Subject: Trancel TR 80 Transistor...might work?
Posted by BrianH on Thu, 08 Sep 2005 04:40:58 GMT
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So I just dug up my old Trancel TR 80 transistor radio. I'm sure I borrowed it from my parents as these seem to have been popular in the late 50s. As a boy in the 1970s, I always wanted to see what made things tick. So when changing the 9v battery in the TR 80, I derived great fun from dipping a screwdriver into anything with a slot. Well, that means the radio hasn't worked right for over 30 years now! So my dillemma now is how to get it working again. I have resoldered the dangling antenna wires and the unit powers up fine. The Mitsumi crystal set (PVC-2X, strangely...still available...WOW!) has two tuner screws. If I am close to a station, though, I have no idea. There are four silver casings (for lack of a better word) that all have some kind of set screw in them. (see arrows above) So my questions are: what are these silver components? I've not seen them in modern electronics. Are they tunable by your average electronic geek (me?) I am positive I twiddled these as a child. Also, if I get close to the station, can I fine tune it with the set screws on the crystal set? I have a sweet Fluke 112 multimeter, so if tuning anything requires that, I'll take a stab at it! I've attached a photo of the board. Wow...all traces on the back are done by hand. Gee, we've come such a long way!

Subject: Re: Trancel TR 80 Transistor...might work?
Posted by Wayne Parham on Thu, 08 Sep 2005 11:10:47 GMT
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Those are IF transformers. When you adjusted them, you moved a ferrite slug and shifted the resonant frequency. They all need to be set the same. If you're lucky, you'll be able to tune in a strong station and then adjust each of them for strongest signal. Otherwise, you'll need a signal generator and a scope.Cool little radio, by the way. Good luck with it!

Subject: Re: Trancel TR 80 Transistor...might work?
Posted by BrianH on Thu, 08 Sep 2005 18:45:37 GMT
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Hi Wayne, Thanks for the reply. Is there any way to set these with a multimeter? My meter can measure voltage or current frequency if I can get to the solder joints underneath. If so, would it be set for the highest freq? Or maybe a voltage setting would be more appropriate? Failing that, Maybe I'll snug them all down clockwise, then attempt to get them at least all in the same ballpark...1.25 turns...haha..Thanks again for your help. Much appreciated!

Subject: Re: Trancel TR 80 Transistor...might work?
Posted by Wayne Parham on Fri, 09 Sep 2005 06:22:24 GMT
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To set the IF transformers, you'll apply the output of a signal generator to the antenna. Set it for the IF frequency, which is probably 455kHz or so. All coils should be adjusted where the output signal is greatest.