

# LYNGDORF AUDIO TDAI-1120

# OWNER'S MANUAL

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# Welcome

Congratulations on your purchase of the Lyngdorf Audio TDAI-1120 fully digital amplifier with Room-Perfect™. With this purchase, you have joined the ranks of an elite group of people who believe that perfect sound is more than a luxury. It's a requirement. The TDAI-1120 will deliver an audio experience that will far exceed your expectations. We thank you for placing your confidence in Lyngdorf Audio.

This manual will give you an overview of how to set up your system. Please read the manual carefully to better understand the capabilities of your TDAI-1120. For more in-depth information about the technologies used in Lyngdorf Audio products, please visit <a href="https://www.lyngdorf.com">www.lyngdorf.com</a>.

# Compliance

#### **WEEE**

The European Parliament and the Council of the European Union have issued the Waste Electrical and Electronic Equipment Directive. The purpose of the Directive is to prevent waste of electrical and electronic equipment and to promote reuse, recycling, and other forms of waste recovery. Lyngdorf products and the accessories packed with them are subject to the WEEE Directive. Please dispose of any waste materials in accordance with your local recycling regulations. Products and equipment which must be collected for reuse, recycling, and other forms of recovery are marked with the icon of the crossed-out waste receptacle.



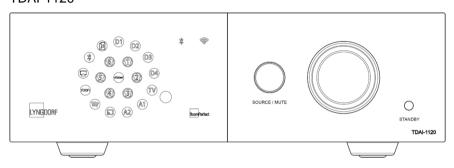
# FCC

Lyngdorf products and accessories comply with parts 15 and 68 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 any 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. Equipment marketed to a consumer must can comply with the necessary regulations in the configuration in which the equipment is marketed.

# What is in the box

# **TDAI-1120**



# Accessories



# Mains cord

- Universal Mains detection

- Mains Inlet: IEC320



8 m (26 feet) XLR - XLR cable



RoomPerfect™ Microphone



Microphone stand

# What is NOT in the box

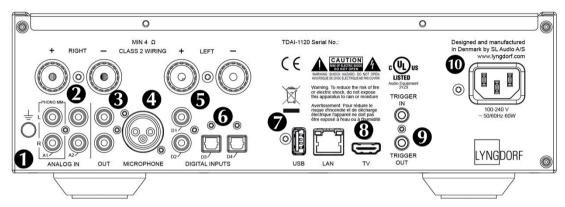
In order to install the TDAI-1120 you will need:

- A pair of loudspeakers
- Speaker cable from TDAI-1120 to each of the speakers (min. 1.5mm gauge)

# How to get started

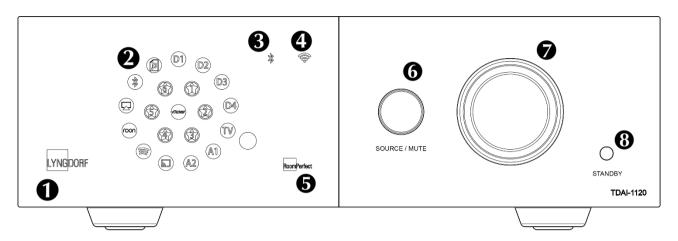
Before you connect the TDAI-1120 to mains power, you need to connect loudspeakers and other sources of audio. If you have a local network, the connection by wire is recommended, as it provides more stable and faster network connection than Wi-Fi.

The TDAI-1120 holds a wide range of connectors on the back for external audio sources in addition to the streaming options available through Bluetooth or your network.



- **1. A1/PHONO MM:** Connects directly to turntables/gramophones with high output cartridges (MM: Moving Magnet). The ground cable from the turntable/gramophone connects to the finger screw.
- 2. A2/ANALOG IN: Connects to tape recorders and other analog sources.
- 3. OUT: Analog connection to subwoofer(s), tape recorders, external amplifiers or headphone amplifier.
- **4. MICROPHONE:** Connects to the microphone and microphone cable for RoomPerfect™ calibration.
- 5. D1-D2 COAXIAL DIGITAL INPUTS: Connects to CD players and other digital sources.
- 6. D3-D4 OPTICAL DIGITAL INPUTS: Connects to CD players and other digital sources.
- **7. USB:** Connects to your FAT32 formatted USB storage (Pen Drive or Network Attached Storage, NAS). This connector can also power the external storage drive or other devices.
- 8. TV: (No video output) Connects to your Televisions HDMI ARC connector for playing TV sound.
- **9. TRIGGER IN/OUT:** These connectors allow you to have the TDAI-1120 activated by another product or to have the TDAI-1120 activate other products, when turned on and off.
- **10. MAINS POWER:** Always use a mains cable that fits your mains power outlets. The TDAI-1120 will automatically adjust to the mains power available.

