

Line-Fit Cockpit Door Surveillance Solutions (FDEVSS/CDSS)

Terrorist threats and air rage incidents aboard commercial airlines present a high level of risk to the safety of passengers and aircrew. AD Aerospace's Line-Fit Cockpit Door Surveillance Solution is a sophisticated video security system used for the prevention of air rage and terrorist crimes, by increasing the information available to pilots and crew.

The system consists of a series of covert and overt CCTV cameras, trained on the cockpit door and forward galley, and a dedicated, live viewing LCD monitor in the cockpit or through the EFB. Flight deck crewmembers can see what is happening immediately outside their cockpit during flight, assess the situation as potential hazards arise and restrict access to the appropriate personnel.

Specifications

- Internal Colour/Monochrome, CCIR or EIA Cameras
- Various Field of View (FoV): Ranging from 10 to 116 degrees
- Overt or Covert Cameras
- Variety of Lens Options: including Pin Hole Lens for Covert Mounting
- Camera Power Requirements:
 - FV-0413 -> Maximum 6W per camera from 28V d/c supply
 - FV-0421 -> Maximum 3W per camera from 12V d/c supplied through FV-0950 camera control unit
 - FV-0406 -> Maximum 1.1 W from 9V d/c supplied through FV-0950 camera control unit
 - FV-0411-> Maximum 6W per camera from 28V d/c supply
 - FV-0315 -> Maximum 3W Camera, plus 10W heating from 28V aircraft supply
- Light Control by auto shuttering means no moving parts

Weight

Camera: 425g Maximum
LCD Monitor: 1600g Maximum
Video Transmission/Storage Unit: 4000g Maximum

Camera Options

FV-0406: A monochrome miniature CCD video camera designed to be fitted within the aircraft, in a pressurised, heated area. The camera is designed to be panel mounted. With the "pin hole" option, a fully covert installation is possible. Camera can be fitted using support plate which allows camera head to be angled to suit, using a camera housing fitted to the aircraft interior, or as per customer design.

FV-0413: Internal Aerospace Camera dome, designed to be fitted within the aircraft ceiling trim, with incorporated IR Illumination. The IR (Infra-Red) illumination operates at 860nm, outside the bandwidth of the human eye to provide superior low light performance.



<p>Camera Options Cont.</p>	<p>FV-0411: Internal Aerospace Camera, designed to be fitted within the aircraft ceiling trim, with incorporated IR Illumination. Camera comes complete with installation mounting, angling the camera at an ideal angle.</p> <p>FV-0421: Covert Internal Aerospace Camera with a pinhole lens. It is designed to be mounted on a suitable secondary structure. A semi-covert housing is available but depending on the customer requirements and cargo bay layout, camera can be mounted as to be completely covert.</p>
<p>Video Switch or Transmission Unit Options</p>	<p>FV-0530: Video switcher to control images from internal cameras installed on board an aircraft, designed with the restrictions as defined by Standard Cabin Systems Requirement Document: Boeing D6-36440 Rev C. The unit accepts video from up to 4 cameras and provides 3 balanced composite video output, each selectable independently, and with OSD camera titling.</p> <p>FV-0580: Video switcher designed to control images from external and/or internal cameras installed on board an aircraft. The design is intended primarily to satisfy a low cost requirement for a Video Switch Unit. Unit accepts video from up to 4 cameras each on its own connector, and powered directly by the unit. Unit provides 2 video outputs each selectable independently.</p> <p>FV-0710/FV-0610: Fully qualified (DO-160G) robust digital Video Transmission Unit (VTU) capable of streaming digital video over IP Ethernet links from up to 8 x balanced composite video signals. It is Electronic Flight Bag compatible, but can also be streamed to any connected Ethernet device. The unit has 1x composite video output, and the video is recorded on removable flash storage for easy retrieval.</p>

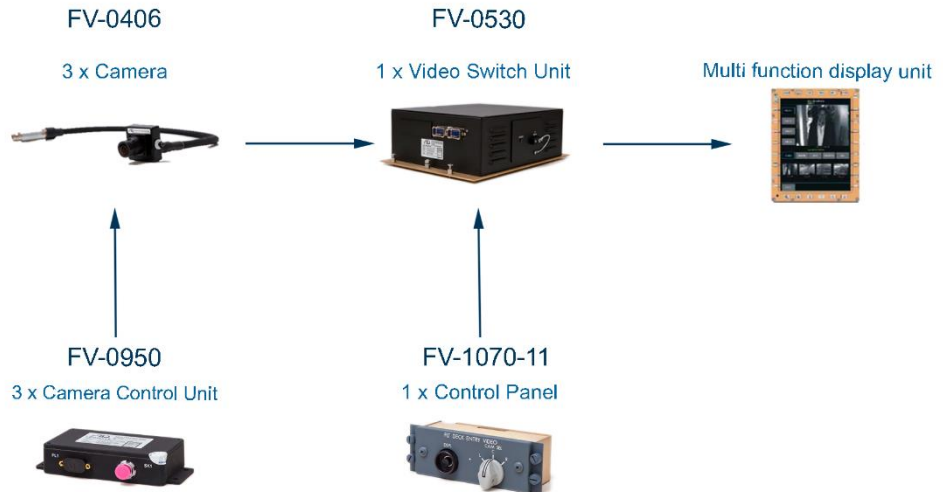


Line-Fit Cockpit Door Surveillance Solutions (FDEVSS/CDSS)

