GENERAL ALIGNMENT INSTRUCTIONS

Should it become necessary at any time to check the alignment of this receiver, proceed as follows;

1) Connect an output meter across the speaker voice coil lugs.
2) Set the volume control at maximum.
3) Attenuate the signals from the generator enough to swing the most sensitive range of the output meter.
4) Use a non-metallic alignment tool.
5) Repeat adjustments to insure good results.

AM ALIGNMENT CHART

Set the FM/AM selector switch (SW301) at "AM" position.

STEP	BAND	TEST STAGE	SIGNAL GENERATOR		RECEIVER		ADJUSTMENT
			CONNECTION TO RECEIVER	INPUT SIGNAL FREQUENCY	DIAL SETTING	REMARKS	
1	AM	IF	Connect signal generator through a dummy to the antenna socket (SO101). Ground lead to the receiver chassis. (Refer to Figure 4)	Exactly 452kHz (400Hz, 30%, AM modulated)	High end of dial (minimum inductance)	Adjust for maximum output on speaker voice coil lugs.	T301 T302
2	AM	IF	Repeat until no further improvement can be made.				
3	AM	Band Coverage	Same as step 1.	Exactly 510kHz (400Hz, 30%, AM modulated)	Low end of dial (maximum inductance)	Same as step 1.	Adjust the AM oscillator coil L309.
			Same as step 1.	Exactly 1650kHz (400Hz, 30%, AM modulated)	High end of dial (minimum inductance)	Same as step 1.	Adjust the AM oscillator trimmer TC304.
4	AM	Tracking	Same as step 1.	Exactly 1400kHz (400Hz, 30%, AM modulated)	1400kHz.	Same as step 1.	Adjust the AM antenna trimmer TC201, and then adjust the AM RF trimmer TC303.
5	AM		Repeat steps 3 and 4 until no further improvement can be made.				

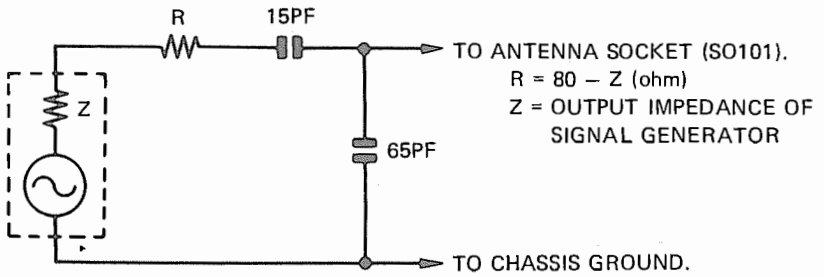


Figure 4 AM DUMMY

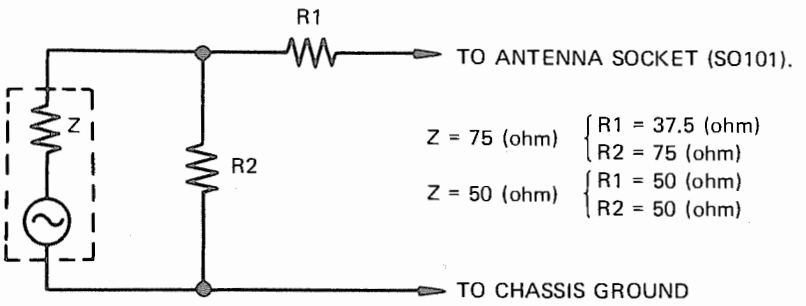
FM ALIGNMENT CHART

Set the FM/AM selector switch (SW301) at "FM" position.

