Additional Classroom Technology HD Wiring Diagrams, Installation and Equipment Input / Output Detail

- Dual-Projector HD Auditorium Diagrams
- Single-Projector HD Auditorium Diagrams
- Dual-Projector HD Classroom Diagrams
- Single-Projector HD Classroom Diagrams
- Small HD Classroom Diagrams

Also,
- Above Ceiling Projector Lift Install Detail for Auditoriums
- Above Ceiling Projector Plate Install Detail for Classrooms
- Multimedia Lectern Floor Box Plate Allocation

Note: Signal Flow Diagrams indicate who furnishes (F) and who installs (I) equipment in a “typical” classroom renovation project. Please refer to your project’s documentation for changes regarding specific responsibilities.

AV = AudioVisual Contractor,
G = General (or Electrical Sub-) Contractor,
O = Owner
Dual Projection using DVX 3150HD-SP in standardized HD Auditorium (Sample)
Single Projection using DVX 2150HD-SP in standardized HD Auditorium (Sample)
Dual-Projector HD Classroom Signal Flow Diagram Example

EQUIPMENT LEGEND:
- AVFAVI @Lectern
- OFAVI @Ceiling
- OFOI @Floor
- GFGI @Wall
- AVFGI @Mobile

CABLING / CONNECTIVITY LEGEND:
- HDMI or DVI
- Composite Video
- VGA/RGB
- Stereo-Audio
- Speaker
- Power Channel
- Radio Frequency
- Network cabling
- Control cabling
- USB cabling

Classroom Technology Design Diagram
West Virginia University
February 13, 2014
Dual Projection using DVX 3150HD-SP in standardized HD Classroom (Sample)
Dual-Projector HD Classroom Floor/Wall/Ceiling Wiring Paths Example

LEGEND:
- AV Cat6a cabling
- Data Cat6 cabling
- Speaker cabling
- Misc. Control cabling
- Power cabling

(Classroom Technology Design Diagram)
West Virginia University
December 23, 2013
Single Projection using DVX 2150HD-SP in standardized HD Classroom (Sample)
Single Projection using DVX 2150HD-SP in standardized Small HD Classroom (Sample)
Example Signal Flow When DVX Used as Audio Amplifier in Small HD Classroom

These are actually the same device, just used for different things.

Note: Throughputs audio signal, acting as amplifier only.

Classroom Technology Design Diagram
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December 23, 2013
Above Ceiling Projector Lift Install Detail for HD Auditorium

AV Conduit (≥1”) to lectern floor box

Power Conduit (¾”)

Control cable

Power cable

Cat6a AV cables

Projector lift is installed so that the daily use is the lift’s “closed” (full up) position, with projector mounting pole extending through the finish plate to within 6 inches of the top of the screen so the projector lens is lined up with the top of the image when the screen is deployed.

Lift operation is only needed for technician access to the projector.

AMX DXLink Receiver box sits on top of projector lift “finish plate”

Pass-through plate for cabling to projector.

Appropriately-sized Chief extension column “projector pole” extending down through projector lift’s “finish plate” into classroom for attaching the projector.

Classroom Technology Design Diagram
West Virginia University
December 23, 2013
Above Drop-Ceiling Projector Plate Install Detail for HD Classroom

Chief CMS 445 speed-connect (cable-suspended 2'x2' ceiling-tile replacement) projector ceiling mount

Appropriately-sized (typ 6" long) Chief CMS fixed extension column "projector pole" extending down into classroom for attaching the projector via RPA mount.

Conduit to lectern floor box

DXLink Rx cat6a cable

Cat6a cable

AMX DXLink Receiver box sits on top of projector mount tile

Duplex outlet above ceiling connected to projector mount tile for DXLink Receiver box power transformer plug and projector power cable

Power Conduit

Pass-through plate for cabling to projector

Ceiling Cable Access Plate

DXLink Rx serial patch cord HDMI patch cord

Classroom Technology Design Diagram
West Virginia University
December 23, 2013
Multimedia Lectern Floor Box Plate Allocation:

**Concrete Recessed With Cover**

- **To Network Closet:**
  - 1¼" conduit typical
- **With Cover**
  - ¾" conduit typical
  - 1¼" conduit typical
  - (or 2" for dual-projection)

**To Ceiling for Distribution:**
- ¾" conduit typical
- 1¼" conduit typical (or 2" for dual-projection)

**To Power Circuitry:**
- ¾" conduit typical

- **AV** cabling typically consists of:
  - lighting system control cable
  - projection screen control cable(s)
  - projector lift control cable(s)
  - projector signal and control cable(s)

**Recessed floor box by GC able to accommodate up to 8 plates:**
- 2 Data Plates (six RJ45 jacks, run to IT network closet) by WVU (OIT or Facilities)
- 2 Duplex Power (each duplex outlet on separate circuit) by Electrical Contractor
- Up to 4 gangs ("HDBT" Cat6a, control cabling and speaker wire) by AV Contractor

Classroom Technology Design Diagram
West Virginia University
February 12, 2014