Galaxy DX Radios DX2517

Documentation Project

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Transmitter Alignment

See Alignment Locations

SETTINGS	CONNECTION	ADJUST	ADJUST FOR
Remove TP7-TP9 Jumper PCB.			
TX OFFSET FREQUENCY: Set mode to LSB RX	Connect Frequency Counter to TP3.	VR7	Key TX; Adjust for 16.2675MHz ±20Hz.
TX CARRIER OSCILLATORS: AM TX Mode Band D CH. 1	Connect Frequency Counter to TP6	L25	LSB/ TX mode: Adjust for 10.6975MHz ±20Hz.
	Connect Frequency Counter to TP6	L24	USB/ TX mode: Adjust for 10.6925MHz ±20Hz.
	Connect Frequency Counter to TP5	L23	AM/ TX mode: Adjust for 10.6950MHz ±20Hz.
DRIVER BIAS: (2SC2166) Set Radio to: Band D, Ch.1 Mode to USB MIKE GAIN at minimum. Remove shorting pcb from TP7,TP8, TP9	Connect DC Ammeter between TP7 and TP9.	VR12	Key TX adjust for 50-75mA.
FINAL BIAS: (2SC2312's) Set Radio to: Band D, Ch.1 Mode to USB MIKE GAIN at minimum Remove shorting pcb from TP7,TP8, TP9	Connect DC Ammeter between TP7 and TP8.	VR11 VR10	Key TX and set VR10 & VR11 to 0mA. Then adjust VR11 for 50mA. and then adjust VR10 for total of 100mA for both.
Replace TP7-TP9 Jumper PCB.			
RF AMP CHAIN: Replace shorting pcb. Set mode to AM. Set RF power control to MAX.	Connect wattmeter to ANT output.	L44, L43, L42, L40,	Key TX & adjust (in order) for maximum RF output . Recheck power across entire freq. range.
SSB CARRIER BALANCE: Set mode to USB	Connect wattmeter to ANT output.	VR6	Key TX, adjust for min. carrier leakthrough on scope or wattmeter.

Set RF power control to Max MIKE GAIN to minimum.			Recheck on LSB mode. If necessary readjust for best balance of sideband suppression between LSB & USB
SSB APC: Set mode to USB Set RF power control to MAX. MIKE GAIN to minimum.	Connect DC voltmeter from pcb ground to TP7	VR17	In TX, adjust for 13.0vdc
SSB ALC: Mode to USB. MIKE GAIN to maximum. Inject two-tone audio signal of 700Hz and 1900 Hz, 30 mV to Mic input.	Connect wattmeter to ANT output.	VR13	In TX, adjust for 28 watts PEP.
AM CARRIER POWER: Set mode to AM, MIKE GAIN at minimum. RF Power control to MAX.	Connect wattmeter to ANT output. **CAUTION!** Do not exceed power levels. Damage to power transistors and inability to achieve 100% modulation from insufficient audio power will result.	VR14	Set RF PWR to MAX. adjust for 10 watts
		VR18	Set RF PWR to MIN. Adjust for 1-2 watts
RF METER: Set mode to AM, RF Power control to MAX MIKE GAIN at minimum.	Connect wattmeter to ANT output.	VR9	Adjust so RF meter agrees with Wattmeter.
AMC: Mode to AM. RF Power control to MAX. MIKE GAIN to maximum. Inject audio signal of 1KHz at 30mV to Mic input.	Connect modulation meter to ANT output.	VR16	Adjust for 100% modulation depth.
MODULATION METER: Mode to AM. RF Power control to MAX. MIKE GAIN to maximum. Inject audio signal of 1KHz at 30mV to Mic input.	Connect modulation meter to ANT output.	VR15	Adjust so meter agrees with modulation meter.
FM DEVIATION: Mode to FM MIKE GAIN to maximum.	Connect deviation meter to ANT output.	VR5	Adjust for total deviation of 4.5 KHz.

Inject 1 KHz, 30 mV audio signal at mike jack.			