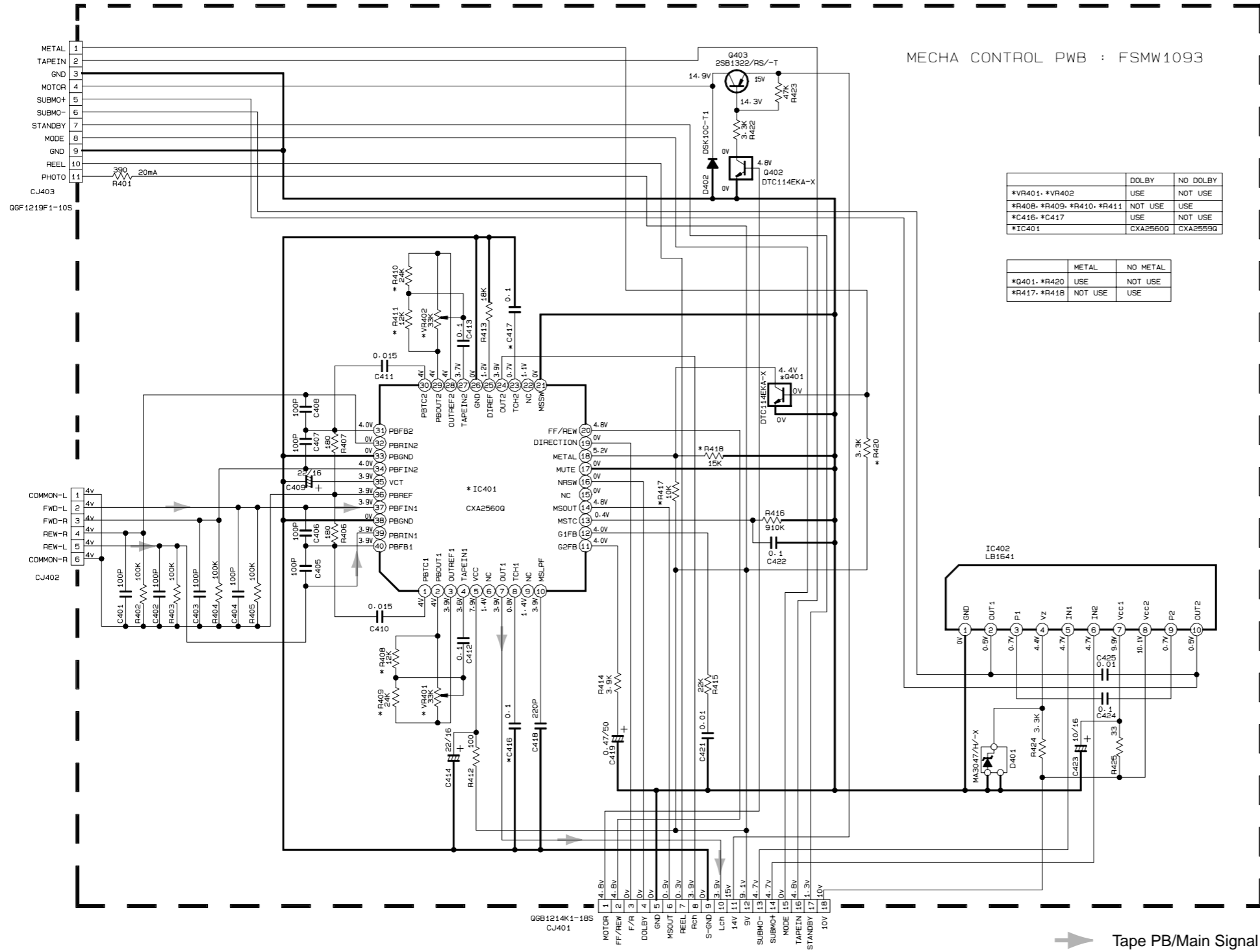
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1



	DOLBY	NO DOLBY
*VR401, *VR402	USE	NOT USE
*R408, *R409, *R410, *R411	NOT USE	USE
*C416, *C417	USE	NOT USE
*IC401	CXA2560Q	CXA2559Q

