KENWOOD

AM-FM STEREO RECEIVER

KR-4600 ①



SPECIFICATIONS

FM TUNER SECTION (IHF)

Usable Sensitivity	1.8 μV	
50 dB Quieting Sensitivity	3.0	(Mono)
	37 μV	(Stereo)
Signal to Noise Ratio at 1 mV	75 dB	(Mono)
	70 dB	(Stereo)
T.H. Distortion at 1 mV	0.15%	(Mono)
	0.25%	(Stereo)
Frequency Response	20 Hz to 15.000 Hz +0.5 dB, −1.5 dB	
Capture Ratio	1.5 dB	
Alternate Channel Selectivity	80 dB	
Spurious Response Ratio	85 dB	
Image Response Ratio	85 dB	
IF Response Ratio (Balanced)	100 dB	
AM Suppression Ratio	65 dB	
Stereo Separation	40 dB at 1.000 Hz. 35 dB from 50 Hz to 10.000 Hz	
Subcarrier Product Ratio	40 dB	
Antenna Impedance	300 ohms balanced and 75 ohms unbalanced	
FM Frequency Range	88 MHz to 108 MHz	
	88.5 MHz to 108 MHz	
	(FTZ approved)	

AM TUNER SECTION

Usable Sensitivity (IHF)	20 μV
Signal to Noise Ratio	50 dB
Image Rejection	45 dB
Selectivity (IHF)	35 dB
IF Rejection	35 dB

POWER AMPLIFIER SECTION

30 watts per channel minimum. RMS at 8 ohms from 20 Hz to 20.000 Hz with no more than 0.5% total harmonic distortion.

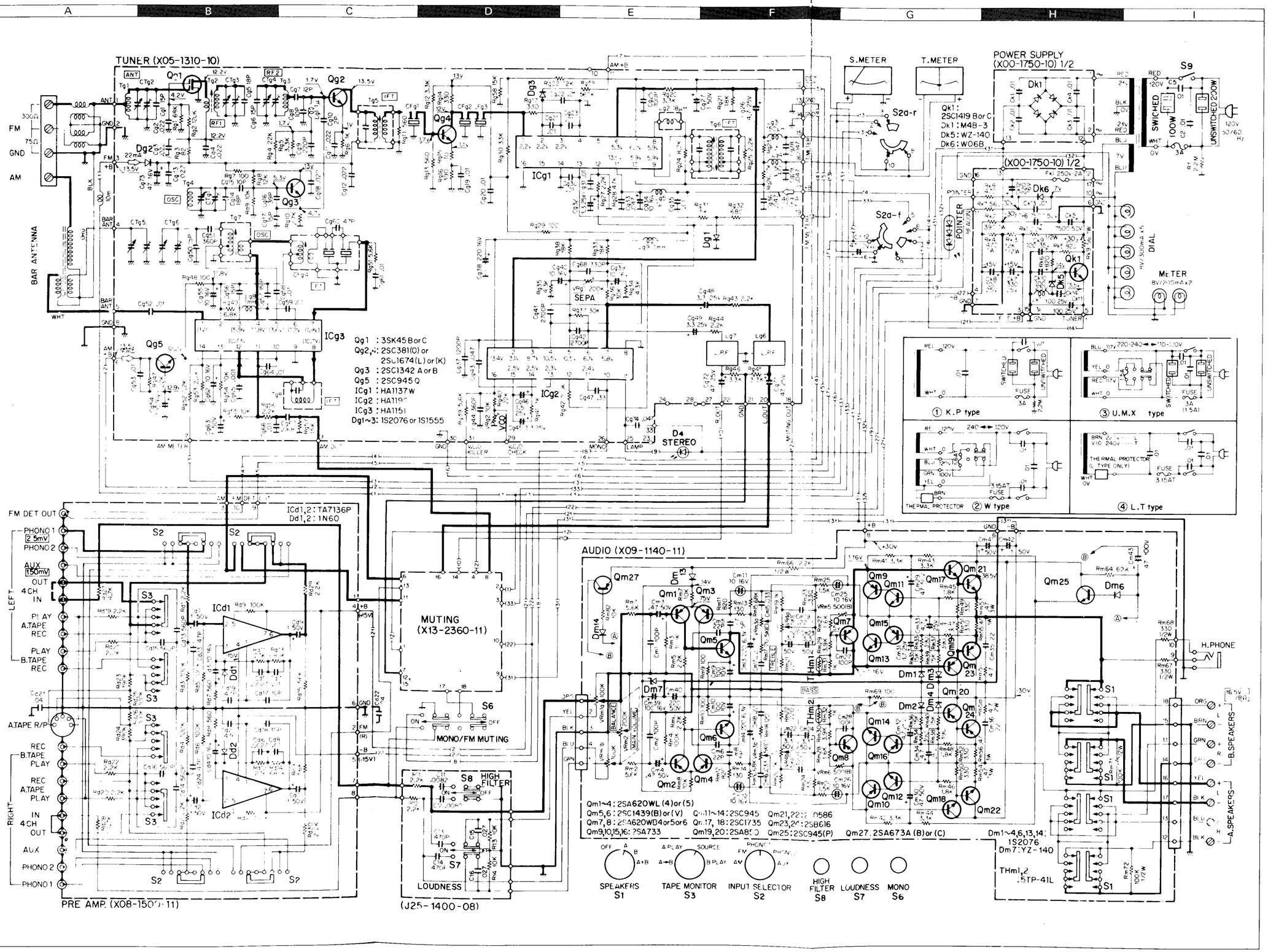
Both Channel Driven	32 + 32 watts 8 ohms at 1.000 Hz
	34 + 34 watts 4 ohms at 1.000 Hz
Dynamic Power Output	105 watts (8 ohms), 120 watts (4 ohms)
Total Harmonic Distortion	0.5% at rated power into 8 ohms
	0.07% at 1/2 rated power into 8 ohms at 1.000 Hz
Intermodulation Distortion	0.5% at rated power into 8 ohms
(60 Hz : 7 kHz 4 : 1)	0.2% at 1/2 rated power into 8 ohms
Power Bandwidth	7 Hz to 35.000 Hz
Damping Factor	35 at 8 ohms
Speaker Impedance	Accept 4 ohms to 16 ohms

