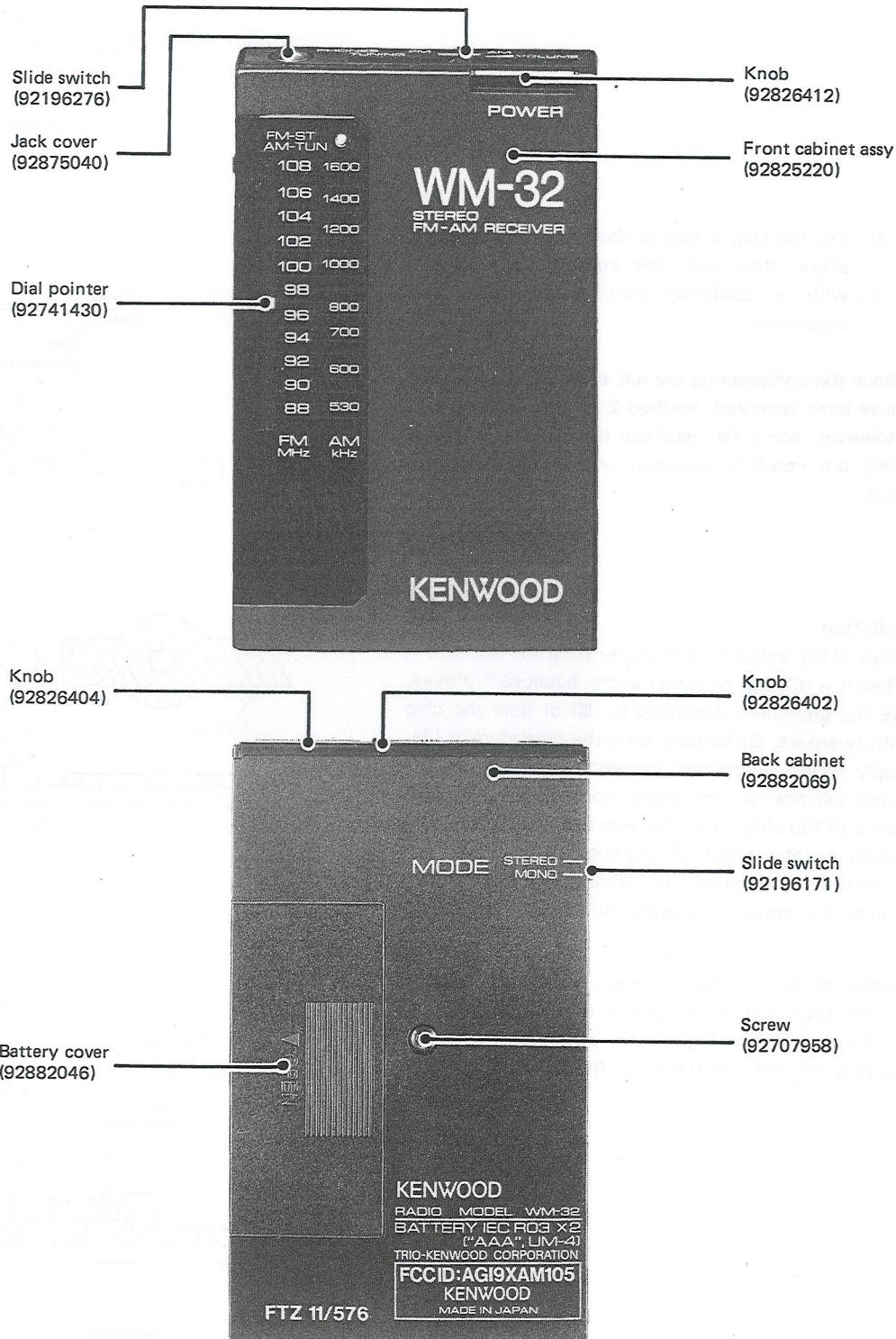


# SERVICE MANUAL

# KENWOOD

# WM-32

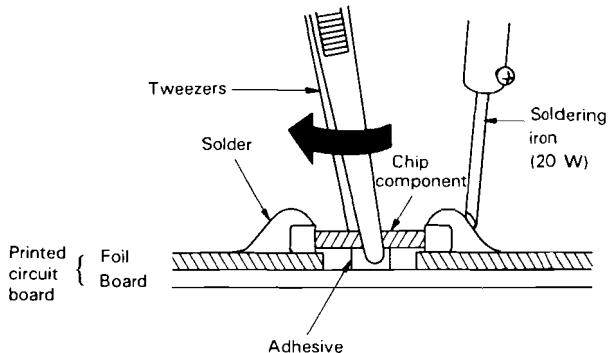
## STEREO FM-AM RECEIVER



## NOTES

### 1. Removal method

- (Method 1)** Grip the chip at the center with tweezers. Apply force to rotate it to the right or left while heating the soldered connections of both ends alternately.

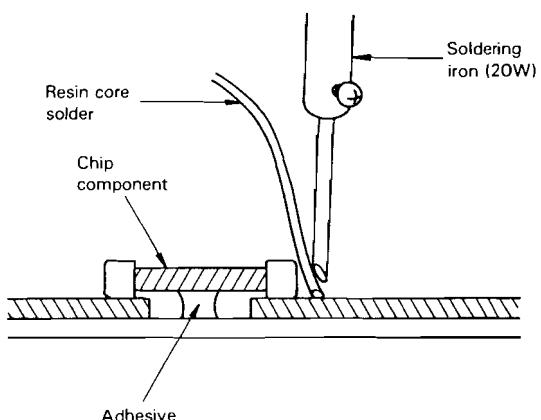
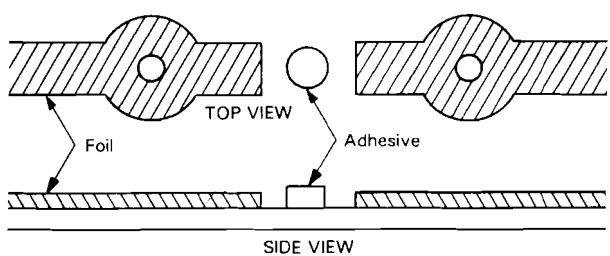
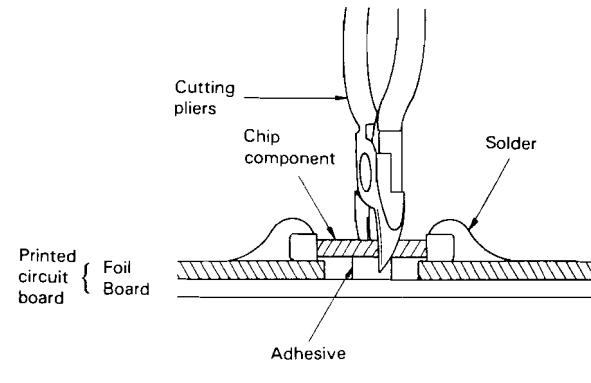


- (Method 2)** Cut the chip in two at the center with cutting pliers, then melt the soldered connections with a soldering iron and remove the fragments.

**Note:** Since the components are not to be used once they have been removed, method 2 is more convenient. However, some flat package ICs can be reused if they are carefully removed without breaking the pins.

### 2. Installation

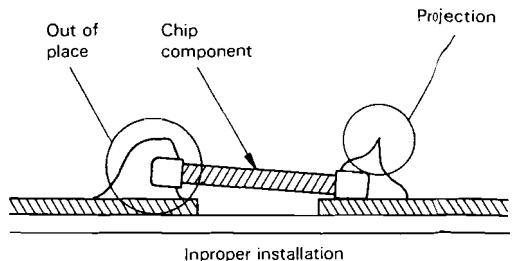
- (I) Clean all the adhesive and solder from the surface.
- (II) When it is difficult to solder a chip because it moves, use the procedure described in (III) or hold the chip with tweezers. Otherwise, omit the procedure in (III).
- (III) Apply adhesive (contact cement or the like) to the board surface at the point corresponding to the center of the chip. The thickness of the adhesive coat should be about 0.1 to 0.2 mm so that it is not squeezed out when the chip is mounted. Put the new chip on the pattern and wait until the cement sets.
- (IV) Quickly solder the chip as shown in the figure below. Do not apply the soldering iron directly to the electrodes of the chip. Place resin core solder between the chip terminal and the tip of the iron.



## NOTES/DIAL CORD STRINGING

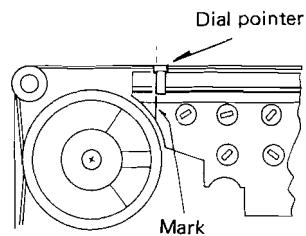
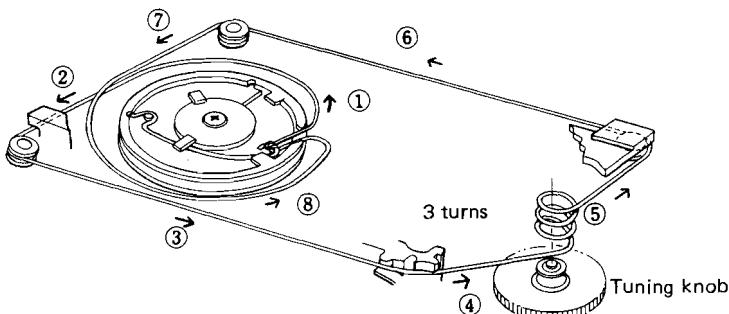
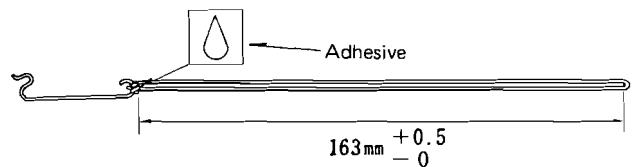
(V) Confirm the following points.

- (1) Ensure that the electrodes of the chip are in contact with the foil.
- (2) Ensure that there are no solder projections.  
Projections may come in contact with the aluminum case, etc., resulting in a short.



### DIAL CORD STRINGING

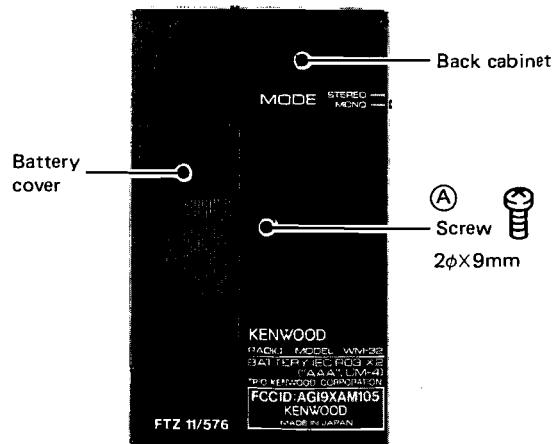
1. Tie the end of the dial cord to the spring and fix it with adhesive.
2. Dress the dial cord in the direction ① through ④.
3. Wind the dial cord to the turning knob three turns around the dial pulley counterclockwise.
4. Dress the dial cord ⑤ through ⑧.
5. Turn the tuning knob counterclockwise until it stops.
6. Align the top of the pointer to the center of the mark, then fix it with adhesive.



