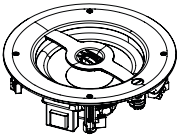
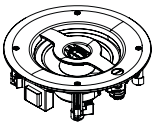
PROFESSIONAL PRODUCER PPC-T SPEAKERS



PPC80T-8



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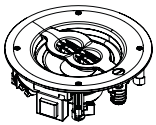
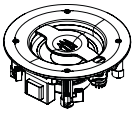


PPC60TDT



PPC50T-8

INSTALLATION MANUAL

Please visit www.originpro.com or scan the QR code using your smart device for the most up to date safety information and use instructions for this product.

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IMPORTANT SAFETY INSTRUCTIONS

This product must only be installed by professional AV integrators and installers. If using this product as surface mount, suspended, or any elevated location, be sure to consult a qualified structural engineer for are any questions or concerns regarding the structural integrity to ensure this product is used safely. Always use an assistant or mechanical lifting equipment to securely lift and position the subwoofer. It is the installer's responsibility to ensure this product is installed in accordance with local building codes and regulations. Be sure to consult the local authority for any specific requirements, regulations, and building codes of the jurisdiction in which this suwoofer will be installed.

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Do not submerge the equipment in water or liquids.
7. Do not use any aerosol spray, cleaner, disinfectant or fumigant on, near or into the equipment.
8. Clean only with a dry cloth.
9. Do not block any ventilation opening. Install in accordance with the manufacturer's instructions.
10. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
11. Do not unplug the unit by pulling on the cord, use the plug.
12. Only use attachments/accessories specified by the manufacturer.
13. Adhere to all applicable, local codes.
14. Consult a licensed, professional engineer when any doubt or questions arise regarding a physical equipment installation.

1. Introduction

Thank you for purchasing an Origin PRO Professional PPC-T Series Speaker. All of Origin PRO's speakers are designed to have excellent sound quality, longevity, a simple installation process, and built specifically for commercial applications.

This instruction booklet covers the necessary information for a smooth installation, including: the tools you will need, step-by-step instructions for installation, troubleshooting tips for any errors that may occur, and all warranty information. If for any reason you experience problems or if you have installation questions please call us at (844) 674-4461. Hours of operation are 8:00am to 5:00pm (Pacific Time), Monday through Friday.

2. Product Description

Our In-Ceiling PPC-T Speaker Series blend integrator friendly features with overall musicality. Each model is a 2-way loudspeaker with Silk tweeter, and front Mounted 8 ohm, 70 Tap Switch.

The PPC-T Series are built with a standard dog-leg installation, yet reuse the same install brackets and cut-out templates as our Origin PRO PC In-Ceiling speakers, leaving the door open for simple future upgrades.

While still being able to incorporate 8 ohm for residential projects, these PPC-T speakers arrive ready for installation with a robust built-in transformer for even the most challenging commercial jobs. Ready-to-go low-profile paintable grilles are included to reduce ceiling visibility. Pair these speakers with a powerful Origin PRO ProA amplifier for the optimal sound experience, with both High-Z or Low-Z system flexibility.

3. PPC-T Speaker Specifications

Model: **PPC80T-8** • *Part:* **PPC80T8000**
Tweeter: 1”(25mm) Silk • ***Woofer:*** 8” (203mm) Polypropylene
Frequency Response: 72Hz-20kHz -3dB | 50Hz-20kHz -10dB
Power RMS | ***Peak:*** 30W | 100W
Impedance: 8 ohm | 70V • ***Transformer Taps:*** 30W, 15W, 7.5W, 3.75W
Mounting Depth: 4” (102mm) • ***Diameter:*** 10.3” (262mm)

Model: **PPC60T-8** • *Part:* **PPC60T8000**
Tweeter: 1”(25mm) Silk • ***Woofer:*** 6.5” (165mm)Polypropylene
Frequency Response: 79Hz-20kHz -3dB | 59Hz-20kHz -10dB
Power RMS | ***Peak:*** 30W | 100W
Impedance: 8 ohm | 70V • ***Transformer Taps:*** 30W, 15W, 7.5W, 3.75W
Mounting Depth: 3.27” (83mm) • ***Diameter:*** 8.7” (221mm)

