

**TRUE MOBILITY™**  
WIRELESS SYSTEMS

# UHF/VHF Antenna Divider Operating Guide

for models:

**SWA4U**

**SWA4V**

**Version 1.1**

## Table of Contents

Introduction .....	3
General information on antenna placement .....	3
Components .....	3
Installation Connections .....	4
General Installation Cautions .....	4
Installation Diagrams .....	5
Cautions & Warranty .....	6
Limited Warranty .....	7



## Introduction

Operating Guide for Antenna Divider Systems for the Sabine True Mobility Wireless Systems: SWM3000 UHF 30-channel True Diversity Receiver (SWA4U) and SWM1600 VHF 16-channel True Diversity Receiver (SWA4V).

Your Sabine Antenna Divider features very low inter-modulation distortion, high dynamic range and low noise components, and eliminates interference in multiple system usage.

Please refer to your True Mobility Receiver Operating Guide for important information about the correct setup of your receiver.

## General information on antenna placement

The Antenna Divider should be placed in an open area within visual range of the intended microphone locations. Note that the range of a True Mobility transmitter is about 100 meters, but that structural objects can lessen that range. Extension antennas can be added to maintain good reception even when the antenna divider is located far from the transmitters.

## CAUTIONS

- ▲ Since the installation of the antennas influences the operating efficiency of the receiver, the most important rule is to minimize the distance between receiving antenna and transmitter for better reception and performance.
- ▲ Keep the system away from electrical-noise sources (electric motors, refrigerators, arc welders, etc.). Place the antenna divider at least one meter above floor level. Keep all transmitters at least 3 meters away from a receiver antenna.

Your Antenna Divider can be installed into an EIA standard rack-mount case using the rack-mount brackets provided. Sabine also offers Rear-to-Front Antenna Converter Kits (SWA100), UHF or VHF Extension Antennas (SWAUEXT, SWAVEXT), and a UHF Extension Antenna Boosters (SWAUB) to improve reception.

## Components

This antenna divider will allow you to connect up to 4 Sabine SWM3000 UHF receivers (SWA4U) or 4 Sabine SWM1600 VHF receivers (SWA4V) to one set of antennas — thus alleviating the “porcupine effect” of multiple-receiver antenna placement — and improving reception as well. This setup can be combined with the Sabine UHF Extension Antennas (SWAUEXT) or the Sabine VHF Extension Antenna (SWAVEXT) for additionally improved reception. Extension antennas must be purchased separately.

## Included in SWA4U and SWA4V kits

<b>Qty</b>	<b>Item Description</b>
8	Signal Cable Lines 40 cm (TNC)
2	Rack Mount Brackets
1	AC-to-DC Power Adapter
1	Instruction Manual

