

# SW-10

active studio subwoofer

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## owner's manual



**CAUTION AVIS**



RISK OF ELECTRIC SHOCK  
DO NOT OPEN  
RISQUE DE CHOC ELECTRIQUE  
NE PAS OUVRIR



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**CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK  
DO NOT REMOVE COVER (OR BACK)  
NO USER-SERVICEABLE PARTS INSIDE  
REFER SERVICING TO QUALIFIED PERSONNEL**

ATTENTION: POUR EVITER LES RISQUES DE CHOC  
ELECTRIQUE, NE PAS ENLEVER LE COUVERCLE. AUCUN  
ENTRETIEN DE PIECES INTERIEURES PAR L'USAGER. CONFIER  
L'ENTRETIEN AU PERSONNEL QUALIFIE.  
AVIS: POUR EVITER LES RISQUES D'INCENDIE OU  
D'ELECTROCUTION, N'EXPOSEZ PAS CET ARTICLE  
A LA PLUIE OU A L'HUMIDITE



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.  
Le symbole éclair avec point de flèche à l'intérieur d'un triangle équilatéral est utilisé pour alerter l'utilisateur de la présence à l'intérieur du coffret de "voltage dangereux" non isolé d'ampleur suffisante pour constituer un risque d'électrocution.



The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.  
Le point d'exclamation à l'intérieur d'un triangle équilatéral est employé pour alerter les utilisateurs de la présence d'instructions importantes pour le fonctionnement et l'entretien (service) dans le livret d'instruction accompagnant l'appareil.

## SAFETY INSTRUCTIONS

1. Read Instructions — All the safety and operation instructions should be read before this product is operated.
2. Retain Instructions — The safety and operating instructions should be kept for future reference.
3. Heed Warnings — All warnings on this product and in these operating instructions should be followed.
4. Follow Instructions — All operating and other instructions should be followed.
5. Water and Moisture — This product should not be used near water – for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, near a swimming pool, etc.
6. Cleaning — Clean only with a dry cloth.
7. Ventilation — This product should be situated so that its location or position does not interfere with its proper ventilation. For example, the Component should not be situated on a bed, sofa, rug, or similar surface that may block any ventilation openings, or placed in a built-in installation such as a bookcase or cabinet that may impede the flow of air through ventilation openings.
8. Heat — This product should be situated away from heat sources such as radiators, or other devices which produce heat.
9. Power Sources — This product should be connected to a power supply only of the type described in these operation instructions or as marked on this product.
10. Power Cord Protection — Power supply cords should be routed so that they are not likely to be walked upon or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit this product.
11. Object and Liquid Entry — Care should be taken so that objects do not fall on, and liquids are not spilled into, this product.

12. Damage Requiring Service — This product should be serviced only by qualified service personnel when:
    - A. The power-supply cord or the plug has been damaged; or
    - B. Objects have fallen, or liquid has spilled into this product; or
    - C. This product has been exposed to rain; or
    - D. This product does not appear to operate normally or exhibits a marked change in performance; or
    - E. This product has been dropped, or its chassis damaged.
  13. Servicing — The user should not attempt to service this product beyond those means described in this operating manual. All other servicing should be referred to the Tapco Service Department.
  14. To prevent electric shock, do not use this polarized plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.
- Pour prévenir les chocs électriques ne pas utiliser cette fiche polarisée avec un prolongateur, une prise de courant ou une autre sortie de courant, sauf si les lames peuvent être insérées à fond sans laisser aucune partie à découvert.
15. Grounding or Polarization — Precautions should be taken so that the grounding or polarization means of this product is not defeated.
  16. Power Precaution — Unplug this product during lightning storms or when unused for long periods of time.
  17. This apparatus does not exceed the Class A/Class B (whichever is applicable) limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of the Canadian Department of Communications.

ATTENTION —Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de class A/de class B (selon le cas) prescrites dans le règlement sur le brouillage radioélectrique édicté par le ministère des communications du Canada.

18. Exposure to extremely high noise levels may cause permanent hearing loss. Individuals vary considerably in susceptibility to noise-induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a period of time. The U.S. Government's Occupational Safety and Health Administration (OSHA) has specified the permissible noise level exposures shown in the following chart.

According to OSHA, any exposure in excess of these permissible limits could result in some hearing loss. To ensure against potentially dangerous exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of producing high sound pressure levels use hearing protectors while the equipment is in operation. Ear plugs or protectors in the ear canals or over the ears must be worn when operating the equipment in order to prevent permanent hearing loss if exposure is in excess of the limits set forth here.

Duration Per Day In Hours	Sound Level dBA, Slow Response	Typical Example
8	90	Packed garage concert
6	92	
4	95	VW Bus Peace Train
3	97	
2	100	Cranked psychedelic tunes
1.5	102	
1	105	High speed chase on C.H.I.P.s
0.5	110	
0.25 or less	115	Loudest parts at a Heavy Metal concert

**WARNING — To reduce the risk of fire or electric shock,  
do not expose this appliance to rain or moisture.**

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Don't forget to visit our website at [www.tapcogear.com](http://www.tapcogear.com) for more information about this and other TAPCO products.

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## What me, read a manual?

Before you begin, please make sure you read the Safety Instructions on page 2 and Getting Started on page 5.

