

# Systems 2500D and 2510

## Wireless Drive-Thru Audio Systems

### Operating Instructions

14110 Stowe Drive, Poway, CA 92064 USA  
Phone: 1-800-848-4468 Fax: (858) 552-0172

**h m e**

# INTRODUCTION

This manual describes the operation and care of the HME Systems 2500D and 2510 and their components. The base station is the system's control center, while the COM2000 Belt-Pac COMMUNICATOR<sup>®</sup> provides its users two wireless communication channels. The first channel makes it possible for order takers and other personnel to communicate with drive-thru customers while working on other related tasks. The second channel allows personnel wearing Communicators to talk to each other without being heard by customers. The optional MM100 Monitor/Grill Speaker gives personnel in the food preparation area the added advantage of being able to monitor all ongoing communication.

As the equipment is unpacked, check each item against the packing list, with the HME agent who installs your system, to verify receipt of all listed parts and components. After the system has been installed, verify the working condition of all the equipment. Fill out the HME WIRELESS COMMUNICATION SYSTEM INSTALLATION AND ACCEPTANCE VERIFICATION form (enclosed with equipment), and return it immediately to HME.

Read and follow these instructions carefully before operating your Systems 2500D and 2510 equipment. Pay particular attention to items in **bold** or *italicized* print.

## NOTICE:

In the event of an electrical power outage such as from a lightning storm or power generator failure, if you experience problems with your HME equipment after the electricity comes on again, unplug the AC power adapters from their electrical outlets, then plug them back in.

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**The Systems 2500D and 2510 are a type-accepted, wireless radio systems, requiring a Federal Communications Commission station license if operated within the United States or its possessions. The FCC requires the user to apply for this license.**

**This device complies with Part 15 of the FCC rules. Operation subject to condition that this device does not cause harmful interference.**

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## I. IDENTIFYING THE EQUIPMENT

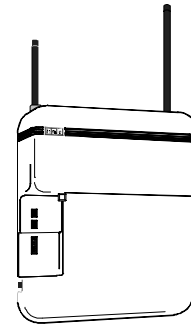
### A. Standard Equipment

The following equipment will be seen and used in routine operation of your Wireless Drive-thru Audio System.

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<b>Base Station</b>	<b>1 ea</b>
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Serves as control center for Systems 2500D and 2510. Wall-mount unit contains circuit boards that provide audio amplification and transmitter/receiver functions. Antennas are mounted on base station circuit board. The base station is powered by a 16 volt adapter, which is available for inputs of 115VAC or 230VAC.

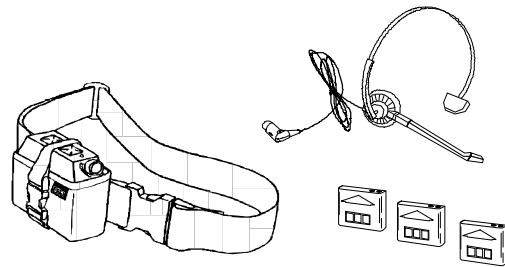


**Figure 1.**

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<b>COM2000 COMMUNICATOR<sup>®</sup></b>	<b>2 ea</b>
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Consists of belt and pouch, Communicator, battery and headset. Three extra batteries are included with each system.

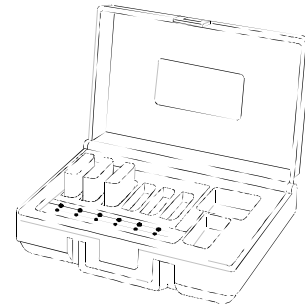


**Figure 2.**

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<b>AC2000 Battery Charger</b>	<b>1 ea</b>
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Charges as many as six Communicator batteries at the same time. The battery charger is powered by a 16 volt adapter, which is available for inputs of 115VAC or 230VAC.

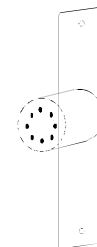


**Figure 3.**

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<b>Face-to-face Microphone (Included only with System 2510)</b>	<b>1 ea</b>
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Mounts in cashier booth window mullion. When drive-thru customers talk into this microphone, they can be heard by all personnel wearing Communicators.



