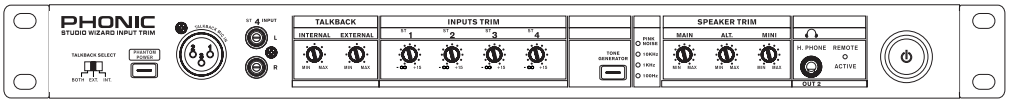
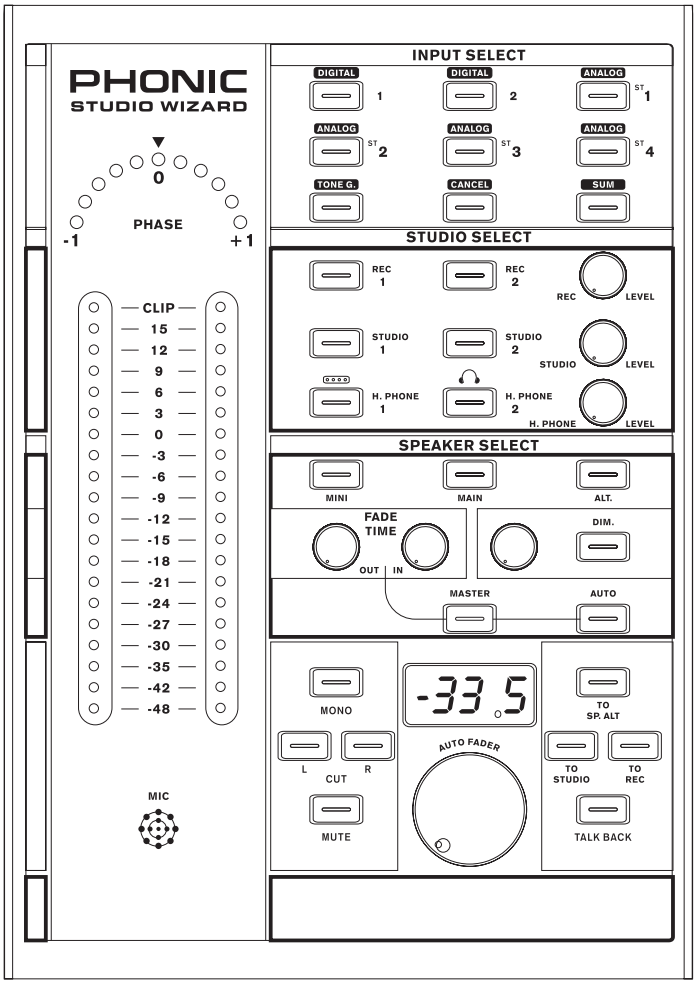
PHONIC

STUDIO WIZARD

Studio Monitor Controller





English

User's Manual

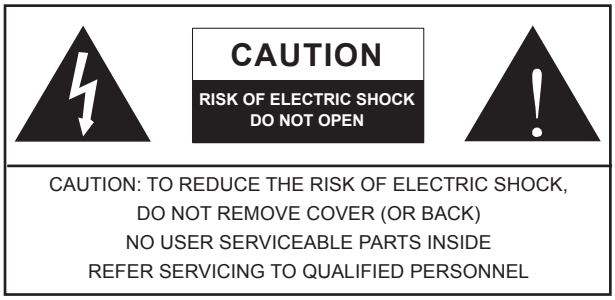
IMPORTANT SAFETY INSTRUCTIONS

The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus. The MAINS plug is used as the disconnect device, the disconnect device shall remain readily operable.

Warning: the user shall not place this apparatus in the confined area during the operation so that the mains switch can be easily accessible.

1. Read these instructions before operating this apparatus.
2. Keep these instructions for future reference.
3. Heed all warnings to ensure safe operation.
4. Follow all instructions provided in this document.
5. Do not use this apparatus near water or in locations where condensation may occur.
6. Clean only with dry cloth. Do not use aerosol or liquid cleaners. Unplug this apparatus before cleaning.
7. Do not block any of the ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plug, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lighting storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



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.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

CAUTION: Use of controls or adjustments or performance of procedures other than those specified may result in hazardous radiation exposure.

STUDIO WIZARD

Studio Monitor Controller

USER'S MANUAL

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V1.0 DEC 12,2006

INTRODUCTION

Thank you for your purchase of the Phonic Studio Wizard, the perfect device for complementing your DAW setup. The possibilities are endless with the Studio Wizard, as you can accept multiple audio signals and send them to any number of destinations – all through the touch of a few simple buttons. Digital or analog, the Studio Wizard can accommodate any device, and will unquestionably enhance your set up regardless of your requirements.

This manual was designed to make your life a whole lot easier. It is highly recommended that you take a thorough read of it before attempting to operate the Studio Wizard. Doing so will not only make you quite familiar with the Studio Wizard's functions, but also help familiarize yourself with the many dos and don'ts of the product. After reading, store the manual in an easy to access place for future reference – as there will no doubt be something you missed the first time around.

