KENWOOD

HI/FI STEREO COMPONENTS

SERVICE MANUAL

KT-400
(KT-400L)

An item of adjustment is written in three languages — English, French and German.

Un article sur réglages est écrit en trois langues, Anglais, Frantais et Allemand.

Ein Artikel der Abgleich wird auf drei Sprachen, Englische, Französisch und Deutsch geschrieben.

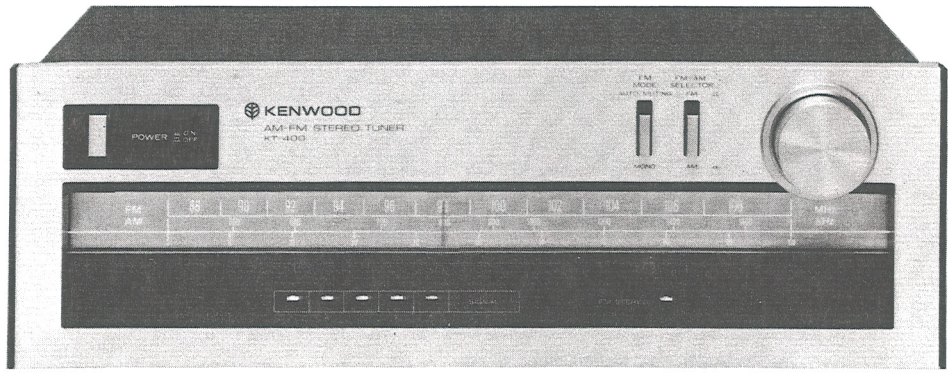


PHOTO is KT-400

AM-FM STEREO TUNER

KT-400(L)

CONTENTS

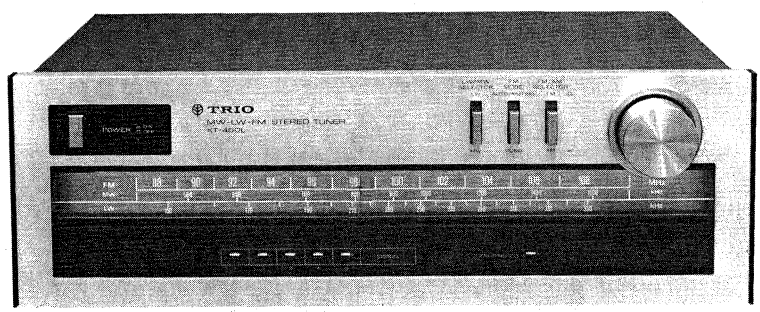


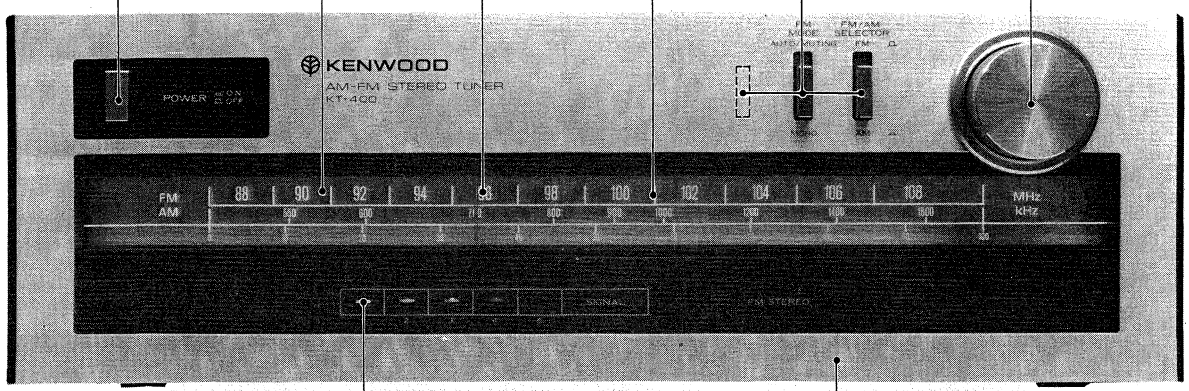
PHOTO is KT-400L

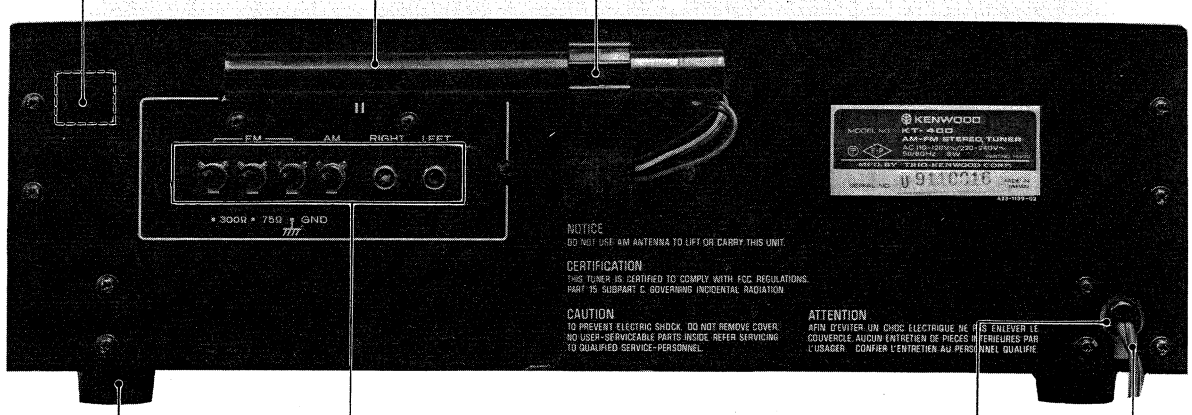
Note:
This manual is for the KT-400 and KT-400L. Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on the U.S. (K) standard for the KT-400, the Europe and Scandinavia (E) Standard for the KT-400L, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variation through use of parts list.

Region	Code
U.S.A.	K
Canada	P
PX	U
Australia	X
Europe and Scandinavia	E
England	T
South Africa	S
Other Areas	M

There is no plan for producing units of S type.

EXTERNAL VIEW



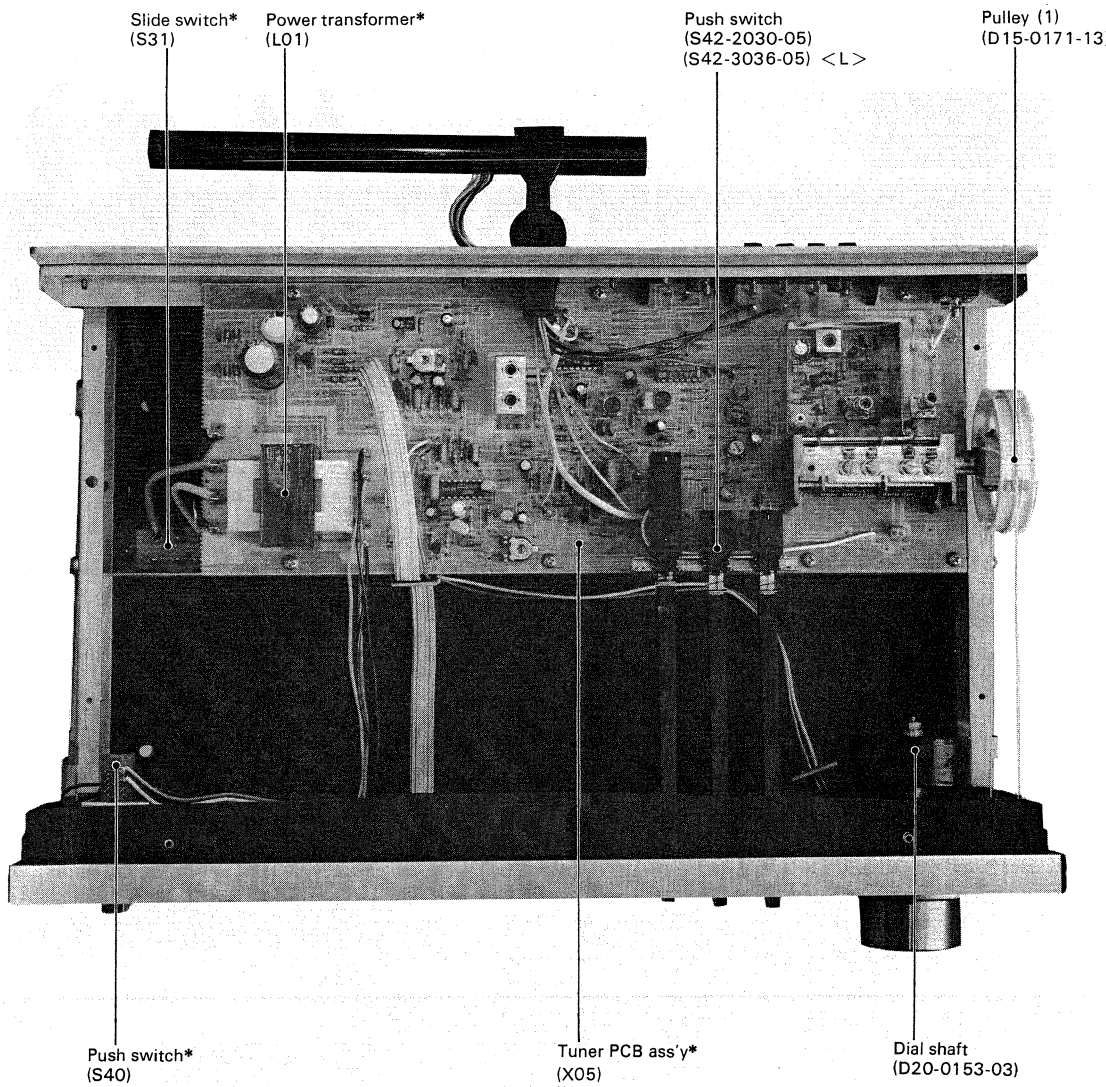


<L>..... KT-400L

* ..... Refer to parts list.

