



Project Profile: District Line D-Stock Refurbishment

Customer:	<i>Bombardier Transport UK</i>
Project Type:	<i>Refurbishment</i>
Operator:	<i>Metronet Rail SSL</i>
Train Owner:	<i>Transport for London, LUL</i>
Train Mfg:	<i>Metro-Cammell (now Alstom)</i>
Train Class:	<i>D78</i>
Number of Trains:	<i>75</i>
Number of Cars:	<i>6</i>



System Overview

The CCTV system required on the D-Stock project is a simple one digital recorder module, providing surveillance recording of 2 camera inputs per car.

The recording function operates automatically and continuously without any intervention from the driver. At all times digital image frames for each camera are recorded on the digital video recorder's (DVR) removable 40GB Hard Disk Drive, providing in excess of 72hrs of continuous footage. Any internal fault is displayed on the TransitCam TC-100 LCD and activates a fault relay that disconnects the externally supplied voltage to the "Healthy" LED indicator, making for easy operator recognition of fault occurrences during daily maintenance/ inspection.

Operation of a PEA (Passenger Emergency Alarm) is logged in the recorded footage and can easily be identified by the highlighted time-line when viewing the footage in playback, using the Integrian iView replay software.

There is one TransitCam TC-100 unit installed in each car, and it is housed in a single compact, stainless steel enclosure, sealed to IP65 standard and equivalent to a 4U form factor, Half Width.

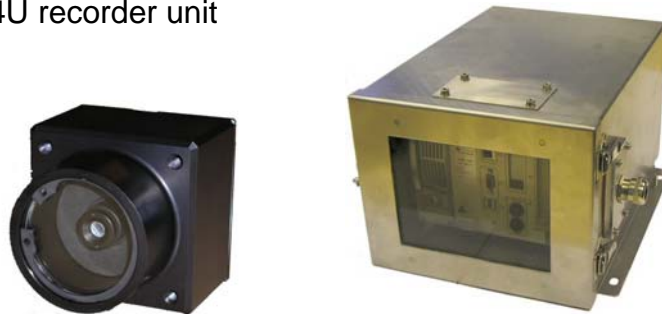


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Project Features

- High quality, full color, digital hardware MPEG-4 image compression
- Capture rate of 12.5 frames per second per camera (PAL)
- Resolution of 2CIF
- In excess of 72 hours of data storage
- Isolated RS-232 diagnostics and service port
- Storage media operates in overwrite mode with older files being overwritten by current video records
- Local LCD text status display for diagnostics and service
- Configurable car number for incorporation in data files and evidence audit
- Up to 4 Video input configuration available, 2 used on the D-Stock project
- Time and date received from PIS system. No time drift, user maintenance or setting requirements for on train clock calendars
- Internal battery-backed clock calendar maintains time and date while power is off and where PIS signal is not available. Clock calendar is automatically synchronized when PIS signal is next available
- Integrated, 470 line color camera units, electrically isolated, incorporate IP65 housing, connector and lens
- Single coax cable to each camera carries both signal and power
- Local video output can be switched to any camera for camera testing and diagnostics
- Half width, IP65, 4U recorder unit



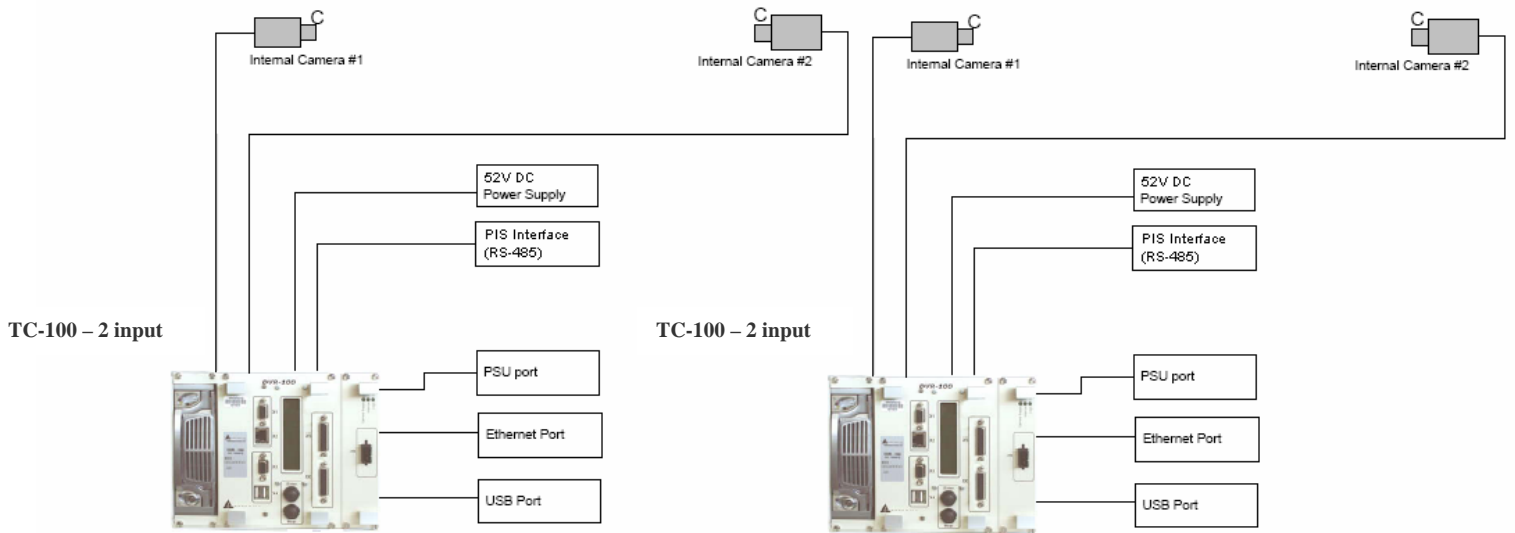
TransitCam TC-100



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System Architecture



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