

# 50 watts on 50mc in 50 seconds

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**Y**OU don't believe it can be done, do you. Well, it can! All you need is a Heathkit DX-20, a small soldering iron or gun, a length of solder, and a piece of bell wire six inches long.

The DX-20 is a common low-powered rig found in many Novice (and even General) shacks. It, and its newer version, the HX-11, cover 80M through 10M. The oscillator is a 6CL6, and the final is a 6DQ6. On 80-15 meters the final operates straight through. On 10M the oscillator doubles a 7 mc rock to 14 mc, and the final doubles this to 28 mc.

Because the oscillator operates on 14 mc when the rig is on 10M, I decided not to use

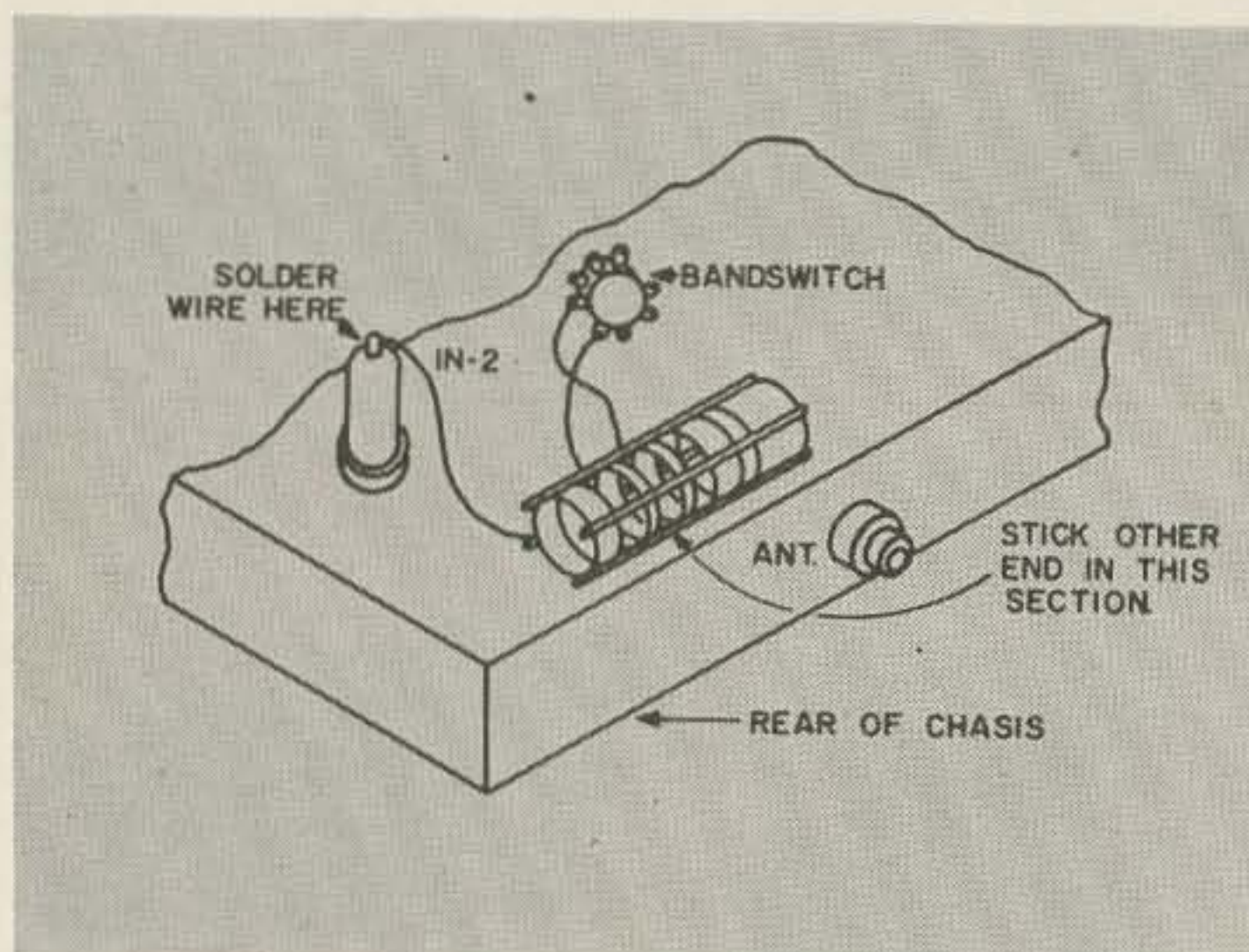
this position. I decided to use the 15M position in which the final is driven by the oscillator operating at 21 mc. I found that the oscillator tank circuit was broad enough to tune up to 27 mc, so I used it without modification. A little experimentation showed that if all but one and one half turns of the 15M final tank coil were shorted out, the 6DQ6 would double to six meters.

To make the modification, solder one end of the six inch piece of bell wire to standoff insulator IN2 (see pictorial 3 in manual and attached diagram). The other end of the wire is inserted two turns (at the top of the coil) from the second opening in the final tank coil (see diagram). This wire may be put in and out of the coil whenever you want to change from HF to VHF.

Operation on 6M is the same as on 10M. The bandswitch is placed in the 15M position, the grid current run at between 3 and 4 mils, and the plate dipped at 100 ma.

The transmitter may be returned to the lower bands by just simply pulling the wire from between the coils. This wire, when left soldered on the one end does not affect the operation on the lower bands.

My DX-20 is screen modulated (it runs about 35 watts) and does a very nice job on 6M. Presently I am using a lowly ground plane on six, and reports have been excellent. Best of luck on six, and hpe Cu Sn. . . . K9STH



## Replacement Auto Antenna

### has Amateur Application

Amateur equipment and antenna construction projects often require a telescoping whip type antenna. Inspection of available automotive antennas often fails to disclose one with suitable mounting characteristics.

A product that is suitable for many applications is the Ward Products Corporation Model TCFR-1 auto antenna replacement mast. This is a 3 section, telescopic antenna, measuring 57" extended. The antenna does not have a conventional insulator base. Instead, the bottom section of the antenna is drilled axially to accept a 5/16" stud and is provided with set screws to secure it in position. "Original Use"

installation is accomplished by cutting off the broken antenna a few inches above the auto body, inserting the stub in the bottom of the replacement and tightening the set screws.

In amateur use, the replacement assembly may be used to extend existing antenna elements, secured to feedthrough insulator studs or fitted over ground-plane antenna casting studs. Coaxial connectors may be modified and a stud inserted to permit use with portable equipment.

Wholesaling for a little over a dollar, this replacement assembly provides a low cost answer to a common problem. . . . W4WKM