



Home Office

BUILDING A SAFE, JUST
AND TOLERANT SOCIETY

Stolen Vehicle Tracking

ACPO and Home Office Guidance to
Companies on Police Policy



**POLICE
SCIENTIFIC
DEVELOPMENT
BRANCH**

Michelle Gardner
Richard Hartley

Publication No 14/02

**POLICING AND CRIME
REDUCTION GROUP**

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Foreword

The Home Office Police Scientific Development Branch has produced this guidance document in collaboration with the Association of Chief Police Officers and the Association of Chief Police Officers in Scotland. The document brings together the early ACPO policy on stolen vehicle tracking (collated by Alan McInnes for ACPO PTG), the European standards work of CEN278 WG14 and joint Home Office, ACPO and Department for Transport guidance on after-theft vehicle immobilisation systems.

With the greater availability and accuracy of positioning and location technologies there has been an increasing number of companies entering the stolen vehicle tracking market. Many products marketed as fleet management and driver information systems have also the potential to be used to locate and recover the stolen vehicle. Complications may arise as the System Operating Centre (or monitoring bureau) may not be located within the United Kingdom.

This complex situation may place a heavy burden on police resources and the police may decline to respond to systems which fall short of minimum requirements. Operating companies must therefore heed police requirements if the police service and consumers are to take full advantage of these technologies.

This document is in line with the developing European standard 'After Theft Systems for Vehicle Recovery' (CEN278 Road Transport & Traffic Telematics WG14) and will enable companies to comply with the new standard once ratified.

We hope that this document will facilitate the operation of stolen vehicle tracking systems to the benefit of consumers, operating companies and the police.

Tony Lake

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British Transport Police
Chairman ACPO Property Tracking Group

Brian Coleman, OBE

Director
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Home Office

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1 INTRODUCTION

- 1.1 Vehicle tracking systems are also referred to as After Theft Systems for Vehicle Recovery (ATSVR) under European Standards development work CEN TC 278 WG14. The terms cover a range of products which, by use of communications technology, or a combination of technologies, identify a stolen vehicle and its real-time location and present this information to a Systems Operating Centre (SOC) (sometimes referred to as a tracking bureau, monitoring centre or central station) or to the police. Such systems also continue to update the data and differentiate between a particular stolen vehicle and all other vehicles, which may or not be stolen. It is recognised that such systems may be a facility within fleet management/logistics systems or part of services known as vehicle telematics.
- 1.2 The lawful owner and user of the vehicle have rights to their possessions: ECHR Protocol 11 Article 1. The police service has a common law duty to prevent and detect crime and to protect life and property. Police action under this policy document derives from powers under the Theft Act 1968. Power in Scotland derives from the Police (Scotland) Act 1967 and Common Law. Paragraph 5.8 of this document establishes arrangements for life threatening situations not involving theft of the vehicle. The processes outlined in this document will not be used to facilitate debt recovery.
- 1.3 Neither this document nor the installation of a vehicle tracking system modifies the burden of proof required by, or increases the powers available to, a police officer under legislation. It sets out the police requirements before such systems are accepted for police response to the tracking of a vehicle which is known to be, or with reasonable cause is believed to be, stolen.
- 1.4 The Association of Chief Police Officers Property Tracking Group (ACPO PTG) negotiates on behalf of the police service with companies operating stolen vehicle tracking and location systems to achieve common procedures with UK police forces and contribute to the work of any appropriate technical standards organisation. However, some operational aspects remain matters for individual Chief Constables and the ACPO PTG will advise companies where such conditions apply.
- 1.5 Security technology is capable of transfer to applications not originally envisaged, such as CCTV used for vehicle security. Therefore the police service has developed a policy on Police Response to Security Systems (PRSS). This Guidance document takes account of those requirements as of date of publication. Until such time as the PRSS is able to call up a suitable European Standard for stolen vehicle tracking systems, this Guidance document will serve as the minimum police specification for tracking vehicles under the PRSS.
- 1.6 Companies selling or promoting tracking products should draw these police requirements to the attention of purchasers of fleet management tracking systems as the system may be also be used to locate a fleet vehicle following theft. Further advice may sought from ACPO (see Section 13).

- 1.7 The companies operating tracking or locating systems should not make unrealistic representations to their customers as to the level of police response to a system. The level of police response to a suspected crime is an operational matter subject to the discretion of Chief Officers, competing operational commitments and the quality and reliability of information.
- 1.8 Point of sale literature and customer agreements which make reference to the police service should be submitted to the ACPO Property Tracking Group to ensure that police interests are not misrepresented. This is not to be construed as endorsement of the product (See Appendix A. Processes for companies seeking Police response to new products).

2 QUALITY ASSURANCE

- 2.1 Any Systems Operating Centre (SOC) used in tracking or location systems should comply with BS 5750/ISO 9000 on quality assurance. It is for the consumer to ensure that the security of the SOC is proportionate to the risk. However, any SOC used in monitoring 'high risk loads' should also comply with BS 5979 on security.
- 2.2 Any SOC supplying information to a police force must:
- Operate 24 hours a day, 365 days a year
 - Provide full backup monitoring systems in the event of down time
 - Have a full disaster recovery plan to enable continuation of service within 15 minutes. For SOCs handling high risk loads a full disaster contingencies to enable continuation of service within 5 minutes.
 - Adhere to the data protection laws of the country in whose jurisdiction they operate.
- 2.3 Tracking or location system operators shall undertake such measures to ensure that staff employed on tracking or location systems do not have criminal convictions that would pose a risk to security. For high value loads personnel security clearance to BS7858 is required. The ACPO Security Systems Policy provides a procedure for those staff with access to customers' confidential security procedures (this policy can be obtained from any police force alarms administration unit or from ACPO).
- 2.4 The requirements in Section 2 do not apply to in-house operations primarily aimed at fleet management, provided the operator does not monitor another company's vehicles.

3 COMMUNICATION

- 3.1 The means of tracking and communication between the vehicle and the commercial operator is a matter for the company. However, each system must be demonstrated to be technically and operationally viable and resilient to false alarms.

3.2 Systems incorporating personal attack and emergency call facilities are prone to accidental or malicious use and will be considered on an individual basis by ACPO PTG to ensure that other aspects of emergency service response are taken into consideration.

