

- OPEN LOOP PRETUNE ADJUSTMENT PROCEDURE
1. OPEN LOOP AND CONNECT COUNTER TO MEASURE VCO FREQUENCY OF LOOP BEING ADJUSTED.
 2. SET FRONT PANEL FREQUENCY SETTING TO 320.0 MHz AND ADJUST GAIN (ON VCO ASSEMBLY) FOR THE FREQUENCY GIVEN IN TABLE I.
 3. SET FRONT PANEL FREQUENCY SETTING TO 329.9 MHz AND ADJUST POSITION (ON VCO ASSEMBLY) FOR THE FREQUENCY GIVEN IN TABLE I.
 4. ADJUSTMENTS ARE INTERACTIVE SO REPEAT STEPS 2 AND 3 UNTIL BOTH FREQUENCIES ARE WITHIN LIMITS.

TABLE I. VCO OPEN LOOP FREQUENCIES

FRONT PANEL FREQUENCY SETTING (MHz)	N LOOP VCO (A3A4J2) ±3 MHz	SUM LOOP VCO (A3A7J1) ±3 MHz	FM SUM LOOP VCO (A3A8J2) ±0.3 MHz	VOLTAGE (A3A11TP8) 20.5Vdc	PRETUNING BIT ON
320.0	120	120	10.0	7.34	NONE
320.1	123	121	10.1	7.28	DF6-1
320.2	124	122	10.2	7.22	DF6-2
320.4	126	124	10.4	7.08	DF6-4
320.8	130	128	10.8	6.84	DF6-8
321.0	130	130	11.0	6.74	DF7-1
322.0	142	140	12.0	6.12	DF7-2
324.0	162	160	14.0	4.89	DF7-4
328.0	200	200	18.0	2.44	DF7-8
329.9	221	219	19.9	1.27	ALL

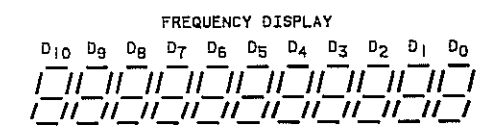
NOTES

1. FREQUENCY FORMULAS GIVEN FOR BLOCKS 20, 23 AND 26 APPLY ONLY WHEN THE FRONT PANEL FREQUENCY SETTING IS BETWEEN 320 AND 640 MHz (THAT IS, THE BASIC BAND). THE FORMULAS DO NOT APPLY AND THE FAILURE IS PROBABLY NOT IN THESE CIRCUITS, IF A FREQUENCY FAILURE OCCURS OUTSIDE THE BASIC BAND.

FIGURE 8-210 IN THE FREQUENCY DISPLAY ARE NUMBERED IN THE MANNER SHOWN BELOW. ENTER THE VALUE OF EACH DIGIT INTO THE FORMULAS AND USE THE DECIMAL POINT SHOWN IN THE FORMULA INSTEAD OF THE DISPLAYED DECIMAL POINT.

FOR EXAMPLE, IF THE DISPLAYED FREQUENCY IS 532.8764019 MHz,

- THE OUTPUTS OF BLOCK 20 WOULD BE: 122 + 28 MHz OR 150 MHz.
- THE OUTPUTS OF BLOCK 23 WOULD BE: 120 + 28.764019 MHz OR 148.764019 MHz.
- THE OUTPUTS OF BLOCK 26 WOULD BE: 10 + 2.8764019 MHz OR 12.8764019 MHz AT A3A8J2, AND 100 + 28.764019 MHz OR 128.764019 MHz AT A3A8J1 AND J3.



BD5

Figure 8-210. Low Frequency Loops Block Diagram