Type	Description
12AT7 / ECC81	Standard version of this double triode in 9 pin miniature package.
6201/12AT7WA	Milspec version of the type 12AT7. Genuine versions of these have extra thick mica wafers to help eliminate microphonics. Some have extra support rods which give even more stability. Late versions by Philips/ECG etc don't have this feature. They really shouldn't be called 12AT7WA's (or WB or WC).
6679	Mobile communications version of the 12AT7. This tube is supposed to be able to maintain rated output/transconductance over a +/- 20% filament excursion. Otherwise, this tube is the same as type 12AT7
7728	Premium instrument grade tube made only by CBS/Hytron. This tube has heavily plated gold pins.
ECC801/ECC801S	Super premium grade tube made by Telefunken. The "S" version is a special selected tube.

12AU7/12AU7A /ECC82	The only difference between the 12AU7 and the 12AU7A is the "A" version can be used in series string filament circuits due to it's controlled warm-up cathode. Otherwise, there is no difference.
6189/5814	Both of these are "milspec" versions of the 12AU7. They may also be marked with 12AU7WA. They both have thick mica wafers which give the tube extra rigidity which minimizes any microphonic problems. Their cathodes have been specially designed so they can withstand many on/off cycles and long periods in cut-off without any degradation of performance. The 5814 has a slightly higher filament current demand than the 6189/12AU7. Some (not all) Sylvania Gold Brand versions of these tubes have gold plated pins.
5963	This tube makes a decent substitute for the 12AU7 as the characteristics are almost the same. The 5963 has a slightly lower plate voltage rating compared to regular 12AU7. The 5963 has a max plate voltage of 250V while 12AU7 has a max of 330V. This tube has a specially designed cathode which can withstand long periods of time in cut-off without hurting the tube.
7730	This is a premium version of the 12AU7 made only by CBS/Hytron. This tube has very low noise characteristics and heavily plated gold pins. These were intended for critical test instrument applications, but due to their superior low noise performance, these make excellent choices for audio applications.
6680	This is the mobile communications version of the 12AU7 which can withstand +/- 20 % variations in filament voltages without any degradation of tube performance.
ECC802/ECC802S	These are "premium" 12AU7's which were marketed by European manufacturers. We don't think that there was any difference in manufacturing technique to create these, rather they are just specially tested 12AU7's that exhibit very low noise/microphonics and matched sections.
7316	This is an Amperex tube that was a premium grade 12AU7.

Type	Description
12AX7/ECC83	This is the original version of this tube. The earliest ones were all made in the USA by the usual manufacturers like RCA, Sylvania, GE and Tung Sol. Very early ones have rather large size plates. The "plain" version without the "A" suffix can only be used in parallel filament circuits, not series. This usually isn't a problem as series circuits are only normally found in TV sets. All of the tubes will have odd voltages other than 6 and 12. If all of the tubes in your set start with 6 or 12 (except for the 5 V rectifier) , then it is a parallel circuit.
12AX7A	This later version can be used in series or parallel filament circuits. Many manufacturers produced plain 12AX7's well into the 60's and 70's, but we believe these are 12AX7A's marked 12AX7.
7025	This is the "hi fi" low noise version of the 12AX7. All other specifications are the same as 12AX7. Tubes marked with 12AX7 and 7025 both should be low noise too.
ECC803, ECC803S E83CC	This is the "premium" version of the European 12AX7. The "S" on the ECC803S means "select" version. These are usually found on Telefunken brand tubes only.
5751	This is the "milspec" version of the 12AX7, but is also slightly different. The 5751 has the same plate resistance as the 12AX7, but the gain factor is only 70 compared to 100 for the 12AX7. The 12AT7 also has a gain factor of 70, but since the plate resistance is different, the 5751 is closer to the 12AX7. The older "real" 5751's have extra thick mica spacers and extra support rods to minimize microphonic response. 5751's also have matched triode units. Late versions produced by Philips/ECG don't have the extra support and don't perform as well as the older 5751's.
12AD7	This is a special non-microphonic and low hum version of the 12AX7 that was produced only by Sylvania. This should make an excellent replacement for any audio application that uses the 12AX7 in the circuit. It isn't very well known because they were only made for a few short years as it was never designed into circuits by manufacturers.
12DT7, 12DM7, 12DF7	These are special low noise and microphonic versions of the 12AX7. Most are either Westinghouse (12DF7) or Raytheon 12DT7, 12DM7).
7729	Premium CBS Industrial tube with gold pins These were used in special critical applications which require reliable performance with low noise and microphonics. They're very rare.
6681	Mobile version of the standard 12AX7. These are usually standard 12AX7's which have been specially tested to assure they will perform well in circuits with +/- 20% variation in filament voltage. Prices are the same as 12AX7
7058	Same as 12AX7 except for a 13.5 volt non-tapped filament. These can be used in circuits which don't use the 6.3V filament tap. Performance should be identical to any equivalent 12AX7.

Type	Description
6DJ8 / ECC88	This is the "standard grade" of this family. They normally have steel pins.
6922 / E88CC	This is a "premium grade" version of the 6DJ8. Most have gold plated pins, but many Sylvania manufactured 6922's have steel pins (a few Sylvania's are gold pin).
7308 / E188CC	This is generally the highest quality tube in the 6DJ8/ECC88 family. Most have gold pins. Sylvania's are steel pin. They are designed with low microphonics and low noise. Sections are usually pretty closely matched.
7DJ8 / PCC88	These are 7 volt filaments which were designed to be used in series string circuits. However, they work well in standard 6DJ8 circuits and can generally be used as direct substitutes. You can save some money using these.
CCa	This is a special version of the 6922 / E88CC which is usually only found as Siemens or Telefunken. These are very rare tubes.