

# Sigtronics SWS Wireless Headset System

**Models: SWS-4, SWS-6, SWS-12, and SWS-M**

## INSTALLATION AND OPERATING INSTRUCTIONS



### INTRODUCTION

**ATTENTION INSTALLER:** To assure a trouble free installation, please read these entire instructions through once before beginning.

The Sigtronics SWS Wireless Headset System, when used with a Sigtronics intercom, provides an emergency apparatus crew member with clear, hands free, voice activated (VOX) intercom. The system also allows full radio monitoring as well as radio transmit capability from the headset via a Radio-Push-To-Transmit (RPTT) switch.

**Applications:** The unit is designed for fire apparatus, rescue and ambulance vehicles, marine emergency equipment, airport ground vehicles, and mobile emergency command centers.

Model	Headset	Base Unit	Description
SWS-4	SE-9	SWB-4	For UltraSound US-45 Intercoms.
SWS-6	SE-9	SWB-6	For UltraSound US-67 Intercoms.
SWS-12	SE-9	SWB-12	For UltraSound US-12 Intercoms.
SWS-M	SE-9	SWB-M	For MRIM-2 Interface Module.

### Standard Equipment Included

Each Wireless System comes complete with the following:

SE-9 Headset .....	1
SWB Base Unit .....	1
Headset Charger P/N 800234 .....	1
Cable Clamp P/N 100872 .....	1
Mounting Screws, Base Unit & Cable Clamp P/N 100452 .....	5



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## SYSTEM INSTALLATION

**Base Unit Placement.** There are a few factors to consider when selecting a mounting location for the Wireless Base Unit:

The base unit to headset signal will be strongest when the base unit is placed in an exposed position – not tightly closed in by metal. This could be on top of the dash, on top of the UltraSound intercom, or attached to the over head console.

1. The unit should be placed in such a way that the cable on the unit can be easily connected in-line with the UltraSound intercom P1 – J1 connector.
2. The location selected requires a minimum area of 2" high by 5" wide by 3" deep. Verify that the base unit and cables will not interfere with the normal operation of any vehicle controls or the operation of vehicle compartment doors.
3. Set the base unit in the selected area and mount with four of the hex head self drilling screws. For most applications\* these screws can be installed with no pre drilling. Just power in the screws with a standard electric driver with a 5/16" hex bit.

**Charger Power Connection and Mounting.** The charging unit will run on 11-16 VDC. Select a location for the charger that is accessible to the SE-9 headset for charging.

1. Verify that the charger and cable will not interfere with the normal operation of any vehicle controls or the operation of vehicle compartment doors.
2. Make sure that the vehicle power is turned off before connecting the charger power wire. Connect the Red wire to +12V power through the 1 amp fuse. Connect the green wire to the vehicle chassis ground. Coil the fuse and excess wire. Secure out of the way – such as in the head liner.
3. Place the cable clamp in the selected area and mount with the hex head self drilling screw. For most applications\* this screw can be installed with no pre drilling. Just power in the screw with a standard electric driver with a 5/16" hex bit.

*\* No pre drilling required for aluminum and steel. 1/8" inch pilot hole will still be required with some stainless steels.*

## SYSTEM OPERATION

**Headset.** Adds a headset position to the existing intercom - **does not** disable any existing wired headset position. The wired headset PTT's work as before. Pressing a wired PTT button sends out the corresponding wired headset mic audio to the radio and mutes all the other microphones.

Pressing the SE-9 wireless PTT sends the wireless mic audio out to the radio and mutes all the other headset mics on the intercom.

The wireless Base Unit is electrically tied to the Drivers headset position. If the drivers wired PTT and the SE-9 wireless PTT are pressed at the same time the SE-9 wireless mic takes priority.

Unplug the charger from the wireless headset before use.

