

PMR-GP2



PMR-HH3

The Phantom Mic Rider is designed to work with industry standard (DIN & IEC) phantom power sources. For more information see Specifications on page 21 of this operating guide.

PHANTOM™

MIC RIDER PRO

For Series 2 & 3 Phantoms

Operating Guide

Table of Contents

Introduction	3
Features	5
Installation - GP2,3	6
Installation - HH2,3	12
Operation	13
Tips & Troubleshooting	20
Specifications	21
Warranty	22

SABINE®
ADAPTIVE AUDIO

MADE IN USA
PATENT PENDING

Phantom Mic Rider Pro Models:

Series 2:

with Automatic Gain Control, Proximity and Plosive Control, and Adjustable IR Gate

PMR-GP2-12: for gooseneck mics, with 12" Sensor cable

PMR-GP2-18: for gooseneck mics, with 18" Sensor cable

PMR-HH2: for handheld mics

Series 3:

with Adjustable IR Gate only

PMR-GP3-12: for gooseneck mics, with 12" Sensor cable

PMR-GP3-18: for gooseneck mics, with 18" Sensor cable

PMR-HH3: for handheld mics

Congratulations on getting your new Phantom Mic Rider Pro!

This operating guide covers the use of the Series 2 and 3 models of the Phantom. Follow the directions that apply to your model. For your convenience each section of this guide is marked as follows indicating which model is explained.

GP

PMR-GP2 and 3 for gooseneck & podium mics

HH

PMR-HH2 and 3 for handheld mics

GP+HH

Both models

The Phantom will improve the sound of your Podium, Gooseneck, or Handheld mics. Use the Phantom in these applications: schools, teleconferencing centers, houses of worship, meeting rooms, etc.

Your box contains the following items:

GP

- One Phantom Mic Rider Pro
- One IR Sensor cord with connector. Some models sold without this item.
- Eight metal clips in various sizes for attaching the IR Sensor cable to your gooseneck mic.
- Three plastic clips to attach the IR Sensor to the gooseneck and one for mounting it under a table or podium.
- One Allen wrench for adjusting the orientation of the Phantom.
- One small Phillips screwdriver for removing the security cover.
- One small straight screwdriver for adjusting the controls.
- One plastic programming Phantom Tool.
- This Operating Guide

HH

- One Phantom Mic Rider with built-in IR sensor
- One small Phillips screwdriver for removing the security cover.
- One small straight screwdriver for adjusting the controls.
- One plastic programming Phantom Tool.
- This Operating Guide

Features

Your new Sabine Phantom Mic Rider Pro™ is the first phantom-powered audio processor unit that provides these four powerful features:

- **Automatic Gain Control**

Helps maintain level as you move toward and away from the mic. (Series 2 only)

- **Proximity Effect Control**

Reduces the excess bass sound as you get closer to the mic - maintains flat frequency response at all distances from the mic. (Series 2 only)

- **Plosive Control**

Reduces the loud pops and bursts from certain consonant sounds in speech. (Series 2 only)

- **Infrared Gate**

Mutes the mic when no one is in front of it using the included infrared sensor. (All models)

Above the table or podium

1. Mute the audio channel for the microphone you have selected to use with the Phantom. Remove the mic from the base or podium and set it aside.
2. Plug the Phantom (PMR-GP2 or 3) into the same base connector as the mic, as shown in Figure 1. The Phantom requires phantom power - when you plug in the Phantom you should see the LED turn green indicating phantom power is present.
3. Plug the microphone into the top of the Phantom. Plug in the IR Sensor and connect the cable to the gooseneck using the supplied clips, as shown in Figure 2. For best results install the sensor and cable with the gooseneck pointed straight up - this will give enough slack in the cable to account for any movement while in use.
4. If necessary you can change the orientation of the Phantom so it conforms to the connector on your mic base or podium. See the instructions on page 8.
5. Activate (un-mute) the mic and check for normal audio operation. Turn to page 13 and begin the Setup Procedure.