FEATURES

- Digital convenient routine volume control for precise level adjustments
- Switch amongst 3 sets of studio monitors
- Built-in Talkback microphone for easy communication with musicians
- Talkback assignable to studio, record, or alternative outputs.
- Monitor 6 independent Stereo inputs including one for your DAW Mix / broadcast / mastering
- Six stereo inputs (2 digital and 4 analog)
- Sum button allows multiple inputs to be conveniently selected and routed to outputs
- Dual Headphone outputs with independent volume controls and headphone mix bus
- Automatic fade in and fade out for hands-free fading
- Tone generator: 100 Hz, 1 kHz, 10 kHz sine waves and pink noise
- Independent left and right cut buttons and stereo to mono button
- Microphone jacks for connecting external microphones for talkback
- High-end studio sound quality and robust construction
- Accurate dual 20-segment LED meter for monitoring
- Accurate 11-segment LED meter for phase monitoring
- Front panel headphone jacks with separate volume control
- All stereo outputs have independent input sources

QUICK SETUP

Initial Setup

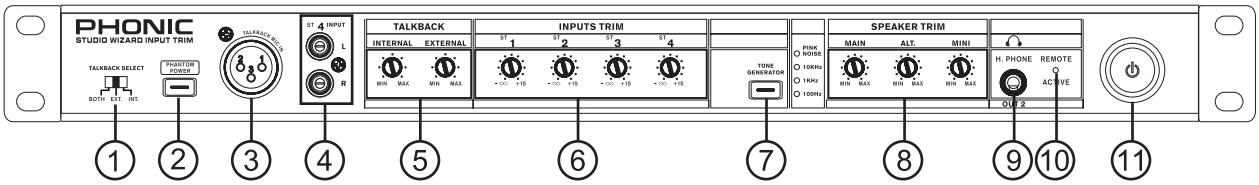
1. Turn all power to the Studio Wizard off. To fully ensure this, disconnect the AC cable.
2. Connect the Studio Wizard remote unit to the main unit using the supplied RJ-45 cable.
3. Connect your desired inputs to the Analog Inputs on the rear of the main unit.
4. If you have any products with S/PDIF or AES/EBU capabilities, you can connect the product's S/PDIF output to the Studio Wizard's S/PDIF or AES inputs.
5. Depending on your requirements, you may wish to connect monitors to each of the Studio Wizard's outputs, or you may wish to connect an amplifier and speakers; it's really up to you.
6. Connect any suitable recording devices (tape recorders, or even laptop computers) to the Record outputs of the Studio Wizard.
7. Plug the supplied AC power cable into the AC power connector on the main unit, and the other end into a suitable AC power source.

Level Setting

1. With all your inputs and outputs connected to the Studio Wizard, turn the unit on.
2. Turn the level control knobs in the Studio Select section to the 0 position (indicated in the numeric display).
3. Send a signal into any of the 6 digital and analog inputs (similar to the input that will usually be fed into that input), and feed that input through to the currently selected output and speaker (check signal routing, if a problem occurs).
4. Adjust the trim control of the corresponding input, on the front of the Studio Wizard's main unit, so that the signal level sits around or slightly above the 0 mark on the remote unit's trim control.
5. Now go and repeat the process with other inputs. This should give you the best use of audio from each input.

Signal Routing

1. Choose the output you wish to route any signal to from the Studio Select area of the remote unit. This could include the Record 1 and 2, Studio 1 and 2, and Head Phone 1 and 2 outputs. In this example, let's say you want to route the signal to the Record 1 outputs. Hold the Rec 1 button down for a couple of seconds to enter Group Settings Mode.
2. The LEDs in the Input Select buttons section should start flashing red. Press any of these buttons to stop the LED flashing and affectively remove it from your Group Setting.
3. Press the Rec 1 button again to exit Group Setting mode.
4. In the Input Select section, the LEDs of the inputs removed from your Group Setting should be off. The others should be red, with exception to the signal that is currently sent to the Record 1 output, which should be blue. You can push any of the other Input Select buttons with red LEDs to send that signal instead, if you'd rather.
5. To send all of the inputs from your Group Setting to the Record 1 output, you can now press the Sum button. All the red LEDs should then turn blue, and all the corresponding signals should be routed to the Record 1 output.



Main Unit

The main unit of the Studio Wizard can be placed in a typical audio rack with the rest of your gear (amplifiers, equalizers, etc). On this unit you will find all of the Studio Wizards inputs and outputs, as well as trim controls ensuring that audio levels of the different inputs (and outputs) are not excessive. In any permanent set up, you may be able to plug your inputs and outputs into the Studio Wizard's main unit and leave it alone from then on – all control over your audio can be achieved through the remote unit.

FRONT PANEL

1. Talkback Select Switch

This three-position switch allows users to select the built-in talkback microphone (or microphones) they most wish to use: the internal, the external, or both – simultaneously.

The internal microphone is located on the tabletop remote controller, whereas the external can be connected to the talkback mic input just to the right of this switch.

2. Talkback Phantom Power Button

Press this button to activate +48VDC of phantom power for the external talkback microphone connected to the Studio Wizard. Use phantom power when a condenser microphone (that requires a +48V boost) is connected to the talkback microphone input. When phantom power is active, the small LED inside the button lights up.

3. Talkback Microphone Input

This XLR-type input accepts balanced mic-level signals from most dynamic and condenser microphones and is used it to connect an external talkback microphone. Phantom power should be activated when using condenser microphones.

4. Stereo 4 Inputs (RCA)

These RCA inputs accept unbalanced line-level signals from CD players, tape decks and other consumer audio devices.

5. Internal and External Talkback Controls

These two recessed trim level controls adjust the gain level of the internal and external talkback microphones.

6. Stereo Input Trim Controls

These recessed trim level controls adjust the gain level of the four stereo analog inputs. Use a small flathead screwdriver or similar tool to adjust the levels. Turning these controls all the way to the left will affectively mute the signal.

7. Tone Generator

The tone generator produces a continuous test signal (tone) for use with real-time spectrum analyzers when setting up the audio system. Push the included button to toggle through the test signals in the following order: **100 Hz → 1 kHz → 10 kHz → Pink Noise**. When a test tone is active, it will be indicated by a small LED next to the corresponding tone name. Push the Tone Generator button on the remote unit to activate the Tone Generator.