# Front panel guide



## 1. LYNGDORF logo

- Constant dimmed light = standby mode
- Constant bright light = power "ON" mode
- Flashing light = updating or starting mode
- No light = power "OFF" mode
- 2. Display Indicators for the selected input. All LEDs flashes during factory reset.

# 3. Bluetooth indicator

- Constant light = connection with Bluetooth
- Flashing light = Bluetooth parring mode
- No light = Bluetooth not connected

# 4. Wi-Fi indicator

- Constant light = connected to Wi-Fi
- No light = Wi-Fi turned off
- Flashing once per second = in Apple "WAC mode"
- Flashing multiple times per second = in "WPS mode"

# **5. RoomPerfect™** indicator

- Constant light = RoomPerfect™ guide has been executed, and RoomPerfect™ is calibrated
- Flashing light = RoomPerfect™ guide is currently running
- No light = no RoomPerfect™ processing is active

#### 6. Source/Mute

- Short press to toggle mute and unmute
- Rotate left and right to toggle between audio inputs
- Press and hold for more than five seconds to initiate Wi-Fi setup using Apple WAC
- Press and hold for more than 10 seconds to initiate Wi-Fi setup using WPS

#### 7. Volume wheel

• Adjust the volume with left or right rotation. Light indicator for volume setting.

# 8. Standby button

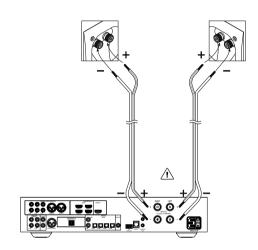
- Short press to turn the TDAI-1120 on or into standby mode
- Press and hold for more than five seconds to initiate factory reset. If held for more than 10 the procedure is aborted.

Note) See more about Wi-Fi setup in the section "Turning on the TDAI-1120 for the first time".

# Connecting speakers and subwoofers

When connected to a pair of speakers and a source like a CD Player, the TDAI-1120 functions as any other integrated amplifier – but it can do so much more.

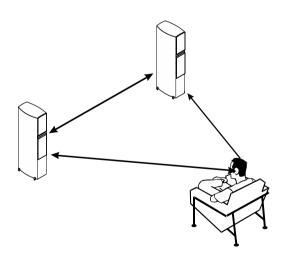
When connecting the speakers, always connect + and - from the amplifier to the corresponding + and - terminals on the speaker.



# Tips for setting up speakers

You can use the stereo triangle as a good rule of thumb when determining where to place your speakers. The distance between the speakers should be the same as the distance from your listening position to both speakers.

If your room does not accommodate the optimal listening setup, the TDAI-1120 can compensate for this, when you enter the actual distances to each speaker through the Speaker Setup Guide.



# Speaker placement with RoomPerfect™

With a RoomPerfect™ calibration available, you can place the speakers up against the wall without negative effects to the sound.

If your speakers have a bass-reflex port on the back, you should though allow for a 5cm/2in clearance to the wall. This will ensure there is no disruption to the functionality of the port.

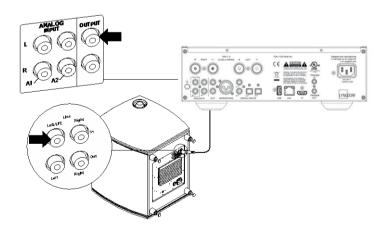
# Connecting a subwoofer

The TDAI-1120 features a crossover function for optimal integration with any subwoofer.

When connecting to a Lyngdorf BW type subwoofer, you connect the analog output of the TDAI-1120 to the BYPASS input of the subwoofer.

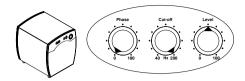
In a traditional single subwoofer setup, connect the subwoofer to the left analog output on the TDAI-1120. For a stereo subwoofer setup, or if you have a subwoofer which has stereo input, use both left and right analog outputs.

Warning: Do not connect the TDAI-1120 to a subwoofer with High Level / speaker terminal inputs, as this will seriously damage the amplifier.



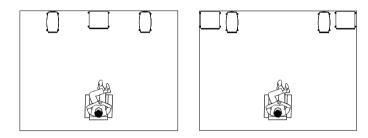
Subwoofer controls

- 1. Phase adjustment should be 0°.
- 2. The subwoofer cut-off frequency should be set to the highest possible frequency range.
- 3. Level should be set to 50% of the maximum.