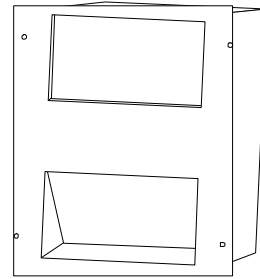
**Figure 4.**

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**SP2000D Full-duplex Speaker**                      **1 ea**  
**(Included only with System 2500D)**

Mounts in outdoor speaker post or information board. This full-duplex speaker/microphone assembly is the unit through which the drive-thru customer talks and listens.

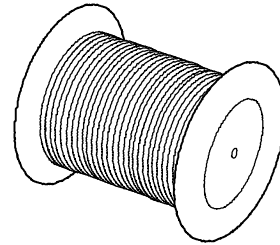


**Figure 5.**

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**CBL100 Cable**                      **2 ea with System 2500D;**  
   **1 ea with System 2510**

Connects outdoor speaker, vehicle detector, and indoor speaker to wall-mounted base station.



**Figure 6.**

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## **B. Optional Equipment**

The following optional equipment is available for use with your System 2500D or 2510. To order any of these products, call the HME Sales Department at (619) 535-6060.

Description	Model No.
Antenna (Remote)	ANT3000
Antenna Diversity System	AD3000
Battery, Spare for COMMUNICATOR®	
Belt Extender	BE20B
Emergency Backup System	EMG2000
Emergency Backup System	EMG3000
Headset, Lightweight	HS3, HS5
Headset Earmuff	
Headset Earmuff and Microphone Cap	
Lapel Microphone with Earpiece	HS4
Monitor/Grill Speaker	MM100
Pocket Receiver (Battery Operated)	PR5
Portable Receiver (Battery Operated)	PR6
Ultrasonic Vehicle Detector	DU1
Vehicle Detector Board	VDB100
Vehicle Detector Loop (Underground)	VDL100

## II. CHARGING THE BATTERIES

### A. When to charge the batteries

#### 1. New batteries

All new batteries are charged before they leave the factory, and will still have a partial charge if they have not been in storage for a long time. However, it is recommended that new batteries be placed in the AC2000 Battery Charger to be certain they are fully charged before they are used. Follow the instructions inside the battery charger case.

#### 2. Weak batteries

When a fully charged battery is in the COMMUNICATOR<sup>®</sup>, the red ON/POWER light on top of the Communicator will be lit. This light only indicates the power is on, it does not indicate how much power is left in the battery. As a battery weakens during routine use, the voice you hear in the headset or speaker will fade or completely disappear, indicating the battery needs to be recharged. When this happens, remove the battery from the Communicator and place it in the battery charger. Replace it with a fully charged battery.

**NOTE: Do not charge a battery until it begins to weaken, or you will shorten its life and lessen its ability to hold a charge.**

### B. How to remove and install batteries

#### 1. Removal

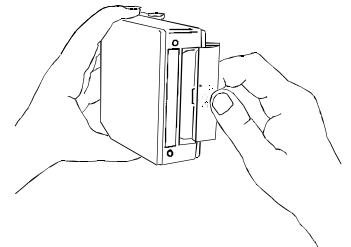
**CAUTION: Turn Communicator OFF!**

**To prevent damage to the Communicator, be certain the OFF/VOLUME control is in the OFF position, completely counterclockwise, before removing or installing batteries.**

To remove the battery, release the strap which holds the Communicator in its pouch by squeezing together the catches on either side of the buckle, and lift the Communicator out of its pouch. Press down with your thumb on the battery cover release grid on the bottom of the Communicator, sliding back to release the cover from the battery compartment. Invert the Communicator to empty the battery into your hand.

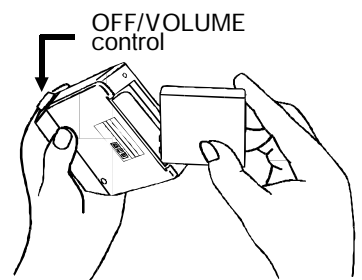
#### 2. Installation

Installation of the battery is simply the opposite of its removal. Insert the battery into the battery compartment with the arrow pointing toward the opening. Hold the battery in, and slide the compartment cover into the grooves on either side of the compartment opening until its catch clicks securely in place.



