

## PA SYSTEM SETUP GUIDE AND OPERATION TIPS FOR LIBERTY 6000

### INITIAL SETUP / DETERMINING THE RIGHT PLACEMENT OF SPEAKERS

Identify the speaking/presenter location(s) and the audience location(s).

Determine where PA controls will be operated from and who will operate them.

Attempt to keep persons speaking behind the PA speakers and at maximum distance from them.

Set up tripods considering foot traffic and other potential obstacles.

Keep speakers on tripods at maximum height possible to achieve better coverage.

Angle the speakers to aim approximately at the middle of the audience.

For larger crowds, add additional speakers for coverage, split coverage area into two halves.

### SECONDARY SETUP / CONNECT THE PA SPEAKERS AND MAIN UNIT(S) / CONNECT OPTIONAL MIXER

Determine which configuration will be used and make the appropriate connections.

**Configuration 1** - The main unit and the companion speaker will be projecting the same sound.

CONNECT - Liberty main unit **UNSWITCHED** SPEAKER OUT to COMPANION SPEAKER **IN**.

**Configuration 2** - The main unit will not project sound but the companion speaker will project sound.

CONNECT - Liberty main unit **SWITCHED** SPEAKER OUT to COMPANION SPEAKER **IN**.

**Configuration 3** - Two (2) main units and two (2) companion speakers will all project the same sound.

CONNECT - Liberty main unit # 1 **SWITCHED** SPEAKER OUT to COMPANION SPEAKER # 1 **IN**.

CONNECT - Liberty main unit # 2 **SWITCHED** SPEAKER OUT to COMPANION SPEAKER # 2 **IN**.

SET WIRELESS RECEIVER FREQUENCIES ON MAIN UNITS #1 and #2 TO THE SAME CHANNELS.

**Configuration 4** - Add the optional **SHURE SCM-268 MIXER** to any of the above configurations.

CONNECT - Liberty main unit(s) and Companion speaker(s) as per Configuration 1, 2 or 3.

CONNECT - SHURE SCM-268 MIXER **OUTPUT** to Liberty main unit **LINE IN** input jack.

**IMPORTANT** - ENSURE THAT THE MIXER OUTPUT SWITCH IS SET TO **LINE LEVEL** and NOT MIC LEVEL.

CONNECT - additional microphones (up to 4) or additional audio sources (iPods, mp3 player) to mixer.

## **NORMAL PA SYSTEM OPERATION**

Set the frequency of the wireless handheld microphone to a non-interfering channel.

Set the frequency of the wireless lapel microphone body pack to a **DIFFERENT** non-interfering channel.

On Liberty main unit set one wireless receiver to the same channel as the handheld microphone channel.

On Liberty main unit set the other wireless receiver to the same channel as the body pack channel.

If using two (2) main units, **set each receiver in unit 1 to the same channel as each receiver in unit 2.**

**NOTE - YOU CANNOT HAVE TWO MICROPHONES THAT ARE SET ON THE SAME CHANNEL POWERED UP SIMULTANEOUSLY.**

Connect up to two (2) cabled microphones directly to the Liberty main unit **MIC 1** and **MIC 2** jacks.

Turn down all volume levels on the Liberty main unit(s) including the built-in wireless receivers, Line In knob, CD Volume and both MIC 1 and MIC 2 volume knobs.

Turn on the **POWER SWITCH** on the Liberty main unit(s).

Turn on the wireless handheld microphone power switch and the wireless lapel body pack power switch.

Slowly turn up the receiver for the handheld microphone while speaking into the microphone and set the level that is appropriate for the room and audience.

Repeat for the lapel microphone adjusting the other wireless receiver level as you speak naturally facing straight ahead.

Repeat for the cabled microphones, if any, adjusting the **MIC 1 volume knob** and **MIC 2 volume knob** respectively, while speaking clearly into the microphones.

Insert a CD and slowly increase the **CD volume knob** to a suitable level for the room and audience.

## **IF USING THE SHURE SCM-268 MIXER**

Begin with the **MASTER VOLUME TURNED DOWN.**

Connect cabled microphones as required to the MIC LEVEL INPUTS 1 thru 4 on the rear of the mixer;

**OR**

Connect an iPod, MP3 player, etc. to the AUX LEVEL INPUTS 1 thru 4 on the rear of the mixer;

**OR**

**USE ANY COMBINATION OF THE 4 AVAILABLE INPUTS** (i.e. Mic on 1, Aux on 2, Aux on 3, and Mic on 4). You may connect another line level auxiliary device to the AUX in on the rear of the mixer.