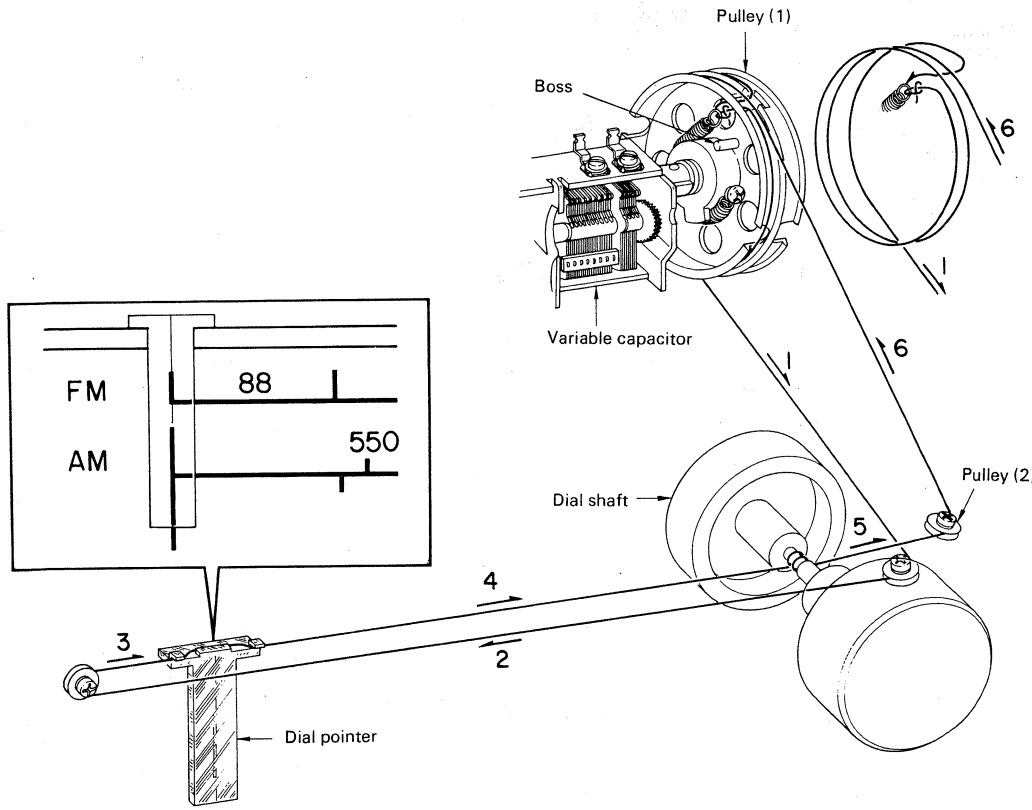
PHOTO is KT-400.

INTERNAL VIEW



<L> KT-400L
* ..... Refer to parts list.
PHOTO is KT-400L

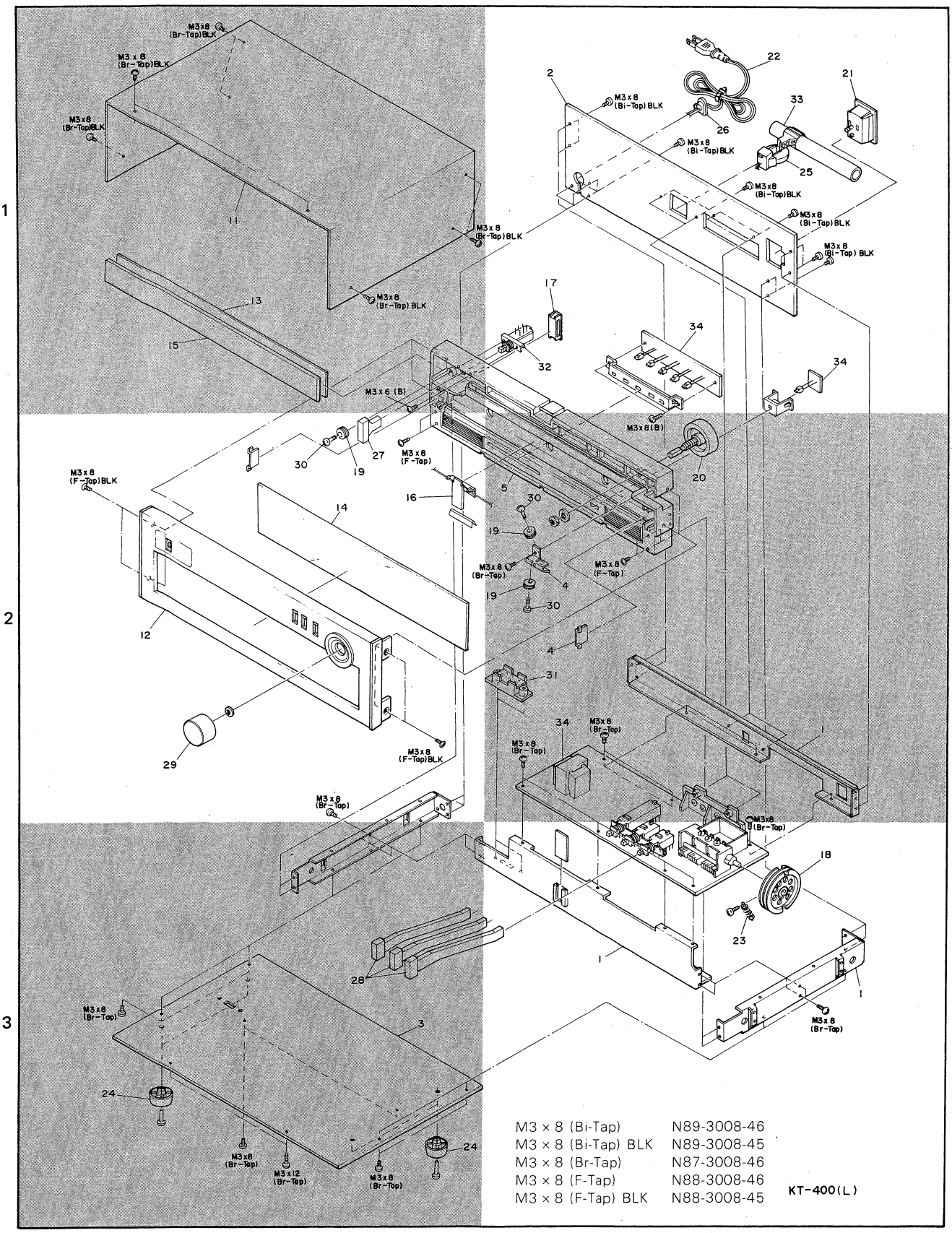
DIAL COAD STRINGING



DIAL CORD STRINGING

1. Fully close the variable capacitor.
2. Set the pulley (1) as illustrated and fix it with a screw.
3. Tie the end of the dial cord at the dial spring, giving a margin of about 10 cm. Hook the spring on the boss.
4. Give half a turn of the dial cord to the pulley (1) in the direction of "1" and wind it 2 turns around the dial shaft starting from its lower side. Then stretch the cord in the direction of "6".
5. Wind the cord 2 turns around the pulley (1) in the direction of "6" and starting from the upper side of the pulley. Rigidly tie it with the margin cord (provided as described in 3. above) and release the dial spring from the boss.
6. Mount the dial pointer in position as illustrated. This setting should be checked by receiving a suitable broadcast station actually.

EXPLODED VIEW

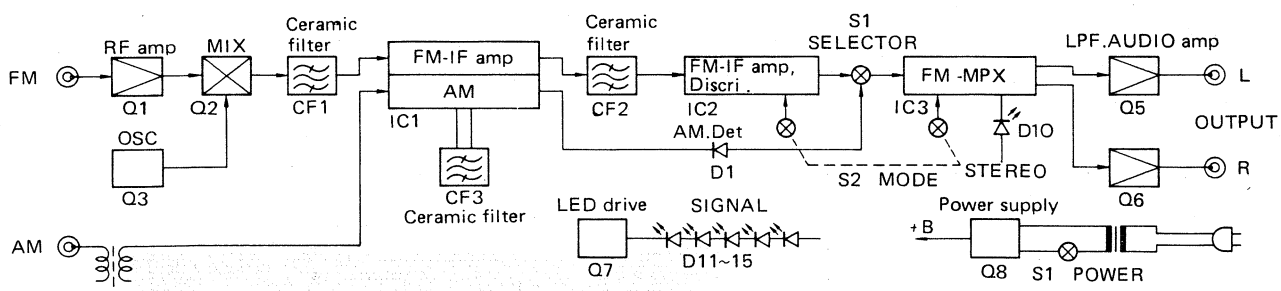


M3 × 8 (Bi-Tap)	N89-3008-46
M3 × 8 (Bi-Tap) BLK	N89-3008-45
M3 × 8 (Br-Tap)	N87-3008-46
M3 × 8 (F-Tap)	N88-3008-46
M3 × 8 (F-Tap) BLK	N88-3008-45

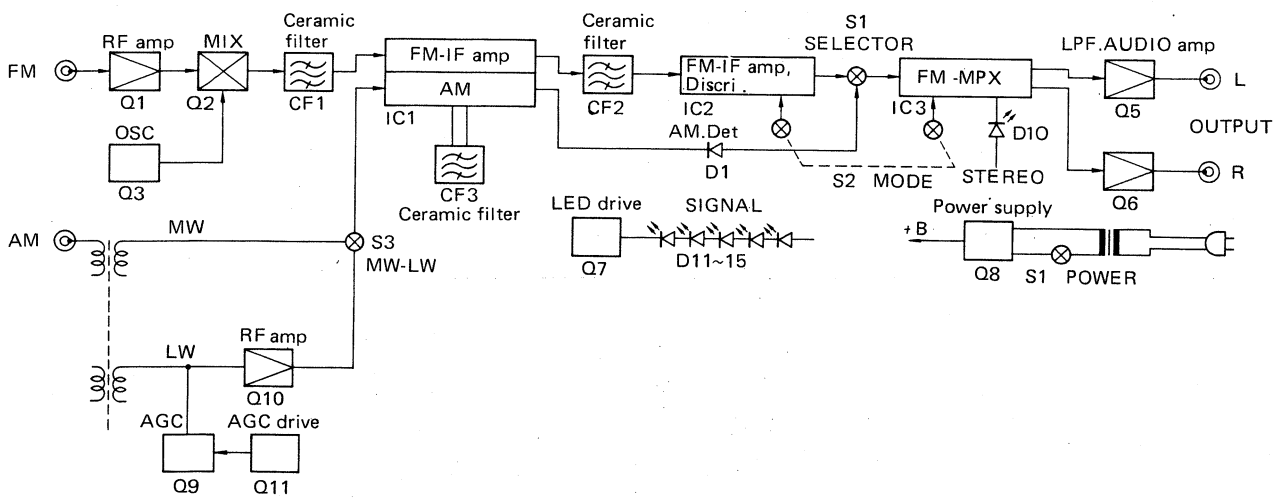
KT-400(L)

BLOCK DIAGRAM

(KT-400)