Model: **PPC60TDT** • *Part:* **PPC60TDT10**
Tweeter: Dual 1”(25mm) Silk • ***Woofer:*** 6.5” (165mm)Polypropylene
Frequency Response: 79Hz-20kHz -3dB | 53Hz-20kHz -10dB
Power RMS | ***Peak:*** 30W | 100W
Impedance: 8 ohm | 70V • ***Transformer Taps:*** 30W, 15W, 7.5W, 3.75W
Mounting Depth: 3.38” (86mm) • ***Diameter:*** 8.7” (221mm)

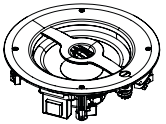
Model: **PPC50T-8** • *Part:* **PPC50T8000**
Tweeter: 0.75” (20mm) Silk • ***Woofer:*** 5.25”(133mm) Polypropylene
Frequency Response: 82Hz-20kHz -3dB | 62Hz-20kHz -10dB
Power RMS | ***Peak:*** 30W | 100W
Impedance: 8 ohm | 70V • ***Transformer Taps:*** 30W, 15W, 7.5W, 3.75W
Mounting Depth: 3.13” (79mm) • ***Diameter:*** 7.4” (187 mm)

***All product information is subject to change. Please refer to the dealer portal for the latest information.**

4. Required Tools

- *Drywall Saw*
- *Speaker Wire*
- *Pencil*
- *Wire Stripper*
- *Measuring Tape*
- *Drill*
- *Drill Bit ⅛” (3mm)*
- *Stiff Wire*
- *Stud Finder*
- *Fish Tape*
- *Spray Paint*
- *Compressed Air*

5. What’s Included



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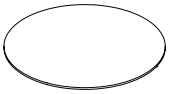

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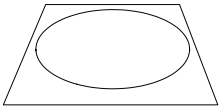

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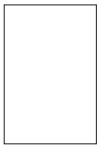


4.

1. PPC-T Speaker

2. Grille

3. Cut-Out Template

4. Quickstart Guide

6a. System Wire Routing Considerations

Plan how you will route the wire to the desired speaker location. There are several methods for routing the wire, and you may need to combine several of them.

Behind the Baseboard The wire can be routed behind the baseboard by cutting a groove out of the back of the baseboard, or by buying special baseboard designed for concealing wires.

Attic or Basement When available, you can route the wire through an attic or crawlspace.

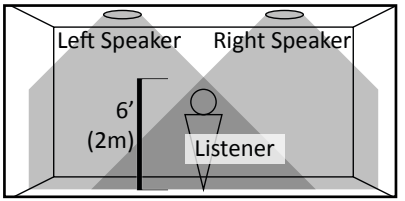
Through Walls When running wires through a wall, be sure to avoid all obstacles such as AC wiring, pipes, and ducts.

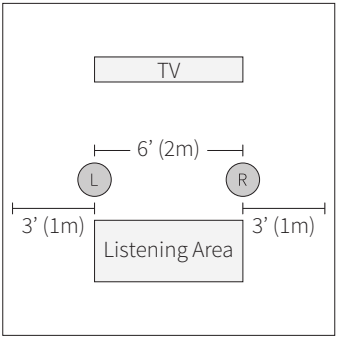
Under the Carpet One option is to lift up the carpet and route “tape wire” under the carpet.

For New Construction If these speakers are being installed in a new home during construction, the installation process will be a bit different (although much simpler). For these situations, it is recommended you purchase a bracket. Instructions on how to install the speakers are provided with the bracket, or can be found on our website.
Visit www.originpro.com for more information.

