chassis. Note that there are no volume controls on the front of the RJ-48 chassis.

Also on the back of the chassis are separate terminals for FM and AM antennas. If a jumper wire is run between them, the FM lead-in serves as an AM antenna. A pair of AC outlets (not switched) complete the back of the chassis.

Up in the Berkshire Hills, where we used and tested this tuner, binaural reception is hard to come by. WQXR in New York City is the nearest regular binaural broadcaster. To get the AM side, we have to go direct; the FM half can be picked up from several stations which relay WQXR programs. From the author's location, the best of these is WFLY in Troy, New York. We fussed with the FM-Antennas supplied (furnished by the manufacturer): Matched monaural broadcast -6ALS, -6J5, -6AV6, -6X5. Changer: magnesium tone arm with turnaround reluctance cartridge, 2 sapphire styli. Automatic motor shutoff after last record; records can be played manually. Four-pole shaded-pole motor. Neutral position on speed switch isolates rubber idler wheel. Amplifier: Rated output, 10 watts, at input of .7 volts. Response = 1 db, 10 to 30,000 cycles at ½ watt, 15 to 20,000 cycles at 10 watts. Harmonic distortion 1% (10 watts) at mid-frequencies; intermodulation 5% (10 watts), 60 and 7,000 cycles 4:1. Hum and noise 70 db below 10 watts. Negative feedback 13.5 db; damping factor 4:1. Output impedances 4, 8, 16 ohms. No controls. Tubes, 1-6J5, 1-6SN7, 2-6V6GT, 1-5Y3GT. Speaker: coaxial; 12-inch cone with 24-ounce magnet and 2-inch voice coil, single-cell horn tweeter with 6-ounce magnet and 3½-inch voice coil. Response 40 to 16,000 cycles in horn-loading enclosure (not supplied). LC-type crossover network, built in. No tweeter adjustment. Prices: $275. Address: The Radio Craftsmen, Inc., 4401 North Ravenswood Avenue, Chicago 40, Ill.

Craftsmen has consistently held a reputation for producing high-quality equipment at reasonable prices, and this assembly measures up to the same standard. Installation is simple and quite respectable sound is obtained for the money. Our test set came to us in good working order; none of the items was damaged, and no tubes were defective. This is more remarkable than it may seem, since there were four major items involved. It bears out the manufacturer's claim that each assembly is tested before shipment. Furthermore, every item was individually packaged carefully before being placed in the single large box the assembly was shipped in.

Central control point of the system is the C10 tuner which has switching facilities as well as bass, treble, and volume controls. The tone controls worked well and met the specifications given on the instruction sheet. Flat position on the treble control was exactly at the center of the control's rotation.

Craftsmen CAL Assembly

SPECIFICATIONS (furnished by manufacturer): Matched assembly of hi-fi components consisting of the following — C10 FM-AM tuner with built-in preamplifier and control unit; C30 3-speed record changer with GE RXP-050 triple-play cartridge and precut mounting board; C400 10-watt amplifier; C20 coaxial speaker; all required interconnecting cables; installation instructions. Tuner: five controls; bass, off-on-volume, selector switch (FM-AM-PH-TV), tuning, treble, FM sensitivity, 5 microvolts for 30 db quieting; AM sensitivity, 5 microvolts for .5 volts output. Drift negligible with AFC; ± 20 kc. after 10 secs. without AFC. Bandwidth on FM, 190 kc.; AM, 8.5 kc.; whistle filter on AM. Cathode-follower outputs direct from detector and also after tone controls; maximum output 2 volts at 1½% distortion. Bass control variable from 16 db boost to 14 db cut at 60 cycles; treble 15 db boost to 15 db cut at 10,000 cycles. Equalized phono preamplifier, 31 db gain plus 22 db compensation. Twelve tubes: 3-6CB6, 2-12AT7, 2-6AU6, 1-6ALS, 1-6AV6, 2-12AX7, 1-6X5. Changer: magnesium tone arm with turnaround reluctance cartridge, 2 sapphire styli. Automatic motor shutoff after last record; records can be played manually. Four-pole shaded-pole motor. Neutral position on speed switch isolates rubber idler wheel. Amplifier: Rated output, 10 watts, at input of .7 volts. Response = 1 db, 10 to 30,000 cycles at ½ watt, 15 to 20,000 cycles at 10 watts. Harmonic distortion 1% (10 watts) at mid-frequencies; intermodulation 5% (10 watts), 60 and 7,000 cycles 4:1. Hum and noise 70 db below 10 watts. Negative feedback 13.5 db; damping factor 4:1. Output impedances 4, 8, 16 ohms. No controls. Tubes, 1-6J5, 1-6SN7, 2-6V6GT, 1-5Y3GT. Speaker: coaxial; 12-inch cone with 24-ounce magnet and 2-inch voice coil, single-cell horn tweeter with 6-ounce magnet and 3½-inch voice coil. Response 40 to 16,000 cycles in horn-loading enclosure (not supplied). LC-type crossover network, built in. No tweeter adjustment. Prices: $275. Address: The Radio Craftsmen, Inc., 4401 North Ravenswood Avenue, Chicago 40, Ill.