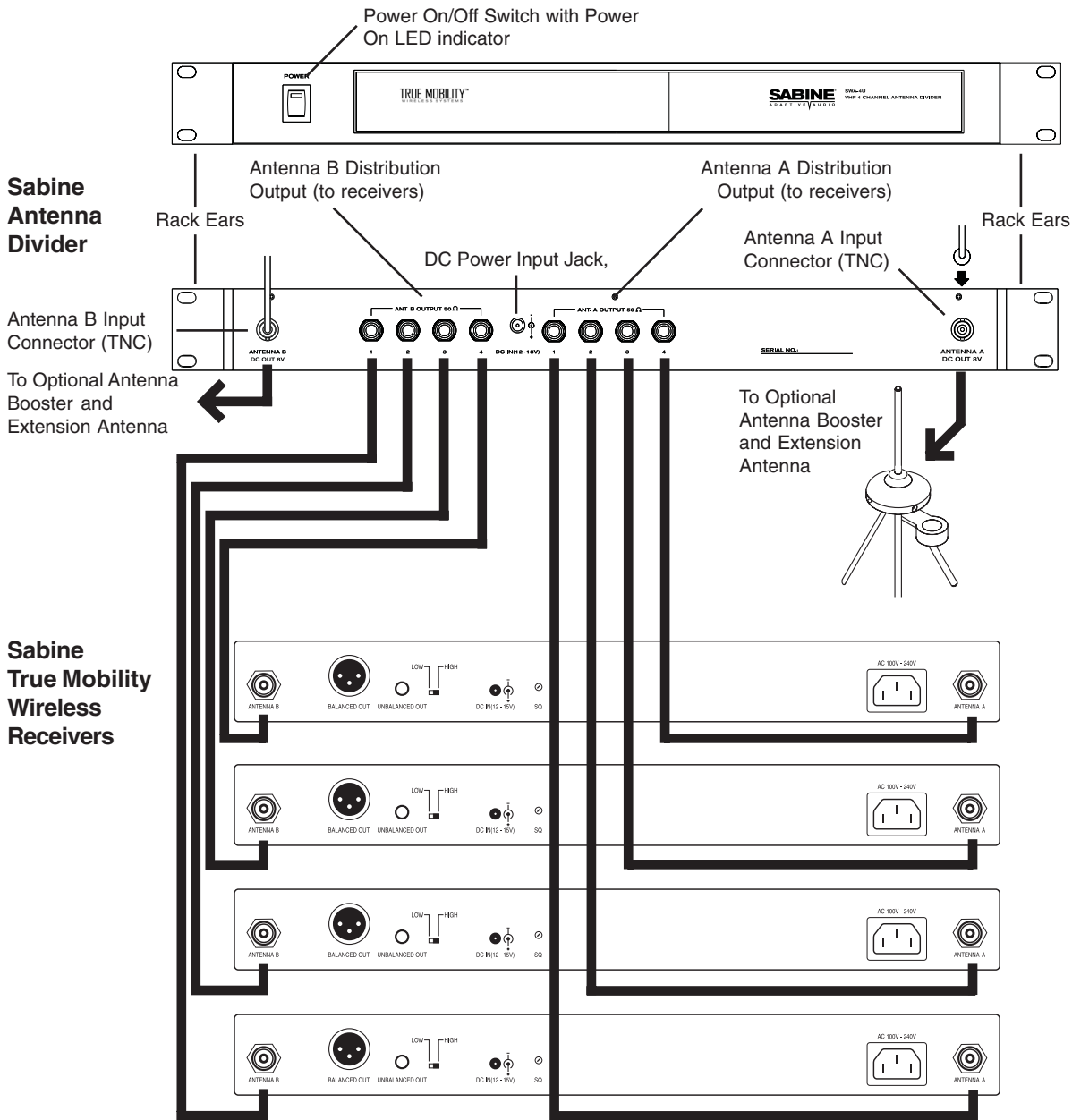
## Installation Connections

1. Using rack mount brackets supplied, install the Sabine Antenna Divider into an EIA standard cabinet (this step is optional).
2. Attach the two antennas supplied with your receiver to the A and B Antenna Input Connectors on the back of the Antenna Divider. To improve reception, you can replace the supplied antennas with Sabine Extension Antennas (UHF: SWAUEXT or VHF: SWAVEXT).
3. Using the supplied cables, connect the #1 A and B Antenna Outputs on the Antenna Divider to the corresponding Antenna A and B TNC connectors on your #1 Sabine Wireless Receiver. Proceed in the same fashion for the remaining Sabine Wireless units.
4. Plug the AC-to-DC Power Adapter cord into the DC Power Input Jack on the back of the Antenna Divider. Plug the adapter into an appropriate AC power source (see Caution #1 below).
5. Turn on Power switch.

## General Installation Cautions

1. **Power Supply:** Be sure to plug your unit into an appropriate power source. Low voltage (<12 Volt) will cause the unit not to function properly. High voltage (>18 volt), or fluctuating voltage may damage the unit.
2. **UHF/VHF Mixing:** Do not mix UHF and VHF receivers on one Antenna Divider. For UHF reception, use a Sabine SWA4U Antenna Divider. For VHF reception, use a Sabine SWA4U Antenna Divider.
3. **Antenna Shorting:** Be careful not to allow the antenna to come in contact with metal surfaces (antenna divider case, other wires, cables, etc.).
4. **Receiver to Antenna Divider cables:** Keep these cables as short as possible. It is recommended to use the cables supplied with your Antenna Divider.
5. **Extension Antenna cables:** For best results, use high quality coaxial cable with a 50 Ohm impedance. Specifications will vary by cable manufacturer. For best results, the cable attenuation should be no more than 6 dB per 100 feet (30 meters) in the transmitter/receiver band. Examples of such cables are RG217/U for UHF and RG58/U for VHF. The longer your cable, the more you can subtract from the 100-meter range between transmitter and receiver antenna. A well-placed extension antenna will eliminate trouble spots and generally improve overall performance of the wireless.