Your new TAPCO® SW•10 active studio subwoofer is designed to set up quickly and operate easily. We know it's often seen as a sign of weakness to read a manual, along with asking for directions when lost, but we hope you will read the rest of the manual, at least while nobody is looking.

It is important to keep your receipt in a safe place, and not a bad idea to write your product information here for future reference (i.e., insurance claims, tech support, return authorization, etc.).

**Product Serial #:**

**Purchased at:**

**Date of purchase:**

# Introduction

Thank you for choosing a TAPCO SW•10 Active Studio Subwoofer. The TAPCO product line hails back to the days of TAPCO Corporation, Greg Mackie's first company. TAPCO revolutionized the audio industry back in 1969 with the very first 6-channel mixer specifically designed for keyboards and rock 'n' roll.

In essence, TAPCO redefined the price/performance ratio and made high-quality professional audio equipment accessible to virtually anyone. Today, TAPCO is reborn with the same ideals and is backed by the world-class engineering and manufacturing horsepower of Mackie and LOUD Technologies.

The TAPCO SW•10 joins the S•5 and S•8 of the active studio monitor line in the TAPCO by Mackie® family. These versatile compact "mini-monitors" and "mini-sub" can be used in a variety of applications, including small project studios, surround sound editing, home theater playback, and desktop audio workstations (DAWs).

The SW•10 active studio subwoofer is an acoustic suspension design for tight, articulate bass that provides an amazingly flat and linear low-frequency response down to 34 Hz. The active crossover is a Linkwitz-Riley design that provides a range of 55 Hz to 110 Hz at 24 dB/octave. The individual crossover controls for the left and right channels provide additional flexibility in surround sound applications with a subwoofer output and bass management (LFE).

Here's a quick look at all the features packed into the SW•10 Active Studio Subwoofers:

- Flat frequency response ( $\pm 3$  dB, 34 Hz to 110 Hz)
- 10" paper cone woofer with dual-voice coil design
- Convenient compact design
- Horn-loaded design for high efficiency
- 120 watt power amplifier
- High-strength cabinet constructed of 5/8" MDF composite
- High-density adiabatic fiberfill absorbs internal reflections
- Balanced XLR and unbalanced RCA input connectors
- Balanced XLR and unbalanced RCA high-pass output connectors
- Individual left and right 24 dB/octave Linkwitz-Riley crossovers, adjustable from 55 Hz to 110 Hz
- Adjustable sensitivity control
- Polarity switch
- Rear panel power switch and AC voltage select switch



TAPCO van (a.k.a. micro bus)

# Getting Started



The following steps will help you set up your subwoofer quickly.

## INITIAL SETTINGS:

1. Turn the INPUT SENSITIVITY control on the rear panel all the way down (MIN).
2. Set the left and right CROSSOVER controls to the center position (80 Hz).
3. Set the POLARITY switch out (0°).
4. Turn the POWER switch OFF.
5. Set the AC SELECT switch to the correct position for your country (115 VAC or 230 VAC).

## CONNECTIONS:

1. Connect the left and right line-level signal from your mixer (or other signal source) to the LEFT and RIGHT INPUT jacks on the SW•10 (XLR or RCA).
2. Connect the LEFT and RIGHT OUTPUT jacks on the SW•10 (XLR or RCA) to the inputs of the left and right main powered speakers (or to the inputs of the amplifiers powering the left and right main speakers).
3. Connect the supplied AC power cord to the IEC socket on the back of the subwoofer. Plug the other end into an AC outlet properly configured with the correct voltage for the AC SELECT switch setting you have selected.

## TURN IT ON:

1. Turn on the power to the other components in the system. Generally, it is best to turn on powered speakers and amplifiers last to avoid thumps and pops from getting to the speakers.
2. Turn on the POWER switch on the back of the SW•10.
3. Start your signal source (tape deck, CD, DAW, or whatever), but leave the master level control on your mixer down.
4. Adjust the master volume on your mixer to a comfortably loud listening level.
5. Slowly turn up the INPUT SENSITIVITY control on the SW•10 to MAX (fully clockwise), or until you achieve a balance between the subwoofer and the other speakers in the system.
6. Enjoy the authoritative, commanding lows of the SW•10.



Now that you have your subwoofer working, it's time to hunker down and read the rest of this manual...especially the following:

## Placement

### An Extremely Important Note on SW•10 Bass Response and Your Control Room or Listening Room

You've heard it before. "Low-frequencies are non-directional, so it doesn't matter where you place the subwoofer." Although it is true that frequencies below about 100 Hz are non-directional, it is also true that a lot of factors can conspire to thwart the SW•10's extended low frequency — including room shape, room volume, and acoustical treatment.

