WorkingPro™ 2x10C & WorkingPro™ 15

COMBO AMPLIFIERS

OWNER'S MANUAL
INSTRUCCIONES DE FUNCIONAMIENTO
MODE D'EMPLOI
ISTRUZIONI OPERATIVE
BEDIENUNGSANLEITUNG
MANUAL DE INSTRUÇÕES
操作方法

swrsound.com

ENGLISH
ESPAÑOL
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Important Safety Instructions

This symbol warns the user of dangerous voltage levels localized within the enclosure.

This symbol advises the user to read all accompanying literature for safe operation of the unit.

- Read, retain, and follow all instructions. Heed all warnings.
- Only connect the power supply cord to an earth grounded AC receptacle in accordance with the voltage and frequency ratings listed under INPUT POWER on the rear panel of this product.
- **WARNING:** To prevent damage, fire or shock hazard, do not expose this unit to rain or moisture.
- Unplug the power supply cord before cleaning the unit exterior (use a damp cloth only). Wait until the unit is completely dry before reconnecting it to power.
- Maintain at least 6 inches (15.25 cm) of unobstructed air space behind the unit to allow for proper ventilation and cooling of the unit.
- This product should be located away from heat sources such as radiators, heat registers, or other products that produce heat.
- This product may be equipped with a polarized plug (one blade wider than the other). This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician to replace your obsolete outlet. Do not defeat the safety purpose of this plug.
- Protect the power supply cord from being pinched or abraded.
- This product should only be used with a cart or stand that is recommended by the manufacturer.
- The power supply cord of this product should be unplugged from the outlet when left unused for a long period of time, or during electrical storms.
- This product should be serviced by qualified service personnel when: the power supply cord or the plug has been damaged; or objects have fallen, or liquid has been spilled onto the product; or the product has been exposed to rain; or the product does not appear to operate normally or exhibits a marked change in performance; or the product has been dropped, or the enclosure damaged.
- Do not drip nor splash liquids, nor place liquid filled containers on the unit.
- **CAUTION:** No user serviceable parts inside, refer servicing to qualified personnel only.
- SWR® amplifiers and loudspeaker systems are capable of producing very high sound pressure levels which may cause temporary or permanent hearing damage. Use care when setting and adjusting volume levels during use.
- Hazardous voltages may be present within the cabinet even when the power switch is off and the power cord is connected. Therefore, disconnect the power cord from the rear panel power inlet before servicing. The power inlet must remain readily operable.

SWR® WorkingPro™ 2x10C / WorkingPro™ 15

Congratulations on your purchase of an SWR WorkingPro 2x10C or WorkingPro 15 combo amplifier! You now own the famous SWR tone, power, clarity, and true full-range response that's made SWR the choice of professionals for over twenty years. Your WorkingPro amplifier combines the best SWR features:

- The famous preamp designed by original engineer Steve W. Rabe
- Aural Enhancer™ and Active EQ controls
- Bass Intensifier™ circuit—simultaneously boosts and compresses specific frequencies to add pure low-end thickness to your bass sound
- New Wedge EQ specially designed for amp "tilt-back" operation
- Side-mounted monitor input converts the WorkingPro into a powered stage monitor or auxiliary input for your CD/MP3 player

Since our founding in 1984, SWR has served one purpose—to provide bass amplification products with professional quality, tone, features and power delivery for players of all levels and styles. We sincerely thank you for choosing SWR, and remain committed to helping you Amplify Your Future™.

Read through this Owner's Manual before using your amplifier not only to ensure the safe operation of your investment, but to take advantage of the full potential of your WorkingPro amplifier!

Front Panel

A. INPUT— Plug your bass into this jack using a shielded instrument cable.

B. INPUT PAD—Reduces input sensitivity to allow cleaner response from high-output (above 1-Volt RMS) bass guitars. Use the setting that sounds best!

NORMAL—Full input sensitivity

–10dB PAD—Lower input sensitivity

For active (pre-amplified) bass guitars: If you hear distortion—even with the INPUT PAD switch IN and a low GAIN {D} setting (not clipping)—check your guitar battery.

C. MUTE—Disables the amplifier's audio outputs *except* TUNER {W}, EFFECTS SEND {T} and HEADPHONES {S} which remain active. Use MUTE during: instrument changes, tune-ups and when using headphones. The LED indicates when MUTE is engaged.

