
S T E I N W A Y L Y N G D O R F

ROOMPERFECT™
INSTALLATION MANUAL

VERSION 1.0

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INTRODUCTION

This Installation Manual was created to assist you with setting up and using your Steinway Lyngdorf RoomPerfect™ room correction system.

For assistance with Steinway Lyngdorf speaker systems and/or electronics, please see associated installation manuals. Please read all material carefully prior to installation or first use of your Steinway Lyngdorf product. If you need additional assistance, contact your Steinway Lyngdorf representative or email service@steinwaylyngdorf.com.

ROOMPERFECT™


RoomPerfect™ is designed to analyze and correct for the negative effects that the listening room has on the speaker sound.

Global listening: The global filter improves sound quality across the whole room. When you are moving around a room, the global filter gives the best result.

Focus listening: The focus filter improves the sound quality at a specific listening position. This makes the focus filter the best solution for optimal sound quality at a single listening position.

Voicings: A voicing is an equalizer filter that can be activated to amplify or attenuate certain frequencies according to your personal preferences. This equalization is an addition to the RoomPerfect™ corrections. The equalizer settings of a given voicing can be seen on the display of the amplifier.

To correct for the way the room acoustics affect sound reproduction, RoomPerfect™ must map the acoustical properties of your listening room. For this purpose, a microphone with stand is included in the Installer Kit. The Guided Setup menu allows you to initiate a new set of RoomPerfect™ room measurements.

 **WARNING:** The microphone is a very sensitive and finely calibrated device which must be treated with utmost care. If the microphone has been dropped on the floor, it may be damaged. If this is the case, obtain a new microphone from your Steinway Lyngdorf representative before performing the system calibration.

Volume Setting

The system guides you through the selection of a proper calibration volume level. Follow the instructions on the display to find the optimal volume setting for doing the calibration.

You can choose to use a volume setting other than the one requested by the system by choosing “Use Current.” The calibration will not be inferior in quality, but the time required for an exact measurement will be longer. If the volume setting is too high, the system will display “Error – Clipping.” Reduce the volume and try again.

RoomPerfect™ Preparations

Place the RoomPerfect™ calibration microphone on the stand. Be sure to fasten the screws properly so the microphone does not move during a measurement.

Plug the supplied microphone cable into the microphone.

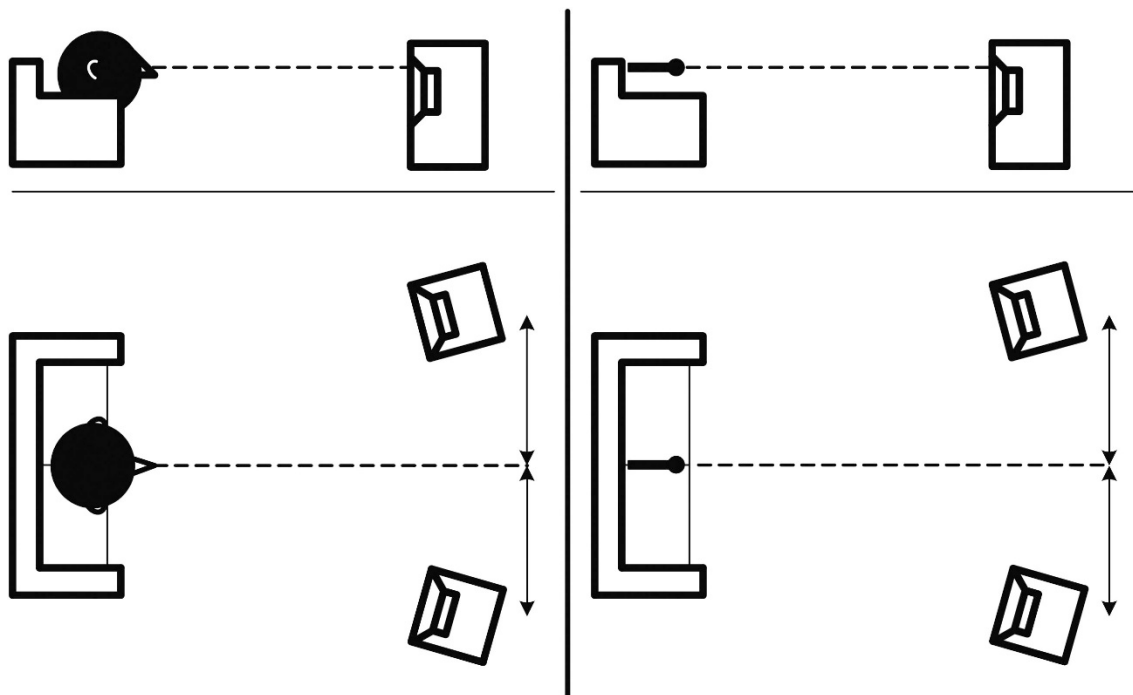
Connect the microphone cable to the microphone terminal on the rear panel of your processor.

