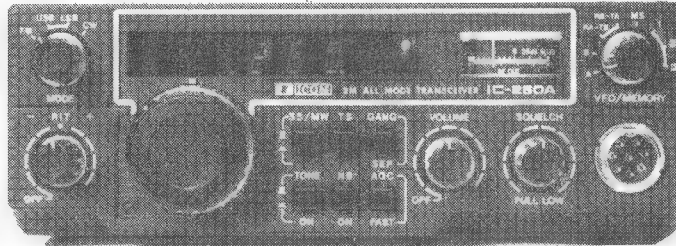


Collectors' Corner No. 4 —

The IC260A/E 2Mx All-Mode Txcvr

Gone are the days where rock bound rigs govern your operating frequencies as the new breed of CPU controlled devices such as the IC260A/E offer unlimited flexibility for mobile needs, or as a compact base unit.

The IC-260A/E provides FM, USB, LSB and CW coverage in the 143.8-148.2 MHz range (IC260A model), and offers continuous tuning from the low end of the 2m band to the high end and back again. The transmitter uses a balanced mixer in a single conversion system, a band pass filter and a high performance low pass filter. The IC260A/E has a built-in noise blanker, CW break-in, CW monitor and has facility, if required, for the installation of a tone call unit.



SPECIFICATIONS

GENERAL

Numbers of semi-conductors	: Transistor	72		
	: FET	9		
	: IC	45 (IC-260A : 44)		
	: Diode	91 (IC-260A : 90)		
Frequency coverage	: 144.0000 ~ 145.9999 MHz (IC-260A : 143.8000 ~ 148.1999 MHz)			
Frequency resolution	: SSB — 100 Hz steps; FM — 5 kHz steps; 1 kHz steps with TS button depressed			
Frequency control	: Microcomputer based 100 Hz step Digital PLL synthesizer Independent Transmit-Receive Frequency Capability			
Frequency readout	: 7 digit LED 100 Hz readout			
Frequency stability	: Within ± 1.5 kHz			
Memory channels	: 3 channels, any inband frequency programmable			
Usable conditions	: Temperature: $-10^{\circ}\text{C} \sim 60^{\circ}\text{C}$ ($14^{\circ}\text{F} \sim 140^{\circ}\text{F}$)		Operational time:	Continuous
Antenna impedance	: 50 ohms unbalanced			
Power supply requirement	: 13.8V DC $\pm 15\%$ (negative ground) 3.5A Max.			
Current drain (at 13.8V DC)	: Transmitting		Receiving	
	SSB (PEP 10W)	Approx. 2.2A	At max. audio output	Approx. 0.8A
	CW, FM (10W)	Approx. 3.1A	Squelched	Approx. 0.6A
	FM (1W)	Approx. 1.6A		
Dimensions	: 64 mm (H) x 185 mm (W) x 223 mm (D)			
Weight	: Approx. 2.7 kg			