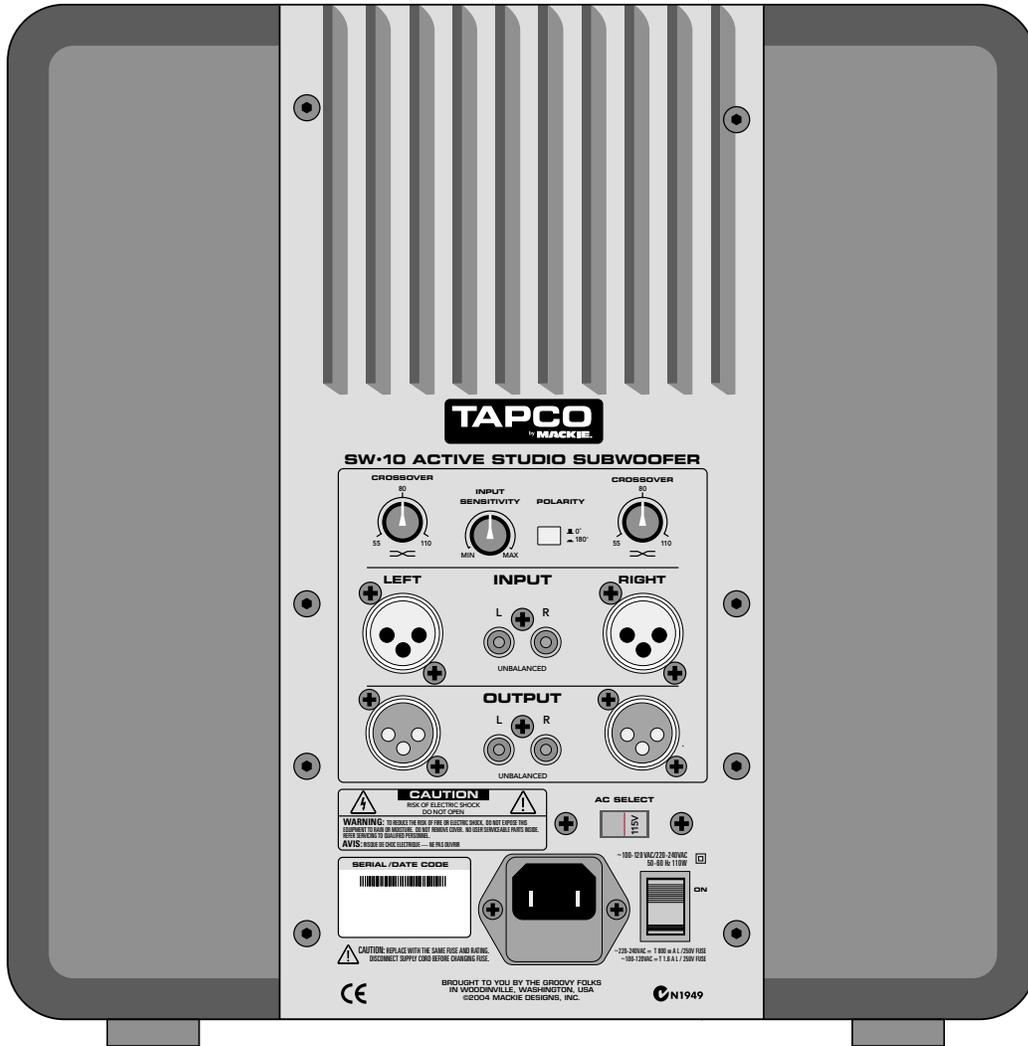
This is not a cop-out or an apology. It's plain old physics in action. Here are some tips to help you find the best placement for your SW•10 and optimize the low-frequency response in your particular room. Consider the following:

### Room acoustics and bass-handling ability

Nobody likes to buy a subwoofer and a new set of speakers and then be told that they should spend extra bucks on bass traps or a remodeling job. But the simple fact is, "standard" rooms, i.e., rectangular rooms in conventional business or residential structures, are rarely if ever conducive to optimal low-bass reproduction without some modifications.

However, understanding what can cause degradation of the low-frequency response in a room can help in choosing a location that can minimize the problems associated with poor bass response—most notably interference and resonance.

Interference is caused when the reflected wave from the surrounding walls arrive out-



of-phase with the direct sound. This can weaken or even cancel the sound. Keeping the distance between the subwoofer driver and any adjacent walls no longer than 1/8 of a wavelength (20 in or 51 cm at 80 Hz) can minimize interference.

Room resonance is caused by the reinforcement of certain frequencies between 20 Hz and 200 Hz, which creates “standing waves” or room modes. These resonant frequencies are determined by the dimensions of the room. The bass response is sharply boosted for a narrow band near resonance, and then appears to be attenuated between resonances.

### Corner or Center Placement

Placing the subwoofer in a corner (corner loading) excites the most room modes in the room, which tends to smooth the individual peaks and dips caused by each standing wave. Moving the subwoofer outward from the corner along the wall results in fewer standing waves, but may result in noticeable peaks at certain frequencies.

Some people prefer to place the subwoofer between the left and right main speakers, so that all the sound is coming from the same plane. Some prefer to use two subwoofers and place one with the left speaker and the other with the right speaker.

Another benefit of corner placement is increased efficiency and lower distortion. The energy that is reflected off the walls

reinforces the direct sound, putting less of a demand on the power amplifier to reach higher sound pressure levels.

It is important that the corner has good structural strength, or the low-frequency energy can cause rattling and other distracting vibrations.

Experiment with the orientation of the subwoofer. The driver in the SW•10 faces out the front. It may be helpful to play steady-state tones or pink noise while a partner moves the subwoofer (perhaps on a small wheeled cart), to make it easier to hear the differences in the sound as the changes in placement and orientation are made.

### **Principle of Reciprocity**

One trick that has been used successfully to find the best location for a subwoofer is placing the subwoofer in your listening position. The principle of reciprocity says that you can find the best location for the subwoofer by switching places between the listening position and the subwoofer position. It is important that the cabinet be raised off the ground and at the same level as your ears. If that's not possible, at least put the subwoofer in the same location as your listening position to achieve a close approximation.