**Opening the battery compartment**

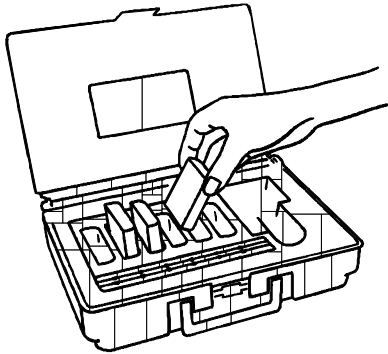
**Figure 7.**



**Installing the battery**

**Figure 8.**

### C. How to charge the batteries



Placing battery into  
AC2000 Battery Charger

Figure 9.

Find a suitable location for your AC2000 Battery Charger in a low-traffic area, away from dust or splashing water and grease. Plug the AC adapter cord into the connector on the back of the case, and plug the adaptor into an AC electrical outlet. You may place up to six batteries in the charger at once. As each battery is placed in the charger, the red CHARGING light on the panel in front of the battery will light, indicating it is charging. When a battery is fully charged, the green READY light on the panel in front of it will light.

**CAUTION:** *Do not remove batteries from the battery charger until the green READY light is lit, or the charger will reset.*

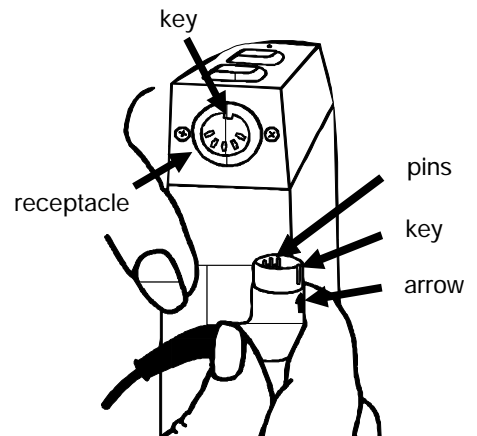
## III. WEARING THE COMMUNICATOR<sup>®</sup>

With the Communicator in its pouch and the strap buckled over it, locate the headset receptacle on its top corner. Align the key and pins of the headset connector with the receptacle, and plug the connector into the receptacle.

**NOTE:** *Do not wiggle or twist the headset connector when installing or removing it.*

Put the COM2000 around your waist, with the Communicator in front of either hip, so the OFF/VOLUME control and ON/POWER light are toward the front. Fasten the belt tightly enough so it will not move around on your waist.

Place the headset on your head with the earphone on your ear and the cord behind your shoulder. Fasten the cord clips to your clothing, behind your back. Adjust the headset band until it fits comfortably and securely. Position the microphone approximately two inches in front of your mouth. See Figure 11, page 5.



Aligning the  
headset connector

Figure 10.

## IV. OPERATING THE SYSTEM

Anyone wearing a COM2000 COMMUNICATOR<sup>®</sup> can have two-way conversation with drive-thru customers. Everyone wearing Communicators can hear the conversation through their headsets. Personnel not wearing Communicators can hear the conversation from the optional grill speaker, if installed.

### A. How to communicate with drive-thru customers

To communicate with drive-thru customers, follow the instructions below. Turn the Communicator OFF/VOLUME control to the ON position.

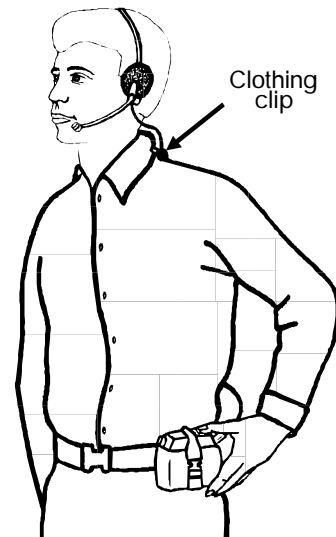
**NOTE: Only one Communicator can be used to transmit at a time, or interference will occur.**

#### 1. System 2500D

When a vehicle arrives at the speaker post or menu board, a tone will be heard in all headsets. After the tone, the outside microphone will be on.

- Press and hold the "A" button on the Communicator.
- Continue holding button "A" while speaking and listening to the customer. Always speak to the customer through the headset microphone at a normal voice level ... **do not shout**.
- Adjust the Communicator VOLUME control to the desired listening level in your earpiece.
- Release the button when all communication with the customer is completed. You will continue to hear the customer after the button is released, but you will not be able to talk to him/her without pressing and holding the button again.

When the vehicle leaves, the system will again become silent.



**Pressing the Communicator button**

**Figure 11.**



## 2. System 2510

When a vehicle is present at the order taker's window, a tone will be heard in all headsets. After the tone, the outside microphone will be on.