On the mixer, **TURN THE MASTER VOLUME ABOUT HALF WAY UP.**

Begin speaking into the microphone one at a time or playing back audio content from the auxiliary devices one at a time while slowly **TURNING UP THE CORRESPONDING INPUT** on the front of the mixer.

Adjust the input level so that the **MIXER OUTPUT LEVEL LED'S** reach **0 minimum** to **6 maximum.**

Now, while still speaking or playing back audio, increase the **LINE IN** volume on the Liberty main unit.

Adjust the level to reach an appropriate volume for the room and audience.

Match the individual levels of the microphones and devices connected to the mixer so they represent the same approximate volume based on the unique person's voices and/or music using the mixer controls.

If the LINE IN volume on the Liberty main unit does not provide enough sound level when turned all the way up, increase the **MASTER VOLUME ON THE MIXER**, being careful to **AVOID the OUTPUT LED'S EXCEEDING 6** on the mixers' output level meter.

#### **WHEN DISCONNECTING THE PA SYSTEM**

If using the **SHURE SCM-268 MIXER**, turn down the **MASTER VOLUME** first before unplugging any microphone or other cables.

On the **Liberty main unit** turn down all volume controls for the receivers, CD, line in and line out and then **POWER OFF** the unit prior to disconnecting any cables.

#### **BATTERY MANAGEMENT**

Typically, good alkaline cell batteries will power up the wireless body pack transmitters and the handheld transmitters for approximately 20 to 25 hours. Avoid the use of cheap, generic batteries for these devices. It is a good idea to install fresh batteries prior to each day long use of the product. In most cases, the batteries will suffice for two full day long events but probably will not make it thru the third day without replacement. Always change batteries with the power **OFF** on the transmitters.

#### **PA SYSTEM INTERNAL BATTERIES**

The internal batteries will provide PA system runtime of up to 5 or 6 continuous hours on a full charge depending on the number of microphones connected, use of the optional Companion speaker and playing music through the CD player. During an all day event, the unit should be plugged in to an AC outlet and charged during a lunch break to avoid losing power later in the day. Usually this practice will allow for a full 8 hours of use on battery power. A full charge may take 6 to 8 hours.

**NOTE - When finished using the PA system, charge the internal batteries until full**

## PA SYSTEM BATTERY CHARGING INDICATORS

**RED LED ON SOLID** - Batteries are charging.

**RED LED BLINKING** - Batteries are fully charged.

**RED LED OFF** - Batteries are completely drained.

## MISCELLANEOUS CONTROLS

**BASS** - This is a tone control. **BASS** adds low end to tinny sounding audio and may be reduced to eliminate a muddy sound. Excessive use of **BASS** may increase the potential for feedback.

**TREBLE** - This is a tone control. **TREBLE** adds mid high frequency to muffled sounding audio and may be increased to eliminate a muddy sound. Excessive use of **TREBLE** may increase the potential for feedback.

Both of these controls affect any and all audio going through the Liberty PA system and cannot be adjusted individually for each microphone.

In most applications, these controls can both be set **FLAT** or straight up to the **12:00 position**.

**LINE OUT** - This connection allows the system to feed another sound system, recorder, or even another Liberty main unit with the audio going through it.

**DC OUTPUT** - This jack provides 12 volt power to auxiliary devices, external wireless receivers or other Anchor Audio products such as the mini-mix.

**SPEECH PROJECTION** - This button, when turned **ON** increases the high frequency output of the horn in the PA system to provide extended projection. **Feedback potential is increased with this turned ON.** This mode is recommended for outdoor or very large crowd venues only. With this button turned **OFF**, flat, full range frequency response is active which improves the sound of vocals and music content. This mode is designed to be used for indoor applications. **Feedback potential is decreased with this turned OFF.**

## FOR TECHNICAL SUPPORT OR ASSISTANCE WITH SETUP AND OPERATION

**AUDIOMATRIX, INC.      800-736-5094 or 307-638-8263**

**ANCHOR AUDIO, INC.      888-444-6077**