8. Speaker Trim Controls

These recessed trim level controls are used to individually adjust the output level sent to each set of speakers – the main, alternate, and mini.

HINT: Use a small flathead screwdriver or even your fingernail to adjust the levels on recessed level controls.

9. Headphone Out 2

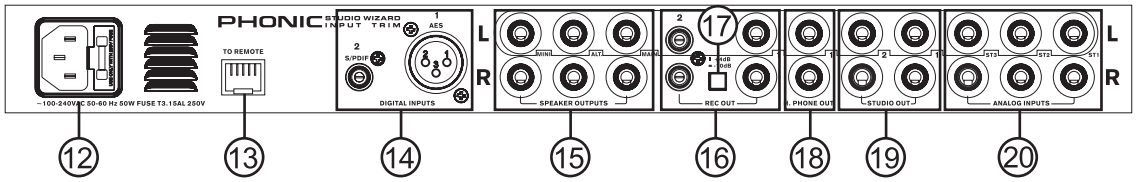
This 1/4" TRS output sends a stereo signal, ideal for use with headphones when monitoring.

10. Remote Active Indicator

This LED indicator illuminates when the tabletop remote control unit is connected.

11. Power Switch

This switch turns the power of the unit on and off. When the unit is activated, the button will illuminate blue.



REAR PANEL

12. AC Power Connector
This is a standard IEC power cable receptacle. Plug the power cable in here and connect the other end of the cable to an appropriate AC power supply.

13. “To Remote" Connector
This RJ-45 jack allows users to connect the main unit of the Studio Wizard to the remote desk-top controller.

14. Digital Inputs (S/PDIF and AES)
These RCA and XLR inputs accept signals in S/PDIF (RCA) or AES/EBU (XLR) format. Transfer rates are 24-bit, with sampling rates up to 192kHz (Mono).

15. Speaker Outputs
These three stereo 1/4" TRS outputs provide balanced line-level signals for use with active speakers/monitors or power amplifiers driving passive speakers. You can use the speaker trim controls on the front panel to adjust the output level.

16. Record Out 1 and 2
These stereo balanced 1/4" TRS and unbalanced RCA outputs provide line-level signals for use with analog recording and dubbing equipment.

17. Operating Level (Out) -10 dBV / +4 dBu
Use this switch to set the Record / Dub output level at -10 dBV, for use with semi-pro or consumer level devices, or +4 dBu, for use with professional audio gear.

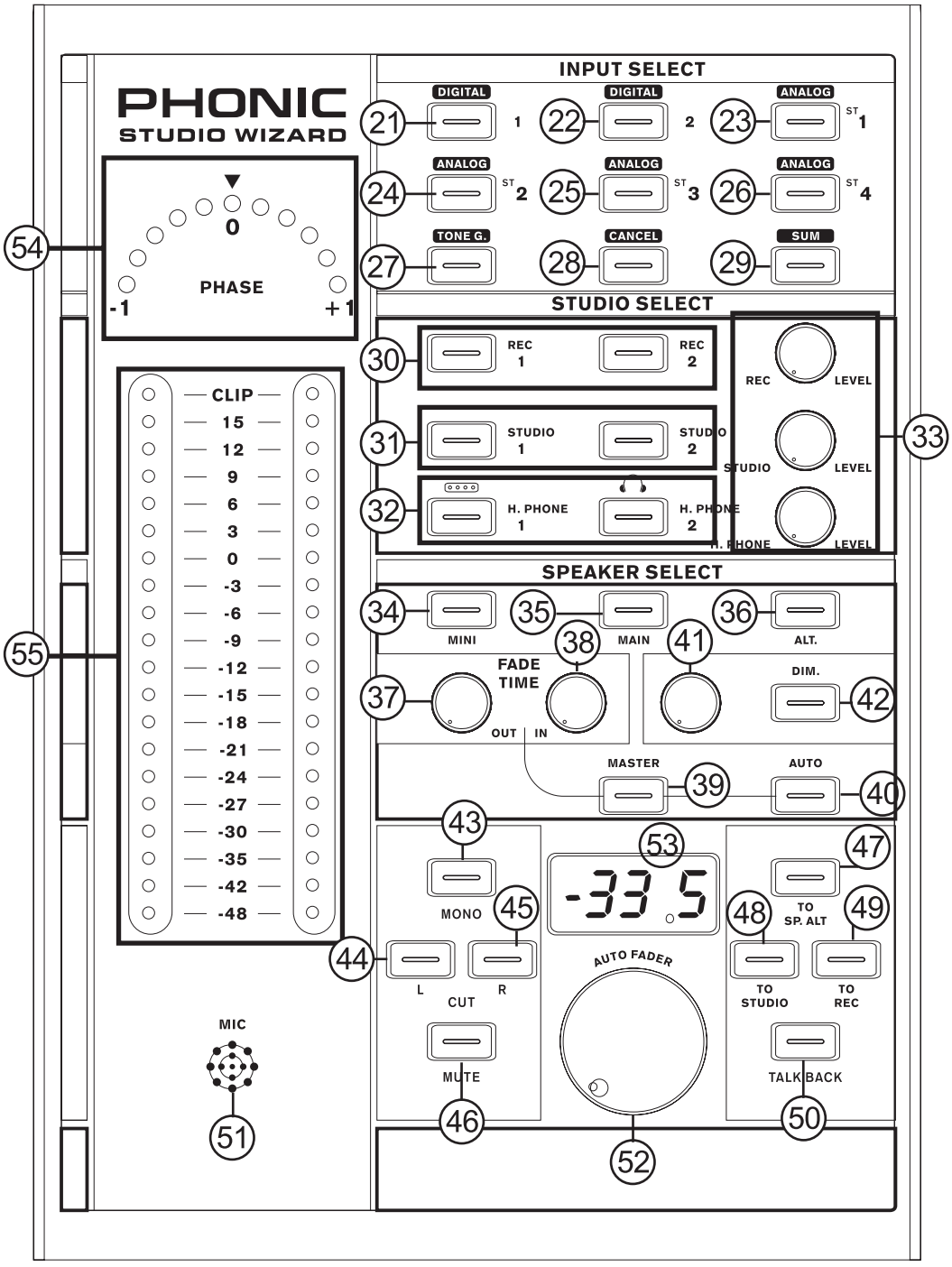
18. Head Phone Outputs
These 1/4" TRS outputs provide balanced line-level signals ideal for use with headphone distribution amplifiers.