PRE-AMPLIFIER SECTION

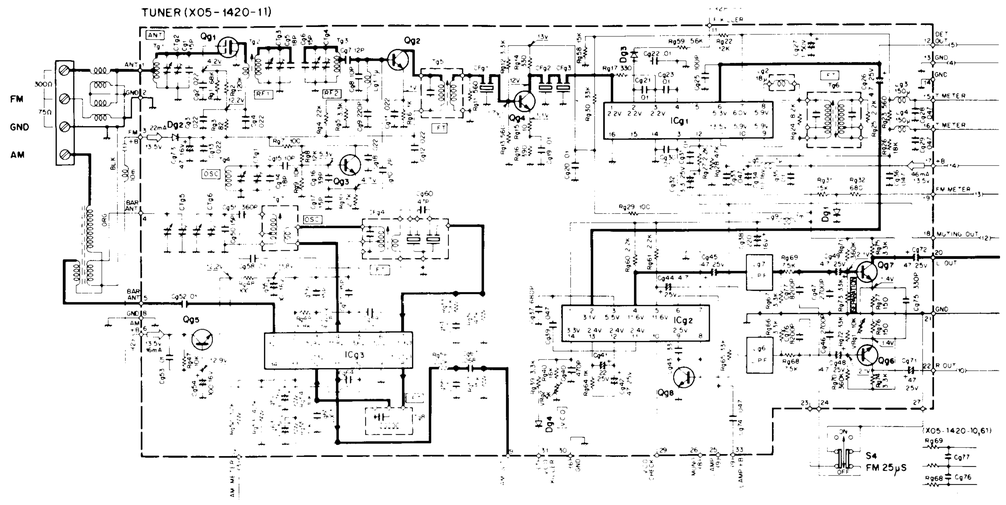
Input Sensitivity/Impedance/Signal to Noise Ratio (IHF A CURVE)	
Phono 1, 2	2.5 mV/50k ohms/70 dB
AUX	150 mV/45k ohms/90 dB
Tape	150 mV/45k ohms/90 dB
Maximum Input Level	
Phono	170 mV (rms) T.H.D. 0.1% at 1.000 Hz
Output Level/Impedance	
Tape REC (Pin)	150 mV/100 ohms
(Din)	30 mV/80k ohms
Frequency Response	
Phono	RIAA standard curve ±0.5 dB
Aux and Tape	20 Hz to 50.000 Hz. +0.7 dB, −1.2 dB
Tape Control	
Base	±8 dB at 100 Hz
Treble	±8 dB at 10.000 Hz
Loudness Control (−30 dB)	+8 dB at 100 Hz, +5 dB at 10.000 Hz
High Filter	−10 dB at 10 kHz, 6 dB/oct

