Craftsmen C900 Tuner

SPECIFICATIONS (furnished by manufacturer): Model C900 is an FM tuner with variable AFC, for use with or without an associated audio control unit. Controls: Variable AFC, AC on/off and Volume, Tuning. Sensitivity: 1 microvolt for 20 db quieting. drift: Negligible with AFC; without AFC, ±20 kc. after 10 seconds. Bandwidth: 250 kc. Response: 20 to 20,000 cycles, ±½ db. Distortion: Less than .1% IM (60 and 7,000 cycles, 1:1, 30% mod.) Output: 2 volts at 30% mod. Noise: 60 db or more below 1% volts output. Dimensions: 13½ in. wide by 7¼ high by 8½ deep, plus 1½ in. for knobs. Tubes: 3-6BK7A, 4-6CB86, 6AU6, 12AU7, SY3GT. Also 2-1N64 germanium diodes. Price: $119.50. Manufacturer: The Radio Craftsmen, Inc., 4401 N. Ravenswood Avenue, Chicago 40, Ill.

Many of the good ideas incorporated in the C900 tuner are brand new; others are new with Craftsmen equipment. Probably the most important of the former is putting the variable AFC (automatic frequency control) knob among the front-panel controls. With this control can be obtained precisely the amount of AFC action that is desirable in any given situation, from none at all to a fast-acting, rigid control. With the AFC turned off (maximum counter-clockwise) a weak, distant station can be tuned in exactly even if it is next to a strong local station; with full clockwise rotation a fairly strong station can be tuned in at night and the set turned off — when the system is turned on in the morning, no retuning will be necessary while the tuner warms up.

This is also the first tuner made by Craftsmen that is FM-only, and the first that does not have tone controls, a selector switch, and a phono preamplifier. These omissions permit a lower price label and, at the same time, represent a recognition of the present trend toward separate, more flexible preamp-control units. Craftsmen hasn’t gone as far in this direction as some, however: a volume control is included on the front panel, and we think it a wise retention.

The manufacturer points out that printed-circuit construction for the IF transformers, and the use of large-value IF capacitors, eliminate the need for realignment of the IF section when tubes are replaced. This feature, in addition to a test jack brought up through the chassis, should simplify maintenance and make service calls more economical. The test jack, incidentally, is connected to the grid circuit of the first limiter; a high-impedance voltmeter clipped to the jack would serve as a signal-strength and/or tuning indicator.

Sensitivity of the tuner is very high, although some increase in sensitivity was noted when an excellent booster was attached. Nevertheless the tuner is in the highest rank in that respect. The audio output was quite satisfactory, clean and high in level, low in noise. Limiting was good.

One bug was found in the tuner we had for testing — the tuning control slipped to an annoying degree, particularly when we tried to make slow, precise adjustments. This may be simply an unfortunate rare occurrence, but those who can do so are advised to check this before purchase.

Installation and operating instructions are complete and clear. Furnished also are an audio output cable with plugs attached, an indoor twin-lead antenna, and mounting hardware. — R. A.

MANUFACTURER’S COMMENT: Although your findings on the C900 are rather complete, we are sorry no mention was made of the additional advantages offered by the 20.6-mc. IF. In urban installations where high signal levels are encountered, sensitive receivers utilizing the conventional 10.7-mc. IF usually exhibit repeat tuning points or spurious images. The 20.6-mc. IF almost completely rid the C900 of this problem. Oscillator radiation, in addition to being below the FCC recommendation, is entirely outside the FM band and thus cannot cause interference with other FM receivers. It was unfortunate that some of our earlier units were shipped with dialcord linkages using inadequately tempered dial springs which relaxed after continued usage. Properly tempered springs have been used on all subsequent C900’s and of course we will be glad to replace any defective springs.

C900 tuner has variable AFC and volume controls on front panel.