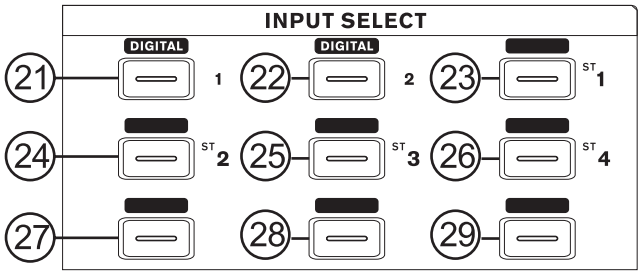
19. Studio Outputs
These 1/4" TRS outputs provide balanced line-level signals for up to two studio recording devices.

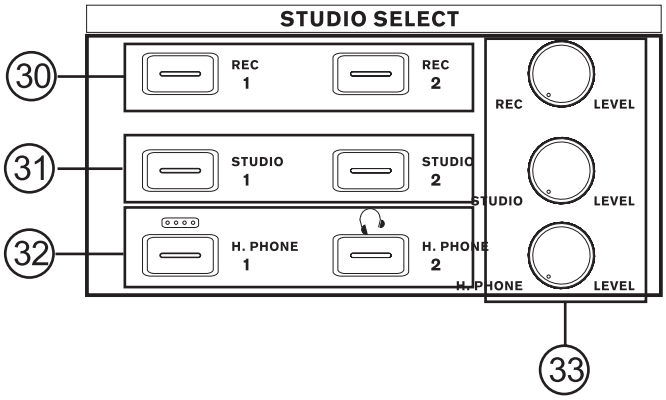
20. Analog Inputs
These three sets of stereo 1/4" TRS inputs accept balanced line-level signals from up to three devices.

Remote Unit

The Studio Wizard's Remote Unit is where all the magic happens. With all the inputs and outputs made else where (and out of your way), users are free to move this small unit around as they see fit. You can route your input signals to any number of possible outputs (record, studio, etc.), as well as to speakers for monitoring within a booth or studio, and use many of the included functions such as auto fade (in and out), and the dim switch, for when producers receive phone calls.







Front Panel

Input Select Section

21. Digital 1 Button
Press this button to select the S/PDIF digital input on the main unit.

22. Digital 2 Button
Press this button to select the AES/EBU digital input on the main unit.

23. Analog 1 Button
Press this button to select the ST 1 input on the main unit.

24. Analog 2 Button
Press this button to select the ST 2 input on the main unit.

25. Analog 3 Button
Press this button to select the ST 3 input on the main unit.

26. Analog 4 Button
Press this button to select the ST 4 input on the main unit.

27. Tone Generator Button
Press this button to activate the tone generator. Press it again to turn off the tone generator. After activating the tone generator, press the appropriate Studio Select buttons to send the test tone to their corresponding outputs.

28. Cancel Button
Press this button to cancel current group settings. This can only be done when in “Group Setting" mode.

29. Sum Button
When any of the Studio Select buttons is pressed, the sum key will allow you to select all of the inputs from your Group Setting and send them to the corresponding output.

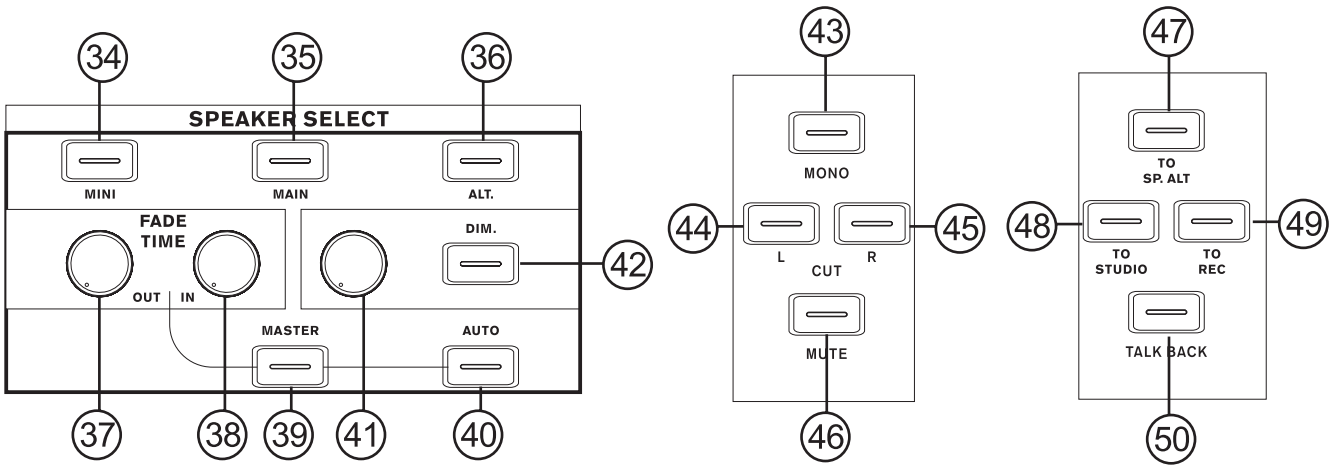
Studio Select Section

30. Rec 1 and Rec 2 Buttons
Press either of these buttons to select the inputs you wish to send to the Record 1 or 2 outputs on the main unit. Hold either of these buttons down to activate the Group Setting mode, where you can select all of the Inputs you wish to associate with that particular output.