GENERAL

Power Requirement	AC 50/60 Hz 110~120V, 220~240V
Power Consumption	230 watts at full power
AC Outlet	Switched 1, Unswitched 1
Dimensions	W 20-1/2" (500mm)
	H 5-11/16" (140mm)
	D 13-5/8" (334mm)
	(Knob +25mm)
Weight	23.32 lbs. (10.6 kg)


TUNER (X05-1310-10)
POWER SUPPLY (X00-1750-10) 1/2
S.METER
T.METER
S9
S2a-r
S2a-f
DIAL
METER
BAR ANTENNA
Qg1 : 3SK45 B or C
Qg2,4: 2SC381(0) or 2SC1674(L) or (K)
Qg3 : 2SC1342 A or B
Qg5 : 2SC945 Q
ICg1 : HA1137W
ICg2 : HA119
ICg3 : HA1151
Dg1~3: 1S2076 or 1S1555
ICd1,2: TA7136P
Dd1,2: 1N60
MUTING (X13-2360-11)
MONO/FM MUTING
S8 HIGH FILTER
S7 LOUDNESS
PRE AMP. (X08-1500-11)
(J25-1400-08)
AUDIO (X09-1140-11)
Qm1~4: 2SA620WL (4) or (5)
Qm5,6: 2SC1439(B) or (V)
Qm7,8: 2SA620WB4 or 5 or 6
Qm9,10,15,16: 2SA733
Qm11~14: 2SC945
Qm19,20: 2SA850
Qm21,22: 2SD586
Qm23,24: 2SB616
Qm25: 2SC945(P)
Qm27: 2SA673A (B) or (C)
Dm1~4,6,13,14: 1S2076
Dm7: YZ-140
THm1,2: 5TP-41L
SPEAKERS S1
TAPE MONITOR S3
INPUT SELECTOR S2
HIGH FILTER S8
LOUDNESS S7
MONO S6
H.PHONE
A.SPEAKERS
B.SPEAKERS
① K.P type
② W type
③ U.M.X type
④ L.T type

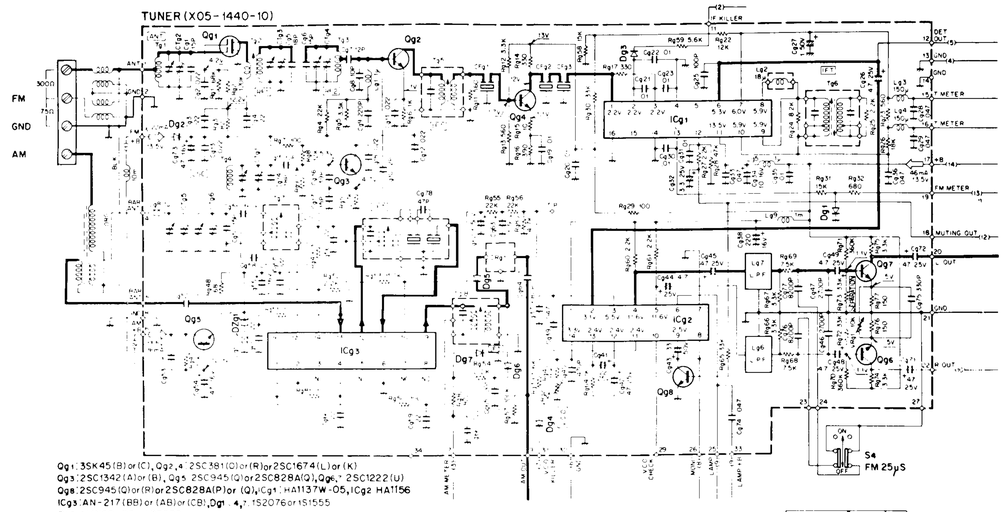
TUNER (X05-1420-11)