# Subwoofer placement

With a single subwoofer, we recommend placing the subwoofer against the wall between the main speakers. With two subwoofers, you should position one in each front corner, in line with the main speakers.



# Turning on the TDAI-1120 for the first time

When you connect the TDAI-1120 to mains power, the Lyngdorf logo on the front will be blinking through-out the start-up process. When the logo stops blinking, push the Standby button and the TDAI-1120 is ready for operation.

## Network connection by cable (recommended)

If the TDAI-1120 is connected to your network by cable, you can now access the TDAI-1120 by the Lyngdorf Remote Application for IOS and Android devices, and you can stream to the TDAI-1120 from your music applications.

# **Establishing Wi-Fi connection**

The TDAI-1120 can be connected to your Wi-Fi network through an iPhone/iPad functionality, an Android functionality or by using the manual WPS functionality on routers.

Holding SOURCE/MUTE button for 0-5 sec

Wi-Fi icon: on Function: Reset



Holding SOURCE/MUTE button for 5-10 sec Wi-Fi icon: flashing slowly

Function: smartphone/tablet procedure

Holding SOURCE/MUTE button for 10-15 sec Wi-Fi icon: flashing quickly Function: WPS select

## Wi-Fi procedure with iPhone or iPad:

- 1. Press and hold the "SOURCE/MUTE" button for 5 seconds.
- 2. The Wi-Fi symbol will be flashing slowly, and the TDAI-1120 now appears on all your devices in the Wi-Fi section (under "Set new Airplay speaker..") under Settings.
- 3. Select the Airplay speaker and settings will be transferred from your smartphone/tablet to your TDAI-1120.

## Wi-Fi procedure with Android:

- 1. Open your Google Home App and prress the add sign in the top left corner on the front page to start adding the TDAI-1120 to your "Google home" environment.
- 2. On "Add and manage" page chose "Set up device".
- 3. On following "Set up" page select "Set up new devices...".
- 4. On next page "Chose a home" select an already existing home or "Add another home".
- 5. On "Nearby devices" page select "Lyngdorf TDAI-1120".
- 6. On "Help to improve Lyngdorf TDAI-1120" page it is optional for you, if select "No thanks" or "Yes I'm in". Information send back to Lyngdorf this way is private and will only be used for improving experience of the product.
- 7. On next page either "Add a custom room..." and follow that guide or select one of the existing ones e.g. "Kitchen".
- 8. On the "Lyngdorf TDAI-1120 found" page press "Yes" to start the actual setup of TDAI-1120.
- 9. Next page "Connecting to Lyngdorf TDAI-1120..." tells you that your phone or tablet may disconnect from WIFI during setup. This is as expected as Google home connects to TDAI-1120 to automatically transfer WIFI settings of phone/tablet to TDAI-1120.
- 10. Next page should be a "Did you hear the sound?" page. In case your device went to sleep at this point you may have missed this. In that case just press "retry". Press "Yes" when you hear the sound, to continue.
- 11. On "Connect to Wi-Fi" page select the Wi-Fi that your TDAI-1120 should connect to. Preferable one located close to device. And preferable 5GHz technology. "Connecting to Wi-Fi" and "Connected" pages will be shown.
- 12. Next is "Linking your Lyngdorf TDAI-1120" page which gives you the possibility to link your TDAI-1120 device to a google account to make use of the many google features e.g. "google assistant" etc. Read the things you find interesting on "Before using your Goggle Assistant", "All done!" & "...speaker is ready" pages.

Note! For setting up Google Home on an iPhone/iPad, follow the steps above (points 12-13 will be skipped).

# Manual Wi-Fi procedure (WPS):

If you don't have a smartphone or tablet, you can connect to Wi-Fi by the manual procedure, WPS mode.

1. Press and hold the SOURCE/MUTE button.

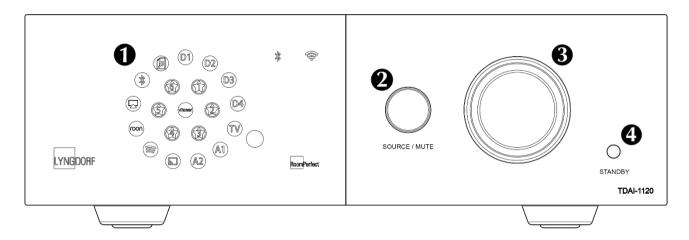
- 2. After 10 seconds the Wi-Fi symbol will be flashing quickly. Release the SOURCE/MUTE button, and the TDAI-1120 will search for a WPS connection (this can take up to 15 minutes).
- 3. Press the WPS button on your Wi-Fi router, and the TDAI-1120 will start connecting.
- 4. When the Wi-Fi icon stops flashing, the TDAI-1120 is connected.