D. GAIN—Use GAIN primarily to control signal distortion, then use MASTER Volume {N} to adjust the loudness of the amplifier. GAIN also sets the EFFECTS SEND {T} output level, allowing you to match the input sensitivity of your effects unit. Use the PREAMP CLIP LED to find the desired GAIN setting:

PREAMP CLIP—Indicates when the preamp circuit is being overdriven (clipping) and causing distortion. Slight flashing at your instrument's peak output is generally the cleanest (least distortion) GAIN setting. NOTE: Preamp clipping is *not* harmful to the amplifier and can be used for effect.

E. AURAL ENHANCER—Featured on just about every SWR amplifier since the company's inception in 1984, the Aural Enhancer delivers that famous SWR Sound! It brings out the fundamental low notes of the bass guitar, enhances the high-end transients, and reduces specific frequencies that mask the fundamentals. This provides a more transparent sound particularly when slapping and popping and also gives "active" bass characteristics to passive basses (when set at "2 o'clock" or positions further clockwise).

How the AURAL ENHANCER Works: Think of it as a variable tone curve that changes depending on where you set the AURAL ENHANCER control knob. As you rotate the control clockwise from the "MIN" position, you are elevating low– mid– and high–frequencies different than those of the active tone controls. This remains true up to about the "2 o'clock" position, a favorite of many players because it brings out the low-end fundamentals and crisp highs plus lower midrange to help cut through the band. However, if you go further clockwise past the "2 o'clock" position, the mids centered around 200 Hz will start to drop off. From this point on, the effect becomes much more pronounced. However, the curves involved here are gentle, as opposed to the extreme curves you can create by boosting or cutting the active tone controls.

Most significantly for basses, the AURAL ENHANCER will help bring out the fundamentals of your lower registers without masking them with overtones, as is possible when using the BASS control only. At the same time, it opens up the sibilance characteristics of all instruments without being harsh.

F. BASS—Shelving-type circuit that adjusts low-frequency response ±15dB in the 30Hz–100Hz range (centered at 80Hz).

G. MIDRANGE SEMI-PARAMETRIC EQ—Use MID LEVEL to adjust signal response (±15dB) in the frequency range selected with the MID FREQ knob. (Turning MID FREQ has no effect when MID LEVEL is set to "0.")

TIPS: If you want a tone that "cuts through" the band, try boosting in the 200–400Hz range. If you want a transparent or "scooped" sound, try cutting the 800Hz range.

H. TREBLE—Shelving-type circuit that adjusts high-frequency response ±15dB in the 2kHz to 14kHz range.

I. TRANSPARENCY—Boosts or cuts ultra-high frequencies (±15dB) above ~5kHz.

J. EFX BLEND—Adjusts your effects level by controlling the ratio of "wet" effects signal mixed in with the "dry" preamp signal. The EFX BLEND knob is functional only when a plug is inserted into the EFFECTS RETURN {T} jack.

K. BASS INTENSIFIER™—Exclusive SWR® tone circuit that integrates low-frequency boost with a smooth, fast-acting compressor. This provides a radical increase of specific bass and low-midrange frequencies without the usual side-effect of overdriving the amplifier circuitry. This literally intensifies the bass tone in your sound! Use it for the heavier sections of a song, or as part of your overall preferred sound.

- **ENGAGE—**Activates the BASS INTENSIFIER circuit as indicated by the LED .
- **LEVEL—**Adjusts the amount of bass boost added by the BASS INTENSIFIER. Hint: Adjust slowly so you can hear the difference a small amount of this effect can have on your tone.
- **CUTOFF—**Adjusts the frequency range boosted by the BASS INTENSIFIER. When fully counter-clockwise, only frequencies below ~80Hz are affected. When fully clockwise, frequencies below ~200Hz are affected.

To best hear what the BASS INTENSIFIER does: 1. Decrease MASTER Volume to half its normal setting (or less). 2. Set LEVEL to maximum and CUTOFF to 80Hz. 3. Play a note repeatedly and slowly rotate CUTOFF clockwise. You will hear frequencies being boosted as you turn the dial, and the overall effect will seem louder as more frequencies are boosted. Your ears are the best judge so take some time to experiment and hear what works best.