TRANSMITTER

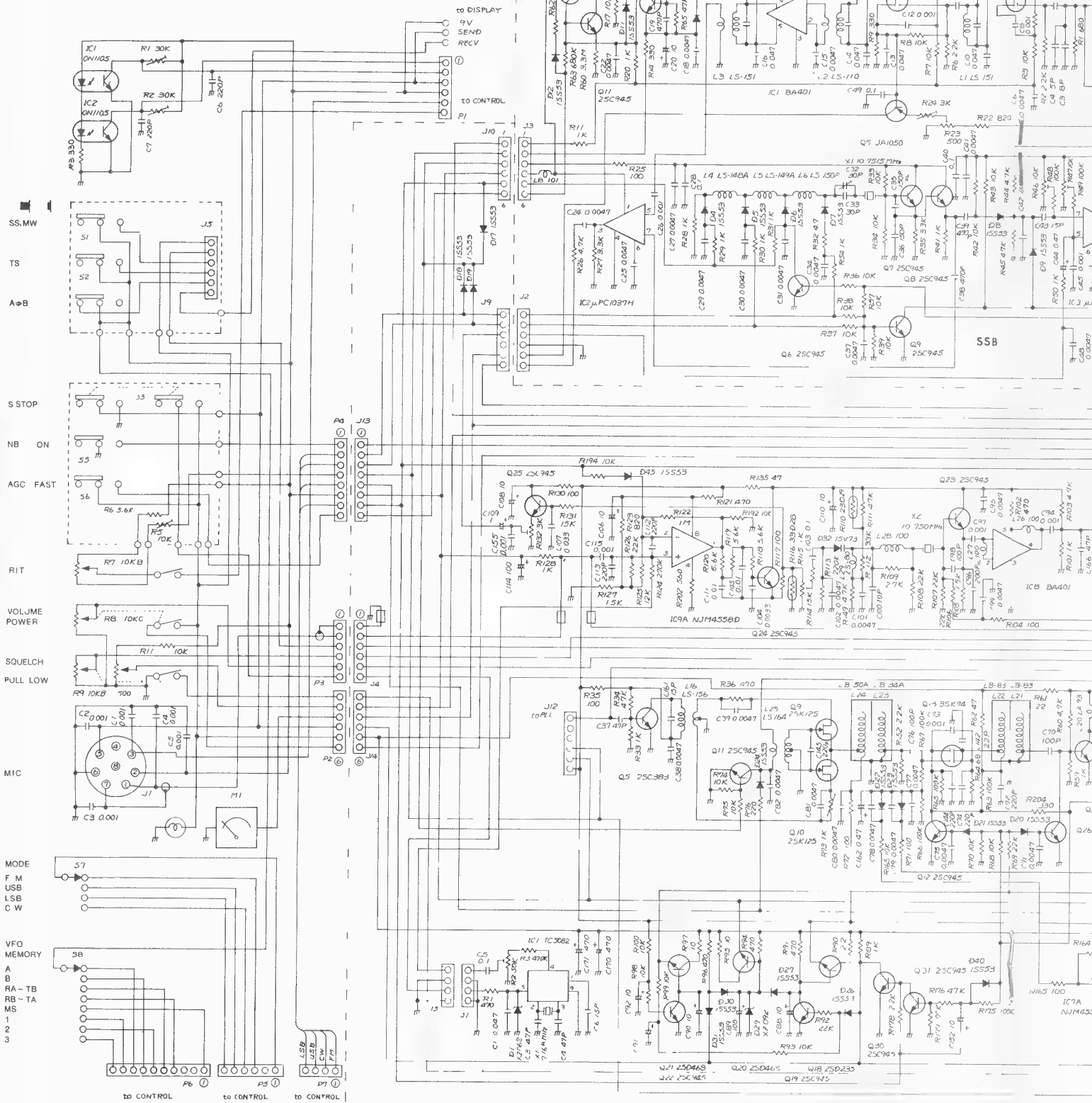
Output power	: SSB — High 10 W (PEP), Low 1W (PEP); CW — High 10W, Low 1W FM — High 10W, Low 1W
Emission mode	: SSB — (A3J, USB/LSB); CW — (A1); FM — (F3)
Modulation system	: SSB — Balanced modulation; FM — Variable reactance frequency modulation
Max. frequency deviation	: ± 5 kHz
Spurious emission	: More than 60 dB below peak power output
Carrier suppression	: More than 40 dB below peak power output
Unwanted sideband	: More than 40 dB down at 1000 Hz AF input
Microphone	: 1.3K ohm dynamic microphone with built-in preamplifier and push-to-talk switch
Operating mode	: Simplex, Duplex (Any inband frequency separation programmable)
Tone burst	: 1750 Hz ± 0.1 Hz (IC-260A: Not installed)