3.3 **Vehicle Location Systems**

Tracking systems operating from a SOC must provide an accurate present location. The location shall be defined in a standard manner referring to national and international mapping principles and at a definition level that permits a realistic chance for the police to find the vehicle (e.g. within 100m) with details to street name and major physical feature level. The system provider shall state the positional accuracy and the area effectively covered by the system.

3.4 In general, communication between the tracking company and any particular police force should be via shared ex-directory lines. Some police forces have existing facilities that are capable of accepting details of stolen vehicles. Such facilities will only be used by the tracking company at the invitation of the force concerned.

4 OPERATIONAL PRIORITIES

4.1 Any 'tracking call' may be interrupted or terminated by the police as a result of competing operational matters. A continuous commentary on a telephone line should be avoided unless there are police resources available to immediately deal with the matter. This policy will enable other alarm calls to be received via the shared lines. ACPO has issued guidance on pursuit management, and tracking may be discontinued at any time in the interests of safety of the public and police officers. Decision process flow charts are shown at Appendix B.

5 OPERATIONAL RESPONSE

5.1 Many police forces use computerised command and control systems and experience suggests that each tracking company may be allocated a unique reference number (URN) which will identify the company, call-back telephone numbers and any particular procedures on pre-formatted messages at police HQ. The police HQ will allocate the URN and a specimen format for the dialogue between the SOC and police HQ is attached (Appendix C).

5.2 The initial report of a stolen vehicle should be made to the police by the holder of the vehicle keys or other person who can confirm the theft. The vehicle is then entered on the Police National Computer (PNC) as a stolen vehicle as soon as practicable after the report has been made to the force concerned. If a tracking device is fitted to the vehicle this information will be included on the PNC.

- 5.3 When a tracking company contacts a police force informing them of a vehicle-tracking incident, or an owner notified theft, the force concerned should rely on the PNC as confirmation of the vehicle theft.
- 5.4 Police action will not normally be taken until the vehicle theft is entered on PNC or the theft is confirmed by the holder of the vehicle keys or other authorised person who can quote the relevant crime reference number. In exceptional circumstances where information, other than the crime report reference, leads the operator to believe the vehicle to be stolen, then the operator may pass details to the police for information, together with periodic updates, until the theft is confirmed. This does not imply any obligation on the police to accept unconfirmed reports for tracking response, but acknowledges that on occasions there may be unique circumstances.
- 5.5 The company shall state the time of the vehicle position report as part of the Vehicle Information Report, an example of which is given in Appendix D.
- 5.6 The time period allowed to elapse between update calls will be agreed with the force concerned at the initial contact as will updates on stationary vehicles.
- 5.7 The police will not seek the activation of tracking devices without the consent of the vehicle owner or the holder of the keys. The only exception will be where such person is in the vehicle and life is considered to be at risk, such as kidnapping or stated intention to commit suicide. Such requests will be supported in writing under the authority of the senior force operations supervisor on duty at that time, to the tracking company (FAX accepted).

6 HIRE VEHICLES

- 6.1 The police service must not be used to track overdue hire vehicles in circumstances that amount to debt recovery as opposed to having reasonable evidence that a crime has been committed. A process has been agreed with the BVRLA (British Vehicle Rental & Leasing Association) and the following is a précis of the arrangements that must be completed before a hire vehicle is accepted for tracking:
- 6.2 The hire company must at the time of hiring make it clear to the hirer that to exceed the hire period without permission of the company may cause that person's details to be forwarded to the police for the matter to be investigated.
- 6.3 Hire firms are expected to follow and action every reasonable line of enquiry prior to reporting an overdue hire vehicle as stolen. A prosecution cannot be pursued where the vehicle is merely kept beyond the period of hire at a location at which it could reasonably be traced, for example, from information on the hire documents. In addition, where such a vehicle is not traced the hire company must formally withdraw consent for the hirer to use the vehicle.
- 6.4 The hire firm must supply details of the vehicle and hirer to the police, including:
- (i) Full forename and surname of hirer (maiden name where appropriate)

- (ii) Gender, date and place of birth
- (iii) Home address
- (iv) Full details of driving licence, including driving licence number and issue number
- (v) Full details of cheque/credit card used by hirer to pay for the hire of the vehicle.

The hire firm must be prepared to provide a statement of complaint supporting a prosecution when making a complaint of theft to the police.

For further details please contact the BVLRA (See Section 13).

7 MANAGEMENT INFORMATION

- 7.1 Tracking companies/SOCs monitoring vehicle tracking and locator systems must provide management information on their system to the police to enable an assessment of false alarms nationally.
- 7.2 The information supplied must give details of the number of calls received by the company and passed to the police, the number of recoveries and the number of false alarms. **A false alarm is defined as any occasion where the system has been operated and where the police have been informed, despite no vehicle theft having taken place.** The information shall be on a force-by-force basis.
- 7.3 Police response to all calls is based in the gravity of the incident reported, the availability of resources, the gravity of other calls competing for those resources and the likelihood that the information is correct. Electronic security systems which produce false calls or SOC's which fail to filter false calls or pass inaccurate data raise questions of reliability and waste police resources. If the level of false calls passed to the police are unacceptable it will result in:
- a) A written warning from ACPO PTG to the company involved and a copy circulated to all forces.
 - b) If the level of false alarms remains unacceptable over a period of 3 months, response to the company or SOC can be withdrawn on a force-by-force basis. However, if the company or SOC can demonstrate that it has tried, but been unsuccessful in reducing false calls, the circumstances will be reported to the original evaluation authority (e.g. Thatcham) and ACPO may agree objectives with the company to resolve the situation.
 - c) If the situation has not been resolved after a further 3 months police response to tracking information may be withdrawn on a force by force basis.
- 7.4 It will, therefore, be the responsibility of the company to limit false alarms by the early identification of problem clients and subsequent withdrawal of service to such customers. To restore response from the police force concerned, the company shall apply in writing to the relevant Chief Constable with supporting evidence that the system has been free of false alarms for a period of 3 months and that the original cause has been identified and rectified.

8 COMPETING TRACKING/LOCATION SYSTEMS

- 8.1 Companies should be aware that nothing contained within any working agreement would prevent a Chief Officer from operating or becoming involved in an alternative tracking/locator system.

