

Tube of the Month

829B

In 1938, RCA developed a twin beam tetrode for the military. When the confidential status of the tube was dropped, it was marketed to the public as the 829. A higher voltage version, the 829A was quickly replaced by the ruggedized version, the 829B. These tubes could operate up to 200 MHz at full ratings and as push-pull operation was very common especially at VHF, the tube was a natural for ham equipment. During WWII, the tube was used as an amplifier and multiplier, but a special pulse rated version, the 3E29, was extensively used as a pulse modulator in RADARs.

After the War, RCA promoted the 829B for HAM equipment. It was a popular tube for VHF amplifiers published in HAM handbooks. Commercial 2-way VHF equipment became popular in the early 1950s and the 829B was used by General Electric and Motorola for base stations and mobiles used by industry, fire departments and the police. The first units were powered by dynamotors that were so loud that it was good that the unit was placed in the trunk and operated remotely. When high current transistors were developed, the Dynamotors were replaced by the "T-powered" units. Early units used a pair of 2E24s and the higher powered strips used the 829B. When this bulky equipment was replaced by more modern equipment, the HAM market became full of the Progress Line (PROG-LINE) units that were quickly built into affordable FM repeaters and mobiles.

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