



V1.4 2004/10/1

## Road Gear 160 / 260

Integrated Mobile Sound System

# User's Manual

[www.phonic.com](http://www.phonic.com)



## IMPORTANT SAFETY INSTRUCTIONS

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.



### CAUTION

RISK OF ELECTRIC SHOCK  
DO NOT OPEN



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



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.



 **PHONIC**

# RoadGear 160/260

## Integrated Mobile Sound System

# USER'S MANUAL

page

## TABLE OF CONTENTS

Introduction .....	4
Features.....	4
RoadGear Components .....	5
Disassembling The RoadGear.....	6
Initial Setup .....	6
The RoadGear Mixer.....	7
Making a Connection .....	7
Digital Effects Panel.....	9
Master Controls .....	9
The RoadGear Speakers .....	10
Microphones .....	10
Optional Accessories.....	10
On The Road Application.....	11
Specifications .....	12
Some Important Information .....	13
The Combination Docking Lock .....	13
Latch Position .....	13
Speaker Load .....	14
Connecting the Portable Power Supply.....	14
Carrying The Speakers .....	14
External DC Power Supply Inlet .....	14

## Introduction

We at Phonic would like to congratulate you on purchasing one of the RoadGear mobile audio systems, a set of audio equipment superior in design and versatility. The Phonic RoadGear sets allow you to take all the equipment you need to setup an advanced, all-in-one integrated sound system anywhere you go, with a minimum of fuss. The fully self-contained unit includes two full-range speakers, a powered mixer, and dynamic microphones, as well as all the necessary cables. RoadGear also gives you the option of using wireless microphones and supplies enough storage space to pack them conveniently away.

Setting up the RoadGear set could not be easier. Just release the docking lock, and, after disassembling the mobile kit, simply position the speakers, and plug them, the microphone, and any other instruments or devices you wish, into the powered mixer. After plugging the powered mixer into an appropriate power supply, your system is ready to use. Not only is it this simple to set up, however, but using the system is also simplistic. Using the controls of the supplied powered mixer, adjust the levels of the inputs, as well as the high, low, and middle frequencies of the inputs, and the digital effects processor. All these features make the RoadGear an easy and convenient solution to a mobile sound system.

This user's manual is specifically designed to give you accurate information on the function and use of the RoadGear 160 and 260. After thoroughly reading this manual, it is suggested you store it in an easily accessible place for future reference.

## RoadGear 160 & 260 Features

- Convenient and complete audio package with a stylish luggage-type molded PP casing, making for increased sturdiness.
- Large Polyurethane wheels, for an extra smooth ride and durability. | 3-band system equalizer. | Two 30 foot speaker cables. | Speaker output with send and return. | Storage compartments for microphones, cables and other accessories. | Optional external battery and wireless microphone.

### RoadGear 160 additional features

- 160 watts of output power (80 watts per channel).
- Speaker system with 1" compression tweeters and 8" woofers for high pressure sound reproduction.
- Total 4-channel input powered mixer.
- 2-band EQ on each input channel.
- One dynamic microphone with cable.
- 3 XLR mic inputs with phantom power. | 1 stereo input channel and 1 stereo aux return.
- High-Definition digital multi-effect processor with 4 programs.

### RoadGear 260 additional features

- 260 watts of output power (130 watts per channel).
- Speaker system with 1" compression tweeters and 8" woofers for high pressure sound reproduction.
- Total 6-channel input powered mixer.
- 2-band EQ on each input channel.
- Two dynamic microphones with cables.
- 4 XLR mic inputs with phantom power. | 2 stereo input channel and 1 stereo aux return.
- High-Definition digital multi-effect processor with 16 programs.

## RoadgearComponents

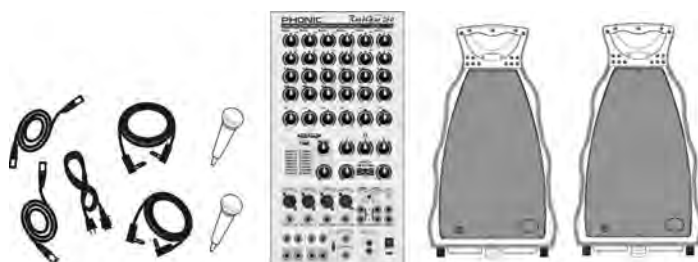
### RoadGear 160

- Two Speakers with specially molded enclosures
- One powered mixer built into a specially molded storage case
- One Phonic UM 99 microphone with 20 foot (6 meter) cable, clip and pouch.
- Two 30 foot (9 meter) speaker cables
- Detatchable power cable
- One transparent dust cover



