



T10S SUBWOOFER

OPERATION MANUAL **EN**



CONGRATULATIONS!

...on the purchase of your new ADAM Audio T10S subwoofer, the culmination of two decades of research into advanced transducer, amplification, signal processing and loudspeaker cabinet technologies. The result is a professional reference subwoofer featuring rock-solid performance, exceptional low frequency reproduction, superior transient response, and unmasked clarity and detail.

With dimensions small enough to allow placement in virtually any size room, your self-powered T10S subwoofer is a reliable low frequency reference for music, audio production and video post-production, and will provide you with many years of dependable use and accurate performance.

This manual will help you connect, install and start using your subwoofer, and explain how to adjust it to best suit your working environment. It will also explain how to solve the most common problems that users encounter when trying to install a new subwoofer.

Manufacturer contact information and full technical specifications are also included for reference purposes.

Nevertheless, if you encounter problems that you can't solve, or have questions not answered in this manual, please either contact your local dealer, or e-mail our Berlin-based support team via support@adam-audio.de. We pride ourselves on remaining approachable and helpful to our customers at all times.

We wish you many years of happy listening with your new T10S subwoofer.

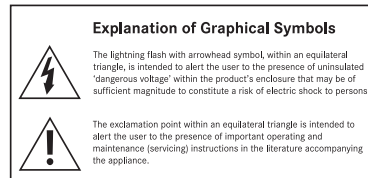
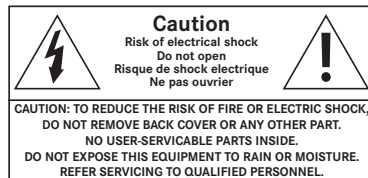
The Team at ADAM Audio

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1. IMPORTANT SAFETY INSTRUCTIONS








Please read the following safety instructions before setting up your system. Keep the instructions for further reference. Please heed the warnings and follow the instructions.
















Caution: To reduce the risk of electric shock, do not open the loudspeaker. There are no user-serviceable parts inside. Refer servicing to qualified service personnel.

Never replace any fuse with a value or type other than those specified. Never bypass any fuse.

This product is equipped with a universal power supply and will automatically accept and operate properly with AC voltages ranging from 100 to 240 V, at 50/60 Hz

-  Always switch off your entire system and disconnect the power from this product before connecting or disconnecting any cables, or when cleaning any components.
-  Protect the power cord from being walked on or pinched particularly at plugs, sockets, and the point where it exits from the apparatus.
-  Unplug this apparatus during lightning storms or when unused for long periods of time. Always keep electrical equipment out of the reach of children.
-  Do not expose this product to rain or moisture, never wet the inside with any liquid and never pour or spill liquids directly onto this unit. Please do not put any objects filled with liquids [e.g. vases, etc.] onto the speaker.
-  When moving the loudspeakers on a trolley, avoid injuries; take care and do not over-balance the trolley.
-  The speaker must be positioned on a solid surface.
-  Always use fully checked cables. Defective cables can harm your speakers. They are a common source for any kind of noise, hum, crackling etc.

-  Never use flammable or combustible chemicals for cleaning audio components.
-  Install in accordance with the manufacturer's instructions.
-  Never expose this product to extremely high or low temperatures. Never operate this product in an explosive atmosphere.
-  High SPLs may damage your hearing! Please do not get close to the loudspeakers when using them at high volumes.
-  Please note that the transducer emits an electromagnetic field. Please keep magnetically sensitive items at least 0.5 m [2 ft] away from the speaker.
-  Assure free airflow behind the speakers to maintain sufficient cooling by keeping a distance of at least 100 mm [4"] to the wall.
-  No naked flame sources, such as lit candles, should be placed on the speaker.
-  Do not use this apparatus near water.
-  Use a dry cloth for cleaning.
-  Do not install near any heat sources such as radiators, hot air vents, stoves, or other equipment [including amplifiers] that produces heat.
-  Only use attachments/accessories specified by the manufacturer.
-  Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, for example if the power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, or if the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
-  Make sure, there are no items below the subwoofer, such as cables, that might be able to touch the transducer when it is moving as this could affect the sound and damage the chassis.

2. INTRODUCING T10S SUBWOOFER

REVOLUTIONARY DESIGN

Since its launch in 1999, Berlin-based ADAM Audio quickly gained international prominence and respect as a manufacturer of reliable and highly accurate reference monitors. This reputation for high resolution performance has led to ADAM Audio monitors being used by engineers in top recording studios worldwide.

The T10S is a powerful yet compact active subwoofer, designed to extend the bass response of any nearfield studio monitor. However, the subwoofer's performance, features and connectivity are engineered specifically to complement ADAM Audio's T series speakers.

VERSATILE CONNECTIONS AND CONTROLS

On the rear side of the T10S subwoofer is a sturdy metal backplate with comprehensive controls and analog input and output connections that allow use with virtually any speaker system:

- A 2-channel set of balanced XLR connectors and unbalanced RCA connectors allow use with mixers and I/O boxes using +4 dBu or -10 dBV nominal operating levels.
- The 3-way crossover switch on the T10S rear panel allows for the selection of standard bass management crossover frequencies or the use of an external crossover, adapting the subwoofer to any system's requirements.
- The T10S subwoofer has its own level control, which is especially useful to balance output level with the connected studio monitors.
- The phase switch on the rear panel allows for proper acoustic alignment with the connected studio monitors in a system.
- The T10S can automatically accept AC mains voltages ranging from 100 V to 240 V, at 50/60 Hz — simply plug it in and go!