FIGURE 1

Installing the Phantom

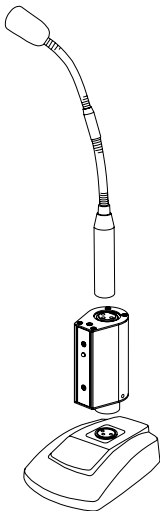
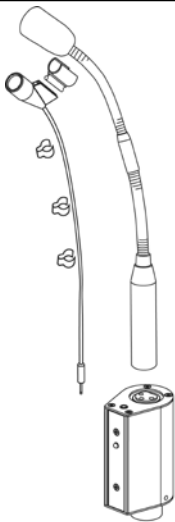


FIGURE 2

Connecting IR Sensor cable



Changing the Orientation of the Phantom

If necessary you can change the orientation of the Phantom so it conforms to the connector on your mic base or podium, as shown in Figure 3.

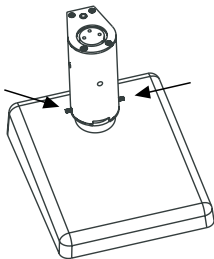
1. Use the included Allen wrench and loosen the set screws as shown in Figure 3.
2. Turn the body of the Phantom one half turn counter-clockwise – **no more!**
3. Tighten the set screws on both sides of the Phantom case and be sure they seat into the connector - just like they did originally. Continue installing as shown in Step 3 on page 6.

Installing the Phantom™

GP

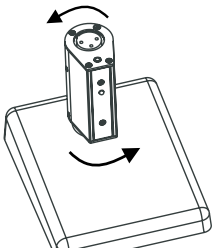
Changing the Orientation of the Phantom

FIGURE 3



If the Phantom mounts like this, then loosen the Allen screws as described on the previous page.

Turn the Phantom **no more than** 1/2 half turn counter-clockwise. Tighten the screws and the Phantom will be properly oriented.



Below the table or podium

(Refer to Figure 4 on next page)

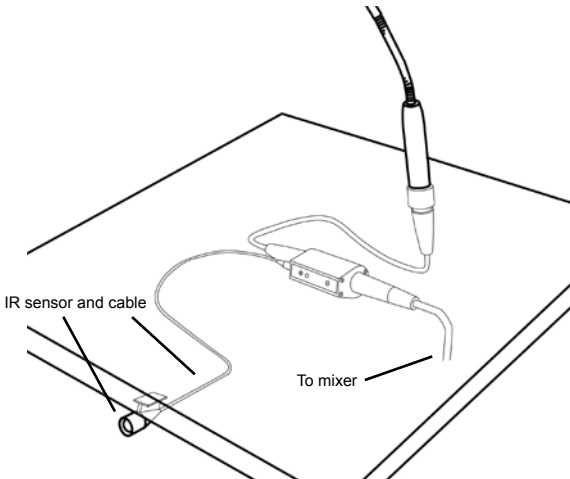
1. Mute the audio channel for the installed microphone you have selected to use with the Phantom. Working below the podium or table, remove audio cable from the mic.
2. Mount the Phantom below the table using Velcro or tie wraps; plug in the IR sensor cable and run that out to the front edge of the table or podium, as shown in Figure 4. Make sure the sensor is pointed toward the area where people stand or sit to use the microphone.
3. Take the cable that was connected to your mic and connect it to the output (male XLR) of the Phantom. Using another audio cable (a short one is best), connect the input of the Phantom (female XLR) to your installed microphone.
4. Activate (un-mute) the mic and check for normal audio operation. Turn to page 13 and begin the Setup Procedure.

Installing the Phantom™

GP

Below the table or podium

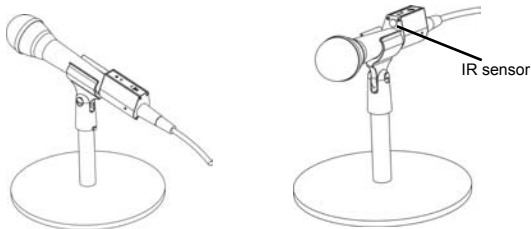
FIGURE 4



Handheld microphones

1. Mute the audio channel for the handheld microphone you have selected to use with the Phantom. Remove the audio cable from the mic.
2. Plug the Phantom (PMR-HH2 or 3) into the microphone as shown below in Figure 5, and reconnect the audio cable.
3. The Infrared sensor is built into this version of the Phantom. Orient the microphone in the holder so the IR sensor is on top, as shown at right.
4. Activate (un-mute) the mic and check for normal audio operation. Follow the Setup Procedure as shown on the next page.

