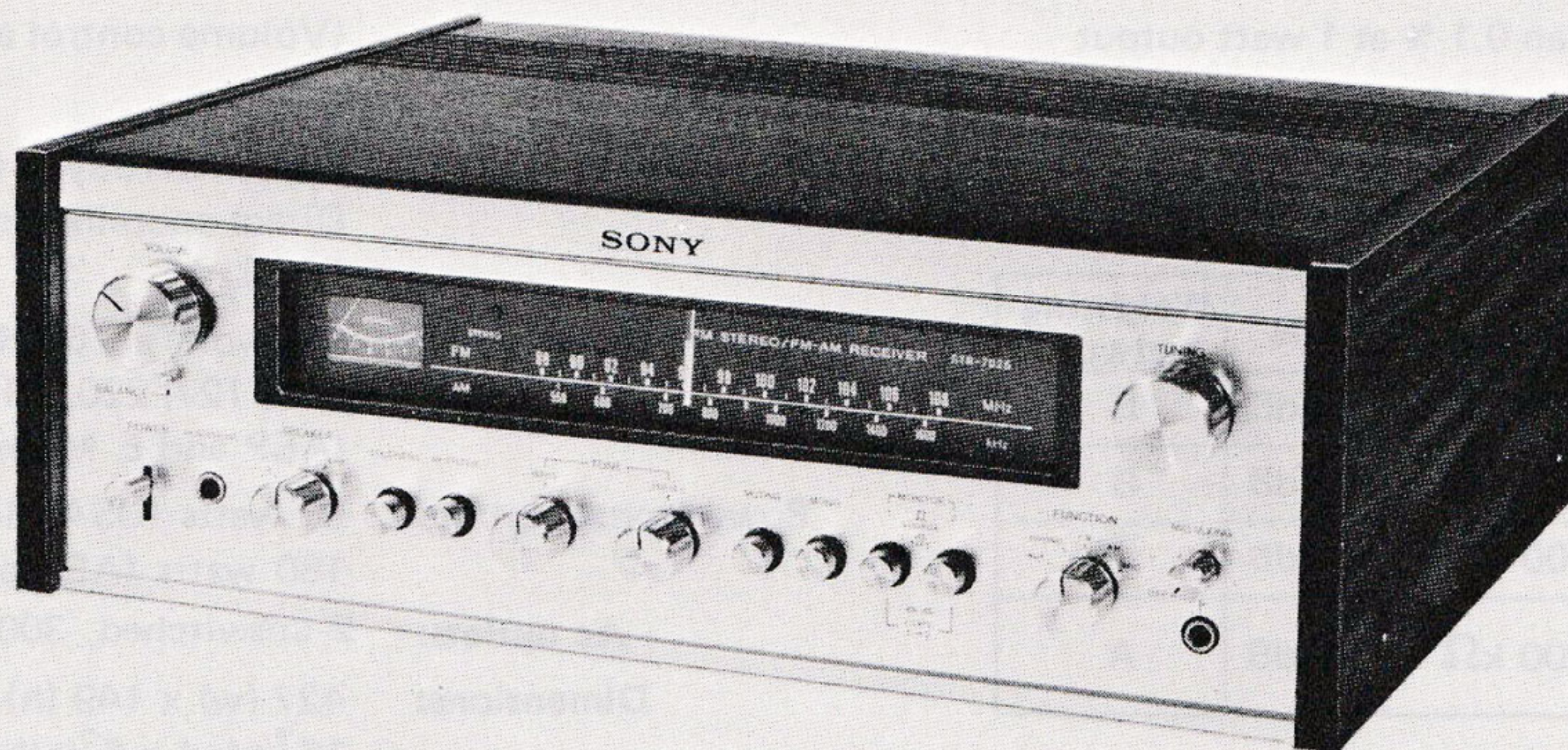


STR-7025

USA Model
AEP Model
E Model



FM STEREO/FM-AM RECEIVER

SPECIFICATIONS

FM TUNER SECTION

Frequency range:	87.5 — 108 MHz
Intermediate frequency:	10.7 MHz
Antenna terminals:	300 ohms balanced 75 ohms unbalanced
Sensitivity:	2.2 μ V (6.5 dB), IHF 1.7 μ V (4.5 dB), S/N = 30 dB
Image rejection:	55 dB
IF rejection:	90 dB
Spurious rejection:	78 dB
A-m suppression:	55 dB
Capture ratio:	1.5 dB
Selectivity:	60 dB, IHF
S/N ratio:	68 dB
Harmonic distortion:	Mono 0.3 % at 400 Hz, 75 kHz deviation (100 %) mod Stereo 0.8 % at 400 Hz, 75 kHz deviation (100 %) mod
Stereo separation:	35 dB at 400 Hz
Frequency response:	30 Hz — 15 kHz $^{+0}_{-2}$ dB

A-M TUNER SECTION

Frequency range:	530 — 1,605 kHz
Intermediate frequency:	455 kHz (USA Model) 468 kHz (AEP, E Model)
Antenna:	Built-in ferrite-bar antenna and external antenna terminal
Sensitivity:	250 μ V/m (48 dB/m), built-in antenna 30 μ V (29 dB), external antenna
Image rejection:	56 dB at 1,000 kHz
IF rejection:	40 dB at 1,000 kHz
S/N ratio:	50 dB
Harmonic distortion:	0.8 %