Please see Section 3 of this manual for an illustrated key to the T10S rear-panel connections and controls. Optimal use of rear-panel connections and controls is explained in greater detail in Sections 4 and 5 of this manual.

3. OPTIMAL PLACEMENT OF YOUR SUBWOOFER

It is common knowledge that the human hearing is not able to localize low frequencies [below about 100 Hz] very well, meaning it is difficult for a listener to say where low frequency sounds come from. It is, however, a common misunderstanding that therefore the placement of a subwoofer does not matter to the resulting quality of sound reproduction. It does matter, since the subwoofer interacts with its environment.

Due to the fact that every room [geometry, furniture, etc.] is unique, the following descriptions are intended to be a first introduction to the subject. The aim is to assist you in tackling the most frequent problems with subwoofers and room acoustics, notably interference and standing waves.

3.1 PLACING THE SUBWOOFER

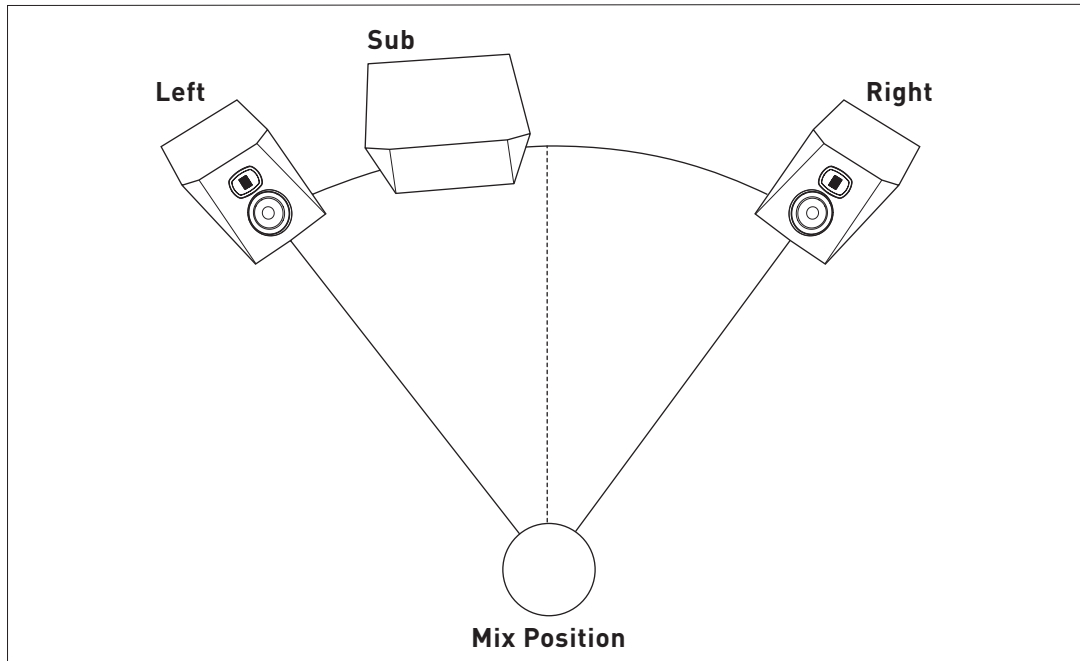
The T10S uses a down-firing transducer, where the loudspeaker driver sits at the bottom of the cabinet, facing down. The feet of the subwoofer create the required mechanical and acoustical clearance.

Please assure that there are no items below the subwoofer, such as cables, that might touch the transducer when it is moving as this could affect the sound and damage the speaker.

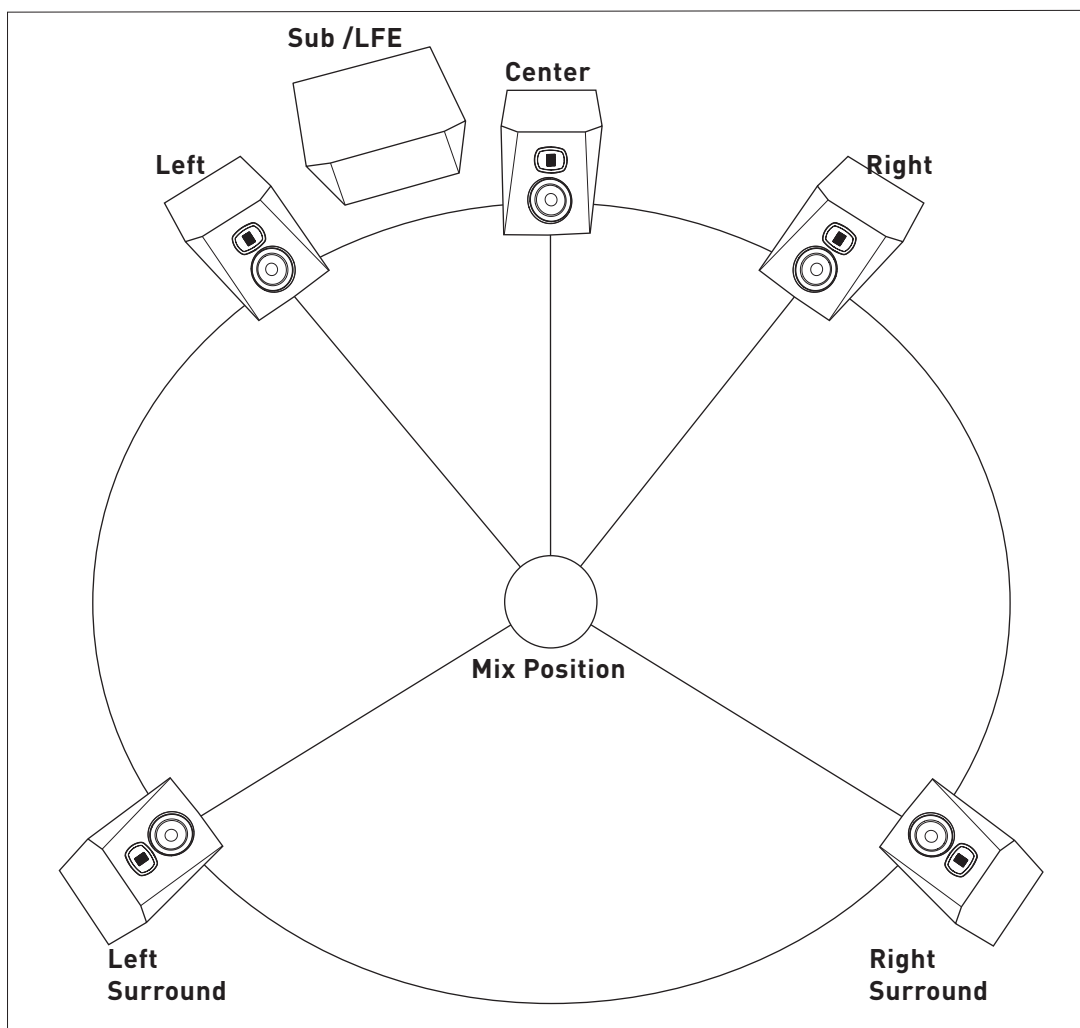
3.2 POSITION RELATIVE TO MONITOR SPEAKERS