Play music with a good strong bass line and crawl on the floor on your hands and knees until you find a spot where the bass sounds the best, with a smooth, tight response. Your ears need to be at the same height that the subwoofer's driver will be when it is sitting on the floor. If you have access to a real-time analyzer (RTA), play pink noise over the system and use the RTA to find a location that exhibits the flattest bass response. Once you've found the place where the bass sounds the best, put the subwoofer there and it should sound just as good from your listening position.

### **Polarity**

The setting of the polarity switch can affect how the low frequencies sound in relation to the main speakers. Listen to bass-heavy music with the polarity switch in and out. In one position the low frequencies should sound full, while in the other position they may sound hollow and thin. Choose the position that yields the fullest low-frequency sound.

### **Feel free to experiment**

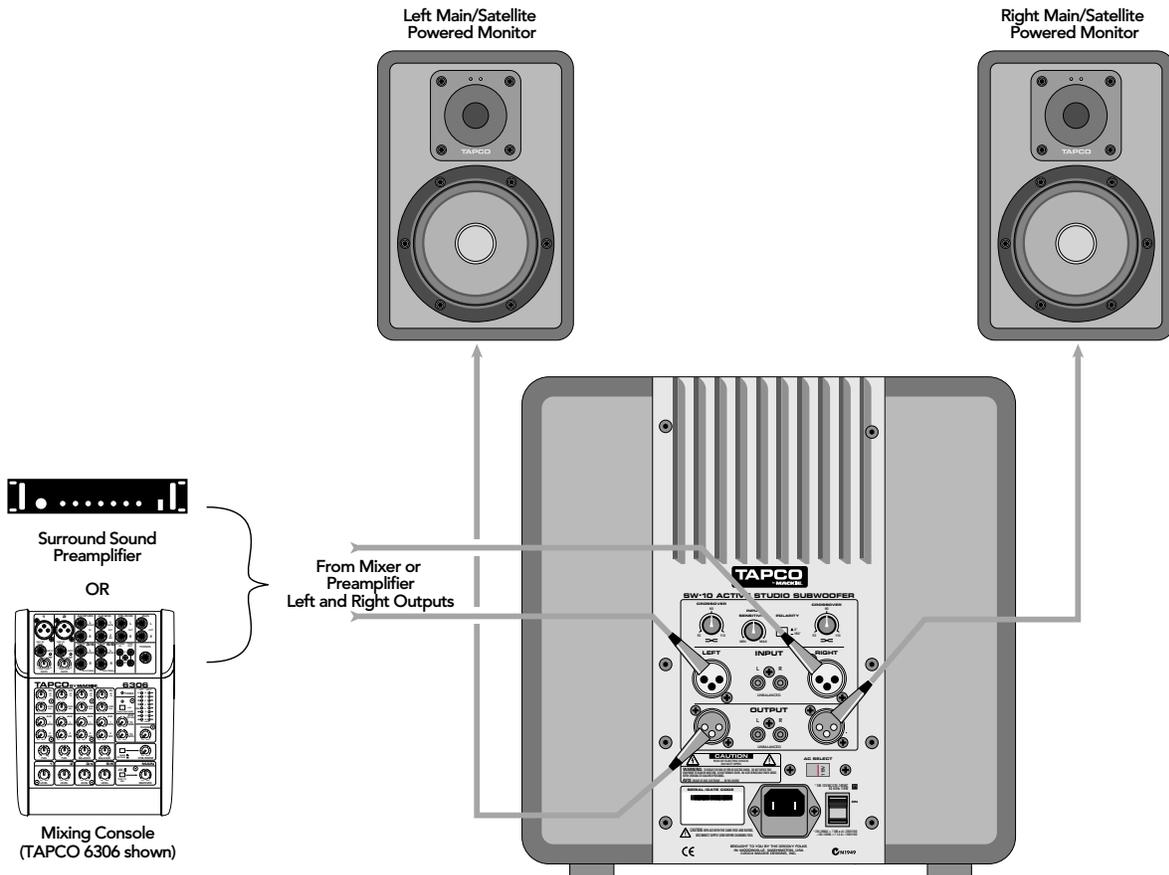
In many respects, every room is unique in terms of its acoustics. Even after you've placed your subwoofer where you think it will sound best, try moving it around. You might be pleasantly surprised.

### **Additional Tidbits of Wisdom:**

- Avoid using EQ to compensate for dips in the frequency response caused by room modes. It is better to place the subwoofer in a position where dips are minimized and use the EQ to smooth out any peaks.
- Provide at least six inches clearance around the heatsink to allow air to get at it.
- Never listen to loud music for prolonged periods. Please see the Safety Instructions on page 2 for information on hearing protection.
- When you shut down your equipment, turn off the SW•10 active studio subwoofer first (and any other powered speakers in the system) to prevent thumps and other noises generated by any upstream equipment from coming out the speakers. When powering up, turn on the powered speakers and subwoofer last.
- Save the shipping boxes and packing materials! You may need them someday. Besides, your cat will love playing in them and jumping out at you unexpectedly. Remember to pretend like you are surprised!
- Save your sales receipt in a safe place.
- Also record the SW•10 serial number in the space provided on the inside front cover, along with where and when you bought it.