6b. System Set-Up (2 Speaker Placement)

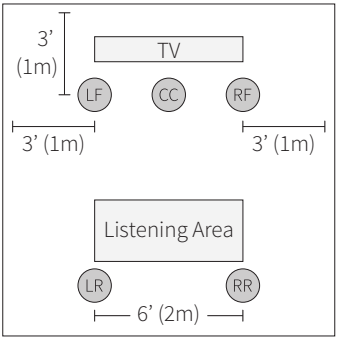
Position the two speakers in the middle of the room, no less than 6' (2m) apart. Ideally, the two speakers would be placed an equal distance from the listener. If the room has a lower ceiling, the speakers can be closer together. Also, if the speaker placement is intended for standing (as opposed to sitting) listeners, the speakers can be closer together.





6c. System Set-Up (5 Speaker Placement)

The Left Rear (LR) and Right Rear (RR) speakers should be installed just behind the listener, one on either side. The Center Channel (CC) speaker should be placed above and slightly in front of the television, with the Left Front (LF) and Right Front (RF) speakers placed equidistant to either side.



7a. Speaker Wire Polarity: Notes & Guidance

You will need a wire that has at least two conductors; one that can be identified as the positive and the other as the negative. All two conductor wires have some means of identifying which conductor is which, but at times this identification may be subtle. It's crucial that you keep track of which wire you use for positive (+) and negative (-). Typically if the wires are colored red and black, the red wire is used for positive and the black wire is used for negative, but sometimes other colors or patterns are used. You can choose whichever color of wire you want to be positive and negative as long as you remain consistent throughout the install.

On both your amplifier and your subwoofer the connectors will be identified as red for positive and black for negative. It is very important to look carefully at the speaker wires and be certain that the same wire that is attached to the positive connector in the amplifier is attached to the positive connector in the subwoofer.

7b. Speaker Wire Gauge: Notes & Guidance

The gauge of wire used can have an impact on the performance of your speakers. Generally, speaker wire is determined by the length of the run and wattage utilized. The longer your run is, the smaller the wire gauge must be.

On commercial 70 Volt systems, 18 gauge, 2 conductor, stranded and jacketed without shield wire is commonly used.

Wire Length	Wire Gauge	System
0 -200' (0 - 60m)	18	70V
200-500' (60 -150m)	16	70V
Over 500' (150m)	14	70V

In residential systems, for relatively short runs (less than 50 feet) to 8 ohm speakers, 16 gauge wire will be usually suitable.

Wire Length	Wire Gauge	System
0 - 50' (0 - 15m)	16	8 Ohm
50 - 100' (15 - 45m)	14	8 Ohm
Over 100' (30m)	12	8 Ohm

7c. Wire Gauge – 8 Ohm System Notes

If using the PPC-T Speaker in a 8 Ohm system, the total wire resistance must be less than 10% of the speaker impedance.

For example, since the speakers are nominally 8 ohms impedance, the total calculated wire resistance should be no more than 0.8 ohms.

Otherwise, the extra resistance from the wire will impede the sound quality of the speaker system.

For example, the result may be less dynamic, with a reduction in definition of bass frequencies , or attenuated high frequencies, if the wrong speaker wire is used. Remember that the amplifier power is also diminished in the wire, resulting in a lower maximum output level of the system. For this reason , please refer to the previous charts when deciding on the appropriate wire gauge for your

7d. Wire Gauge – 70V System Notes

The most common wire used on commercial 70 volt systems is 18 gauge, 2 conductor, stranded, and jacketed without a shield. The wire starts at the amplifier location and is paralleled at each speaker location. Maximum recommended wire length using 18 gauge is up to 700 feet with a 100 watt load. If you double the load (sum of your tap settings), you will reduce the footage by half, to 350 feet. Conversely, if you halve the load, you may double the acceptable wire length, i.e., a 50 watt load is safe over 1400 feet of 18 gauge. Stepping up to 16 gauge wire extends the allowable run length by approximately 35%. For example, a 100 watt load can go 700 feet on 18 gauge; the same load may be placed on 1100 feet of 16 gauge.

First, for safety purposes, it is recommended to make the calculations based on 80% of the amplifiers rated power.

• For example, 80% of an amplifiers rated power will mean that a 500W amplifier would safely deliver 400W of usable power (500W x 0.8 = 400W). Now, it is simply a matter of dividing 400 by the number of speakers and the tap setting being used in the system.

