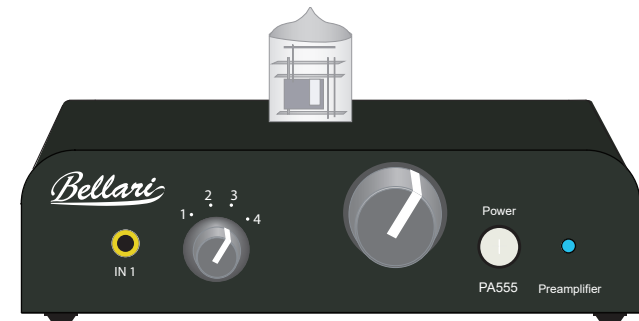


What's in the box?

- 1 - Made in USA PA555
- 1 - 15V power supply PN PS27s
- 1 - This owners manual
- 1 - Love for great audio

*Bellari*

## PA555 Preampifier



### SPECIFICATIONS

Input Impedance:	10K ohms
Max Output Gain:	11.1 dB
THD:	0.1%
S/N Ratio:	103 db, unweighted
Indicator:	1 Power LED
Frequency Response:	5 Hz - 198 KHz +/- 3 db
Crosstalk:	-75 dB
Output impedance:	100 Ohms
Output Connector:	RCA Stereo
Input Connectors:	1: 1/8" TRS Stereo jack 3: RCA Stereo jacks
PWR:	15 VDC 500mA
Size:	6"w x 2.5"h x 5.4"d
Weight:	2 lb.

*Bellari*

CE

Salt Lake City, UT  
4/19

**Connection guide**

Thank you for purchasing the PA555. We hope you enjoy using the PA555, and that it makes listening to your music collection rewarding. We sincerely appreciate the opportunity to build a product for you and participate in your love of quality music and sound. We love what we do and we're happy to help. All Bellari products are hand built in Salt Lake City, Utah by people who care about high quality music.

The PA555 uses one 12AX7 tube running at 150 volts. The input signal is connected directly to the grid of the tube and all of the gain of the PA555 is from the 12AX7 tube. The output section is a pair of emitter followers to drive the output. The PA555 has a no feedback circuit or integrated circuits in the audio path, it is all analog.

#### CONNECTION:

- 1 - Connect your sources to the PA555's "in" RCA jacks on the back or 1/8" stereo jack on the front.
- 2 - Connect the supplied PS27s adapter to the jack labeled "15VDC". Do not use any other adapter, or the unit might be unhappy, and you would need some repair work done.
- 3 - Connect your amplifier to the "OUTPUT" RCA jacks, select the channel you want.
- 4 - Enjoy your music.

**Q:** Do different tubes have different gain?

**A:** Yes, but it is not a big enough difference to worry about. With a 12AX7 the PA555 has 11.1 dB of gain. With a 5751 the PA555 has 10.7 dB of gain. Even though the 12AX7 has a gain factor of 100 and the 5751 (12AXWA) has a gain factor of 70 the slight decrease in max gain will not be noticeable as the PA555 has more gain than most preamps. Even different brands of tubes will have a slightly different gain, but it is so small you will not hear a difference.

**Q:** Do different tube brands have different specs?

**A:** Yes, some tubes have better specs than others. The best tube we tested for specs in the PA555 was a N.O.S. 1960's Mullard long plate made in Great Britain 12AX7. The THD was improved quite a lot in our testing. The crosstalk also improved. With most all tubes the frequency response and signal to noise ratio will be about the same. The bad news about the Mullard tube is it is about a \$180 tube if purchased from a reputable tube seller. The included 12AX7 is a wonderful sounding tube with very smooth response. Changing tubes can be fun, but by no means necessary. The specs given for the PA555 are with the included 12AX7.

#### TUBE TEMP:

The tube will get up to around 140 degrees fahrenheit, it will be warm to the touch. The top chassis will also get warm from the tube's heat. This will not be an issue as the chassis will only get 20 degrees warmer than room temp. The entire top of the chassis will seem hot after the PA555 has been on for a few hours, this is normal and nothing to be concerned about. Some tubes do run hotter than others. In our testing the hottest tube we have seen was a NOS RCA 5751 made in Canada it ran at 147 degrees, and did make the top of the PA555 very warm to the touch after being on for a few hours. This is normal and is not a cause for concern.

**Q:** Do tubes have a burn in time?

**A:** Yes, in our testing new tubes need 30 to 50 hours to burn in. The sound difference is very slight, but we recommend giving the tube a few hours from the time it is new. NOS tubes do not have a burn in time, or the burn in time is dramatically shorter than new manufactured tubes. We believe that is because NOS tubes were burned in when manufactured.

**Q:** What tube comes with my PA555?

**A:** The tube that came with your PA555 is a RUBY 12AX7 AKA Chinese Grey Plate. They have very good bass response and overall are a great tube for a warm, comfortable listening experience. We use this tube for obvious reasons, if we used NOS tubes we would have to charge considerably more for the PA555. In all honesty I do like the factory tube. It has very good bass response that you will miss with some NOS tubes. Changing tubes is fun and kind of adds to the allure of why you would use a tube in the first place. If you get tired of your gear rather than purchasing new gear you can buy a different tube and get a different sound experience from the same equipment.

**Q:** Does the power supply for the PA555 need to be upgraded?

**A:** No. The PS27s that is included is the best power supply available for the PA555. It does not need to be changed.

**Q:** What is the life expectancy of the vacuum tube in the PA555?

**A:** 10 to 50 years (longer if you do not use the unit very often) if you use it more often it will have a shorter life, like a light bulb. Less than 10 years if you have the unit on 24/7. 15 years if you use the unit once a day. 25 years if you use the unit a couple times a week. More than 40 years if you use the unit a few times a month. I do not recommend leaving tube equipment on all the time. It creates a lot of heat that is not beneficial to other electronic components.

## **FAQ:**

**Q:** What is a N.O.S. tube?

**A:** N.O.S. refers to (new old stock) it is a tube that was manufactured long ago and never used. These tubes are very sought after. They may or may not sound any better, but it is generally thought that most N.O.S. tubes are better in many ways over new foreign manufactured tubes.

**Q:** What kind of tubes can I use in the PA555?

**A:** Tubes that can be used in the PA555 are:

12AX7 - The industry standard for preamp tubes.

12AX7A - Same as a 12AX7 but generally has a slightly higher output. The NOS 12AX7A will also have a faster warm up.

7025 - This is the Military part number for a 12AX7.

ECC83 - This is the same as a 12AX7 it is the European part number.

12AX7WA - This is a 12AX7 with slightly lower output.

5751 - This is a Military part number for a 12AX7WA.

There are many other tubes that can be used, but you get where this is going they are essentially the same tube with different part numbers doing almost exactly the same thing.

**Q:** What is the best sounding tube I can get for the PA555?

**A:** This is an unanswerable question. Everyone has different tastes. It is up to the individual to decide as all tubes sound slightly different. For me the best tube I have ever heard in a PA555 was a N.O.S. 5751 Telefunken tube.

**Q:** Does the tube need time to warm up before use?

**A:** Yes, it will be usable in about 30 seconds. Longer warm up times are not needed, there is no benefit to warming the tube up longer than 30 seconds. Warm up simply means powering the unit on.

