SM5104-PLL FREQUENCY MODIFICATION (AM CHASSIS)

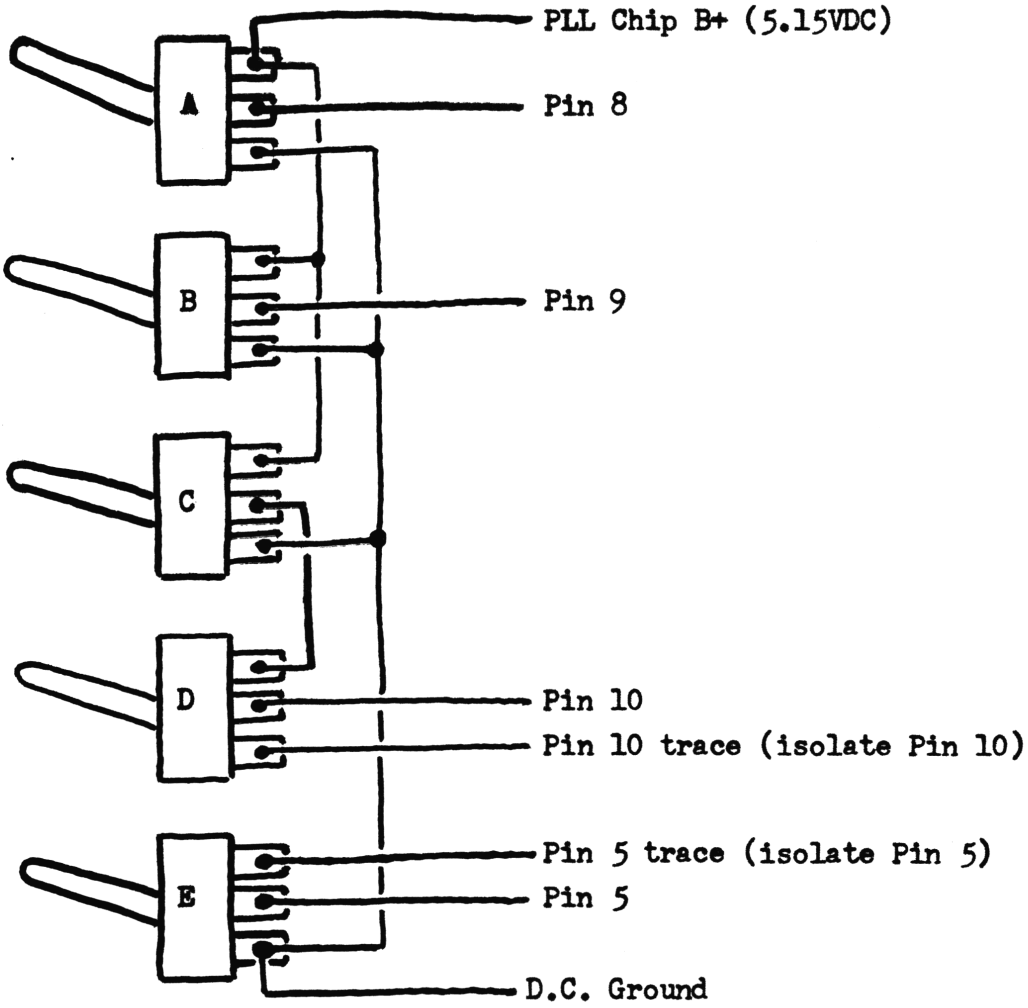
This modification is for the SM5104 AM Chassis. Units most commonly found are the Courier: Caravelle 40D, Conqueror 40D, FanFare 880DF.

The chip has more coverage than the unit can utilize; 24.775 to 28.355MHz in these chassis - but realignment of the PLL circuitry is necessary for extended coverage.

Switching arrangement below and chart is for a 'stock' VCO in a Courier Caravelle 40D.. as this unit only covered from 26.165 to 27.825MHz.

Consult SAMS 157, pg. 56 for normal pin conditions - and mount all switches so that when in down position, the unit is regular 40 ch 'C.B.'...

Switch wiring is below, all are Single Pole, Double Throw.



SM5104-PLL Fo. Mod. (Cont.)

If you have mounted the sw's correctly all down should be normal Fo's...

Following chart is what you will get with sw/sws in the up position..

Selector	A-B	E	B-E	A-B-E	ALL	B-C-D-E	C-D	C-D-E
1	26.325	26.325	26.645		26.165	26.805	27.285	26.485
2	26.335	26.330	26.650		26.170	26.810	27.295	26.490
3	26.345	26.335	26.655		26.175	26.815	27.305	26.495
4	26.365	26.345	26.665		26.185	26.825	27.325	26.505
5	26.375	26.350	26.670		26.190	26.830	27.335	26.510
6	26.385	26.355	26.675		26.195	26.835	27.345	26.515
7	26.395	26.360	26.680		26.200	26.840	27.355	26.520
8	26.415	26.370	26.690		26.210	26.850	27.375	26.530
9	26.425	26.375	26.695		26.215	26.855	27.385	26.535
10	26.435	26.380	26.700		26.220	26.860	27.395	26.540
11	26.445	26.385	26.705		26.225	26.865	27.405	26.545
12	26.465	26.395	26.715		26.235	26.875	27.425	26.555
13	26.475	26.400	26.720		26.240	26.880	27.435	26.560
14	26.485	26.405	26.725		26.245	26.885	27.445	26.565
15	26.495	26.410	26.730		26.250	26.890	27.455	26.570
16	26.515	26.420	26.740		26.260	26.900	27.475	26.580
17	26.525	26.425	26.745		26.265	26.905	27.485	26.585
18	26.535	26.430	26.750		26.270	26.910	27.495	26.590
19	26.545	26.435	26.755		26.275	26.915	27.505	26.595
20	26.565	26.445	26.765		26.285	26.925	27.525	26.605
21	26.575	26.450	26.770		26.290	26.930	27.535	26.610
22	26.585	26.455	26.775		26.295	26.935	27.545	26.615
23	26.615	26.470	26.790		26.310	26.950	27.575	26.630
24	26.595	26.460	26.780		26.300	26.940	27.555	26.620
25	26.605	26.465	26.785		26.305	26.945	27.565	26.625
26	26.625	26.475	26.795		26.315	26.955	27.585	26.635
27	26.635	26.480	26.800		26.320	26.960	27.595	26.640
28	26.645	26.485	26.805	26.165				
29	26.655	26.490	26.810	26.170				
30	26.665	26.495	26.815	26.175				
31	26.675	26.500	26.820	26.180				
32	26.685	26.505	26.825	26.185				
33	26.695	26.510	26.830	26.190				
34	26.705	26.515	26.835	26.195				
35	26.715	26.520	26.840	26.200				
36	26.725	26.525	26.845	26.205				
37	26.735	26.530	26.850	26.210				
38	26.745	26.535	26.855	26.215				
39	26.755	26.540	26.860	26.220				
40	26.765	26.545	26.865	26.225				

Switch B: Selector 1-19, will give 27.605 to 27.825MHz.

VCO unlocks below 26.165 and above 27.825MHz. Other positions not marked are repeats...