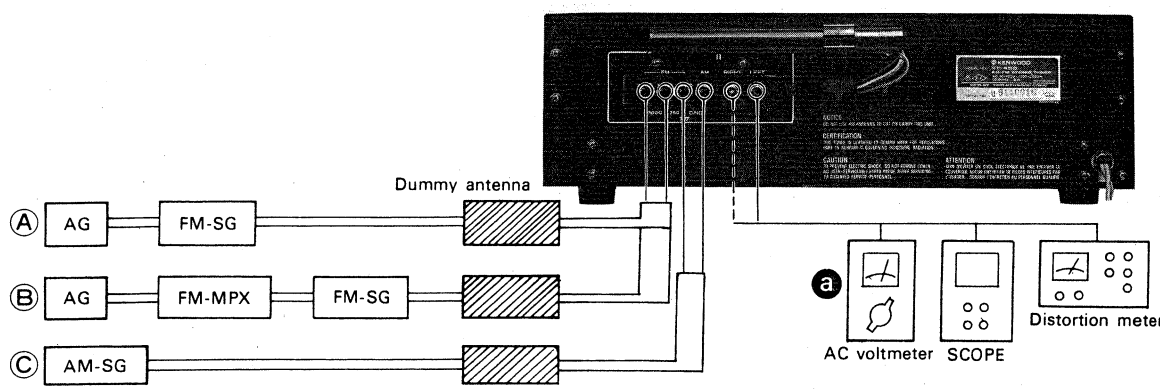


(KT-400L)

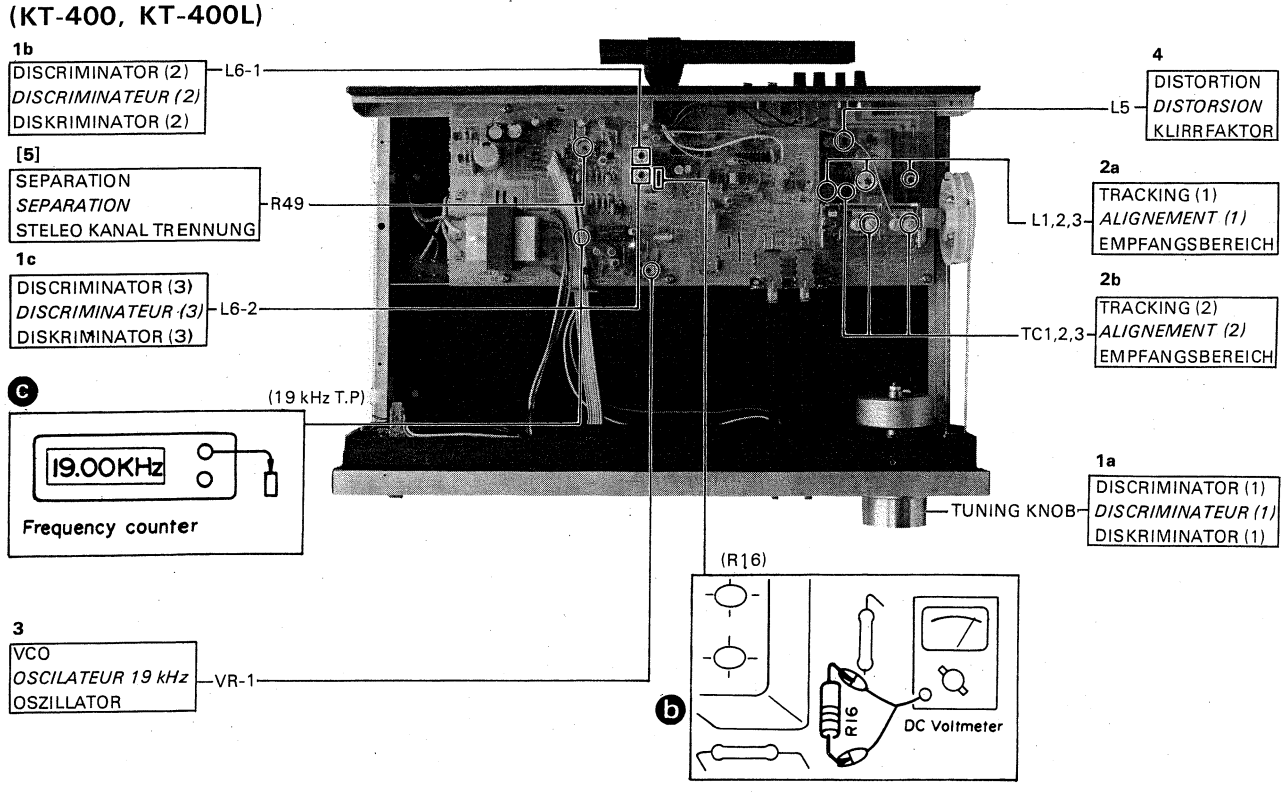


ADJUSTMENT/RÉGLAGES/ABGLEICH

TEST INSTRUMENTS	APPAREILLAGE	PRÜFINSTRUMENTE	
Oscilloscope	Oscilloscope	Oszilloskop	SCOPE
AM signal generator	Générateur MA	MW-Signalgenerator	AM-SG
FM signal generator	Générateur MF	UKW-Signalgenerator	FM-SG
Audio generator	Générateur audio fréquences	NF-Signalgenerator	AG
AC voltmeter	Voltmètre CA	Wechselspannungsmesser	
FM multiplex generator	Générateur multiplex stéréo	UKW-Multiplexgenerator	FM-MPX
Frequency counter	Compteur de fréquence	Frequenzzähler	
DC voltmeter	Voltmètre CC	Gleichspannungsmesser	
Distortion meter	Distorsiomètre	Klirrfaktormesser	
Dummy antenna	Antenne fictive	Antennennachbildung	

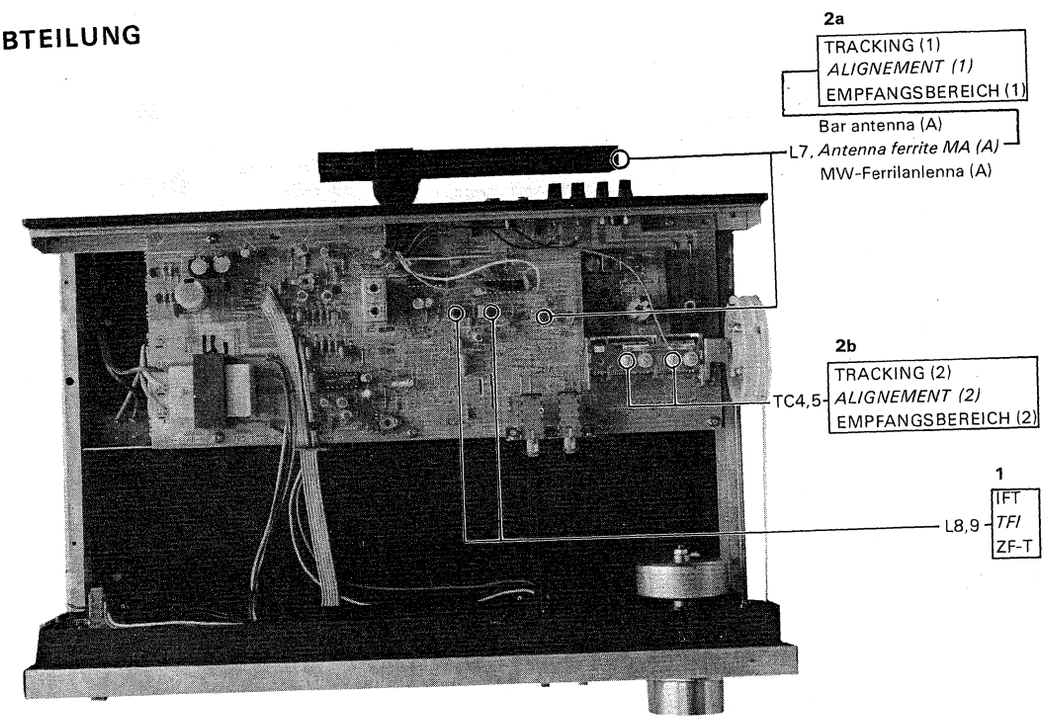


FM
SECTION MF
UKW-EMPFANGSABTEILUNG
(KT-400, KT-400L)

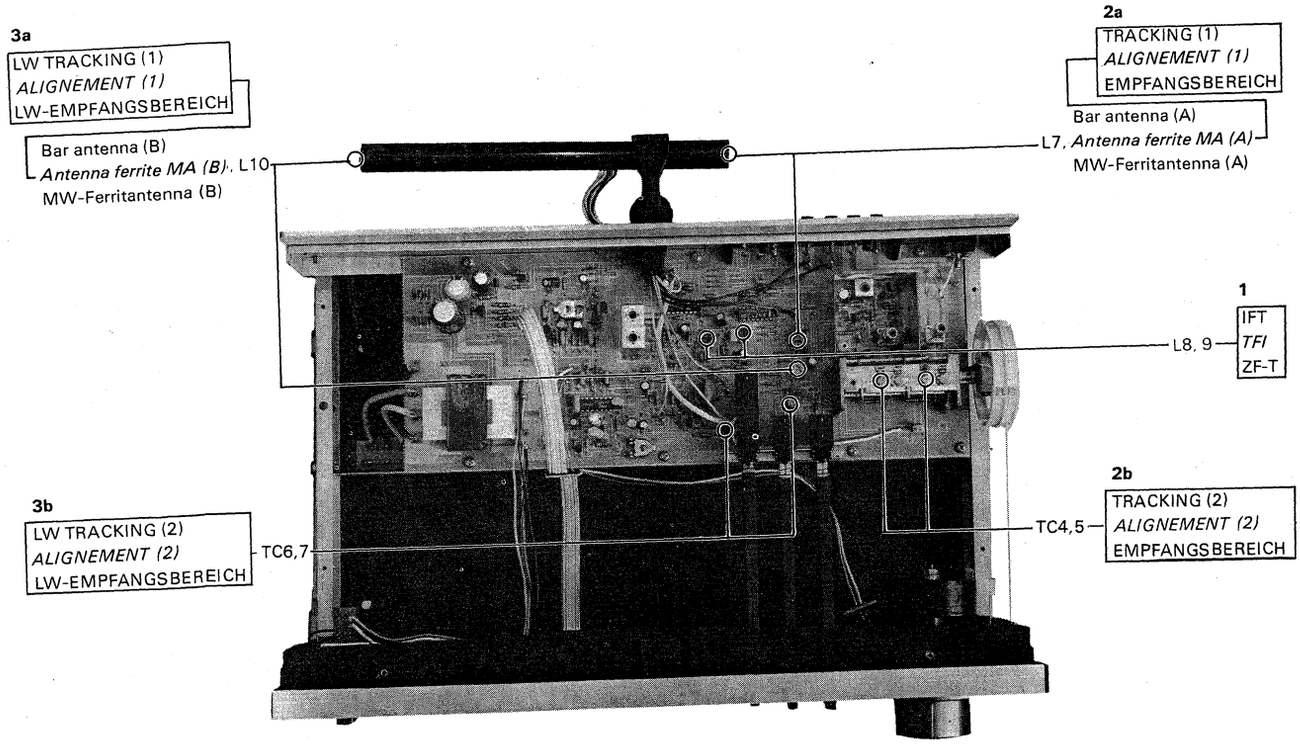


ADJUSTMENT/RÉGLAGES/ABGLEICH

AM
SECTION MA
MW-EMPFANGSABTEILUNG
(KT-400)