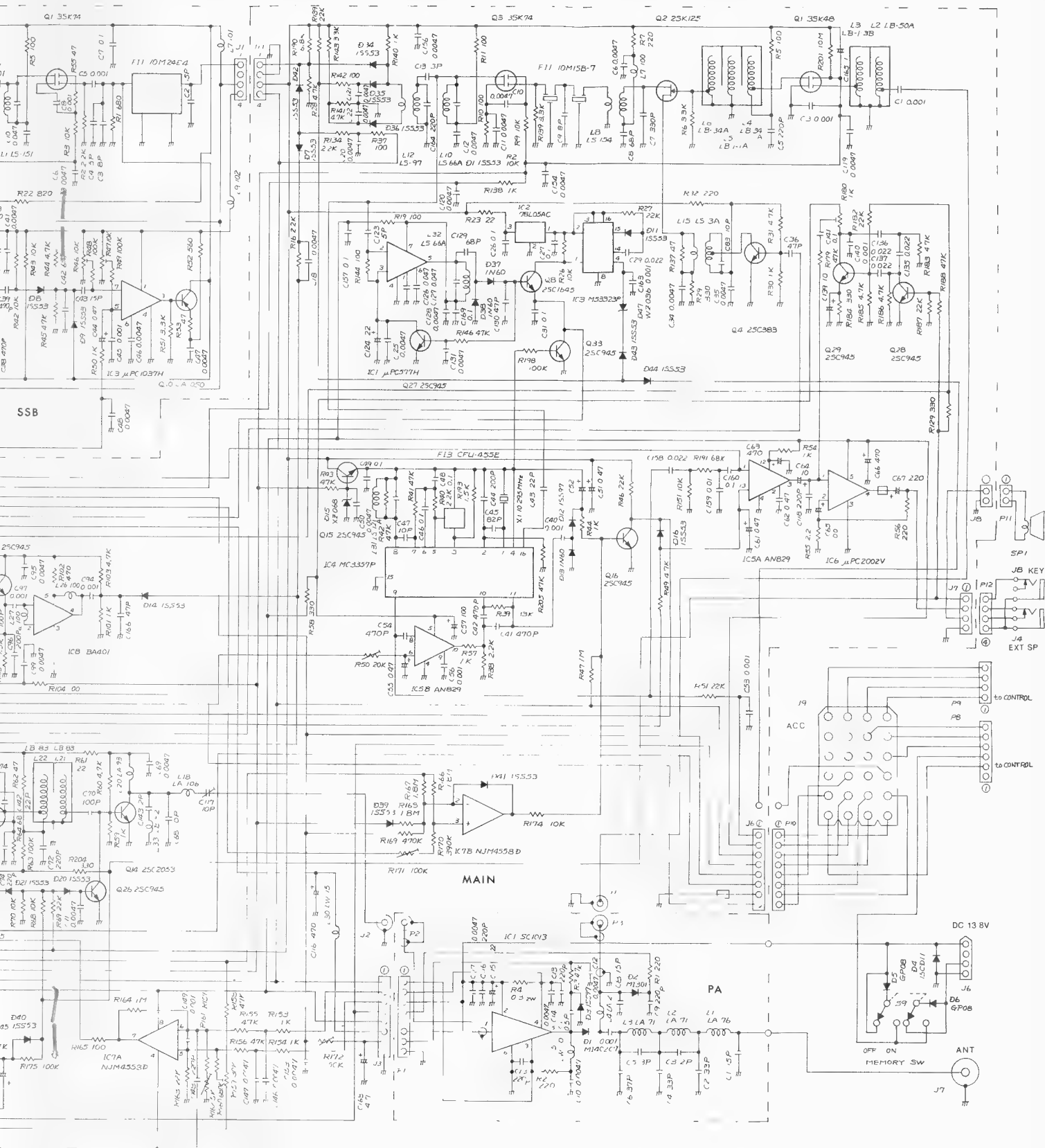
RECEIVER

Receiving system	: SSB, CW — Single conversion superheterodyne FM — Double conversion superheterodyne
Receiving mode	: SSB — (A3J, USB/LSB); CW — (A1); FM — (3)
Intermediate frequency	: SSB, CW — 10.75 MHz; FM — 10.75 MHz, 455 kHz
Sensitivity	: SSB, CW — Less than 0.5 microvolts for 10 dB S + N/N FM — More than 30 dB S + N + D/N + D at 1 microvolt Less than 0.6 microvolts for 20 dB noise quieting
Squelch sensitivity	: Less than 0.4 microvolts
Spurious response rejection ratio	: More than 60 dB
Selectivity	: SSB, CW — More than ± 1.2 kHz at -6 dB point; less than ± 2.4 kHz at -60 dB point FM — More than ± 7.5 kHz at -6 dB point; less than ± 15 kHz at -60 dB point
Audio output power	: More than 2W
Audio output impedance	: 8 ohms

IC-260A/E

SCHEMATIC DIAGRAM





 **ICOM** ICOM INCORPORATED

Some components subject to change for an improvement without notice.