# Hookup Diagram

## Typical Hookup



# TAPCO SW•10 Features

## REAR PANEL DESCRIPTION

This is where you connect your signal inputs and outputs to the subwoofer and make adjustments to the crossover and input sensitivity.

### 1. INPUT SENSITIVITY

- The SW•10 expects a line-level signal at its inputs.
- The left and right low-pass signals are summed after the crossover section. Use this control to adjust the sensitivity of the low-pass signal feeding the internal power amplifier.

### 2. CROSSOVER

- There are two crossover controls, one for the left input signal and one for the right input signal.
- These adjust the crossover frequency for the built-in 24 dB/octave Linkwitz-Riley variable crossovers.
- The crossover frequency can be adjusted from 55 Hz to 110 Hz.

### 3. POLARITY

- This switch reverses the polarity of the signal going into the subwoofer amplifier by 180°. It has no effect on the signal at the Left and Right Outputs.
- There is no right or wrong setting for this switch. Listen to the overall blend of the subwoofer with the rest of the system, and select the switch position that gives you the best sound.

### 4. LEFT AND RIGHT INPUTS

- Balanced XLR female and unbalanced RCA female connectors are provided for the left and right inputs. Connect the full-range line-level signal from the mixer or preamplifier to these input jacks. The connectors are wired as follows (per the AES/IEC standard):

	XLR	RCA
Hot (+)	Pin 2	Tip
Cold (-)	Pin 3	—
Shield (GND)	Pin 1	Sleeve

- If connecting a single subwoofer output or LFE output to the SW•10, you can use either the LEFT or RIGHT INPUT connector.
- **CAUTION:** NEVER connect the output of an amplifier directly to the input of the SW•10. This could damage the input circuitry of the active subwoofer.

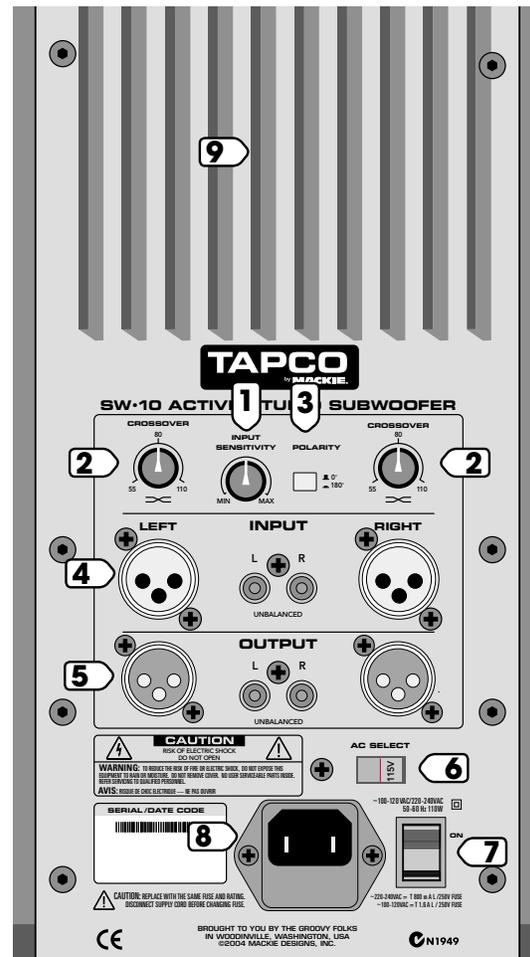
### 5. LEFT AND RIGHT OUTPUTS

- Balanced XLR male and unbalanced RCA female connectors are provided for the line-level left and right high-pass outputs. Connect these to the inputs of the main speakers (if they are powered speakers) or to the inputs of the amplifier powering the main speakers.
- The signal at the left and right outputs is post-crossover. The low-pass output from the crossover goes to the internal power amplifier in the SW•10, while the high-pass output goes to these output jacks.

### 6. AC SELECT

Set this switch to the correct voltage setting for the country you are in, 115 VAC or 230 VAC.

**Note:** The SW•10s are shipped with the AC SELECT switch set to the 230 VAC position. If you are in a country that uses 100-120 VAC, set the switch to the 115 VAC position and replace the fuse (located in the IEC socket) with the 1.6 A fuse included in the accessory bag. See the “Troubleshooting” section on page 11 for instructions on replacing the fuse.



## 7. POWER

Use this switch to turn the SW•10 on and off.

## 8. Line Cord Socket and Fuse

Connect the line cord to this IEC socket securely, and plug the other end into your AC outlet. Make sure the AC SELECT switch is set to the correct AC voltage.

The fuse is located behind the fuse cover, at the bottom of the IEC socket. See the “Troubleshooting” section on page 11 for information about replacing the fuse.

## 9. Heatsink

The heatsink is designed to dissipate the heat generated by the built-in power amplifier. The cooler the amplifier operates, the longer its life-expectancy. The SW•10 uses convection cooling, where cool air flows through the fins of the heatsink and carries the heat away. Make sure there is at least six inches clearance between the back of the SW•10 subwoofer and the wall.



## Protection Circuits

There are several protection mechanisms designed into the SW•10 to safeguard the loudspeakers and amplifiers from inadvertent damage.