In most setups it is advisable to place the subwoofer not too far from the main monitors to maximize the ability of the subwoofer to seamlessly extend the frequency response of the main monitors. In a stereo system it is advised to place the subwoofer in between the main monitors. Often it is advantageous to place it closer to one speaker or another for acoustical and architectural reasons [like a video monitor stand occupying the space in the exact center between the speakers].

In all cases it is best to start with the subwoofer and the main speakers at the same distance from the main listening position.



In the case of surround sound systems with the usual center channel, a position close to the center either to the left or the right is the best place to start. As in the stereo setup, some listening may show that slight repositioning improves the overall performance.



3.3 WALLS/DISTANCE TO WALLS

Generally, every wall relatively close to the subwoofer enhances its sound pressure level by about 6 dB. However, the effect of the subwoofer sitting on the floor has already been considered in the design of the T10S. For instance, placing the subwoofer in a corner of a room will make it about 12 dB louder [6 dB per wall A and wall B]. While the subwoofer efficiency for loudness will be increased, it is likely that this will result in less precision of the audio reproduction.

But do keep in mind starting with the subwoofer between the main monitors at the same distance as the main listening position. Once the system is up and running experiment with other positions to see where the best performance is found.

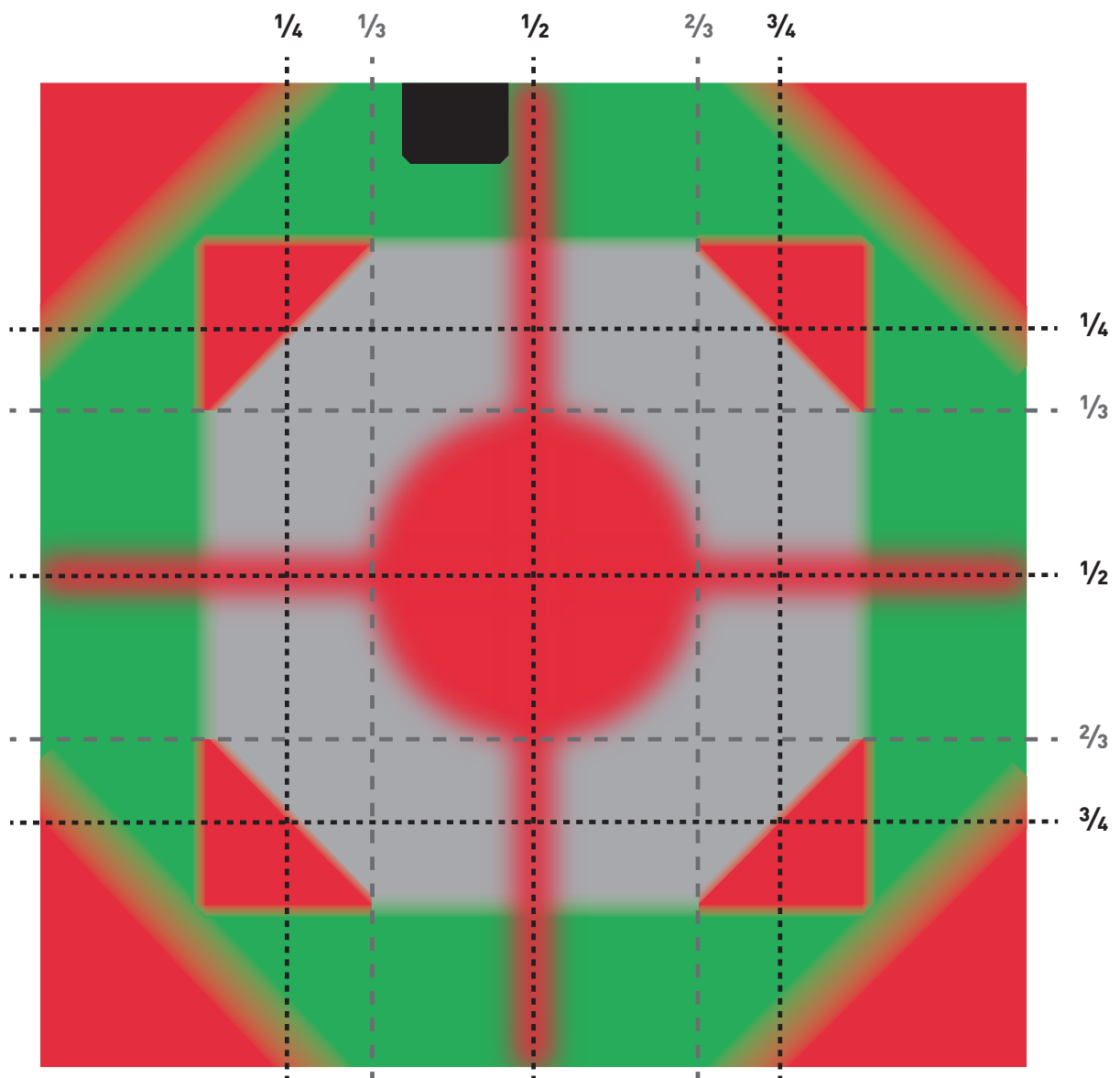
Another problem related to the geometry of the room concerns are “standing waves” or “room modes”. These are sound waves being reciprocated between reflecting objects, so they “stand” [don’t seem to move] in between these objects. The speaker continues to produce new waves that combines its force with the first wave[s]: a vicious circle that results in hot spots in the room, where certain bass frequencies are too loud and, conversely, quiet spots, where the same frequencies are barely audible.

