

PRESIDENT DWIGHT D

uPD2816C PLL

Equipment Required:

5 or 6 digits Frequency Counter.
 30 MHz Oscilloscope.
 RF Signal Generator.
 Audio Oscillator
 50 Ω Dummy Load and Power Meter.
 DVM.

PLL ALIGNMENT

STEP	PRESET CONDITIONS	PROCEDURE
1	Set the radio to channel 19, RX, Mic gain CCW, RF gain CCW	Connect the Oscilloscope to TP6, Adjust L23 for max signal.
2	As Above	Connect the Frequency Counter to TP6, Adjust L21 for 10.240 MHz.
3	Set the radio to channel 40 TX, Mic gain CCW, RF gain CCW	Connect the DVM to junction for R64 and R66 on some chassis TP3 VCO adjust L20 for 3.30 vdc in TX.
4	Set the radio to channel 19, RX, Mic gain CCW, RF gain CCW	Connect the Oscilloscope to TP11 (IC2 Pin 4), Adjust L19 for max signal.
5	As Above	Connect the Oscilloscope to TP2, Adjust L18 for max signal.

TRANSMITTER ALIGNMENT

STEP	PRESET CONDITIONS	PROCEDURE
1	Set the radio to channel 19, TX, Mic gain CW, RF gain CCW, Power meter and Dummy Load.	Connect the Oscilloscope to Antenna jack, Adjust L24, L25, L17, L16, and L13 for max signal. [DO NOT ADJUST L10]
2	As Above	Inject 100mV at 1KHz in to the Mike jack (Pin 2) Adjust VR6 for 95% modulation.
3	As Above	Power Meter, Adjust VR4 so it shows the same as the Ext Power Meter.

RECEIVER ALIGNMENT

STEP	PRESET CONDITIONS	PROCEDURE
1	Set the radio to channel 19, RX, Mic gain CW, RF gain CW, Squelch CCW, Set the RF Signal Generator for 27.185 MHz 1uV 30% Modulation, 1KHz.	Adjust L8, L7, L6, L5, L3, L2, and L1 for max signal on the S/RF Meter.
2	As Above	Adjust VR1 for max IF Gain
3	As Above except with RF Signal Generator at 100 uV	S Meter, Adjust VR2 so it shows S9.