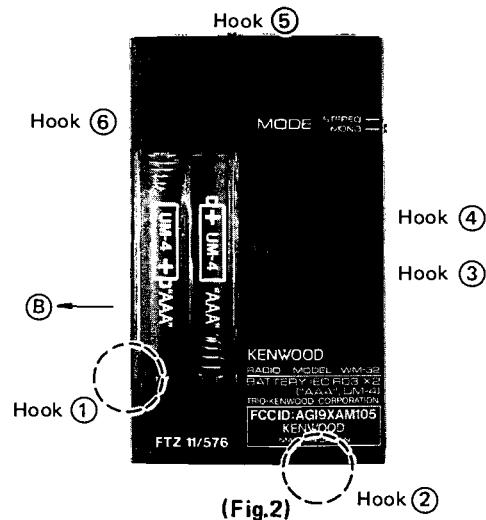
# DISASSEMBLY FOR REPAIR

## REMOVING THE BACK CABINET

1. Remove the battery cover.
  2. Remove a screw **(A)** securing the back cabinet. (Fig. 1)
  3. Back cabinet is fixed to front cabinet with hooks at six points. Detach it in following order. (Fig. 2)
    - a. Remove hooks **①** and **②** by opening the portion **(B)** in the arrow direction.
    - b. Remove the back cabinet to detach the P.C. board.
- Note:** When assembling, make certain the contact spring wire contacts the front cabinet. (Fig. 3)

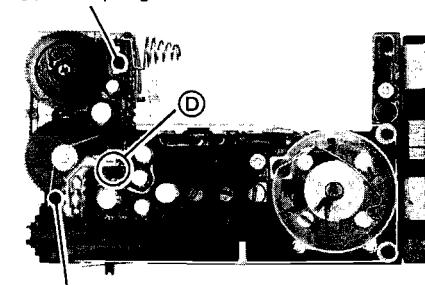


(Fig.1)

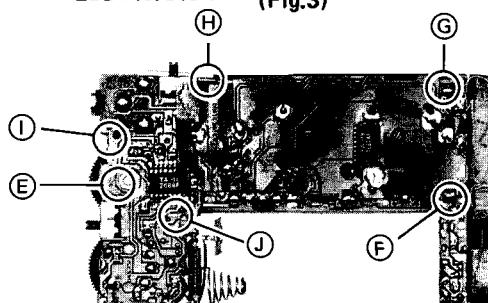


(Fig.2)

Contact spring wire



(Fig.3)



(Fig.4)

## HOW TO OPEN THE CHASSIS FRAME

1. Take off the dial cord.
2. Unsolder the portion **(D)** to remove the P.C. board. (Fig. 3)
3. Remove the nut **(E)**. (Fig. 4)
4. Remove the hook **(F)**. (Fig. 4)
5. Remove the hooks **(G)** and **(H)** to open the chassis frame.

**Note:** When mounting chassis frame on P.C. board, make sure the dowels **(I)** and **(J)** get into the opening of the P.C. board.

## ADJUSTMENT

NO.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
<b>FM SECTION</b>		Unless otherwise specified the individual switches should be set as follows: MODE : STEREO					
1	IF	Sweep generator: 10.7 MHz Connect a loop antenna ( $\phi$ 10 cm) to RF OUT terminal and place it near L003.	Connect TP2 and V terminal of oscil- loscope. Connect H OUT of sweep gene- rator and H terminal of oscilloscope.	Near lowest frequency where noise is absent	T104	Turn T103 counterclockwise and detune	(a)
					T101	Maximum amplitude	
					T104	Symmetry of the oscilloscope display	
2	TRACKING (1)	(A) 87.5 MHz 1 kHz $\pm$ 75 kHz dev 60 dB (ANT input)	(B)	87.5 MHz (Lowest frequency)	L002	Maximum amplitude	
3	TRACKING (2)	(A) 108.0 MHz 1 kHz $\pm$ 75 kHz dev 60 dB (ANT input)	(B)	108.0 MHz (Highest frequency)	C004	Maximum amplitude	
Repeat alignments 2 and 3 several times.							
4	TRACKING (3)	(A) 90.0 MHz 1 kHz $\pm$ 75 kHz dev 60 dB (ANT input)	(B)	90.0 MHz	L001	Maximum amplitude	
5	TRACKING (4)	(A) 106.0 MHz 1 kHz $\pm$ 75 kHz dev 60 dB (ANT input)	(B)	106.0 MHz	C003	Maximum amplitude	
Repeat alignments 4 and 5 several times.							
6	VCO	(A) 98.0 MHz 0 dev 60 dB (ANT input)	Connect a frequency counter to TP3 via the filter (150k $\Omega$ and 1000 pF) and an AC voltmeter.	98.0 MHz	R204	76.00 kHz	(b)
<b>AM SECTION</b>							
(1)	IF	(D) Sweep generator: 455kHz Connect a loop antenna ( $\phi$ 10 cm) to RF OUT terminal and place it near L101.	Connect TP2 and V terminal of oscil- loscope. Connect H OUT of sweep generator and H ter- minal of oscilloscope.	Near highest frequency where noise is absent	T103 T105	Maximum amplitude	(c)
(2)	RF ALIGNMENT (1)	(A) 520 kHz 400 Hz, 30% mod	(B)	520 kHz (Lowest frequency)	L102	Maximum amplitude	
(3)	RF ALIGNMENT (2)	(A) 1650 kHz 400 Hz, 30% mod	(B)	1650 kHz (Highest frequency)	C104	Maximum amplitude	
Repeat alignments (2) and (3) several times.							
(4)	RF ALIGNMENT (3)	(A) 600 kHz 400 Hz, 30% mod	(B)	600 kHz	L101	Maximum amplitude	
(5)	RF ALIGNMENT (4)	(A) 1400 kHz 400 Hz, 30% mod	(B)	1400 kHz	C103	Maximum amplitude	
Repeat alignments (4) and (5) several times.							

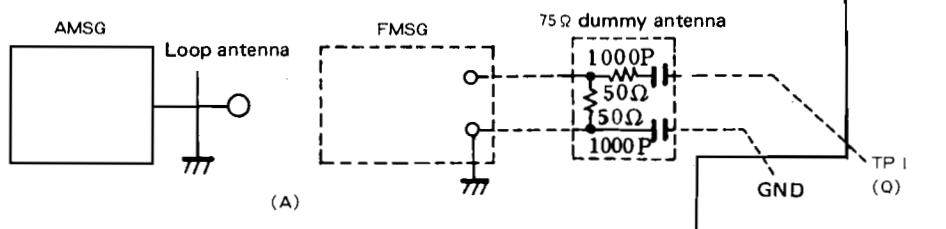
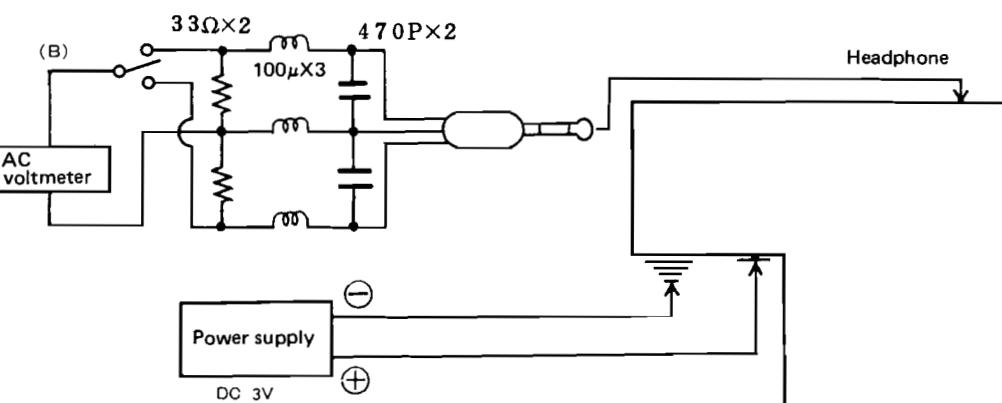
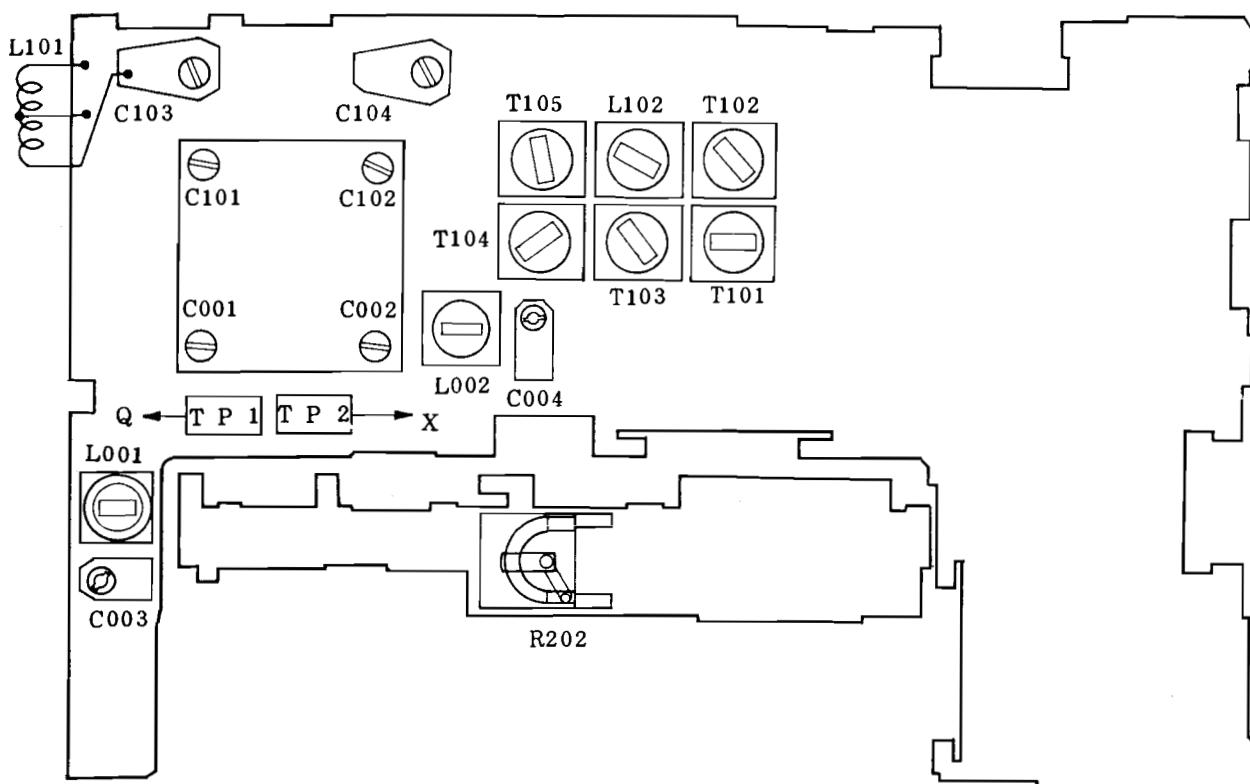
## REGLAGES

