IF-AF SECTION

FM IF Alignment

STEP	FM SG FREQUENCY/ CALIBLATION	MODULATING FREQUENCY/ DEVIATION	SWITCHES OF THE TUNER	LED FREQUENCY DISPLAY	ADJUSTMENT POINT	PROCEDURE	REMARKS
1	98.1MHz/60dBμ	(No modulation)	A. DE-EMPHASIS to "NORMAL" B. MAIN POWER to "ON". C. POWER to "ON". D. MODE to "MONO". E. HI-BLEND to "OFF". F. IF BAND to "WIDE".	98.1MHz	T102 (Photo 7)	Connect DC voltmeter to test points "TP2", "TP3" (Photo 7) and adjust for 0 V.	
2					T103 (Green Core) (Photo 7)	Connect DC voltmeter to test point "TP4" (Photo 7) and ground and adjust for 0 ± 50 mV.	
3		400Hz/ mono [±75kHz]			T103 (Red Core) (Photo 7)	Adjust for minimum distortion.	
4	98.1MHz/0-6dBμ				T101 (Photo 7)	Adjust for maximum AC voltmeter deflection.	
5			A~E. Same as above. F. IF BAND to "NARROW".		TF4, TF5 (Photo 7)		
6	98.1MHz/60dBμ	10kHz/ mono [±75kHz]	A. DE-EMPHASIS to "25 μS". B~E. Same as above. F. IF BAND to "WIDE".		C155 (Photo 7)	Adjust for minimum distortion.	
7			A~E. Same as above. F. IF BAND to "NARROW".		C153 (Photo 7)		

FM MPX Alignment

STEP	FM SG FREQUENCY/ CALIBLATION	MODULATING FREQUENCY/ DEVIATION	SWITCHES OF THE TUNER	LED FREQUENCY DISPLAY	ADJUSTMENT POINT	PROCEDURE	REMARKS
1	98.1MHz/60dBμ	(No modulation)	A. DE-EMPHASIS to "NORMAL". B. MAIN POWER to "ON". C. POWER to "ON". D. MODE to "STEREO". E. HI-BLEND to "OFF". F. IF BAND to "WIDE".	98.1MHz	R315 (Photo 7)	Connect frequency counter to test point "TP5" (Photo 7) and adjust for 76kHz ±70Hz.	
2		400Hz/stereo [main (R+L) & sub (L-R): ±67.5kHz/19kHz pilot: ±7.5kHz]				Check that stereo lamp lights up and that audio outputs (left and right channel) are observed on scope when MUTING THRESHOLD knob is CCW.	
3		19kHz pilot only: ±7.5kHz			R316 (Photo 7)	Adjust for minimum 19kHz pilot leakage.	

4		400Hz/stereo [main (L) & sub (L): ±67.5kHz; 19kHz pilot: ±7.5kHz]			R360 (Photo 7)	Adjust for maximum separation (or minimum output of right channel).	Both the separations (or both the outputs of right and left channels) should be equal.
5		400Hz/stereo [main (R) & sub (−R): ±67.5kHz; 19kHz pilot: ±7.5kHz]				Adjust for maximum separation (or minimum output of left channel).	
6		Same as Step 4.	A~E. Same as above. F. IF BAND to "NARROW".		R361 (Photo 7)	Same as Step 4.	Same as above.
7		Same as Step 5.				Same as Step 5.	

LED Signal-Strength Display Circuit Alignment

STEP	FM SG FREQUENCY/ CALIBLATION	MODULATING FREQUENCY/ DEVIATION	SWITCHES OF THE TUNER	LED FREQUENCY DISPLAY	ADJUSTMENT POINT	PROCEDURE	REMARKS
1	98.1MHz/60dBμ	400Hz mono [75kHz]	A. DE-EMPHASIS: either position. B. MAIN POWER to "ON". C. POWER to "ON". D. MODE to "MONO". E. HI-BLEND: either position. F. IF BAND to "WIDE".	98.1MHz	R375 (Photo 7)	Adjust unit five signal-strength display LED's light up.	
	98.1MHz/30-40 dBμ					Adjust until three signal-strength display LED's light up.	
	(No signal)					Adjust unit any signal-strength display LED no longer lights up.	
2	Same as Step 1.		A~E. Same as above. F. IF BAND to "NARROW".		R374 (Photo 7)	Same as Step 1.	

Muting Threshold Adjustment

STEP	FM SG FREQUENCY/ CALIBLATION	MODULATING FREQUENCY/ DEVIATION	SWITCHES OF THE TUNER	LED FREQUENCY DISPLAY	ADJUSTMENT POINT	PROCEDURE	REMARKS
1	98.1MHz/40dBμ	400Hz/ mono [±75kHz]	A. DE-EMPHASIS to "NORMAL". B. MAIN POWER to "ON". C. POWER to "ON". D. MODE to "STEREO". E. HI-BLEND to "OFF". F. IF BAND to "WIDE". G. MUTING THRESHOLD to full CW.	98.1MHz	R362 (Photo 7)	Adjust until audio output is observed on scope.	Repeat steps 1 and 2 several times.
2	98.1MHz/10dBμ				R363 (Photo 7)	Adjust until audio output is no longer present on scope.	