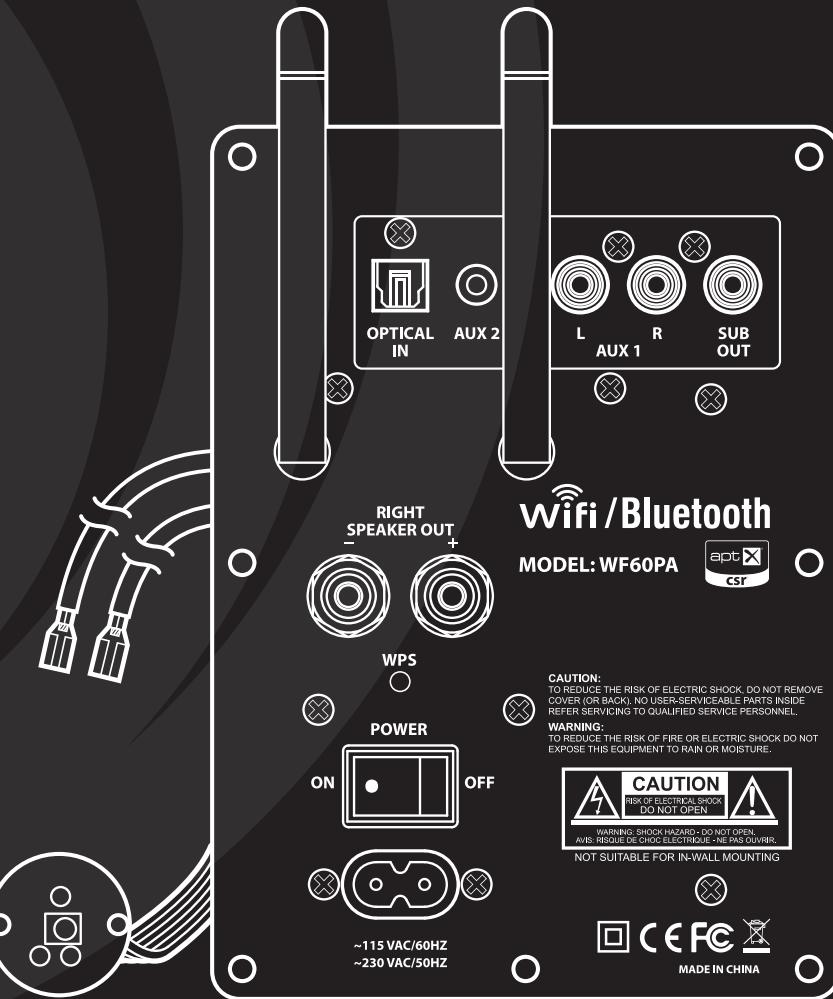




# 60W CLASS D FULL RANGE 2.1 PLATE AMPLIFIER with Wi-Fi and BLUETOOTH

Model: WF60PA User Manual



## INTRODUCTION

Congratulations on your purchase of the Dayton Audio WF60PA 60-watt plate amplifier with Wi-Fi and Bluetooth audio! The WF60PA is a feature-packed full range Class D plate amplifier that makes it easy to add high-quality Wi-Fi and AptX Bluetooth 4.0 wireless connectivity to your speakers. In addition to its wireless inputs, the WF60PA features RCA, 3.5mm, and optical digital inputs, plus a subwoofer output (LFE).

The WF60PA is ideal for the project builder or OEM, with endless applications. Use the WF60PA to build multimedia speakers, powered monitor speakers, or even retrofit existing speakers! Each Wi-Fi module is serialized for easy identification when using multiple plate amps, and each plate amp powers its host speaker plus an additional passive unit with up to 30 watts per channel.

## ASSEMBLY

Select a mounting location for the WF60PA amplifier module that allows the 30" speaker cable to easily reach the speaker or crossover input terminals. The 30" lead is factory terminated with 0.205" disconnects for easy connection to speaker and crossover terminals. Mount the WF60PA amplifier module into a 3-3/4" (W) x 5-1/2" (H) cut-out in your cabinet, and bore an 11/16" diameter hole to mount the IR target/BT/Wi-Fi pairing indicator PCB.