Please note, that this hot spot/quiet spot pattern changes with frequency and is different in every room.

3.4 FINDING THE OPTIMUM POSITION

Give it a try! The most important tool for finding the best position for your subwoofer are your ears.

This illustration will give some ideas where to place the subwoofer. This map is based on a square room as a reference and illustrates floor positions that are suggested or to be avoided for subwoofer placement. Positioning the subwoofer in the green area is likely to work best, the red areas are more prone to exciting the standing wave issues as described above.



Subwoofer placement map based on the footprint of a square room

avoid position
 suggested position
 not ideal

4. FEATURES



[1] POWER STATUS LED – POWER INDICATOR: Next to logo on front.

- Red “Standby” indicates that the T10S is plugged in, power is available and ready to activate the power amplifier.
- Green “Active/On” the LED will turn green when the subwoofer has just been powered up or when the input circuitry of the T10S detects an input signal. The amplifier will remain active for 15 minutes after program stops and then return to the red standby mode.



[2] CROSSOVER FREQUENCY – Three settings are provided: 80 Hz, 120 Hz and Bypass.

- 80 Hz use this setting for ADAM Audio’s T Series near field monitors or any other professional monitors.
- 120 Hz use this setting for smaller speakers that do not have sufficient low frequency response or for monitoring according to cinema “x.1” LFE [Low Frequency Effects] channel standards.
- Bypass use this setting when using an external crossover or bass management system.

[3] PHASE SWITCH – Two settings are provided: 0° and 180°

- 0° Setting the phase switch to the 0° position will make the subwoofer reproduce the audio in phase with the incoming signal.
- 180° Setting the phase switch to the 180° position will make the subwoofer reproduce the audio with a 180° phase shift or inverted phase, relative to the incoming signal.

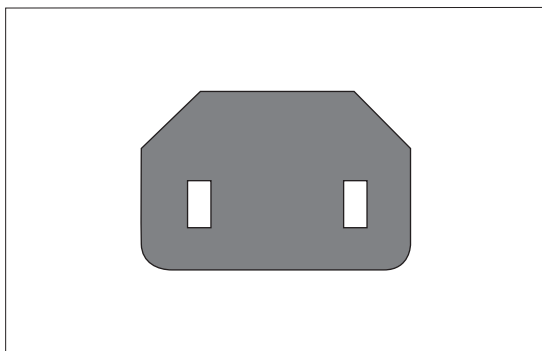
The phase setting does not affect the audio through path that feeds the connected monitor speakers.

[4] LEVEL KNOB – Turn this knob clockwise to increase the subwoofer's volume, or counterclockwise to decrease its volume. The "0 dB" setting is matched to the "0" marks on the ADAM Audio T Series monitors.

[5] BAL. IN CONNECTOR – Use this XLR connector to feed balanced audio with nominal +4 dBu level as might be found on a professional audio mixer or audio interface.

[6] UNBAL. IN CONNECTOR – Use this RCA connector to feed unbalanced audio with nominal -10 dBV level as might be found in some audio interfaces, consumer electronics, AVRs, or computer sound cards.

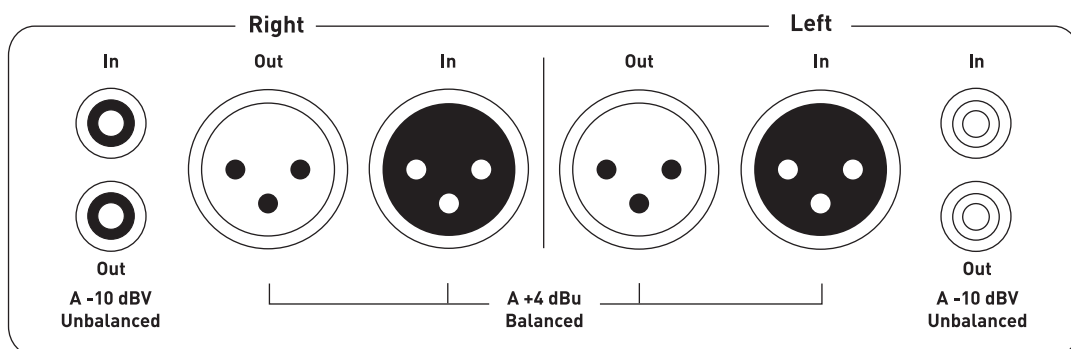
[7] MAINS POWER CABLE CONNECTOR – The T10S has an ungrounded two-pin mains power connector for IEC 60320 C17 power cables.