# **Factory reset**

If you press and hold the STANDBY button for more than five seconds all the icons will be showing and then you should release the button. The TDAI-1120 will initiate a factory reset. The factory reset will clear all your previous settings, Wi-Fi settings, saved playlists etc.

If you by mistake have pressed the STANDBY button for more than five seconds and you regret. Then you can avoid the factory reset by holding STANDBY button for additional five seconds to skip the factory reset initiation.

# How to use the TDAI-1120



Turn on the TDAI-1120 by pressing the Standby button



Turn the Source button to select the music source



see selection on the Display.

Press the same button to Mute the sound temporarily – un-Mute by pressing the same button.



Turn volume up and down on the volume knob.



- The light relates to the position of the volume knob – red light is not necessarily a problem, if the source volume level is low. When the music is sounding harsh and distorted, your speakers might be damaged. You cannot damage the amplifier by turning the volume up.

# **Remote Control Application**

For Android and IOS based phones you will be able to download the Lyngdorf Remote application, which will allow you to handle the operation of your TDAI-1120 – see below examples.

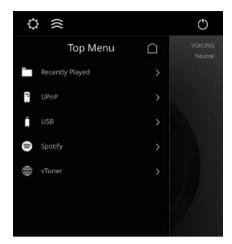
Select input, listening position and voicing directly, and see the signal information in the volume wheel, which you can operate like you operate the volume on the amplifier itself. When using the internal media player album information will appear, when available.



Top left icon will access the connection settings for selecting the Lyngdorf product to be controlled, and open for the web interface for accessing the setup.



The next icon will open the interface for streaming music and the top right icon will turn the amplifier on or off.



Using the vTuner menu will allow you to play all radio stations available on the internet

Note that through the website you can save up to 5 stations as pre-sets, which then are directly available from the input selector on the front or through the Lyngdorf Remote Application.



# Discover the TDAI-1120 setup page

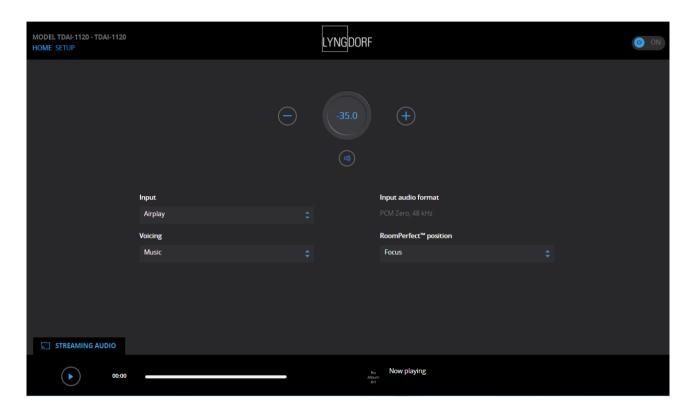
When the TDAI-1120 is connected to your local network you can connect to your TDAI-1120 in different ways. Use the Lyngdorf remote application to discover the device and enter the homepage. In the setup menu, you will be able to find the network device address and a direct link to the setup page on your internet browser. If you do not want to install the Remote Control Application, you can type the following in a browser on any device on your network:

tdai1120.local.

# Finalizing the setup

Now you start enjoying the music, but we recommend that you adjust the settings and do a RoomPerfect™ calibration to enjoy all what the TDAI-1120 can offer.

Open the web-page of the TDAI-1120 as described earlier, and we will introduce you to the available menus:



The HOME screen refers to the daily operation as performed with the remote control. The page displays selected input and formats and you can control the volume setting

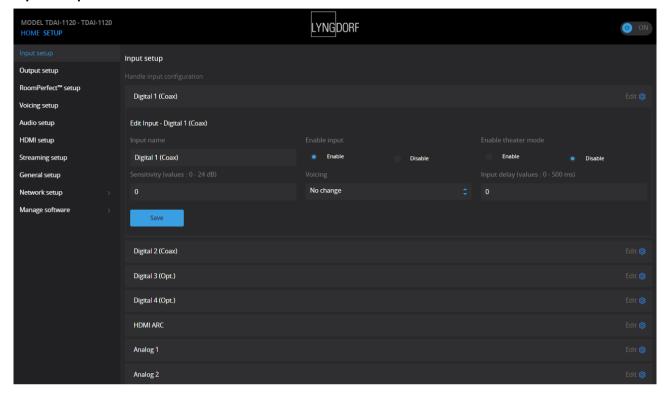
The SETUP section will be described in the following pages.