A-023B

FRONT PANEL

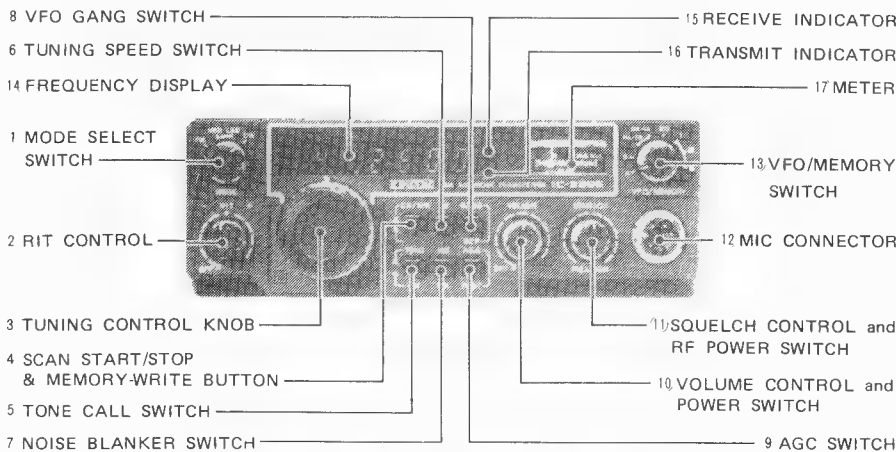
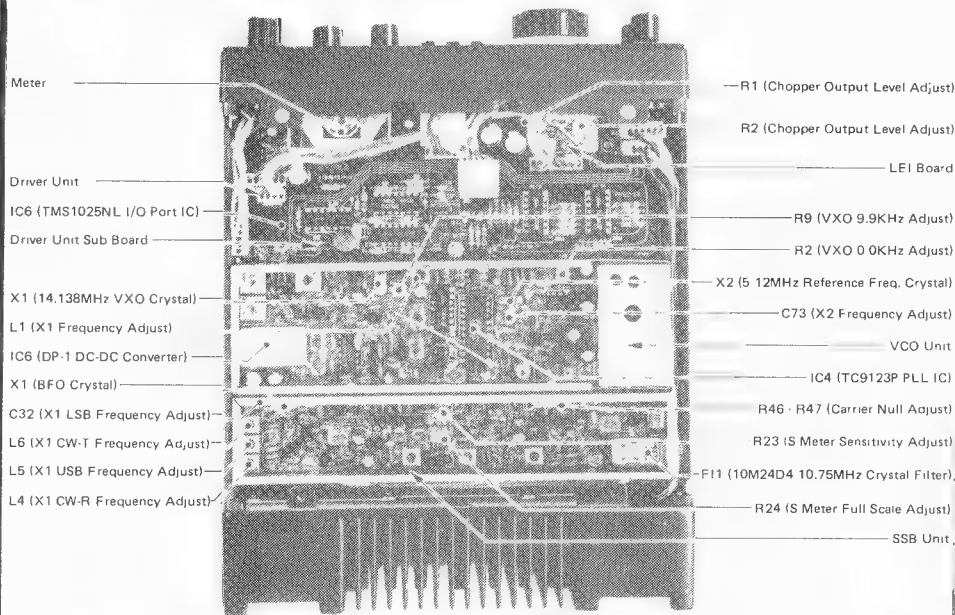
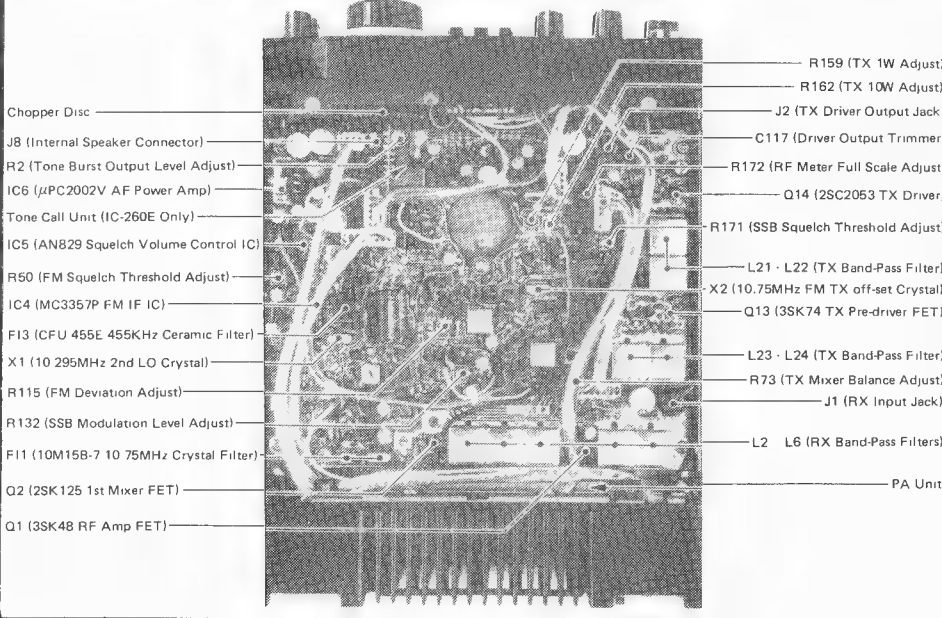


