



# 20W INTEGRATED STEREO HYBRID TUBE AMPLIFIER

Model: HTA20  
User Manual

# Safety Information

## IMPORTANT SAFETY INSTRUCTIONS

To reduce the risk of electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified personnel. To reduce the risk of fire and shock do not expose unit to rain or moisture. The unit should be connected to an earth grounded AC electrical socket. The unit should be operated in a well ventilated area. Minimum clearance is 2 inches from the ventilation openings.



## FCC STATEMENT

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
  - (a) This device may not cause harmful interference.
  - (b) This device must accept any interference received, including interference that may cause undesired operation.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The Dayton Audio HTA20 Integrated Stereo Hybrid Tube Amplifier was designed to make it easy for anyone to enjoy the warm, natural sound quality of vacuum tube amplification without the size, power consumption, and price of using traditional tube amplifiers. The HTA series from Dayton Audio achieves this by combining vacuum tubes in the preamp input section with a modern, power efficient solid state Class A/B output power amplifier. Additionally, each amplifier includes multiple analog and digital inputs for connecting modern devices such as computers with the classic sound of tube amplifiers.

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## Features

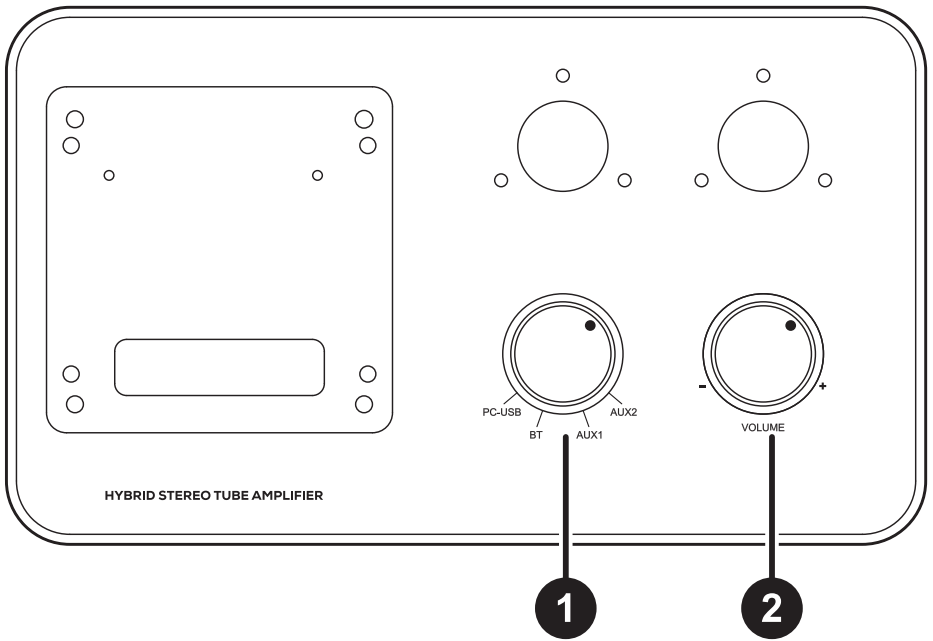
- Compact Footprint easily fits on any desk or small shelf
- Built-in high-quality USB-DAC for direct connection to any computer
- On board Bluetooth receiver for instant connection from any capable device
- Built in headphone amp for private enjoyment
- Warm glow from the preamp tubes adds vintage flair to any environment
- Add a subwoofer hassle-free using the dedicated subwoofer output

## Package Contents

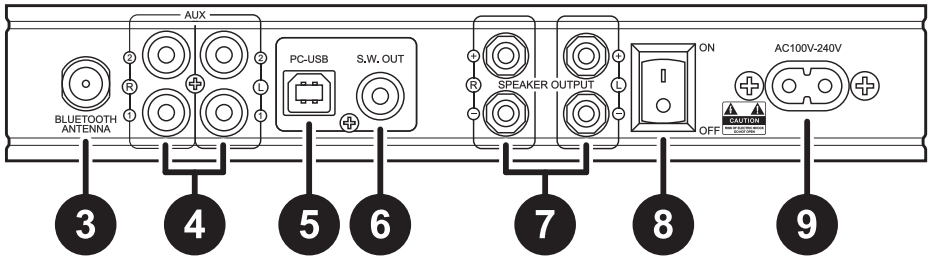
- HTA20 Integrated Stereo Hybrid Tube Amplifier
- AC Power Cable
- User Manual

# Controls and Functions

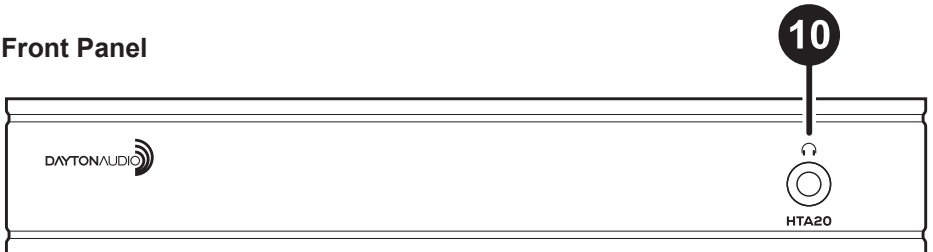
## Top Panel



## Rear Panel



## Front Panel



## 1. Source Selector

Turn this knob to select between different sources.