**To turn the headset on** – The headset will automatically turn on when placed on the head. The Intercom on the vehicle also has to be on and powered up. Link time between the headset and base unit is 5 to 7 seconds after the headset turns on.

**To turn the headset off** – Take headset off of your head. The headset will automatically turn off after about 2 minutes.

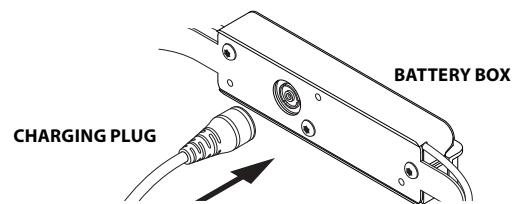
To adjust for differences in hearing, the headset has a limited range volume control just like Sigtronics wired headsets.

Control intercom volume and squelch as normal via the intercom controls. Control the radio's volume with the radio volume controls as normal.

**Radio PTT Switch.** The radio PTT button is located on the lower back part of the right cup. While wearing the headset, put your right hand finger tips on the word SIGTRONICS on the right ear cup. Your thumb should easily find the PTT button.

The headset has a range of up to 300 ft. from the base unit.

**Batteries.** Any AA size batteries may be used in the headset. **Only** Nickel Metal Hydride (NiMH) rechargeable batteries are approved for use with the Sigtronics charger.



**Charging.** Verify that approved rechargeable batteries are in the unit. The end of the Charging Tube changes color to indicate the state of the batteries charge. When plugged into headset:

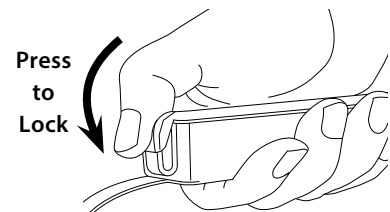
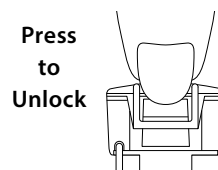
**Blue:** Means charging. (Takes about 2.75 hours to charge from dead batteries to fully charged). Note that the charger tube gets warm during charging, this is normal. You may leave the charger plugged in as long as you need to as the charger shuts down when the batteries are charged.

**Green:** Means charged.

**Red:** May indicate a battery problem. Verify that the proper rechargeable batteries are in the unit. Unplug and plug back in. If after 2 or 3 tries, the indicator is still red, one or both batteries may have failed. Replace.

**Off:** Charger lost power, is not plugged into the wireless headset, batteries are in backwards, or no batteries installed.