— continues to page 2 —

SONY
SERVICE MANUAL

AMPLIFIER SECTION

Continuous power output (Rated output): 18 watts per channel (8 ohms)
At 40 Hz – 20 kHz
Less than 0.8 % THD, both channels driven simultaneously

Power bandwidth (IHF): 10 Hz – 25 kHz

Harmonic distortion: Less than 0.8 % at rated output
Less than 0.1 % at 1 watt output

IM distortion: Less than 0.8 % at rated output
(60 Hz : 7 kHz = 4 : 1)
Less than 0.1 % at 1 watt output

Residual noise: Less than 0.08 μ W

Damping factor: 25 at 1 kHz, 8 ohms

Input sensitivity, impedance and S/N ratio:

Input	Sensitivity	Impedance	S/N	Weighting network
PHONO	2.5 mV	47 k Ω	60 dB	B
MIC	2 mV	47 k Ω	60 dB	B
AUX	250 mV	100 k Ω	70 dB	A
TAPE 1, 2 REC/PB (input)	250 mV	100 k Ω	80 dB	A

Measured with specified RMS power output into 8-ohm loads (both channels driven simultaneously) at 1 kHz.

Output voltage and impedance:

Output	Voltage	Impedance	Input level
REC OUT 1, 2	250 mV	10 k Ω	PHONO 2.5 mV MIC 2 mV
REC/PB (output)	30 mV	82 k Ω	AUX, TAPE 1, 2 250 mV REC/PB (input)

Headphone: Accepts 8 Ω – 10 k Ω headphones

Speaker: 4 – 16 Ω speakers are suitable

Frequency response: PHONO RIAA equalization curve \pm 2 dB
MIC 30 Hz – 10 kHz $\begin{smallmatrix} +0 \\ -3 \end{smallmatrix}$ dB
AUX, TAPE 1, 2 } 30 Hz – 40 kHz $\begin{smallmatrix} +0 \\ -3 \end{smallmatrix}$ dB
REC/PB (input) }

Tone control: BASS; \pm 10 dB at 100 Hz
TREBLE; \pm 10 dB at 10 kHz

High filter: 6 dB/oct. above 5 kHz

Loudness: +6 dB at 50 Hz, +4 dB at 10 kHz
(Volume control attenuation 30 dB)

GENERAL

Circuit system: Superheterodyne fm/a-m tuner,
Direct coupling power amplifier (SEPP OTL)

Power requirements: 120 volts ac, 60 Hz (USA Model)
110, 127, 220, 240 volts ac, 50/60 Hz (AEP and E Model)

Power consumption: 60 watts (USA Model)
160 watts (AEP and E Model)

Ac outlets: 2 unswitched, 300 watts total (USA Model only)

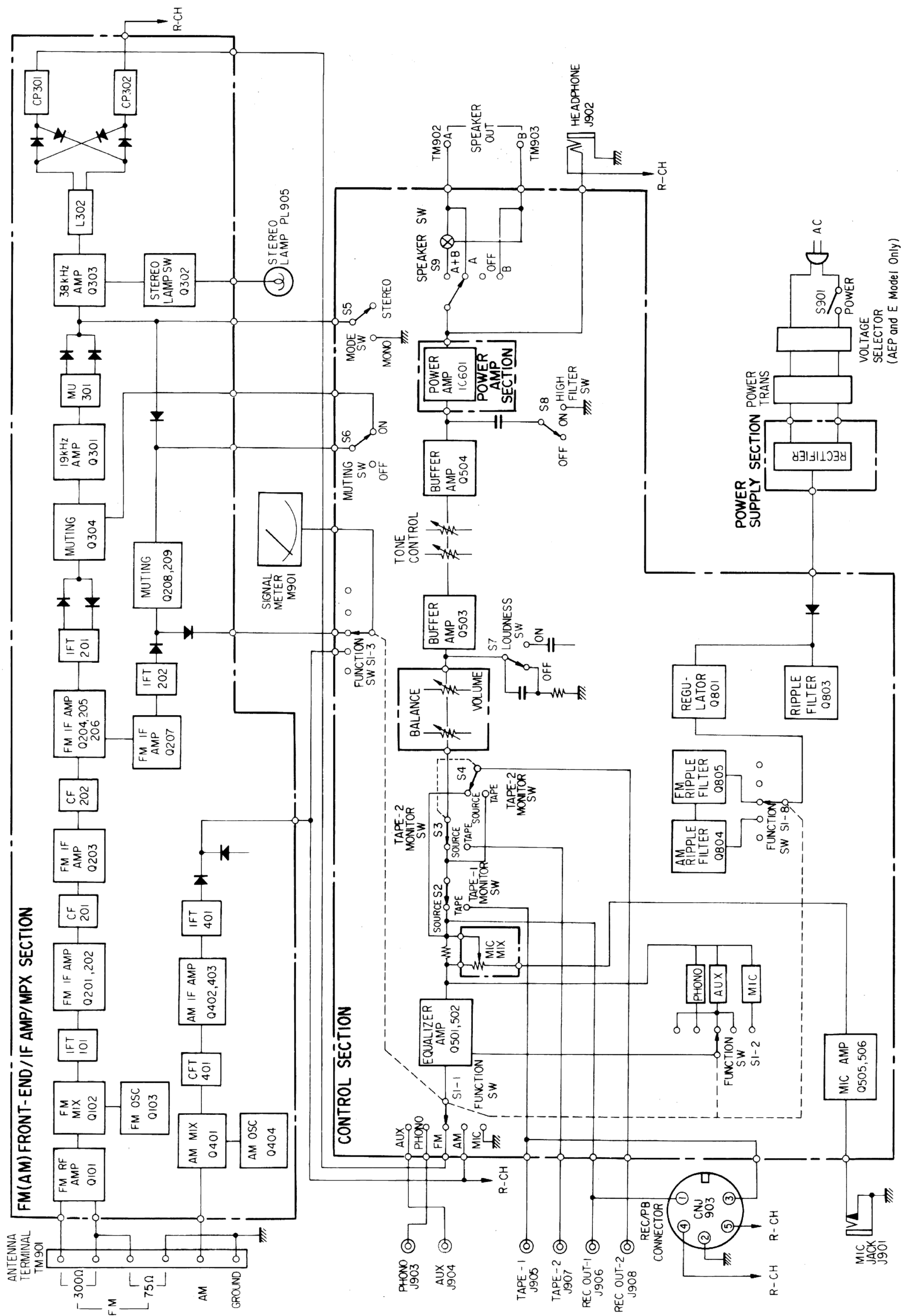
Dimensions: 427 (w) x 149 (h) x 340 (d) mm
16⁷/₈(w) x 5⁷/₈(h) x 13³/₈(d) inches including projecting parts and controls