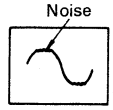
(KT-400L)



ADJUSTMENT

NO.	ALIGNMENT	TEST EQUIPMENTS		TUNER SETTING	OUTPUT INDICATOR	ADJUSTMENT POINTS	REMARKS
		CONNECTION	SETTING				
FM							
1a	DISCRIMI-NATOR (1)	Ⓐ	95 MHz 1 kHz, ±75 kHz (Dev)	FM-MONO 95 MHz	ⓐ	—	*1
1b	DISCRIMI-NATOR (2)	- do -	95 MHz 1 kHz, ±75 kHz (Dev) 60 dB (ANT input)	FM-AUTO/MUTE 95 MHz	ⓑ (R16)	L6-1	±10 mV
1c	DISCRIMI-NATOR (3)	- do -	- do -	- do -	ⓐ	L6-2	Minimum distortion
Repeat alignments "1a ~ 1c" several times.							
2a	TRACKING (1)	Ⓐ	90 MHz 1 kHz, ±75 kHz (Dev)	FM-MONO 90 MHz	ⓐ	L1,2,3	Maximum deflection
2b	TRACKING (2)	- do -	106 MHz 1 kHz, ±75 kHz (Dev)	FM-MONO 106 MHz	- do -	TC1,2,3	- do -
Repeat alignments "2a, 2b" several times.							
3	VCO	Ⓐ	95 MHz 0 (Dev) 60 dB (ANT input)	FM-AUTO/MUTE 95 MHz	ⓒ (19 kHz T.P.)	VR1	19 kHz ±50 Hz
4	DISTOR-TION	Ⓑ	95 MHz *2 1 kHz, ±68.25 kHz(Dev) SELECTOR: L+R 60 dB (ANT input)	- do -	ⓐ	L5	Minimum distortion
[5] *3	SEPARATION	- do -	95 MHz 1 kHz (Mod) 68.25 kHz (Dev, under L+R position) 60 dB (ANT INPUT) SELECTOR: L or R	- do -	- do -	R49	Minimum crosstalk
AM (KT-400, KT-400L)							
1	IFT	Ⓒ	1,000 kHz 400 Hz, 30% Mod	AM 1,000 Hz	ⓐ	L8,9	Maximum deflection
2a	TRACKING (1)	- do -	600 kHz 400 Hz, 30% Mod	AM 600 kHz	- do -	L7 Bar antenna(A)	- do -
2b	TRACKING (2)	- do -	1,400 kHz 400 Hz, 30% Mod	AM 1,400 kHz	- do -	TC4,5	- do -
Repeat alignments "2a, 2b" several times.							
AM-LW (KT-400L)							
3a	LW TRACK-ING (1)	Ⓒ	160 kHz 400 Hz, 30% Mod	AM-LW 160 kHz	ⓐ	L10 Bar antenna(B)	Maximum deflection
3b	LW TRACK-ING (2)	- do -	340 kHz 400 Hz, 30% Mod	AM-LW 340 kHz	- do -	TC6,7	- do -
Repeat alignments "3a, 3b" several times.							

*1
Adjust the tuning knob so that the same amount of noise is observed at the top and bottom of the output waveform with a weak signal.



*2
Set deviation to ±68.25 kHz with selector in L+R position.
Set deviation of pilot signal to 6.75 kHz (9%).

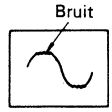
*3
For E and T.

RÉGLAGES

N°	ALIGNEMENT	APPAREILLAGE		REGLAGE DU TUNER	INDICATEUR DE SORTIE	POINTS DE RÉGLAGES	REMARQUES
		RACCORDEMENT	RÉGLAGE				
SECTION MF							
1a	DISCRIMINATEUR (1)	Ⓐ	95 MHz 1 kHz, ±75 kHz (Dév)	FM-MONO 95 MHz	ⓐ	—	*1
1b	DISCRIMINATEUR (2)	- idem -	95 MHz 1 kHz, ±75 kHz (Dév) 60 dB (Entrée ANT)	FM-AUTO/MUTE 95 MHz	ⓑ (R16)	L6-1	±10 mV
1c	DISCRIMINATEUR (3)	- idem -	- idem -	- idem -	ⓐ	L6-2	Distortion minimale
Repéter les points 1a ~ 1c plusieurs fois.							
2a	ALIGNEMENT (1)	Ⓐ	90 MHz 1 kHz, ±75 kHz (Dév)	FM-MONO 90 MHz	ⓐ	L1,2,3	Déviation maximale
2b	ALIGNEMENT (2)	- idem -	106 MHz 1 kHz, ±75 kHz (Dév)	FM-MONO 106 MHz	- idem -	TC1,2,3	- idem -
Repéter les points 2a ~ 2b plusieurs fois.							
3	OSCILATEUR 19 kHz	Ⓐ	95 MHz 0 (Dév) 60 dB	FM-AUTO/MUTE 95 MHz	ⓒ (19 kHz T.P.)	VR1	19 kHz ±50 Hz
4	DISTORSION	Ⓑ	95 MHz *2 1 kHz (Mod) ±68,25 kHz (Dév) L+R (SELECTION) 60 dB	- idem -	ⓐ	L5	Distorsion minimale
[5] *3	SEPARATION	- idem -	95 MHz 1 kHz (Mod) sur la position (L+R) 68,25 kHz (Dév) 60 dB (ENTREE ANT) L ou R	- idem -	- idem -	R49	Diaphonie minimale
SECTION MA (KT-400, KT-400L)							
1	TFI	Ⓒ	1.000 kHz 400 Hz, 30% (Mod)	AM 1.000 kHz	ⓐ	L8,9	Déviation maximale
2a	ALIGNEMENT (1)	- idem -	600 kHz 400 Hz, 30% (Mod)	AM 600 kHz	- idem -	Antenna ferrite MA (A), L7	- idem -
2b	ALIGNEMENT (2)	- idem -	1.400 kHz 400 Hz, 30% (Mod)	AM 1.400 kHz	- idem -	TC4,5	- idem -
Repéter les points 2a ~ 2b plusieurs fois.							
SECTION MA (KT-400L)							
3a	ALIGNEMENT (1)	Ⓒ	160 kHz 400 Hz, 30% (Mod)	AM-LW 160 kHz	ⓐ	Antenna ferrite MA (B), L10	Déviation maximale
3b	ALIGNEMENT (2)	- idem -	340 kHz 400 Hz, 30% (Mod)	AM-LW 340 kHz	- idem -	TC6,7	- idem -
Repéter les points 3a ~ 3b plusieurs fois.							

*1

Ajuster le bouton d'accord de façon que la même quantité du bruit puisse être observé au sommet et en bas de la forme d'onde de sortie sous des conditions d'alimentation de signal faible.



*2

Régler la déviation à ±68,25 kHz avec le sélecteur en position L+R (gauche+droite). Régler déviation du sigunal pilote à 6,75 kHz (9%).

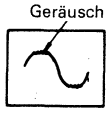
*3

Pour E et T.

ABGLEICH

NR.	ABGLEICH	PRÜFEINRICHTUNG		TUNER EINSTELLUNG	AUSGANGS-ANZEIGE	EINSTELL-PUNKT	BEMERKUNGEN
		ANSCHLÜSSE	EINSTELLUNG				
UKW-EMPFANGSABTEILUNG							
1a	DISKRIMI-NATOR (1)	Ⓐ	95 MHz 1 kHz, ±75 kHz (Hub)	FM-MONO 95 MHz	ⓐ	—	*1
1b	DISKRIMI-NATOR (2)	- dito -	95 MHz 1 kHz, ±75 kHz (Hub) 60 dB (Eingangs-signalpegel)	FM-AUTO/MUTE 95 MHz	ⓑ (R16)	L6-1	±10 mV
1c	DISKRIMI-NATOR (3)	- dito -	- dito -	- dito -	ⓐ	L6-2	Minimaler klirrfaktor
Abstimmungen "1a bis 1c" mehrere Male wiederholen.							
2a	EMPFANGS-BEREICH	Ⓐ	90 MHz 1 kHz, ±75 kHz (Hub)	FM-MONO 90 MHz	ⓐ	L1,2,3	Maximaler Ausschlag
2b	EMPFANGS-BEREICH	- dito -	106 MHz 1 kHz, ±75 kHz (Hub)	FM-MONO 106 MHz	- dito -	TC1,2,3	- dito -
Abstimmungen „2a und 2b" mehrere Male wiederholen.							
3	SPANNUNGS-GEREGELTER OSZILLATOR	Ⓐ	95 MHz 0 Hub 60 dB	FM-AUTO/MUTE 95 MHz	ⓒ (19 kHz, T.P.)	VR1	19 kHz ±50 Hz
4	KLIRR-FAKTOR	Ⓑ	95 MHz *2 1 kHz, ±68,25 kHz(Hub) Wähler: L+R 60 dB	- dito -	ⓐ	L5	Minimaler Klirrfaktor
[5] *3	STEREO KANAL TRENNUNG	- dito -	95 MHz 1 kHz, ±68,25 kHz (Hub bei L+R Stellung), 60 dB (Eingangssignalpegel) Wähler: L order R	- dito -	- dito -	R49	Minimales Übersprechen
MW-EMPFANGSABTEILUNG (KT-400, KT-400L)							
1	ZF-T	Ⓒ	1.000 kHz 400 Hz, 30% Mod	AM 1.000 kHz	ⓐ	L8,9	Maximaler Ausschlag
2a	EMPFANGS-BEREICH (1)	- dito -	600 kHz 400 Hz, 30% Mod	AM 600 kHz	- dito -	L7, MW-Ferritantenna (A)	- dito -
2b	EMPFANGS-BEREICH (2)	- dito -	1.400 kHz 400 Hz, 30% Mod	AM 1.400 kHz	- dito -	TC4,5	- dito -
Abstimmungen"2a und 2b"mehrere Male wiederholen.							
LW-EMPFANGSABTEILUNG (KT-400L)							
3a	LW-EMPFANGS-BEREICH (1)	Ⓒ	160 kHz 400 Hz, 30% Mod	AM-LW 160 kHz	ⓐ	MW-Ferrit-antenna (B) L10	Maximaler Ausschlag
3b	LW-EMPFANGS-BEREICH (2)	- dito -	340 kHz 400 Hz, 30% Mod	AM-LW 340 kHz	- dito -	TC6,7	- dito -
Abstimmungen"3a und 3b"mehrere Male wiederholen.							

