

CB to 10

—part VIII: the Publicom I

Have you noticed all those nice 23-channel CB rigs sitting on the dealers' shelves? Of course you have. But did you know you can buy them for about half price, or maybe less? You probably know that too, but you just can't think of any reason to get excited about it.

I'll give you a reason. Go buy one, and put it on ten meters.

Now, everybody knows that ten hasn't been much good for the last four or five

years. But it does have an opening every once in a while, and, now, with the sunspots coming back, things should start picking up on ten.

Where To Go On Ten

Obviously, if you move it into the part of ten that has the most users, you won't be very popular, because most of the users around the region are using SSB and 100 Watts or more. So these 5 Watt AM rigs wouldn't have a chance. I

suggest you move it up exactly 1.795 MHz.

The main reason for this choice is that it puts channel 4 on 28.8 MHz, which is Ten-Ten International's AM calling frequency. This gives us a good anchor for making contacts, with plenty of room to QSY up or down after the contact is made. Besides, it will keep us out of the way of the SSB people down below.

The Conversion

So much for the sales talk. I went out and bought one to play with — the Publicom I, a synthesized rig, complete with service manual, a REAL service manual.

This rig uses 6 synthesizer crystals in the 37 MHz region. These I replaced with 39 MHz crystals (39.395/39.445/39.495/39.545/39.595/39.645 MHz), available from Cal Crystal Labs, Inc., 1142 North Gilbert St., Anaheim CA 92801. Or, order some from your favorite quartz dealer.

One word of caution: Be sure to install the new crystals in exactly the same order as the old ones came

out. Otherwise, the channels will be all mixed up. It took me about an hour to change the crystals, but this is understandable when you realize that I have 5 times as many thumbs as anyone else I know.

After the crystals are installed, the only thing left is to align the tuned circuits. Now, the service manual tells us that the cores in the coils have been sealed with wax, and the seals should be broken before turning the cores. The only one I found that was sealed was the 39 MHz oscillator coil. My new crystals took off quite happily without touching this, so I left it alone.

The first step is to adjust the receiver rf and mixer coils. These are L101 and L102. Incidentally, they go in (clockwise) to raise the frequency. This is true for all coils in this rig. Use a signal generator if you have one; otherwise, tune for noise.

Now to the transmitter. Connect a wattmeter in the antenna line, and a dummy load to the wattmeter. If you don't have a wattmeter, use an swr meter set in the forward position. It will do the same thing. Hold the mike button down, and adjust L302, L303, and L304 until you get a reading on the wattmeter. These three are the transmitter mixer stage and are pretty critical. It doesn't take much, so work back and forth across them, about a quarter turn at a time, until you get it peaked. Then go on to L305 through L308, tuning for maximum on the wattmeter. And that should about do it. Now get some of your friends to come up on the band and help you check it out on the air.

I don't expect anyone to make DXCC with one of these little peanut whistles, but you should be able to work consistently over 6 to 10 miles. With a beam you should do better. And, if we can get a lot of these rigs on the air, who knows, it could be a lot of fun. ■

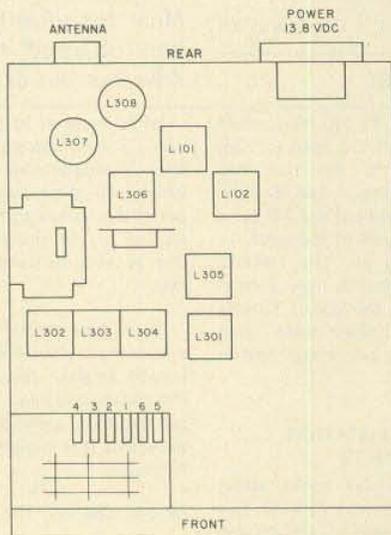


Fig. 1.