5. AUDIO CONNECTIONS AND LEVEL SETTINGS

Your T10S subwoofer needs no external amplification, thanks to its built-in amplifier. The subwoofer can be directly connected to mixing consoles and both balanced and unbalanced I/O boxes for DAWs. And because all T Series speakers automatically accept AC mains voltages ranging from 100 V to 240 V, at 50/60 Hz, you don't have to fuss with selecting a correct voltage switch setting for safe operation.

On the rear panel of your T10S subwoofer, XLR connectors and RCA connectors respectively accept balanced +4 dBu and unbalanced -10 dBV nominal input levels.



The XLR connector's wiring follows the industry standard convention: Pin 1 is ground, Pin 2 is positive [hot] and Pin 3 is negative [cold].

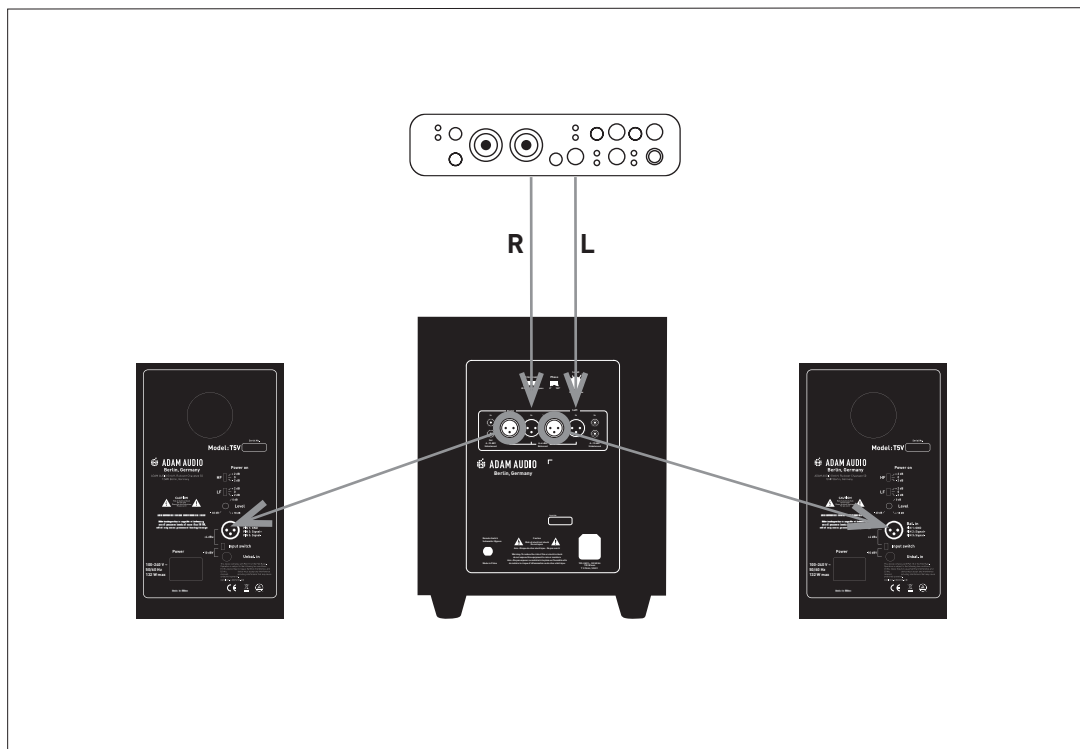
The RCA connectors follow the industry standard convention: Pin is positive [hot], Sleeve is ground.

To begin using your T10S subwoofer, follow these simple steps:

- Before making any connections to your T10S subwoofer, make sure the power cord is unplugged and the Level control knob is set fully counterclockwise to its minimum setting. Also make sure the equipment you will connect to your subwoofer is turned off and its output level controls, if any, are turned all the way down.
- If you'll be sending balanced +4 dBu analog audio from your mixer, I/O box or other equipment to your T10S, use the subwoofers' left and right channel XLR input connectors
- If you'll be sending unbalanced -10 dBV analog audio from your mixer, I/O box, AVR, or other equipment to your T10S subwoofer, use the subwoofers' left and right channel RCA input connectors.