31. Studio 1 and 2 Buttons
Press either of these buttons to select the inputs you wish to send to the Studio 1 or 2 stereo outputs on the main unit. Hold either of these buttons down to activate the Group Setting mode, where you can select all of the Inputs you wish to associate with that particular output.

32. Head Phone 1 and 2 Buttons
Press either of these buttons to select the inputs you wish to send to the Record 1 or 2 outputs on the main unit. Hold either of these buttons down to activate the Group Setting mode, where you can select all of the Inputs you wish to associate with that particular output.

33. Studio Out Level Controls
These knobs control the level of their corresponding outputs, which will be displayed in the digital LED display. There are three level control knobs, one each for the Record, Studio and Head Phone outputs. Pushing the control will allow users to toggle the use of the level control between the Record, Studio and Head Phones 1 or 2 outputs.



Speaker Select Section

34. Mini Button
Press this button to send the selected inputs to the mini speaker output on the main unit.

35. Main Button
Press this button to send the selected inputs to the main speaker output on the main unit.

36. Alternative Button
Press this button to send the selected inputs to the alternative speaker output on the main unit.

Fader

37. Fade In Time Control
Adjust this knob to set the fade in time.

38. Fade Out Time Control
Adjust this knob to set the fade out time.

39. Master Button
When the Master key is activated, the auto fader only applies to the speaker (or monitor) outputs. If the Master key is not activated then auto fading applies to all outputs.

40. Auto Button
Pressing this button automatically fades the selected signal, whether it be the speaker output only or all outputs simultaneously.

41. Dim Level
This knob adjusts the amount of attenuation applied when the Dim button is pushed.

42. Dim Button
Press this key to instantly attenuate the main output level by the amount selected. It is highly useful when receiving phone calls or communicating with the talent.

43. Mono Button
This button sums the stereo signal to mono to check for phase cancellation.

44. Cut Left
This button cuts the output to the left channel monitors.

45. Cut Right
This button cuts the output to the right channel monitors.

46. Mute
This button mutes the audio to the Main speaker output.

Talkback Section

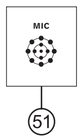
47. To Alt. Speaker Button
Press this button once and release to route the talkback microphone signal to the alternative speaker outputs.

48. To Studio Button
Press this button once and release to route the talkback microphone signal to both the Studio and Headphone outputs.

49. To Record Button
Press this button once and release to route the talkback microphone signal to the REC outputs.

50. Talkback Button
After selecting the destination for the talkback microphone signal, press and hold the Talkback key to use the talkback microphone. Press the button twice in quick succession to keep the talk back on. Push once more to turn the talk back off.

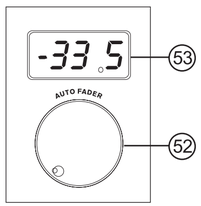
51. Talkback Microphone
This built-in condenser talkback microphone has a sensitivity of -42dB and a gain range of 15 dB – 55 dB.



Main Section

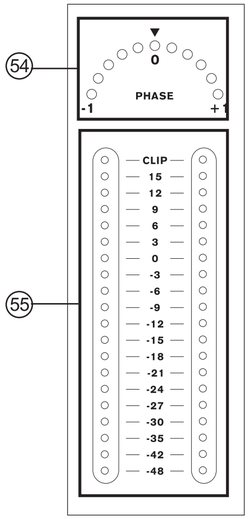
52. Level Control Knob
This large rotary knob provides a precise analog control for the monitor speaker output level. It is accompanied by a digital display that gives an exact level readout. This knob controls the level only for those monitor speakers that are currently selected in the Speaker Select zone.

53. Digital LED Display
This LED display provides a precise numeric readout for all level control changes. The default display is the monitor level control. When any of the Studio Select, Fade Time or Dim Level knobs are adjusted, changes will be displayed on the LED panel. One to two seconds after level changes have been made, the LED will return to displaying the monitor level.



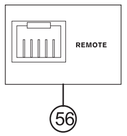
54. Phase Meter
This is an accurate 11-segment LED meter for monitoring the phase of the monitor speaker outputs. When the meter's illuminated LED indicator sits between the 0 and +1 mark, your signal is in-phase. When the signal sits between the 0 and -1 mark, the signal is out of phase and should be corrected. Please note that this phase meter checks the phase of stereo signals only.

55. Output Level Meter
This is an accurate dual 20-segment meter for monitoring the monitor speaker outputs.



Rear Panel

56. RJ-45 Jack
This is an RJ-45 jack. The cable that connects this unit to the main unit is plugged in here.



TROUBLESHOOTING

No Power?

- The obligatory ‘is it plugged in?’
- Check the AC connection to see if there is, in fact, power coming out of the socket.
- Is the Power LED on? If so, check the ‘No Sound’ section.