N°	ITEM	REGLAGE DE L'ENTREE	REGLAGE DE LA SORTIE	REGLAGE DU TUNER	POINTS DE L'ALIGNEMENT	ALIGNER POUR	FIG.
<b>SECTION MF</b>		Sauf en cas d'indications spéciales, régler chaque commutateur comme suit:					
1	F.I.	Générateur de balayage: 10,7 MHz Connecter l'antenne boucle ( $\phi 10$ cm) à la borne de RF OUT et placer l'antenne boucle près de L003.	Connecter TP2 et la borne V de l'oscilloscope. Connecter la borne H OUT au générateur de balayage et à la borne H de l'oscilloscope.	Auprès de la fréquence minimale où tout bruitage est absent.	T104	Tourner T103 dans le sens inverse des aiguilles d'une montre et dérégler.	(a)
					T101	Amplitude maximale	
					T104	Symétrie maximale de l'affichage de l'oscilloscope	
2	ALIGNEMENT (1)	(A) 87,5 MHz 1 kHz $\pm$ 75 kHz dév 60 dB (Entrée ANT)	(B)	87,5 MHz (Fréquence minimale)	L002	Amplitude maximale	
3	ALIGNEMENT (2)	(A) 108,0 MHz 1 kHz $\pm$ 75 kHz dév 60 dB (Entrée ANT)	(B)	108,0 MHz (Fréquence maximale)	C004	Amplitude maximale	
Répéter les points 2 et 3 plusieurs fois							
4	ALIGNEMENT (3)	(A) 90,0 MHz 1 kHz $\pm$ 75 kHz dév 60 dB (Entrée ANT)	(B)	90,0 MHz	L001	Amplitude maximale	
5	ALIGNEMENT (4)	(A) 106,0 MHz 1 kHz $\pm$ 75 kHz dév 60 dB (Entrée ANT)	(B)	106,0 MHz	C003	Amplitude maximale	
Répéter les point 4 et 5 plusieurs fois							
6	OSCILLATEUR CONTROLE PAR LA TENSION	(A) 98,0 MHz 0 dév 60 dB (Entrée ANT)	Connecter un compôteur de fréquence à TP3 par l'intermédiaire du filtre (150 k $\Omega$ et 1000 pF) et d'un voltmètre CA.	98,0 MHz	R204	76,00 kHz	(b)
<b>SECTION MA</b>							
(1)	F.I.	(D) Générateur de balayage: 455 kHz Connecter l'antenne boucle ( $\phi 10$ cm) à la borne de RF OUT et placer l'antenne boucle près de L101.	Connecter TP2 et la borne V de l'oscilloscope. Connecter la borne H OUT au générateur de balayage et à la borne H de l'oscilloscope.	Auprès de la fréquence maximale où tout bruitage est absent.	T103 T105	Amplitude maximale	(c)
(2)	ALIGNEMENT H.T. (1)	(A) 520 kHz 400Hz, 30% mod	(B)	520 kHz (Fréquence minimale)	L102	Amplitude maximale	
(3)	ALIGNEMENT H.T. (2)	(A) 1650 kHz 400 Hz, 30% mod	(B)	1650 kHz (Fréquence maximale)	C104	Amplitude maximale	
Répéter les points (2) et (3) plusieurs fois.							
(4)	ALIGNEMENT H.T. (3)	(A) 600 kHz 400 Hz, 30% mod	(B)	600 kHz	L101	Amplitude maximale	
(5)	ALIGNEMENT H.T. (4)	(A) 1400 kHz 400 Hz, 30% mod	(B)	1400 kHz	C103	Amplitude maximale	
Répéter les points (4) et (5) plusieurs fois.							

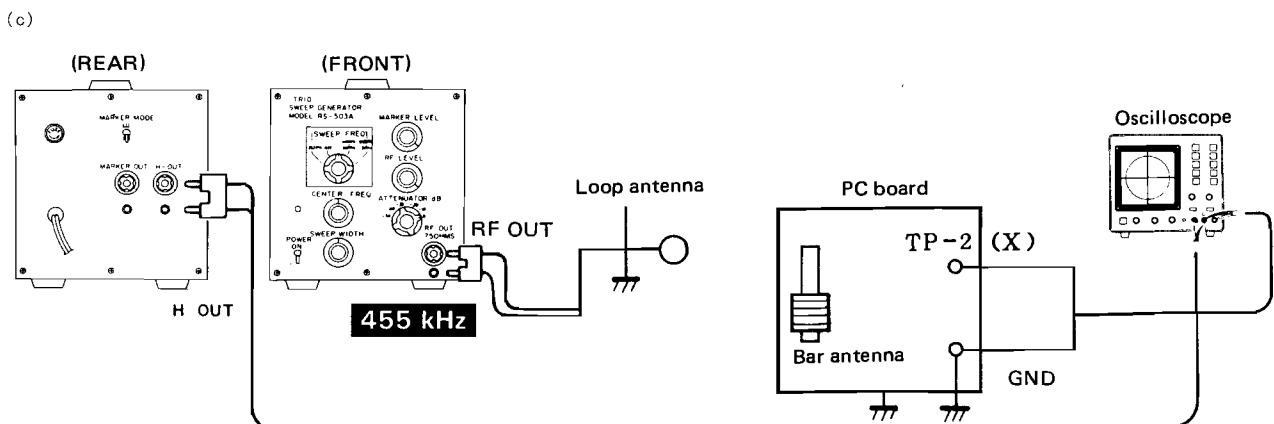
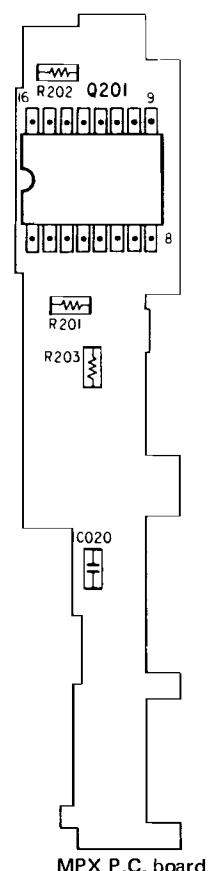
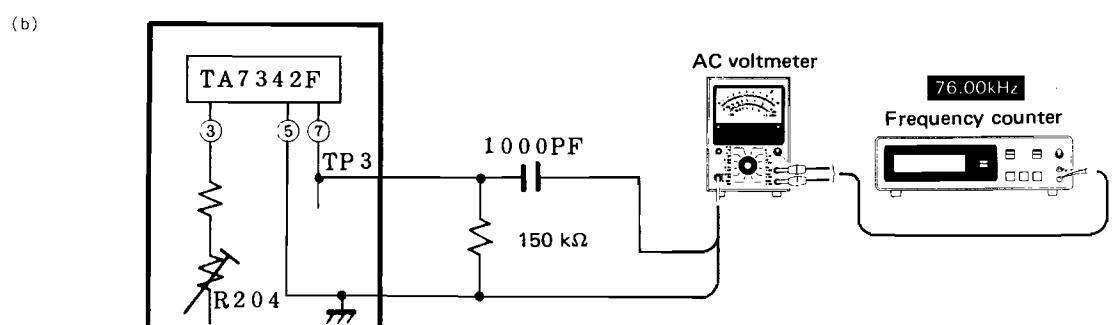
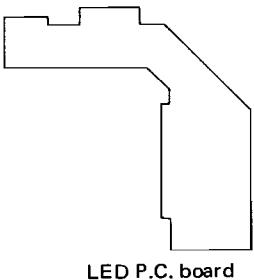
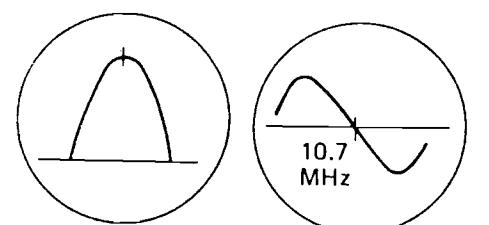
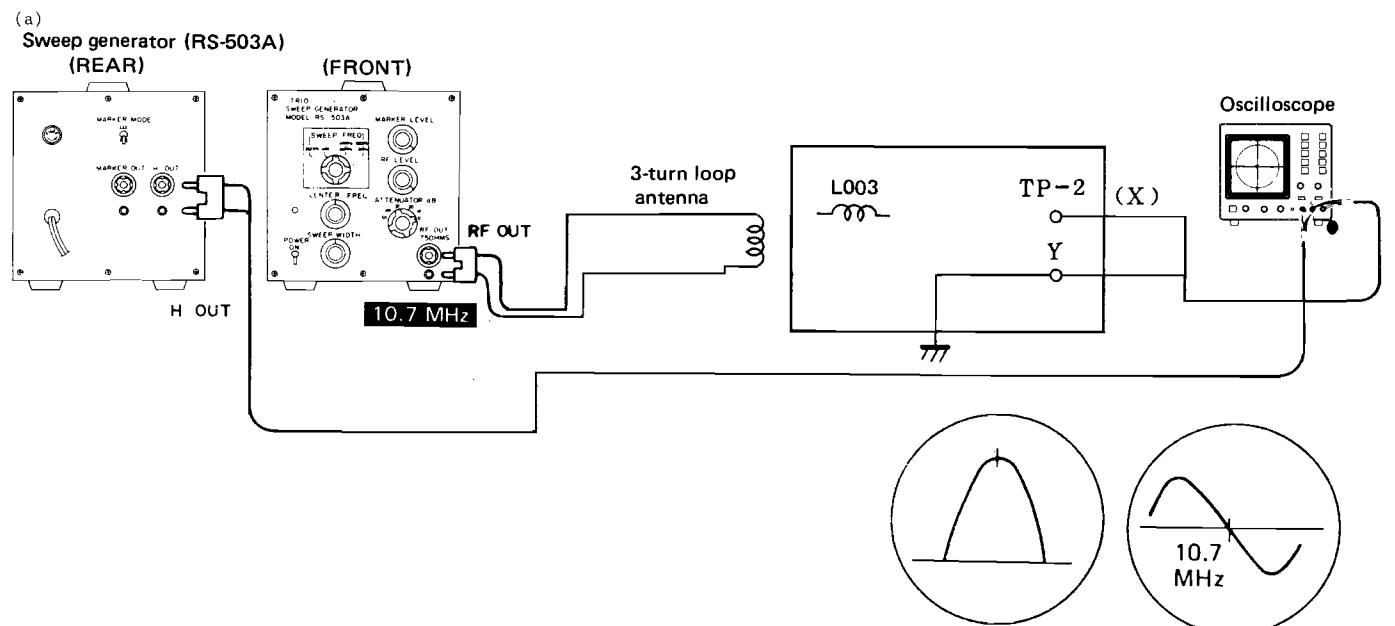
## ABGLEICH