- The order taker will speak to the customer face-to-face, through the drive-thru service window.
- Listen to the customer's order.
- Adjust the OFF/VOLUME control to the desirable level for incoming sound (customer's voice).

When the vehicle leaves, the system will again become silent.

If the System 2510 is configured with microphones at the cashier window (wired) and remote booth (wireless), use the "wired/wireless" switch on the side of the base station to select which microphone will be used.

- To select the remote microphone, place the switch in the out, "wireless" position.
- To select the cashier microphone, place the switch in the in, "wired" position.
- Communicate with the customer as described above.

If it is more convenient to use the optional remote switch, leave the base station switch in the "wired" position.

### B. How to communicate with other personnel wearing Communicators

All personnel wearing COM2000 COMMUNICATOR<sup>®</sup>s can communicate with each other without being heard by customers. To do so, follow the instructions below.

- Press the "B" button on the Communicator.
- Speak into the microphone in a normal voice ... **do not shout.**
- Release the button "B" immediately after speaking. This is especially important since the "B" channel overrides the "A" channel, and will cut out any ongoing communication with the drive-thru customer.

## V. CLEANING AND CARING FOR THE EQUIPMENT

### A. How to clean the equipment

The following cleaning procedure is recommended at least once each month.

#### The COMMUNICATOR®

- Remove the Communicator from the pouch.
- Remove the battery from the Communicator.
- Wash the belt and pouch in a washing machine with normal laundry detergent. Dry them in a dryer or hang them to drip dry.
- Clean the Communicator with a damp sponge. First wet the sponge and wring it out so it is damp, but not dripping wet. Spray household cleaner on the sponge (NOT ON EQUIPMENT). Clean the Communicator with the sponge, and dry it thoroughly.
- Clean the metal battery contacts on the battery and on the Communicator with alcohol on a cotton swab. Wet the tip of the swab with alcohol and squeeze the excess alcohol from it. Wipe each contact with the swab, and be certain all the contacts are dry before reinstalling the batteries.
- Place the battery back into the Communicator, and place the Communicator back into the pouch, fastening the strap securely over it.

#### The headset

- Clean the headset and cable with a damp sponge that has been sprayed with household cleaner. The foam muff on the headset earpiece is easily removed and replaced for sanitary purposes. To order extra foam muffs, call your local HME sales representative.

### B. How to care for the headset cable and connector

<b>ALWAYS</b>	<b>NEVER</b>
align key and connector pins with key and holes in receptacle when plugging headset into Communicator.	twist headset connector into Communicator receptacle.
clip cable to clothing with clothing clips.	allow cable to hang freely.
grasp connector to plug in or unplug headset.	grasp and pull cable to unplug headset.
use both hands to remove headset from your head.	remove headset with only one hand.
use both hands to adjust microphone position.	adjust microphone position with one hand.
handle the headset cable with care.	pull, twist, bend or knot the headset cable.
carry and hang the headset by its metal headband.	carry or hang the headset by its cable.

## VI. TROUBLESHOOTING AND CORRECTING PROBLEMS

The base station has small indicator lights on the left, front of its cabinet. The ON or OFF condition of these lights will help you find most problems which could occur. The circuit board illustration on page 10 shows the indicator lights and circuit board connectors, switches and controls referenced in the following troubleshooting checklist.