### RoadGear 260

- Two Speakers with specially molded enclosures
- One powered mixer built into a specially molded storage case
- Two Phonic UM 99 microphones, each with a 20 foot (6 meter) cable, clip and pouch.
- Two 30 foot (9 meter) speaker cables
- Detatchable power cable
- One transparent dust cover



## Caution



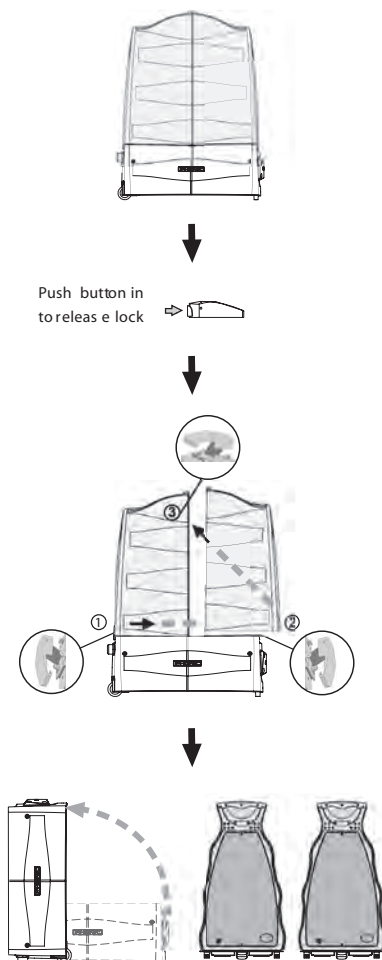
- Use the AC power cable supplied with the RoadGear sets only.
- When buying the RoadGear, the AC power cable will be specific to the safety and code requirements of the Country of purchase.
- The ground (earth) pin of the AC power cable's male connector should under no circumstances be removed.
- When taking the RoadGear abroad, check the local voltage and ensure an appropriate power level is used, as selected by the power selection switch on the back panel. (eg. If the local standard is between 100 and 120 Volts, the 115 volt power level should be selected. If the standard is between 220 and 240, then 230 volts should be selected).
- When the RoadGear is in use, the storage compartment door must be kept open for better ventilation.



## Disassembling The RoadGear

To follow is the most convenient way to open and close the RoadGear kits. Following these instructions will ensure trouble-free setup of the RoadGear.

1. You should first unclip docking locks 1 and 2 (indicated below) on either side of the RoadGear.
2. After unhooking these docking locks you can then open the top lock
3. This ensures the RoadGear pieces come apart smoothly. 3. Stand the powered mixer upright.
4. To re-assemble the RoadGear pieces, the same order should be taken (side locks first, followed by the top). This way the pieces will be held securely and firmly together.
5. When using the RoadGear speakers, ensure that the docking locks on the rear are locked back into place, to ensure they don't scratch the surface on which they sit.



## Initial Setup

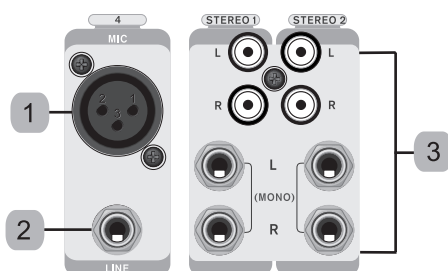
Please ensure you take note of all setup instructions listed in this manual. The RoadGear 160 and 260 are both used as normal PA systems and therefore all care should be taken in ensuring the correct setting up of equipment.

1. Disassemble the mobile RoadGear set and remove the speakers from the top of the kit. Remove all items you wish to use in your PA system from the RoadGear's storage area. Also, place the mixer and speakers in a suitable place.
  2. Connect the two speakers to the Powered Mixer, via the supplied speaker cable. An optional speaker stand may be used to increase the height of the speakers. NB. No devices other than speakers should be connected to the speaker outputs. Doing so will likely cause damage to the device. Also, guitar cables should not be used to connect amplifiers to speakers.
  3. Plug all necessary instruments and equipment into the device's various inputs as required. This may include line-signal devices, as well as microphones and/or guitars, keyboards, etc.
  4. Plug any necessary equipment into the device's various outputs. This could include monitors, signal processors, and/or recording devices.
  5. Ensure all input and out levels are set to the left-most position.
  6. Plug the supplied AC cable into the AC inlet on the back of the RoadGear mixer.
- NB.** Ensure the power cable has no scratches or cuts that may reveal the wire beneath before plugging into the provided powered mixer as constant setting up and disassembling of equipment may cause insulation to wear.
7. Plug the supplied AC cable into a power outlet of a suitable voltage.
  8. Turn the mixer power switch to the on position and set all input and output at appropriate levels to suit your needs.
  9. When the RoadGear is in use, the storage compartment door must be kept open for better ventilation.

