

CONTROL BOOTH SETUP



In most of our bldgs our control booth is setup in the satellite equipment room with CAT5 cables permanently installed through the attic to each camera, but this particular bldg required us to setup in the overflow area.

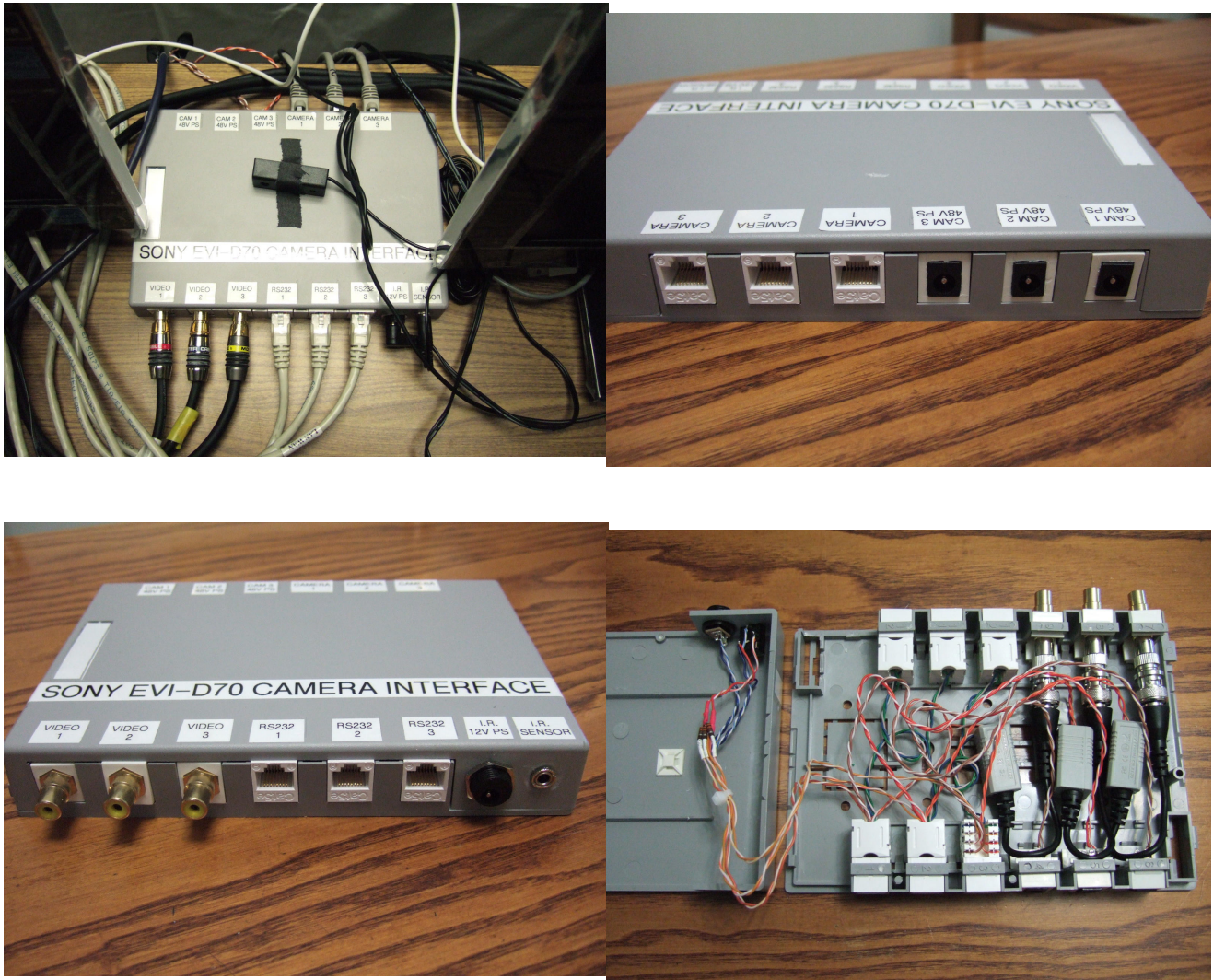
Three cameras and one iPad (for display of hymns) connect to a DataVideo SE-500 Video Switcher.

Camera PTZ/Focus/Exposure is done with the IR Remote as well as a used Telemetrics Controller.

Audio from the PA system and 2 choir mics come from the front of chapel through 3 long cables to the audio mixer.

Audio mixer and video switcher outputs connect to the broadcast encoder computer. Video also connects to the bldg's nearby "camera input" which gets video into several overflow rooms as well as the pulpit area for our choir and speaker video monitors.

CUSTOM CAMERA INTERFACE BOX



One CAT5 cable is used to connect all signals to and from each camera. A custom box was constructed to get all the signals to/from CAT5 .

The 1st pair of wires in the CAT5 is used for composite video. Passive video baluns are used at each end of the CAT5 to match impedance to the 75 ohm source and destination circuitry.

The 2nd pair of wires is used to supply power to the camera. Each camera requires a peak of about 800ma during initialization/pan/tilt operations, and an average of about 300ma at all other times. Because CAT5 cable has excessive voltage loss at these current levels, we used a 48V power supply to inject power at one end of the CAT5 then used a wide input range stepdown dc/dc converter at the other end to get 12V/800ma for the camera. The current through the cable stays below about 200ma.

The 3rd pair of wires (Signal through a 330 ohm resistor & Gnd) is used to connect to an IR emitter at the camera

The 4th pair of wires is used for RS232 communications (Tx & Rx). The RS232 Gnd is connected to the IR Gnd wire in the 3rd pair. (Note: We have run RS232 over 175ft of CAT5 with no issues!)