9 INDEMNITY

- 9.1 Vehicle tracking and locator companies will indemnify, in writing, each Chief Constable where it is intended that the system will operate. The indemnity shall cover Police Authorities, their officers and servants, the Chief Constable and all members of the police service, against any claim under any course of action made by any person:
- a) in respect of personal injury (including death) directly caused as a result of the use of the tracking system;
 - b) in respect of any loss, damage, expense, personal injury (including death), wrongful arrest, prosecution or charge caused by the negligent operation of the system by the company, or by any malfunction of the system which results in a vehicle being wrongly identified as stolen.
- 9.2 The tracking and location systems operator must have public liability insurance.

10 VEHICLE RECOVERY

- 10.1 A vehicle tracking or locator company will acknowledge that the responsibility for the recovery of located stolen vehicles rests with the owner of the vehicle, who may contract this to a third party. Police forces may, however, recover stolen vehicles in accordance with their force policy for the purposes of crime reduction, forensic examination or evidence or if the vehicle is in a dangerous condition or dangerously or obstructively parked.

If a police force does physically locate a stolen vehicle, they will inform the owner or SOC whether or not they have recovered it and when and on what conditions it is available for collection. The SOC will then endeavour to inform the owner whilst arranging for the return of the vehicle.

11 GENERAL

- 11.1 The tracking/ locator company must give evidence that the installation of their equipment to customer vehicles will be of a standard that prevents false activations in accordance with best common practice. Specifically the installation should comply with the installation requirements contained in Directive 95/54/EC relating to EMC.

- 11.2 The tracking or location systems equipment supplier must be certified ISO 9002 or equivalent.
- All tracking and location equipment must be of good build quality and is fit for purpose. It must have a CE mark; an ‘e’ mark (see Directive 95/54/EC) or an ‘E’ mark (see UNECE 10.02); and comply with the appropriate ETSI standards where there is the possibility of a radio transmission. Systems which use radio transmissions will need to be licensed.
- It is accepted that given knowledge, the relevant technology and time, a criminal attack on any device may be successful. To provide realistic protection the device shall be constructed and installed so that any attack is resisted for sufficient time (a minimum of 2 minutes) to enable the system to register the attack, transmit data and location and enable the SOC to initiate a response.
- The tracking or location equipment must not adversely affect the design function and safe operation of any vehicle, even in the case of malfunction, especially with regard to steering, brakes, electromagnetic compatibility and vehicle exhaust emissions. Antennas must be installed in a safe manner and in accordance with manufacturer’s instructions. The equipment should not emit any external audible signal.
- 11.3 **Remote Engine Degradation or Immobilisation.**
- Concern has been expressed in the UK and other EU countries for the safe operation of devices, which, on remote signal, slow or stop vehicles after thieves have taken them. The Home Office, the DfT (formerly DETR) and ACPO have agreed a guidance note detailing what these organisations consider to be the legal, liability and safety issues, which companies wishing to develop these devices must address. Such issues may also transfer to any subsequent purchaser and also influence insurance cover. A copy of the guide may be found in Appendix E.
- 11.4 The transmitted power levels of radio equipment will be such as not to cause harm or damage and compliant with the specified legal limits for the device.
- The equipment supplier should take steps to ensure that equipment does not transmit outside of the licensed area. This may require equipment to be able to select a different frequency for each country of operation. Manufacturers of such a device must ensure a list of the countries for which the device is licensed accompanies the sale of the device.
- The Transmission protocols must include error correction and require the use of codes to provide a secure and high integrity means of communication with the vehicle and tracking or location devices.
- UNECE Reg. 21 [5] has been quoted
 - EC Directive 95/54/EEC has been quoted
 - EC Directive 89/336/EEC has been quoted (CE Mark)
 - EC Directive 74/60/EEC (as amended) [5] has been quoted
 - CEPT Recommendation 70-03 emitted radiated power of active devices (RTTE)
- 11.5 Inevitably the technology will find a demand for non-vehicle applications. Tracking systems do not alter police powers of entry and search and therefore such applications will not be considered by the police under this policy unless the technology is able to

locate items accurately in multi-occupancy or high rise buildings. In effect there is limitation of use to the police unless equipment is capable of three-dimensional tracking. The tracking of people presents issues for identification, personal liberty, accurate location and police resources. Such systems will not be accepted until ACPO is satisfied these are resolved.

11.6 No cost for operating a tracking system will be borne by the police, save for those generally incurred in the attendance to calls. Generally, the police do not wish to operate equipment on behalf of tracking companies.

11.7 It is proposed that the CEN European Standard for ATSVR shall cover technical issues identified in section 11 (See Section 13).

11.8 Companies tracking or owning Heavy Goods Vehicles may also wish to consider PSDB advice on roof markings contained in 'Guidelines for Roof Markings on Heavy Goods Vehicles' (PSDB publication 14/99).

11.9 Companies may apply for a police response to their product through the procedures outlined in Appendix A.

11.10 **Audit, Review, and Appeals**

This document shall be available to the public and will be reviewed on an annual basis commencing 12 months from first publication date. The review will take account of developments in technology, relevant British or European standards in the public domain, any new relevant legislation and experience of operating the systems. Complaints or enquiries concerning this document or the police response to a particular incident should be directed to the Chief Constable of the relevant police area. If complaints concerning this document and the principles contained therein cannot be resolved by the local Chief Constable they will be referred to the Association of Chief Police Officers (see Section 13).

12 HUMAN RIGHTS AUDIT

12.1 Consideration has been given to the compatibility of this policy and related procedures with The Human Rights Act; with particular reference to the legal basis of its precepts; the legitimacy of its aims; the justification and proportionality of the actions intended by it; that it is the least intrusive and damaging option necessary to achieve the aims; and that it defines the need to document the relevant decision making processes and outcomes of action.

13 NOTES

13.1 ACPO refers to the Association of Chief Police Officers for England, Wales and Northern Ireland, covering the 43 police forces in those areas and is based at 25 Victoria Street, London, SW1H 0EX. ACPO(S) refers to the Association of Chief

Police Officers for Scotland and covers the 8 police forces in Scotland and is based at Strathclyde Police Headquarters, 173 Pitt Street, Glasgow, G2 4JS. Both organisations were consulted in the preparation of this document.