## 2. Volume Knob

Turn this up to begin experiencing the warm natural tone generated by the tube preamplifier.

## 3. Bluetooth Antenna

During setup, turn the Bluetooth antenna to the upright position for optimum signal reach.

## 4. Line Level Aux Inputs

## 5. PC-USB Input

## 6. Subwoofer Output

Use a single RCA cable to connect the S.W. OUT to a powered subwoofer or separate subwoofer amplifier.

This will output a full range mono signal and the volume output will change depending on the position of the front panel volume control.

**NOTE:** The output will signal will be interrupted when headphones are connected on the front of the amplifier.

## 7. Speaker Outputs

Using insulated 2 conductor wire to connect to speakers. The polarity, positive (+), and negative (-) for all speaker and amplifier connections must be consistent so both the left and right speakers are in phase.

**NOTE:** The speaker outputs are not bridgeable.

## 8. Power Switch

Turns the device on and off.

## 9. AC Power Input

## 10. Headphone Output

The headphone output allows you to listen to any input privately without playing audio through your speakers. The output accepts ¼" TRS headphone connectors. Plugging in headphones here will cut off the signal to the speakers and S.W. OUT [6].

**NOTE:** To avoid accidental damage to your headphones or speakers always turn down the volume before connecting or disconnecting headphones.

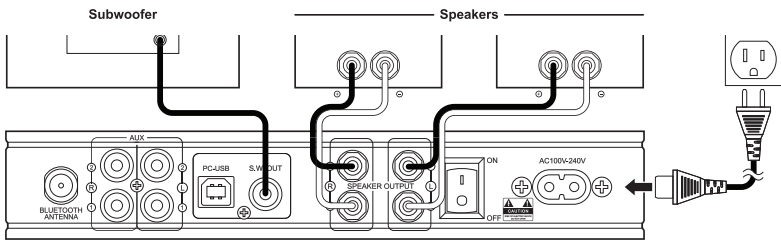
# Connections

## Connecting Speakers

The amplifier can power speakers with a minimum impedance of 4Ω. Using high quality two conductor speaker wire connect your speakers to the binding posts on the rear of the unit.

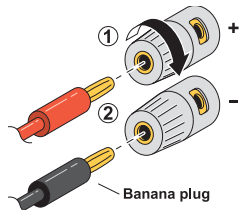
Connect the HTA20's left speaker terminals marked "L-" and "L+" to the corresponding "-" and "+" terminals on your left speaker. Repeat the same process for the right channel.

**NOTE:** Never connect the negative terminals together or to ground. The HTA20 is not designed to operate in a bridged mode and attempting to do so may damage the amplifier.



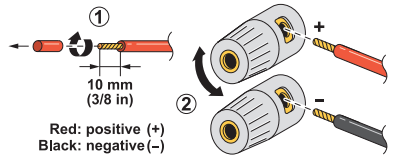
## Connecting Banana Plug Cables

1. Tighten the knob.
2. Insert the banana plug terminated cable into the end of the corresponding terminal.



## Connecting Speaker Wires

1. Strip about 3/8" of insulation from the end of each speaker wire and twist the bare wires of the cable together.
2. Unscrew the knob before inserting the bare wire into the hole in the side of each terminal before tightening the knob to secure the wire.



