



AUDIO SPECIFICATION GUIDE - 2017

The Seminole Hard Rock Winterfest Boat Parade is the premier spectator event in South Florida. In order to create the highest quality event and maintain the standards of such an event, the audio that is projected by each participating entry is essential to the Parade and must be of the highest quality.

To achieve the goal of uniform high quality for musical presentations, the sound which is projected must be clearly perceived by spectators in the reviewing stands and on the shore. The music must be presented at an adequate volume and cannot be distorted.

Therefore, high quality sound systems must be used on board the parade boats. The following specifications are recommended for the music systems employed on parade boats.

Powered loudspeakers:

Powered loudspeakers such as those in professional venue sound systems are the easiest and simplest components to use on a parade boat. Signal cables with XLR connectors provide the most reliable connections between the musical sound source and the loudspeakers. These cables may be strung in daisy chain fashion between multiple loudspeakers (output or "Thru" plug from one speaker to input plug of the next speaker) to provide a uniform sound.

One recommended minimum powered loudspeaker is the **JBL EON 610**, or equivalent model. This is a 1000 watt (peak) powered 2-way loudspeaker. See attached product data. Another recommended system is the **Electro-Voice ZLX12P** loudspeaker.

As an alternate, passive (non-powered) loudspeakers with the same 1000 watt minimum power capacity may be used if powered by a separate component audio power amplifier system capable of driving the loudspeaker set without audible distortion.

Each loudspeaker used on a vessel in the parade is required to produce sound levels of at least 95 to 100 dBA, at a distance of 3 meters, without audible distortion. **The recommended JBL EON 610 or EV ZLX12P loudspeakers satisfy this requirement.**

Larger, more powerful loudspeakers may be acceptable if sufficient AC power can be supplied by the boat's electrical system. The total power requirement of the loudspeakers may be calculated by adding up their individual peak power requirements.

For example, for a vessel using four 1000 watt loudspeakers, a total of 4000 watts of additional power beyond the normal vessel needs would be required to run the audio system. This additional power need is calculated in the same manner as the additional power required for parade lighting.

It is the **responsibility of each Captain** to determine the electrical power capabilities of their vessel. An auxiliary generator may be needed for vessels with smaller electrical power systems.

For boats under 40 feet:

- Use a minimum of **2 powered 1000 watt loudspeakers**, one (1) on each side mounted at the amidships (center) of the vessel, to point outward toward the shoreline for the spectators on land. The minimum AC power (120 vac) draw for this set-up is 10 amps.

For boats between 40 and 80 feet:

- Use a minimum of **4 powered 1000 watt loudspeakers**, two (2) at the bow on each side and two (2) at the stern on each side, mounted to point outward toward the shoreline for the spectators on land. The minimum AC power (120 vac) draw for this set-up is 20 amps.

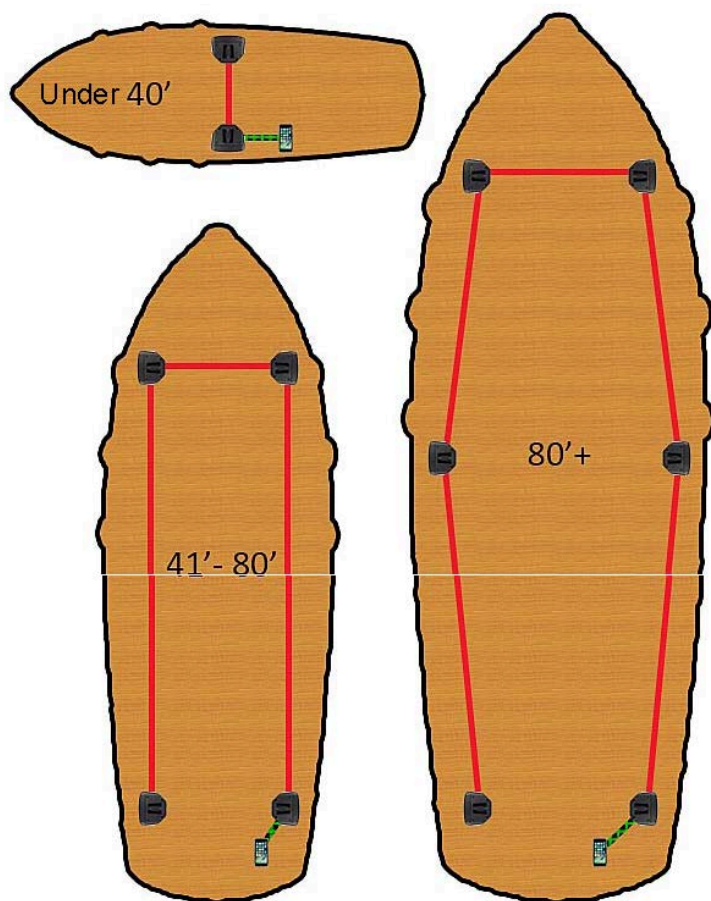
For boats over 80 feet:

- Use a minimum of **6 powered 1000 watt loudspeakers**, two (2) at the bow on each side, two (2) at the amidships (center) on each side, and two (2) at the stern on each side, mounted to point outward toward the shoreline. The minimum AC power (120 vac) draw for this set-up is 30 amps.

Loudspeaker Locations

The following diagrams indicate the recommended loudspeaker locations and possible wiring layouts for each size boat.

Loudspeaker Locations on various sized boats



Typical wiring diagram shown at right

Note that the music source can be any type of device, such as an iPod or a smart phone, as shown in the diagram, as long as it is wired correctly and is compatible with the loudspeaker system input.

A hard-wired input from the music source is recommended for reliability reasons, since a wireless connection, such as Bluetooth, can be compromised with many boats operating such systems in close proximity.

Speaker Connections



Suppliers

A local supplier of audio equipment which meets these specifications includes:

Sound and Lighting Solutions – 5750 Powerline Road, Ft. Lauderdale 954-761-8585

Ask about the special Seminole Hard Rock Winterfest Boat Parade equipment sale and rental promotions.

As an example Sound and Lighting Solutions offers the EV ZLX12P system with significant discounts for Seminole Hard Rock Winterfest Boat Parade participants.

The price to purchase a total 2 loudspeaker system with wiring and speaker stands would normally be about \$1000. However, with the discount to boat parade participants of over \$200 the final price would be about \$800 for purchase of the total system.

Please contact the supplier for information on other sound systems, lighting supplies and rental prices.

Questions

If you have questions concerning the audio equipment or set-up specifications, please contact:

Bennett Brooks - President
Brooks Acoustics Corp.
754-229-1450
bbrooks@brooksacoustics.com

Kathy Keleher – Marketing and Parade Director
Winterfest, Inc.
954-767-0686
kathy@winterfestparade.com

Mark Swenson – Boat Parade Chairman
UBS Financial Services
954-527-6321
mark.swenson@ubs.com