- 13.2 ACPO Property Tracking Group (PTG) is part of an ACPO committee dealing with issues surrounding Crime & Disorder Reduction and Partnerships. The PTG represents the police service to negotiate with companies developing a range of products and services to track and trace stolen goods, including tracking stolen vehicles. Current contact details may be obtained from ACPO CPI as detailed below.
- 13.3 ACPO Crime Prevention Initiatives Limited (ACPO CPI) is a company, limited by guarantee, which is wholly owned by the Association of Chief Officers for England Wales & Northern Ireland for the purposes of managing national crime prevention projects on behalf of ACPO and ACPO(S). The registered office is 25 Victoria Street London, SW1H 0EX. Tel: 0207227 3423 / Fax: 0207227 3400 / email: acpocpi@acpo.pnn.police.uk
- 13.4 The Police Scientific Development Branch (PSDB) provides technical, operational and policy support for all UK Police forces, the Home Office, the Prison Service, the Department for Transport, H M Customs & Excise and other government customers. It is part of the Policing and Crime Reduction Group of the Home Office.
- 13.5 The European Standard for tracking systems is under development as CEN TC 278 (Road Transport & Traffic Telematics) Working Group 14, After Theft Systems for Vehicle Recovery. The PSBD and ACPO are contributors to that process and will take cognisance of the standard when finally published.
- 13.6 Thatcham is the generally used title for the Motor Insurance Repair Research Centre, Colthrop Way, Thatcham, Berkshire, RG19 4NR.
- 13.7 The BVRLA (British Vehicle Rental & Leasing Association) is the trade association for the vehicle rental and leasing industry in the UK and may be contacted at River Lodge, Badminton Court, Church Street, Amersham, Bucks. HP7 0DD. Telephone 01494 434747.

Appendices

A PROCESS FOR COMPANIES SEEKING POLICE RESPONSE TO NEW PRODUCTS

A 1 The following provides a step-by-step guide to the process of requesting a police response to new products. All matters will be treated as commercial in confidence.

A.1.1 Introduction of a new device. The company writes to the Secretary of ACPO PTG supplying all technical documentation, H&S information, user manuals and statement of modes of use.

A.1.2 The documentation and equipment are assessed against the guidelines set out in ACPO stolen vehicle tracking guidance, ACPO, DfT & Home Office Guide on Remote Immobilisers, draft CEN TC278 WG14 and any additional requirements specific to the particular technology proposed (example of audit form in Appendix F). Suggestions may be forwarded to the company on matters which, if modified, might bring the device within the ACPO parameters.

A.1.3 PTG decides whether to invite the company to present the device to ACPO and, if so, sends them a copy of this document.

A.1.4 Company presents the device to ACPO PTG and the committee decides whether to continue with the process. If so, the company will be required to submit the product for a technical evaluation which shall include matters contained within this guide. Typically the evaluation will be in the form of a Thatcham Q Report or by a similar body which has agreed evaluation methods with ACPO (for a list of bodies having agreed evaluation methods contact ACPO PTG). If the proposed device involves new or unique technology, selected Police Forces may conduct operational tests in accordance with ACPO PTG guidance and send the PTG Secretary a test report when completed. Systems accepted by the UK police services prior to 1st October 2001 will be deemed to have passed this part of the process.

A.1.5 The PTG Secretary circulates the test reports for consideration by ACPO PTG. Suggestions may be forwarded to the company on matters which, if modified might bring the device within the ACPO parameters. If the device is judged suitable for a police response to calls, the company and all forces will be notified.

A2 Commercial use of Police accreditation

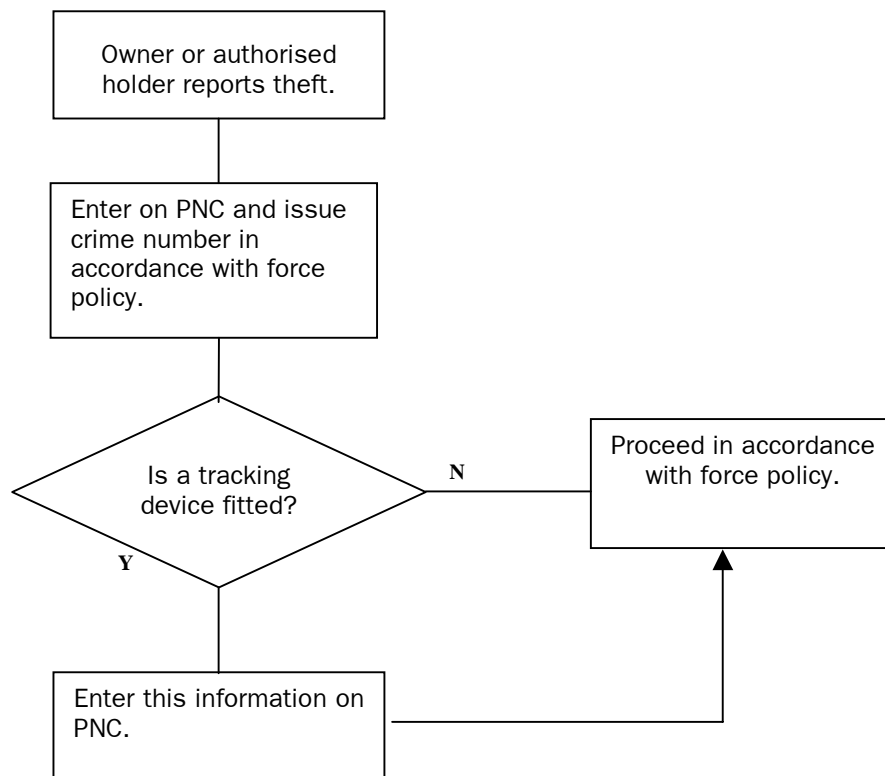
There is a significant commercial advantage for companies to use expressions in their marketing which identify a form of police accreditation. Such companies are licensed to do so through ACPO Crime Prevention Initiatives Ltd (ACPO CPI) on payment of an annual licence fee and proof that the tracking product meets the specifications identified within this document. This process permits the company to use the police “Secured by Design” logo with the endorsement “Police Preferred Specification”, together with other related benefits.

The Home Office does not permit use of its title in such accreditation but does support the principles adopted by the police through the Secured by Design accreditation method.