FIGURE 5



Operating the Phantom™

GP+HH

The Phantom's controls are hidden behind a security cover. Remove the cover using the included Phillips head screwdriver and hold on to those screws.

Two pots, two buttons, and one 3-color LED are used to program your Phantom. The factory default settings will work well for almost any situation, and you can adjust them to suit your needs using the provided Phantom Tool and screwdriver.

Button conventions:

Press a button one time briefly and you will see the current setting for that function. Press the button briefly again within 10 seconds and you will cycle to the next setting. Continue tapping the button briefly and you will cycle through all the possible settings. When you get to your desired setting simply stop there and your setting is saved. Settings are always saved when the Phantom is powered down.

LED Indicator:

The 3-color LED lights **green** when the Phantom is connected to phantom power and the mic is on. When programming the IR range and time controls the LED flashes **red** in groups of 1, 2, or 3 flashes to indicate the chosen setting. Once the LED stops flashing the value is set. The LED flashes **amber** to indicate IR gate status (once for on, twice for off).

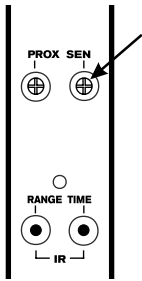
Operating the Phantom™

GP+HH

The Phantom is designed to be ready to go very quickly. First you will set the Phantom's microphone sensitivity to match your microphone, then adjust the Proximity and Plosive controls.

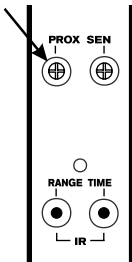
Match Microphone Sensitivity (Series 2 only)

1. Make sure your Phantom is installed as described in "Installing the Phantom" shown on pages 6 - 12. Remove the security cover.
2. Use the small straight screwdriver to adjust the **SEN** control. You are adjusting the input level of the Phantom to match the output of your microphone. Speak loudly into the mic while you turn the pot and adjust the **SEN** control so there is no distortion on the loudest speaking. You will want to turn the **SEN** clockwise as far as possible but avoid overloading the Phantom. The total range is plus or minus 18 dB of gain.



AGC, Proximity & Plosive Control Setup (Series 2 only)

1. Make sure the Phantom is installed as described in “Installing the Phantom” previously. Remove the security cover.
2. Use the small straight screwdriver to adjust the **PROX** control. Your unit is shipped with the control set half way between no control and maximum control.
3. This is a dual function control. You are adjusting both the AGC as well as the reduction in the plosives and proximity effect. Turning the knob to the right increases the effect, and turning it to the left reduces it. Speak normally into the mic at a distance of about 6 inches and adjust the **PROX** until you minimize any unwanted boominess in the sound of the mic. Move closer to the mic and check again. Check the setting again while speaking words with hard “p” or “b” sounds at the beginning. Try adjusting the knob to minimize these sounds, too.



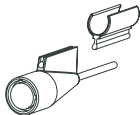
Continued on next page

4. You can further adjust this control to maintain a constant level at the mic. This compensates for people moving too far from the mic, or speaking very loudly at close range. Experiment until you find a good setting that provides a good sound for your mic and the people that use it.

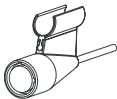
IR Sensor Installation

(Series 2 & 3)

1. Connect the Sensor to one of the plastic clips that matches your gooseneck size. The clip slides on as shown at right. Mount that assembly to the gooseneck.



2. Plug the cable into the Phantom's jack and clip the cable neatly to the gooseneck using the clips shown in Figure 2 on page seven.