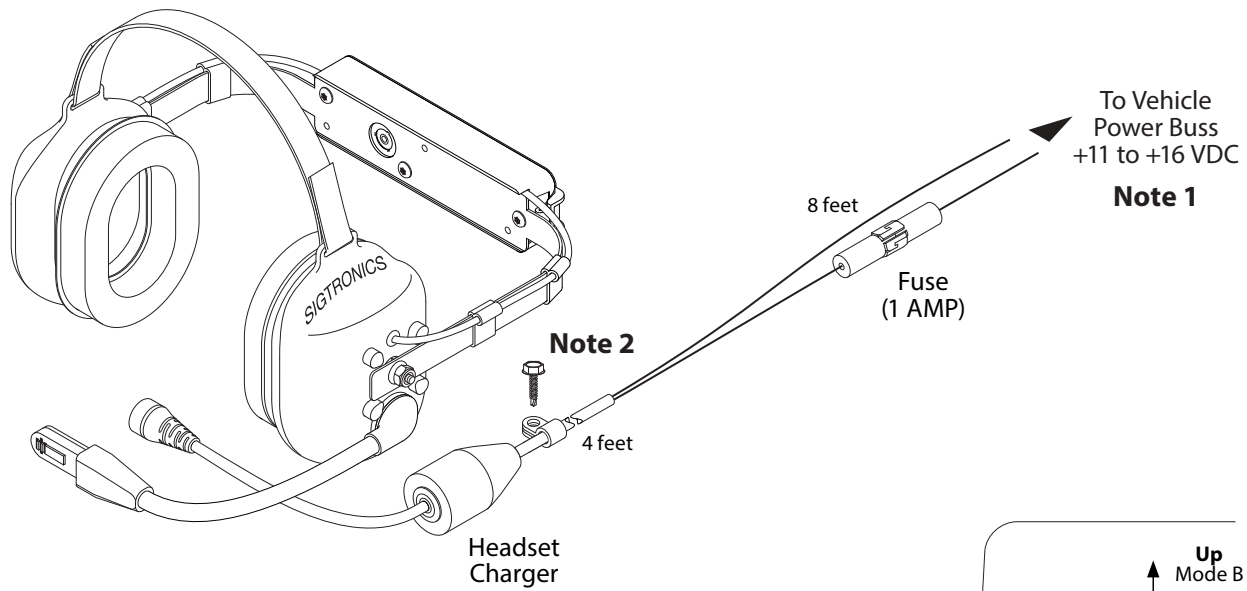
### Battery Box Door



**Battery Life.** The batteries will last about 30 hours starting at a full charge. Charging once a day should be all that is needed.

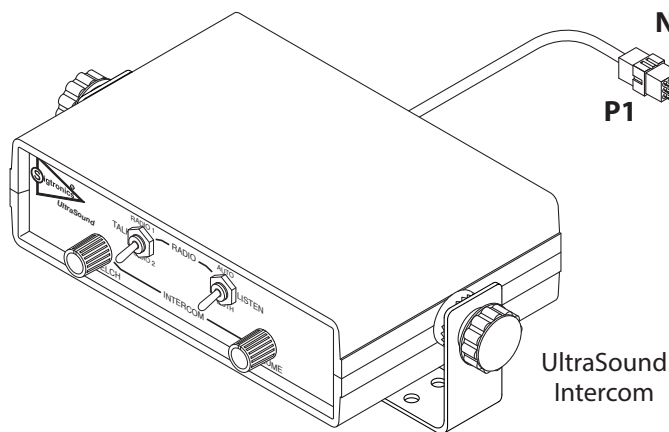
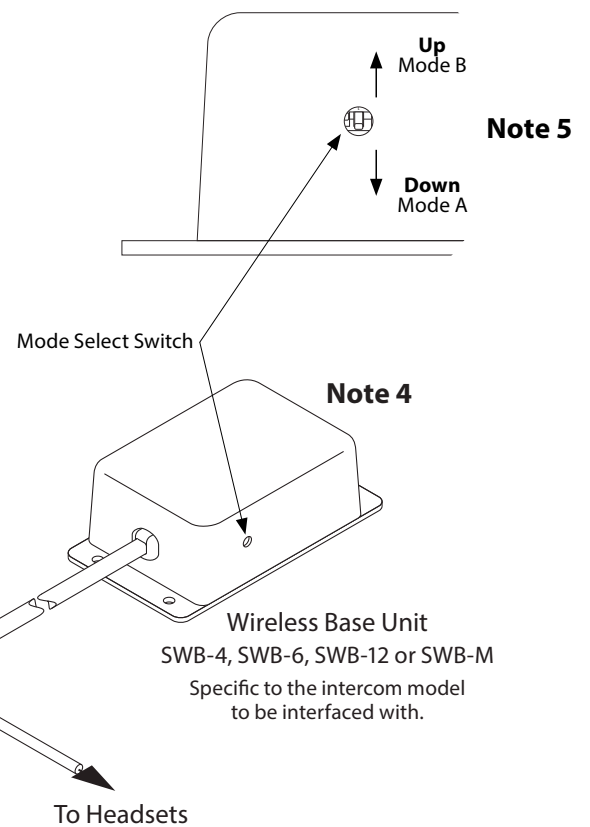
**Low Battery Indication.** A low battery warning tone is heard in the headset if batteries are getting low. The tone repeats at faster intervals as battery charge gets lower and lower. The headset turns off if batteries are about to get too low.

