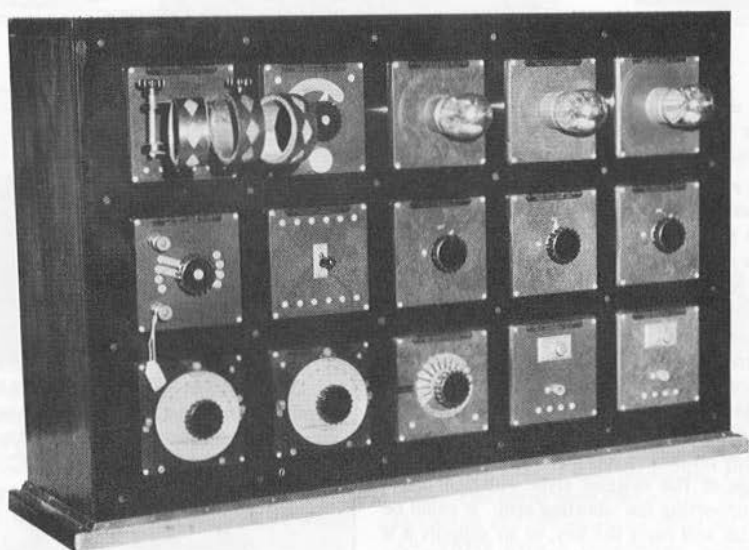


THE DE FOREST UNIT RECEIVING SET

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Unit Panel set in the AWA Museum

In 1920-21 the de Forest Radio Telephone & Telegraph Company of New York introduced a distinctly original idea in receiving apparatus for radio amateurs and experimenters. It comprised the essential components and controls, each mounted on a 4-1/2" square bakelite "Unit Panel." Terminals on each unit permitted connection by the experimenter in any desired arrangement. This feature appealed strongly as an educational device, together with the flexibility of the unit-panel system which permitted the different units to be used in many circuit arrangements from wavemeters, through crystal tuner-detectors, to ultraudion receivers. Panels offered were:

ULC-100	Triple Adjustable Honeycomb Coil Mounting
U-100	Stopping Cond. and Grid Leak
UR-100	Audion Tube (VT Type) and Receptacle
UD-101	Crystal Detector (Galena)
US-100	Primary Condenser Switch - Series/Shunt
US-200	Anti-Capacity Key Switch
UF-200	Filament Rheostat
US-400	Audion-Ultraudion Switch
UCV-1000	Variable Air Condenser (90 degree), 0.001 μ F
USC-1500	Loading or Bridging Condenser
U-200	Battery Switch and Phone Jack

The unit panels were usually mounted through 4" cutouts spaced on a wooden backboard of size to accommodate 6 to 15 units. The photograph shows an elaborate receiving set providing three plug-in honeycomb inductance coils, primary and secondary variable air condensers, Audion VT detector and two-stage audio amplifier, each with filament rheostat and output jacks. The coils permitted wavelength ranges as follows:

180-325 meters	Amateur Stations
525-710 meters	Ship-Shore Stations
700-1,850 meters	Navy Calling-Operating
1,850-3,350 meters	Arlington-Time
7,400-17,300 meters	Foreign and Press

One of the recommended de Forest circuit arrangements for a double-coil unit receiving set of 10 panels was a basic grid-leak ultraudion detector with primary and secondary tuning condensers, the primary condenser being switchable for series or parallel tuning. For reception of CW signals (tube, arc or alternator) the ultraudion switching placed the secondary tuned circuit from grid to plate of the detector tube. The older de Forest tube (type T-tubular) was very gaseous and hence unstable to "B" voltage. In unit-panel receivers, it was replaced by the hard-vacuum Type VT Audion with a cylindrical envelope and four-prong bayonet base (price in 1921: \$7).