NR.	GEGENSTAND	EINGANGS-EINSTELLUNG	AUSGANGS-EINSTELLUNG	TUNER EINSTELLUNG	ABGLEICH-PUNKTE	ABGLEICHEN FÜR	ABB.
<b>UKW-EMPFANGSABTEILUNG</b> Außer wenn anders angegeben, die verschiedenen Schalter wie folgt einstellen:      MODE : STEREO							
1	ZF	Ablenkgenerator: 10,7 MHz Die Rahmenantenne ( $\phi 10$ cm) zur RF-OUT-Klemme anschließen und stellen sie nahe L103 gelegen.	Das TP2 und V-Klemme des Oszilloskopes anschließen. Das H-OUT-Klemme des Ablenkgeneratores und H-Klemme des Oszilloskopes anschließen.	Nahe Minimalster Frequenz wo kein Rauschen nach abwesend.	T104	T103 entgegen dem Uhrzeigersinn drehen und verstimmen.	(a)
					T101	Maximale amplitude	
					T104	Symmetrie des Oszilloskopbildes	
2	EMPFANGSBEREICH (1)	(A) 87,5 MHz 1 kHz $\pm$ 75 kHz Hub 60 dB (ANT-Eingang)	(B)	87,5 MHz (Unterst Frequenz)	L002	Maximale amplitude	
3	EMPFANGSBEREICH (2)	(A) 108,0 MHz 1 kHz $\pm$ 75 kHz Hub 60 dB (ANT-Eingang)	(B)	108,0 MHz (Höchst Frequenz)	C004	Maximale amplitude	
Abstimmungen 2 und 3 mehrere Male wiederholen.							
4	EMPFANGSBEREICH (3)	(A) 90,0 MHz 1 kHz $\pm$ 75 kHz Hub 60 dB (ANT-Eingang)	(B)	90,0 MHz	L001	Maximale amplitude	
5	EMPFANGSBEREICH (4)	(A) 106,0 MHz 1 kHz $\pm$ 75 kHz Hub 60 dB (ANT-Eingang)	(B)	106,0 MHz	C003	Maximale amplitude	
Abstimmungen 4 und 5 mehrere Male wiederholen							
6	SPANNUNGS-GEREGELTER OSZILLATOR	(A) 98,0 MHz 0 Hub 60 dB (ANT-Eingang)	Eine Frequenzmesser zu TP3 über Filter (150 k $\Omega$ und 1000 pF) und einen Wechselspannungsmesser anschließen.	98,0 MHz	R204	76,00 MHz	(b)
<b>MW-EMPFANGSABTEILUNG</b>							
(1)	ZF	(D) Ablenkgenerator: 455 kHz Die Rahmenantenne ( $\phi 10$ cm) zur RF-OUT-Klemme anschließen und stellen sie nahe L101 gelegen.	Das TP2 und V-Klemme des Oszilloskopes anschließen. Das H-OUT-Klemme des Ablenkgeneratores und H-Klemme des Oszilloskopes anschließen.	Nahe Höchst Frequenz wo kein Rauschen nach abwesend.	T103 T105	Maximale amplitude	(c)
(2)	HF-ABGLEICH (1)	(A) 520 kHz 400Hz, 30% mod	(B)	520 kHz (Unterst Frequenz)	L102	Maximale amplitude	
(3)	HF-ABGLEICH (2)	(A) 1650 kHz 400 Hz, 30% mod	(B)	1650 kHz (Höchst Frequenz)	C104	Maximale amplitude	
Abstimmungen (2) und (3) mehrere Male wiederholen.							
(4)	HF-ABGLEICH (3)	(A) 600 kHz 400 Hz, 30% mod	(B)	600 kHz	L101	Maximale amplitude	
(5)	HF-ABGLEICH (4)	(A) 1400 kHz 400 Hz, 30% mod	(B)	1400 kHz	C103	Maximale amplitude	
Abstimmungen (4) und (5) mehrere Male wiederholen.							

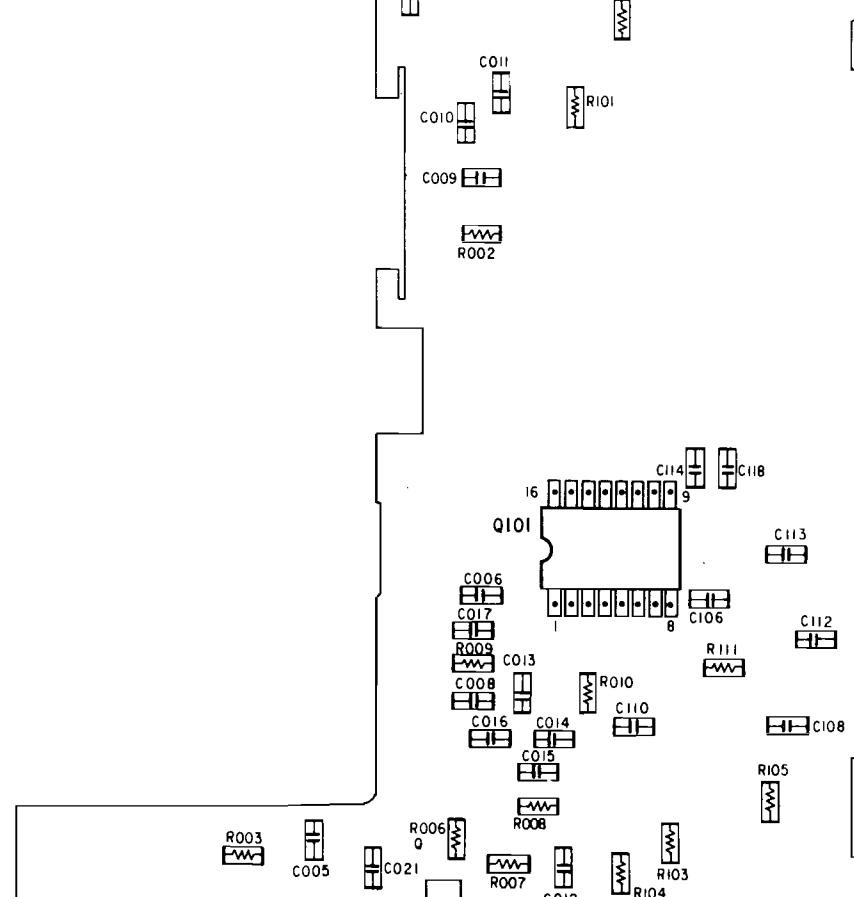
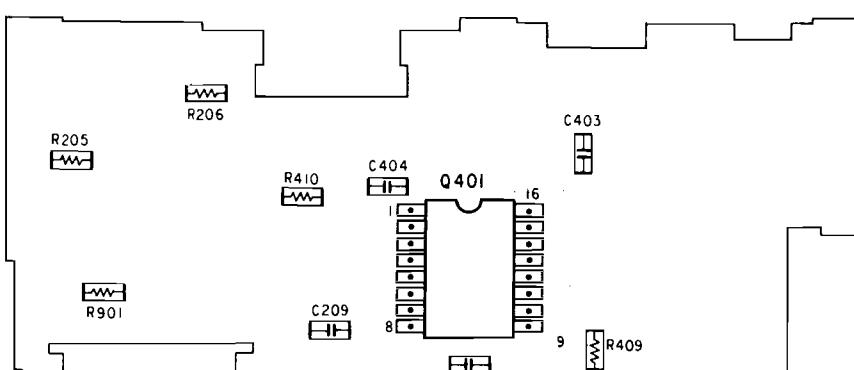
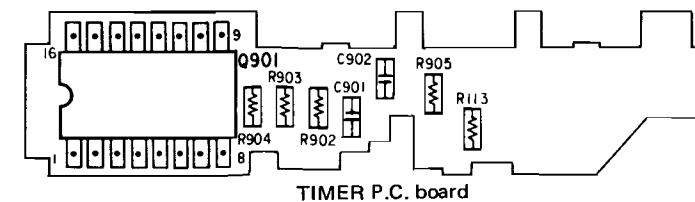
## ADJUSTMENT



