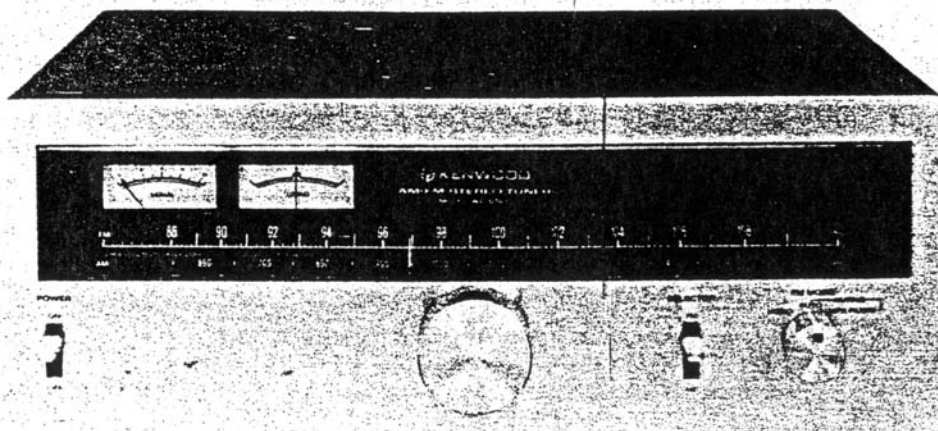




KENWOOD
HI/FI STEREO COMPONENTS

SERVICE MANUAL

KT-6500
(KT-6550)



AM-FM STEREO TUNER

S meter
(B31-0235-05)

T meter
(B31-0263-05)

Dial pointer
(B21-0008-04)

Front glass
(B10-0220-13)

Dial calibrations
(B20-0411-03)

Panel ass'y



POWER



Knob
(K27-0063-04)
Switch



Knob
(K21-0337-04)

SELECTOR



Knob
(K27-0063-04)
Switch
(S33-6002-05)

FM MODE



Knob
(K23-0294-04)
Switch
(S29-4005-05)

EXTERNAL VIEW

AM bar antenna
(T90-0083-05)



CAUTION
DO NOT TOUCH THE METAL PARTS OF THE RADIO
WHILE IT IS PLUGGED INTO AN AC POWER SOURCE

ATTENTION
FOR BEST ANTENNA USE LEFT OR CENTER TUNING
CONTROL. LEFT TUNING CONTROL SHOULD BE USED ONLY WHEN
TUNING INTO STATIONS WITH A WIDE BANDWIDTH.
ATTENTION
REMOVING THE CASE ELECTRODE MEANS REMOVING THE CASE FROM THE ANTENNA
AS THIS ANTENNA IS NOT A SAVER. CONSOLE ANTENNA IS NOT A SAVER.



Foot

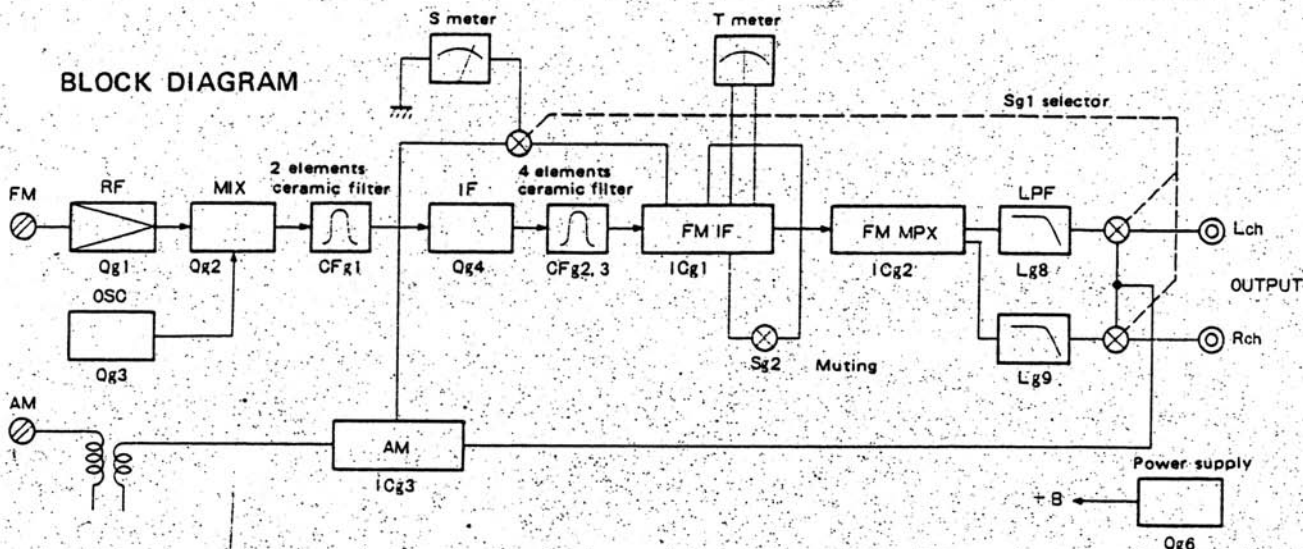
Terminal board
(E29-0094-05)



