

# Makem/Spain

## Minimum Sound Requirements

### **Professional Mixing Console**

Minimum 16 channels. Tunable channel equalization preferred. Must have input gain control and slide faders. Independent monitor mix bus, separate effects bus. Suggested brands Mackie, Ramsa, Yamaha, Soundcraft, Behringer.

### **High quality reverberation unit**

### **Equalizer**

Two channels, 1/3 octave equalization, one channel for house and one channel for monitors.

### **House (audience) Loudspeakers**

Minimum three way tri-amplified system. Suggested possible components; 15" professional loudspeakers in ported, tuned enclosure, 12" speakers and high quality compression drivers on suitable horns, one of each type required on each side of the stage for every five hundred seats in auditorium.

### **Power Requirements**

Power requirements are approximately one watt per audience member, 500 watts minimum.

### **Monitor Loudspeakers**

Minimum two way system with 12" speaker (15" preferred,) and suitable high frequency device. Suggested power: 250 watts per monitor.

### **Microphones**

Five vocal mics on high quality, well maintained boom stands. Suggested: Shure Beta 87A Suitable types: Beyers M88, Sennheiser 431, Shure SM58.

### **Direct Boxes**

Two "active" direct boxes with ultra high input impedance and ground lift switches. No passive transformer DI's, please.

Act will provide Bass amp, 4 pre-amp DI for 6 string guitar, bouzouki, mandolin, and banjo, and two Audix D3's with clamps for bodhrans.

### **General**

- Console should be located in audience area or rear of auditorium.
- Sufficient cabling should be provided to connect system in accord with the stage plot. • Equipment should be delivered well in advance of show time and should be completely set up for 5 p.m. sound check for 8 p.m. show.
- All components should be in excellent condition and of good appearance.
- Sound system should be free of hiss, hum or other extraneous noises.
- At least one knowledgeable operator shall attend sound check and operate system during show.

### tech contacts:

Rory Makem 603•866•0396  
rpm@makem.com

Liam Spain 603•204•7180  
liam@spainbrothers.com