### Peak Limiter

A peak limiter monitors the amplifier output signal to guard against clipping and overloading the amplifier. This allows for loud punchy bass performance without distortion, ensuring long-term reliability.

### Thermal Protection

All amplifiers produce heat. The SW•10 is designed to be efficient both electrically and thermally.

- If for some reason the heatsink gets too hot, a thermal switch activates and turns off the amplifier.
- When the heatsink cools down to a safe temperature, the thermal switch resets and normal operation resumes.
- If the heatsink temperature again gets too hot, the shutdown process repeats. Should this happen, make sure that airflow to the rear of the cabinet is not restricted. If the ambient air temperature is very warm, try pointing a small fan toward the heatsink to increase the airflow through the fins.

## Input Signal Wiring

You should use high-quality, shielded cable to connect the signal source to the INPUT jacks on the SW•10.

- Foil shielded cables, such as Belden 8451, 8761, or 9501 are commonly used for studio wiring.
- Microphone cables work well for XLR connections.
- The better the shield, the better the immunity from externally induced noise (like EMI and RFI). Route the cable away from AC power cords and outlets. These are common sources for hum in an audio signal. You can purchase quality cables from your Mackie dealer.
- See “Appendix B: Connections” for info on the types of connectors to use.

# Appendix A: Service Information

## Warranty Service

Details concerning Warranty Service are spelled out in the Warranty section on page 15.

If you think your TAPCO SW•10 has a problem, please do everything you can to confirm it before calling for service. Doing so might save you from the deprivation of your subwoofer and the associated suffering.

These may sound obvious to you, but here are some things you can check. Read on.

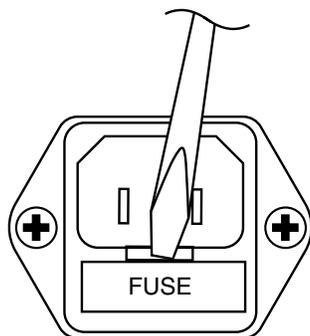
## Troubleshooting

### No Power

- Our favorite question: Is it plugged in?
- Make sure line cord is securely seated in the line cord socket and plugged all the way into the AC outlet.
- Make sure the AC outlet is live (check with a tester or lamp).
- Is the POWER switch in the ON position?
- If you are certain that the AC outlet is live and there is still no power, it is possible the fuse has blown.

#### To remove and replace the fuse:

1. Disconnect the power cord from the IEC socket.
2. Remove the fuse drawer by prying it open with a small screwdriver. It will slide all the way out.



3. Remove the fuse and replace it with an equivalent-type fuse.  
115 VAC unit: 1.6 amp slo-blo (T 1.6 A H/250 V)  
230 VAC unit: 800 milliamp slo-blo (T 800 mA H/250 V)
4. Replace the fuse drawer by pushing it all the way back into the IEC socket.

If two fuses blow in a row, then something is very wrong. See the "Repair" section on the next page to find out what to do.

### No Sound

- Is the INPUT SENSITIVITY control turned up?
- Is the signal source turned up? Make sure the signal level from the mixing console (or whatever device immediately precedes the subwoofer) is high enough to produce sound.

### Bad Sound

- Is the input connector plugged completely into the jack?
- Is it loud and distorted? Reduce the signal level at the mixer.
- If possible, listen to the signal source with headphones plugged into the preamp stage. If it sounds bad there, it's not the subwoofer.
- Too much bass or not enough bass? Move around the room and see if the bass response changes. It's possible your listening position coincides with a room mode where the low frequencies either become exaggerated or nulled. If so, try moving the subwoofer to a different position, or moving your listening position. Also, try switching the polarity switch.

### Noise/Hum

- Check the signal cable between the mixer and the subwoofer. Make sure all connections are secure. These problems usually produce crackling noises or hum.
- If connecting an unbalanced output to the SW•10 balanced input, make sure the shield is connected to the unbalanced ground and to pin 1 of the XLR.
- If a CATV cable is connected to the system, try disconnecting it. If the hum goes away, call your cable carrier to check for proper grounding of the cable.
- Make sure the signal cable is not routed near AC cables, power transformers, or other EMI sources (including wall warts and line lumps!). These sources usually produce hum.
- Is there a light dimmer or other triac-based (SCR) device on the same AC circuit as the subwoofer? Dimmers cause buzzing noises. Use an AC line filter or plug the subwoofer into a different AC circuit.
- If possible, listen to the signal source with headphones plugged in. If it sounds noisy there, it's not the subwoofer.

## Repair

Service for TAPCO products is available at one of our factory authorized service centers. Service for TAPCO products living outside the United States can be obtained through local dealers or distributors.

If your subwoofer needs service, follow these instructions:

1. Review the preceding troubleshooting suggestions. Please.
2. Call Tech Support at 1-877-827-2669, 7 am to 5 pm PST, to explain the problem and obtain a Service Request Number. Have your subwoofer's serial number ready. **You must have a Service Request Number before you can obtain service.**
3. Keep this owner's manual and the detachable linecord. We don't need them to repair the subwoofer.
4. Pack the subwoofer in its original package, including endcaps and box. This is VERY IMPORTANT. **LOUD Technologies is not responsible for any damage that occurs due to non-factory packaging.**
5. Include a legible note stating your name, shipping address (no P.O. boxes), daytime phone number, Service Request Number, and a detailed description of the problem, including how we can duplicate it.
6. Write the Service Request Number in **BIG PRINT** on top of the box. Units sent without the Service Request Number will be refused.
7. Tech Support will tell you where to ship the subwoofer for repair. We suggest insurance for all forms of cartage.
8. We'll try to fix the subwoofer within three to five business days. Ask Tech Support for the latest turn-around times when you call for your Service Request Number. The subwoofer must be packaged in its original packing box, and must have the Service Request Number on the box. Once it's repaired, we'll ship it back the same way in which it was received. This paragraph does not necessarily apply to non-warranty repair.