*1
Den Abstimmknop so eintellen, daß an der oberen und unteren Grenze der Auspangswellenform bei schwachem Signal desselbe Geräusch auftritt.



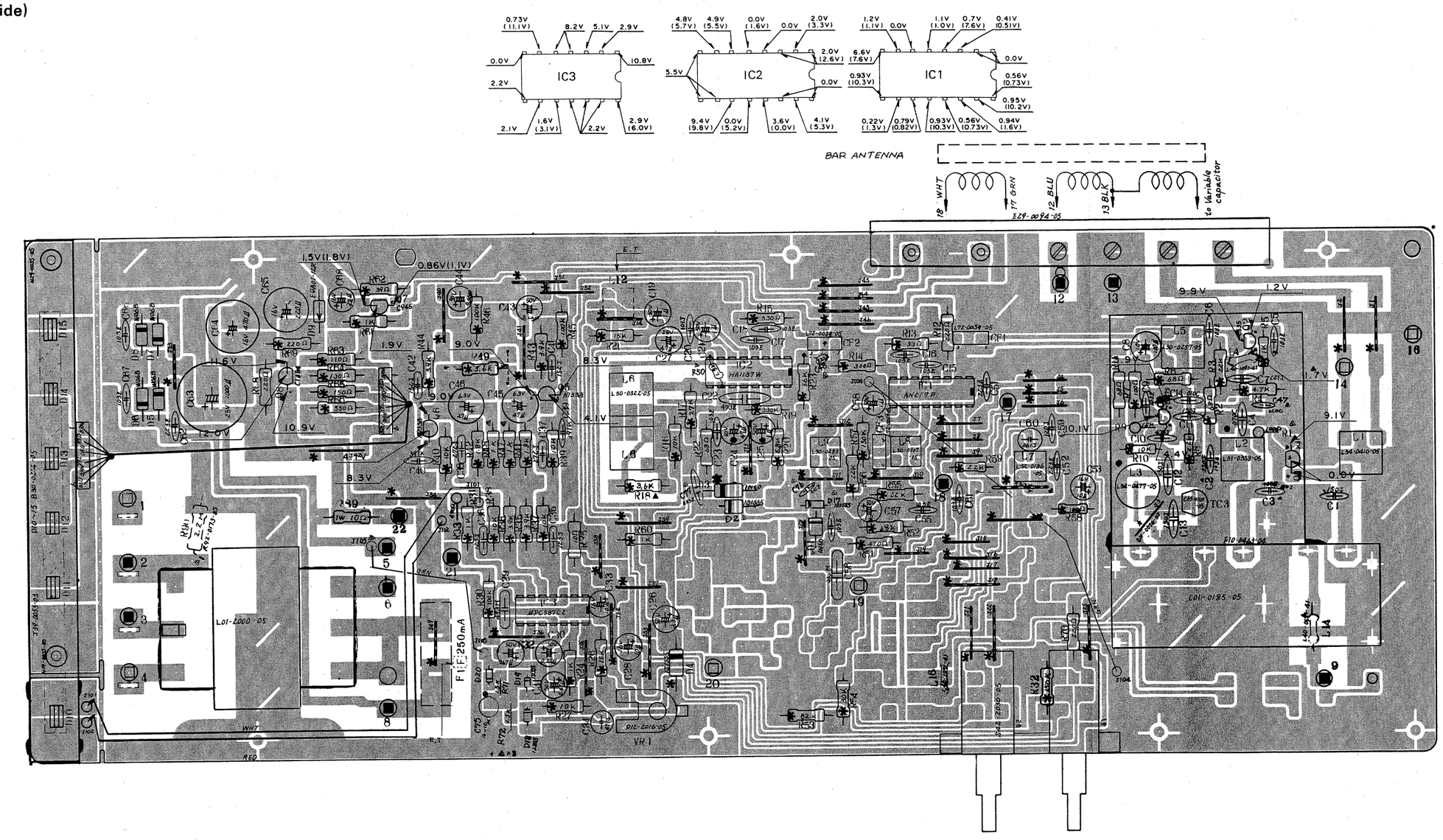
*2
Hub mit dem Wahlschalter auf L+R auf 68,25 kHz einstellen. Hub des Kontrollsignals auf 6,75 kHz (9%) einstellen.

*3
Für E und T.

KT-400(L)

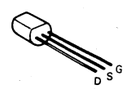
PC BOARD (KT-400)

TUNER PCB ASS'Y (X05-1760-11, 0-51, 0-81, 2-71)
(Component side)

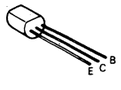


Q1	: 2SK61	D1,3	: IN60
Q2	: 2SC535 (B)	D2,4,16～20	: 1S2076
Q3	: 2SC1675	D5～8	: W06B
Q5,6	: 2SA733A (R,Q)	D9	: WZ-115
Q7	: 2SC945	D10～15	: LED (B30-0214-05)
Q8	: 2SC1384		
		IC1	: AN217P (BB)
		IC2	: HA1137W
		IC3	: μPC587C2

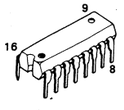
2SK61



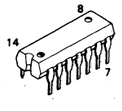
2SA733A
2SC535
2SC945
2SC1384
2SC1675



AN217
HA1137W

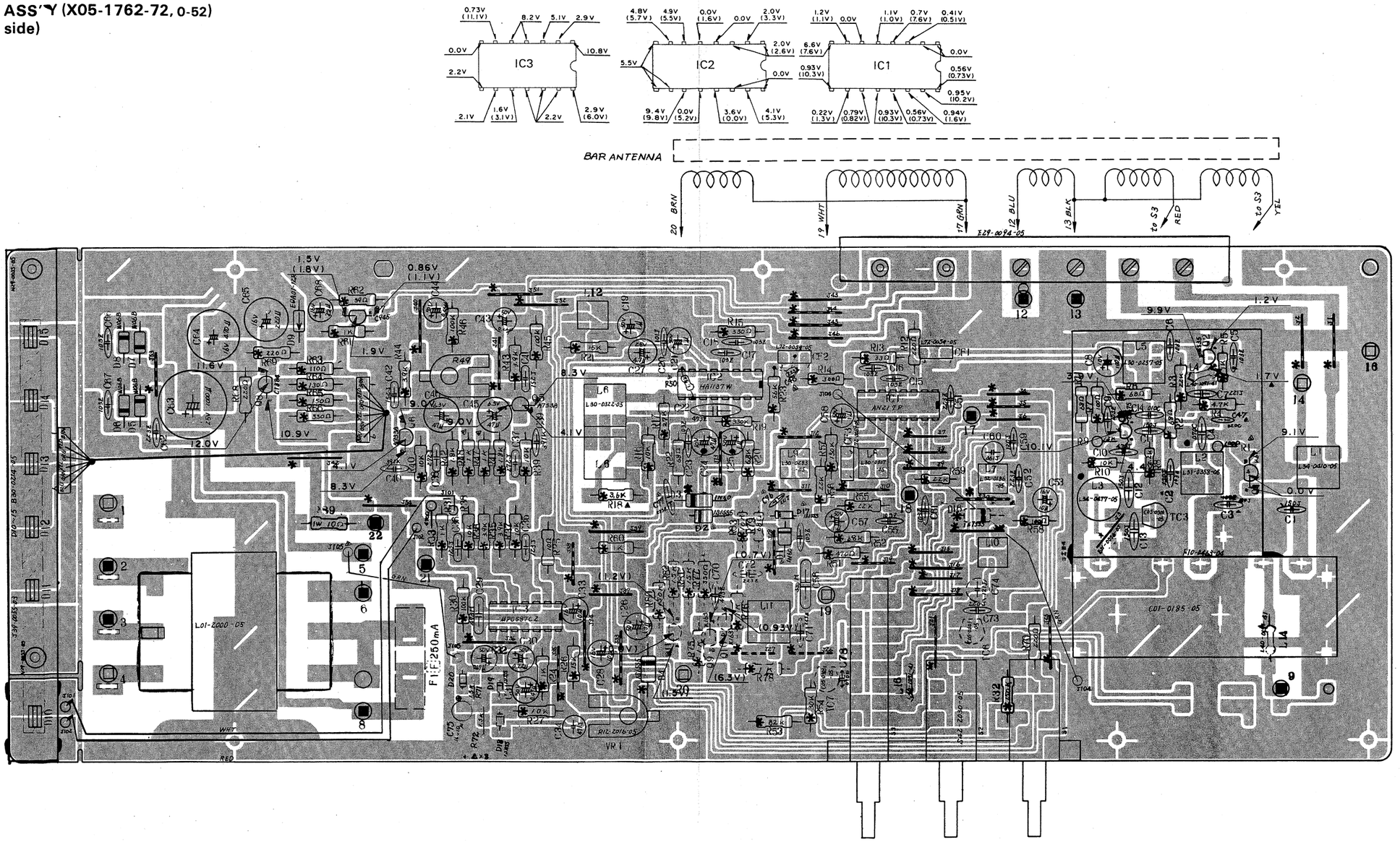


μPC587



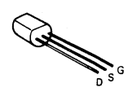
PC BOARD (KT-400L)

TUNER PCB ASS'Y (X05-1762-72, 0-52)
(Component side)

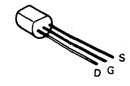


Q1	: 2SK61	D1,3	: 1N60		
Q2	: 2SC5351 (B)	D2,4,16～20	: 1S2076		
Q3	: 2SC1675	D5～8	: W06B		
Q5,6	: 2SA733A (R,Q)	D9	: WZ-115		
Q7	: 2SC945	D10～15	: LED (B30-0214-05)		
Q8	: 2SC1384				
Q9,10	: 2SK163 (K)	IC1	: AN217P (BB)		
Q11	: 2SA733A	IC2	: HA1137W		
		IC3	: μPC587C2		