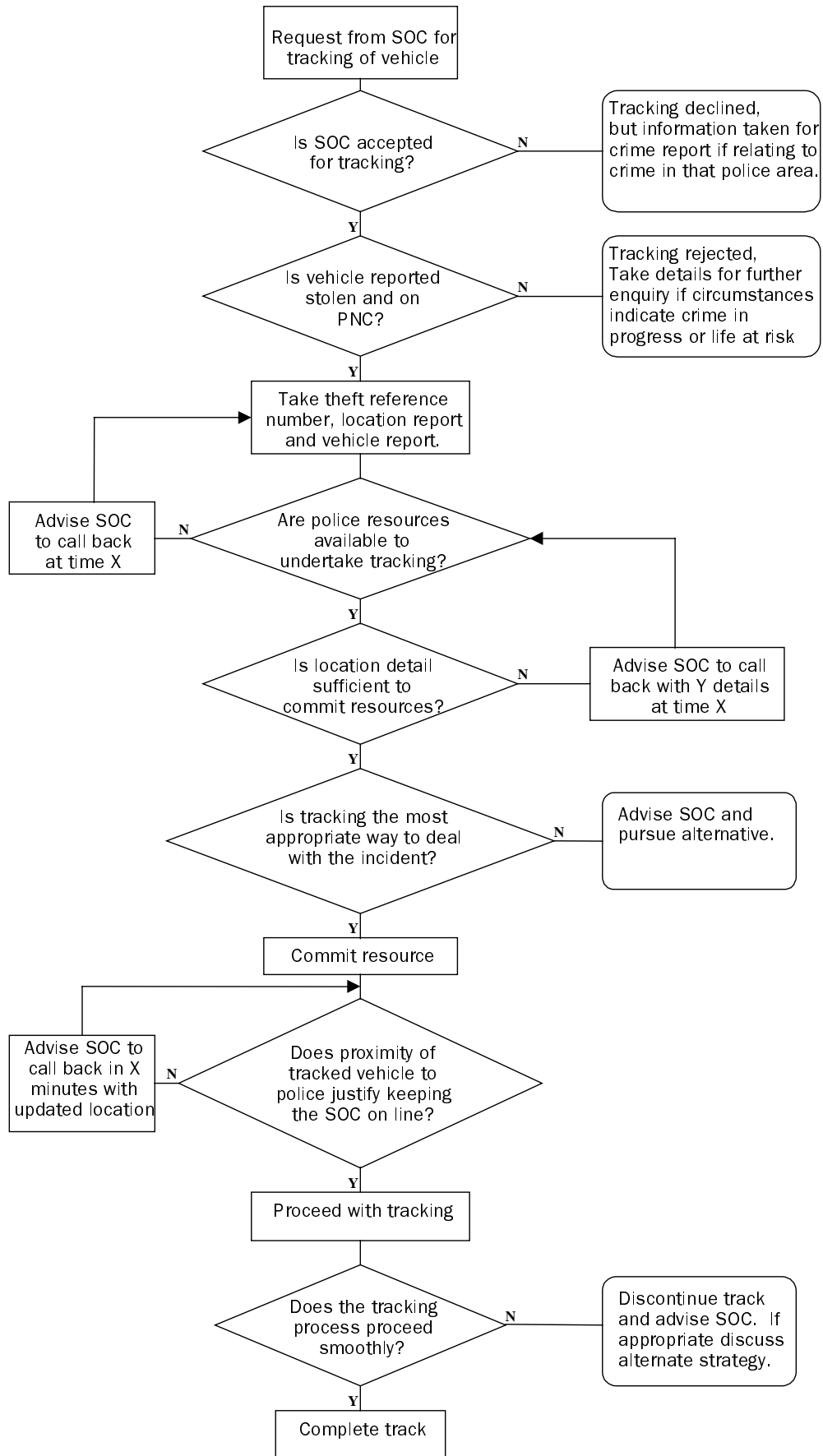
For full details contact ACPO CPI.