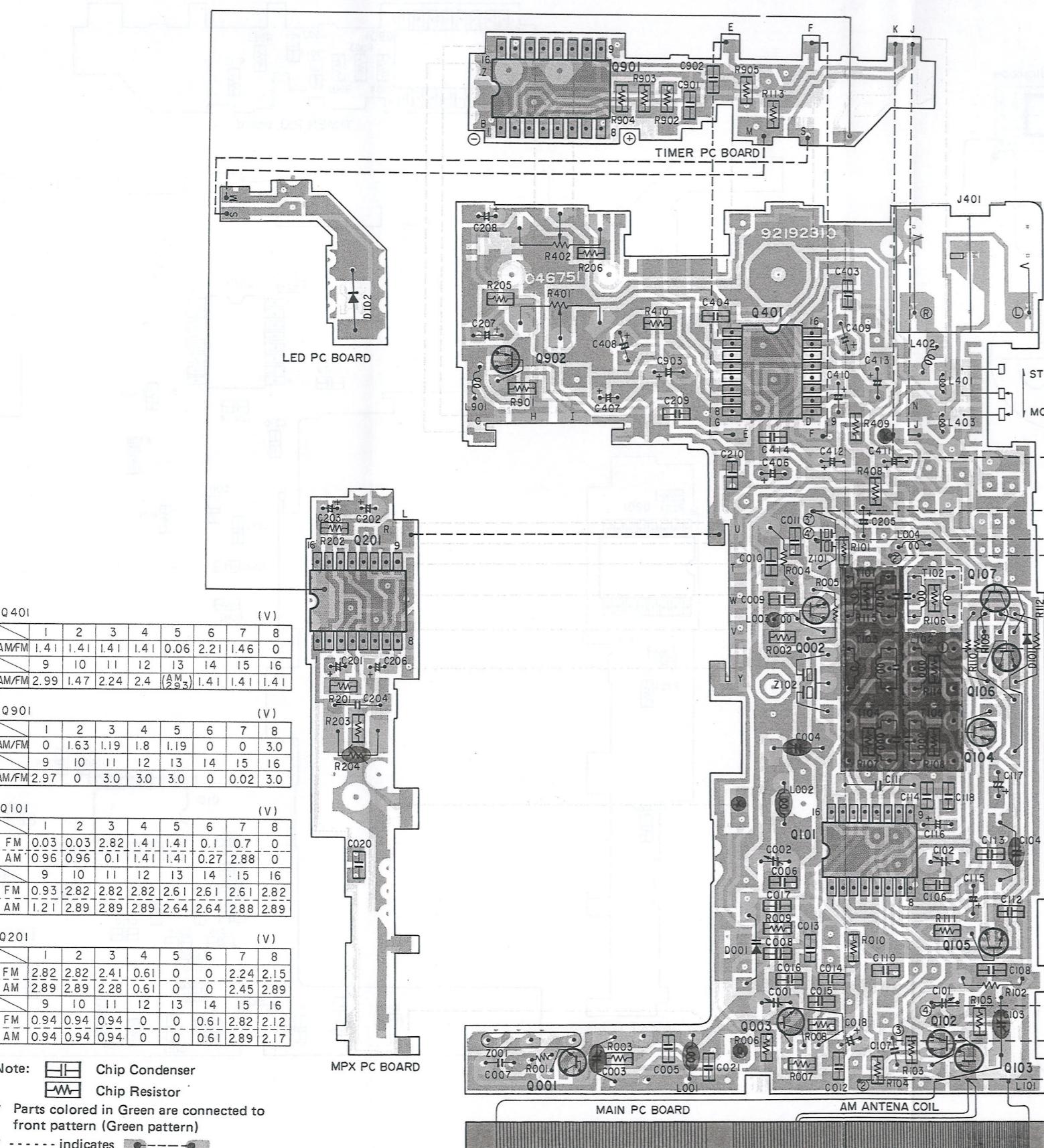
## ADJUSTMENT



## CHIP COMPONENTS LOCATION



## PC BOARD



## Switches

1. S101: Band Switch (FM position)
2. S401: Mode Switch (ST position)
3. S402: Power Switch

(1~4) flexible printed board  
(A~Z) printed board-printed board direct contact

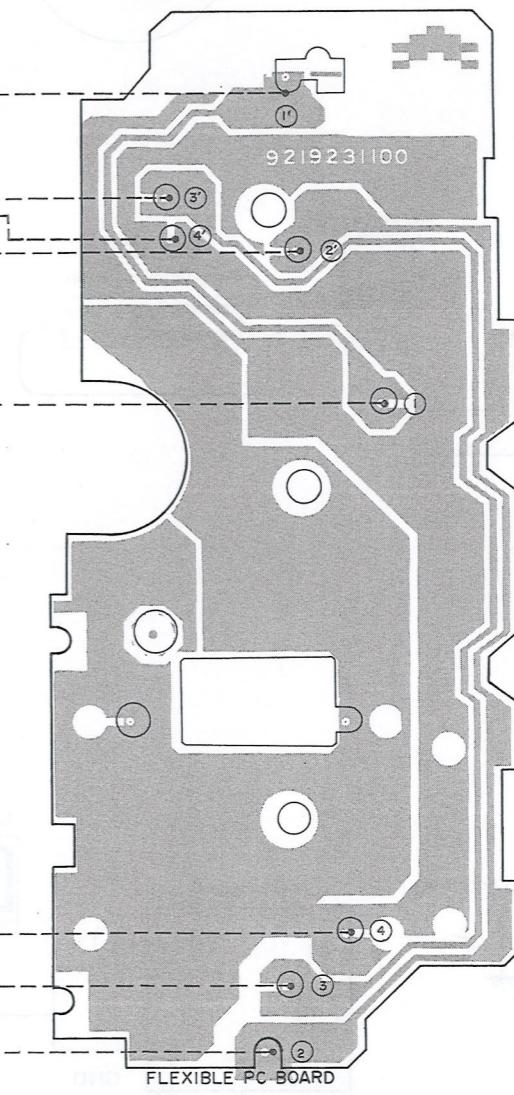
Exception: from (C) to (P) in wiring.

Q105			Q106			Q107		
E	C	B	E	C	B	E	C	B
FM	0V	0.05V	0.64V	0.05V	0.05V	0.7V	0.7V	2.24V 0.05V
AM	0V	2.87V	0.1V	2.87V	2.47V	2.88V	2.88V	2.45V 2.87V

Q102			Q103			Q104		
E	C	B	G	S	D	E	C	B
FM	0.7V	2.68V	1.38V	0V	0.17V	2.82V	0V	OPEN 0.27V
AM	0.1V	2.89V	0.75V	0V	0.17V	2.89V	0V	0V 0.65V

Q001			Q002			Q003		
E	C	B	E	C	B	E	C	B
FM	2.12V	2.82V	2.82V	2.04V	2.82V	2.74V	0.53V	2.69V 1.22V
AM	0.1V	0.1V	0.1V	0.1V	0.1V	0.1V	0.05V	0.1V 0.7V

Q902		
E	C	B
FM	2.99V	2.89V 2.23V
AM	2.99V	2.93V 2.23V

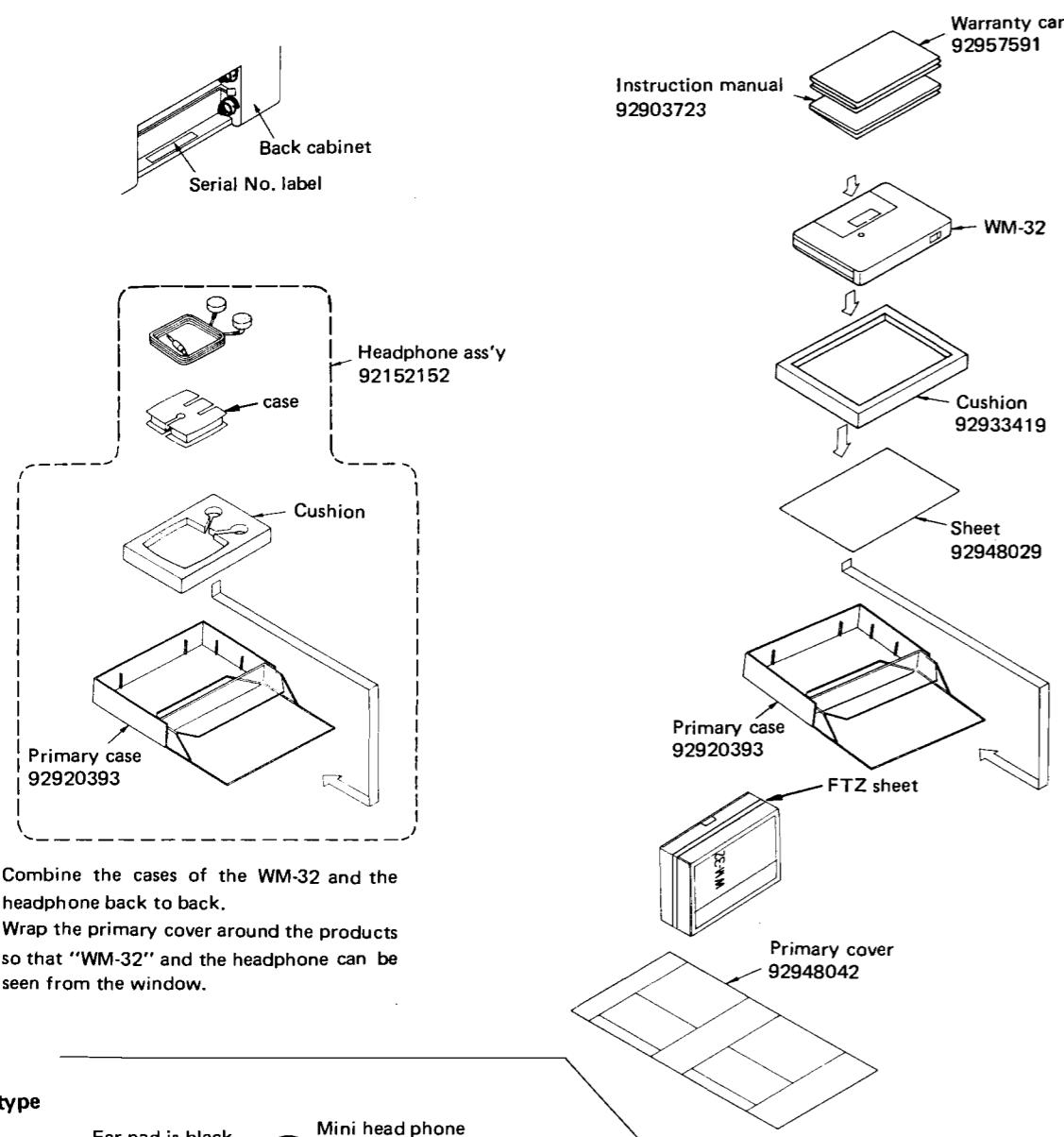


Refer to the schematic diagram for the values of resistors and capacitors.  
The PC board drawing is viewed from the side easy to check.