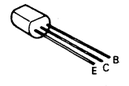
2SK61



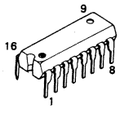
2SK163



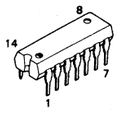
2SA733A
2SC535
2SC945
2SC1384
2SC1675



AN217
HA1137W



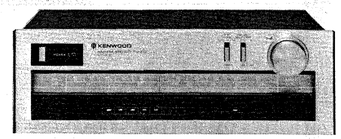
μPC587



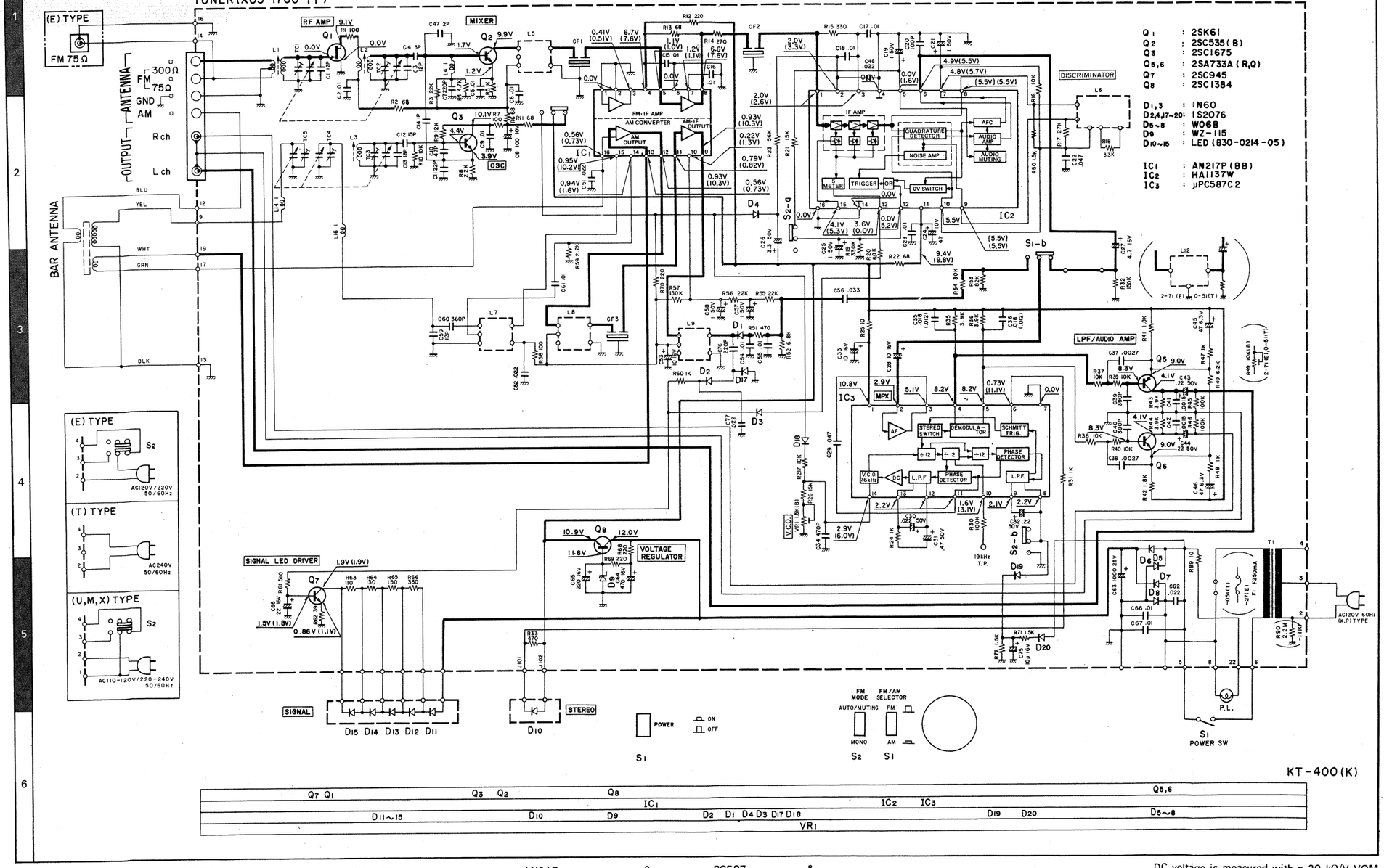
KENWOOD

AM-FM STEREO TUNER

KT-400

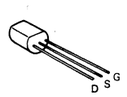


TUNER (X05-1760-11)



Q1	: 2SK61
Q2	: 2SC535(B)
Q3	: 2SC1675
Q5,6	: 2SA733A(R,Q)
Q7	: 2SC945
Q8	: 2SC1384
D1,3	: 1N60
D2,4,17~20	: 1S2076
D5~8	: W06B
D9	: WZ-115
D10~15	: LED (B30-0214-05)
IC1	: AN217P(BB)
IC2	: HA1137W
IC3	: μPC587C2

2SK61



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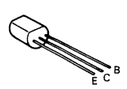
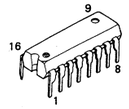
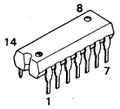
2SC535
2SC945
2SC1384
2SC1675



AN217
HA1137W



μPC587



DC voltage is measured with a 20 kΩ/V VOM
; FM STEREO 60 dB (ANT.)
( ); AM 60 dB (ANT.)

FM TUNER SECTION

Usable Sensitivity	10.8 dBf (1.9 μV)
50 dB Quieting Sensitivity	
(Mono)	17.2 dBf (4.0 μV)
(Stereo)	37.2 dBf (40 μV)
Signal to Noise Ratio	
(Mono)	71 dB
(Stereo)	68 dB
Total Harmonic Distortion	
(Mono)	0.15% at 100 Hz 0.2% at 1,000 Hz 0.35% at 6,000 Hz 0.6% at 50 Hz ~ 10,000 Hz
(Stereo)	0.3% at 100 Hz 0.3% at 1,000 Hz 0.35% at 6,000 Hz 0.6% at 50 Hz ~ 10,000 Hz
Frequency Response	30 to 15,000 Hz + 0.5 dB, −2 dB
Capture Ratio	1.5 dB
Alternate Channel Selectivity	77 dB
Spurious Response Ratio	80 dB
Image Response Ratio	47 dB
IF Response Ratio	95 dB
AM Suppression Ratio	60 dB
Stereo Separation	44 dB at 1,000 Hz 35 dB at 50 to 10,000 Hz 30 dB at 15,000 Hz
Sub Carrier Product Ratio	38 dB
Antenna Impedance	300 ohms balanced and 75 ohms unbalanced
FM Frequency Range	88 MHz to 108 MHz
Output Level (1 kHz 100% Mod.)	0.8V/3.5k ohms

AM TUNER SECTION

Usable Sensitivity	15 μV
Signal to Noise Ratio	51 dB
Image Rejection	50 dB
Total Harmonic Distortion	0.5%
Output Level (400 Hz 30% Mod.)	0.3V/3.5k ohms

GENERAL

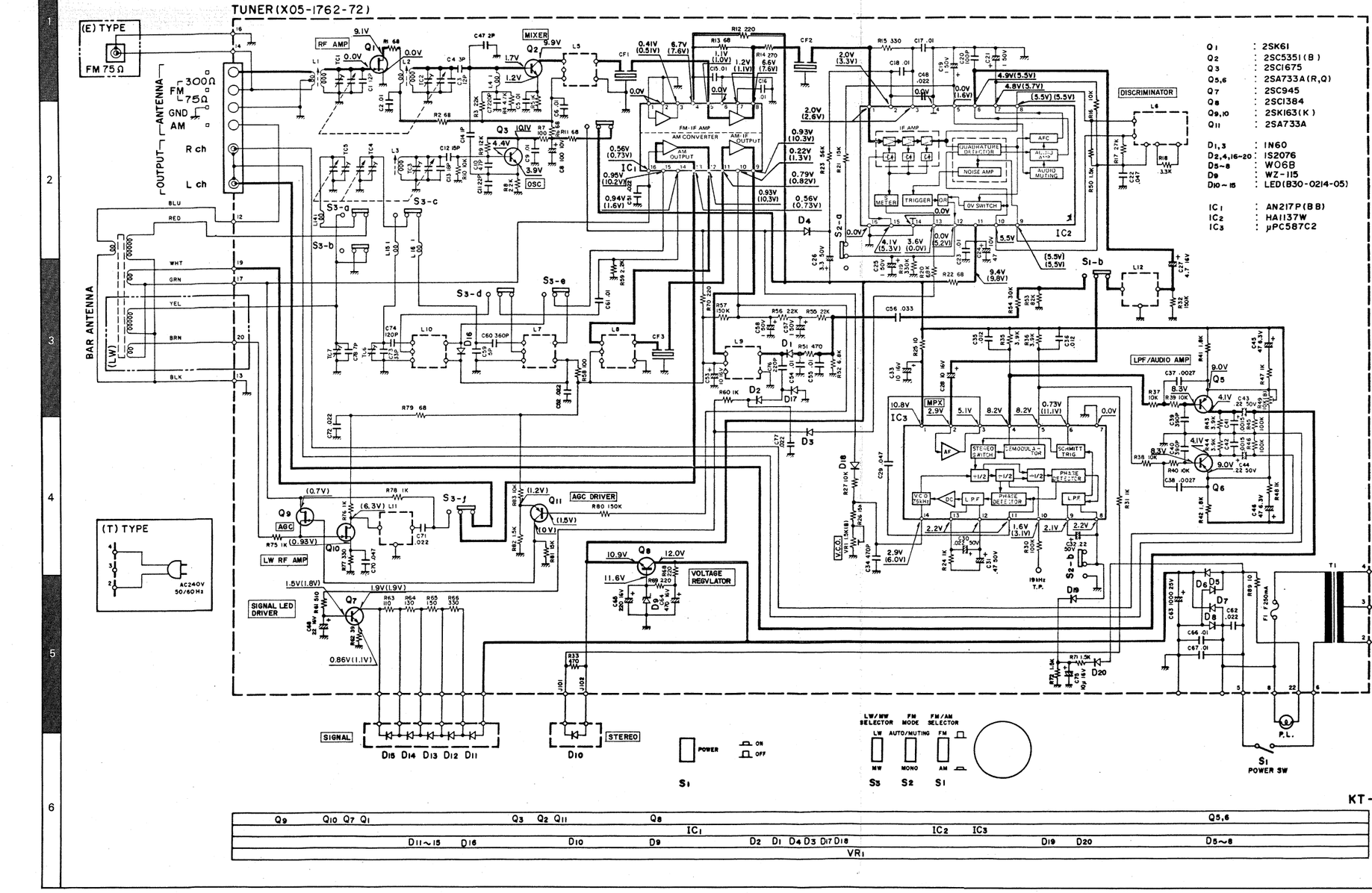
Power Consumption	8 watts
Dimensions	W: 400 mm (15-3/4") H: 138 mm (5-7/16") D: 303 mm (11-15/16")
Net Weight	3.5 kg (7.7 lb)

