



Installation 2: Setup and Verification

Project Communications

Project Communications

- Importance of Documents
- Project Management Tools
- Project Management Lessons Learned

Networked AV Systems

Networked AV Systems

- Network Device Inventory
- Networking Components
- The OSI Model
- Network Connections
- Ethernet
- AV Data Link Protocols
- Internet Protocol (IP)
- Address Assignment
- Transport Protocol
- The Host Layers
- Security Technologies
- Networking Tools

Control Systems

Control Systems

- Types of Control Systems
- Control System Installation
- Control System Verification

Power and Grounding

Power and Grounding

- Electrical Safety
- Circuit Theory



Methods of Grounding an AV System
Common Problem Symptoms
Troubleshooting and Verification

Audio Systems

Principles of Sound

Audio Testing Tools
Audio Systems Background
Types of Waveforms
Phase
The Decibel

Setting System Gain

Methods for Setting System Gain
Gain Equipment
Setting Unity Gain
System Optimization Method
Setting Gain Structure with Audio DSPs
Mixer Input Adjustments
Microphone Input Adjustments
Line Input Adjustments
Power Amplifier Adjustments

Audio Gain Simulation

Elements of Acoustics

Acoustic Terminology
Conservation of Energy
Reflection
Reverberation
Absorption
Transmission
Room Modes
Background Noise
Intelligibility

Audio Equalization

Equalizers
Measuring Loudspeaker Performance
Testing Methods
The RTA Method
Using Dual-Channel FFT
Finishing the Equalization Process



Equalization Simulation

Audio Processors

- Compressors
- Limiters
- Setting Compressors and Limiters
- Expanders
- Other Audio Processors
- DSP Architecture Types

Signal Processors Simulation

Audio Troubleshooting

- Audio Troubleshooting
- Audio System Quality
- PAG-NAG
- How to Troubleshoot Audio Problems
- Electrical Audio Problems
- Acoustical Audio Problems
- Audio Design Problems

RF Systems

RF Systems

- Background on RF Systems
- Wireless Microphones
- Wi-Fi and 802.11 Issues

Video Systems

Digital Video Signal Properties

- Video Signals
- Digital Content Bandwidth
- Video Signal Types
- Cable Types
- HDMI Installation Issues

Video System Installation

- Video Cameras
- Video Signal Processors
- Display Setup
- Projector Setup
- Projector Simulation**
- Contrast Ratio



Hue and Saturation
PISCR
Projector Simulation II
Colorimetry

Video System Verification

Video System Troubleshooting
Introduction to DisplayID/EDID
EDID Troubleshooting
Digital Rights Management
HDCP Device Limits
BYOD
Audio/Video Sync

System Closeout

System Closeout

Site Clean Up
Closeout Documentation
Troubleshooting
Customer Training
Maintaining AV Systems