## SE-9 Headset

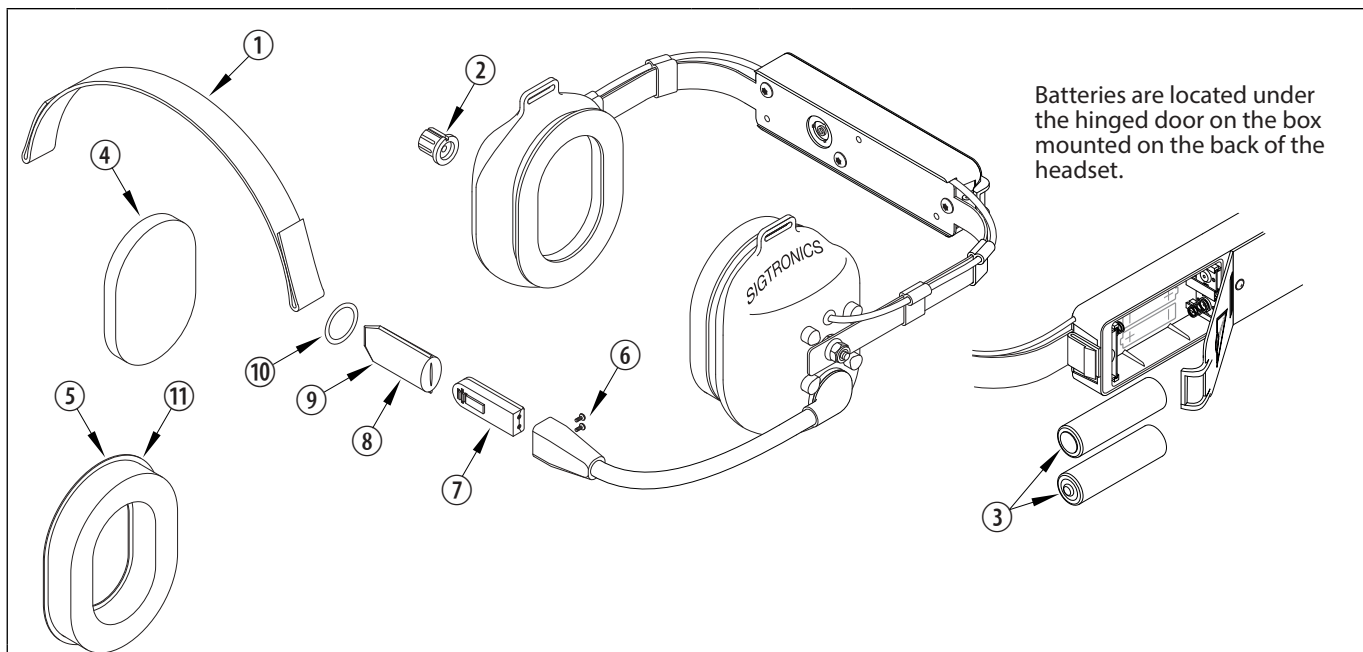


### Notes:

1. Connect the Red wire to +12V power through the 1 amp fuse as shown. Coil the excess wire and fuse. Secure out of the way.
2. Securely attach the headset charger cord with the supplied cable clamp and screw.
3. Unplug **P1-J1** of UltraSound unit and plug the Wireless Base Unit in-line.
4. Wireless Base Unit placement. The base unit to headset signal will be strongest when the unit is placed in an exposed position. Try to locate the base unit so as to avoid any close proximity to metal. (Mounting plate excepted.)
5. In Mode A the wireless headset will not hear what the drivers is saying while the drivers wired PTT is pressed. In Mode B the wireless headset will hear the drivers PTT audio.