B DECISION PROCESS FLOW-CHARTS

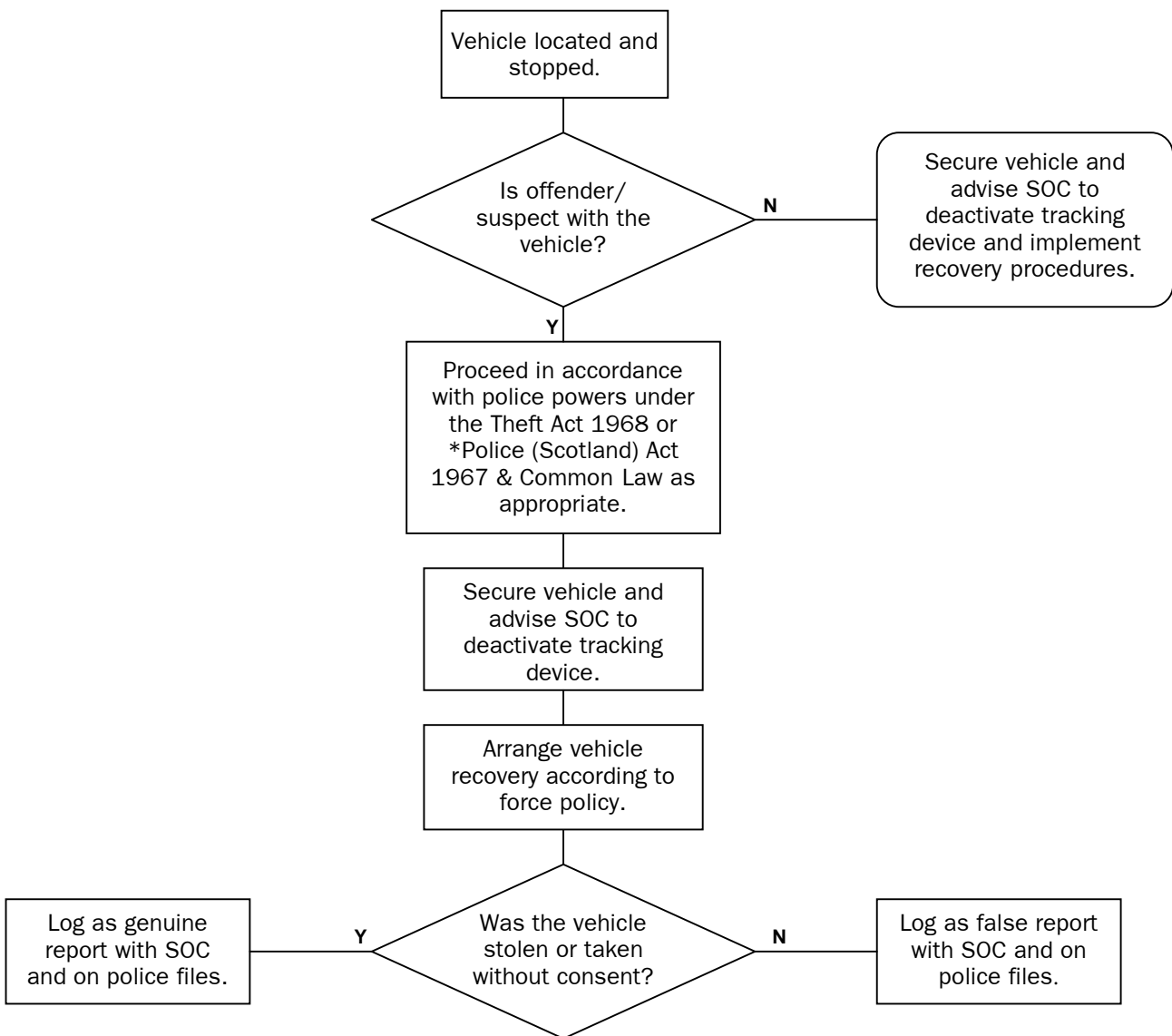
B 1 On report of vehicle theft



B 2 Tracking Procedure



B3 On recovery of vehicle



*Police powers in Scotland derive from Common Law and Statute Law and are different from those in England.

B4 On receipt of request for operation of remote engine immobiliser

As of date of first publication of this guide, no device has been demonstrated to ACPO which satisfies the requirements of Appendix E. Check force instructions for any subsequent change in this position and for relevant flow chart.

C DIALOGUE EXAMPLES

These are step by step examples of the expected content of messages exchanged by System Operating Centres (SOC) and Law Enforcement Agencies (LEA). These examples have been prepared by CEN TC278 WG14.

C1 System Operating Centre / Law Enforcement Agency

Stolen Vehicle Confirmation Dialogue

Phase 1 Identification	
Pass name of SOC Pass a unique reference code Pass call back number and message	This code, where it exists, is specific to each LEA / SOC contact agreement. If the request for response is in accordance with this guide it will be accepted. If the SOC has not been accepted by the force for police response to an electronic security system in accordance with this guide, or, as a result of excessive false calls, police response to the particular SOC or tracking system has been withdrawn, the caller will be advised and the request for immediate tracking rejected. Normal information recording processes for reports of crime or information regarding a reported crime will be followed.
Phase 2 Confirmation.	
Please confirm whether identified vehicle is recorded as stolen. The theft report reference number to be given (The LEA should then check whether or not the vehicle is on a LEA "stolen vehicle reference file" and act accordingly.)	Respond with confirmation. The theft reference number will be unique only within the specific issuing LEA. Confirmation of a stolen vehicle report is permitted under the Data Protection Act in the UK, confirmation of the situation in other EU countries is required

Stolen Vehicle Location Report

Either as a part of the initial dialogue or in response to a LEA Request.

Either a data message as defined in Appendix D or a verbal or text report that includes: Unique identifier of the vehicle Moving or stationary information Position in absolute co-ordinates or accurate description by reference to landmarks	The clearest and most appropriate location reference should be given. Pass over the direction of movement as it may take some time to get this information to patrols on the ground. The LEA control will advise if a call back or other action is required. Should the location be away from the road or in rural area offer a geographic co-ordinate. This may help to resolve difficulties.
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Stolen Vehicle Description Report

Either as a part of the initial dialogue or in response to a LEA Request.

Either a data message as defined in Appendix D or a verbal or text report that includes:	Year, colour, make, model, registration plate. Plus any special identification features such as Alloy wheels or visible damage. (The LEA should then check whether or not the vehicle is on a LEA "stolen vehicle reference file" and act accordingly.)
--	---

Request from specific LEA for Additional Information from an SOC

Phase 1 Identification	
Pass name of LEA Control Room. Pass SOC reference number / file / incident reference Pass call-back number	If the number / file / incident reference exists Or other positive identification information
Phase 2 Information Request	
Please provide additional information on a stolen vehicle. (Provide suitable reference information)	Suitable reference information is the unique identity of the signal from the stolen vehicle or unique identifier of the vehicle in question. SOC will supply e.g.: Year, colour, make, model, registration plate, or a standard report as defined in Appendix D

Request from specific LEA for action from an SOC

Phase 1 Identification	
Pass name of LEA Control Room. Pass unique reference number Pass call-back number	If the number exists Or other positive identification information
Phase 2 Action Request	
Please take the following action in respect of a stolen vehicle. (Provide suitable reference information)	Suitable reference information is the unique identity of the signal from the stolen vehicle or unique identifier of the vehicle in question. The LEA may request actions such as Deactivation of Stolen Vehicle Device. The LEA may advise that due to operational demands or safety the current tracking operation will be suspended. Dialogue will continue according to the particular circumstances.

C2 Vehicle / Fixed or Mobile Detection Equipment

Detection Function by Consulting

Data Handling if the reader contains a database of Stolen Vehicles

Vehicle	Fixed or Mobile Identification Equipment
Phase 1: Request for Identification	
	Sends Random number to the vehicle
Phase 2: Vehicle OBE sends back confirmation information to the reader	
Sends VIN (encrypted, based on random number received, VIN, the algorithm in use and a car-unique secret number) concatenated with Vehicle Status information (encrypted) Concatenated with Authentication code	Identification and Status Information to the Reader.
Phase 2a: Look-up in Databank, Performed by the Reader	
	Reader compares VIN with database entries
Phase 3: Writing back of Vehicle Status	
	Sends updated message (e.g. "car stolen")

Phase 3a: Internal update of vehicle status	
Phase 4: (Optional) Acknowledge	
Sends Acknowledge information to the reader	

Detection Function by Signalling
Data Handling if the Reader does not contain a Databank of Stolen Vehicles

Vehicle	Mobile Identification Equipment
Phase 1: Request for Identification	
	Sends random number to the vehicle
Phase 2: Vehicle OBE provides reader with info of Identification & Status Information.	
Sends VIN (encrypted, based on random number, VIN, the algorithm in use and a car-unique secret number) concatenated with vehicle status information (encrypted) concatenated with authentication code	
Phase 3: Storage and Display of VIN and vehicle status in the Reader	

C3

Example of a Remote Disable / Degradation Command

Completion of 'Definition and characteristics' are subject to ongoing work by CEN TC 278 WG14.