L. WEDGE EQ—Use this tone circuit preset when playing the amplifier with the cabinet in the tilt-back position. The Wedge EQ compensates for the acoustics lost with cabinet floor contact and the redirected tweeter horn.

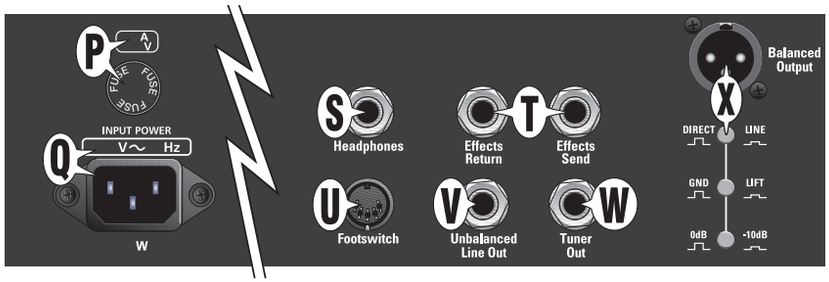
M. LIMITER—This circuit protects the power amp and speakers from damage by governing peak signal strength. The benefit is that you to can play at maximum loudness levels safely. DEFEAT turns the Limiter OFF.

- **DEFEATED (LIMITER OFF)** **LIMITER ON**
- **ACTIVE—**Indicates exactly when the LIMITER circuit is working (when LIMITER is ON).
- **POWER AMP CLIP—**Indicates when the power amp is being overdriven causing signal distortion. *Power amp clipping can be harmful to your equipment, therefore, use the LIMITER or reduce MASTER Volume {N} if POWER AMP CLIP flashes often.*

N. MASTER VOLUME—Use to set the loudness output from your speakers (and headphones) after all other levels are set, including external effects. MASTER Volume will affect the BALANCED OUTPUT {X} and the UNBALANCED LINE OUT {V} levels when the DIRECT/LINE {X} button is set to LINE. NOTE: Select DIRECT when you do **not** want MASTER to change the signal level output to equipment such as when you are recording.

O. POWER SWITCH—Switches the WorkingPro ON-OFF as indicated by the LED.

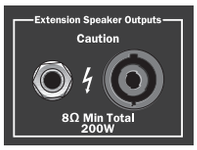
Rear Panel



P. FUSE—Protects the amplifier from electrical faults. Replace a blown fuse ONLY with a fuse of the type/rating specified on the rear panel of your amplifier to protect your amplifier and maintain warranty coverage.

Q. IEC POWER CORD SOCKET—Connect the included power cord to a grounded AC electrical outlet in accordance with the voltage and frequency ratings specified above the input power socket on your amplifier.

R. *(WORKINGPRO 2X10C ONLY)* **EXTENSION SPEAKER OUTPUTS**—Connect extension speakers here using Speakon® type or 1/4-inch speaker cables. Use the Speakon jack whenever possible to take advantage of its superior power transfer efficiency and locking connectors. Both jacks are full range and wired in parallel.



(WORKINGPRO 15 ONLY) **SPEAKER OUTPUT**—Internal speaker is connected here. Unplug and connect an external speaker here if desired.

WORKINGPRO SPEAKER CONNECTIONS

- DO NOT connect a speaker impedance load below the minimum rating of your amplifier to prevent damage to your equipment. Read the *Impedance Guidelines* section on page 10.
- ONLY connect speakers with a total power handling capacity equal or greater than the power output rating of your amplifier to prevent damage to your equipment.
- ALWAYS switch your system power OFF before connecting or disconnecting speakers.
- ONLY use unshielded speaker cable of 18 gauge or heavier (such as 16 or 14 gauge) for speaker connections. Shielded instrument cable WILL NOT work and may damage your equipment.

S. HEADPHONES—Plug in your stereo or mono headphones here. Use MASTER Volume {N} to control your headphone listening level. Use MUTE {C} to disable speaker audio output if desired. NOTE: 75-ohm headphones are ideal for use with your WorkingPro.

T. EFFECTS SEND / RETURN—Multi-purpose jacks: EFFECTS SEND provides a preamp output that includes the onboard tone circuits; output level is controlled by MASTER Volume {N}. EFFECTS RETURN provides a power amp input that can be blended in any ratio with onboard preamp signal using EFX BLEND {J}.