• For example, with speakers set at a 15W tap, the 500W amplifier would be capable of driving 26 speakers per channel (15W x 26 = 390W required power). At a 30W tap, it would run a maximum of 13 speakers (30W x 13 = 390W required power). At a 60W tap that would be 6 speakers (60W x 6 = 360W required power), and so on.

In this way, if you need coverage over a wide area and it requires numerous speakers, a 70V/100V system presents a tremendous advantage.

The tap setting determines how much wattage each speaker will draw from the amplifier. When daisy-chaining multiple speakers: add the combined wattages of all tap settings, to determine the wattage draw on the amplifier.

THE COMBINED TOTAL WATTAGE SHOULD NEVER EXCEED THE WATTAGE RATING OF THE AMPLIFIER.

Lastly, please noted that the higher the wattage tap, the higher the fidelity and the greater SPL that can be delivered from each speaker. So:
It is best to determine the total number of speakers needed and set the taps as high as possible WITHIN the amplifier's power output rating.

8. Speaker Installation Steps

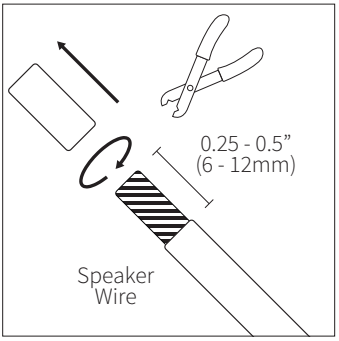
8a. Cutting the Hole

When you've decided on the locations for all of the speakers, use the template to trace a circle lightly in pencil where the hole should be. (If you don't have a template, check the Specifications section for cutout sizes.) If you're unsure on whether there may be obstacles (such as pipes or wires) where you plan on installing the speaker, drill a ⅛ inch hole in the center of the circle, then put a bent coat hanger through the hole to feel around. Use a keyhole or drywall saw to cut the hole.

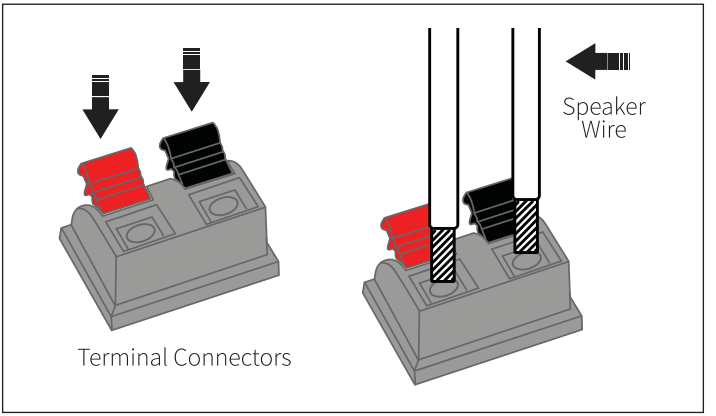
8b. Connecting the Speaker Wire

1. Insert the wires into the connectors, making sure that the positive wire is being attached to the red connection and the negative wire is being attached to the black connection. If the negative and positive wires are switched, speaker performance will be drastically impacted.

2. To connect the amplifier wires to the Spring Terminal Input Connectors on the Speaker: First, strip approximately 0.25 - 0.5" (6-12 mm) of the insulation off each wire.



3. Then, take the ceiling speaker wire and connect it to the Spring Terminal Connector on the Speaker. Push down on each connector, and insert each wire into the opening with the correct polarity. **Make sure that the POSITIVE WIRE is attached to the RED CONNECTION and the NEGATIVE WIRe is being attached to the BLACK CONNECTION.** If the wires are switched, speaker performance will be drastically impacted.



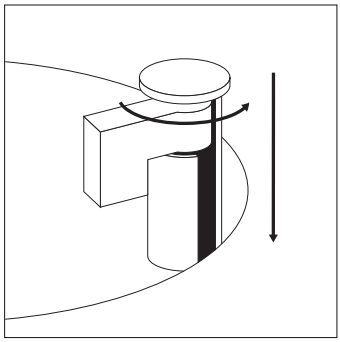
If the wires are switched, speaker performance will be drastically impacted.

