

I have a bit of 'angst' that I maybe sounded a bit harsh in a thread where someone asked for advice for a 6S33S/6N3P-amp, and I wrote something about the original Cyrillic/Russian letters that were wrongly transferred to Latin letters. Also I had a long discussion on the phone trying to explain the "difference" between a 6H23n and a 6H33П, which also triggered my half Russian (by marriage) blood.

Checking the forum I couldn't find any info how the Russian tube-numbers are made up so I decided to reveal the secret behind the odd tube numbers, so here we go!

Russian tubes are numbered in a very logical way, much like European tubes, but unlike American tubes ... . Most tubes are made up by four group of characters:

**First character** - number indicating (approx.) heater voltage. I write approximately as 6,3V gets the number 6, 2, 5V gets the number 2 etc.

0,6 - 0,625V

1 - 1,2V

2 - 2,0 (2,2; 2,4 ...) V

3 - 3,45V

4 - 4,2 (4,4) V

5 - 5V

6 - 6,3V and so on

**Second character** - letter, indicating tube type (diode, triode, pentode ...). Russian/Cyrillic letter in first position and corresponding Latin letter in parenthesis;

Д - (D) - single diode

Х - (CH) - twin diodes

Ц - (TS) - kenotron

С - (S) - single triode

Н - (N) - dual triode

Э - (E) - beam tetrod, high frequency

П - (P) - beam tetrode low frequency

Ж - (ZH) - pentode sharp cut-off

К - (K) - pentode remote-cutoff ("vari-mu")

П - (P) - power pentode low or high frequency

А - (A) - converter tube (??)

### **Combined tubes**

Г - (G) - Triode with one or more diodes

Б - (B) - Pentode with one or more diodes

Е - (E) - Indicator tube

И - (I) - Triode-heptode

Ф - (F) - Triode-pentode

**Third character** - number, ordinal number of tube

**Fourth character** - indicates mechanical construction of tube (number of pins, housing material - glass/metal)

C - (S) - Larger glasstube (octal socket or other special type)  
П - (P) - smaller glasstube with 7- or 9-pole socket  
Б - (B) - miniature glasstube, 10 mm diameter with soft leads  
А - (A) - miniature glasstube, 6 mm diameter with soft leads  
Л - (L) - tube with Loctal socket.

**Fifth character** - indicates tubes with enhanced parameters

В - (V) - enhanced mechanical strength and reliability  
Е - (E) - long life  
К - (K) - enhanced strength to work in vibrational environment  
И - (I) - selected to work in impulse mode

A tube like **6H23П-ЕВ** is decoded as 6N23P-EV, a dual-triode with 6,3V heater with ordinal number 23 in a smaller glass tube with noval socket. It even is a long life tube with enhanced mechanical stability and reliability.

Note that the E doesn't automatically mean that the tube "sound better", but being mechanically more rigid it may stick to the curves better, hence making two tubes closer matched and that the construction may eliminate microphony, but that's my speculation.

There are a number of tubes that has found their way to enthusiasts - transmitter tubes. They are coded in their own way:

#### **Generator tubes**

These tube numbers are made of three groups of characters.

**First character** - indicates type of tube (usage)

ГК - (GK) - generator tube, shortwave (<25 MHz)  
ГУ - (GU) - generator tube, ultrashortwave (25 - 600MHz)  
ГС - (GS) - generator tube, centimeter wavelength (>600MHz)  
ГИ - (GI) - impulsgenerator tube  
ГМ - (GM) - modulatortube  
ГМИ - (GMI) - generator/modulator tube working in impulse mode

**Second character** - number, ordinal number of tube

**Third character** - used for tubes needing forced cooling

А - (A) - water cooling  
Б - (B) - air cooling

As you see, the Russian system is logical and easy to use once understood.  
Hope this helps you, searching for new and exotic tubes from the East.

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