## Installation Diagrams



## Cautions & Warranty

Warning! This equipment must be earthed.

Caution! Risk of electric shock. Do not open.

Caution! Shock hazard. Do not remove covers. No user serviceable parts inside. Refer servicing to qualified service personnel.

Warning! To reduce the risk of fire or electric shock, do not expose this product to rain or moisture.

Attention! Cet appareil doit être relié à la terre.

Attention! Risque de choc électrique; ne pas ouvrir.

Attention! Risque de choc; ne pas ôter les capots. Aucune pièce accessible à l'intérieur. S'adresser à un technicien qualifié.

Attention! Pour réduire le risque d'incendie ou de choc électrique, ne pas laisser l'appareil sous la pluie ou à l'humidité.

Achtung! Dieses Gerät muss schutzgeerdet sein.

Achtung! Gefahr eines elektrischen Stromschlags. Gehäuse nicht öffnen.

Achtung! Gefahr eines elektrischen Stromschlags. Gehäuse nicht öffnen.

Keine von Benutzer zu bedienenden Teile im Geräteinneren.

Überlassen Sie das Gerät zu Servicezwecken nur geschultem Fachpersonal.

Um Brandgefahr oder das Risiko eines elektrischen Schlags auszuschließen, das Gerät vor Nässe und Feuchtigkeit schützen.

Advertencia! Este equipo debe estar conectado a tierra.

Precaución! Riesgo de descarga eléctrica. No abrir.

Precaución! Riesgo de descarga eléctrica. No desmontar las tapas. Piezas interiores no reparables por el usuario. Reparable sólo por personal cualificado.

Advertencia! Para reducir el riesgo de incendio o de descarga eléctrica no exponga este producto a la lluvia o humedad.

### FCC Statement:

This device complies with Part 15, Class B, of the FCC Rules. Operation is subject to the following conditions: (1) This device may not cause harmful interference; and (2) This device must accept any interference received, including interference that may cause undesired operation. *Warning:* Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio TV technician for help.

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la class B prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.



The Sabine Antenna Divider is designed to operate from standard AC power. Please be sure the power in your area is compatible with the power requirements marked on the rear of the unit. Using the wrong input voltage may cause permanent damage to the unit and will void the warranty.

The True Mobility Wireless Microphone system is supplied with one of the following AC/DC adapters:

Japan	100 VAC
U.S./North America	120 VAC
Continental Europe	230 VAC
United Kingdom	240 VAC
Australia	240 VAC

1. Read all safety and operating instructions before using this product.
2. All safety and operating instructions should be retained for future reference.
3. Obey all cautions in the operating instructions and on the unit.
4. All operating instructions should be followed.
5. Use only shielded audio and data cables.
6. This product should not be used in the presence of moisture or rain, or near any water, i.e., a bathtub, sink, swimming pool, wet basement, etc.
7. This product should be located so that its position does not interfere with proper ventilation. Do not use in direct sunlight. Do not place flat against a wall or in a built-in enclosure that will impede the flow of cooling air.
8. This product should not be placed near a source of heat such as a stove or radiator.
9. Connect only to a power supply of the type marked on the unit adjacent to the power entry module.
10. Never break off the ground pin on the power supply cord.
11. Power supply cords should always be handled carefully. Never walk or place equipment on power supply cords. Periodically check cords for cuts or signs of stress, especially at the plug and the point where the cord exits the unit.
12. The power supply cord should be unplugged when the unit is to be unused for long periods of time.
13. Care should be taken so that objects do not fall and liquids are not spilled into the unit through the ventilation holes or any other openings.
14. This unit should be checked by a qualified service technician if:
  - A. The power supply cord or plug has been damaged.
  - B. Anything has fallen or been spilled into the unit.
  - C. The unit does not operate correctly.
  - D. The unit has been dropped or the enclosure damaged.
15. The user should not attempt to service this equipment. All service work should be done by a qualified service technician.

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. Ces clauses de garantie ne sont valables qu'aux Etats-Unis et au Canada. Dans tous les autres pays, les clauses de garantie et de maintenance sont fixées par le distributeur national et assurées par lui selon la législation en vigueur. Diese Garantie ist nur in den USA und Kanada gültig. Alle Export-Produkte sind der Garantie und dem Service des Importeurs des jeweiligen Landes unterworfen. Esta garantía es válida solamente cuando el producto es comprado en E.U. continentales o en Canada. Todos los productos que sean comprados en el extranjero, están sujetos a las garantías y servicio que cada distribuidor autorizado determine y otorga en los diferentes países.