Weight: Approx. 8.5 kg (18 lb 12 oz), net
Approx. 11 kg (24 lb 5 oz), in shipping carton

Note: Applicable Serial Numbers
USA Model: 800,001 and later
AEP Model: 500,001 and later
E Model: 400,001 and later

SECTION 1

BLOCK DIAGRAM



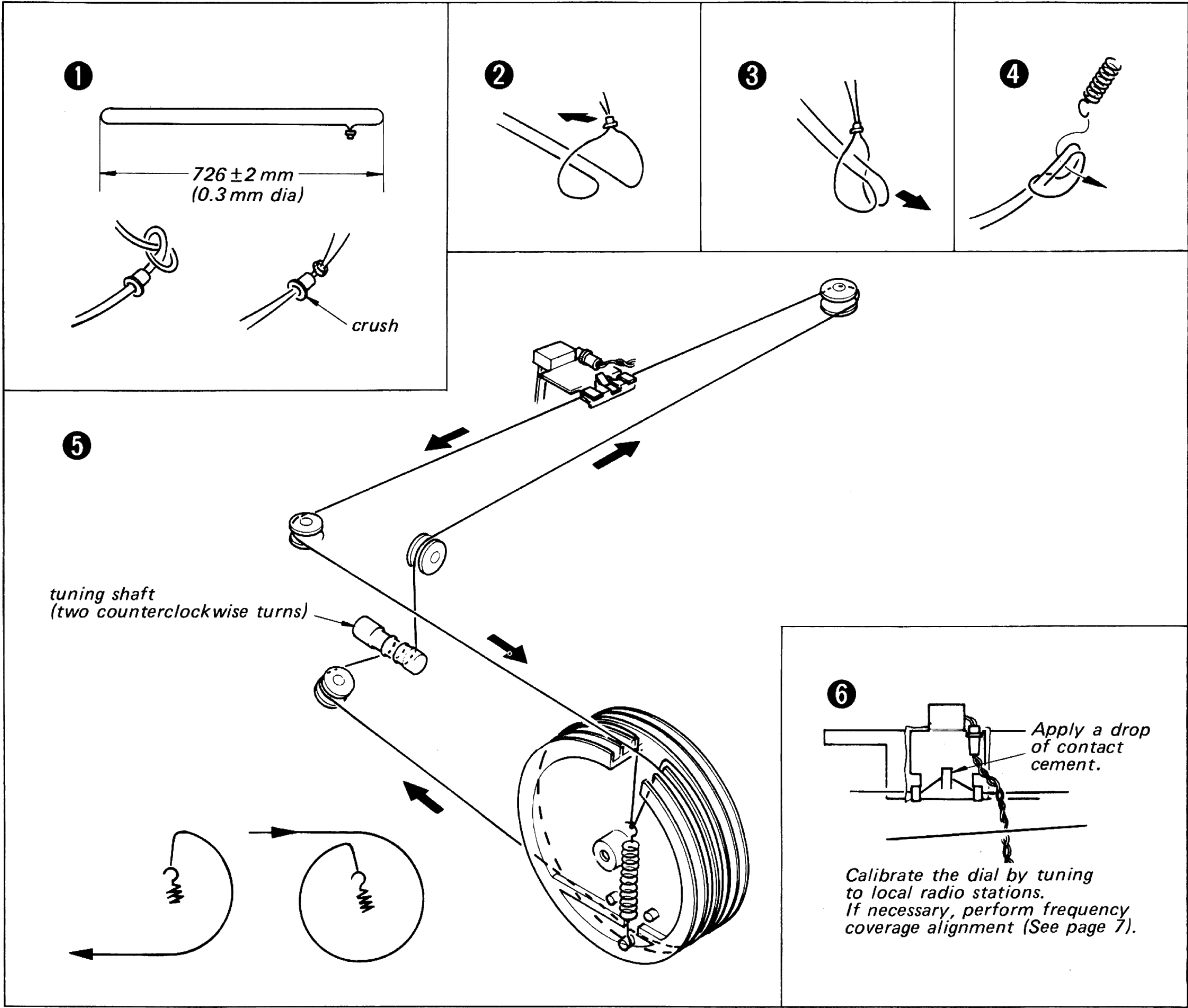
SECTION 2

DISASSEMBLY AND REPLACEMENT

2-1. FRONT PANEL REMOVAL