Qg1 : 3SK45(B)or(C)
Qg2,4 : 2SC381(O)or(R)or2SC1674(L)or(K)
Qg3 : 2SC1342(A)or(B)
Qg5 : 2SC945(Q)or2SC828A(Q)
Qg6,7 : 2SC1222(U)or2SC1345(U)
Qg8 : 2SC945(Q)or(R)or2SC828A(Q)or(P)
ICg1 : HA1137W-05
ICg2 : HA1156
ICg3 : AN-217(BB)or(AB)or(CB)
Dg1-4,7 : 1S2076or1S1555
Dg5,6 : 1N60, DZg1 : BZ090

	Cg76,77	S4
X05-1420-10	8200P	NO
X05-1420-11	8200P	YES
X05-1420-12	4700P	YES
X05-1420-61	4700P	NO

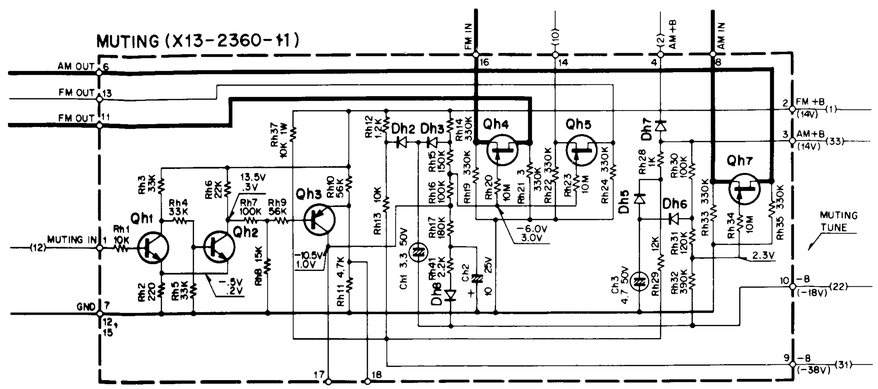
TUNER (X05-1440-10)



Qg1 : 3SK45(B)or(C), Qg2,4 : 2SC381(O)or(R)or2SC1674(L)or(K)
Qg3 : 2SC1342(A)or(B), Qg5 : 2SC945(Q)or2SC828A(Q), Qg6,7 : 2SC1222(U)
Qg8 : 2SC945(Q)or(R)or2SC828A(P)or(Q), ICg1 : HA1137W-05, ICg2 : HA1156
ICg3 : AN-217(BB)or(AB)or(CB), Dg1-4,7 : 1S2076or1S1555
Dg5,6 : 1N60, DZg1 : BZ090

	Cg76,77	S4
X05-1440-10	8200P	NO
X05-1440-11	8200P	YES
X05-1440-61	4700P	NO
X05-1440-62	4700P	YES

MUTING (X13-2360-11)



Qh1, 2 : 2SC945
Qh3 : 2SA733
Qh4,5,7 : 2SK68 (M) or (N)
Dh2,3,8 : 1S2076
Dh5~7 : 1S2076A

There are 12 kinds of tuner units employed in KR-4600 and -5600 as the right **table. X05-1310-XX** was described already in KR-4600 and -5600 service manual. **KR-4600** is not provided with FM-25μS switch (S4). And then, muting circuit **is changed** into X13-2360-10 or -11.

Model	Destination (Type)	Unit	Model	Destination (Type)	Unit
KR-4600	K P U M	X05-1310-10 X05-1420-10 X05-1440-10	KR-5600	K P U M	X05-1310-11 X05-1420-11 X05-1440-11
	T W X L	X05-1310-61 X05-1420-61 X05-1440-61		T W X L	X05-1310-12 X05-1420-12 X05-1440-62