#### ONE-YEAR LIMITED WARRANTY/REMEDY

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:

**CONDITIONS, EXCLUSIONS AND LIMITATIONS OF LIMITED WARRANTIES**  
These limited warranties shall be void and of no effect if:

- The first purchase of the product is for the purpose of resale; or
- The original retail purchase is not made from an AUTHORIZED SABINE DEALER; or
- 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
- The serial number affixed to the product is altered, defaced or removed; or
- 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. Ship the defective item, prepaid, to:

SABINE, INC.  
13301 NW US HIGHWAY 441  
ALACHUA, FL 32615-8544

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.

UNDER NO CIRCUMSTANCES WILL SABINE BE LIABLE FOR ANY LOST PROFITS, LOST SAVINGS, ANY INCIDENTAL DAMAGES OR ANY CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PRODUCT, EVEN IF SABINE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

THESE LIMITED WARRANTIES ARE IN LIEU OF ANY AND ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR USE; PROVIDED, HOWEVER, THAT IF THE OTHER TERMS AND CONDITIONS NECESSARY TO THE EXISTENCE OF THE EXPRESS LIMITED WARRANTIES, AS HEREIN ABOVE STATED, HAVE BEEN COMPLIED WITH, IMPLIED WARRANTIES ARE NOT DISCLAIMED DURING THE APPLICABLE ONE-YEAR PERIOD FROM DATE OF PURCHASE OF THIS PRODUCT.

SOME STATES DO NOT ALLOW LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS, OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU. THESE LIMITED WARRANTIES GIVE YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH MAY VARY FROM STATE TO STATE.

THESE LIMITED WARRANTIES ARE THE ONLY EXPRESS WARRANTIES ON THIS PRODUCT, AND NO OTHER STATEMENT, REPRESENTATION, WARRANTY OR AGREEMENT BY ANY PERSON SHALL BE VALID OR BINDING UPON SABINE.

In the event of any modification or disclaimer of express or implied warranties, or any limitation of remedies, contained herein conflicts with applicable law, then such modification, disclaimer or limitation, as the case may be, shall be deemed to be modified to the extent necessary to comply with such law.

Your remedies for breach of these warranties are limited to those remedies provided herein, and Sabine gives this limited warranty only with respect to equipment purchased in the United States of America.

#### INSTRUCTIONS-WARRANTY REGISTRATION CARD

1. Mail the completed WARRANTY REGISTRATION CARD to:

SABINE, INC.  
13301 NW US HIGHWAY 441  
ALACHUA, FL 32615-8544

a. Keep the PROOF OF PURCHASE. In the event warranty service is required during the warranty period, you will need this document. There will be no identification card issued by Sabine, Inc.

2. IMPORTANCE OF WARRANTY REGISTRATION CARDS AND NOTIFICATION OF CHANGES OF ADDRESS:

a. Completion and mailing of WARRANTY REGISTRATION CARDS - Should notification become necessary for any condition that may require correction, the REGISTRATION CARD will help ensure that you are contacted and properly notified.

b. Notice of address changes - If you move from the address shown on the WARRANTY REGISTRATION CARD, you should notify Sabine of the change of address so as to facilitate your receipt of any bulletins or other forms of notification which may become necessary in connection with any condition that may require dissemination of information or correction.

3. You may contact Sabine directly by telephoning (386) 418-2000.

4. Please have the Sabine product name and serial number available when communicating with Sabine Customer Service.

MADE IN TAIWAN and USA  
Manufactured by: Sabine, Inc.  
13301 NW US Highway 441  
Alachua, Florida 32615-8544 USA  
Phone: (386) 418-2000 • Fax: (386) 418-2001

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

**SABINE**<sup>®</sup>  
ADAPTIVE AUDIO

FBX and FBX Feedback Exterminator are registered trademarks of Sabine, Inc., and are the brand names of its line of automatic feedback controllers. Covered by U.S. Patent No. 5,245,665, Australian Patent No. 653,736, Canadian Patent No. 2,066,624-2, German Patent No. 691 18486.0, and U.K. Patent No. 0486679. Other patents pending. GRAPHI-Q, POWER-Q, REAL-Q, and REAL-Q2 are trademarks of Sabine, Inc.

Copyright 2002 All rights reserved.