- **EFFECTS LOOP**—Connect EFFECTS SEND to your effects device input, then connect the effects device output to EFFECTS RETURN. NOTE: Set the wet/dry control on external effects units to the fully WET position to prevent signal phasing problems. Set the input level on external effects as close to 0dB as possible.
- **MULTIPLE AMPS**—Connect EFFECTS SEND on the first amplifier to EFFECTS RETURN on the second amp. Use only the controls on the first amplifier—except Master Volume which will still be active on the second amp, as well as EFX BLEND, which should be set fully to WET.
- **RECORDING OR REINFORCEMENT**—Connect EFFECTS SEND to sound equipment input.
- **ACCOMPANIMENT**—Connect a CD player or drum machine to EFFECTS RETURN. Control the input level at its source and by using the EFX BLEND control {J}.

Use only standard 1/4" mono phone plugs with these jacks. Use a stereo–to–mono adapter if your source has a stereo plug.

The Effects Loop circuit is on a "side chain" of the main circuit (as in studio recording consoles) to provide the full sound of your instrument AND the diversity of your effects units. This also reduces noise from effects units being located after gain in the signal path.

U. FOOTSWITCH—Plug in the optional footswitch here. Use the footswitch to remotely select MUTE and BASS INTENSIFIER™.

Rear Panel

V. UNBALANCED LINE OUT—Provides unbalanced preamp signal output to an auxiliary amplifier or sound equipment (includes effects loop signal). Output level is controlled by MASTER Volume {N}. DIRECT/LINE and PAD {X} also affect this output.

W. TUNER OUT—Plug in your bass guitar tuner to enable inline tuning. Use MUTE {C} to disable audio output while tuning.

X. BALANCED (XLR) OUTPUT—A true electronically balanced output, suitable for studio and "front-of-house" (live) mixing consoles with three switching options:

- **DIRECT / LINE—**Select DIRECT to supply the BALANCED OUTPUT and UNBALANCED LINE OUT jacks with signal that bypasses the Tone and MASTER volume circuits. Select LINE to include these circuits.
- **GROUND / LIFT—**Select GROUND for normal operation. Select LIFT to disconnect the BALANCED OUTPUT ground connection which may reduce hum noise due a "ground loop" (non-standard XLR wiring). NOTE: Lifting the ground connection will not solve hum noise due to bad cables, poor connections, miswired A/C outlets, nearby fluorescent lighting (especially with single-coil pickups) or a cell phone in your pocket.
- **0dB / –10dB—**Select 0dB for normal operation. Select –10dB to reduce the BALANCED OUTPUT and UNBALANCED LINE OUT ouput levels as needed to match the input sensitivity of the equipment you are connecting to.

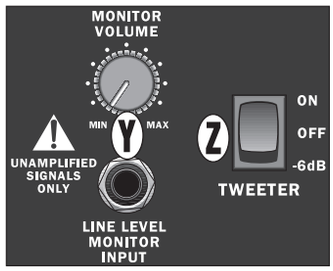
Monitor Input Panel

Y. LINE LEVEL MONITOR INPUT—Δ *CAUTION! For* ***line-level*** *inputs only! Δ Amplified (speaker level) inputs will damage your equipment!*

Insert a 1/4-inch plug from a *line-level* audio source such as: • **Line Out** from another bass rig—expand your output for larger venues, • **Monitor Send** from a mixing board—mix in some vocals or monitor them separately, • **Headphones Out** on a CD/MP3 player—for accompaniment (use a stereo-to-mono adapter to hear both channels of your player.

- **MONITOR VOLUME—**Adjusts the level of the MONITOR INPUT signal. MASTER VOLUME {N} and MUTE {C} also affect the Monitor Input.

Z. TWEETER LEVEL—Sets the output level of the piezo tweeter for the amplifier (not just the Monitor Input). Select: ON for maximum output, –6dB for 50% output, or OFF for to mute the tweeter.

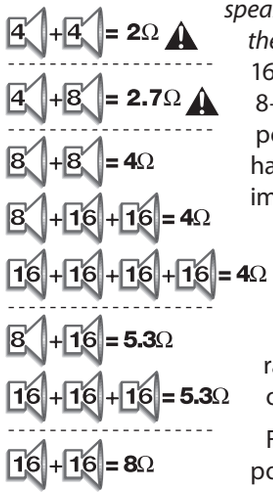


Impedance Guidelines

Before changing your speaker setup, a basic knowledge of impedance ratings is essential to the quality of your sound and the safe operation of your equipment.