2-2. DIAL CORD STRINGING



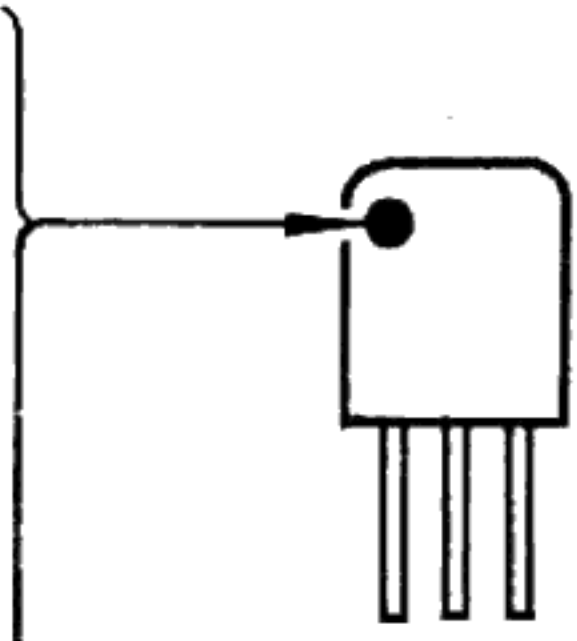
SECTION 3
ALIGNMENT AND ADJUSTMENT

3-1. FM IF AND DISCRIMINATOR ALIGNMENT (See p.6 for the procedure.)

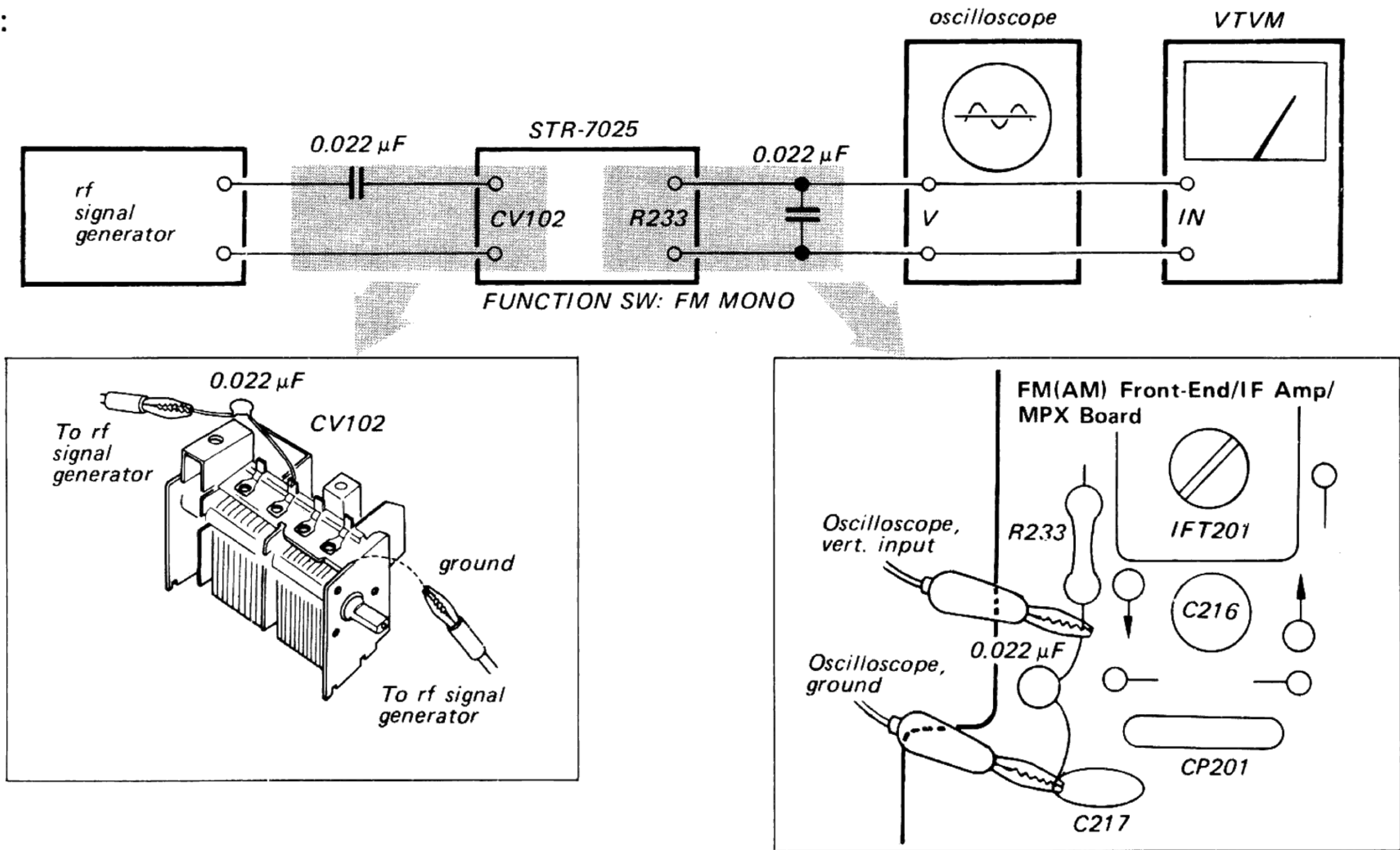
FM I-F CERAMIC FILTERS

The ceramic filters used in the fm i-f circuit are color coded according to their specified center frequencies.