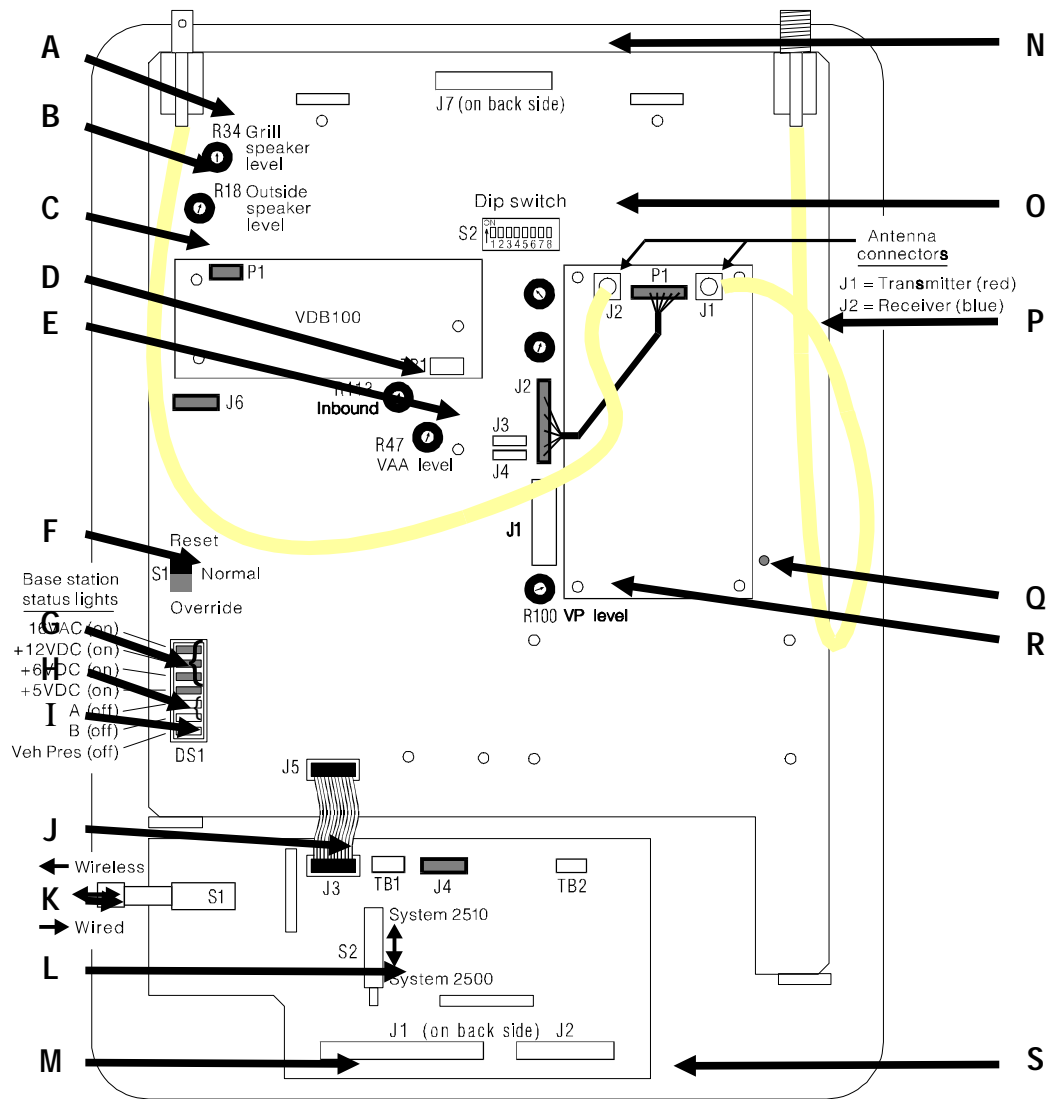
<b>Troubleshooting Checklist</b>		
<b>PROBLEM</b>	<b>PROBABLE CAUSE</b>	<b>SOLUTION</b>
No sound in headset when you press COMMUNICATOR® button A and speak into headset microphone.	<ol style="list-style-type: none"> <li>1. Power is off at base station.</li> <li>2. Power supply in base station is not working.</li> <li>3. Communicator not turned on.</li> <li>4. Volume not set correctly.</li> <li>5. Headset connector not plugged firmly into Communicator.</li> <li>6. Headset defective.</li> <li>7. Low or dead battery.</li> <li>8. Communicator failed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check circuit breaker for building.</li> <li>2. Check power supply indicator lights on base station. If any light is not lit, be certain AC power adaptor is plugged into AC electrical outlet, and is connected to J7 connector on back, top of base station.</li> <li>3. Turn Communicator on by turning OFF/VOLUME control clockwise. Be certain light goes on.</li> <li>4. Turn OFF/VOLUME control clockwise.</li> <li>5. Plug headset connector firmly into Communicator receptacle.</li> <li>6. Replace with another headset.</li> <li>7. Check ON/POWER light. If not lit, replace battery.</li> <li>8. Use another Communicator. Call HME. *</li> </ol>
Communicator channel A or B functions not working.	<ol style="list-style-type: none"> <li>1. Communicator not turned ON.</li> <li>2. Dead or weak battery.</li> <li>3. Communicator failed. Channel A or B light does not light when Communicator button A or B is pressed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn on Communicator.</li> <li>2. Replace battery.</li> <li>3. Use another Communicator. Call HME. *</li> </ol>
Outbound sound too low.	<ol style="list-style-type: none"> <li>1. Outbound volume set too low for environment.</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn outside speaker adjustment clockwise with small screwdriver until level is satisfactory. (Page 11, item <b>B</b>)</li> </ol>
No outbound sound; customer cannot hear anything.	<ol style="list-style-type: none"> <li>1. Loose wires on base station circuit board.</li> <li>2. Defective speaker.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check speaker wire connections to J1, J2 and J7 connectors on back of base station. (See page 10.)</li> <li>2. Call HME. *</li> </ol>