Placing the microphone in the focus position

When you are prompted to place the microphone in the focus position, connect the microphone to the microphone input on the back panel and place the microphone, using the microphone stand, in your primary listening position. The height and the orientation of the microphone should correspond to your head's height and direction.

Press enter and a test signal will start from the left speaker. The system will give an estimated optimal volume for calibrating the system or will accept the current volume. Adjust the volume if required and retry the measurement.

The calibration volume should not be so loud that it is inconvenient to you, or that it causes damage to your loudspeakers. If this is the case, set it to a lower and more appropriate level. A low volume can result in a longer calibration time or a measurement time out. A low volume and long measurement will not affect the quality of the end result.



Measuring the focus position

When the calibration volume has been set, RoomPerfect™ will send a range of tones to measure the focus position.

If there is noise in the room, the measurement may take longer. This will not affect the quality of the end result.

See RoomPerfect™ troubleshooting if the measurement stops prematurely, and then retry the measurement.

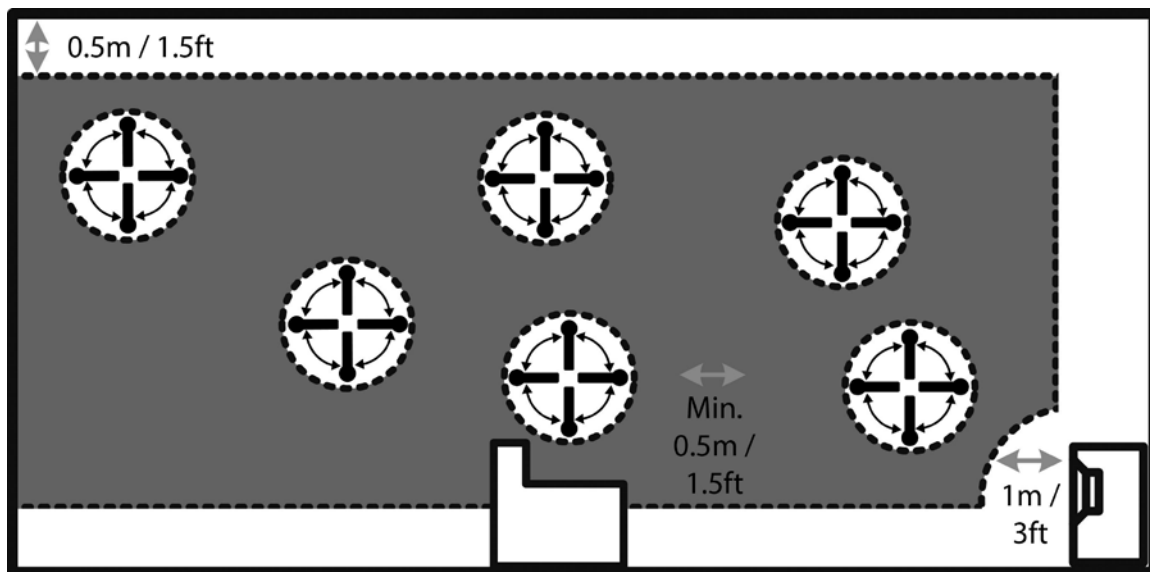
Measuring random room positions

When the focus position has been measured, the next step is to measure the acoustical properties of the room. It is important to perform well spaced measurements to get a comprehensive image of the acoustical properties of the room. See RoomPerfect™ troubleshooting if the measurement stops prematurely.