PHOTO 2: Control functions on the IC260A/E



Above and below: Inside the IC260A/E.



Most of the functional controls illustrated on the IC260A/E are self-explanatory but other points are interesting to note. The RIT (Receiver Incremental Tuning) shifts the receive frequency plus or minus 800 Hz of the transmit frequency without altering the display frequency. By pushing the SS/MW button frequencies may be pre-programmed into the three available memory channels and a programmed scan or memory scan commenced. The dual VFO feature allows two independent VFOs to operate or both A and B to operate together with the second VFO following the selected VFO at the same frequency difference initially set up.

In addition when the VFO is switched from one VFO to the other VFO, the frequency indicated on the frequency display just prior to switching goes into a memory inside the CPU. Thus even if "B" VFO is being used, switching to "A" again will enable you to operate at the initial "A" frequency. Switching back from "A" to "B" results in the same operation.

The numbers on the S-meter represent S1 through to S9 and 20 and 60 dB over S9. The RF output level meter functions as a relative output meter and does not indicate the wattage.

When the memory switch is in the ON (up) position, the power to the CPU of the IC260A/E is supplied continuously, even when the POWER switch on the front panel is switched OFF, to retain all the programmed frequencies in the memory channels, the operating frequencies of the two VFOs, etc. When the switch is set at the OFF (down) position, all the power, including that to the CPU, is turned OFF by turning OFF the POWER switch, so that all the programmed frequencies in the memory channels, the operating frequencies of the two VFOs, etc., are erased.

For further information on the Vicom IC260A/E contact the Australian distributors, Icom International, 68 Eastern Road, South Melbourne 3205. Ph. (03) 699 6700. Our thanks to Vicom for the supplied information on the IC260A/E.

Microphone plug exploded view

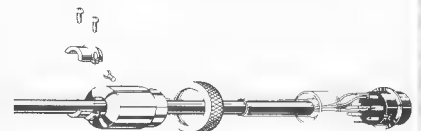
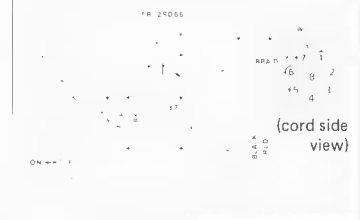


FIG. 1 (above) offers an exploded view of the microphone while FIG. 2 (below) shows actual mic. connections.

Microphone connection



Collectors' Corner is aimed at giving you, the reader, a better understanding of the types of equipment available for various applications in Amateur Radio. Your suggestions and comments regarding content in this section would be appreciated to ensure widespread reader appeal.