## The RoadGear Mixer

The powered mixer provided with the RoadGear package is equipped with 4 microphone and line input jacks (3 on the RoadGear 160), as well as 2 stereo inputs (1 on the RoadGear 160), and a built in effect processor boasting a 24-bit DSP. All this, plus a basic 3-band system equalizer, ensures your audio always sounds great, on the road.

### Making a Connection



#### 1. Microphone Input Jacks

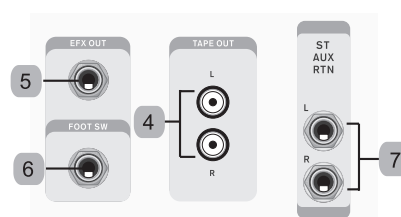
These XLR jacks are for the input of low level signal devices, most commonly, microphones. For best performance, we suggest using the microphones supplied with the RoadGear set, however they can be used in conjunction with any professional condenser, dynamic or ribbon microphones with standard 3-pin XLR male connectors.

#### 2. Line Input Jack

These 1/4" TS phone jacks accept a wide range of input line level devices, such as guitars and keyboards. It can accept unbalanced sources, however any microphones plugged into the microphone input will not work when a line device is attached to this system.

#### 3. Stereo 1 and 2 Inputs

These inputs include 2 sets of jacks, one set being standard stereo RCA jacks, the other being stereo 1/4" TS phone jacks, and can be used for the addition of certain playback devices, such as CD players, cassettes, or DAT to the mixer. The RCA and TS jacks can both be used simultaneously; however, in some cases this is unadvisable as the blending of audio may have undesirable results. The audio fed into these inputs is fed to the corresponding stereo input mixing bus.



#### 4. Tape Out

These outputs will accommodate RCA cables to be fed to a variety of recording devices, such as tape and digital recorders.

#### 5. Effects (EFX) Out

These 1/4" TS outputs are the final output from the effects send mixing bus. This feed may be used to connect to an amplifier and speakers, or to external digital effect processors. When using external processors, the feed can be returned to the Stereo AUX Return ports.

#### 6. Foot Switch

This port allows the inclusion of a foot switch for remote alteration of digital effect properties (on or off).

#### 7. Stereo AUX Return (St AUX Rtn)

These TS inputs connect the mixer with parallel external devices, such as sub mixers or external effect processors, receiving the processed signal from another source and feeding it to the main mixing bus.

#### 8. Send and Return

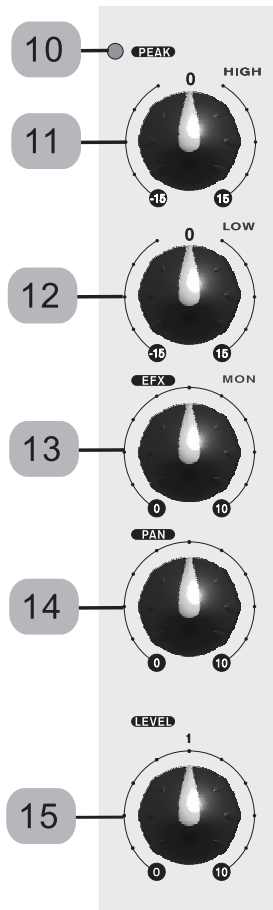
These connectors allow external signal processing devices to be connected to the built-in power amplifier. Devices that may be connected to these jacks may include equalizers, external effect processors, feedback silencers, and so forth. It is important to keep unity in the send and return signal levels of external devices, as to ensure overloading of inputs does not occur.

## 9. Speaker Outputs

These jacks are used to connect to speakers, fed from the internal power amplifier. Both sets of outputs are 1/4" TS jacks, which boast an amazing 130 Watts of output (80 Watts for the RoadGear 160) per channel. To use these, simply insert the RoadGear speaker cable's 1/4" TS plug into them.