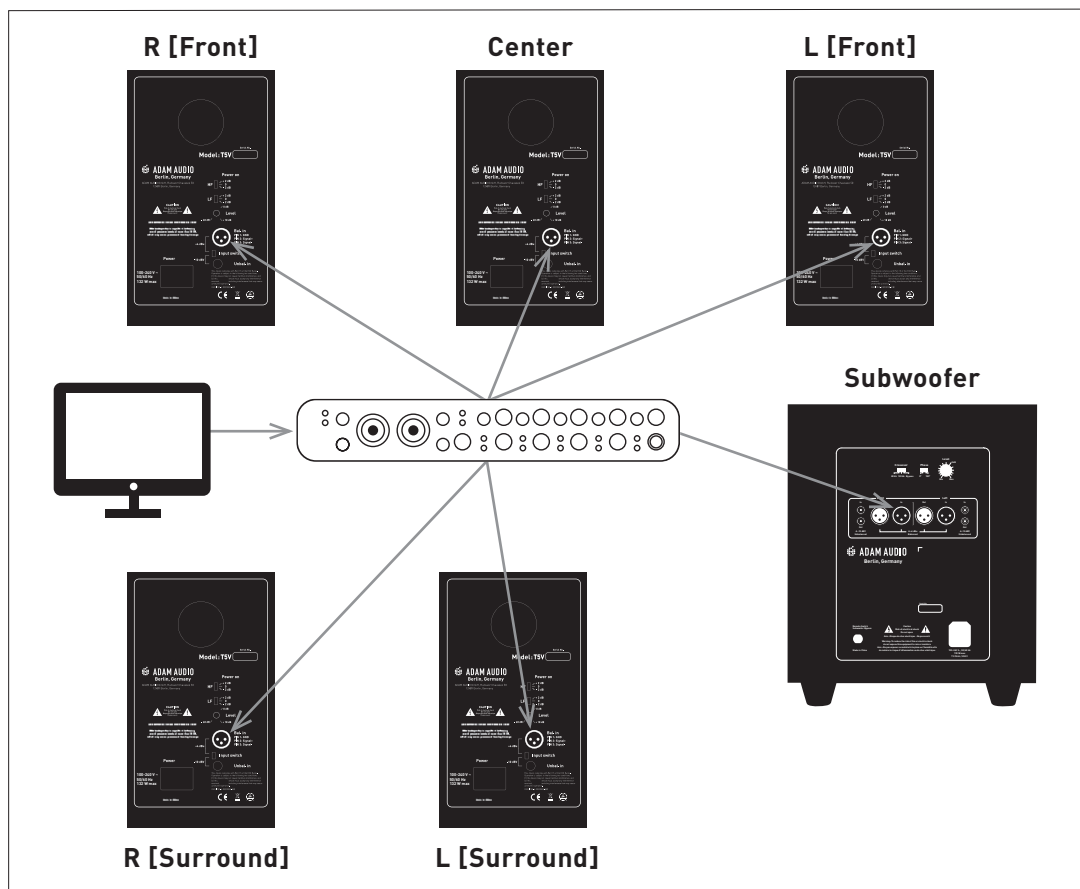
SCENARIO A → CONNECTIONS FOR STEREO MIXER OR DAW:

- Likewise, make corresponding connections [XLR to XLR or RCA to RCA] from the output connections of the T10S to the signal inputs of your monitors.
- Set the T10S CROSSOVER FREQUENCY to 80 Hz, the PHASE to 0°, and the LEVEL control to its minimum setting [fully counterclockwise]. Continue on page 15.



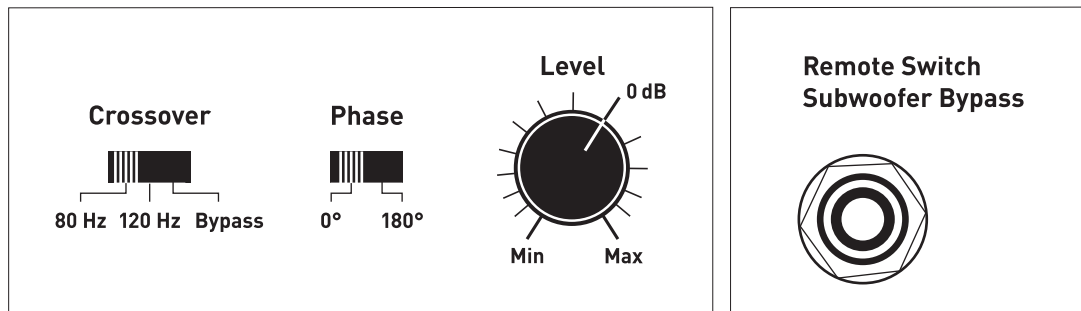
SCENARIO B → CONNECTIONS EXTERNAL BASS MANAGEMENT SYSTEM, SURROUND SYSTEM OR AVR:

- Set T10S CROSSOVER frequency to BYPASS, the PHASE to 0°, and the LEVEL control to its minimum setting [fully counterclockwise].
- After all connections are made, turn on the equipment feeding the speaker system.



- Plug in the T10S power cord.
- Turn on the monitor speakers.
- Set the output level controls, if any, on the equipment feeding your monitor system to their nominal level or to where you would normally set them.
- You should begin to hear audio from the T10S subwoofer. Adjust the setting on the T10S to match the level of your main speakers.
- Please note, that for optimum performance, it is suggested to play program containing low end signals through your T10S at a decent listening level for a total of at least eight hours before using it on a critical project.
- At the end of each session, turn off your equipment to the connected T10S subwoofer. The automatic power circuit will switch the amplifier to standby after 15 minutes and the POWER STATUS LED will turn RED.

6. USING CROSSOVER, PHASE, LEVEL & REMOTE CONTROLS ON THE REAR PANEL



On the rear panel you will find controls for the CROSSOVER frequency, PHASE, and LEVEL, plus a jack for connecting a REMOTE BYPASS footswitch. The following tips are intended to assist you at using these controls in the best manner.

LEVEL

Input Sensitivity control from -60 dBu to +16 dBu relative to 775 mV when used via the balanced XLR input or -60 dBV to +6 dBV relative to 1 V when used via the un-balanced RCA input.

CROSSOVER

The upper frequency limit of the unit's reproduction band is variable and can be set to 80 Hz or 120 Hz. The 80 Hz setting is recommended for monitors that are suited for use without a subwoofer. The 120 Hz setting designed for using smaller monitor speakers or for the ".1" LFE [Low Frequency Effects] channel for monitoring according to cinema standards.