## INPUTS/OUTPUTS

The WF60PA features a variety of input connections to suit a variety of needs:

**1.) OPTICAL** – Connect an S/PDIF Toslink cable to this input. The Toslink input supports PCM digital audio signals via an optical cable and a high-quality AKM digital-to-analog converter.

**2.) AUX 2** – Connect a line-level or headphone-level signal to the 3.5mm AUX 2 input using a 3.5 mm to 3.5mm or 3.5mm to RCA cable.

**3.) AUX 1** – Connect a line-level stereo audio signal to the AUX 1 input using quality RCA style cables.

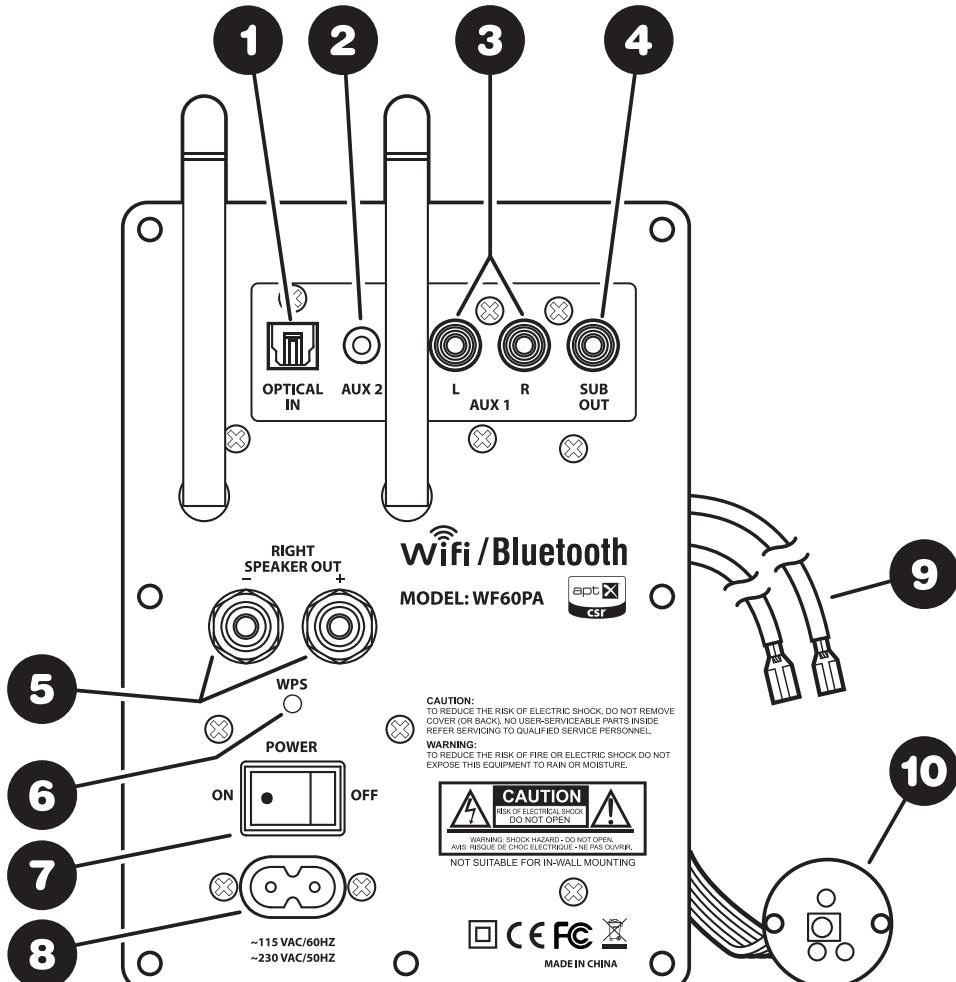
**4.) SUB OUT** – Connect a powered subwoofer to the SUB OUT using a standard RCA style cable. The subwoofer plays content below 80 Hz when connected; the speaker outputs remain full-range.