## Connecting A Subwoofer

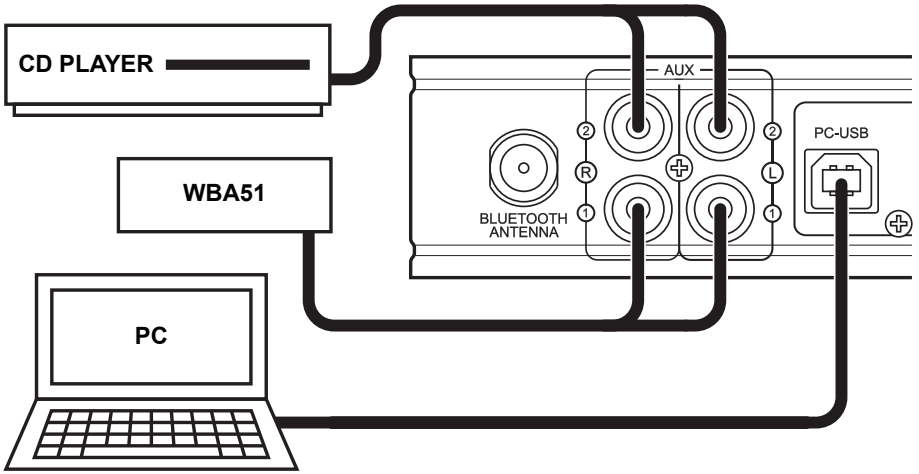
If you really want to feel the bass or just want to bother the neighbors you can add a subwoofer using the S.W. OUT connection on the rear of the HTA20. This signal is full range and will send a mono summed signal that is controllable by the front volume knob. Using a single RCA cable you can connect to the line level input on a powered subwoofer or to any external subwoofer amplifier to power passive subwoofers.

## Connecting Headphones

Headphones can be connected to the 1/4" TRS connection on the front of the HTA20. This is great for listening to any source and enjoying the classic warmth from the tube preamps. Plugging in headphones will stop any signal from being output to the speaker output terminals or S.W. OUT.

**NOTE:** To avoid damage to headphones or your hearing make sure to turn down the volume before plugging in your headphones. Always turn down the volume knob before unplugging headphones to avoid accidental output to your speakers or startling any cats napping nearby.

## Connecting Sources



The HTA20 is capable of receiving signals directly from a wide variety of sources. Using high quality cables will ensure the best possible transmission from your connected devices.

### Bluetooth as a Source

1. Make sure that the input selector is set to Bluetooth
2. Using a smart phone, tablet, computer, or other device capable of transmitting Bluetooth audio, go to the device's settings and scan for available Bluetooth devices.
3. Look for and select "HTA20" in the device list and begin pairing.
4. Once your device indicates that it is paired, you can begin streaming your favorite music from up to 30 feet away.

**NOTE:** The HTA20 does not make any sounds when connecting and disconnecting audio sources. Refer to the status indication on your Bluetooth device for connection status.

## Specifications

|  |                              |
|--|------------------------------|
| <b>Maximum Power Output (Peak)</b> ..... | 45W x 2 @ 4 Ohm              |
| <b>RMS Power Output</b> .....            | 15W RMS x 2 @ 4 Ohm          |
| <b>Total Gain:</b> .....                 | 28 dB                        |
| <b>Total Harmonic Distortion</b> .....   | <0.5% @ Maximum Rated Output |
| <b>Frequency Response</b> .....          | 20 Hz – 20,000 Hz ( 1 db)    |
| <b>Input Sensitivity</b> .....           | 315 mV                       |
| <b>Channel Separation</b> .....          | 53 dB                        |
| <b>Minimum Speaker Impedance</b> .....   | 4 Ohm                        |
| <b>Signal To Noise Ratio</b> .....       | 75 dB                        |

## Digital Section

|                        |                    |
|------------------------|--------------------|
| <b>PC-USB</b> .....    | up to 16-bit/48kHz |
| <b>Bluetooth</b> ..... | 5.0                |

## General

|  |  |
|--|--|
| <b>Power Requirement</b> .....         | 100V-240V, 60/50 Hz                      |
| <b>Standby Power Consumption</b> ..... | 8W                                       |
| <b>Amplification</b> .....             | Class A/B                                |
| <b>Dimensions (W, H, D)</b> .....      | 9.2 x 6.2 x 4.2 in. (234 x 157 x 107 mm) |
| <b>Weight</b> .....                    | 2.55 lbs. / 1.15 kg                      |

All Specifications are accurate at the time of printing.  
Dayton audio reserved the right to make improvements without notice.

## Warranty

Dayton Audio products are warranted to be free of all defects in material and workmanship for 5 YEARS from the date of purchase from an authorized Dayton Audio dealer. For any product containing vacuum tubes, the warranty on the tubes shall be one year from purchase. This warranty and all rights provided are limited to the original owner and are non-transferable. Responsibility is limited to replacement or repair as set forth in this warranty statement.

Should a product require warranty service during this period, Dayton Audio will repair or replace without charge, any part or product proving defective in material or workmanship. All warranty repairs and service must be performed by an authorized Dayton Audio technician or service facility. The use of non-authorized repair services renders this warranty null and void, and any charges relating to non-authorized repair are the responsibility of the product owner. All expenses (except return shipping costs) related to replacing or repairing a defective part or product under this warranty shall be assumed by Dayton Audio. Dayton Audio reserves the right to replace defective product with a new or factory reconditioned unit.

For more information and to register your new Dayton Audio device visit [daytonaudio.com](http://daytonaudio.com).



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