

**Orpheum Theatre
Sound Reinforcement System
Equipment Summary**

Sound Reinforcement System

The house sound system utilizes self-powered loudspeakers manufactured by Meyer Sound. Recognized as a pioneer in the field, Meyer products are frequently specified for Broadway, Concert Touring, and other sound reinforcement applications where sonic accuracy, fidelity, and reliability are required. The self-powered products offer numerous advantages over conventional loudspeakers, as the built-in signal processing and amplification is specifically tailored to a particular enclosure / transducer combination. In addition, the speaker components are protected from abuse by internal limiters, that unlike external signal processing, cannot be tampered with. The result is an extremely reliable, high quality system that will meet the needs of the facility for years to come.

The sound system has been configured as a split proscenium system, with stage lip front fills, under balcony fills, and subwoofers.

Twelve self-powered loudspeakers (Meyer MSL-4, DF-4, and PSW-2) are suspended on both sides of the proscenium opening in a left / right configuration. These speakers provide coverage for the main house seating areas, including the balcony and main floor. Each of the two clusters includes two MSL-4 to cover the balcony, one PSW-2 subwoofer, and three DF-4 downfill cabinets for the front floor seating areas.

Five compact, full range loudspeakers (Meyer UPM-1P) mounted on the stage apron are utilized for front fill. These are removable to allow for different configurations of the orchestra pit.

Two rings of electronically delayed under-balcony loudspeakers (UPM-1P) have been installed to provide smooth coverage of these areas. A total of eleven loudspeakers are used for the delay rings.

Additional loudspeakers (Meyer UPM-1P) have been included for to allow for left and right rear surround when the facility is used for motion picture projection. In addition, two high output, full range self-powered loudspeakers (Meyer MTS-4) have been provided for the center channel audio during film projection. These units will also serve as sidefill monitors and a portable full range sound system.

Finally, two high-powered dual 18" subwoofers (Meyer 650P) have been positioned at the audience level, left and right of the proscenium.

An extensive patching system allows access to all interconnect points, drive lines, returns, and house tie lines.

House Mix / Processing

A 40 Channel mixing console (Yamaha M3000-40) with road case and backup power supply has been provided for the house mix. A BSS 9088ii Soundweb DSP system is configured to provide equalization, limiting, summing, and delay functions. Multiple system configurations can be recalled via the control panel located in the system drive rack. All of the system signal processors, distribution amps, tie lines, and line level audio cables terminate in a set of patchbays, allowing the system to be re-configured as needed.

Front of house system components include BSS dual 1/3 octave equalizers, Klark-Teknik quad compressors and auto gates, as well as Yamaha and Lexicon effects processors.

The system also includes professional quality recording / playback components including a CD recorder, 3 head cassette deck, and CD player.

A mic / line mixer (TOA 900A) with remote control input modules serves as an “assembly” mixer. This allows the system to be operated from the stage without using the main mixing console. This configuration will support two microphones and one line level input.

A custom snake system has been provided for routing microphone lines from various locations on stage to the mix positions. This system has been designed to include a 48 channel, 2-way transformer isolated split, allowing for monitor mixing onstage as well as providing an isolated feed of all mic inputs for recording purposes. The recording split terminates on an interface panel located adjacent to the projection booth. High quality Jensen transformers with ground lift switches are used in the microphone split system.

Hearing Assistance System

In order to comply with ADA requirements, a two-channel hearing assistance system has been installed. It includes the FM transmission components as well as 24 headset receivers, a battery charger, spare batteries, and extra ear cushions. The assisted listening system allows two independent channels of audio to be broadcast simultaneously throughout the facility.

Cinema Playback System

The house system may be configured for 5.1 playback. A set of transformer isolated inputs have been provided in the projection booth for left channel, right channel, center channel, left surround, right surround, and subwoofer. A Dolby CP45 processor has been installed with the projectors.

Two Meyer MT-4 Full Range loudspeakers have been provided for use as the center channel source. These units also serve as sidefill monitors or a stand-alone full range system as needed.

Left and right surround loudspeakers (Meyer UPM-1) have been installed on both levels of the theater.