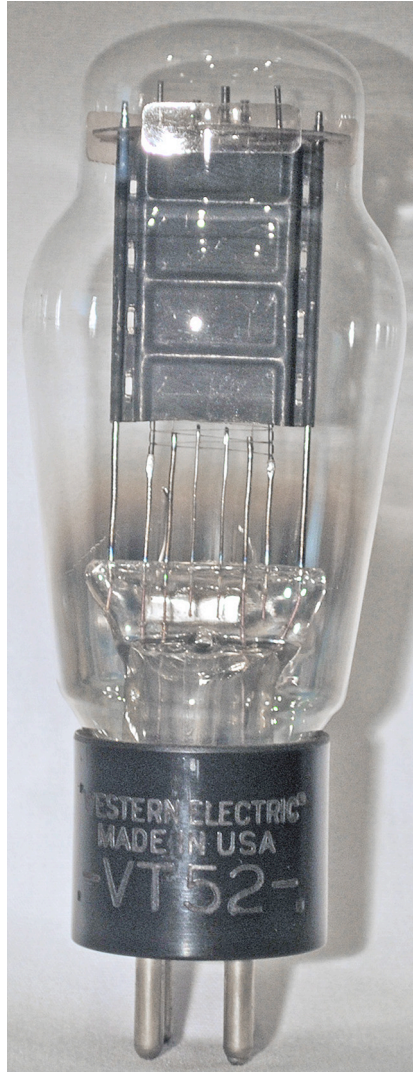


Type VT52



Actual Size Photo by Jim Cross

The tube the US Army Signal Corps and Western Electric designated VT52 has been a bit of a mystery. While the tube is well known in modern audio circles, technical data has been elusive. The military actually issued a specification, MIL-E-1/377, for the 38145 (the Navy designation) in 1954, but no copies of this have surfaced. Many sources call the VT52 a “45 special”, but it is not a 45 variant. The VT52 is actually a regridded, lower mu, VT25A with an oxide filament and a ST16 bulb.

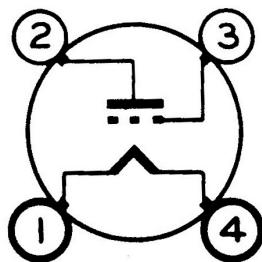
The VT52 (and the related VT25A) was designed to meet the need of the US Army Air Corps to have tubes in airborne radio sets that would give constant output when powered from a generator both at engine idle and at full rpm, a range between about 6.5V and 7.5V. Raytheon did the original design work on both the VT25A and VT52 types. These were certainly some of the first tubes designed for “mobile” service, as they predate General Electric’s line of mobile service miniature types (6679, etc) by at least 20 years. For unknown reasons, Raytheon ceased making both VT25A and VT52 tubes early on, and the job of supplying these types went to Western Electric. After World War II both Sylvania and Hytron supplied VT52 tubes, while Western Electric ceased production.

Type VT52

CHARACTERISTICS

Raytheon gives tabular data for the VT52 in the instruction book for the SCR-AB183. Tabular data for the 2C45 appears in at least the 1948 and 1961 editions of Radio – Tubes Vade-Mecum by P.H Brans. 2C45 is the unregistered commercial type number. At least the 1954 edition of Sylvania's tabular data manual shows data for the VT52. All are listed below, and all are in close agreement. No Western Electric specifications for the VT52 have ever been discovered.

	Raytheon	Brans	Sylvania
Filament (V)	7.0	7.0	7.0
Filament (A)	1.2	1.18	1.18
Plate (V)	220	250	220
Plate Current (mA)	28	29	29
Grid (V)	-40	-40	-43.5
Mu	3.6	3.6	3.8
Rp (ohms)	1800		
Plate Dissipation (W)		10	



Basing 4D