\* For assistance, call HME Customer Support at 1-800-848-4468.

<b>PROBLEM</b>	<b>PROBABLE CAUSE</b>	<b>SOLUTION</b>
Personnel hear static only in headsets.	<ol style="list-style-type: none"> <li>1. Transmitter antenna connection on base station is loose.</li> <li>2. Circuit board defective.</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten transmitter antenna connection. (the longer antenna on top, right of base station)</li> <li>2. Call HME. *</li> </ol>
Personnel hear customer in headsets or grill speaker, but cannot hear each other.	<ol style="list-style-type: none"> <li>1. Receiver antenna connection on base station is loose.</li> <li>2. Status lights are not lit. Circuit board is defective.</li> <li>3. Defective Communicator or headset.</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten receiver antenna connection. (the shorter antenna on top, left of base station)</li> <li>2. Call HME. *</li> <li>3. Call HME. *</li> </ol>
No tone or sound in headset or grill speaker when vehicle approaches speaker post.	<ol style="list-style-type: none"> <li>1. Power interruption has unbalanced detecting circuit.</li> <li>2. Vehicle detector failed, or connector loose.</li> </ol>	<ol style="list-style-type: none"> <li>1. When no vehicle is at speaker, press vehicle detector override switch on base station to RESET position.</li> <li>2. Place vehicle detector override switch in OVERRIDE position. This will cause audio loop to remain open for communication with customer. Check connectors on base station and, if loose, reconnect and return override switch to NORMAL. Call HME. *</li> </ol>
Personnel cannot hear drive-thru customers in headset or grill speaker.	<ol style="list-style-type: none"> <li>1. Loose wires on base station circuit board connector.</li> <li>2. Outside speaker or audio circuit board has failed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Be certain wires are securely connected to connectors on back of base station.</li> <li>2. Call HME. *</li> </ol>
Communicator has intermittent sound.	<ol style="list-style-type: none"> <li>1. Low battery.</li> <li>2. Defective headset cable.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace battery.</li> <li>2. Use another headset. Call HME. *</li> </ol>
Battery charger not working.	<ol style="list-style-type: none"> <li>1. Charger not plugged in.</li> </ol>	<ol style="list-style-type: none"> <li>1. Plug in battery charger. If still not working, call HME. *</li> </ol>

For assistance, call HME Customer Support at 1-800-848-4468.

# WBS2500 Circuit Board Illustration



- A - Grill Speaker Volume Control - **GRILL SPEAKER LEVEL - R34**
- B - Outside Speaker Volume Control - **OUTSIDE SPEAKER LEVEL - R18**
- C - Vehicle Detector Board (optional)
- D - Inbound Volume Control - **R113**
- E - VAA Level Control - **R47**
- F - Vehicle Detector Override Switch - **VERRIDE / NORMAL / RESET - S1**
- G - Power Supply Lights - **12VDC / +5VDC / +6VDC / 16VAC**
- H - Channel A & B Lights (on while COMMUNICATOR<sup>®</sup> button A or B is pressed) - **A / B**
- I - Vehicle Present Indicator Light
- J - Audio Board, Switcher Board Interconnect Cable
- K - Wireless/Wired Select Switch
- L - 2500/2510 Select Switch
- M - Switcher Interface Connector - **J1**
- N - Power/Grill Speaker Interface Connector - **J7**
- O - Full/Half-Duplex, Grill Select, Subaudible Select Switch - **S2** (Configuration varies)
- P - Transceiver Board
- Q - Power Light - **POWER**
- R - Vehicle Present Tone Volume Control - **VP LEVEL CONTROL - R100**
- S - Switcher Interface - **J2**

