

Diversity Combining Unit, Model DCU.

The Diversity Combining Unit, Model DCU is the central combining unit for CW, MCW, and PHONE reception. It serves as the nerve center of the receiving system, providing flexible and convenient handling of the signals to be combined.

The unit provides:

- a. Integration of IF voltages of the two receivers in a common load for broadcast, CW, or MCW detection.
- b. A self-contained, single frequency, tone keyer. A completely regenerated tone signal on an ON/OFF basis is available for transmission to a distant point. Tone pulses may be generated by CW and MCW. Facilities have also been provided so that the tone oscillator may be keyed by an external voltage source.
- c. A metering circuit provides monitoring of the diode current in each receiver channel.
- d. The AVC voltages of the two receivers are combined and AVC time constants of .002, .01, .05, .1, and 1.0 second are available for operator selection.
- e. A VU meter for monitoring the level of audio circuits.

TECHNICAL SPECIFICATIONS

INPUT:

- a. 455 kc IF from each receiver.
- b. AVC voltage from each receiver.
- c. External keying of tone oscillator.
- d. Audio input to VU meter.

OUTPUT:

- a. Single frequency* ON/OFF tone for feeding telephone line or demodulating equipment. 600 ohms.
- b. Combined DC pulses to feed the high impedance of a recorder.
- c. Combined detected audio to be fed into a high impedance audio amplifier.

POWER REQUIREMENTS:

- a. Input Voltage: 110/220 V, 50/60 cycles.
- b. Power Consumption: 70 Watts.
- c. Fuse Protection: 2 amps.

TUBE COMPLEMENT:

- V1 6BA6 IF Amplifier, receiver #1.
- V2 6BA6 IF Amplifier, receiver #2.
- V3 6AL5 Detector, receiver input #1 and #2.
- V4 6AL5 $\frac{1}{2}$ Noise Limiter, $\frac{1}{2}$ Clamp.
- V5 6AU6 First Pulse Amplifier.
- V6 6AU6 Second Pulse Amplifier.
- V7 6C4 Keyer.
- V8 12AU7 Tone Amplifier.
- V9 6AQ5 Tone Oscillator.
- V10 5Y3GT Power Supply Rectifier.
- V11 6X4 Negative Supply Rectifier.
- V12 OB2 Voltage Regulator.
- V13 OB2 Voltage Regulator.
- V14 OA2 Negative Supply Rectifier.
- V15 OB2 Negative Supply Rectifier.

DIMENSIONS and WEIGHT:

19'' wd x 7'' high x 14'' deep 25 $\frac{1}{2}$ lbs. net.

* A 2125 cps tone is furnished as standard with the equipment, in the form of a plug-in assembly. However, any standard tone will be furnished on request.

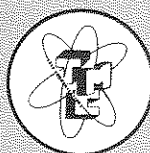
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