System Architecture: Flight Deck Entry (FDEVSS/CDSS)
With FV-0406 Cameras, FV-0950 Camera Control unit, FV-0530 Video Switcher, FV-1070 Control unit
Offerable on the Boeing options catalogue for the B737

Line-Fit Cockpit Door Surveillance Solution (FDEVSS/CDSS)

"Architecture Option 1"



<p>FV-0406 Camera Specifications</p>	<ul style="list-style-type: none"> • Camera Control Unit runs directly from 28V aircraft supply • Resolution: Greater than 380 TV Lines per picture height (horizontal) in picture centre • Sensitivity: Better than 0.1 Lux • Mean Time Between Failure (MTBF) : 25,000hours • IR Illumination available through the use of the FV-1080 IR illuminators
<p>FV-0503 Video Switcher Specifications</p>	<ul style="list-style-type: none"> • Units runs directly from the 115V a/c 400Hz supply • 4 composite NTSC video inputs, and caters for both unbalanced and balanced video input. • 3 composite video channels, each able to be selected independently and have OSD camera titling. The unit caters for both unbalanced and balanced output video • 20 discrete inputs, active Low • 4 discrete outputs, active Low, capable of sinking 80mA each from a 28V source. • Fitted with a "Light plate" which gives transillumination allowing the switches to be identified in a darkened cockpit.



Line-Fit Cockpit Door Surveillance Solutions (FDEVSS/CDSS)

**System Architecture: Flight Deck Entry (FDEVSS/CDSS)
With FV-0413 Cameras & FV-0710 Video Transmission Unit
Currently used on the Airbus A220 family of passenger aircrafts**

Line-Fit Cockpit Door Surveillance Solution (FDEVSS/CDSS)

"Architecture Option 2"



FV-0413 Camera Specifications

- Camera runs directly from 28V aircraft supply
- Resolution: Greater than 600 TV Lines per
- Sessitivity Colour : Better than 0.1 Lux
- Integrageted IR: 6 LEDs at 860nm , with range > 10 ft
- MBTF : 50,000hours

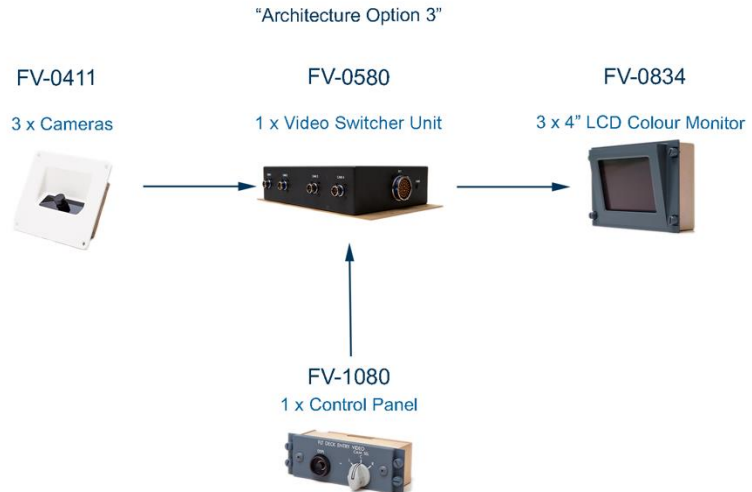
FV-0710 Video Transmission Unit

- Unit runs directly from 28V aircraft supply
- Live and Recorded video stream accessible through three Ethernet connection
- Capable of streaming digital video over IP Ethernet from up to 8x balanced video signals
- Electronic Flight Bag compatible
- Removable Flash Storage
- Continuous recording or capable of performing VMD (video motion detection) analysis and recording the relevant footage for review.
- Analogue video output, which can be controlled through three discrete inputs
- Integrated status indication LEDs
- Power Consumption 10W Max

Line-Fit Cockpit Door Surveillance Solutions (FDEVSS/CDSS)

System Architecture: Cockpit Door Security System (CDSS) With FV-0411 Cameras, FV-0580 Video Switcher Unit, FV-1080 Control Unit, & FV-0834 Monitor AVIC/COMAC ARJ21 passenger aircraft Cockpit Door Security System

Line-Fit Cockpit Door Surveillance Solution (FDEVSS/CDSS)



FV-0411 Camera Specifications	<ul style="list-style-type: none"> • Camera runs directly from 28V aircraft supply • Resolution: Greater than 420 TV Lines per • Sensitivity Colour : Better than 0.1 Lux • Integrated IR: 12 LEDs, with a 60 degrees cone, 850nm • Mean Time Between Failure (MTBF) : 50,000hours
FV-0580 Video Switcher Unit	<ul style="list-style-type: none"> • Units runs directly from the 28V aircraft supply • 4 composite video inputs • 28V power is supplied to each camera directly from the switcher, fused at 2.0A • 2 composite video channels, each able to be selected independently and have OSD camera titling. The unit caters for both unbalanced and balanced output video • 8 general purpose inputs used for channel selections or change the OSD text overlay
FV-0834 Monitor Specifications	<ul style="list-style-type: none"> • Units runs directly from the 28V aircraft supply • 4" colour LCD Monitor designed to fit in the cockpit in the central pedestal or other suitable location • MTBF : 25,000 hours (Excluding LCD backlight)
FV-1080 Control Panel Specification	<ul style="list-style-type: none"> • Fitted with a "Light plate" which gives transillumination allowing the switches to be identified in a darkened cockpit. • Designed with no "active" electronic components, providing an MTBF of 100,000 hours