The STREAMING AUDIO interface for controlling the built-in media streamer is found in the bottom section of this page. For information as to the use of the interface see section for Streaming Setup.

Hot tip: On your mobile device the Home Screen page of your amplifier can be saved as an icon for swift access to operation of the TDAI-1120.

# Setup menu walkthrough

## Input setup



# 4.1.2 Input name

Changes the name of the selected input.

Note: To remove all text after the blinking marker, press and hold the "Down" button.

# 4.1.3 Sensitivity

Enables you to match input levels from different sources. Can be adjusted up to +24dB.

# 4.1.4 Default voicing

Selects a default voicing for the input which is active when in this menu. If you always want extra bass on your gaming console audio, for example, set that voicing here.

#### 4.1.5 Home theater

Turns the amplifier into a dedicated power amplifier for the input which is active when in this menu.

Warning: This feature bypasses the volume control!

Do not test this setting with a CD player or similar unregulated signal!

This feature might be selected if you are using the TDAI-1120 in a home theater setup where it is used to power and calibrate the front speakers and/or subwoofer. Connect your home theater processor to the selected input.

When selecting other inputs, the amplifier returns to the last current volume.

# 4.1.6 Input delay (Lip-sync)

If the connection of a display has introduced asynchronous playback of audio and video, you can select a delay time in to ensure that the video and audio signals are played back simultaneously.

# RoomPerfect™ setup

## 4.2.1 RoomPerfect™ guide

This will start the guided RoomPerfect™ setup and will erase previously stored calibrations. When completed, the following menu items are available in the RoomPerfect™ setup menu.

#### **4.2.2 Status**

This screen shows how many room measurements have been made, together with the Room Knowledge and Room Correction index.

The Room Knowledge index is an estimate of how much of the room's acoustical properties have been learned from the room measurements. The higher the Room Knowledge index, the greater the accuracy of the calibration.

Hot Tip: The objective is to have the Room Knowledge index to increase as slowly as possible. This indicates that each measurement holds new data for the calibration. When the measurement does not give new data, the index will increase quickly.

The Room Correction index is an estimate of how much the calibration filter will affect the sound reproduction by evaluating the size of the filters as well as the frequencies adjusted. This index is not absolute. For best results, rely on your own experience of the effects of the filter.

A low Room Correction filter on the focus position could indicate that you have positioned your speakers in order to optimize the frequency response and not the timing.

Check "Tips for setting up speakers" on page 6 and complete a new RoomPerfect™ calibration.

# 4.2.3 Add focus position

If you would like to add an additional focus position, the chair next to the couch perhaps, it can be done here. It is possible to have up to 8 different focus positions.

The saved calibration volume from the RoomPerfect™ guided setup is used as a default when adding extra focus positions. The volume can be changed at any time between measurements to suit a particular situation. This will not affect the quality of the measurement or the end result.

#### 4.2.4 Add room measurement

It is possible to add more room measurements, which can increase Room Knowledge and thereby fine tune all the room correction filters.

# 4.3 Volume

#### 4.3.1. Default volume

The default volume setting controls the default volume at start-up.

# 4.3.2 Maximum volume

The maximum volume setting is a safety precaution used for limiting the maximum volume which can be achieved by spinning the wheel or increasing volume via the remote. This can be set to protect your loudspeakers against overload.

#### 4.4 Voicings

Enables and disables voicings to enable quicker selection of your preferred equalization.

## 4.5 Display

# 4.5.1 Display brightness

Display brightness is used to control the brightness of the display.

## 4.5.2 Display timeout

If enabled, the main display will switch off after 10 seconds of inactivity.

## 4.6 HDMI (Audio Input from TV / eARC)

HDMI (High-Definition Multimedia Interface) is a standard for transmission of video and audio from source to playback device. The connection exchanges information as to available types of data against what the playback devices will accept.

CEC (Consumer Electronics Control) is a HDMI feature designed to allow commands to be sent from one product to another – as examples: allowing the player to turn on the television or to control the volume setting of the TDAI-1120 by using the remote control of the TV.

In all setups the level of CEC implementation on the television sets the limitation to the possible integration, and functions may be reduced to support own products – and not include full support of CEC codes.

eARC (enhanced Audio Return Channel) allows for audio to be sent from the TV to the TDAI-1120 with correct lip sync (audio to be synchronized with picture on TV).

#### 4.6.1 CEC enable

Enables and disables CEC (Consumer Electronics Control) over HDMI.