4. When using multiple speakers, you can connect the speakers in the **PARALLEL** connection method.

5. Select the proper tap wattage setting for each speaker or subwoofer in the system and set each transformer tap selector. **(Refer to 70V Wiring Notes & Guidance Section)**

8c. Installing the Speaker

Make sure all the dogs are in the upright position and facing to the side, not outwards. Insert the speaker into the hole. Turn the fo Make sure all the dogs are in the upright position and facing to the side, not outwards. Insert the speaker into the hole. Turn the four screws so that the dogs face outwards and continue turning until they clamp down on the ceiling. When you feel resistance, stop tightening the screws ur screws so that the dogs face outwards and continue turning until they clamp down on the ceiling. When you feel resistance, stop tightening the screws.

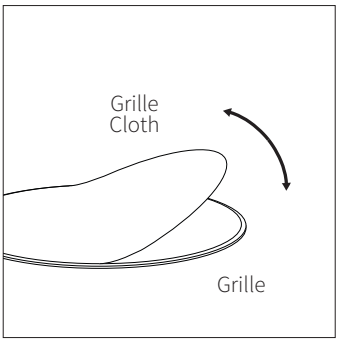


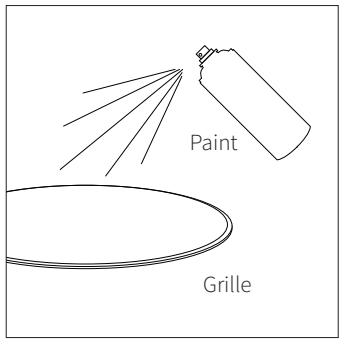
8d. Installing the Grille

Fit the grille over the speaker.

8e. Painting the Grille

In some situations the speakers may look better if the color matched the walls, ceiling, or trim in the room. This can be accomplished by painting the grille. The grille must be painted with spray paint, and most hardware stores will mix a can of paint to match whatever color you need. Before painting, carefully remove the thin cloth on the underside of the grille. Lightly spray the front of the grille with the paint from a distance, being careful not to plug any of the holes. Diluting the paint with paint thinner will lessen the risk of filling any holes. If a hole gets plugged use a can of compressed air to open it. Once the paint is dry, put the cloth back on the grille.





9a. 70V System Notes & Guidance

70 Volt systems are advantageous when the design calls for multiple speakers from the same amplifier and/or long-distance wire runs.

9b. 70V Parallel Wiring Notes & Guidance

- Use 1 SEPARATE wire run for: **SUBWOOFERS**
- Use ANOTHER wire run for: **SPEAKERS**

- **THE SUBWOOFERS (AND ANY SPEAKERS) WILL BE RUN IN PARALLEL.**

This means the positive connection on the amplifier will be connected to the positive connection on Subwoofer 1, 2, 3, etc. The negative connection will be connected to the negative connections on the Subwoofers as well. This can be accomplished with a single pair of wires in a “daisy chain” where the amplifier is at one end and the Subwoofers are connected consecutively.

• Alternatively, you can also wire in a star pattern where each speaker is directly wired back to the amplifier.

9c. 70V Amplifier Selection Notes & Guidance

A simple calculation is used to determine how many speakers can be driven on a single amplifier channel.

10. Tap Settings: Notes & Guidance

This Professional PPC-T Speakers feature 3 different tap settings off the transformer, adjusted by a rotary switch on the side face of the speaker. The higher the wattage selected, the more output will be generated by the speaker.

The following table lists the power tap settings:

Model	Position	1	2	3	4	5
PPC-T	70V	30W	15W	7.5W	3.75W	-
	8Ω	-	-	-	-	8Ω

WARNING NOTE: THERE IS AN 8Ω SETTING THAT BYPASSES THE TRANSFORMER ENTIRELY.