Part No.	Specified Center Freq.	Color
1-527-220-11	10.70 MHz	red
1-527-220-21	10.67 MHz	blue
1-527-220-31	10.73 MHz	orange
1-527-220-41	10.64 MHz	black
1-527-220-51	10.76 MHz	white

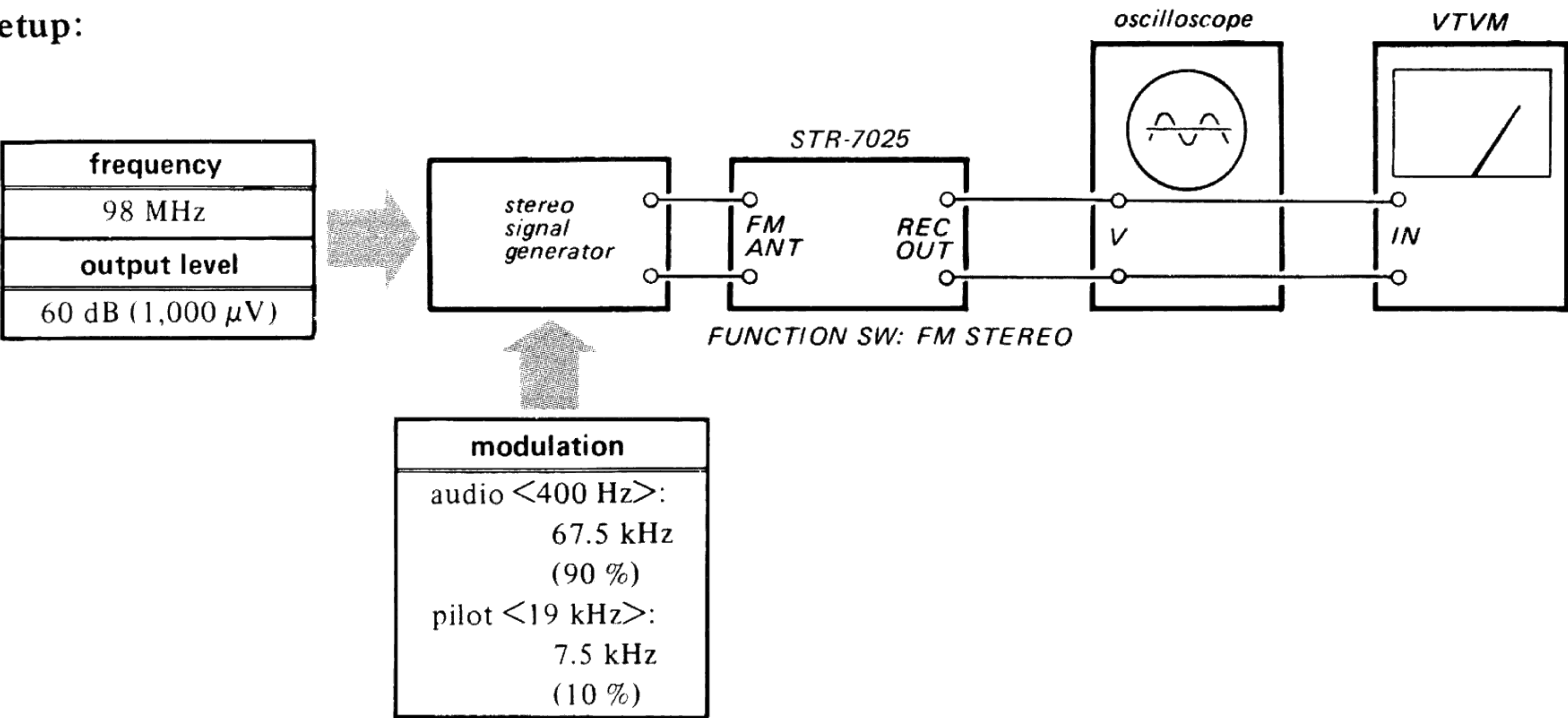


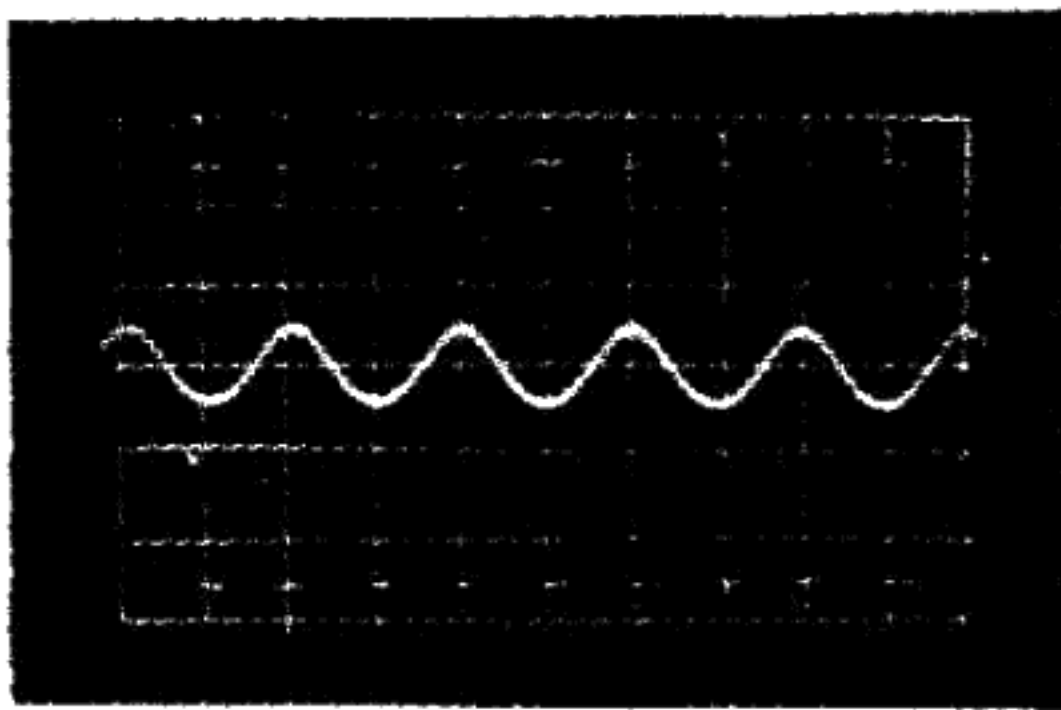
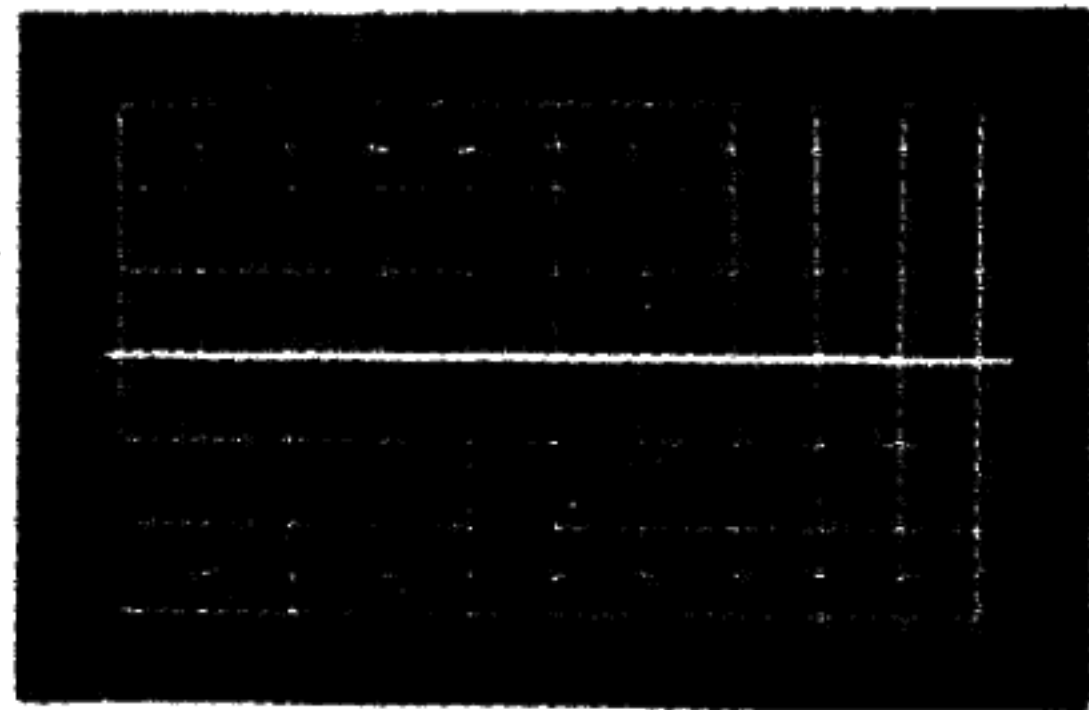
Setup:

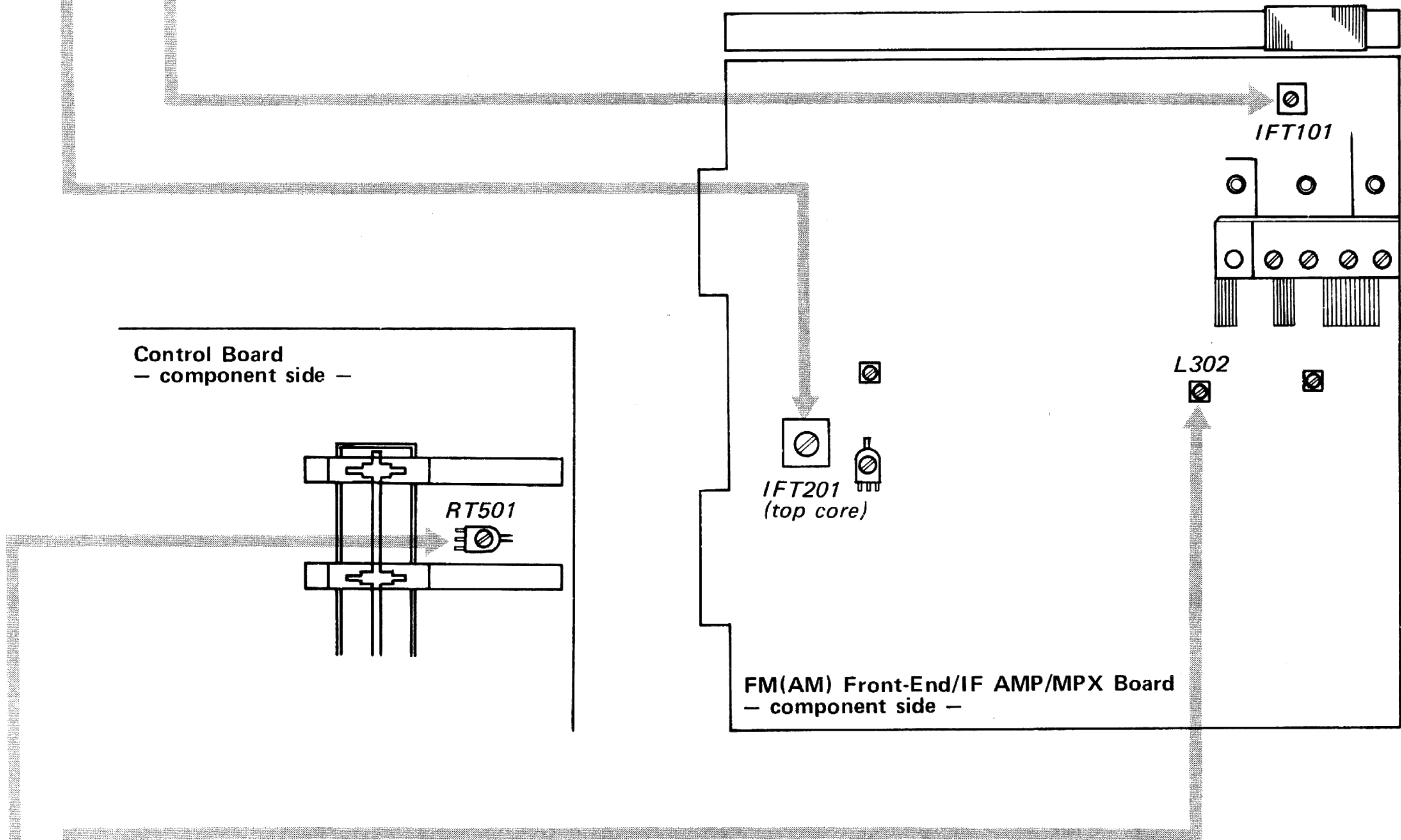


3-2. FM STEREO SEPARATION ADJUSTMENT (See p.6 for the procedure.)

Setup:



FM IF AND DISCRIMINATOR		
Step	Signal Generator Setting:	Procedure
	Frequency = (center freq. of ceramic filter) Modulation	
1	FM 400 Hz 75 kHz deviation (100 %)	Tune STR-7025 to SG signal.
2	AM 400 Hz 30 %	Oscilloscope  Adjust 
3	FM 400 Hz 75 kHz deviation (100 %)	Adjust for maximum reading on VTVM.



FM STEREO SEPARATION				
Step				
1	Adjust for maximum reading on VTVM.			
2	1)	FM SG signal mode	Read receiver's output at	VTVM reading
	2)	L-CH	L-CH REC OUT	(A)
	3)	R-CH	L-CH REC OUT	(B)
	4)	R-CH	R-CH REC OUT	(C)
3	1)	L-CH	R-CH REC OUT	(D)
	Readjust for (A) - (B) = (C) - (D).			

Adjust for maximum reading on VTVM.

