Palomar Engineers™

PT-340 Tuner Tuner™
Operators Manual

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1968B

Model PT-340

TUNER-TUNER™

OPERATOR'S MANUAL

PALOMAR ENGINEERS

Installation. Connect the Tuner-Tuner to the transceiver antenna jack and to the TRANSMITTER or TRANSCEIVER jack of the antenna tuner. If you are using an amplifier connect the Tuner-Tuner between the transceiver and the amplifier. Connect a 9-volt transistor battery to the battery strap on the rear of the Tuner-Tuner and slip it into the battery clip. Turn the panel switch to TUNE position and observe that the panel lamp lights. Turn the switch to OFF.

Operation. Tune the receiver to the frequency on which you want to operate. Turn off the receiver AGC or watch the "S" meter to see the noise level. Turn on the Tuner-Tuner. There will be a loud noise about S9 on the meter. Adjust your antenna tuner for a null (a drop in the noise). Continue to adjust the tuner until the noise is as low as you can get it. The SWR is now 1:1. Turn the Tuner-Tuner off. If you have a dummy load tune your transmitter using it. Then switch back to your antenna and you are ready to transmit. Everything will be tuned up correctly even though you have not transmitted a signal on the air!

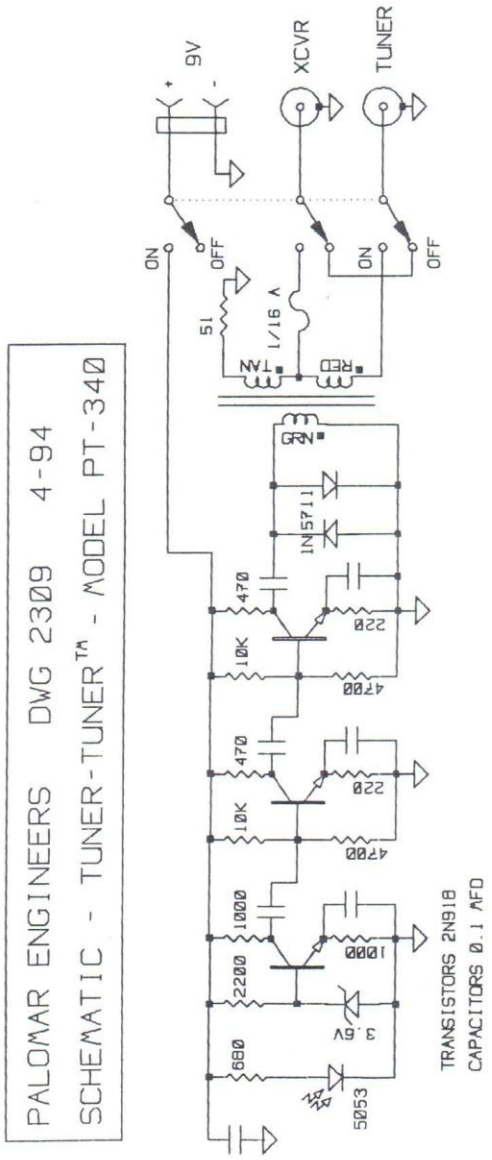
CAUTION: Don't transmit when the Tuner-Tuner is in TUNE position. The red warning light is to remind you that the Tuner-Tuner is turned on. When it is turned off you can put any amount of RF power (up to 1000 watts) through it.

Someday you may make the mistake of transmitting when the Tuner-Tuner is turned on. No smoke will come out of it but the noise output will be weak and the null will be at the wrong setting of your tuner. Remove the two black screws on the side of the case and take off the cover. Replace the fuse in the clip on the circuit board. Use an AGX 1/16 amp. fuse. One spare fuse is sent with the Tuner-Tuner. Do not use a heavier fuse as it may not protect the Tuner-Tuner.

Can't find a null. If the noise does not drop when you adjust your tuner your receiver may be overloaded. If you are using a preamplifier turn it off. Turn down the receiver's RF gain. Then try again. Tune carefully; the null is very sharp on some bands.

SWR is not 1.0. After you get a noise null with the Tuner-Tuner your SWR should be 1.0 but sometimes it is not. There are several possible reasons for this:

1. The fuse is blown. If it is, the noise output will be less than usual. You will get a null but it will be in the wrong place. SWR may be as high as 2 or 3. Replace the fuse.
2. It is possible to get a pretty good null quickly but then find that SWR is 1.5 or so. This means that the null was not good enough. Try moving one of your antenna tuner knobs slightly past the null. Then adjust the other knob. If you get a better null, do the same thing again. If you get a poorer null try moving the first knob slightly past the null in the other direction. Then adjust the second knob for null.
3. Cable is not 50 ohms. The cable between the Tuner-Tuner and your antenna tuner must be 50 ohm cable.
4. Some SWR meters don't read right. Can happen.



Spare fuses
$1.50 postpaid

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