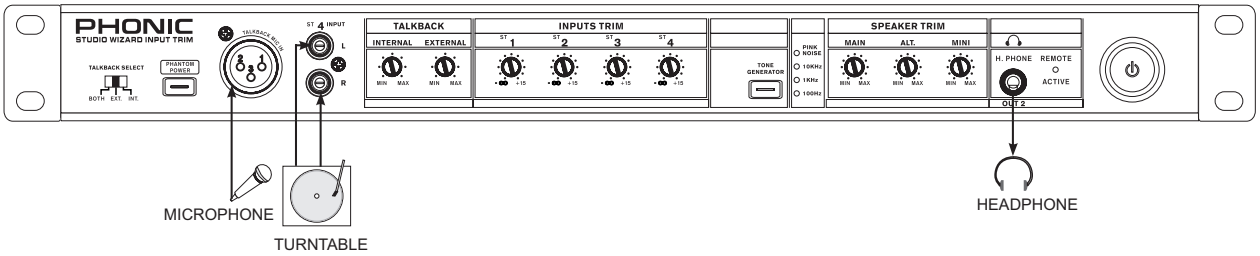
No Sound?

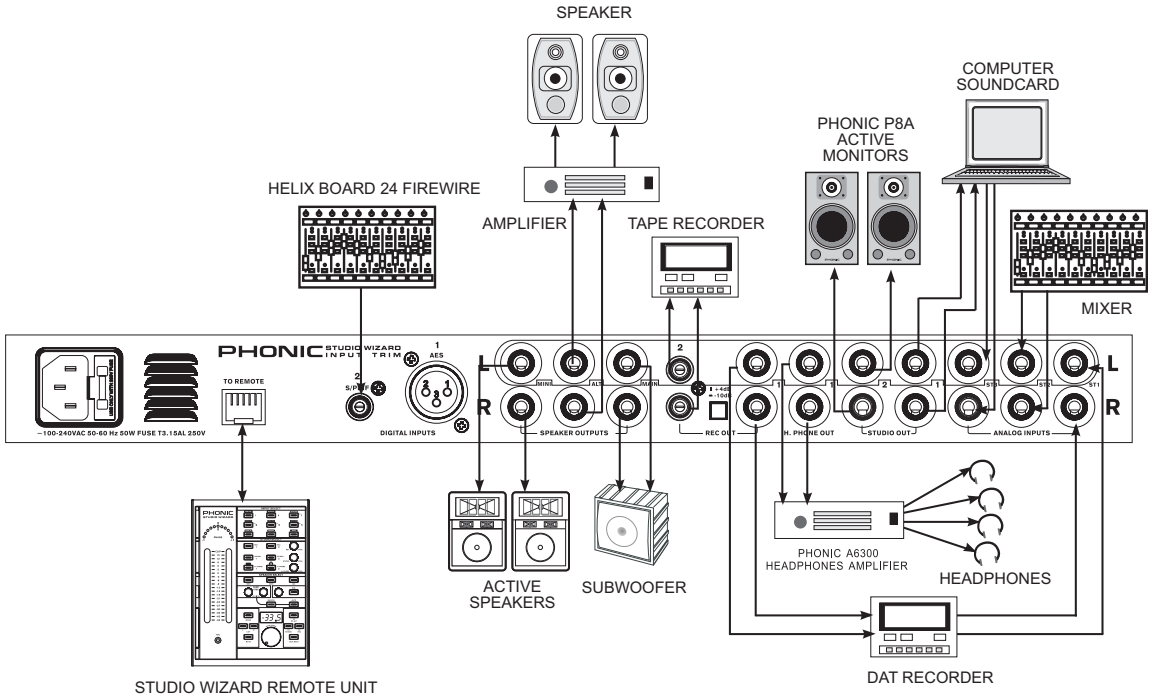
- Is the power on? Check the LED indicator. If the indicator remains dark, consult the ‘no power’ section of this troubleshooting guide.
- Ensure external devices are turned up high enough for the signal to be clear through the Studio Wizard.
- If using active monitors for your output signal, ensure they are turned on and up.
- Are all volume and trim controls turned to an acceptable level?
- Make sure your audio inputs and audio outputs are correctly selected. Incorrect routing may be of concern.

Poor Sound?

- Ensure all plugs are pushed into their appropriate jacks all the way.
- If the signal is distorted and loud, check all input levels are set to a suitable level. If any signal is turned up too high, the sound quality can be terrible diminished.
- Try listening to each of the input sources one-by-one. If one or more of the sources signal quality is poor, the Studio Wizard is not the culprit in this case.
- Try not to run cables over great distances, and if possible use a high-quality cable.