The general rule is: if you connect a speaker load with a total impedance that's equal to the minimum impedance rating of your amplifier, you'll be OK—as long as the speakers are rated to handle the power output from your amplifier.

The illustration shows the impedance totals of different speaker combinations. NOTE: All SWR® bass speaker enclosures, as well as most others, are wired "in parallel" (not series), therefore, *this section applies to parallel speaker connections only.*



All speakers in a group should have the same impedance so that each speaker will receive the same amount of power from your amplifier. *If impedances are different, the speakers with lower impedances will be much louder than the rest.* For example, with an 8–ohm speaker and a 16–ohm speaker both connected to your amplifier, the 8–ohm speaker will be twice as loud (and get twice the power) as the 16–ohm speaker. Calculating total power handling capacity and positioning speakers of different impedances becomes complicated!

Δ *CAUTION!*—Operating with a speaker load *below* the minimum impedance rating of your amplifier can easily overheat the amplifier and cause damage. Operating *above* the minimum impedance rating will reduce the amplifier's maximum power output potential.

For an in-depth discussion of impedance and power rating issues go to the SWR Website at **swrsound.com/support/setuptips.php**—this article by SWR founder Steve Rabe ran in the August '92 issue of *Bass Player™ Magazine.*

Specifications

		WorkingPro™ 2x10C	***WorkingPro™ 15***
PART NUMBERS:		4452600010 (120V, 60Hz)	4452000010 (120V, 60Hz)
		4452603010 (240V, 50Hz) AUS	4452003010 (240V, 50Hz) AUS
		4452604010 (230V, 50Hz) UK	4452004010 (230V, 50Hz) UK
		4452606010 (230V, 50Hz) EUR	4452006010 (230V, 50Hz) EUR
		4452607010 (100V, 50Hz) JPN	4452007010 (100V, 50Hz) JPN
POWER REQUIREMENT:		840W	650W
POWER AMP	**MINIMUM IMPEDANCE:**	4Ω	4Ω
	POWER OUTPUT:	400W RMS into 4Ω @ < 0.1% THD, 1kHz	200W RMS into 4Ω @ < 0.1% THD, 1kHz
		250W RMS into 8Ω @ < 0.1% THD, 1kHz	125W RMS into 8Ω @ < 0.1% THD, 1kHz
PRE AMP	**INPUT IMPEDANCE:**	3.9MΩ	3.9MΩ
	SENSITIVITY AT FULL POWER:	15mV	15mV
TONE CONTROLS	**BASS:**	±15dB @ 100Hz	±15dB @ 100Hz
	TREBLE:	±15dB @ 2kHz	±15dB @ 2kHz
	MID SEMI-PARAMETRIC EQ:	±15dB @ MID FREQ setting	±15dB @ MID FREQ setting
	TRANSPARENCY:	±15dB @ 5kHz	±15dB @ 5kHz
EFFECTS LOOP	**SEND IMPEDANCE:**	1.5kΩ	1.5kΩ
	RETURN IMPEDANCE:	27kΩ	27kΩ
UNBALANCED LINE OUT	**SEND IMPEDANCE:**	1.5kΩ	1.5kΩ
BALANCED LINE OUT	**SEND IMPEDANCE:**	1.5kΩ	1.5kΩ
FOOTSWITCH (OPTIONAL):		2-button, Mute, Bass Intensifier™ (P/N 065436)	2-button, Mute, Bass Intensifier (P/N 065436)
LINE FUSE	**100V MODELS:**	T8A H, 250V	F8A L, 250V
	120V MODELS:	T8A H, 250V	F6A L, 250V
	230V-240V MODELS:	T4A L, 250V	F3.15A L, 250V
SPEAKERS:		2 Eminence® 10'' 16Ω (067038)	1 Eminence 15'' 4Ω (071301)
DIMENSIONS	**HEIGHT:**	22.8 in (58 cm)	24.9 in (63.5 cm)
	WIDTH:	22.5 in (57.5 cm)	22.5 in (57.5 cm)
	DEPTH:	17.25 in (44 cm)	17.25 in (44 cm)
WEIGHT:		85 lb (38.5 kg)	68 lb (31 kg)

Product specifications are subject to change without notice.