STEP	TEST STAGE	SIGNAL GENERATOR		RECEIVER		ADJUSTMENT
		CONNECTION TO RECEIVER	INPUT SIGNAL FREQUENCY	DIAL SETTING	REMARKS	
1	IF NOTE A	Connect signal generator through a 5PF capacitor, to mixer base, test point TP101. Connect generator ground lead to the receiver chassis.	Exactly 10.7MHz (400Hz, 30%, AM modulated)	Low end of dial. (maximum inductance)	Connect VTVM between test point TP201 and chassis ground.	Detune T202. Tune T101, and T201.
2	Ratio Detector	Same as step 1.	Exactly 10.7MHz (unmodulated)	Same as step 1.	See NOTE A.	See NOTE A.
3	Repeat steps 1 until no further improvement can be made.					
4	Band Coverage	Connect signal generator through a dummy including output impedance of signal generator to the antenna socket (SO101) Ground lead of generator connected to the receiver chassis. (Refer to Figure 5)	Exactly 87.2MHz (400Hz, 30%, FM modulated).	Same as step 1.	Adjust for maximum output at speaker voice coil.	Oscillator trimmer TC103.
5	Tracking	Same as step 3.	Exactly 88MHz (400Hz, 30%, FM modulated)	88MHz	Same as step 3.	RF trimmer TC102 and antenna trimmer TC101.
6	Repeat steps 4 and 5 until no further improvement can be made.					

NOTE A

1) Connect VTVM (0.1 volts range D.C. Scale) between test point TP201 and chassis ground.
2) Adjust T202 for 0 volts on VTVM.
3) Change signal generator frequency 10.7MHz + 100kHz and −100kHz approximately.
4) Adjust T201 for balanced peaks. Peak separation should be approximately 200kHz.



Z=OUTPUT IMPEDANCE OF SIGNAL GENERATOR

Figure 5 FM DUMMY

NOTE A

Five kinds of ceramic filter (CF-201, CF-202) are available for this set. The difference of central frequency from each other can be known by the color indication. The table below shows such a difference of IF and S curve, depending upon the color indications of the ceramic filter (CF-201, CF-202).

Central Frequency	D	Black	10.64MHz ± 30kHz
	B	Blue	10.67MHz ± 30kHz
	A	Red	10.70MHz ± 30kHz
	C	Orange	10.73MHz ± 30kHz
	E	White	10.76MHz ± 30kHz

For their employment, it is required to use two ceramic filters of same type.