**Note:** You must have a sales receipt from an Authorized TAPCO Dealer to qualify for a warranty repair.

### Lonely? Looking for that special someone? Do you have a question about your TAPCO Subwoofer?

Please call our Technical Support chaps at **1-877-827-2669**, Monday to Friday, from 7 am to 5 pm PST. After hours, visit [www.tapcogear.com](http://www.tapcogear.com) and look under **Support**, or e-mail us at [techmail@tapcogear.com](mailto:techmail@tapcogear.com)

### Flash From The Past

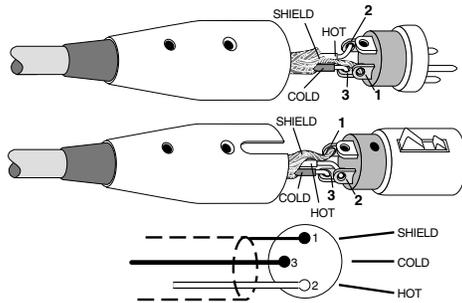
"Sock it to me!"  
— Judy Carne on Rowan & Martin's Laugh-In, circa 1969



# Appendix B: Connections

## XLR Connectors

XLR connectors are used to make balanced connections to the SW•10. They are wired as follows, according to standards specified by the AES (Audio Engineering Society).



### XLR Balanced Wiring

Pin 1 = Shield

Pin 2 = Hot (+)

Pin 3 = Cold (-)

## RCA Plugs and Jacks

RCA-type plugs (also known as phono plugs) and jacks are often used in home stereo and video equipment and in many other applications. They are unbalanced and electrically equivalent to a 1/4" TS phone plug.



### RCA Unbalanced Wiring:

Sleeve = Shield

Tip = Hot

# Appendix C: SW•10 Specifications

## Acoustic Performance

Free Field Frequency Response: 34 Hz – 110 Hz ( $\pm 3$  dB)  
 Lower Cutoff Frequency: -3 dB @ 34 Hz  
 Upper Cutoff Frequency: -3 dB @ 110 Hz  
 Maximum SPL @ 1 meter, 7.5 dBu into both  
 Balanced Inputs: 103 dB SPL @ 1m

## Transducer

Low Frequency Driver:  
 10 in/254 mm woofer with steel frame,  
 dual voice coil, and paper cone

## Amplifiers

Rated Power: 120 watts rms into a 4 ohm load  
 (60 watts rms x 2)  
 Burst Power: 270 watts rms into a 4 ohm load  
 (135 watts rms x 2)  
 Slew Rate: > 15 V/ $\mu$ s  
 Distortion (THD, SMPTE IMD, DIM 100):  
 < 0.03%  
 Signal-to-Noise Ratio:  
 > 110 dB, 20 Hz to 20 kHz,  
 A-weighted, referenced to 60 watts  
 into 4 ohms  
 Type: Monolithic IC, Class AB

## Electronic Crossover

Crossover Type: 24 dB/octave Linkwitz-Riley  
 Crossover Frequency: Variable, 55 Hz to 110 Hz  
 Input Impedance: 20 k $\Omega$ , balanced bridging;  
 10 k $\Omega$  unbalanced

## AC Power Requirements

US: 120 VAC, 60 Hz  
 Europe: 240 VAC, 50 Hz  
 Korea (AC Power Select at 230 V):  
 220 VAC, 60 Hz  
 Japan (AC Power Select at 115 V):  
 100 VAC, 50/60 Hz  
 AC Connector: 2-pin IEC 250 VAC, 16 A male  
 Fuse: 115 VAC: T 1.6 A/250 V  
 230 VAC: T 800 mA/250 V  
 \*Power Consumption: 80 watts with music, loud mix  
 20 watts quiescent (idle)