## PACKING PROCEDURE

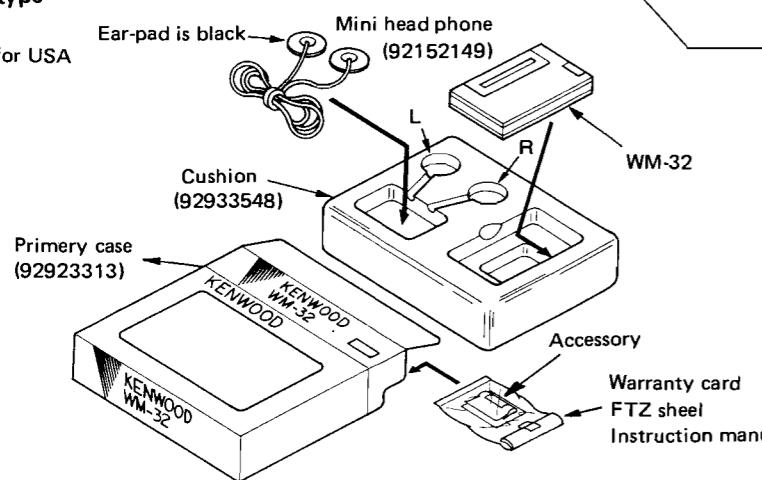
E-type

for Europe

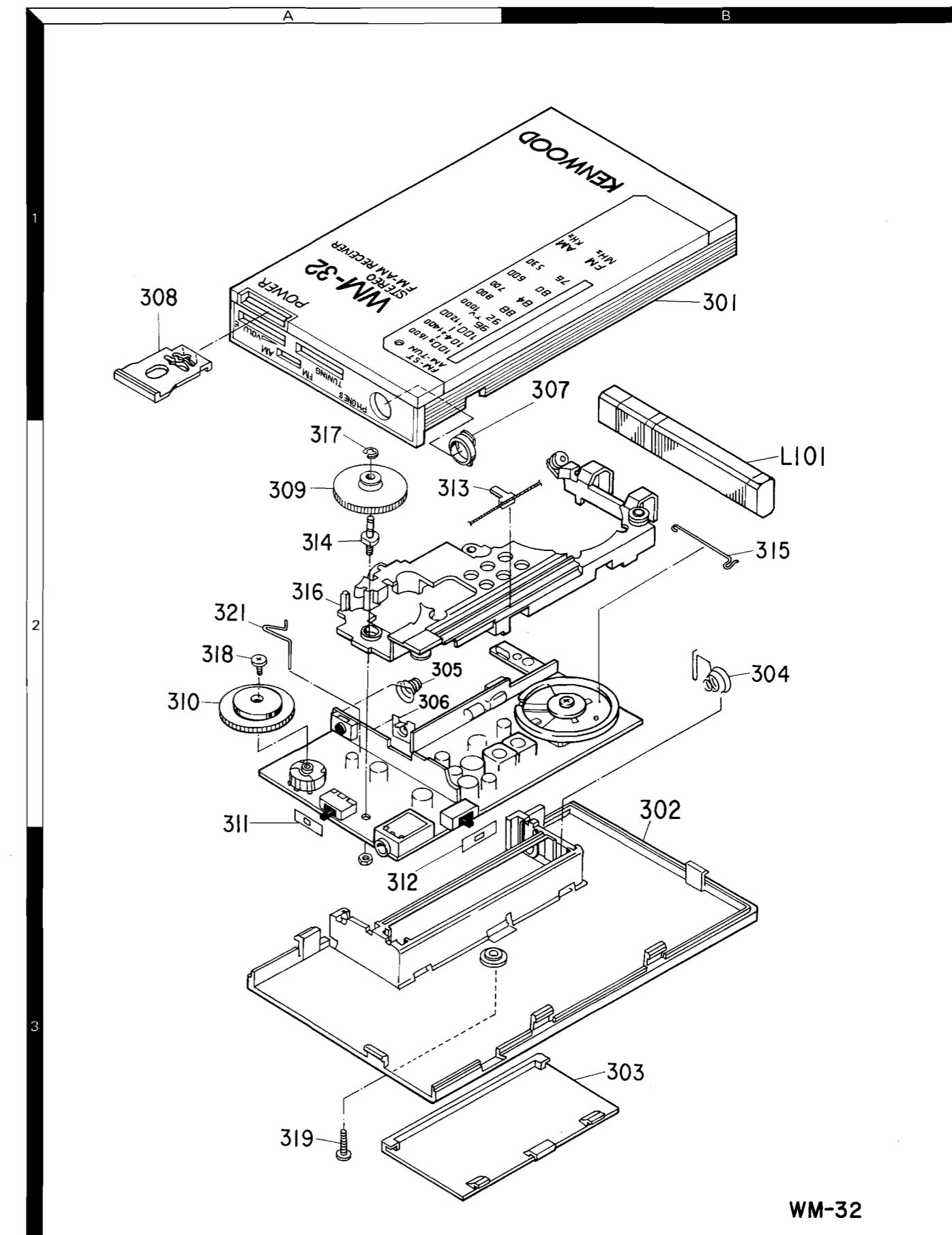


K-type

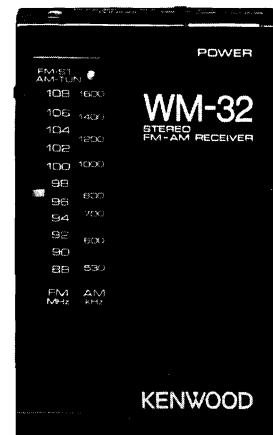
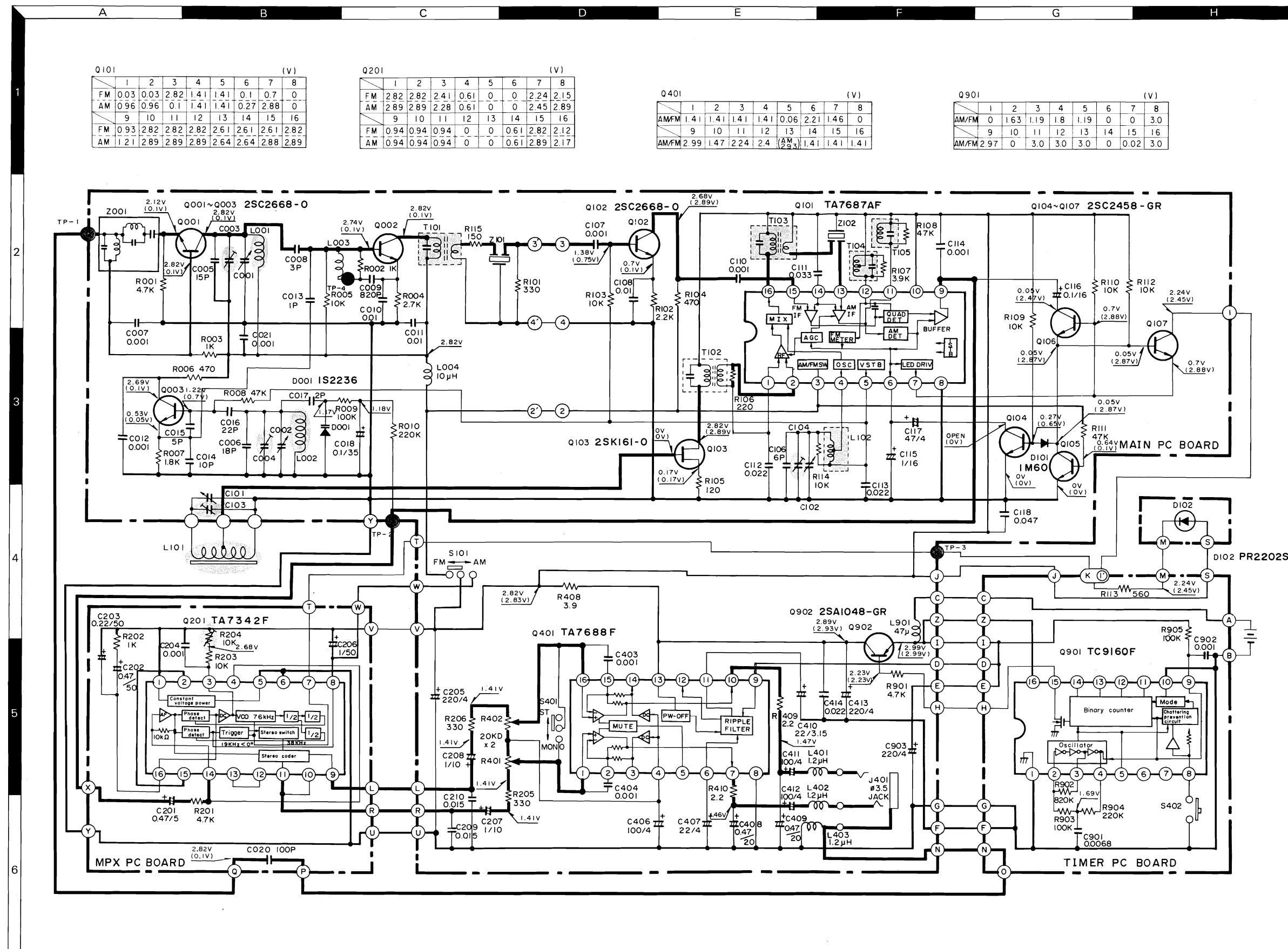
for USA