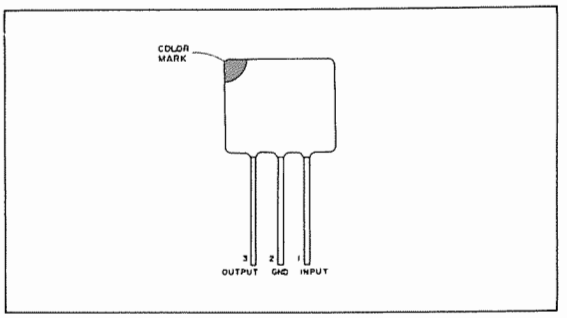


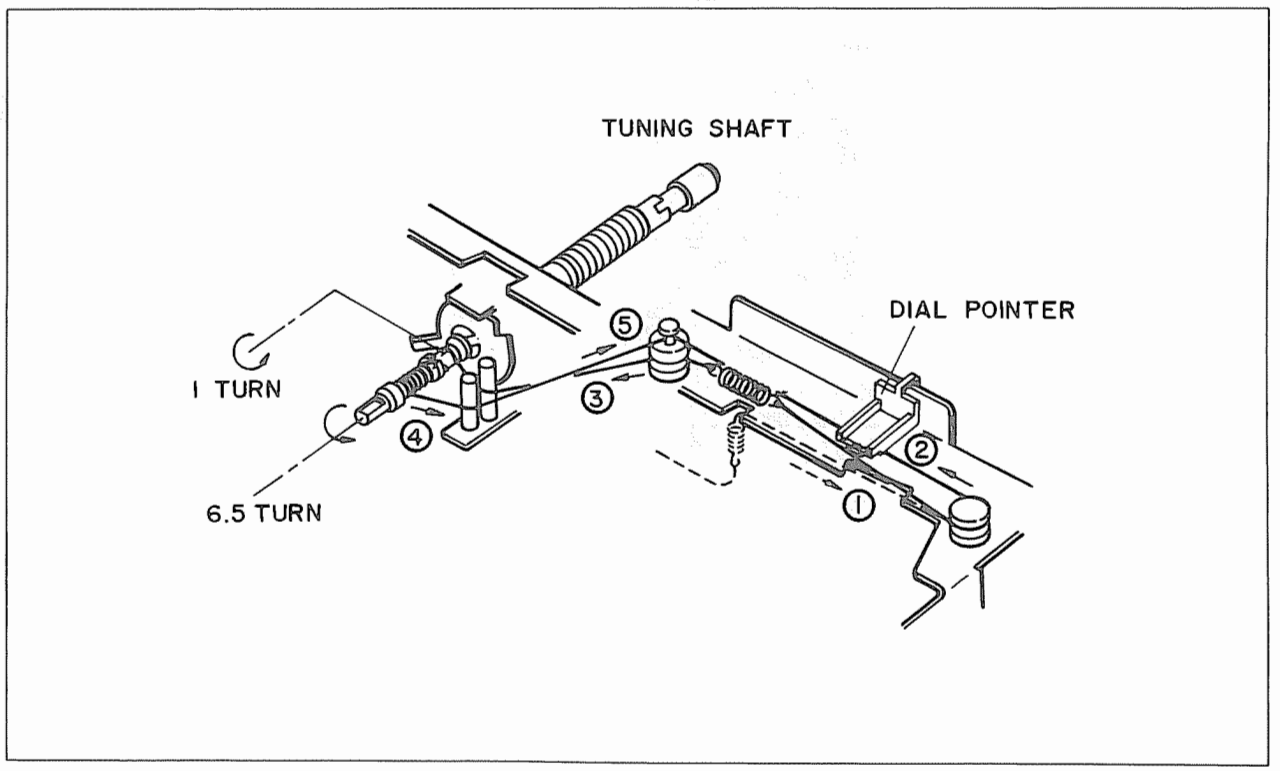
Figure 6

FM STEREO ALIGNMENT

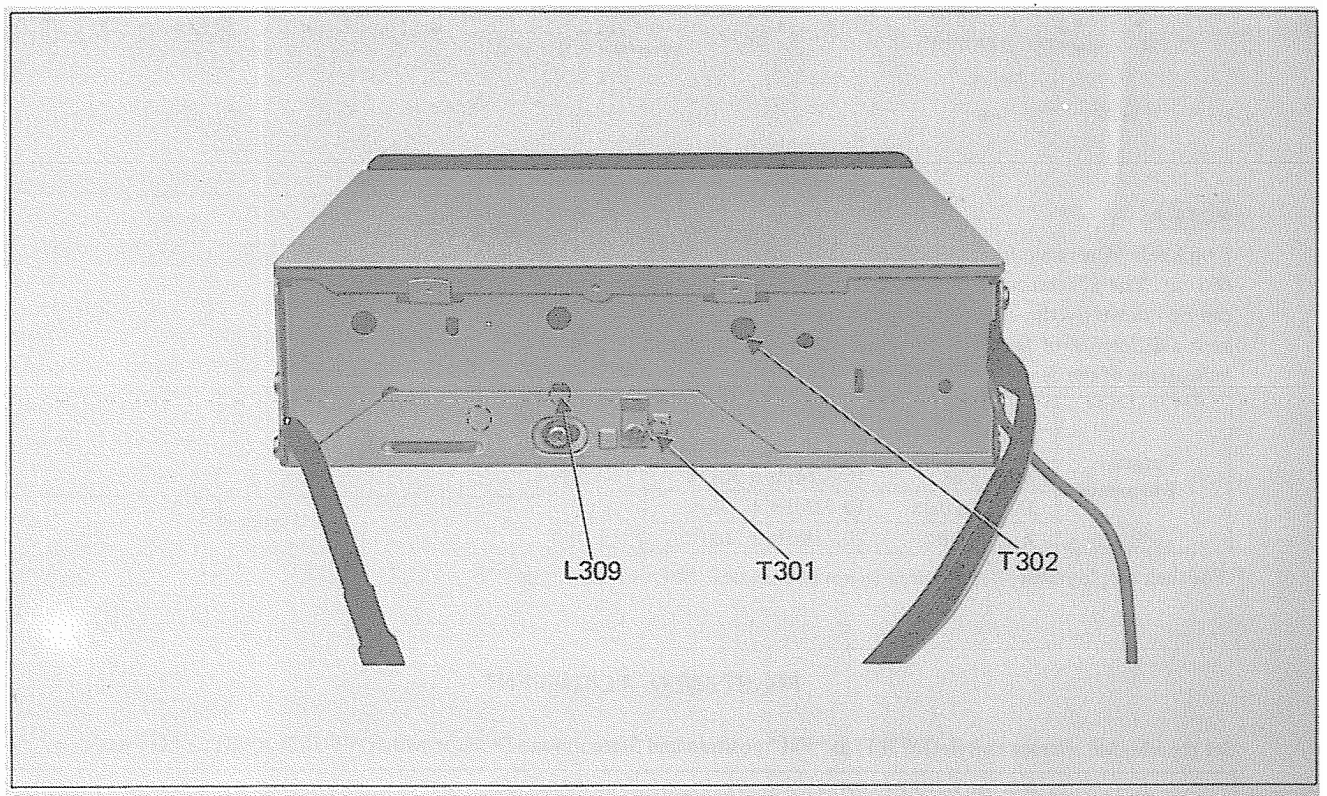
Set the FM/AM selector switch (SW301) at "FM" position and Stereo/mono Selector switch (SW302) at "STEREO" position.

STEP	SIGNAL GENERATOR		RECEIVER		METER CONNECTION	ADJUSTMENT
	CONNECTION TO RECEIVER	INPUT SIGNAL FREQUENCY	DIAL SETTING	REMARKS		
1			98MHz	Adjust so that the frequency becomes 19.0kHz. (In case an oscilloscope is connected to the test point TP301 , adjust the signals to be 19kHz by using Lissajou's wave-form).	Connect the frequency counter (or oscilloscope) through a 100K ohm resistor to TP301 (10 pin of IC301).	VR301