APPLICATIONS



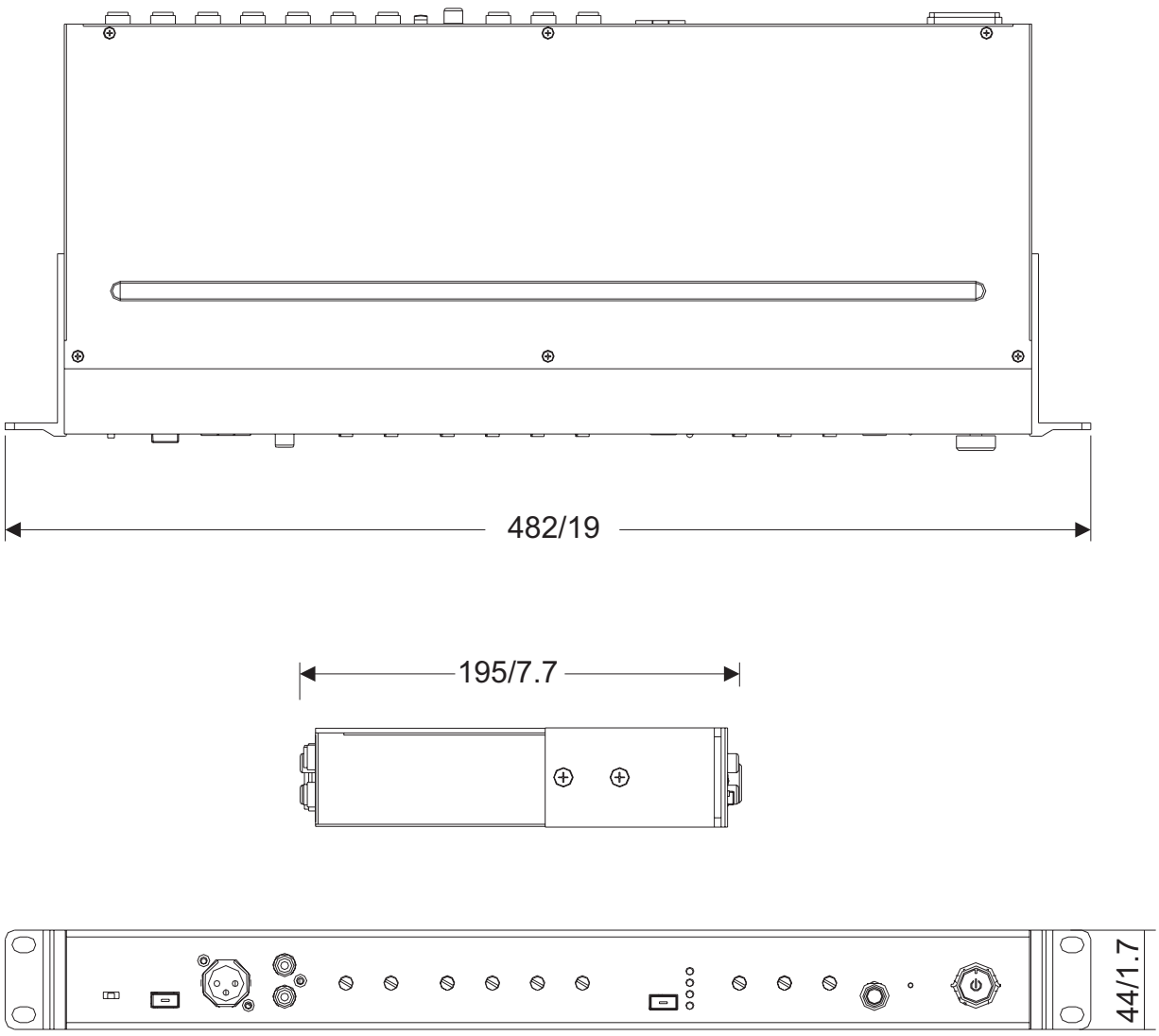


SPECIFICATIONS

Audio Inputs TRS1-4	
Type	1/4" TRS Balanced & RCA-unbalanced
Input Impedance	2K Ω Balanced , 20K Ω unbalanced
Nominal Line level setting	+4dBu(center detented)
Input level maximum	+4 to +18dB unbalanced & Balanced
Trim Range	-∞to +18dB variable
THD+N	Less than .0005% (1KHz @ 0dBu)
Frequency Response	10Hz-50KHz, +/-0.5dB
S/PDIF	Sample Rates Auto detect 24 bit, 44.1K, 48K, 96K, 192K(Mono)
Types	RCA 75Ω
AES/EBU	Sample Rates Auto detect 24 bit, 44.1K, 48K, 96K, 192K(Mono)
Types	XLR transformer balanced
Audio Outputs	
Monitor out	
Type	1/4" TRS Balanced
Nominal Line level setting	+4dBu
Trim Range	-∞ to 18dB variable
Output level maximum	+16dB
Dim switch	Attenuation 20dB
Trim Range	-40 to +4 dB
Output level maximum	+16dB
Studio out 1-2&H.phone out 1	
Type	1/4" TRS Balanced
Impedance	500Ω
THD+N	Less than .0025%
Frequency Response	10Hz-50KHz, +/-0.5dB
Gain control Range	-∞ to +18dB
Output level maximum	+16dB
REC OUT 1	
Type	1/4" TRS Balanced
Impedance	600Ω
THD+N	Less than .003% (1KHz @ 0dBu)
Frequency Response	10Hz-30KHz, +/-0.5dB
Output level maximum	+16dB
Gain control Range	-∞ to +18dB
REC OUT 2	
Type	RCA-unbalanced
Impedance	60 Ω