Command Message

	Parameter	Definition and characteristics
1	Source of Command	
2	Vehicle unique identifier	
3	Type of Action commanded	
4	Date of command	dd/mm/yy
5	Time of command	24 hour clock hh:mm in GMT / Local Time

Acknowledgement Message

	Parameter	Definition and characteristics
1	Message Type	
2	Vehicle Unique Identifier	
3	Command Received	

Progress Message

	Parameter	Definition and characteristics
1	Message Type	
2	Vehicle Unique Identifier	
3	Type of Action commanded	
4	Date of command	dd/mm/yy
5	Time of command	24 hour clock hh:mm in GMT / Local Time
6	Progress Report	

D VEHICLE INFORMATION REPORT

All fields should be regarded as “if available” and vehicle marks or types to be as seen on a vehicle. Free text must be distinguished from translatable text. Each parameter should be translatable if possible. The information supplied will include:

	Parameter	Definition and characteristics
1	Unique Reference Number	This reference number to be agreed between an SOC and a LEA (Law Enforcement Agency). Defined maximum number of characters
	SOC Identification	Defined maximum number of characters to include country code, Bureau code
2	Date of report	dd/mm/yy
3	Time of report	24 hour clock hh:mm in GMT / Local Time
4	Confirmation of theft by owner Yes /No	Yes / No
5	LEA to which the theft was reported	Alpha numeric text field
6	LEA CRC (Crime Reference Number) reference when assigned	Alpha numeric text field
7	Position and time of vehicle (if known) as co-ordinate reference, accurate enough to allow the vehicle to be found (to within 100m)	Either as an agreed Grid Reference or Latitude Longitude and projection. Probably 7+7 grid or Deg Min Sec plus time of report.
8	Position and time of vehicle (if known) as description	Descriptive alphanumeric field and time of report
9	Speed of vehicle as at time (GMT)	In Miles per hour or kilometres per hour. Plus notation and time of report
10	Direction of vehicle as at time (GMT)	Whole degrees or cardinal points (N,NE,E, SE, S, SW, W, NW) and time of report
11	Vehicle identification number (VIN) (if available)	Alpha numeric text field
12	Vehicle Chassis Number (if available)	Alpha numeric text field
13	Vehicle registration number (if available)	Alpha numeric text field
14	Vehicle manufacturer	Alpha numeric text field
15	Vehicle model and type	Alpha numeric text field
16	Vehicle colour or colours	Alpha numeric text field
17	Year and month of first vehicle registration, if available	mm/yyyy
18	Place where theft occurred	Alpha numeric text field
19	Time of theft (GMT) – after	24 hour clock hh:mm
20	Time of theft (GMT) – before	24 hour clock hh:mm
21	Vehicle Engine Number	
22	Vehicle Engine Size	
23	Additional information (distinguishing marks or features, Users Fleet Number etc.)	
24	Identity of Fixed Location Equipment	Alpha numeric text field
25	Location of Fixed Location Equipment	Alpha numeric text field
26	Map image if available,	Map image, with format if applicable. Need to list them
27	Country of Origin	
28	Nationality of Vehicle	
29	Free Text	

For the UK Police, vehicle information reports should be supplied in the following format and will be accepted by fax or email (where available):

VRM	
DATE OF REG (month and year)	
MAKE (manufacturer)	
MODEL	
ENGINE CAPACITY	
BODY-TYPE *	
COLOUR 1 ST **	
COLOUR 2 ND	
VIN	
ENGINE NUMBER	
KEEPER'S NAME	
ADDRESS and POSTCODE of keeper	
COUNTRY OF REGISTRATION	
PLACE OF THEFT (Police / LEA jurisdiction that vehicle was stolen from)	
URN	
DATE VEHICLE LAST SEEN (Time of theft, after)	
DATE VEHICLE LOSS DISCOVERED (Time of theft, before)	
ADDITIONAL INFORMATION ***	

Notes:

***BODY-TYPE**

Valid body types are:

MPV	Sports	Motorcycle	3-wheeler car
Saloon/Hatchback	Van	Moped	Combination
Estate	Pick-up	Scooter	Lorry
Convertible	4x4	Motor Caravan	Other

****COLOUR**

Valid colours are:

Beige	Cream	Multi	Silver
Black	Gold	Orange	Turquoise
Blue	Green	Pink	White
Bronze	Grey	Purple	Yellow
Brown	Maroon	Red	

If the colour is not on the list choose the nearest.

If three or more colours use 'Multi'.

*****ADDITIONAL INFORMATION**

May be any of the other parameters available as listed above.

E AFTER-THEFT VEHICLE IMMOBILISATION SYSTEMS

Guidance by the Home Office, the Association of Chief Police Officers and the Department for Transport¹.

Introduction

1. After-Theft Vehicle Immobilisation Systems are immobilisers which can be operated following the theft of a vehicle. As such, they are not the primary means of immobilisation and would be fitted **in addition** to vehicle immobilisation devices which immobilise the vehicle prior to theft. After-theft systems may immobilise the vehicle in a controlled manner, by remote control using radio transmission or telecommunication messages following the detection and confirmation of the theft. A number of products with these or other similar features are becoming available, thus creating potential road safety hazards and unrealistic expectations of police involvement. This guidance has therefore been prepared by the Home Office, the Association of Chief Police Officers and the Department for Transport set out how such devices should be designed, constructed and operated.

Legal advice

2. Manufacturers and prospective purchasers are urged to seek their own independent advice as to the legality of the supply and use of these devices and they must recognise that the interpretation of the law is a matter for the courts based on the individual facts of any particular case. Compliance with the guidance in this note does not guarantee exemption from prosecution. Some relevant legislation is listed at paragraph 6 below.