	METAL	NO METAL
*G401, *R420	USE	NOT USE
*R417, *R418	NOT USE	USE

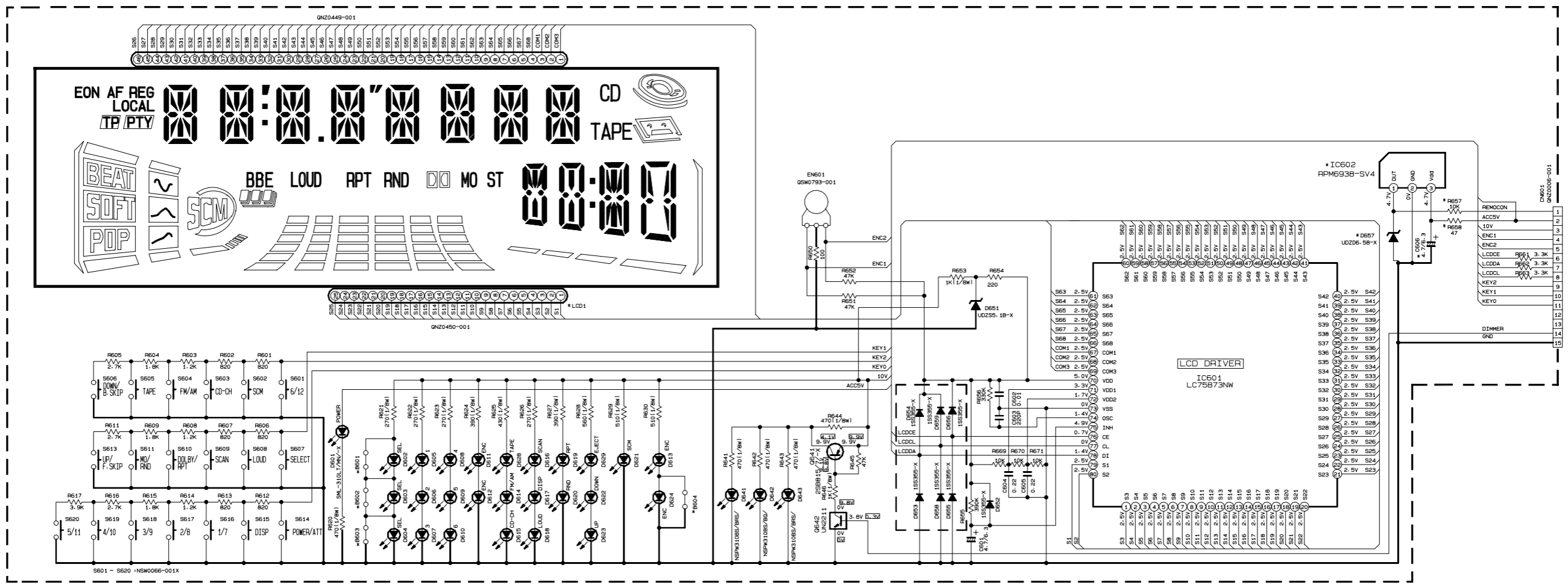
NOTES

- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL. CONDITION---TAPE MODE.
  - UNLESS OTHERWISE SPECIFIED.
    - ALL RESISTORS ARE 1/4W ±5% OR 1/10W ±5% METAL GLAZE RESISTOR.
    - ALL CAPACITORS ARE 50V CERAMIC CAPACITOR.
    - ALL RESISTANCE VALUES ARE IN OHM(Ω).
    - ALL CAPACITANCE VALUES ARE IN \*F(PpF).
    - ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(\*F)/RATED VOLTAGE(V)
- TF-----TF CAPACITOR



■LCD driver & Operation switch circuit section

	KS-FX922RE	KS-FX822RE
*LCD1	QLD0163-001	QLD0164-001
*D602, *D603, *D604, *D605, *D606, *D607, *D608, *D609, *D610, *D611, *D612, *D613, *D614, *D615, *D616, *D617, *D618, *D622, *D623, *D628, *D629	SML-310VT/JK/-X (RED)	SML-310VT/JK/-X (RED)
*D624	NOT USED	NOT USED
*D621	LNJ308G81/1-3/X	LNJ308G81/1-3/X
*D619, *D620	SML-310VT/JK/-X	SML-310VT/JK/-X
*D641, *D643	NSPW310BS/BRS/	NSPW310BS/BRS/
*D642	NSPW310BS/BQ/	NSPW310BS/BQ/
*R645, *R646	USED	NOT USED
*Q641, *Q642	USED	NOT USED
*R641, *R642, *R643	470	1K
*R644	470	0R0
*IC602	USED	USED
*D657	USED	USED
*C606	USED	USED
*R657, *R658	USED	USED
*B601, *B602, *B603	NOT USED	NOT USED



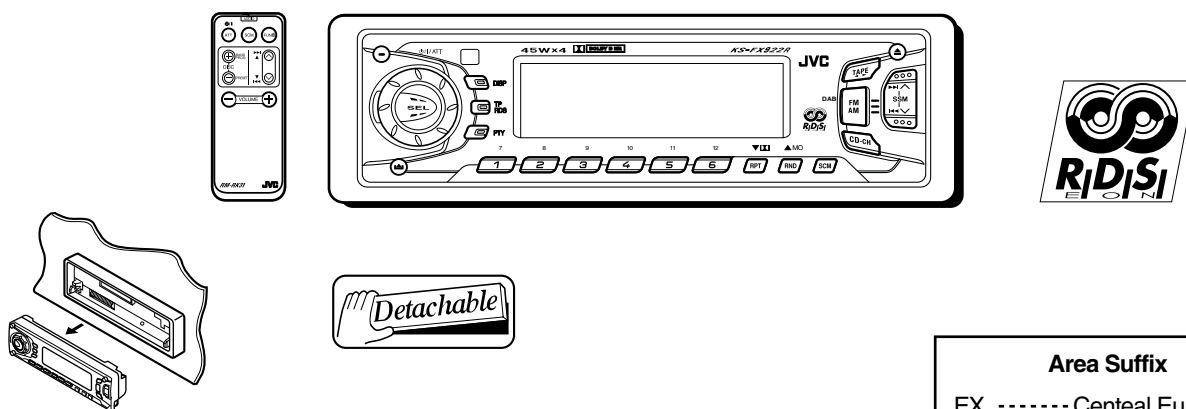
SWITCH PWB : GEB10013

# JVC

## SERVICE MANUAL

### CASSETTE RECEIVER

## KS-FX922R



**Area Suffix**

EX ..... Cental Europe

This model is KS-FX922RE EX that is added to the preceding model, the KS-FX922R E. Therefore the service manual for this model is consisting of Parts list only.

For others, please refer to the service manual of KS-FX922R E (issue No.49596).

■ Parts list(Accessories)

P3-17

Block No.M4MM

△	Item	Parts name	Parts number		Q'ty
			E	EX	
	A 2	INST.BOOK (LANGUAGE)	GET0017-002A (SPA,ITA,SWE,FIN)	-----	1



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