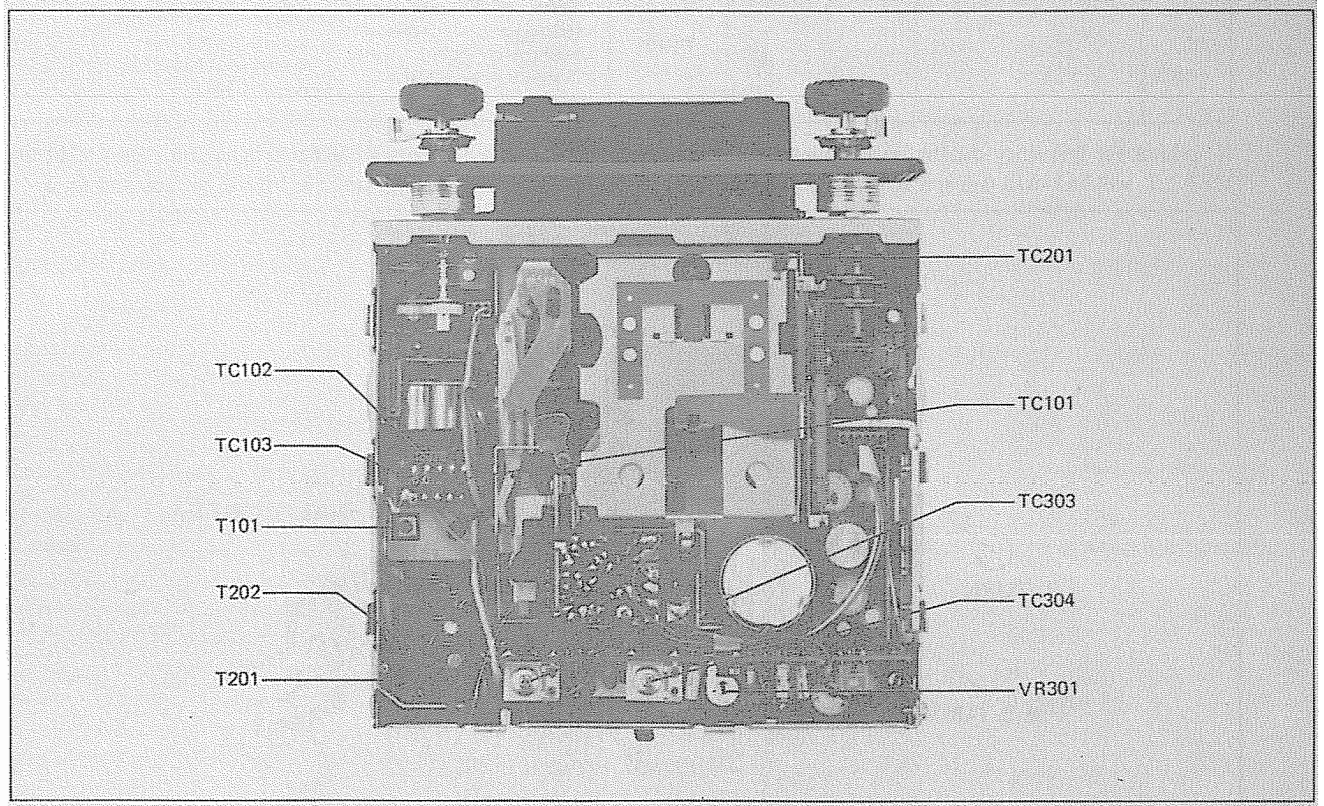
If without the frequency counter, proceed with the alignment as follows. While receiving a FM stereo signal, turn the VR301 until the P.L.L. will be locked (when it is locked, the stereo indicator will be lit). Then, reversely turn the VR301 halfway and fix it.