In many cases, choosing the lower crossover frequency delivers tighter bass and cleaner mid-range response.

The BYPASS position is suited for systems that utilize an external bass management or crossovers within other parts of a playback system. This could include monitor controllers or surround sound plugins for DAWs.

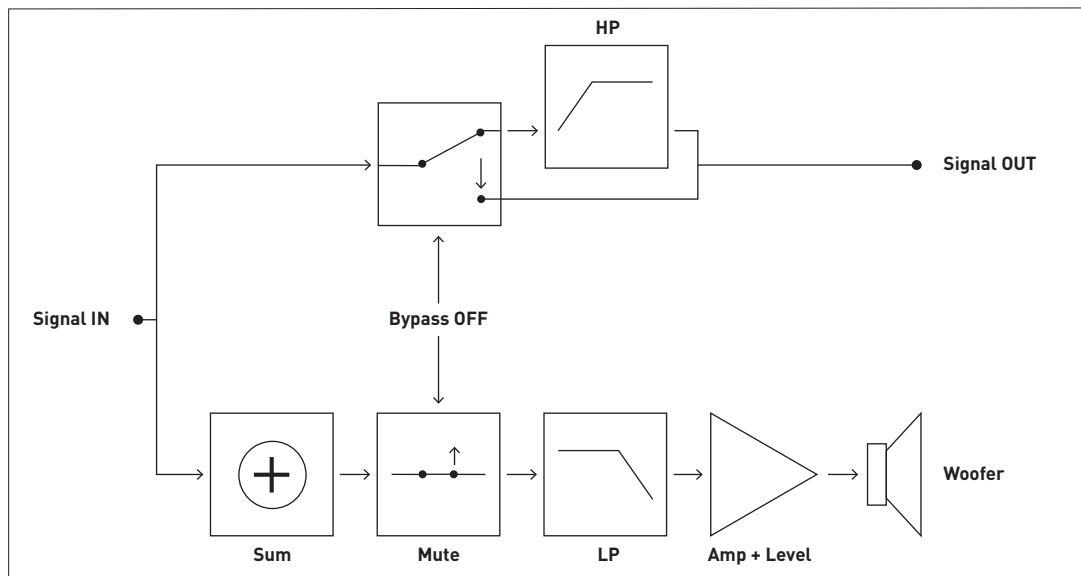
PHASE

With the PHASE switch you can alter the phase of the sound generated by the subwoofer relative to the signals going to the monitor speakers. That means to change the polarity of sound coming from the subwoofer.

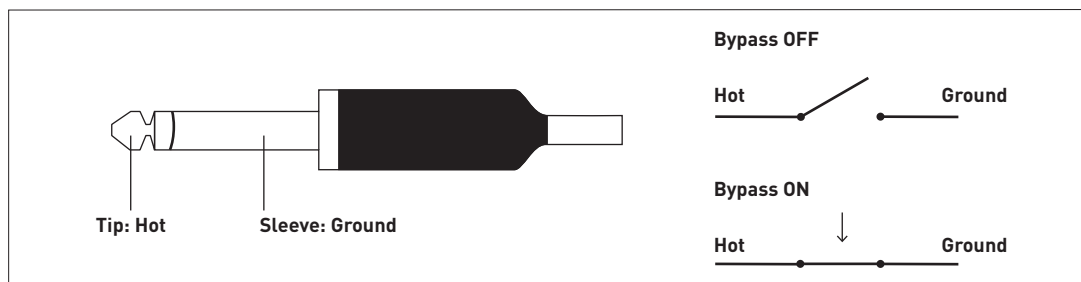
Depending on the geometrical setup of your system, the subwoofer and monitor speakers and the properties of the monitor speakers connected, either 0° or 180° may be the better position.

In a misaligned system, you will experience a lack of energy around the crossover frequency. This means, the lower mid and upper bass parts will sound weak or empty. We recommend trying out which phase setting gives you a richer sound in that frequency range and sounds better within your system.

REMOTE SWITCH SUBWOOFER BYPASS



This connector allows connection of a remote switch using a ¼" [6,3 mm] mono [TS] jack to switch the subwoofer in and out of bypass mode. Closing the circuit – connecting the two pins of the jack - will mute the subwoofer AND also switch off the satellite filter, enabling the satellite speakers to play full range to allow for listening on a system with no subwoofer. This is especially useful during the mixing process. Standard latching or momentary footswitches typically designed as accessories for electronic keyboards can be used for this feature.



7. TROUBLESHOOTING

Should you experience problems with your subwoofer, for example loss of signal, unwanted interference or noise, it's worth going through the following basic checks before contacting the team here at ADAM Audio or our local representatives.

→ **In the event that your speakers are producing no signal, or only a distorted signal:**

- a) Consider where the problem is. If all of your speakers are exhibiting the same lack of signal or distorted signal, it is more likely that the problem lies with the audio source. If, on the other hand, only a single loudspeaker is affected, the problem is more likely to lie with that specific speaker.
- b) Check your wiring and cables, if possible, swapping them for others that you know are working without any problems. If you only have a pair of cables, see if the fault changes speakers when you swap the cables over. If so, the problem is likely to be found in the cable.
- c) Check your signal source, connecting the subwoofer as directly as possible to the source. Could the fault lie with another component, for example a mixer or processor which is usually connected before the speakers in the signal path?

→ **In the event that your speakers are producing a signal, but it is affected by occasional unwanted noise, such as buzzing, humming or crackling:**

- a) Check cables, as above, swapping them or replacing them where possible, and see if the fault is also affected.
- b) Check that there are no sources of electromagnetic interference close to the speakers that could be causing problems [mobile phones, wireless routers, power supplies, electrical motors or heaters, and so on].