**NB.** Due to the fact that the signal has been processed by the power amp, these ports should be used in conjunction with speakers only to avoid damaging any other equipment.

## Controls and Settings



### 10. Peak Indicator

This indicator illuminates during high peaks of audio. If this LED illuminates too often the input level of the corresponding channel should be reduced to ensure the audio is not clipped when the level gets too high, which would cause problems in the quality of audio.

### 11. High Frequency Control

This control alters the degree of high frequencies – or treble – in the audio of the corresponding channel. Turn clockwise to increase the amount of treble in the sound, and counterclockwise to decrease the amount. Position the knob for a flat response when not in use.

### 12. Low Frequency Control

This control alters the degree of low frequencies – or bass – in the audio of the corresponding channel. Turn clockwise to increase the amount of bass in the sound, and turn counterclockwise to decrease the amount. Position the knob at "0" if not in use.

### 13. EFX Control

This control adjusts the signal level of the corresponding channel to be sent to the EFX (or monitor) mixing bus, for internal digital effect processing (as well as the monitor outputs).

### 14. PAN/BAL Control

This alternates the degree or level of audio that the left and right side of the main mix should receive. On mono channels, this control will adjust the level of the monaural signal that the left and right should receive, where as on a stereo channel, adjusting the BAL control will increase and attenuate the left or right audio signals accordingly.

### 15. Level Control

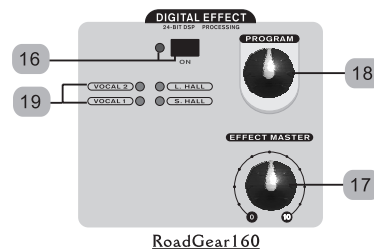
This control alters the audio level of the audio feed to the main mix. This control should be set to the extreme left when the channel is not in use.



## Multi-Effect Processor

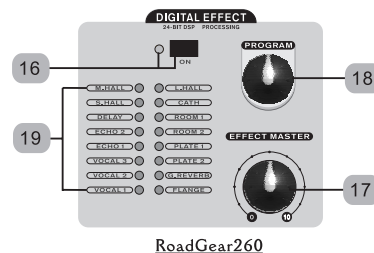
## 16. On/Off Switch and Indicator

This switch is used to turn the corresponding effect panel on or off. When the effect processor is turned on the corresponding LED illuminates.



## 17. Effect Master Level

This control adjusts the level of the audio to be sent from the corresponding digital effect processor to the main mixing bus.



## 18. Program Control

This control is used to scroll through the various effects shown on the Multi-Effect Display. Turning the control will automatically change the program and apply it to the audio.

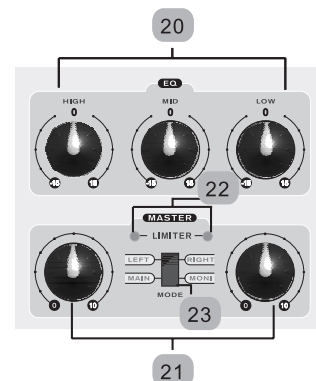
## 19. Effect Display

This panel contains numerous LED indicators that illuminate when their corresponding digital effect is selected using the Program control.

## Master Controls

## 20. 3-Band Equalizer

The RoadGear's built in 3-band provides perfect control over the high, low and middle frequencies of your audio. Changing the level of high frequencies included in your audio will enhance the treble sounds, such as guitars, as well as enhancing the crispness of vocals. Changing the level of low frequencies in your audio will enhance bass sounds, including drums and bass guitars, and add to the overall warmth of the sound. Changing the middle frequencies can be difficult, but cutting them to the right degree can help to calm overly-harsh vocal and instrumental sounds.



## 21. Master Level Controls

This control is used to adjust the final volume level of the MAIN LEFT/RIGHT or MAIN/MONITOR audio to be sent to the power amplifier and respective outputs, according to the mode selector settings.

## 22. Limiter Indicators

There are 2 limiters built-in to the stereo power amplifier featured in the RoadGear 160 and 260. The limiters are activated, and the indicator will illuminate, when the signal level becomes too high to warn the user of the possibility of overloading. If this happens too often, ensure you to turn down the Master Level Control down to a reasonable level. When using a 4 ohm load (ie. when both of the RoadGear speakers are used on the same amp channel), please ensure the Limiter LEDs do not illuminate, as to avoid overload.