Power cord

BLOCK DIAGRAM/CIRCUIT DESCRIPTION/MODIFICATIONS' SCHEMATIC

BLOCK DIAGRAM



CIRCUIT DESCRIPTION

Circuit descriptions regarding IC's are obtainable from the service manuals of KT-1500 and KT-7500.

Qg4: This circuit performs AM-FM +B switching over prior to accomplishment of output switching over.

Qg5: This is a delay circuit for AM +B source.

Dg1: Suspends the HA1137W function during AM performance and prevents reverse flow of +B from FM to AM.

Dg2: Limiter for meter.

Dg4: Supplies +B to suspend VCO performance during AM reception. It also prevents reverse flow of +B from FM to AM.

Dg5: For 12.5V constant voltage (11.9 ~ 13.1V).

Dg6~8: For +B rectification.

Dg9: Delays the rising (power supply → ON) of voltage (at the time constant of Rg16 and Cg87) and quickens the lowering down (power supply → OFF).

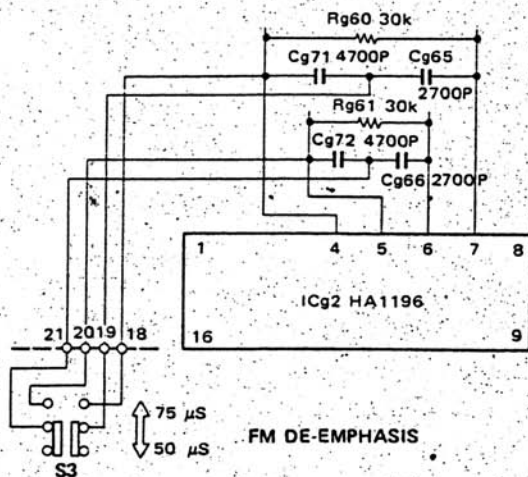
Dg10: For forced MONO when the power supply circuit is switched off.

Dg11: Prevents reverse flow of +B from AM to FM during AM performance.

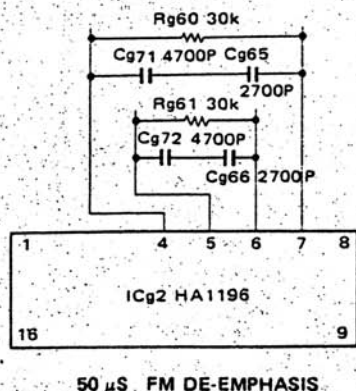
Dg12: Prevents sound leakage when the power supply circuit is switched on under the FM detuning condition.

MODIFICATIONS' SCHEMATIC

(X05-1510-81)



(X05-1510-61)