**5.) RIGHT SPEAKER OUT** – Connect a remote full-range speaker to the SPEAKER OUT. Be sure and pay attention to positive and negative polarity. The amplifier will provide up to 30 watts into a 4 ohm minimum impedance on this connection.

**6.) WPS: Wi-Fi Simple Configuration** – is a network standard to securely add devices to your wireless network.

**7.) POWER** – Switch to the ON position when operating the WF60PA and the OFF position when the unit is not in use.

**8.) AC INPUT** – Connect line power to the AC INPUT using the included non-polarized "figure 8" style power cord. The WF60PA switch-mode power supply accommodates a full range of operating voltages from 90-230V, and is double insulated for use with non-grounded line cords.



Note: For modeling use both 2D and 3D mechanical files are available for download of this plate amplifier. Files can be found on the [daytonaudio.com](http://daytonaudio.com) website.

**9.) SPEAKER (LEFT) OUTPUT** – This speaker output is designed to connect to the speaker inside of the enclosure, and the Speaker (Right) output on the rear panel of the amplifier will connect to your right passive speaker to give you a powered stereo pair.

**10.) IR CONTROL BOARD** – This is the IR received that should be installed in your speaker or project to allow control of the amplifiers functions with the handheld IR remote control.

## REMOTE CONTROL

**POWER** – Toggles the power state of the amplifier from STANDBY to ON. When the unit is ON, the indicator LED will illuminate BLUE. When the unit is in STANDBY, the indicator LED will illuminate RED. (**Note:** Turning OFF the rear power switch will turn power completely off to the unit, disabling the remote.)

**VOLUME** – Adjusts the volume level of the amplifier. If the source device has a volume control in itself, set the volume to full then control the volume with the WF60PA volume control. As the volume increases or decreases the blue indicator LED will flash. When volume is at min or MAX, the blue indicator LED will not flash.

**MUTE** – Press once to temporarily mute the amplifier. The blue indicator LED will flash slowly while the WF60PA is muted.

**PLAY/PAUSE** – Press once to play or pause program audio in Bluetooth mode only.

**PREVIOUS/SKIP** – Press to move to the beginning of the current song or advance to the next song in Bluetooth mode only.

**AUX 1/2** – Press once to switch to the corresponding analog input on the amplifier. The blue indicator LED will flash once.

**OPTICAL** – Press once to switch to the S/PDIF Toslink input on the amplifier. The blue indicator LED will flash once.

**BLUETOOTH** – Press to switch to and pair with the Bluetooth input on the amplifier. The blue indicator LED will flash once.

**WiFi** – Press once to switch to the Wi-Fi input on the amplifier. The blue indicator LED will flash once.

## OPERATION

Once you have completed installation of the WF60PA into your project it is best to test the system using a known operating source component connected to one of the analog inputs. The default state of the amplifier at power-ON is to enter STANDBY mode; use the remote to turn the power on and select an input to begin listening.

## PHYSICAL CONNECTION

Connect an audio source to any of the three external inputs. Permanent connection of sources including CD/BD/DVD players, television/satellite/cable boxes, game consoles, and other sources are best supported using the OPTICAL or AUX 1 (RCA) inputs, while portable music players and PCs are best supported by the AUX 2 (3.5mm) input.

## WIRELESS CONNECTION – BLUETOOTH®

Bluetooth connectivity provides an easy, wireless connection for a personal audio device such as a tablet or mobile phone. The WF60PA utilizes a Bluetooth 4.0 transceiver featuring aptX® decoding for CD quality audio, and also supports legacy A2DP, AVRCP, HFP, and HSP Bluetooth audio. This is a Class II Bluetooth receiver with a range of approximately 10 meters. To pair your device, press the Bluetooth button on the IR remote control, scan for new Bluetooth devices on your phone or tablet and select the device labeled "WF60PA". The blue LED indicator will flash in pairing mode, when pairing is successful the LED turns solid blue.