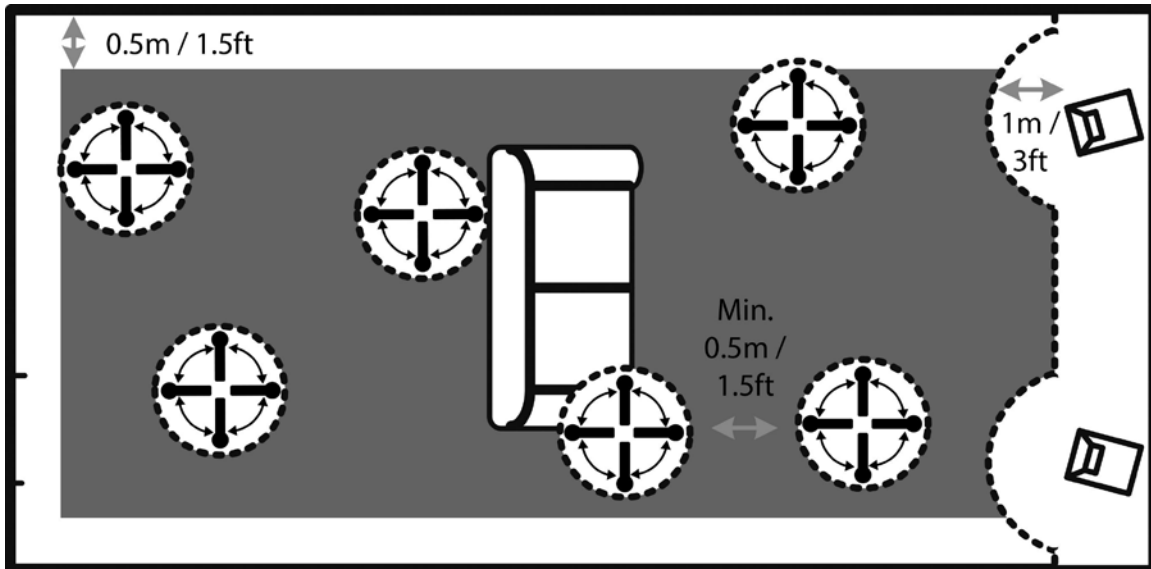
Keep taking measurements until RoomKnowledge reaches 90%.

These are the rules of thumb when measuring the room:

- the microphone should be in random and varying positions, heights, and orientations. Point it up/down/sideways, the more random positions the better.
- the measurements should cover the entire room, not only your listening area.
- do not take measurements behind plants, furniture, etc.



- the microphone should not be closer than 0.5m/1.5ft from the floor, ceiling and walls.
- the microphone should be at least 1m/3ft from the front of the loudspeakers.
- there should be at least 50cm/1.5ft between each measurement.
- do not take symmetrical measurements in the room.



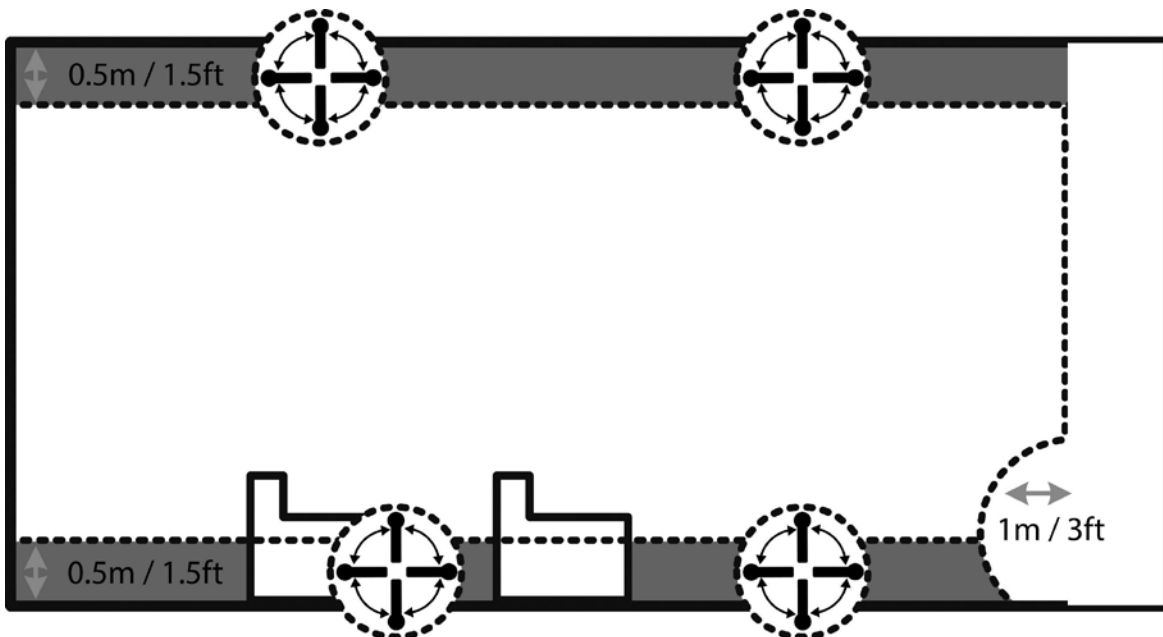
Room measurements above 90% RoomKnowledge