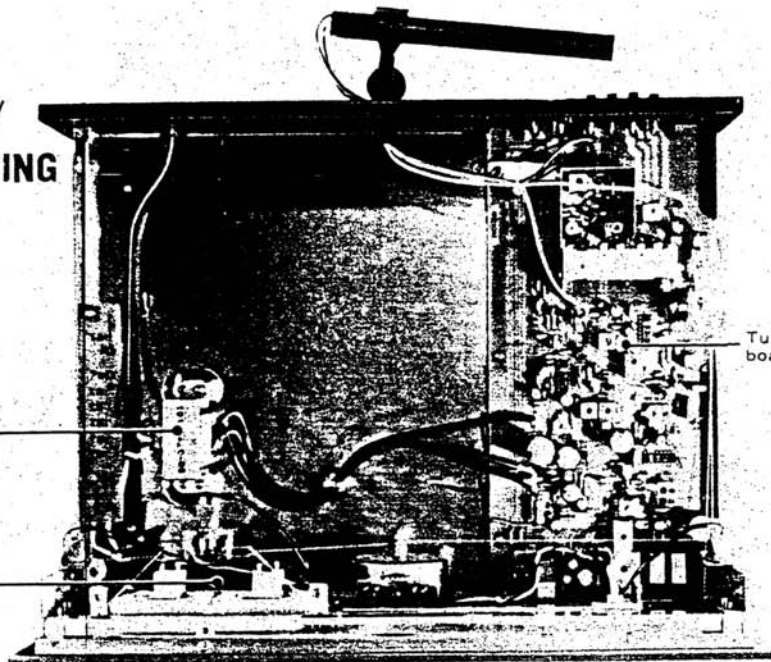


INTERNAL VIEW / DIAL CORD STRINGING

Power transformer *

Lighting acryl resin board
(B19-0197-03)

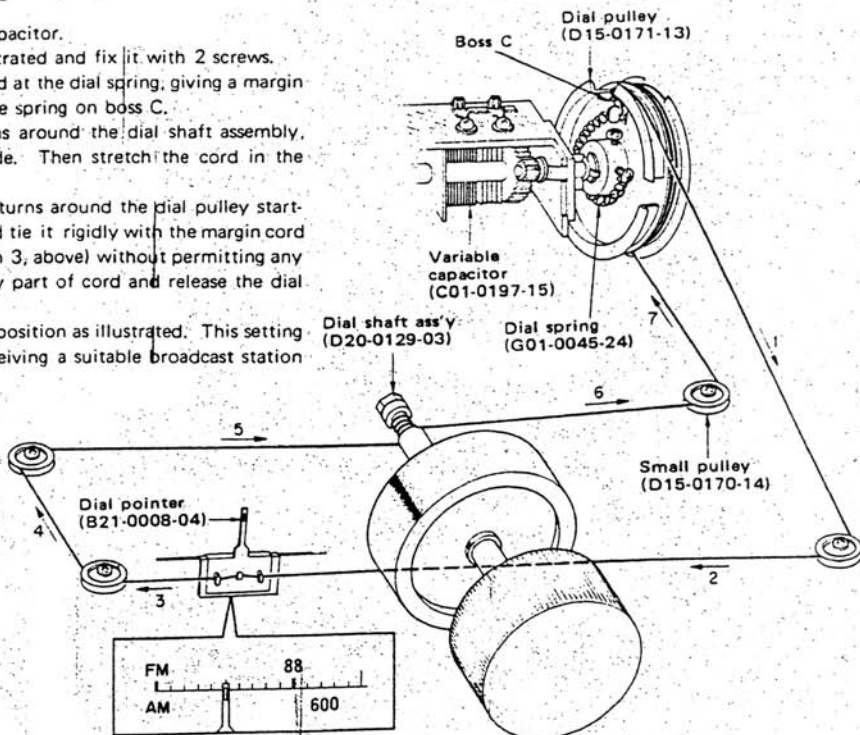
Tuner PC board ass'y



DIAL CORD STRINGING

1. Fully close the variable capacitor.
2. Set the dial pulley as illustrated and fix it with 2 screws.
3. Tie the end of the dial cord at the dial spring, giving a margin of about 10 cm. Hook the spring on boss C.
4. Wind the dial cord 2 turns around the dial shaft assembly, starting from its lower side. Then stretch the cord in the direction of "7".
5. Wind the cord 2 and half turns around the dial pulley starting from its lower side, and tie it rigidly with the margin cord (about 10 cm, described in 3, above) without permitting any slack. Cut off unnecessary part of cord and release the dial spring from boss C.
6. Mount the dial pointer in position as illustrated. This setting should be checked by receiving a suitable broadcast station actually.

* Refer to DESTINATIONS' PARTS LIST.