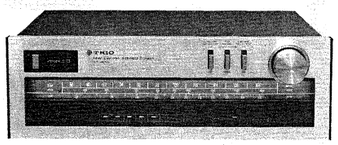
Note:
Kenwood follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

KENWOOD

MW-LW-FM STEREO TUNER

KT-400L





FM TUNER SECTION

Sensitivity at 75 ohms
- Mono: S/N 26 dB, 40 kHz Dev. ..... 0.9 μV
- Stereo: S/N 46 dB, 46 kHz Dev. ..... 25 μV

50 dB Quieting Sensitivity, Mono (IHF) ..... 2.0 μV

Limiting Level
- −3 dB Point, 40 kHz Dev. ..... 0.5 μV

Frequency Response ..... 30 Hz ~ 15 kHz +0.5 dB, −2.0 dB

Total Harmonic Distortion
- Mono: 1 kHz, 40 kHz Dev. 0.15%
- Stereo: 1 kHz, 46 kHz Dev. 0.2%

S/N Weighted (IEC-A)
- Mono: 40 kHz Dev., 1 mV Input ..... 70 dB
- Stereo: 46 kHz Dev., 1 mV Input ..... 64 dB

S/N Ratio (IHF)
- Mono: 75 kHz Dev., 1 mV Input ..... 71 dB
- Stereo: 75 kHz Dev., 1 mV Input ..... 68 dB

FM Stereo Separation: 1 mV Input (DIN)
- 250 Hz ..... 40 dB
- 1 kHz ..... 40 dB
- 6.3 kHz ..... 38 dB
- 12.5 kHz ..... 30 dB

Image Rejection Ratio ..... 47 dB

Selectivity
- 300 kHz, 20 dB Input ..... 70 dB

IF Rejection Ratio ..... 95 dB

AM Suppression Ratio ..... 60 dB

Spurious Response Ratio ..... 80 dB

Capture Ratio ..... 1.5 dB

Pilot Tone 19 kHz ..... 31 dB

AM TUNER SECTION

Sensitivity S/N 20 dB ..... 15 μV

S/N Ratio: 1 mV Input ..... 51 dB

Image Rejection Ratio ..... 50 dB

LW TUNER SECTION

Sensitivity S/N 20 dB ..... 18 μV

S/N Ratio: 1 mV Input ..... 48 dB

Image Rejection Ratio ..... 70 dB

GENERAL

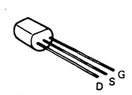
Power Consumption 8W

Dimensions ..... W: 400 mm, H: 138 mm, D: 303 mm

Weight (Net) ..... 3.5 kg

Note:
Kenwood follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

2SK61



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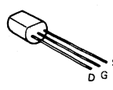

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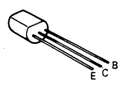
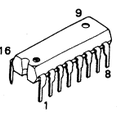
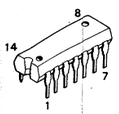
2SC535
2SC945
2SC1384
2SC1675



AN217
HA1137W



μPC587



DC voltage is measured with a 20 kΩ/V VOM
; FM STEREO 60 dB (ANT.)
( ); AM 60 dB (ANT.)

PARTS LIST

See instructions at the end of the parts list.

Ref. No. 参照番号	Parts No. 部品番号	Description 部品名／規格	Remarks 備考
UNIT			
1 2B,3B	-	METALLIC FRAME	
2 1B	-	REAR PANEL	
3 3A	-	BOTTOM PLATE	
4 2B	-	MOUNTING HARDWARE	
5 2B	-	SUB PANEL	
-	351-0009-04	FIBER STICK AND STRING	*
11 1A	A01-0368-03	METALLIC CABINET	*
12 2A	A20-1568-02	FRONT PANEL	*K
12 2A	A20-1568-02	FRONT PANEL	PU
12 2A	A20-1568-02	FRONT PANEL	MX
12 2A	A20-1568-02	FRONT PANEL < >	E
12 2A	A20-1569-02	FRONT PANEL <L>	*E
12 2A	A20-1570-02	FRONT PANEL < >	*T
12 2A	A20-1571-02	FRONT PANEL <L>	*T
-	B41-0219-04	CAUTION LABEL	K
-	B46-0055-20	WARRANTY CARD	P
-	B46-0060-00	WARRANTY CARD	T
-	B46-0061-20	WARRANTY CARD	K
-	B46-0062-20	WARRANTY CARD	U
-	B46-0063-00	WARRANTY CARD	U
-	B46-0064-10	WARRANTY CARD	X
-	B50-3089-00	INSTRUCTION MANUAL	*K
-	B50-3089-00	INSTRUCTION MANUAL	U
-	B50-3090-00	INSTRUCTION MANUAL	*P
-	B50-3090-00	INSTRUCTION MANUAL	MX
-	B50-3091-00	INSTRUCTION MANUAL < >	*E
-	B50-3092-00	INSTRUCTION MANUAL <L>	*E
-	B50-3093-00	INSTRUCTION MANUAL	*T
-	B50-3094-00	INSTRUCTION MANUAL <L>	*T
-	B59-0018-00	INSTRUCTION PRINT	U
13 1A	B03-0145-04	DRESSING PLATE	*
14 2A	B10-0262-03	FRONT GLASS	*
15 1A	B20-0459-03	DIAL CALIBRATION < >	*
15 1A	B20-0460-03	DIAL CALIBRATION <L>	*E
15 1A	B20-0460-03	DIAL CALIBRATION <L>	T
16 2A	B21-0040-03	DIAL POINTER	*
17 1B	B30-0215-05	LAMP	*
C1	C55-1710-38	CERAMIC 0.01UF Z	
18 3B	D15-0171-13	PULLEY (1)	
19 2A,2B	D15-0172-04	PULLEY (2)	
20 2B	D20-0153-03	DIAL SHAFT	*
-	E30-0505-05	AUDIO CORD	
21 1B	E04-0004-05	RECEPTACLE (FM)	ET
22 1B	E30-0181-05	POWER CORD	KP
22 1B	E30-0185-05	POWER CORD	X
22 1B	E30-0459-05	POWER CORD	E
22 1B	E30-0545-05	POWER CORD	UM
22 1B	E30-0587-05	POWER CORD	T
23 3B	G01-0045-24	COILED SPRING	
-	H01-3104-04	CARTON BOX < >	*T
-	H01-3106-04	CARTON BOX	*K
-	H01-3106-04	CARTON BOX	UM
-	H01-3106-04	CARTON BOX	X
-	H01-3107-04	CARTON BOX	*P
-	H01-3108-04	CARTON BOX < >	*E
-	H01-3109-04	CARTON BOX <L>	*E
-	H01-3110-04	CARTON BOX <L>	*T
-	H10-1544-02	POLYSTYRENE FIXTURE	*
-	H20-0417-04	COVER	
-	H25-0078-04	BAG 235X315	
-	H25-0148-04	BAG 110X230	
24 3A	J02-0088-05	FOOT	K
24 3A	J02-0089-05	FOOT	PU
24 3A	J02-0089-05	FOOT	MX
24 3A	J02-0089-05	FOOT	ET
25 1B	J19-0507-05	BAR ANTENNA HOLDER	
26 1B	J41-0024-15	BUSHING	X
26 1B	J41-0033-05	BUSHING	ET
26 1B	J41-0034-05	BUSHING	KP
26 1B	J41-0034-05	BUSHING	UM
27 2A	K27-0118-04	KNOB (POWER)	*
28 3A	K27-0119-04	KNOB (MODE,SEL,)	*
29 2A	K29-0330-04	KNOB (TUNING)	*
-	L40-1091-41	INDUCTOR <L>	ET
30 2A,2B	N09-0293-05	SCREW (M2.6X14)	
31 2B	S31-2050-05	SLIDE SWITCH (P.V.SEL)	UM
31 2B	S31-2050-05	SLIDE SWITCH (P.V.SEL)	XE
32 1B	S40-2106-05	PUSH SWITCH(POWER)	
-	T90-0202-05	FM ANTENNA	
33 1B	T90-0102-05	AM BAR ANTENNA < >	*
33 1B	T90-0103-05	LW BAR ANTENNA <L>	*
34 1B,2B	X05-1760-11	TUNER PCB ASSY	*K
34 1B,2B	X05-1760-11	TUNER PCB ASSY	P
34 1B,2B	X05-1760-51	TUNER PCB ASSY < >	*T
34 1B,2B	X05-1760-52	TUNER PCB ASSY <L>	*T
34 1B,2B	X05-1760-81	TUNER PCB ASSY	*U
34 1B,2B	X05-1760-81	TUNER PCB ASSY	MX
34 1B,2B	X05-1762-71	TUNER PCB ASSY < >	*E
34 1B,2B	X05-1762-72	TUNER PCB ASSY <L>	*E
TUNER(X05-176)			
D10 -15	B30-0214-05	LED (RED)	*
C1	C71-1712-05	CERAMIC 12PF J	
C2	C55-1710-38	CERAMIC 0.01UF Z	
C3	C71-1712-05	CERAMIC 12PF J	
C4	C71-1703-01	CERAMIC 3PF C	
C5 ,6	C55-1710-38	CERAMIC 0.01UF Z	
C7	C71-1722-15	CERAMIC 220PF J	
C8	C24-1010-71	ELECTRO 100UF 10WV	
C9	C55-1710-38	CERAMIC 0.01UF Z	
C10	C66-1747-05	CERAMIC 47PF J	
C11	C66-1722-05	CERAMIC 22PF J	
C12	C60-1715-05	CERAMIC 15PF J	
C13	C61-1715-05	CERAMIC 15RF J	
C14	C67-1701-01	CERAMIC 1PF C	
C15 -18	C55-1710-38	CERAMIC 0.01UF Z	
C19	C24-1710-51	ELECTRO 1UF 50WV	
C20	C71-1710-15	CERAMIC 100PF J	
C21	C24-1710-51	ELECTRO 1UF 50WV	
C22	C55-1747-38	CERAMIC 0.047UF Z	
C23	C55-1710-38	CERAMIC 0.01UF Z	
C24	C24-1047-61	ELECTRO 47UF 10WV	
C25	C24-1710-51	ELECTRO 1UF 50WV	
C26	C24-1733-51	ELECTRO 3.3UF 50WV	
C27	C24-1447-51	ELECTRO 4.7UF 25WV	
C28	C24-1210-61	ELECTRO 10UF 16WV	
C29	C46-1747-35	MYLAR 0.047UF M	

Symbol < > is in use only for "KT-400", <L> is only for "KT-400 (L)", others are for both "KT-400" & "KT-400 (L)".