Note: As default, CEC is not active on HDMI to comply with regulations requiring a very low standby power. Turning it on will raise standby power to 1.2W

## 4.6.2 CEC power control

Enables and disables CEC power handling.

This means when you turn on your TV or Blu-Ray player, the TDAI-1120 will automatically switch on from standby as well. Furthermore, if you switch the HDMI input to a product which is in standby, it will be turned on.

Note: Menu only appears if CEC is enabled.

### 4.6.3 CEC audio system

Enables and disables CEC audio system, which allows for the sound to be routed through the TV.

When enabled the TDAI-1120 tells the TV to disable its built-in speaker and to use the ones connected to the TDAI-1120. Furthermore, this enables you to control the TDAI-1120 volume level with the TV's remote

## 5 Advanced settings

#### 5.1 Auto off

If you don't press any buttons or audio isn't being played, this sets the idle time required for automatic shutdown of the amplifier.

# 5.2 Remote control (optional accessory)

Activate or deactivate the infrared remote control function.

#### 5.3 ICC

Audio signals that exceed 0 dBFS (decibels relative to full scale) will be clipped when processed in the audio chain and will result in distortion. With ICC (Intersample Clipping Correction) the TDAI-1120 will dynamically allow for extra headroom to avoid clipping.

The TDAI-1120 will continuously adjust the ICC in order to avoid clipping. Changing inputs or going into standby mode will reset the ICC. ICC (Intersample Clipping Correction) can be set to auto or disabled.

# 5.4 Speaker setup guide

This starts the guided speaker setup and RoomPerfect™ setup. See "RoomPerfect" on page 10 for instructions in how to calibrate your system.

Warning: This will erase ALL previously stored speaker settings and RoomPerfect™ measurements.

# 5.6 Outputs

The menus in outputs are where you will manually set up delays and crossover filters for your speaker system. If the guided speaker setup has been completed the pre-made settings will be shown; these can be optimized as well.

When building active speaker systems, it is recommended that you use the original crossover point(s) used by the manufacturer. Due to the short wavelengths of the mid/high frequencies, it is essential that crossover frequency, filter type, order, and delay are set correctly. Therefore, creating filters for speakers is an iterative

process that requires great knowledge and several critical listening sessions in order to achieve seamless integration of the different speaker drivers.

Note: If you change the output setting, you have to do a new RoomPerfectTM calibration.

#### **5.6.1 Delays**

The available settings are:

#### Distance

If you are using a setup with speakers and/or subwoofers located at an identical distance to the listening position, you don't need to set a distance. If the distances are not identical, you need to enter it in order to ensure that the sound from each loudspeaker reaches the listening position simultaneously.

To correctly measure the distance, please see Guided Speaker Setup.

Amplifier delay

On analog and digital out, you can set an amplifier delay. If you have an active subwoofer or an additional amplifier, there will be a natural electronic delay in these products.

Refer to the original manufacturer's instructions to obtain the correct amplifier delay.

5.6.2 Main speaker output

The available settings are:

High pass removes the frequencies below the crossover frequency.

Low pass removes the frequencies above the crossover frequency.

Full range allows the signal to pass unfiltered.

Off mutes the output.

5.6.3 Analog output

The available settings are:

High pass removes the frequencies below the crossover frequency.

Low pass removes the frequencies above the crossover frequency.

Full range allows the signal to pass unfiltered.

Headphone disables RoomPerfect™, voicings are still available. Muting the TDAI-1120 will only mute the speakers, not this output.

Tape Out disables RoomPerfect™, voicings and volume control.

Off mutes the output.

#### Volume

The volume can be set to regulated or full scale. Regulated means that the output level will follow the level of the volume control. Full scale means there is a constant full scale output.

Warning: If full scale is selected, you will have full volume output, and this can overload and damage speakers.

# Output level

This adjusts the overall output level in order to align the level of a subwoofer to the level of your main speakers. Making the output adjustment here is far better than attenuating the level on the subwoofer itself.

## L/R signals

Choose whether you want the output to be a stereo or mono signal. Choose mono if you use a single subwoofer with mono analog input; choose stereo if you have two subwoofers or one with a stereo input. See "Connecting the subwoofer" chapter.

#### Volume

The volume can be set to regulated or full scale. Regulated means that the output level will follow the level of the volume control.

Warning: If full scale is selected, you will have full volume output. This can overload and damage connected active speakers.

#### Output level

This adjusts the overall output level in order to align the level of a subwoofer to the level of your main speakers. Making the output adjustment here is far better than attenuating the level on the subwoofer itself.