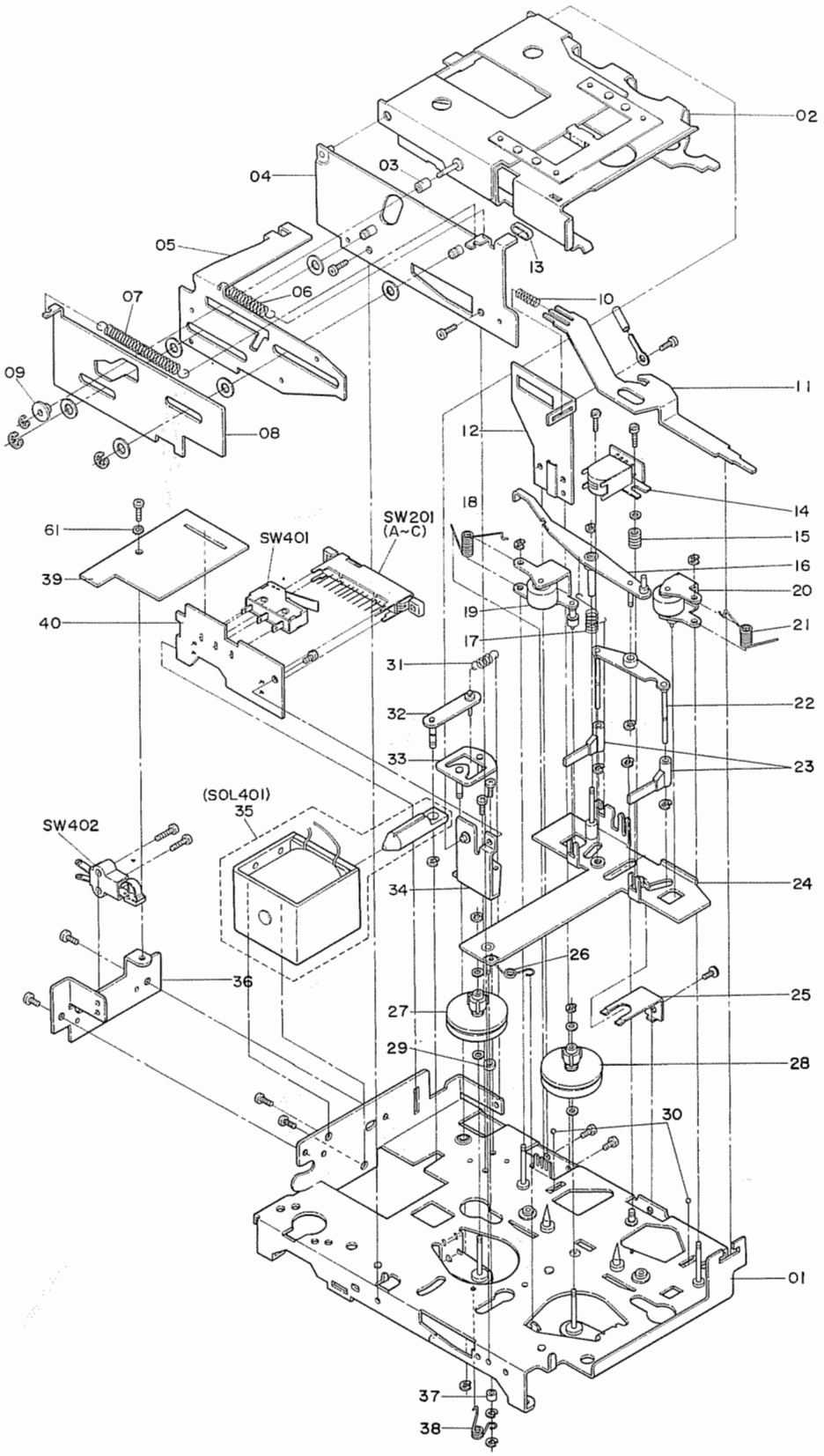
DIAL CORD STRINGING



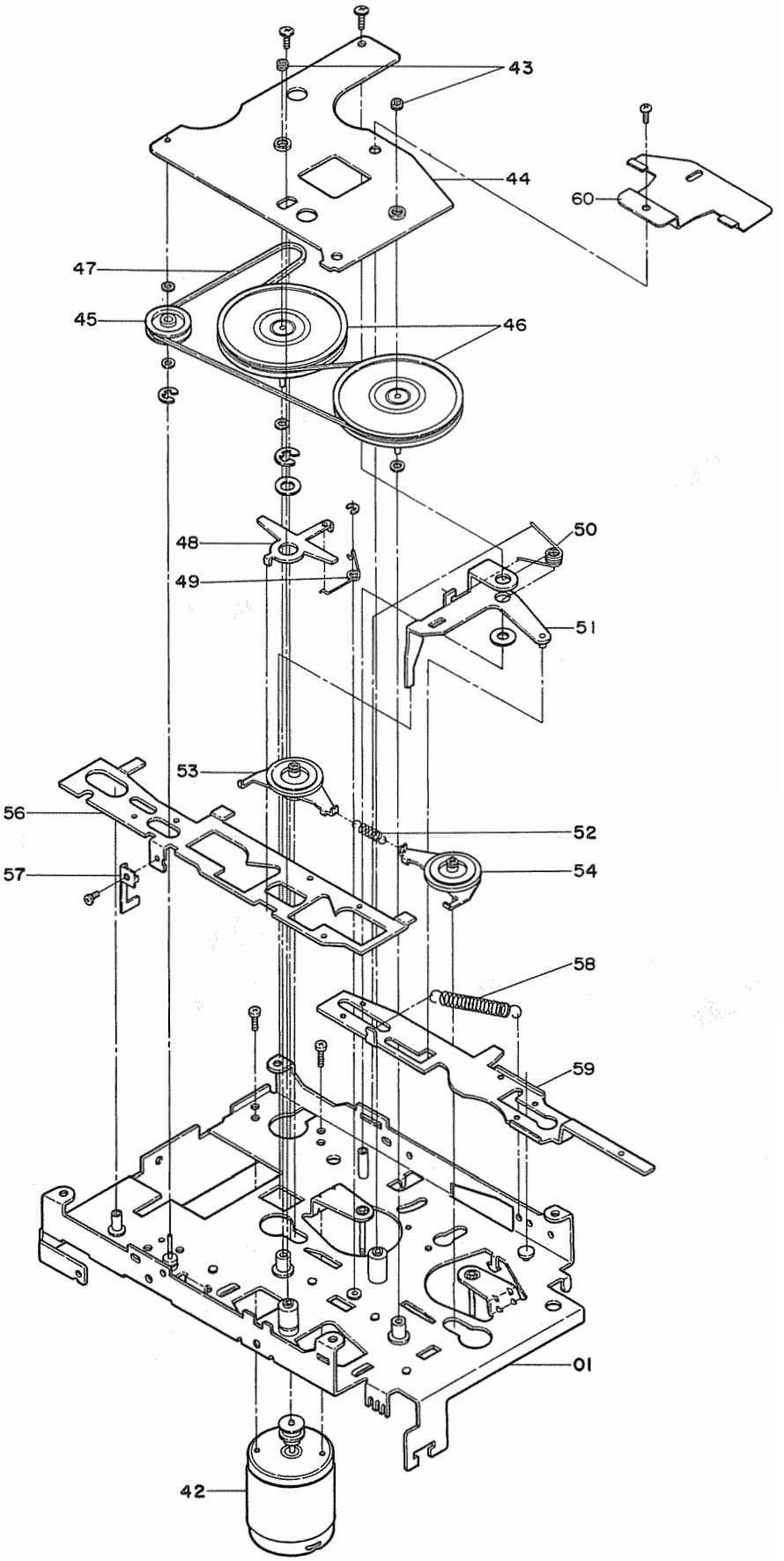
AM ALIGNMENT POINT



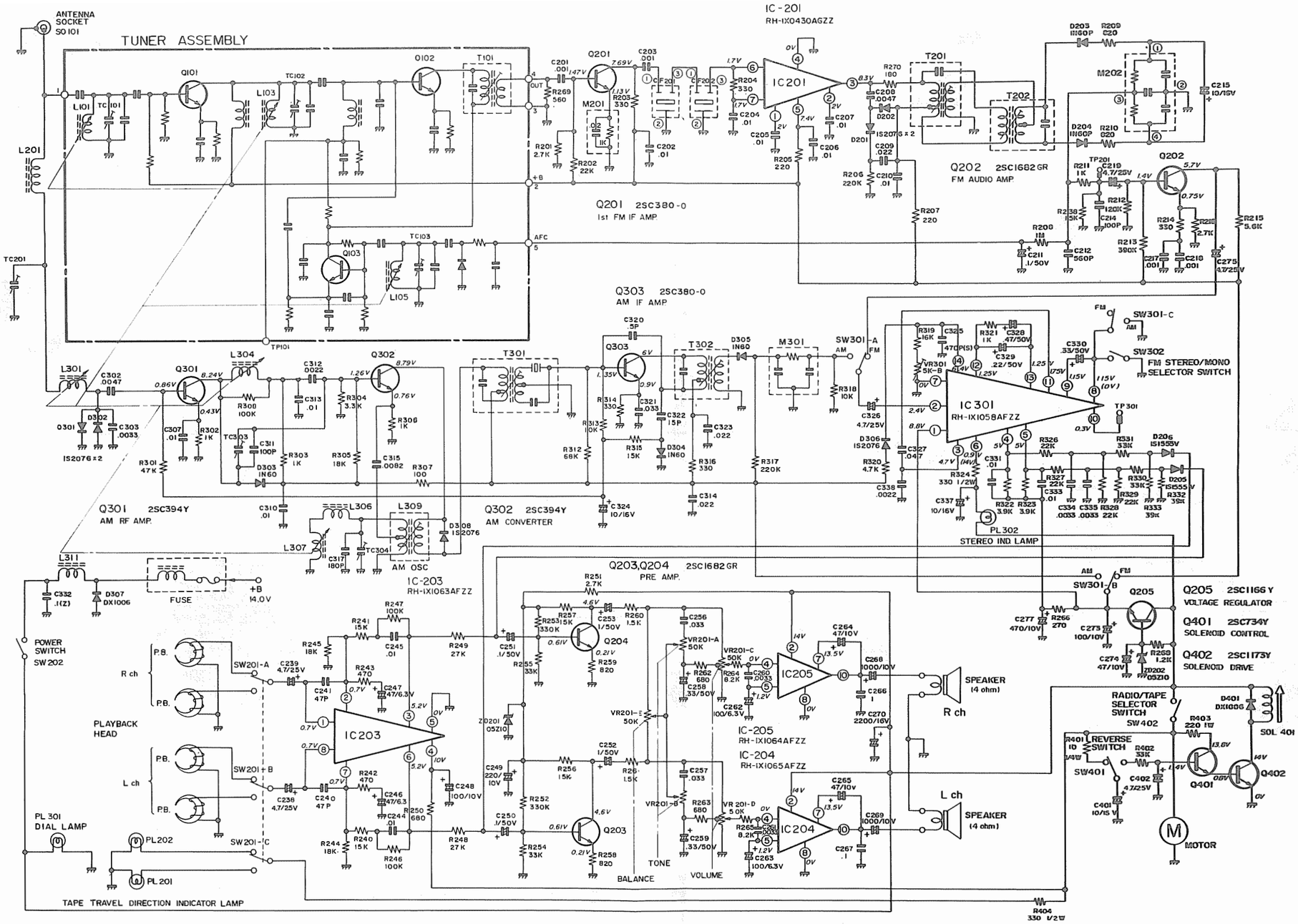
AM/FM/FM STEREO ALIGNMENT POINT



MECHANISM EXPLODED TOP VIEW



MECHANISM EXPLODED BOTTOM VIEW



NOTES;

SWITCH NO.	TYPE	POSITION
SW201(A ~ C)	PROGRAM SELECTOR SWITCH	FOW - REV.
SW202	POWER SWITCH	ON - OFF
SW301(A ~ C)	FM/AM SELECTOR SWITCH	FM - AM
SW302	FM STEREO/MONO SELECTOR SWITCH	STEREO - MONO
SW401	REVERSE SWITCH	ON - OFF
SW402	RADIO/TAPE SELECTOR SWITCH	RADIO - TAPE

VOLTAGE READING ARE MEASURED WITH V.T.V.M. WITH NO SIGNAL AND VOLUME CONTROL AT MINIMUM.

FREQUENCY RANGE : AM 525~1605 kHz
FM 87.6~108 MHz

AM IF 452 kHz, FM IF 10.7 MHz

CAPACITANCE VALUES ARE IN MFD P = MMFD

RESISTANCE VALUES ARE IN OHM K=1000 M=1000K

Sharp RG-5702