

## Tube of the Month

# 845

In 1927, the General Electric Company produced a new tube for RCA to be used as an audio amplifier. The UV211 was a good general purpose tube with an amplification factor ( $\mu$ ) of 12, but the new tube, the UV845, had a  $\mu$  of 5.3 and was ideal for class A audio. The UV845 was a 75 watt dissipation tube and was replaced by a 100 watt version that was designated the 845. High power audio systems were in demand for “talkie” movies, sports events, large meetings and alarm systems. The military had requirements for big systems on board ships and special applications like the new SONAR. Class A audio has poor efficiency but the best quality. There are no swings in grid or plate current, so they are perfectly linear.

The 845 today is a very sought after tube for high end audio equipment and the price reflects this. The military’s need for this tube has produced many designations that today aren’t commonly known. An RCA 845 at a swap meet will attract a shower of 100 dollar bills, but an SE-3945 may not draw attention. In the 1930s, the Army and the Navy didn’t play well together and insisted on using their own designations. The Signal Corps designated the tube as the VT-43 and the Navy called it the SE-3945. (SE means Steam Engineering!) The Navy also used the supply code 38145. In 1942 the Government had enough and standardized all designations.

The last variant appeared in about 1944 when the United Electronics Company produced a series of tubes that were made with the elements supported at the top with a glass stem to make them “ruggedized” or “Warized”. The 845W could withstand high shock and vibration as one might expect when a battleship fired a broadside.

Visit the museum at [N6JV.com](http://N6JV.com)  
Norm N6JV