## L/R signals

Choose whether you want the output to be a stereo or mono signal. Choose mono if you use a single subwoofer with mono digital input; choose stereo if you have two subwoofers or one with a stereo input.

#### 5.6.5 Low pass filter

If a filter is selected, the frequencies below the selected crossover frequency will be directed through the designated output terminals.

The available settings are:

Type

LR: (Linkwitz Riley) 2nd, 4th or 8th order.

BW: (Butterworth) 1st, 2nd or 4th order.

In setups using conventional active subwoofers, we recommend using a 2nd order Butterworth filter.

In active speaker systems, we recommend starting with a 4th order Linkwitz Riley filter.

In a configuration with Lyngdorf Audio BW-1 speakers, we recommend using a 4th order Linkwitz Riley filter.

5.6.6 High pass filter

If a filter is selected, the frequencies above the selected crossover frequency will be directed through the designated output terminals.

The available settings are:

Type

LR: (Linkwitz Riley) 2nd, 4th or 8th order.

BW: (Butterworth) 1st, 2nd or 4th order.

Choose a filter type that matches the one you have selected for the low pass filter.

Frequency

This is the frequency for the crossover between loudspeaker and subwoofer

# 5.7 Trigger Mode

The trigger input can be used to activate the TDAI-1120 from a source.

The available settings are Amp. Power Mode or a specific input.

Amp. Power Mode will start the TDAI-1120 on the input last used.

If you want the TDAI-1120 to start on a specific input when triggered, choose it here.

Note: If the TDAI-1120 has been switched to another input, the trigger command from the source connected will not turn off the amplifier.

#### 5.9 Software info

Lists the software versions the TDAI-1120 is using. Refer to www.lyngdorf.com for the latest software.

To update the TDAI-1120:

On the web-interface you can select a new software and directly update the TDAI-1120 from the software server.

In case the TDAI-1120 is not connected to the internet, you can update the software by saving the software file on a FAT32 formatted USB drive – and through the web-interface select the software from the USB drive.

In case the web-interface is not accessible, you can force a new software onto the TDAI-1120:

- Save the new software on a FAT formatted USB drive.
- Insert the USB drive into the "SW Update" connector on the back of the TDAI-1120.
- Turn off the TDAI-1120 by disconnecting the mains power
- Hold down the standby button on the front and connect the mains power again
- When the Lyngdorf logo starts flashing, release the standby button and the TDAI-1120 will update
  the software. When the update is finished, the amplifier goes into standby.

## 5.10 Streaming setup

The TDAI-1120 has supports for a variety of media streaming services.

# GoogleCast

Google Home App can be used to setup the TDAI-1120 device as a Google Home device.

This enables you to stream audio to the device and control its behaviour.

Please use your Google Home application to accept Google Terms of Service and Google Privacy Policy <a href="https://policies.google.com/privacy?hl=en">https://policies.google.com/privacy?hl=en</a>.

## **Spotify Connect**

Use your phone, tablet or computer as a remote control for Spotify. Go to spotify.com/connect to learn how.

The Spotify Software is subject to third party licenses found here: <a href="www.spotify.com/connect/third-party-licenses">www.spotify.com/connect/third-party-licenses</a>.

#### Roon

Use your Roon control app to initiate streaming. To read more about Roon services go to https://roonlabs.com.

#### Airplay2

The TDAI-1120 has native support for Apple Airplay 2. Use your iOS device to initiate Airplay streaming to TDAI-1120.

https://www.apple.com/airplay/

## **Bluetooth**

The TDAI-1120 supports Bluetooth streaming mode. To enable pairing, turn SOURCE wheel until Bluetooth is selected. If no device is connected, pairing mode will start flashing the LED.

#### **UPnP**

The TDAI-1120 also supports Universal Plug and Play. This gives apps the possibility to stream audio from a UPnP server to the TDAI-1120.

## USB

If a USB memory stick with audio files is mounted to the TDAI-1120, you can play songs from this storage by usage of the web page "STREAMING AUDIO" tab or in Lyngdorf Remote App for Android and iOS as part of "top menu". The USB stick must be formatted as FAT32 filesystem.

#### vTuner

Play vTuner radio channels or podcasts from vTuner service. This can be initiated from the web page "STREAMING AUDIO" tab, or in Lyngdorf Remote App for Android and iOS as part of "top menu".

#### **Presets**

vTuner stations and Spotify albums can be stored as presets 1-10. This can be done on the web page in "STREAMING AUDIO" tab. When a preset is saved, it will be selectable as an input either from the front panel, web page, Lyngdorf Remote app or by remote control. Further more a preset can be stored by pressing a numeric key(1-6) on the remote control for some seconds until that particular preset selection is visible on front panel.