## Physical Dimensions and Weight

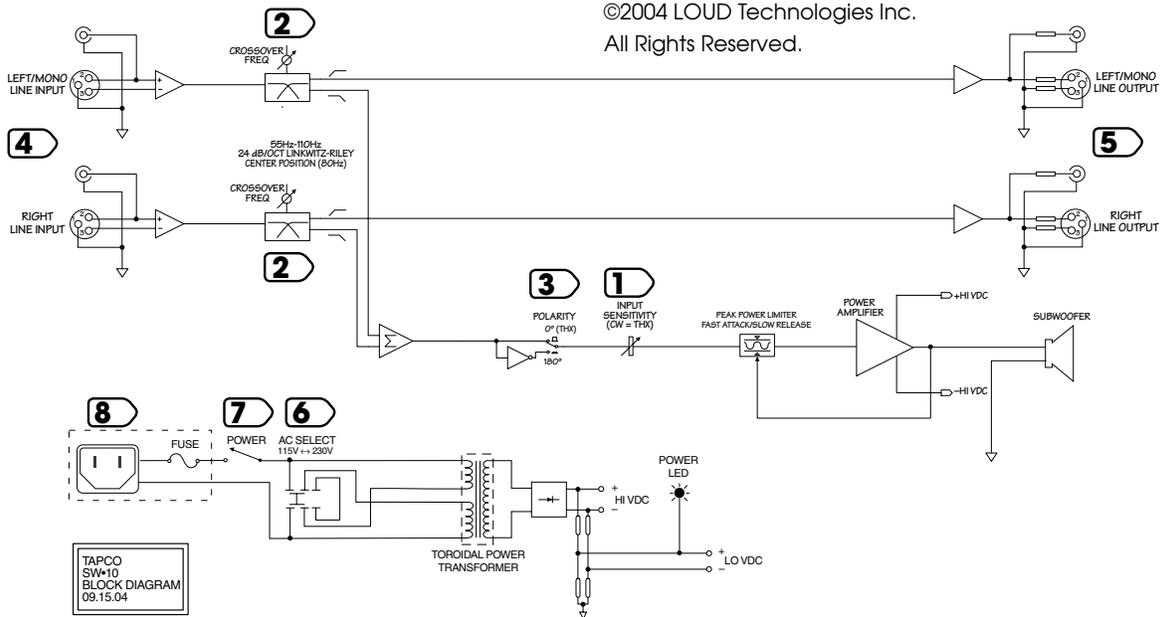
Enclosure: 0.625 in/16 mm thick MDF  
 Damping: Adiabatic fiberfill  
 Dimensions:  
 Height: 11.8 in/300 mm  
 12.3 in/312 mm w/feet  
 Width: 12.0 in/295 mm  
 Depth: 12.4 in/315 mm  
 Weight: 28 lb/12.7 kg

## Disclaimer

Since we are always striving to make our products better by incorporating new and improved materials, components, and manufacturing methods, we reserve the right to change these specifications at any time without notice.

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## SW•10 Block Diagram



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# TAPCO LIMITED WARRANTY

- A.** LOUD Technologies Inc. warrants all materials, workmanship and proper operation of this TAPCO product for a period of **one year** from the original date of purchase. If any defects are found in the materials or workmanship, or if the product fails to function properly during the applicable warranty period, LOUD Technologies, at its option, will repair or replace the product. **This warranty applies only to equipment sold and delivered within the U.S. by LOUD Technologies or its authorized dealers.**
- B.** Failure to register online or return the product registration card will not void the one-year warranty.
- C.** Service and repairs of TAPCO products are to be performed **only** at a factory-authorized service center. Unauthorized service, repairs, or modification will void this warranty. To obtain repairs under warranty, you must have a copy of your sales receipt from the authorized TAPCO dealer where you purchased the product. It is necessary to establish purchase date and determine whether your TAPCO product is within the warranty period.
- D.** To obtain factory-authorized service:
- 1.** Call TAPCO Technical Support at 877/827-2669, 7 AM to 5 PM Monday through Friday (Pacific Time) to get a Service Request Number. Products returned without a Service Request Number will be refused.
  - 2.** Pack the product in its original shipping carton. Also include a note explaining exactly how to duplicate the problem, a copy of the sales receipt with price and date showing, and your return street address (no P.O. boxes or route numbers, please!). If we cannot duplicate the problem or establish the starting date of your Limited Warranty, we may, at our option, charge for service time.
  - 3.** Ship the product in its original shipping carton, **freight prepaid**, to the authorized service center. The address of your closest authorized service center will be given to you by Technical Support.
- IMPORTANT: Make sure that the Service Request Number is plainly written on the shipping carton.**
- E.** LOUD Technologies Inc. reserves the right to inspect any products that may be the subject of any warranty claims before repair or replacement is carried out. LOUD Technologies may, at our option, require proof of the original date of purchase in the form of a dated copy of the original dealer's invoice or sales receipt. Final determination of warranty coverage lies solely with LOUD Technologies Inc.
- F.** TAPCO products returned to one of the LOUD Technologies factory-authorized service centers and deemed eligible for repair or replacement under the terms of this warranty will be repaired or replaced within thirty days of receipt. LOUD Technologies and its authorized service centers may use refurbished parts for repair or replacement of any product. Products returned to LOUD Technologies that do not meet the terms of this Warranty will not be repaired unless payment is received for labor, materials, return freight, and insurance. Products repaired under warranty will be returned freight prepaid by LOUD Technologies to any location within the boundaries of the USA.
- G.** LOUD Technologies warrants all repairs performed for 90 days or for the remainder of the original warranty period. This warranty does not extend to damage resulting from improper installation, misuse, neglect or abuse, or to exterior appearance. This warranty is recognized only if the inspection seals and serial number on the unit have not been defaced or removed.
- H.** LOUD Technologies assumes no responsibility for the quality or timeliness of repairs performed by Authorized TAPCO Service Centers.
- I.** This warranty is extended to the original purchaser and to anyone who may subsequently purchase this product within the applicable warranty period. A copy of the sales receipt is required to obtain warranty repairs.
- J.** This is your sole warranty. LOUD Technologies Inc. does not authorize any third party, including any dealer or sales representative, to assume any liability on behalf of LOUD Technologies or to make any warranty for LOUD Technologies Inc.
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