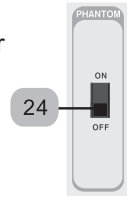
## 23. Mode Selector

This is used to alternate the use of the power amplifier outputs, depending on your setting. If stage monitors are used in your set of speakers, then the switch should be set on the main/mon setting, which will allow you to plug your left and right main speakers into the main power amplifier outputs, as well as a set of stage monitors for performers to listen to their audio. When set on left/right, both sets of power amplifier outputs can be used to output the left and right audio signals to up to four speakers.

## 24. Phantom Switch

This switch supplies +48V of phantom power to all microphone inputs, used for powering condenser microphones.

NB. Do not use Phantom Power when any unbalanced microphones are in use.



## 25. Power Switch

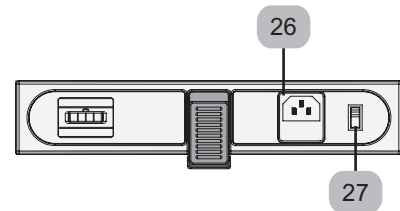
This button is used to turn the device on and off. When Power is activated, the corresponding indicator will illuminate.

NB. Turn the Master Level Control to a minimal level before turning the RoadGear on.

## Rear Panel

### 26. Power Inlet

This port is used to plug the female end of the included AC power cable. The other end should be connected to an appropriate power source.

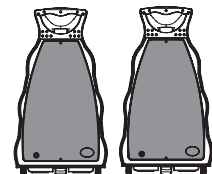


### 27. Voltage Selector

This switch is used to adapt the RoadGear to different Countries' voltage levels. You are able to select between 115 volts (which you can use in countries with standard voltages between 100 and 120) and 230 (which you can use in Countries with standard voltages between 220 and 240 volts)

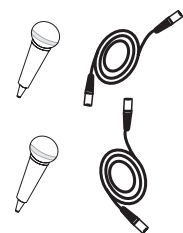
## The RoadGear Speakers

The specially molded speakers that are included in both sets provide 8 inch woofers, as well as compression tweeters for high quality sound reproduction. Included with the speakers are two 30 foot speaker cables.



## Microphones

Included with the RoadGear sets will be a dynamic microphone (two with the RoadGear 260), more specifically the Phonic UM 99 microphone. The Phonic UM 99 will no doubt supply you with a fantastically refined sound for use in public addresses or even for vocals in live performances. Also included with each microphone is a 20 foot (6 meter) microphone cable, clip and carry pouch.