## EXPLODED VIEW



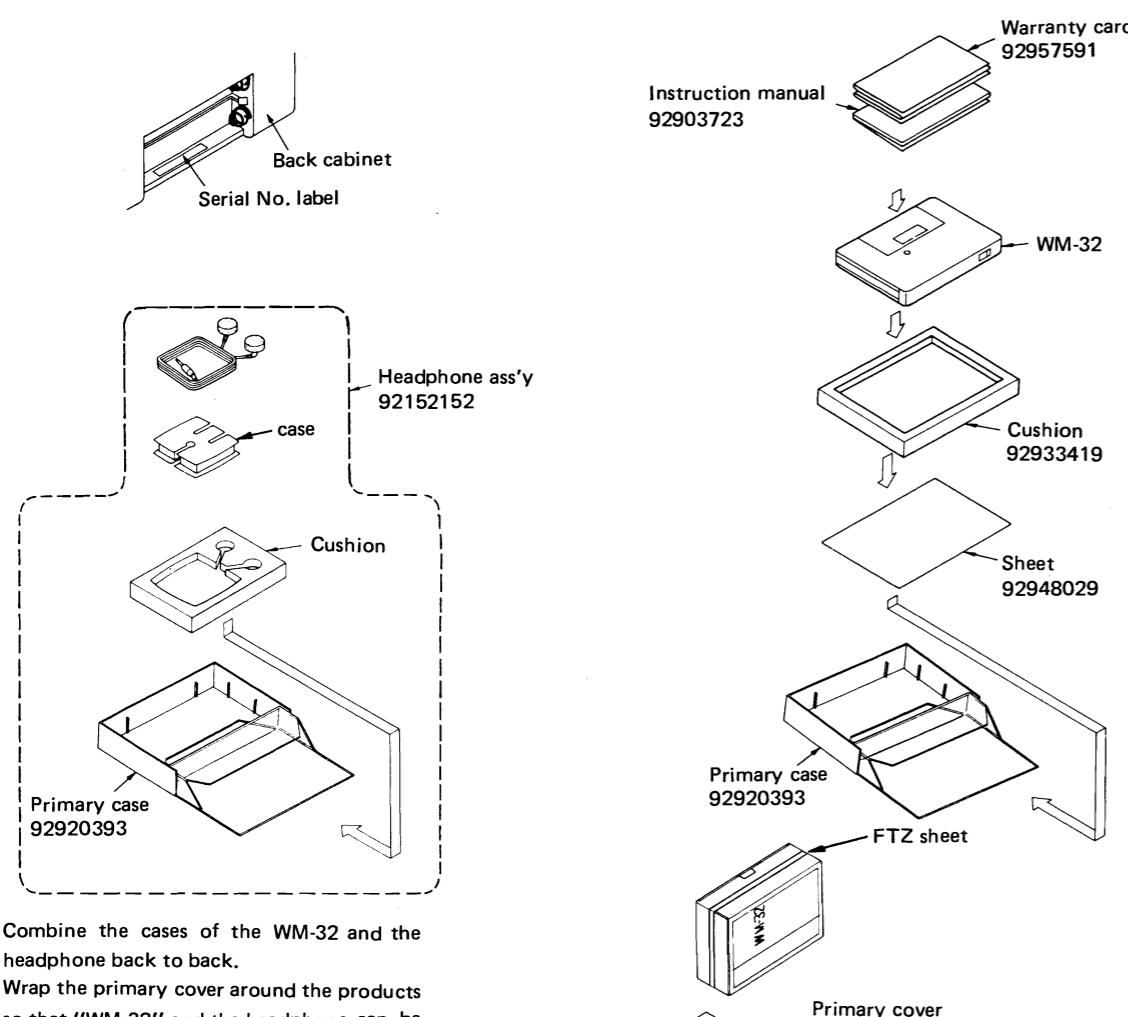
WM-32



## PACKING PROCEDURE

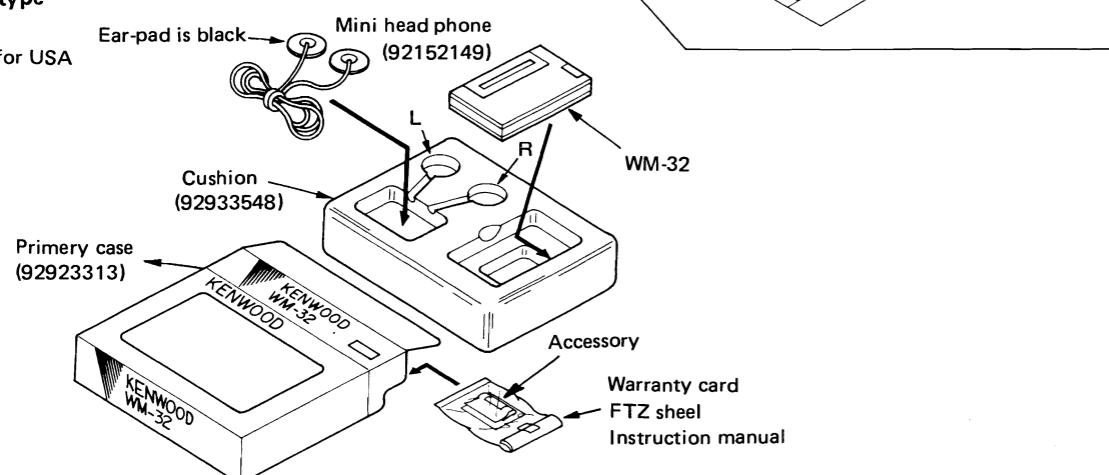
E-type

for Europe

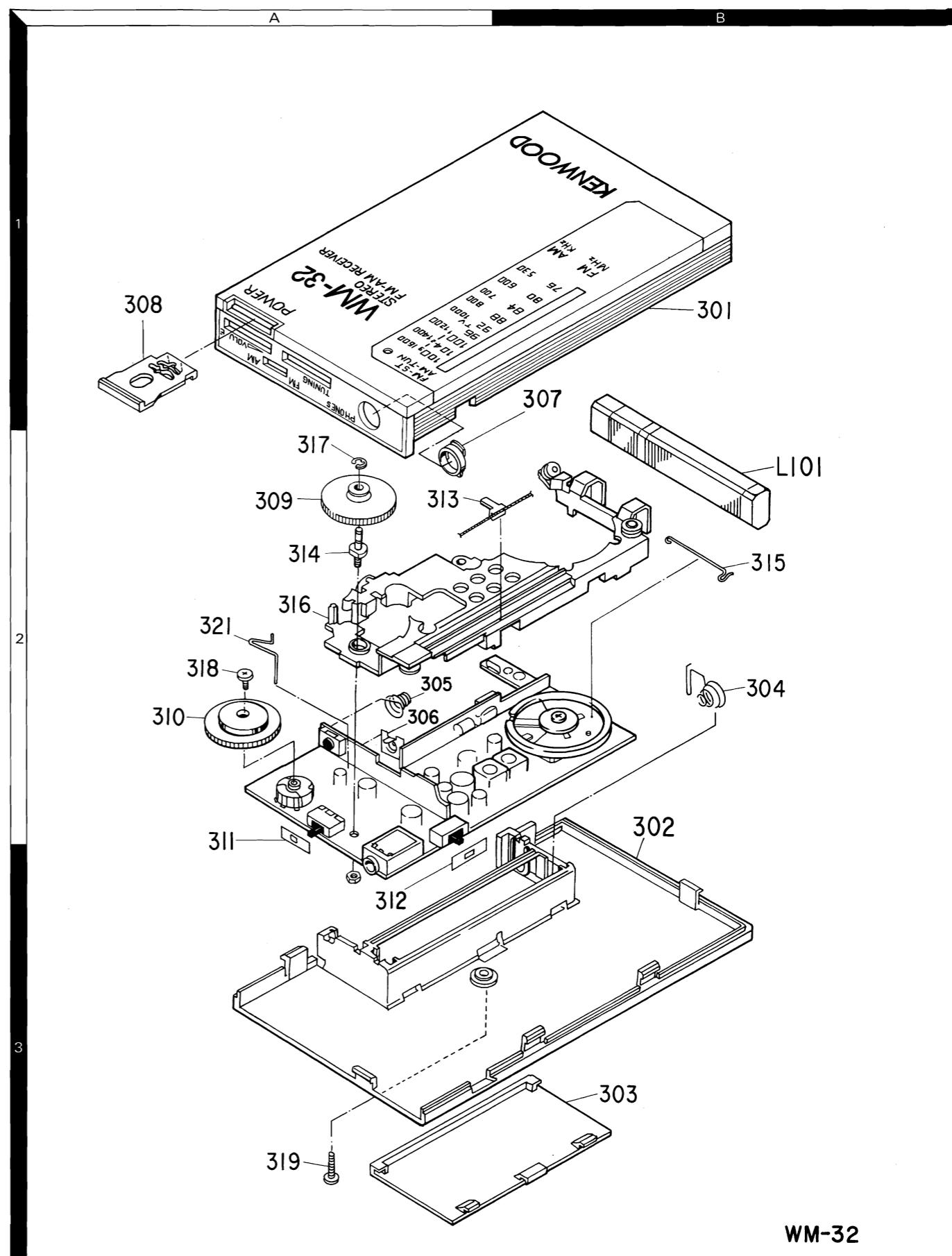


K-type

for USA



## EXPLODED VIEW



## PARTS LIST

\* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位 置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕 向	Re- marks 備考
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## WM-32

301	1B	*	92825220	FRONT CABINET ASSY		
302	2B	*	92882069	BACK CABINET		
303	3B	*	92882046	BATTERY COVER		
304	2B	*	95777254	BATTERY SPRING (A)		
305	2A	*	95777255	BATTERY SPRING (B)		
306	2A	*	92725256	BATTERY CONTACT		
307	1B	*	92875040	JACK COVER		
308	1A	*	92826412	KNOB (POWER)		
309	2A	*	92826402	KNOB (TUNING)		
310	2A	*	92826404	KNOB (VOLUME)		
311	2A	*	92753150	SWITCH COVER (A)		
312	3A	*	92753151	SWITCH COVER (B)		
313	2A	*	92741430	DIAL POINTER		
314	2A	*	92743328	TUNING SHAFT		
315	2B	*	95776606	DIAL SPRING		
316	2A	*	92718182	CHASSIS ASSY		
317	2A	*	92703117	E RING		
318	2A	*	92707819	SCREW		
319	3A	*	92707958	SCREW (BLACK)		
-		*	92152149	HEAD PHONE	K	
-		*	92152152	HEAD PHONE ASSY	E	
-		*	92903723	INSTRUCTION MANUAL		
-		*	92920393	PRIMARY BOX (PLASTIC CASE)	K	
-		*	92933548	CUSHION (PACKING FIXTURE)	E	
-		*	92948029	SHEET	K	
-		*	92948042	PRIMARY COVER	K	
-		*	92957591	WARRANTY CARD		

## P.B.C.

C003,004		*	92308570 92309191	VARIABLE CAPACITOR TRIMMING CAPACITOR 10PF		
C005		*	92311150	CHIP C 15PF J		
C006		*	92318180	CHIP C 18PF D		
C007		*	92360721	CERAMIC 1000PF M		
C008		*	92311209	CHIP C 2PF C		
C009		*	92314821	CHIP C 820PF K		
C010,011		*	92315103	CHIP C 0.01UF K		
C012		*	92314102	CHIP C 1000PF K		
C013		*	92311109	CHIP C 1PF C		
C014		*	92311100	CHIP C 10PF D		
C015		*	92311509	CHIP C 5PF C		
C016		*	92311220	CHIP C 22PF C		
C017		*	92311209	CHIP C 2PF C		
C018		*	92490116	TANTAL 0.1UF 35WV		
C020		*	92311101	CHIP C 100PF J		
C021		*	92314102	CHIP C 1000PF K		
C103,104		*	92309164	TRIMMING CAPACITOR		
C106		*	92311709	CHIP C 7PF D		
C107		*	92360721	CERAMIC 1000PF M		
C108		*	92315103	CHIP C 0.01UF K		
C110		*	92314102	CHIP C 1000PF K		
C111		*	92340202	CERAMIC 0.033UF N		
C112,113		*	92312223	CHIP C 0.022UF Z		
C114		*	92314102	CHIP C 1000PF K		

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M: Other Areas

## PARTS LIST

\* New Parts

Parts without Parts No. are not supplied

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格			Desti- nation 仕向	Re- marks 備考
C115		*	92490053	TANTAL	1UF	16WV		
C116		*	92490041	ELECTRO	0.1UF	16WV		
C117		*	92440542	ELECTRO	47UF	4WV		
C118		*	92313473	CHIP C	0.047UF	Z		
C201, 202			92440532	ELECTRO	0.47UF	50WV		
C203			92440530	ELECTRO	0.22UF	50WV		
C204		*	92321314	MYLAR	1000PF	J		
C205			92440516	ELECTRO	220UF	4WV		
C206			92440534	ELECTRO	1UF	50WV		
C207, 208		*	92490100	TANTAL	1UF	10WV		
C209, 210		*	92317153	CHIP C	0.015UF	M		
C403, 404		*	92314102	CHIP C	1000PF	K		
C406			92440517	ELECTRO	1000UF	4WV		
C407		*	92440540	ELECTRO	22UF	4WV		
C408, 409		*	92490106	TANTAL	0.47UF	20WV		
C410			92490003	TANTAL	22UF	3.15WV		
C411, 412			92440517	ELECTRO	1000UF	4WV		
C413			92440516	ELECTRO	220UF	4WV		
C414		*	92312223	CHIP C	0.022UF	Z		
C901		*	92314682	CHIP C	6800PF	K		
C902		*	92314102	CHIP C	1000PF	K		
C903			92440516	ELECTRO	220UF	4WV		
J401			92163861	JACK (HEAD PHONE)	3.5MN			
EP01		*	92192311	FLEXIBLE PC BOARD				
L001		*	92294482	COIL	FM RF			
L002		*	92295156	COIL	FM QSC			
L003		*	92235236	COIL				
L004		*	92241067	COIL	10UF			
L101		*	92242959	COIL	AMアンテナ			
L102		*	92245433	COIL	AM QSC			
L401-403		*	92241069	COIL	1.2UH			
L901		*	92291161	COIL	47UH			
T101		*	92265859	IF TRANSFORMER	FM IF			
T102		*	92264884	COIL	AM RF			
T103		*	92264883	IF TRANSFORMER	AM IF			
T104		*	92267431	IF TRANSFORMER	FM			
T105		*	92266392	IF TRANSFORMER	AM			
Z001		*	92153266	BAND-PASS	FILTER			
Z101		*	92153268	CERAMIC FILTER	10.7MHz			
Z102			92153295	CERAMIC FILTER				
R001		*	92550185	RD	4.7K	J 2B		
R002, 003		*	92521102	CHIP R	1K	J 2A		
R004		*	92540515	RD	2.7K	J 2B		
R005		*	92540522	RD	10K	J 2B		
R006		*	92521471	CHIP R	470	J 2A		
R007		*	92521182	CHIP R	1.8K	J 2A		
R008		*	92521473	CHIP R	47K	J 2A		
R009		*	92521104	CHIP R	100K	J 2A		
R010		*	92521224	CHIP R	220K	J 2A		
R011		*	92521103	CHIP R	10K	J 2A		
R101		*	92521331	CHIP R	330	J 2A		
R102			92540514	RD	2.2K	J 2B		