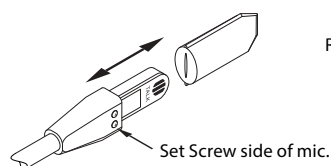
Base Unit Mode Select Switch	In the SE-9 headset you will hear Radio(s) and Intercom	Simulated Sidetone is:	NOTES
<b>Down</b> Mode A	Not Transmitting – <b>Yes</b>	On	Hot mic, no squelch. Will <b>not hear</b> the driver while the drivers wired PTT is pressed.
	During Transmit – <b>No</b>	On	No radio receive, transmit tones or 2nd radio audio during transmission.
<b>Up</b> Mode B	Not Transmitting – <b>Yes</b>	On	Hot mic, no squelch. Will hear the driver while the drivers wired PTT is pressed.
	During Transmit – <b>Yes</b>	Off	Audio Delay for Sidetone – echo.



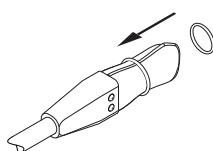
### SIGTRONICS SE-9 HEADSET PARTS IDENTIFICATION BREAKDOWN

ITEM	P/N	DESCRIPTION	ITEM	P/N	DESCRIPTION
1	100411	STRAP, HEADSET, SE-9, BLACK	7	M-83	M-83 MICROPHONE
2	100769	KNOB, 1/2 INCH, BLACK, VOLUME	8	900084	WINDSCREEN, MICROPHONE, FOAM, PACKAGED
3	100889	BATTERY, NICKEL METAL HYDRIDE, AA	9	100415	WINDSCREEN, MICROPHONE, FOAM, BULK
4	100379	FOAM, SOUND ATTENUATING, RECEIVER COVER, 1/4 INCH	10	100612	O-RING, WINDSCREEN RETAINER, SE-9
5	100369	EAR SEAL, FOAM FILLED	11	100402	OPTIONAL – EAR SEAL, GEL FILLED
6	100778	MICROPHONE SETSCREW			

Slide the Windscreen onto or off the mic.



Roll the Windscreen O-Ring onto the mic.



the microphone element from dirt and moisture. The windscreen should be washed regularly to maintain hygiene. Wash in warm water and mild soap. Rinse thoroughly and **make sure it is completely dry** before putting it back on.

To remove the windscreen, roll the o-ring off the mic. Carefully grasp the windscreen lightly along its entire length and remove from the microphone element being careful not to twist the element itself.

Put the windscreen on the microphone by gently pulling from the open end. Do not pull it so tightly that it stretches against the end of the microphone. Carefully roll the o-ring onto the microphone.

**Mode Switch.** The Base Unit for the wireless headset has a Mode Select Switch. This switch allows the user to determine how the SE-9 headset will function. See the table and diagram on page three.

**Warranty.** Your headset is covered by a limited two-year parts and labor warranty. Please see the enclosed warranty card for details.

You may refer to the parts list on page four, if you choose to replace parts yourself. The parts list describes parts for this headset model only. Parts lists for other models are available on our Web Site or can be obtained by contacting Sigtronics Corporation.

**Headset Adjustments.** The head strap is adjustable so you may custom fit the headset. Place the headset over your head and adjust the strap until minimum pressure is felt on the top of your head. For maximum noise attenuation, the clamping pressure of the headband has been set at the factory. Releasing the clamping pressure by bending the headband is **not advised**, because loss of attenuation will result.

**Microphone.** The microphone boom is fully adjustable. **Make sure you are speaking into the side of the mic with the set screws or substantial loss of gain will occur. Microphone placement should be at the corner of the mouth, approximately 1/4" from the lips.**

**Windscreen.** The microphone windscreen will reduce wind noise and breath pops picked up by headset microphone. It also protects



Sigtronics Installation Hot Line Number:

**1-800-367-0977 ext. 8**

Monday through Friday, 8:00 a.m. to 4:30 p.m. Pacific Time

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