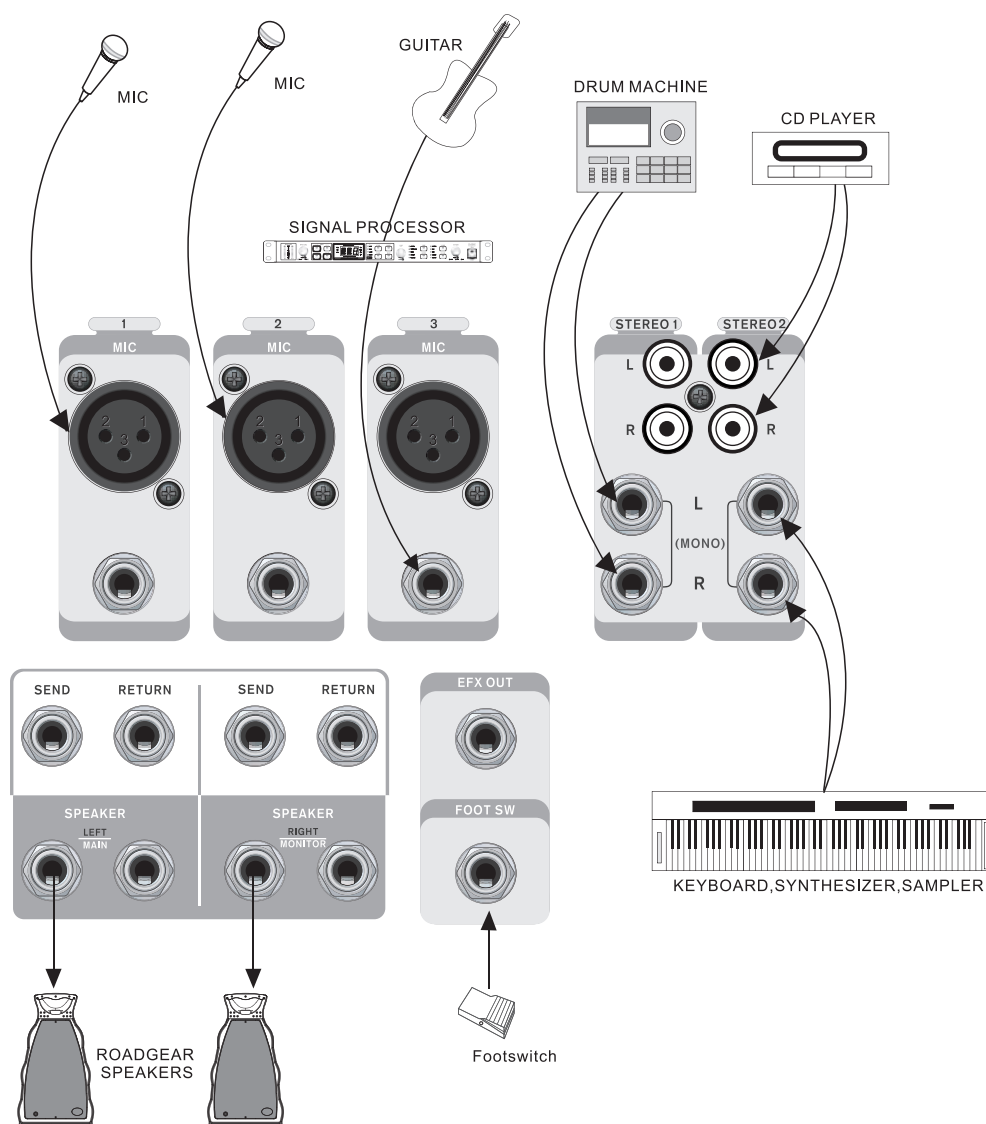


## Optional Accessories

In addition to all this, the RoadGear sets provide you with the option of using various added features. Wireless microphones, with 2 module inputs conveniently placed in the compartment of the mixer, are a fantastic way to ensure the microphone cord is never in the way. Speaker stands (along with additional dual speaker mounts) and wall mounting kits, compatible with the RoadGear speakers, enable you to position your speakers in a way that best suits your setting, and for a greater dispersion of audio. The optional DC-DC converters and battery packs provide power to the RoadGear sets when no other power source is around, and the travel bags allow protection and ease when traveling across Country or overseas. These just add to the ease and convenience that RoadGear provides.

## On The Road Application

The Phonic RoadGear sets are use the same was as an ordinary PA system would be, but with the convenience of having all the components in one handy package, and as such, has the potential to be set up in a variety different ways. Below is just one of the many possible examples we could have given you in setting up the gear, hopefully giving you a good idea of the amazing possibilities that RoadGear provides.



## Specifications

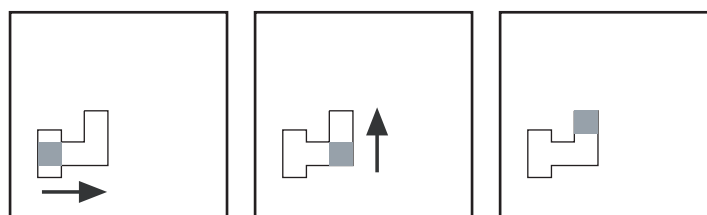
	<b>RoadGear 160</b>	<b>RoadGear 260</b>
<b>Drivers</b>	Compression tweeter & 8" woofer	Compression tweeter & 8" woofer
<b>Speaker Stand Adapter</b>	35mm	35mm
<b>Output Power</b>	2 x 80W @ 8 ohms	2 x 130W @ 8 ohms
<b>Channels</b>	3 mono & 1 stereo CH, Peak indicator, 2-band EQ, Efx send, pan, level	4 mono & 2 stereo CH, Peak indicator, 2-band EQ, Efx send, pan, level
<b>Mono Channel Connectors</b>	XLR & 1/4" TRS	XLR & 1/4" TRS
<b>Stereo Channel Connectors</b>	2 x 1/4" TS & 2 x RCA	2 x 1/4" TS & 2 x RCA
<b>Multi-effect Processor</b>	4 programs	16 programs
<b>Foot Switch</b>	Effect On / Mute	Effect On / Mute
<b>System EQ</b>	3-band	3-band
<b>Amp Mode</b>	L & R or MAIN & MONITOR, with limiter indicators	L & R or MAIN & MONITOR, with limiter indicators
<b>Speaker Out</b>	2 x 1/4" TS per channel with insert Send and Return	2 x 1/4" TS per channel with insert Send and Return
<b>Tape Out</b>	One Stereo RCA	One Stereo RCA
<b>EFX Out &amp; ST Return</b>	Yes, 1/4" TS	Yes, 1/4" TS
<b>Phantom Power</b>	Yes	Yes
<b>Wireless Mic Module Socket</b>	2 (wireless microphones and receiver modules are optional)	2 (wireless microphones and receiver modules are optional)
<b>Included Accessories</b>	1 x Phonic UM99 microphone with clip, 20' cable, and carry pouch	2 x Phonic UM99 microphone with clip, 20' cable, and carry pouch
	2 x 30' speaker cables	2 x 30' speaker cables
	1 x detachable power cable	1 x detachable power cable
	1 x PVC dust cover	1 x PVC dust cover
<b>Power Requirement</b>	Switchable between 115VAC / 60Hz and 230VAC / 50Hz, or optional battery power	Switchable between 115VAC / 60Hz and 230VAC / 50Hz, or optional battery power
<b>Dimensions (H x W x D)</b>	818 x 635 x 352 mm (32.2" x 25" x 13.9")	818 x 635 x 352 mm (32.2" x 25" x 13.9")
<b>Net Weight</b>	28 Kg (61.7 lbs)	31.4 Kg (69.2 lbs)