INSTRUMENTS USED

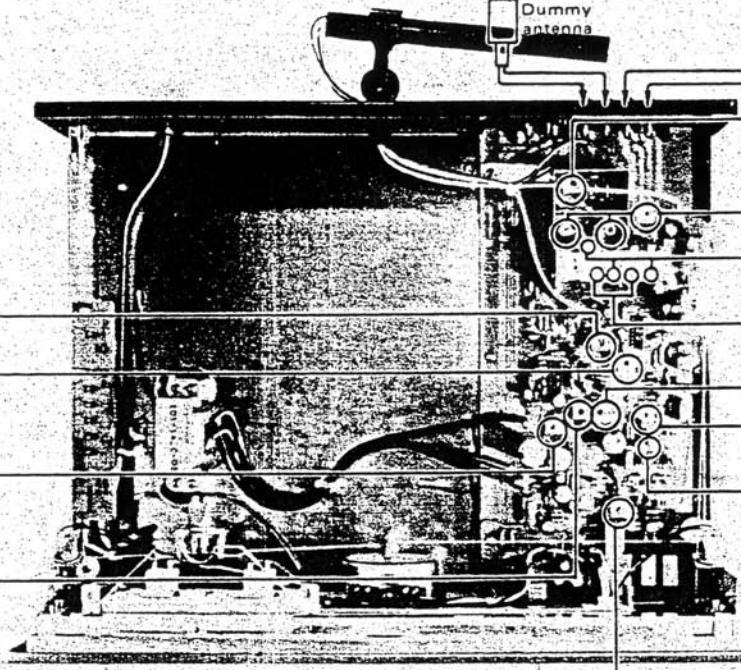
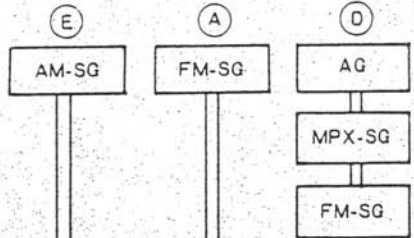
Oscilloscope	OSC
AM signal generator	AM-SG
FM signal generator	FM-SG
Audio generator	AG
Solidstate voltmeter	SSVM
FM multiplex generator	FM-MPX
Frequency counter	

NOTES FOR ADJUSTMENTS

- Use moderate instrument outputs at all times.
- Repeat tracking adjustments 2 or 3 times and finally confirm the result using respective local stations.
- 0 dB = 1 μ V
- Since Lg8 and 9 (lowpass filter) are already adjusted, they must not be turned.

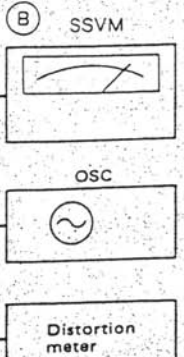
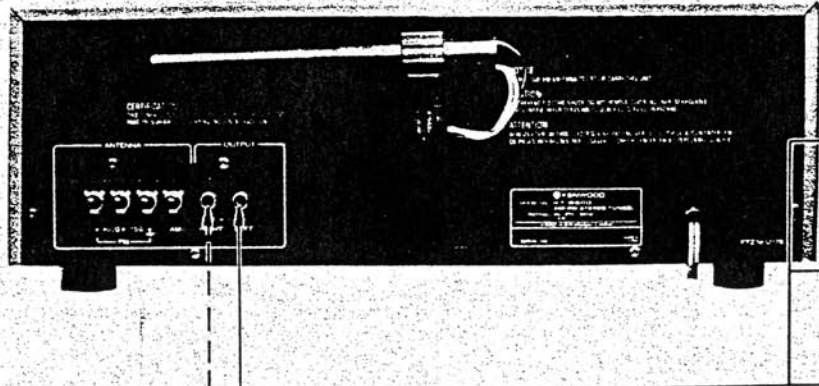
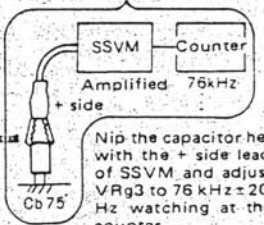
OR- DER	ITEM	INSTRUMENT		TUNER SETTING	OUTPUT	ADJUSTMENT POINTS	ADJUSTMENT METHOD
		CONNECTION	SETTING				
FM SECTION							
1	OFF SET	-	-	AM	T meter	VRg1	Meter indication in the center.
2	IFT	(A)	95 MHz 60 dB 1 kHz (Mod) 75 kHz (Dev)	95 MHz	(B)	Lg4	Maximum optimum waveform, minimum distortion.
3	DISCRI	-	-	Noise (between local stations)	T meter	Lg6	Meter indication in the center.
4		(A)	95 MHz 60 dB 1 kHz (Mod) 75 kHz (Dev)	95 MHz	(B)	Lg7	Maximum optimum waveform, minimum distortion.
5	TRACK- ING	(A)	90 MHz (Mod) 1 kHz (Dev) 75 kHz (Dev)	90 MHz	(B)	Lg1~3	Maximum optimum waveform.
6			106 MHz (Dev) 1 kHz (Mod) 75 kHz (Dev)	106 MHz		TCg1~3	
7	VCO	(A)	95 MHz 60 dB 0 (Dev)	95 MHz	(C)	VRg3	Adjusted to 76 kHz \pm 200 Hz
8	SEPARA- TION	(D)	FM-MPX: SELECTOR L or R 1 kHz (Mod) FM-SG: 95 MHz 60 dB 68.25 kHz (Dev)	95 MHz	(B)	VRg2	Minimum output. L and R are reversed and the same adjustment is performed. If any difference is found, the output levels are adjusted to the average value.
AM SECTION							
1	IF	E	1000 kHz 400 Hz 30% (Mod) 100 dB	1000 kHz	(B)	CFg4	Maximum optimum waveform.
2	TRACK- ING	E	600 kHz 400 Hz 30% (Mod) 100 dB	600 kHz	(B)	Lg10 Bar antenna	Maximum optimum waveform.
3			1400 kHz 400 Hz 30% (Mod) 100 dB	1400 kHz		TCg4, 5	