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Ref. No. 参照番号	Address 位 置	New Parts 新	Parts No. 部品番号	Description 部品名／規格				Desti- nation 仕 向	Re- marks 備考
R103		*	92521103	CHIP R	10K	J	2A		
R104		*	92521471	CHIP R	470	J	2A		
R105		*	92521121	CHIP R	120	J	2A		
R106		*	92521221	CHIP R	220	J	2A		
R107		*	92521392	CHIP R	3.9K	J	2A		
R108		*	92521473	CHIP R	47K	J	2A		
R109, 110			92540522	RD	10K	J	2B		
R111		*	92521473	CHIP R	47K	J	2A		
R112			92540522	RD	10K	J	2B		
R113		*	92521561	CHIP R	560	J	2A		
R114		*	92521103	CHIP R	10K	J	2A		
R115		*	92521151	CHIP R	150	J	2A		
R201		*	92521472	CHIP R	4.7K	J	2A		
R202		*	92521102	CHIP R	1K	J	2A		
R203		*	92521103	CHIP R	10K	J	2A		
R204		*	92658713	VARIABLE RESISTOR	10K(B)				
R205, 206		*	92521331	CHIP R	330	J	2A		
R401, 402		*	92614407	VARIABLE RESISTOR	20K(B)				
R408		*	92521399	CHIP R	3.9	J	2A		
R409, 410		*	92521229	CHIP R	2.2	J	2A		
R901		*	92521472	CHIP R	4.7K	J	2A		
R902		*	92521824	CHIP R	820K	J	2A		
R903		*	92521104	CHIP R	100K	J	2A		
R904		*	92521224	CHIP R	220K	J	2A		
R905		*	92521104	CHIP R	100K	J	2A		
S101		*	92196276	SLIDE SWITCH	FM/AM				
S401			92196171	SLIDE SWITCH	MONO/ST				
S402		*	92196277	TACT SWITCH					
D001			1S2236	DIODE					
D101			1M60	DIODE					
D102		*	92115523	LED					
Q001--003			2SC2668(Φ)	TRANSISTOR					
Q101		*	TA7687AF	IC					
Q102			2SC2668(Φ)	TRANSISTOR					
Q103		*	2SK161(Φ)	TRANSISTOR					
Q104--107			2SC2458(GR)	TRANSISTOR					
Q201			TA7342F	IC					
Q401			TA7688F	IC					
Q901		*	TC9160F	IC					
Q902			2SA1048(GR)	TRANSISTOR					

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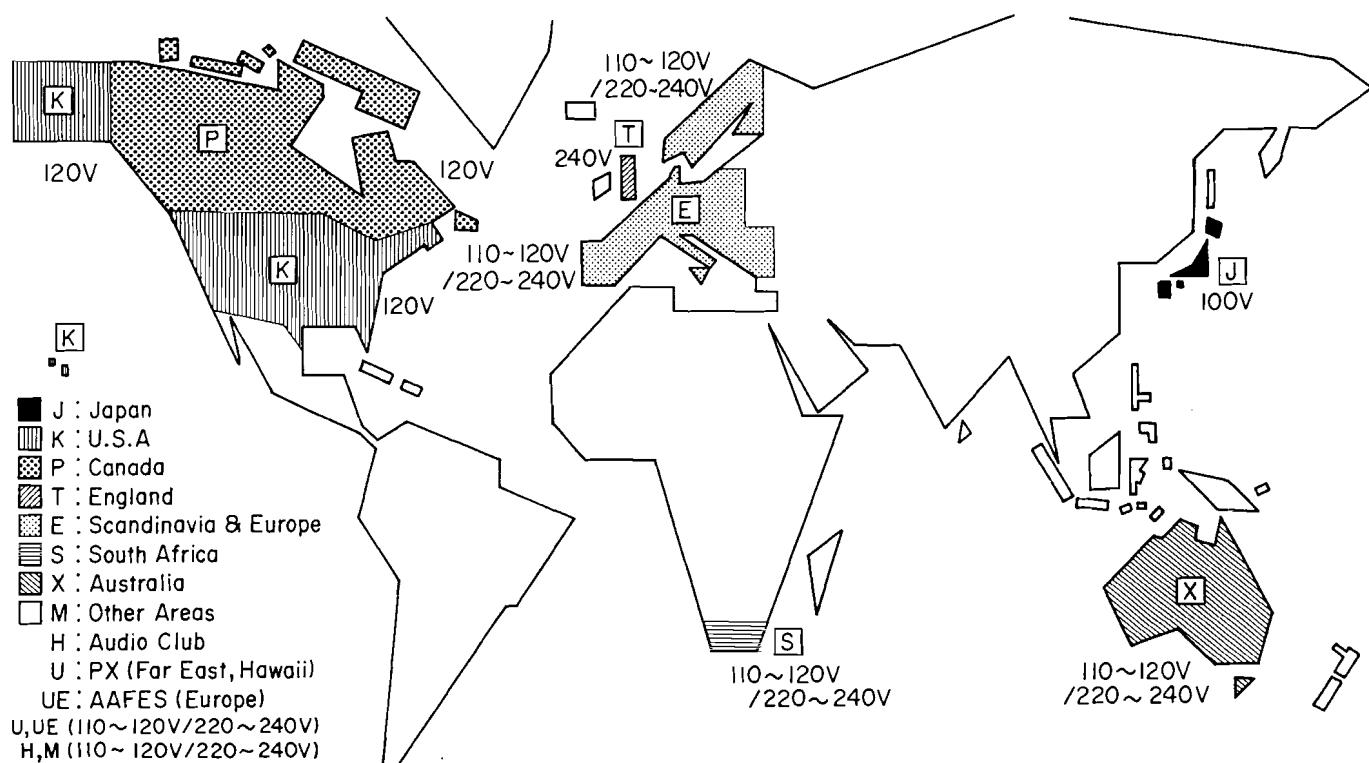
U: PX(Far East, Hawaii)

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## WORLD MAP &amp; AREA CODE



## Note:

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, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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## TRIO-KENWOOD ELECTRONICS GmbH

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## TRIO-KENWOOD FRANCE S.A.

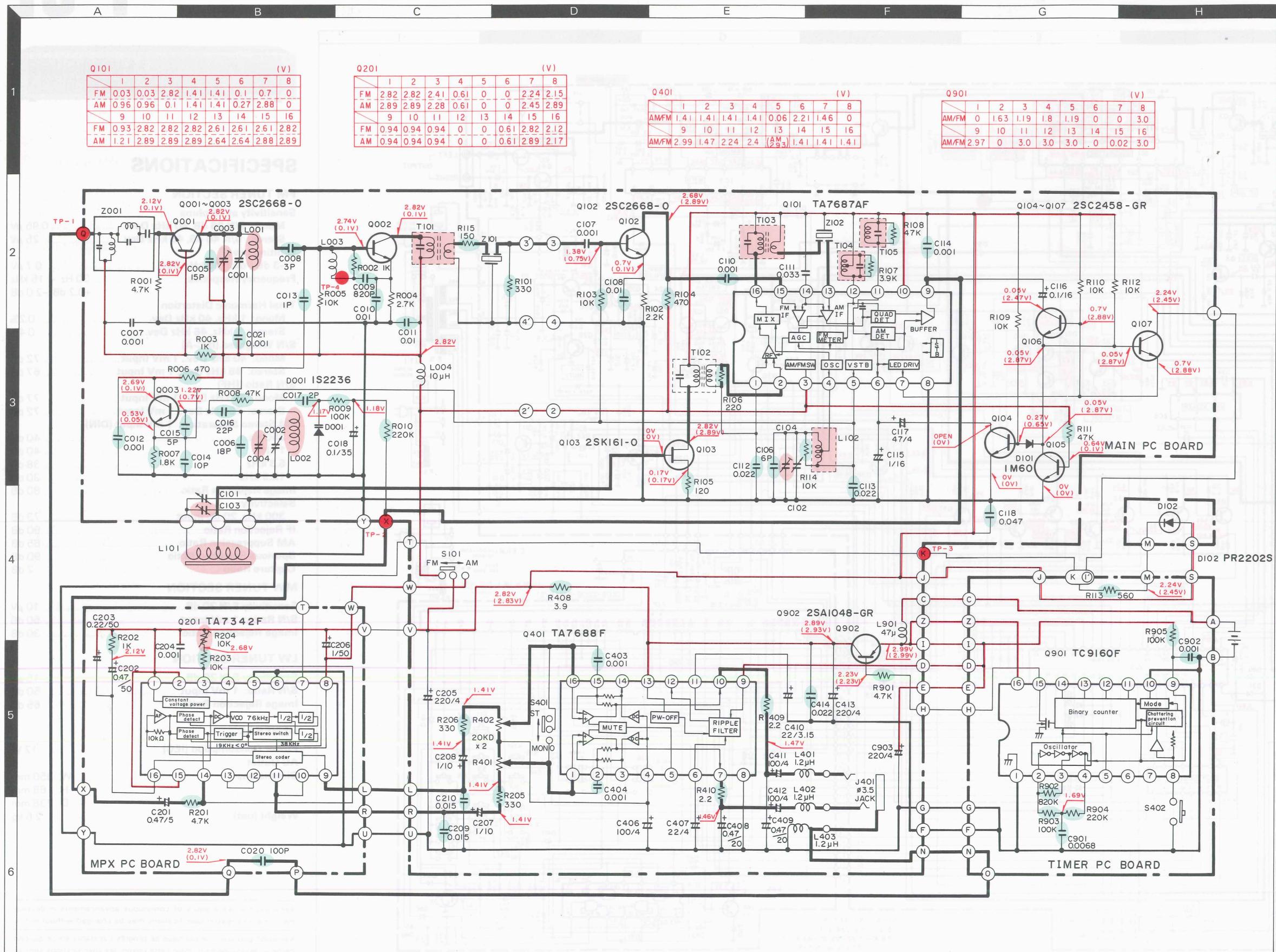
5, Boulevard Ney, 75018 Paris, France

## TRIO-KENWOOD (AUSTRALIA) PTY. LTD. (INCORPORATED IN NSW)

4E Woodcock Place, Lane Cove, N.S.W. 2066, Australia

## KENWOOD &amp; LEE ELECTRONICS, LTD.

Wang Kee Building, 5th Floor, 34-37, Connaught Road, Central, Hong Kong

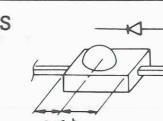


TA7342F  
TA7687F  
TA7688F  
TC9160F

2SA1048  
2SC2458  
2SC2668



2SK161



PR2202S

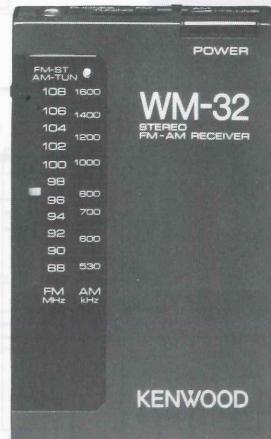
Switches

1. S101: Band Switch (FM position)
2. S401: Mode Switch (ST position)
3. S402: Power Switch

- (1)-(4) Flexible PC Board  
(A)-(Z) DC Board - DC Board Direct Contact  
Note: (O)-(P) Wiring  
Green parts are chip component.

Band	No signal current
FM	27mA
AM	19mA

(minimum volume)



### SPECIFICATIONS

Frequency range: FM 88 – 108 MHz  
AM 525 – 1605 kHz  
Power requirements: DC 3V, "AAA" (JIS UM-4)  
Cell x 2 pcs.  
Power output: 30 mW + 30 mW (max.)  
Jack: Mini jack for stereo headphones (32 ohms)/earphone (8 ohms)  
Dimensions (WxHxD): 56 x 91 x 12.8 mm  
Weight: 85 g (Including batteries)  
Accessories: Stereo headphones

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

Kenwood poursuit une politique de progrès constants en ce qui concerne le développement. Pour cette raison, les spécifications sont sujettes à modifications sans préavis.

Kenwood strebt ständige Verbesserungen in der Entwicklung an. Daher bleiben Änderungen der technischen Daten jederzeit vorbehalten.

- DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.
- Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.
- Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Voltmeter gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u.U. geringfügig.