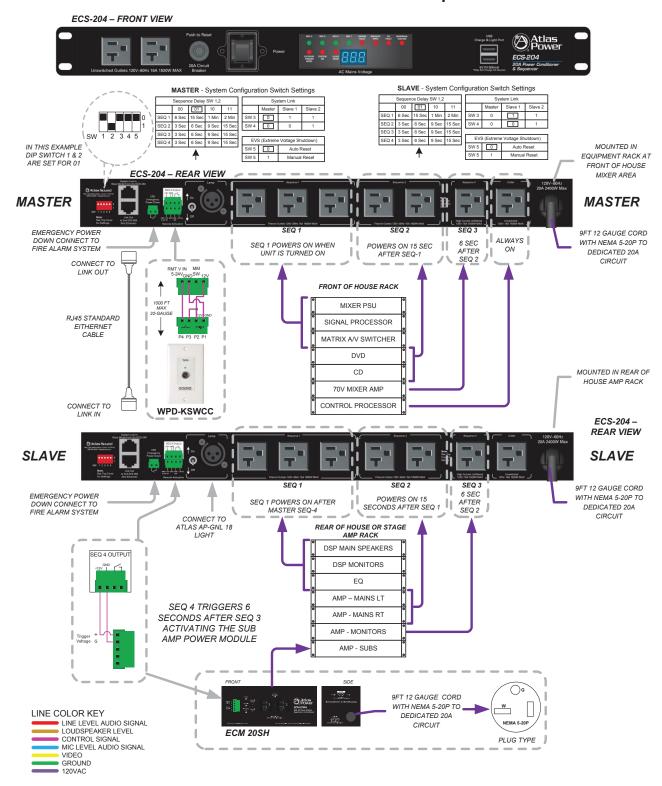


Using Two ECS-204 Sequencers Linked with a Front of House Mixer, Rear of House Amp Rack with ECM-20SH Module for Sub Amp





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Overview:

Power Management by sequencing the turn-on and turn-off of the AC power is essential and convenient in any sound system where separate mixers, processors, and amplifiers are deployed. The most common cause of system damage to speakers and drivers is not sequencing the power when turning components Off and On. Sequencing in this example involves automatically turning on the AC power to the speaker amplifiers after the mixer and processors have been powered On and settled into stable operating mode. In reverse, turning Off the AC power to the speaker amplifiers first, so the preamps and processors won't thump or pop through the speakers as they shut down. In addition sequencing the power will avoid tripping the main breaker by eliminating sudden current draw by turning the largest current drawing pieces of equipment On or Off one at a time.

Application Example Description:

In this example, one ECS-204 electrical sequencer in a Front of House system rack (master) is linked to a second ECS-204 (slave) electrical sequencer mounted in a stage equipment rack. The slave unit utilizes the SEQ-4 trigger to activate the remote ECM-20SH module to accommodate the added current needs of the subwoofer amplifier.

The Front of House sequencing begins with the Master unit at SEQ-1 thru SEQ-4 then continues to the linked Slave unit SEQ-1 thru SEQ-4 when activated by a remote key switch (WPD-KSWCC). When turned OFF, the sequence walks back thru from the slave SEQ-4 to the master SEQ-1 in reverse order. Timing is set by the system configuration switch settings.

In this example, audible pops and thumps are avoided by starting the master sequence with the power to the main mixing console, signal processors, matrix A/V switcher, media players, and a 70V amplifier for alternate speaker zones (Lobby, Side Room, Class Room, etc.). The "always-on" outlet is used to keep the system control processor powered. In the slave unit speaker processing is powered on first followed by the amplifiers.

Application Example Notes:

- 1. Before designing a managed power system consult with a licensed electrician or the project electrical consultant.
- 2. Proper grounding and phase is essential for performance and safety in this or any audio/video system where multiple rack locations are deployed and connected together with signal cables.
- 3. The Master/Slave Link cable is not an IP Ethernet signal, although a standard (not crossover) Ethernet cable can be used.
- 4. Before installing the ECM-204 or ECM0-20SH read the manuals for a complete understanding of the benefits and details of the use.