ADJUSTMENT



- Lg10
AM tracking (Low)
- CFg4
AM IFT
- VRg1
Off set
- Lg6
Discr1
- VRg2
Separation

- Lg4
FM IFT
- Lg1-3
FM tracking (Low)
- TCg1-3
FM tracking (High)
- TCg4,5
AM tracking (High)
- Lg7
Discr1
- VRg3
VCO (76kHz)



FM TUNER SECTION

Usable Sensitivity	10.3 dBf	(1.8 μ V)
50 dB Quieting Sensitivity		
Mono	16.3 dBf	(3.6 μ V)
Stereo	37.9 dBf	(43 μ V)
Signal to Noise Ratio		
Mono	75 dB	
Stereo	70 dB	
Total Harmonic Distortion		
Mono at 100 Hz	0.1%	
1,000 Hz	0.1%	
6,000 Hz	0.15%	
50 ~ 10,000 Hz	0.15%	
Stereo at 100 Hz	0.2%	
1,000 Hz	0.15%	
6,000 Hz	0.15%	
50 ~ 10,000 Hz	0.3%	
Frequency Response	30 to 15,000 Hz	+0.2 dB -1.5 dB
Capture Ratio	1.0 dB	
Alternate Channel Selectivity	75 dB	
Spurious Response Ratio	80 dB	
Image Response Ratio	50 dB	
IF Response Ratio	95 dB	
AM Suppression Ratio	65 dB	
Stereo Separation		
at 1,000 Hz	50 dB	
50 ~ 10,000 Hz	40 dB	
Sub Carrier Product Ratio	65 dB	
Antenna Impedance		
Balanced	300 Ω	
Unbalanced	75 Ω	
FM Frequency Range	88 MHz to 108 MHz	
Output Level at 1 kHz 100% Mod	0.7 V, 3 k Ω	

SPECIFICATIONS

AM TUNER SECTION

Usable Sensitivity	14 μ V
Signal to Noise Ratio	50 dB
Image Rejection	60 dB
Selectivity	30 dB
Total Harmonic Distortion	0.5%
Output Level	0.12 V, 15 k Ω

GENERAL

Power Consumption	15 W	
Dimensions	<u>Without cabinet</u>	<u>With cabinet</u>
	W 16-15/16" (430 mm)	17-29/32" (455 mm)
	H 5-7/8" (149 mm)	7-1/32" (179 mm)
	D 14-5/8" (372 mm)	15-3/16" (385 mm)
Weight (Net)	13.2 lb (6.0 kg)	17.2 lb (7.8 kg)
	16.1 lb (7.3 kg)	19.6 lb (8.9 kg)