USE CAUTION TO AVOID THIS SETTING WHEN CONNECTED TO A 70VAMPLIFIER AS THIS CAN DESTROY THE LOUDSPEAKER.
(THE 8Ω POSITION CANNOT BE USED WITH A 70V CONNECTION AS IT WILL DAMAGE OR DESTROY THE TRANSFORMER._

Should you be uncomfortable designing or installing a 70V system, or if you have any questions please contact our Origin Technical Support team.

11. Troubleshooting

If you have a problem, try isolating it first. For example, if you're playing a DVD and there is no sound, try replacing the DVD with another audio source to see if you get sound. If it does work, then the problem is with the television, DVD player, or the cables connecting them. If it doesn't work, the problem will be with the amplifier, speakers, or those cables.

Problem	Possible Cause
No Sound	The volume may be turned down or muted. Check the volume settings on both the amplifier and the television/computer/CD player/etc.
No Sound	Make sure the proper source is selected on the amplifier or receiver.
No Sound	Check the cord connecting the amplifier with the source. The cord may be damaged or plugged into the wrong input or output.
No Sound	Check the wires connecting the amplifier with the speakers. Make sure they're connected properly and not damaged in any way.
Poor Sound Quality	If you hear something like static, or the sound is cutting in and out, check the audio cables. If the problem increases when a cable is being moved, then the cable is most likely faulty or not connected properly.
Poor Sound Quality	Today's audio systems may have several places to adjust the volume, for example your MP3 player may have a volume control, and your amplifier may also have one. Check to be certain that the volume isn't turned up past 80% on any device.
Poor Sound Quality	Try changing sources to be certain that the selection you've chosen is a good quality recording.

12. Technical Assistance

If you have any questions or concerns about installing or using this product, you can reach us through one of the following methods:

Phone: (844) 674-4461

Hours of operation: 8:00am - 5:00pm (Pacific Time), Mon - Fri

If you are having technical trouble, please have ready your model number and be prepared to briefly explain what steps you took to resolve the problem, to be best helped over the phone. If you are considering returning the product, it's required that you contact Origin PRO prior to any return attempts. This way we can determine if the issue can be resolved without returning the product, or if needed we can provide instructions and support for the return process.

13. Limited 5-Year Warranty

Origin PRO warrants to the original retail purchaser only that this Origin PRO product will be free from defects in materials and workmanship, provided the speaker was purchased from an Origin PRO authorized dealer. If the product is determined to be defective, it will be repaired or replaced at Origin PRO's discretion. If the product must be replaced yet it is no longer manufactured, it will be replaced with a model of equal to or greater value that is the most similar to the original. If this is the case, installing the replacement model may require mounting modifications; Origin PRO will not be responsible for any such related costs.

Requirements & Warranty Coverage

This warranty may not be valid if the product was purchased through an unauthorized dealer. This warranty only applies to the individual that made the original purchase, and it cannot be applied to other purchases. The purchaser must be prepared to provide proof of purchase (receipt). This warranty will not be valid if the identifying number or serial number has been removed, defaced, or altered.

Not Covered by Warranty

- Accidental damage
- Damage caused by abuse or misuse
- Damage caused by attempted repairs/modifications by anyone other than Origin PRO or an authorized dealer
- Damage caused by improper installation
- Normal wear, maintenance, and environmental issues
- Damage caused by voltage inputs in excess of the rated maximum of the unit
- Damage inflicted during the return shipment

ALL WARRANTIES AND WARRANTY CONDITIONS ARE SUBJECT TO CHANGE PLEASE REFER TO WWW.ORIGINPRO.COM FOR THE LATEST INFORMATION.

14. Return Process

Before making any return attempts, it is required that you first contact Origin PRO. Return product to Origin PRO or your dealer, either in person or by mail. It's preferable if the product is returned in the original packaging. If this is not possible, the customer is responsible for insuring the shipment for the full value of the product. This warranty is in lieu of all other expressed or implied warranties. Some states do not allow limitations on implied warranties, so this may not apply depending on the customer's location. (For more information, see Magnuson-Moss Warranty Act.)

03-05-25

6975 S Decatur Blvd, Las Vegas, NV 89118 • www.originpro.com • 844-674-4461