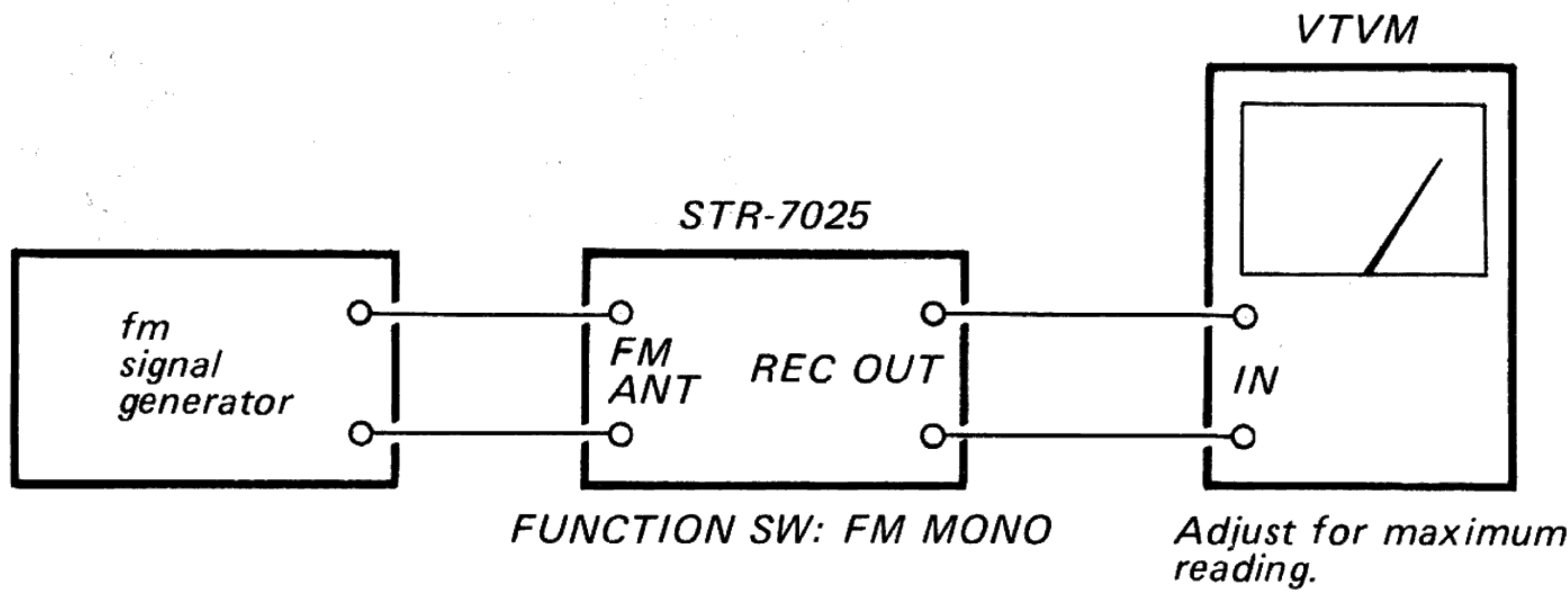
3-3. FM TRACKING ALIGNMENT

Never attempt alignment of the front-end section except for the frequency-coverage and dial-calibration adjustments. The front-end section of the tuner has been carefully adjusted at the factory, so that very little adjustment is necessary in the field.

If an rf-stage adjustment is required, ask your nearest SONY Service Station to send your unit to the Factory Service Center for a complete front-end alignment.

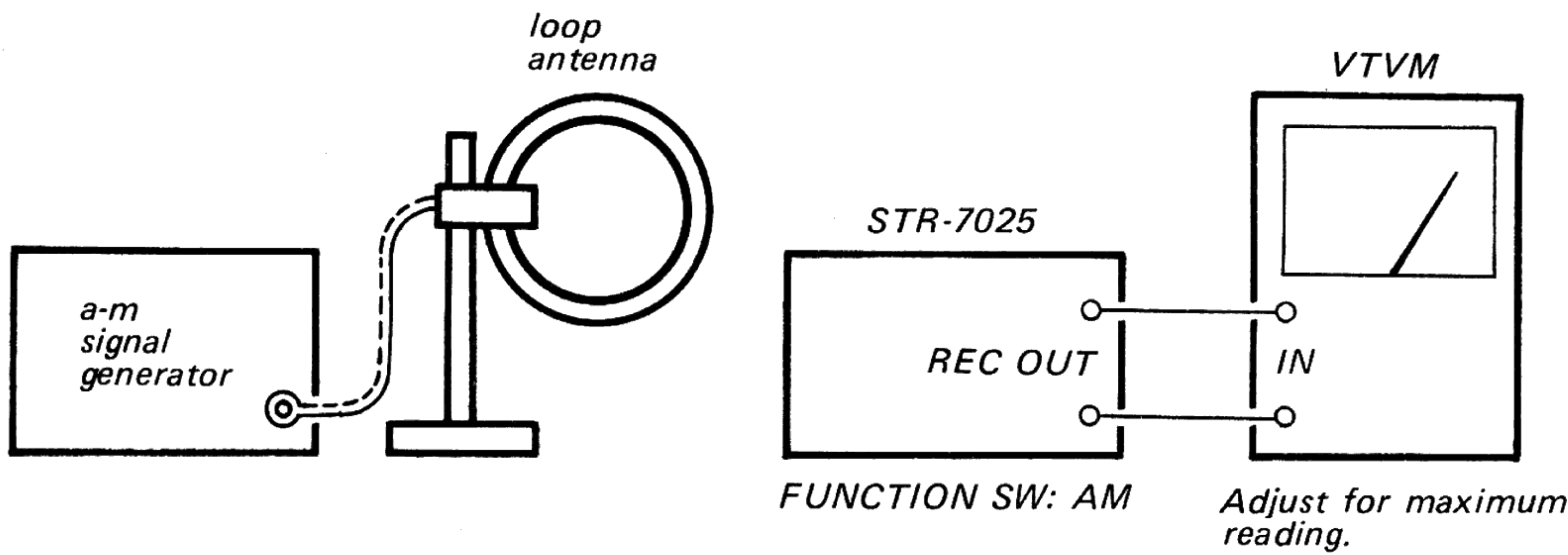
3-4. FM FREQUENCY COVERAGE ALIGNMENT (See p. 8 for the procedure.)

Setup:



3-5 AM FREQUENCY COVERAGE AND TRACKING ALIGNMENT (See p. 8 for the procedure.)

Setup:



3-6. MUTING ADJUSTMENT (See p. 8 for the procedure.)

Setup:

