



# Deter, resolve, reduce costs with CCTV

Customised CCTV solutions for public transport



**EDRESEARCH**

 *Made in  
Germany*

## The difficulties faced by public transport operators

Sadly it is not just in conurbations that there are more and more people who see public transport infrastructure as a restriction-free zone – and their illegal behaviour brings with it serious consequences for the attractiveness and profitability of transport operations.

Vehicles are deliberately damaged and soiled rendering them no longer attractive to passengers and this results in immense consequential costs. Besides this there are more and more people using public transport who exhibit violent behaviour toward fellow passengers or staff.

Since the bombings in Madrid and London and the failed suitcase bomb attempts in Germany it is clear that public transport is a favoured target for terrorists.



## Many problems, one solution: video monitoring

Mobile CCTV monitoring takes their protective anonymity away from vandals and violent offenders. Although cameras are unlikely to deter a suicide bomber, they do deter people from damaging or defacing property.

Video reduces the repair costs incurred from vandalism by up to 70 percent. Passengers feel more secure and the vehicles remain in a more attractive condition - both of which lead to increases in passenger numbers.

Video recordings are helpful in establishing the facts surrounding any accident or attack and in identifying culprits.

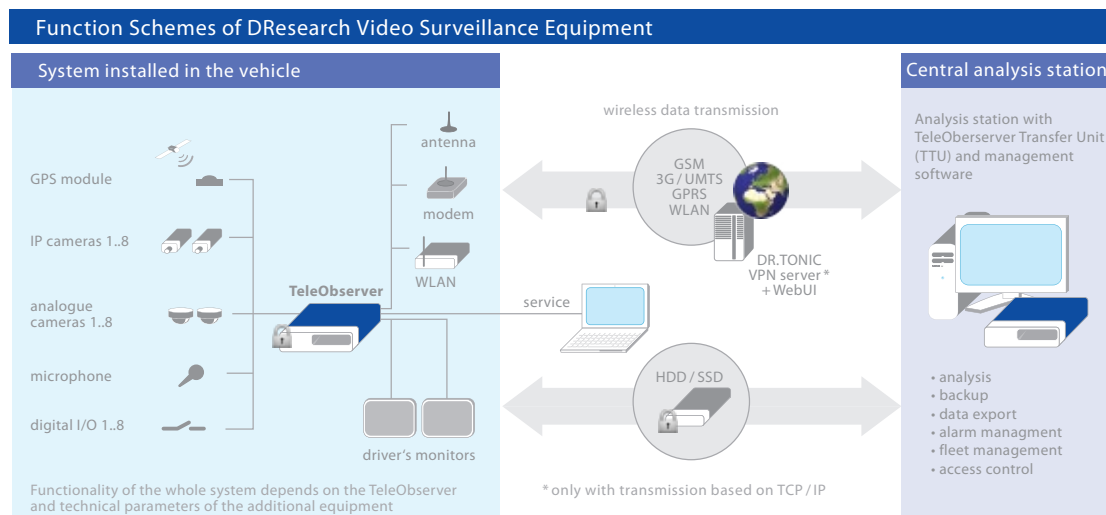


## Complete solutions from the market leader DResearch

DResearch is one of the pioneers of mobile CCTV monitoring. In 1996 the TeleObserver was one of the first systems which could transmit video data via the 9.6 kb/s mobile wireless network. Today there is a complete TeleObserver product family and DResearch is one of the market leaders in equipping busses and trains with complete CCTV monitoring systems.

DResearch offers integrated solutions which

encompass every significant aspect: picture recording, transmission (especially via mobile wireless and internet), data security (VPN server solution with DR.Tonic software), efficient operation and management, and tracking via GPS. Besides innovative systems, DResearch also develops high performance audio and video encoders and is making important contributions to the further development of compression standards such as H263+ and MPEG4D+.



## Ideal solutions for fleets of every size and every security requirement

In the TeleObserver SilverLine DResearch offers CCTV monitoring systems in two practice-oriented types: recorders with optional digital video remote transmission and stand-alone recorders.

The transmission function is essential for large fleets. The video data are transmitted via the internet in a secure data tunnel. GPRS connections which are often already available within computerised operations management systems can be used for this.

The transmission function offers several decisive advantages.

### Greater security

When there is an alarm live pictures enable security staff on site to make a rapid, appropriate reaction

### Better system control

The control room can continuously check on the individual mobile systems. This eliminates the possibility of unnoticed interruptions or complete failures.

### Cost reduction from remote maintenance

Many routine tasks such as retrieval from storage media or the loading of updates can be carried out over the secure internet connection. This offers savings compared to manual maintenance.

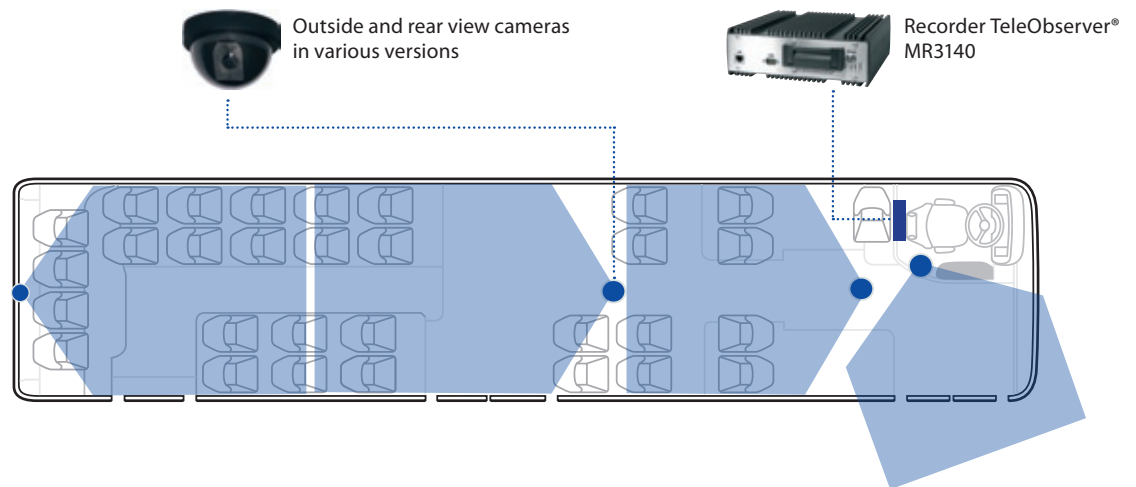
## Sample CCTV monitoring application: Securing a 12-metre bus

The core of the solution is a TeleObserver. The installation is concealed; works without needing a fan; has low power requirements (<12 Watt) and is almost maintenance free.

In this example the TeleObserver uses the existing GPRS connection within the framework of an

operations management system. The DR.Tonic software from DResearch looks after the secure data transfer in the internet.

In a 12-metre long bus 4 sabotage-proof dome cameras are used to secure the interior.



## How you benefit from DResearch video systems

### Cost reduction

- Appropriate responses to alarm situations
- Reduction in vandalism damage by up to 70% (prevention and investigation)
- Reduction in vehicle down-time needed for repairs
- Ability to check passenger loads and manage the deployment of vehicles
- Remote maintenance (maintains value as a result of regular function checks)
- Deterrence of unjustified claims (provides acceptable legal evidence)

- Investment protection as hybrid system is open to future developments (supports analogue and IP cameras)

### Increased turnover

- CCTV monitoring as an integral part of quality management / quality assurance
- Increase in passengers from attractive, clean vehicles
- Passenger perception of greater security

### Assurance of / improvement in security for passengers and staff

- Prevention
- Prompt intervention



[www.dresearch.de](http://www.dresearch.de)

DResearch  
Digital Media Systems GmbH  
Otto-Schmirgal-Str. 3  
10319 Berlin, Germany

Tel.: +49 (30) 515 932 -0  
Fax: +49 (30) 515 932 -77  
E-Mail: [contact@dresearch.de](mailto:contact@dresearch.de)  
Sales and Marketing:  
E-Mail: [sales@dresearch.de](mailto:sales@dresearch.de)

Managing director: Dr. Michael Weber  
Managing director: Werner Mögler  
Authorised Signatory: Dr. Frank Bauernöppel  
Authorised Signatory: Ines Peters

Local Court: Berlin Charlottenburg  
Commercial Register HRB No.: 54412  
VAT number: DE 169013825  
Tax number: 20320024  
WEEE Reg. No.: DE 85995642



Made in Germany