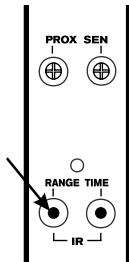


3. Once the sensor is plugged in the gate is activated. The sensor will “read” the infrared signature of anyone standing in front of the mic. As long as someone is within 3, 6, or 9 feet of the mic, the mic will be active which is indicated by the illuminated green LED.

IR Gate Setup - Range

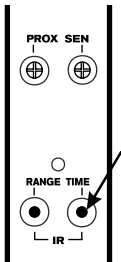
(Series 2 & 3)

1. Make sure the Phantom is installed as described in “Installing the Phantom” previously. Remove the security cover.
2. **IR Range Adjust:** Use this to adjust the distance at which the IR sensor will turn the mic on or off. When you are within this distance the IR sensor will turn the mic on. Choose from 3, 6, or 9 feet.
3. Using the Phantom Tool, press the **RANGE** button momentarily and you will see the **red** LED flash. This indicates the current setting. Factory default setting is 6 feet, indicated by two quick flashes.
4. Press the **RANGE** button again and you can cycle through the three range settings: 3 (one flash), 6 (two flashes), and 9 (three flashes) feet. When you arrive at your desired setting simply wait and that setting will become active when the LED stops flashing. You can verify your setting by repeating Step 2.



IR Gate Setup - Time (Series 2 & 3)

1. Make sure the Phantom is installed as described in “Installing the Phantom” previously.
2. **IR Time Adjust:** Use this to adjust the amount of time it takes the IR Sensor to turn off the mic once you move outside the IR Range as described on the previous page. **NOTE:** The timer does not start until you are completely outside the IR Range.
3. Using the Phantom Tool, press the **TIME** button momentarily and you will see the **red** LED flash. This indicates the current setting. Factory default setting is 10 seconds, indicated by two quick flashes.
4. Press the **TIME** button again and you can cycle through the three range settings: 5 (one flash), 10 (two flashes), and 15 (three flashes) seconds. When you arrive at your desired setting simply wait and that setting will become active when the LED stops flashing. You can verify your setting by repeating Step 2.



IR Gate Setup - Disable

(Series 2 & 3)

1. You can disable this Gate function by simply unplugging the sensor's jack from the Phantom. The LED will now be green. **GP**
2. You can also disable the IR Gate by removing the security cover and pushing and holding the IR **TIME** button for 3 seconds. The **amber** LED will flash two times to indicate "disabled" and one time to indicate "enabled." These settings toggle each time you press and hold the IR **TIME** button.
7. You can also re-enable the IR Gate by unplugging and replugging the sensor while the mic is turned on (green LED lit). This will defeat any setting you made using the **GP** IR button.
8. NOTE: The mic stays on continuously when the IR Gate is disabled.

Tips and Troubleshooting **GP+HH**

1. **Reset:** If for any reason you need to return the Phantom IR settings to the factory default settings, use the Phantom tool and push both IR buttons simultaneously for 3 seconds.
2. **Distortion:** If you hear any distortion try lowering (turn counter-clockwise) the Phantom's Sensitivity (SEN) setting. You can also try increasing the Proximity setting (PROX) by turning the control clockwise.
3. **Gain:** If there appears to be too much gain reduction, try changing the PROX setting, or you may need to increase the gain on your mixer.
3. **IR Sensor installation:** If you plug in the sensor after the Phantom is installed and powered up, the sensor will not function (the mic is always on) for about 18 seconds. If you plug in the sensor first, then power the Phantom, the sensor works immediately. If the IR sensor is not working, check to make sure you have not disabled it (See page 19).
4. **Red or green LED cycles on and off.** This indicates a problem with the phantom power source. The voltage or amperage be too low, or there may be a problem with your cable. See the following page information on power requirements.