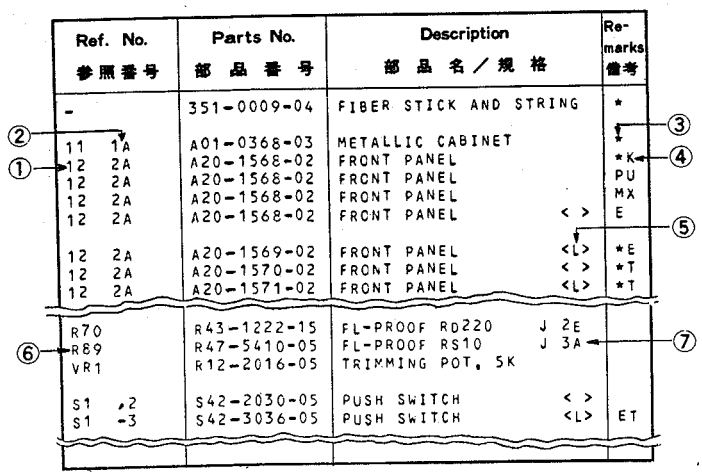
KT-400(L)

PARTS LIST

Ref. No. 参照番号	Parts No. 部品番号	Description 部品名／規格	Remarks 備考
C30	C25-1722-47	LL-ELEC 0.22UF 50WV	
C31	C25-1747-47	LL-ELEC 0.47UF 50WV	
C32	C24-1710-51	ELECTRO 1UF 50WV	
C33	C24-1210-61	ELECTRO 10UF 16WV	
C34	C47-1747-15	POLYSTY 470PF J	
C35 ,36	C46-1712-35	MYLAR 0.012UF J	ET
C35 ,36	C46-1718-35	MYLAR 0.018UF J	KP
C35 ,36	C46-1718-35	MYLAR 0.018UF J	UM
C35 ,36	C46-1718-35	MYLAR 0.018UF J	X
C37 ,38	C46-1727-25	MYLAR 0.0027UF J	
C39 ,40	C52-1739-16	CERAMIC 390PF K	
C41 ,42	C46-1715-25	MYLAR 0.0015UF J	
C43 ,44	C25-1722-47	LL-ELEC 0.22UF 50WV	
C45 ,46	C24-0847-61	ELECTRO 47UF 6.3WV	
C51 ,52	C55-1722-38	CERAMIC 0.022UF Z	
C53	C24-1210-61	ELECTRO 10UF 16WV	
C54 ,55	C55-1710-38	CERAMIC 0.01UF Z	
C56	C46-1733-35	MYLAR 0.033UF M	
C57 ,58	C24-1710-51	ELECTRO 1UF 50WV	
C59	C71-1705-01	CERAMIC 5PF C <L>	ET
C59	C71-1712-05	CERAMIC 12PF J < >	
C60	C48-1736-15	POLYSTY 360PF J	
C61	C55-1710-38	CERAMIC 0.01UF Z	
C62	C55-1722-38	CERAMIC 0.022UF Z	
C63	C24-1410-81	ELECTRO 1000UF 25WV	
C64	C24-1247-71	ELECTRO 470UF 16WV	
C65	C24-1222-71	ELECTRO 220UF 16WV	
C66 ,67	C55-1710-38	CERAMIC 0.01UF Z	
C68	C24-1222-61	ELECTRO 22UF 16WV	
C70	C55-1747-38	CERAMIC 0.047UF Z	
C71 ,72	C55-1722-38	CERAMIC 0.022UF Z <L>	ET
C73	C71-1722-05	CERAMIC 22PF J < >	
C73	C71-1733-05	CERAMIC 33PF J <L>	ET
C74	C47-1712-15	POLYSTY 120PF J	
C78	C71-1707-02	CERAMIC 7PF D <L>	ET
TC3	C05-0301-05	TRIMMER CAP. 6PF	*
TC6 ,7	C05-0303-05	TRIMMER CAP. 20PF <L>	ET
VC	C01-0221-05	VARIABLE CAPACITOR	*
-	E29-0094-05	TERMINAL BORAD	
-	F05-2515-05	FUSE 0.25A	ET
-	J13-0054-05	FUSE HOLDER	ET
CF1 ,2	L72-0059-05	CERAMIC FILTER (FM)	KP
CF1 ,2	L72-0059-05	CERAMIC FILTER (FM)	UM
CF1 ,2	L72-0059-05	CERAMIC FILTER (FM)	X
CF1 ,2	L72-0074-05	CERAMIC FILTER (FM)	ET
CF3	L72-0069-05	CERAMIC FILTER (AM)	
L1	L31-0361-05	RF COIL (FM)	
L2	L31-0449-05	RF COIL (FM)	*
L3	L32-0187-05	OSC COIL (FM)	
L4	L40-1091-41	INDUCTOR	
L5	L30-0257-05	IFT (FM)	
L6	L30-0322-05	IFT (FM)	
L7	L32-0186-05	OSC COIL (AM-MW)	
L8	L30-0307-05	IFT (AM)	
L9	L30-0283-05	IFT (AM)	
L10	L32-0237-05	OSC COIL (AM-LW) <L>	*E
L10	L32-0237-05	OSC COIL (AM-LW) <L>	T
L11	L79-0119-05	FILTER (LW) <L>	*E
L11	L79-0119-05	FILTER (LW) <L>	T
L12	L79-0123-05	FILTER	ET
L14	L40-1091-41	INDUCTOR	
L15	L40-1091-41	INDUCTOR <L>	ET
L16	L40-1091-41	INDUCTOR	
T1	L01-2001-05	POWER TRANSFORMER	*K
T1	L01-2001-05	POWER TRANSFORMER	P
T1	L01-2007-05	POWER TRANSFORMER	*U
T1	L01-2007-05	POWER TRANSFORMER	MX
T1	L01-2007-05	POWER TRANSFORMER	T
T1	L01-2008-05	POWER TRANSFORMER	*E
R11	R43-1268-05	FL-PROOF RD68 J 2E	
R12	R43-1222-15	FL-PROOF RD220 J 2E	
R22	R43-1268-05	FL-PROOF RD68 J 2E	
R25	R43-1210-05	FL-PROOF RD10 J 2E	
R49	R12-3030-05	TRIMMING POT. 10K	ET
R70	R43-1222-15	FL-PROOF RD220 J 2E	
R89	R47-5410-05	FL-PROOF RS10 J 3A	
VR1	R12-2016-05	TRIMMING POT. 5K	
S1 ,2	S42-2030-05	PUSH SWITCH < >	
S1 -3	S42-3036-05	PUSH SWITCH <L>	ET
D1	V11-0051-05	1N60	
D2	V11-0271-05	1S2076	
D3	V11-0051-05	1N60	
D4	V11-0271-05	1S2076	
D5 -8	V11-0295-05	W06B	
D9	V11-0387-05	EQA01-12(R)	
D16	V11-0271-05	1S2076 <L>	ET
D17	V11-0051-05	1N60	
D18 -20	V11-0271-05	1S2076	
IC1	V30-0270-20	AN217P(BB)	
IC2	V30-0133-05	HA1137W	
IC3	V30-0434-10	UPC587C2	
Q1	V09-0124-10	2SK61	
Q2	V03-0098-05	2SC535(B)	
Q3	V03-1675-00	2SC1675	*
Q5 ,6	V01-0733-30	2SA733(A)(R,Q)	
Q7	V03-0297-05	2SC945	
Q8	V03-1384-20	2SC1384	*
Q9 ,10	V09-0144-90	2SK163(K) <L>	ET
Q11	V01-0733-90	2SA733(A) <L>	ET

PARTS LIST

INSTRUCTION FOR PARTS LIST



Ref. No. 参照番号	Parts No. 部品番号	Description 部品名／規格	Re-marks 備考
-	351-0009-04	FIBER STICK AND STRING	*
11 1A	A01-0368-03	METALLIC CABINET	
12 2A	A20-1568-02	FRONT PANEL	*K
12 2A	A20-1568-02	FRONT PANEL	PU
12 2A	A20-1568-02	FRONT PANEL	MX
12 2A	A20-1568-02	FRONT PANEL < >	E
12 2A	A20-1569-02	FRONT PANEL <L>	*E
12 2A	A20-1570-02	FRONT PANEL < >	*T
12 2A	A20-1571-02	FRONT PANEL <L>	*T
R70	R43-1222-15	FL-PROOF RD220 J 2E	
R89	R47-5410-05	FL-PROOF RS10 J 3A	
VR1	R12-2016-05	TRIMMING POT, 5K	
S1 ,2	S42-2030-05	PUSH SWITCH < >	
S1 -3	S42-3036-05	PUSH SWITCH <L>	ET

① Exploded view drawing No.
② Position in exploded view.
③ Symbol of new parts.
④ Area to which parts are shipped. Example: A20-1568-02 is the parts No. of FRONT PANEL ASS'Y for the "K" type products (for USA).
When this column is blank, it means that the same type of parts (same parts No.) are used for the products shipped to all areas.
⑤ < > is in use for "KT-400", <L> for "KT-400L (E, T)".
⑥ Reference No. in schematic diagram.
⑦ Abbreviation of "Flame proof metal oxide film resistor". All capacitors and resistors are listed using abbreviations.
⑧ Abbreviations

* Abbreviations of capacitors (Parts No. with initial letter "C").

ELECTRO	Electrolytic capacitor
LL-ELEC	Low leak electrolytic capacitor
NP-ELEC	Non-pole electrolytic capacitor
MICA	Mica capacitor
POLYSTY	Polystyrene capacitor
MYLAR	Mylar capacitor
CERAMIC	Ceramic capacitor
TANTAL	Tantalum capacitor
MF	Metallized film capacitor
OIL	Oil capacitor

The unit "UF" is used in lieu of "μF".

* Abbreviations of resistors (Parts No. with initial letters "R").

RC	Carbon composition resistor	
RD	Carbon film resistor	
FL-PROOF RD	Flame-proof carbon film resistor	
RW	Wire wound power resistor	
FL-PROOF RS	Flame-proof metal oxide film resistor	
RN	Metal film resistor	
2B	Rated wattage	1/8W
2E	Rated wattage	1/4W
2H	Rated wattage	1/2W
3A	Rated wattage	1W
3D	Rated wattage	2W
3F	Rated wattage	3W
3G	Rated wattage	4W
3H	Rated wattage	5W

All resistor values are indicated with the unit (Ω) omitted.

* Abbreviations common to capacitors and resistors.

C	±0.25pF (Used for capacitors only)
D	±0.5pF (Used for capacitors only)
F	±1%
G	±2%
J	±5%
K	±10%
M	±20%
Z	+80%, −20% (Used for capacitors only)
P	+100%, −0% (Used for capacitors only)

⑨ Resistors RD (carbon composition resistors) are not listed in the parts list. For values, refer to the schematic diagram.