If none of the above can be identified as the source of the problem, your speakers may be defective, in which case contact ADAM Audio or the local representative/distributor [see www.adam-audio.com for a list].

8. MAINTENANCE

- Please unplug your subwoofer before cleaning.
- Please be aware that the speaker drivers generate a significant electromagnetic field. Magnetically sensitive items should be kept at a distance of at least half a meter [20 inches].
- Please ensure that no liquids enter the cabinet. Wet cloths should not be used for cleaning, and cleaning fluids should not be sprayed near the loudspeakers.
- Flammable or acidic chemicals should not be used for cleaning your T10S.
- If at all possible, do not touch the loudspeaker cones [they may be dusted lightly, using a very soft brush].
- We recommend a lint-free, damp [not wet] cloth for general cleaning.
- Please make sure, there are no items below the subwoofer, such as cables, that might be able to touch the transducer when it is moving as this could affect the sound and damage the speaker.

9. SHIPPING

We recommend that you keep your loudspeaker packaging in case your subwoofer ever needs to be sent for repair. It is extremely difficult to protect your loudspeaker so that it can be shipped without damage if the original packaging is not available. We cannot accept responsibility for damage arising from improper packaging when the loudspeakers are in transit.

10. ENVIRONMENTAL INFORMATION

All ADAM Audio products comply with international directives on the Restriction of Hazardous Substances [RoHS] in electrical/electronic equipment and the disposal of Waste Electrical/Electronic Equipment [WEEE]. We hope you won't be throwing your T10S subwoofer away for many years – but when the time eventually comes, please consult your local authorities for further information on how to safely dispose of them.

11. EU DECLARATION OF CONFORMITY

We, **ADAM Audio GmbH** whose registered office is situated at Rudower Chaussee 50, 12489 Berlin, Germany, declare under our sole responsibility that the product: T10S complies with the EU Electro-Magnetic Compatibility [EMC] Directive 89/336/EEC, in pursuance of which the following standards have been applied:

EN 55032 incl. EN 61000-3-2/3, EN 55103-2



and complies with the EU General Product Safety 2001/95/EC, in pursuance of which the following standard has been applied: DIN EN60065 7th.ED/A1/A2

This declaration attests that the manufacturing process quality control and product documentation accord with the need to assure continued compliance. The attention of the user is drawn to any special measures regarding the use of this equipment that may be detailed in the owner's manual.

Christian Hellinger
Managing Director ADAM Audio GmbH

12. WARRANTY TERMS

- This warranty complements any national/regional law obligations of dealers or national distributors and does not affect your statutory rights as a customer.
- Neither other transportation, nor any other costs, nor any risk for removal, transportation and installation of products is covered by this warranty.
- Products whose serial number have been altered, deleted, removed or made illegible are excluded from this warranty.
- The regular warranty lasts two years and is valid from the date of purchase. For a product registration via www.adam-audio.com/en/my-adam the beneficiary is given an additional three-year guarantee [36 months] on the registered products.
- The warranty will not be applicable in cases other than defects in materials and/or workmanship at the time of purchase and will not be applicable:
 - a] for damages caused by incorrect installation, connection or packing,
 - b] for damages caused by any use other than correct use described in the user manual,
 - c] for damages caused by faulty or unsuitable ancillary equipment,
 - d] if repairs or modifications have been executed by an unauthorized person,
 - e] for damages caused by accidents, lightning, water, fire heat, public disturbances or any other cause beyond the reasonable control of ADAM Audio.

How To Claim Repairs Under Warranty

Should service be required, please contact the ADAM Audio dealer where the product was purchased.

If the equipment is being used outside the country of purchase, the international shipping costs have to be paid for by the owner of the product.

Service may be supplied by your ADAM Audio national distributor in the country of residence. In this case, the service costs have to be paid for by the owner of the product, whereas the costs for parts to be repaired or replaced are free of charge. Please visit our website at www.adam-audio.com to obtain the contact details for your local distributor.

To validate your warranty, you will need a copy of your original sales invoice with the date of purchase.

13. TECHNICAL DATA

T10S

Woofers	1 x 10" [260 mm], down-firing
Input Sensitivity	Switchable +4 dBu / -10 dBV
Frequency response	[-6 dB] 28 Hz – 80 Hz / 120 Hz / 300 Hz [depending on crossover frequency setting]
Max. SPL at 1 m, hemisphere	104 dB
Crossover frequency	3-way switch: 80 Hz / 120 Hz / Bypass
User controls	Crossover frequency Phase inversion Level dial Subwoofer Bypass
Amp Power	130 W [RMS]
Analog Inputs	2 x XLR female [L+R], 2 x RCA female [L+R]
Analog Outputs	2 x XLR male [L+R], 2 x RCA female [L+R]
Weight	12.2 kg [27 lb]
Height x Width x Depth	390 mm x 318 mm x 413 mm [15.4" x 12.5" x 16.25"]
Mounting Options	Floor standing, rubber feet
AC Mains Input Voltage	100 – 240 VAC +/- 10 % 50/60 Hz
Remote Bypass	via 6.3 mm [1/4"] TS jack. Foot pedal not included
Warranty period	5 years [2 years warranty plus 3 years optional with product registration]

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While every effort has been made to ensure the accuracy of the information supplied herein, ADAM Audio GmbH cannot be held responsible for any errors or omissions.

Specifications are subject to change without notice.

WWW.ADAM-AUDIO.COM