When RoomKnowledge has reached 90%, you can decide to add room measurements or do it at a later time. We recommend taking a couple of measurements within 50cm/.5ft of the walls and ceiling when above 90% RoomKnowledge.

To fully optimize RoomPerfect™’s understanding of the room’s acoustical properties, we recommend you keep doing measurements until the RoomKnowledge is above **95%**. The higher the RoomKnowledge, the more accurate the room correction filters will be.

Calculation of focus and global filters

When room measurements are complete, the system will calculate the focus and global filters automatically.



Advanced Setup

This menu is available only when Guided Setup has been completed.

RoomPerfect™ Information.

This menu shows how much the correction system knows about the room, and how much correction has been employed. RoomKnowledge is an index showing how many of the acoustical properties in a room have been mapped. The higher degree of knowledge in the system, the greater the accuracy of the room correction filters. The RoomCorrection index is a measure of how much processing is being employed in the room correction filters. To some extent, the RoomCorrection index reflects how audible the correction is. For low values (below 10%) of the room correction index, only subtle correction is needed to the original sound in the room. With high room correction index values, more extensive processing is employed.

Add Focus Position/Add Room Position. You can add up to eight more Focus positions for the room, repeating the Focus 1 measurement procedure. You can also add room measurements to approach 100% RoomKnowledge.

TROUBLESHOOTING

The calibration microphone is very sensitive and may pick up unwanted noise, including subsonic signals and background noise, which disturbs the measurements. If the signal is disturbed, it will take longer for the system to make a correct measurement. A measurement that has been disturbed by noise but completed will always be correct; it is not necessary to redo the measurement.

Error - Microphone not Found / No Microphone Connected

No microphone is connected or the microphone cable is not working. Check that the microphone cable is connected to the microphone socket on the back panel. If the problem continues, test the microphone cable by connecting the microphone directly to the microphone socket and select Retry. If the microphone is detected, replace the microphone cable and retry the measurement.

Error – No signal

This error message can arise due to a signal classification of “no sound.” This happens if the sound volume has been muted or a cable is disconnected.

- Check the sound volume.
- Check all cable connections.
- Check the measuring signal volume.
- If none of these measures solve the error, request a replacement microphone from Steinway Lyngdorf.

Error – Signal Clipping

There are two possible causes of this error. Either the incoming signal has been classified as too loud, resulting in clipping or distortion, or a loud noise in the immediate environment has corrupted the measurement results. If a loud noise has in fact occurred, such as the sound of a closing door, reduce noise levels inside and in the immediate vicinity of the room and repeat the measurement. If no loud noise has occurred, reduce the volume of the signal and repeat the measurement.

Error – Low Signal

This error message is displayed when the measurement has lasted more than 5 minutes for the low-frequency signal or more than 2 minutes for the high-frequency signal. This happens most often when using a low level measuring signal compared to the background noise in the listening environment, which results in prolonged measuring times. Raise the measuring signal volume or reduce the noise from the environment before continuing with the measurement.

SERVICE INFORMATION

In order to obtain warranty service you must contact your original dealer or the Steinway Lyngdorf distributor of the region or country where you are located. If you have trouble locating an authorized representative, please contact the Steinway Lyngdorf Customer Service Department using the contact information at www.steinwaylyngdorf.com, or you may email service@steinwaylyngdorf.com.

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In some cases, the Customer Service Department may solve a service problem without the need of repair or any other measures, thereby avoiding further inconvenience or delay. In some cases it may be necessary to return the equipment to Steinway Lyngdorf or an authorized service provider for repair; therefore, it is recommended that you save your original packing materials. Steinway Lyngdorf will not be responsible for any damage due to unauthorized packing or shipment in non-original packing materials. If return is made in authorized packaging, risks are borne by Steinway Lyngdorf. Additional charges may occur if new packing materials are required for return shipment.