#### 5.11 Factory reset

Restores the system to the default factory settings.

Warning: All user preference settings, system data, and RoomPerfect™ data are lost when restoring to default settings!

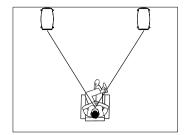
# **Measuring distances**

Splitting the sound into speakers and subwoofer(s) requires that the outputs are adjusted in time (Phase), so that the two parts of the sound arrives to your ear at the same time. This is achieved by measuring the actual distances to your speakers and subwoofer(s), and through the differences in distances the TDAI-1120 can calculate the delays, which needs to be added to each output.

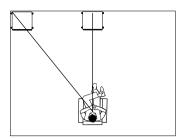
When measuring the distance to your speakers, measure from the preferred listening position (the focus position) to the front of the speakers.

When measuring the distance to a subwoofer, measure from the preferred listening position to the back corner of the subwoofer.

Speakers



Subwoofers



# **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, called a "focus 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 setup page of the amplifier.

# Placing the microphone in the focus position

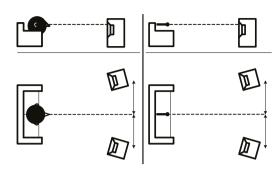
When you are prompted to place the microphone in the focus position, connect the microphone to the microphone input on the back panel using the provided microphone cable and place the microphone, using the microphone stand, in your primary listening position. The height and the orientation of the microphone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

Press enter and a test signal will start from the left speaker. The TDAI-1120 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 (in excess of two minutes) 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 result.



See "RoomPerfect troubleshooting" on page 18 if you experience problems.

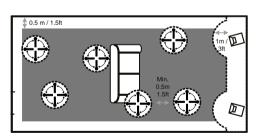
# Measuring random room positions

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" on page 18 if the measurement stops prematurely.

Keep taking measurements until Room Knowledge reaches minimum 90%.

These are the rules of thumb when measuring the room:

- the microphone must always have a clear line of sight to the tweeter mid-range of the speaker.
- 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.
- 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% room knowledge

Note that Room Knowledge is calculated by the computer as how much from the new measurement it already knows. If the Room Knowledge index does not increase after a measurement, you have added a good measurement with a lot of new information.

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

Calculation of focus and global filters

When room measurements are complete, the TDAI-1120 will calculate the focus and global filters automatically.

# Information on Lyngdorf front panel logo

The LYNGDORF front panel logo is blinking in the following situations:

- When the TDAI-1120 is starting after mains has been disconnected.
- When the TDAI-1120 is executing a firmware update.
- When the device is going in and out of deep sleep standby state.

In all of these situations user operatin is not possible.

Note: If for some reason the device should be stuck in an "animating logo situation" for more than 10 minutes a power-cycle executed by removing the mains power supply to the device might be required.

# FAQ and recommendations

When do I need to do a new RoomPerfect™ calibration?

If you change the position of speakers, the crossover settings or if you change your furniture position or type, you need to do a new calibration, as these changes have an impact on the room acoustics.

What should I set my CD-players sample rate output to?

44.1 kHz. This will allow the ICC feature of the TDAI-1120 to avoid clipping of the signal.

My remote control (optional accessory) does not work properly

Press the "AMP" button to enable the remote control to operate the TDAI-1120 amplifier.

The multifunction remote control can operate several Lyngdorf Audio products.

Check the batteries.

RoomPerfect™ 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 it. If the measurement has stopped due to an error, one of the following error messages will be shown.

Signal error! Check microphone and cable, then press enter

No microphone is connected, or the microphone cable is defective. 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: Signal clipping - or - Error: Too much noise

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: Signal too low

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 in the environment before continuing with the measurement.

Cleaning and maintenance

The TDAI-1120 does not require any regular maintenance except to keep its exterior clean. Simply wipe it

with a clean, soft cloth. A small amount of non-abrasive cleaner may be used on the cloth to remove any dirt

or fingerprints. Do not use abrasive cleaners or cleaners containing liquid solvents.

**Control Manual** 

To get a copy of the Control Manual, which describes how to operate the device from other control systems,

download it from www.lyngdorf.com, or contact your local Lyngdorf Audio representative.

**Technical assistance** 

For the latest version of this manual, please check the Lyngdorf Audio website: www.lyngdorf.com.

If you have any problems with or questions regarding your Lyngdorf Audio product, please contact

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your nearest Lyngdorf Audio dealer.

Enjoy!

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Lyngdorf Audio TDAI-1120 - Owner's manual