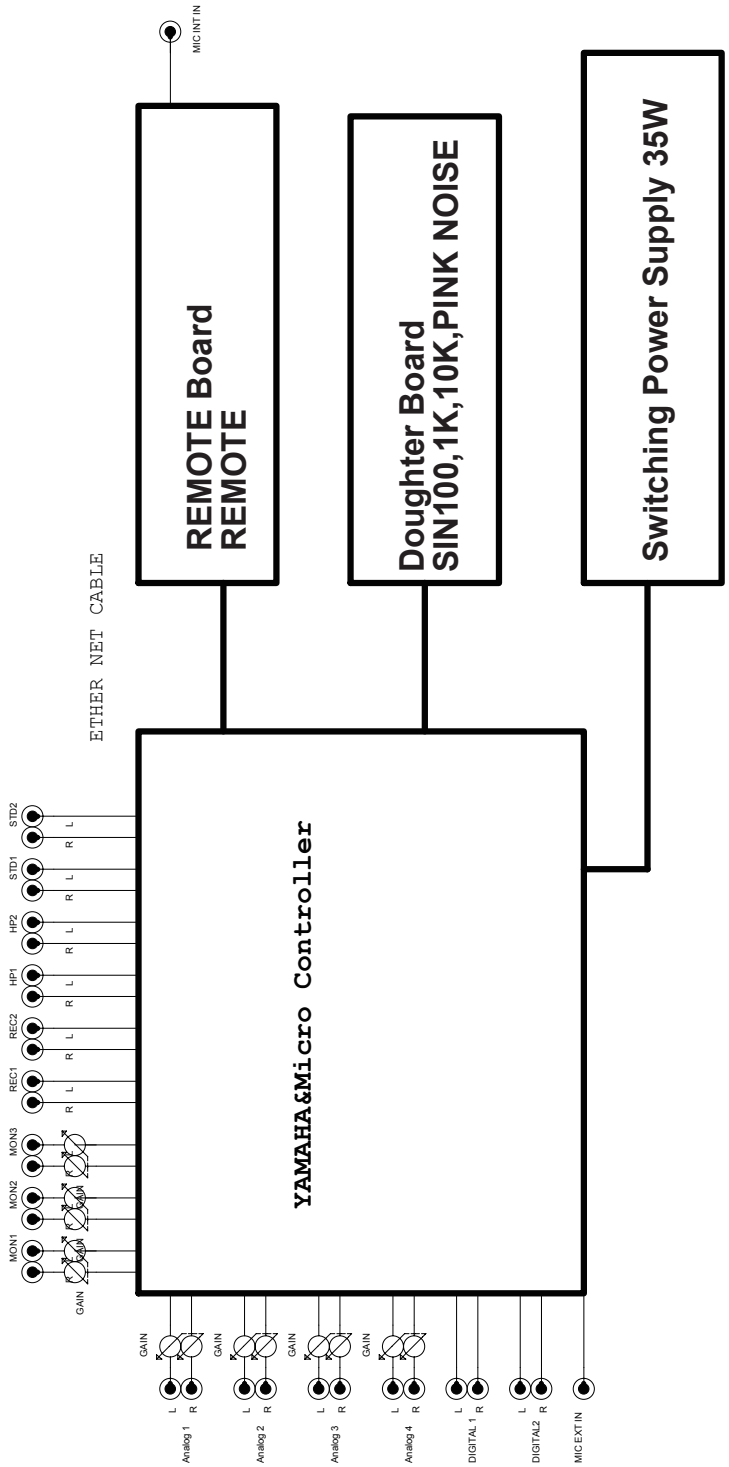
THD+N	Less than .008% (1KHz @ 0dBu)
Frequency Response	10Hz-50KHz, +/-1dB
Output level maximum	+4dB
Gain control Range	-∞ to +4dB
H.phone out 2	
Type	1/4" TRS Active Stereo
Maximum Output	420mW/channel @ 60 Ω load
THD+N	.015% (150mW/channel @ 60 Ω load)
Frequency Response	10Hz-50KHz, +1dB
Noise floor	
20 to 20kHz bandwidth @ 1KHz 0 dBu	All input to output -90 dBu
Talkback EXT.	
Dynamic Microphone Input	
Type	XLR Female Balanced
Input Impedance	2400 Ω
Sensitivity	-72dB
Mic Preamp	
Gain control range	0-50dB
Internal Microphone	
Type	Electric Condenser
Sensitivity	-42dB
Gain range	15-55dB
Input Meters	
Type	20 segment LED
Range	-48dB to +15dB
Accuracy	Better than .25dB
Frequency Range	10Hz-22KHz
Phase Meter	
Type	In-phase LED set for 0° to +180°
Out-of-phase LED set for181° to 360°	
Display	-1, -0.5, 0, +0.5, +1 stereo (13-segment LED)
Tone generator	Sine wave @ 100Hz, 1kHz, 10kHz
Level	-14 dB
Volume Display	
Type	7 segment numeric LED Display
Remote connect	RJ45
Power requirements	
Main voltage	~100V to ~120 V AC,50~ 60 Hz
Fuse	100-120V AC: 1A， 200-240V AC:500 mA
Power consumption	30 Watts
Mains Connection	Standard IEC Receptacle

DIMENSIONS



* All measurements are shown in mm/inches.

BLOCK DIAGRAM



TO PURCHASE ADDITIONAL PHONIC GEAR AND ACCESSORIES

To purchase Phonic gear and optional accessories, contact any authorized Phonic distributor. For a list of Phonic distributors please visit our website at www.phonic.com and click on Get Gear. You may also contact Phonic directly and we will assist you in locating a distributor near you.

SERVICE AND REPAIR

Phonic has over 100 service centers worldwide. For replacement parts, service and repairs please contact the Phonic distributor in your country. Phonic does not release service manuals to consumers, and advice users to not attempt any self repairs, as doing so voids all warranties. You can locate a dealer near you at www.phonic.com.

WARRANTY INFORMATION

Phonic stands behind every product we make with a no-hassles warranty. Warranty coverage may be extended, depending on your region. Phonic Corporation warrants this product for a minimum of one year from the original date of purchase against defects in material and workmanship under use as instructed by the user's manual. Phonic, at its option, shall repair or replace the defective unit covered by this warranty. Please retain the dated sales receipt as evidence of the date of purchase. You will need it for any warranty service. No returns or repairs will be accepted without a proper RMA number (return merchandise authorization). In order to keep this warranty in effect, the product must have been handled and used as prescribed in the instructions accompanying this warranty. Any tempering of the product or attempts of self repair voids all warranty. This warranty does not cover any damage due to accident, misuse, abuse, or negligence. This warranty is valid only if the product was purchased new from an authorized Phonic dealer/distributor. For complete warranty policy information, please visit http://www.phonic.com.

CUSTOMER SERVICE AND TECHNICAL SUPPORT

We encourage you to visit our online help at http://www.phonic.com/help/. There you can find answers to frequently asked questions, tech tips, driver downloads, returns instruction and other helpful information. We make every effort to answer your questions within one business day.

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