Specifications

- Minimum phantom power requirement:
 - Series 2: 20V @ 3mA
 - Series 3: 15V @ 1 mA
- Frequency Response: +/-1.5dB (30Hz to 20kHz)
- Dynamic Range: 115dB typ (unweighted)
- Distortion: < 0.05% @ 1kHz
- Propagation Delay: 0 ms
- Audio connector: 3-pin XLR
- Input Resistance: 20k Ohm
- IR Sensor Detection Range: approximately 3, 6, or 9 feet
- IR Sensor Time to turn off: approximately 5, 10, or 15 sec
- Dimensions: 2.5" x 1.6" x 1.2" (6.4 cm x 4 cm x 3 cm)

The Phantom Mic Rider works with phantom power sources that conform to industry standards (DIN standard 45 596 or IEC standard 268-15A). Devices that do not conform can be modified to meet the standard, or external phantom power supplies can be used.

Specifications subject to change without notice.

ONE-YEAR LIMITED WARRANTY:

THIS LIMITED WARRANTY VALID ONLY WHEN PURCHASED AND REGISTERED IN THE UNITED STATES OR CANADA. ALL EXPORTED PRODUCTS ARE SUBJECT TO WARRANTY AND SERVICES TO BE SPECIFIED AND PROVIDED BY THE AUTHORIZED DISTRIBUTOR FOR EACH COUNTRY.

ONE-YEAR LIMITED WARRANTY

SABINE, INC. ("SABINE") warrants this product to be free from defects in material and workmanship for a period of one (1) year from date of purchase PROVIDED, however, that this limited warranty is extended only to the original retail purchaser and is subject to the conditions, exclusions and limitations hereinafter set forth:

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These limited warranties shall be void and of no effect if:

- a. The first purchase of the product is for the purpose of resale; or
- b. The original retail purchase is not made from an AUTHORIZED SABINE DEALER; or
- c. The product has been damaged by accident or unreasonable use, neglect, improper service or maintenance, or other causes not arising out of defects in material or workmanship; or
- d. The serial number affixed to the product is altered, defaced or removed; or
- e. The power supply grounding pin is removed or otherwise defeated. In the event of a defect in material and/or workmanship covered by this limited warranty, Sabine will repair the defect in material or workmanship or replace the product, at Sabine's option; and provided, however, that, in any case, all costs of shipping, if necessary, are paid by you, the purchaser.

THE WARRANTY REGISTRATION CARD SHOULD BE ACCURATELY COMPLETED, MAILED TO AND RECEIVED BY SABINE WITHIN FOURTEEN (14) DAYS FROM THE DATE OF YOUR PURCHASE.

In order to obtain service under these warranties, you must:

- a. Bring the defective item to any AUTHORIZED SABINE DEALER and present therewith the ORIGINAL PROOF OF PURCHASE supplied to you by the AUTHORIZED SABINE DEALER in connection with your purchase from him of this product. If the DEALER is unable to provide the necessary warranty service, you will be directed to the nearest other SABINE AUTHORIZED DEALER which can provide such service. **OR**
- b. Call Sabine for a RETURN AUTHORIZATION NUMBER and ship the defective item, prepaid, to:
SABINE, INC. 13301 HIGHWAY 441

ALACHUA, FL 32615-8544 USA

including therewith a complete, detailed description of the problem, together with a legible copy of the original PROOF OF PURCHASE and a complete return address. Upon Sabine's receipt of these items:

If the defect is remedial under the limited warranties and the other terms and conditions expressed have been complied with, Sabine will provide the necessary warranty service to repair or replace

the product and will return it, FREIGHT COLLECT, to you, the purchaser.

Sabine's liability to the purchaser for damages from any cause whatsoever and regardless of the form of action, including negligence, is limited to the actual damages up to the greater of \$500.00 or an amount equal to the purchase price of the product that caused the damage or that is the subject of or is directly related to the cause of action. Such purchase price will be that in effect for the specific product when the cause of action arose. This limitation of liability will not apply to claims for personal injury or damage to real property or tangible personal property allegedly caused by Sabine's negligence. Sabine does not assume liability for personal injury or property damage arising out of or caused by a non-Sabine alteration or attachment, nor does Sabine assume any responsibility for damage to interconnected non-Sabine equipment that may result from the normal functioning and maintenance of the Sabine equipment.

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