## Some Important Information

### The Combination Docking Lock

The docking locks of the RoadGear are combination locks, which require the user to enter a pre-set combination to open them. Please observe the following instructions to opening the lock.

- 1) The default code of the lock is 000. Please enter this code the first time you use the RoadGear.
- 2) To change the lock's code, first open the latch and find a small lever on the underneath of the lock. Pull it towards the centre of the lock and up until it sticks into place.



Underneath The RoadGear Combination Lock

- 3) Change the code dials to your desired secret code. Ensure you either remember the code by heart or write it down somewhere, so as to not have to attempt to break the RoadGear apart in a way that would not be favorable to your equipment.
- 4) After entering your desired code, replace the small lever underneath the lock into its original position. And *Voila!* Your new, secret code is set.

### Latch Position

Please ensure, after unpacking the RoadGear set, that the docking locks on the speakers are locked back into place, to ensure the locks do not scratch the surface on which the speaker is standing.

## Speaker Load

The RoadGear Powered Mixer has a  $4\ \Omega$  load when both of the RoadGear speakers are used. In this event, please ensure the Limiter LEDs, located by the Phantom Power switches, do not illuminate, even for short flashes, as to avoid over load.

## Connecting the Portable Power Supply

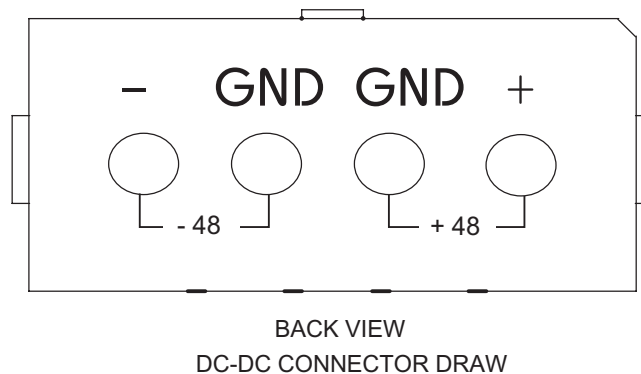
When connecting to the DC-DC power input ports, ensure the rightmost socket is used for the positive connection and the leftmost is used for the negative. The two middle sockets are for grounds. Furthermore, a 48V supply should be used.

**Warning:** The power supply should not exceed 51VDC as to ensure the safe operation of the device.

## Carrying The Speakers

Just a friendly warning: do not attempt to lift the RoadGear speakers with the coded latch below the speaker handles. This could cause irreversible damage to the lock mechanism as they are not designed to take the weight of the entire speaker.

## External DC Power Supply Inlet



When using the optional rechargeable battery pack (model number BP-RG) and 12V DC-DC converter (model number CV-RG) to connect to the DC-DC ports, located at the rear of the RoadGear, ensure the rightmost socket is used for the positive 48VDC connection and the leftmost is used for the negative 48VDC connection (the two middle sockets are for grounds).

**Warning:** The power supply should not exceed 51V as to ensure the safe operation of the device.





**PHONIC**  
[www.phonic.com](http://www.phonic.com)