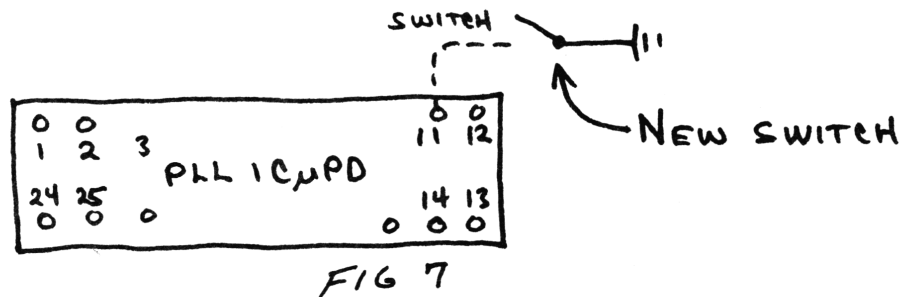


# HOW TO MODIFY MODEL 850 and 1400

## 1. Channel Expansion

You can get more channels 27.420 to 27.860 by modifying. This modification needs one SW.



## 2. To make the clarifier more effective both in mode TX and RX proceed as follows.

- A. Remove two wires (Model 850 - two blue wires, Model 1400 - Red and White wires) from tap of clarifier volume. Two wires must be connected together after removed and then insulated where connected.
- B. Connect a wire between +8V and the vacant tap where two wires were removed.
- C. Disconnect (Model 850 - the brown wire on TX-RX control, Model 1400 - two yellow wires on TX-RX control and connect them together), which are located in the front part of the PLL Unit.
- D. Remove 15pF disc capacitor (C-8) located next to CV1 variable capacitor. (C-8 is marked as C-9 on a circuit board on Model 850).
- E. Set clarifier control to center range. Adjust CV1 by using a frequency counter for center frequency on a selected channel.

## 3. 5KHz down of expanded channel

If you want to bring expanded channel frequency (27.420 to 27,860) down to 5KHz (27.415 to 27.855) you need the following:

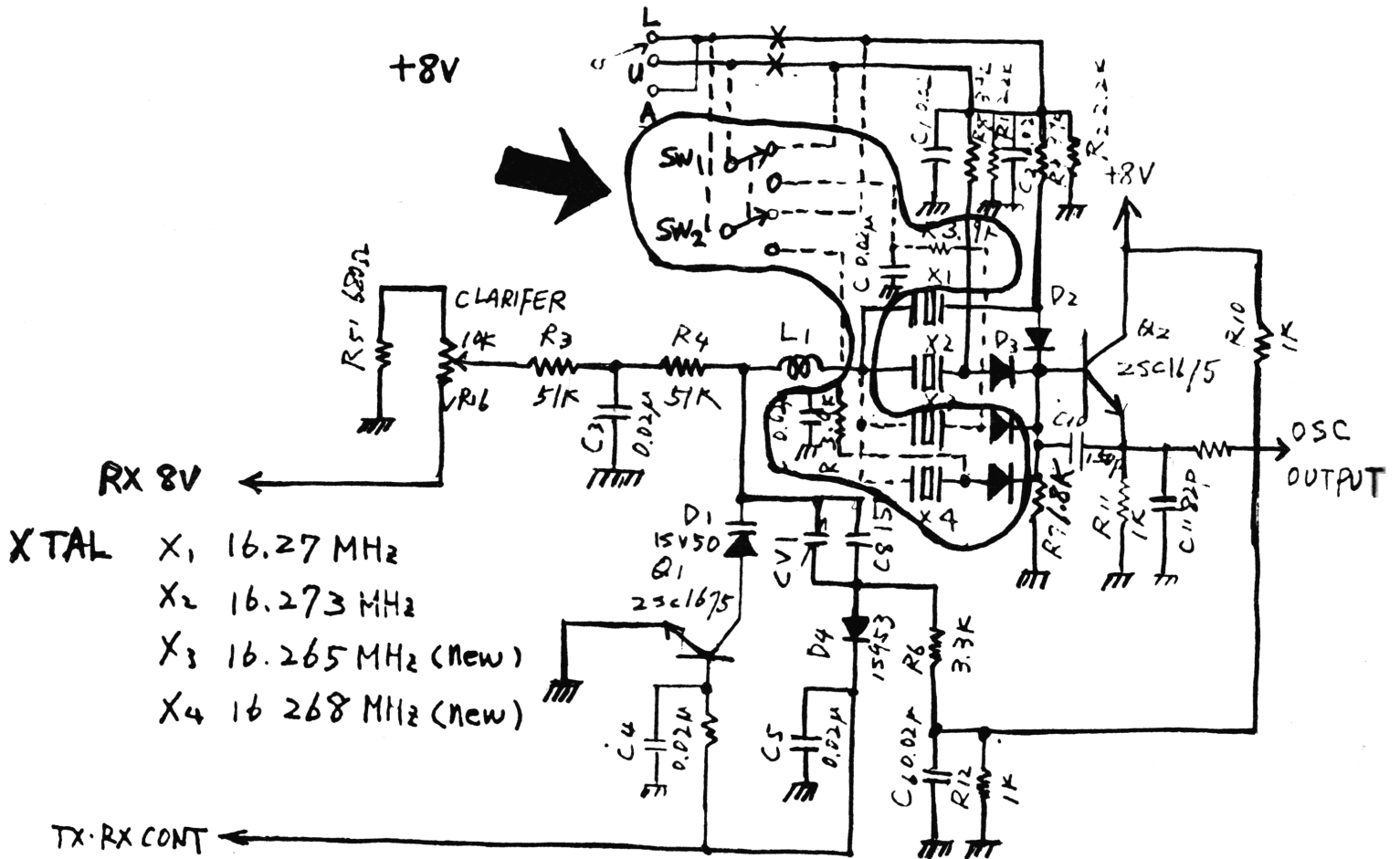
- Two contact double switches
- Two resistors 3.9K Ohm
- Two capacitors 0.02u
- Two crystals 16.265, 16.268
- Two diodes (any kind of RF diode)

The instructions for installation is shown on the following page.

HOW TO MODIFY MODEL 850 and 1400

Expanding channels from 27.415 to 27.855 MHz can be done by the attached instruction.

1. Three switches to be added.
2. Two resistors to be added.
3. Two capacitors to be added.
4. Two X-tals to be added.
5. Two diodes to be added.



CHANNEL DIAL	FREQUENCY	CHANNEL DIAL	EXP. CHANNEL	FREQUENCY
1	26.965	21		27.215
2	26.975	22		27.225
3	26.985	22A	23	27.235
4	27.005			
5	27.015	23	25	27.255
6	27.025	9	26	27.265
7	27.035	10	27	27.275
8	27.055	11	28	27.285
9	27.065	12	30	27.305
10	27.075	13	31	27.315
11	27.085	14	32	27.325
12	27.105	15	33	27.335
13	27.115	16	35	27.355
14	27.125	17	36	27.365
15	27.135	18	37	27.375
16	27.155	19	38	27.385
17	27.165	20	40	27.405
18	27.175	21	41	27.415
19	27.185	22	42	27.425
20	27.205		43	27.435
		23	45	27.455

CHANNEL MISSING

24	27.245
29	27.295
34	27.345
39	27.395
44	27.445

PARTS

3 - IN 60 Diodes  
 1 - S/N 7493 IC  
 Approx. Conversion Time .55  
 40 min. not including un-  
 packing, opening, testing,  
 closing, and repacking.