**Note:** The remote control functions PREVIOUS, SKIP, PLAY, and PAUSE are only available for use in Bluetooth mode.

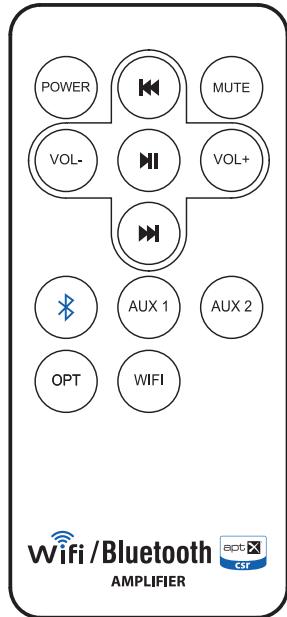
## WIRELESS CONNECTION – WI-FI

The Wi-Fi connection in the WF60PA operates using your home Wi-Fi internet connection. The Wi-Fi connection provides an easy, wireless connection for streaming music, using the Hi-Fly app, AirPlay®, or DLNA.

Open the Hi-Fly app on your smart phone. Ensure your amp is powered on and is in Wi-Fi mode. Follow the in-app directions to connect your WF60A amplifier to your network.

## STANDBY MODE

The WF60PA will automatically switch to standby mode if no signal is sensed for 15 minutes. When a signal is sensed, the WF60PA will "wake-up" automatically and begin to operate. Power consumption in standby mode is less than 0.5W.



IR REMOTE

## SPECIFICATIONS

<b>Power:</b>	2 x 30 Watts RMS (Class D)
<b>Inputs:</b>	AUX 1: 2 x RCA, AUX 2: 3.5mm Stereo, S/PDIF Optical: Toslink
<b>Outputs:</b>	30" lead with 0.205" disconnects, Dual 5-way binding posts, RCA LFE Output (80 Hz Xover)
<b>Frequency response:</b>	45-20,000 Hz
<b>Operating power:</b>	90 ~ 230 Vac, 50/60 Hz, 80Watts
<b>Standby power:</b>	<0.5Watts
<b>Bluetooth module:</b>	V4.0 , Class II
<b>Bluetooth Audio Profiles:</b>	aptX, A2DP, AVRCP, HFP, and HSP
<b>Bluetooth range:</b>	10 meters
<b>Wi-Fi:</b>	2.4 GHz, Apple AirPlay® DLNA, Hi-Fly App compatible
<b>Signal to noise ratio:</b>	>95dB

### Specifications and design subject to modification without notice

Apple and AirPlay are trademarks of Apple Computer, Inc. Registered in the US and other countries.

#### **WARRANTY COVERAGE**

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. This warranty and all rights provided are limited to the original owner and are non-transferable. Dayton Audio's 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 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.

#### **WARRANTY EXCLUSIONS**

1. This warranty does not cover product failure or damage resulting from misuse, abuse, neglect, accidents, alterations, standard environmental deterioration, natural disasters, or improper use and/or installation.
2. This warranty does not cover cosmetic damage due to misuse or neglect. This includes paint damage, scratches, cracks or other superficial marks related to improper use.
3. Failures arising from attempted servicing of a non-authorized Dayton Audio repair facility or technician are excluded from this warranty.

#### **LIMITATION OF DAMAGES**

In no event shall Dayton Audio be liable for consequential damages for breach of this warranty including installation charges, excessive shipping expenses, property loss or other incidental loss. Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to the buyer.

#### **HOW TO OBTAIN WARRANTY SERVICE**

To obtain services under this warranty, the buyer shall contact Dayton Audio's authorized service provider, Parts Express, at 1-800-338-0531 x 780 to obtain a return authorization number (RA#).

The buyer must carefully pack the warranted product along with a copy of the original purchase receipt, the return authorization number (RA#), and a description to the repair facility listed below. Shipping for warranty service is the responsibility of the buyer.

Parts Express  
Attn: Dayton Audio Warranty Repairs RA# (please write your RA# here)  
705 Pleasant Valley Drive  
Springboro, Ohio 45066

#### **NOTICE TO BUYER**

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

## FCC Statement

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.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:(1) This device may not cause harmful interference, and(2) this device must accept any interference received, including interference that may cause undesired operation.

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

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.



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