Design and construction

3. After-Theft Vehicle Immobilisation Systems should, amongst other things, be designed and constructed so as:-

- A to immobilise the vehicle when the key is removed by the unauthorised user or when the ignition, or diesel equivalent, is turned off and a door opened;
- B in the absence of a suitable national or international standard, not to immobilise the vehicle whilst in motion unless progressive reduction of engine performance is commenced the instant a communication to start the sequence is transmitted by a police officer who is in visual contact with the vehicle and who has been authorised to do so by their Chief Constable;
- C not to immobilise the vehicle whilst stationary (zero miles per hour) with the ignition turned on unless the vehicle has been in this condition for more than 5 minutes;
- D not to immobilise any other unit or vehicle, including similar products installed by other manufacturers. This may be achieved by each unit having a unique code or electronic address;
- E to flash all direction indicators and/or passenger compartment lamp(s) of the vehicle², when the vehicle has been immobilised in accordance with 'C';
- F to comply with appropriate ETSI³ standards where the immobiliser includes the possibility of a radio transmission. Systems which use radio transmissions will need to be licensed;
- G not to adversely affect the design function and the safe operation of the vehicle, even in the case of malfunction, especially with regard to steering, brakes and electromagnetic compatibility⁴;
- H not to operate in such a way as to apply the brakes of the vehicle;
- I not to operate in such a way as to cause damage to the catalytic converter; and
- J not to emit an external audible signal.

After-theft vehicle immobilisation systems should also at all times be maintained in good working order.

¹ Issued February 2000

² Subject to amendments to Road Vehicles Lighting Regulations 1989, Regulation 27, Table, Item 5

³ European Telecommunications Standards Institute

⁴ Compliance with Commission Directive 95/54/EC should ensure acceptable performance

Police operational requirements

4. Where there is an intention that the police may respond to any such device, the systems must be acceptable to the Association of Chief Police Officers for England, Wales and Northern Ireland and the Association of Chief Police Officers (Scotland) in the following terms:

- (i) The device conforms to the remainder of this guidance.
- (ii) There is no obligation on the police service to respond to the operation of such a device and the marketing of the product does not raise for the customer any unrealistic expectation of police response.
- (iii) The system does not place an unwarranted burden on police resources through its operation, data handling or police response. Police response will not be given to devices which do not operate in real-time or to accuracy standards acceptable to the police.
- (iv) Chief Police Officers will require an individual written indemnity against liability for death, injury or damage arising from the operation of such a device or system.

Relevant legislation

5. Manufacturers and prospective purchasers should seek legal advice on their liability to prosecution for criminal offences, or payment of compensation in civil cases, in relation to any personal injuries or damage to property (including third parties) arising from the operation of the system.

6. Manufacturers and prospective purchasers should also seek legal advice on liability to prosecution for offences under the Road Traffic Act 1988 [RTA], the Road Vehicles (Construction & Use) Regulations 1986 [C&U] and the Road Vehicles Lighting Regulations 1989 [RVL]. In Northern Ireland an offence may be committed under the Road Traffic (NI) Order 1995 [RT(NI)], the Motor Vehicles (Construction and Use) Regulations (NI) 1999 [MV(C&U)(NI)], and the Road Vehicles Lighting Regulations (NI) 1995 [RVL(NI)]. In particular:-

RTA section 22A⁵ - (1) [RT(NI) Article 33(1)]

‘A person is guilty of an offence if he intentionally and without lawful authority or reasonable cause –

- (a) causes anything to be on or over a road, or
 - (b) interferes with a motor vehicle, trailer or cycle, or
 - (c) interferes (directly or indirectly) with traffic equipment,
- in such circumstances that it would be obvious to a reasonable person that to do so would be dangerous.’

RTA section 25 [RT(NI) Article 36]

‘If, while a motor vehicle is on a road or on a parking place provided by a local authority, a person –

- (a) gets on to the vehicle, or
- (b) tampers with the brake or other part of its mechanism, without lawful authority or reasonable cause he is guilty of an offence.’

RTA section 40A [RT(NI) Article 54]

‘A person is guilty of an offence if he uses, or causes or permits another to use, a motor vehicle or trailer on a road when –

- (a) the condition of the motor vehicle or trailer, or of its accessories or equipment, or
- (b) the purpose for which it is used, or

⁵ This section does not extend to Scotland

- (c) the number of passengers carried by it, or the manner in which they are carried, or
- (d) the weight, position or distribution of its load, or the manner in which it is secured, is such that the use of the motor vehicle or trailer involves a danger of injury to any person.'

RTA section 75 - (1) [RT(NI) Article 83(1)]

'Subject to the provisions of this section no person shall supply a motor vehicle or trailer in an unroadworthy condition.'

RTA section 76 - (1) [RT(NI) Article 84]

- (1) 'If any person –
 - (a) fits a vehicle part to a vehicle, or
 - (b) causes or permits a vehicle part to be fitted to a vehicle, in such circumstances that the use of the vehicle on a road would, by reason of that part being fitted to the vehicle, involve a danger of injury to any person or constitute a contravention of or failure to comply with any of the construction and use requirements, he is guilty of an offence.

(2)

- (3) If a person –
 - (a) supplies a vehicle part or causes or permits a vehicle part to be supplied, and
 - (b) has reasonable cause to believe that the part is to be fitted to a motor vehicle....., he is guilty of an offence if that part could not be fitted to a motor vehicle, except in such circumstances that the use of the vehicle on a road would, by reason of that part being fitted to the vehicle, constitute a contravention of or failure to comply with any of the construction and use requirements [or involve a danger of injury to any person].

(4) In this section references to supply include –

- (a) sell, and
- (b) offer to sell or supply.

(5)

C&U Regulation 60 [MV(C&U)(NI) Regulation 73] (Radio Interference)

- (1) 'Subject to paragraphs (1B), (1D), (1E) and (2) –
 - (a) every vehicle to which this sub-paragraph applies shall be so constructed that it complies with the requirements of paragraph 6 of Annex 1 to Community Directive 72/245 or paragraph 6 (as read with paragraph 8) of Annex 1 to Community Directive 95/54 (whether or not those Community Directives apply to the vehicle); and

C&U Regulation 100 (1) [MV(C&U)(NI) Regulation 115(1)]

'A motor vehicle, every trailer drawn thereby and all parts and accessories of such vehicle and trailer shall at all times be in such condition that no danger is caused or is likely to be caused to any person in or on the vehicle or trailer or on a road.'

C&U Regulation 103 [MV(C&U)(NI) Regulation 119]

'No person in charge of a motor vehicle or trailer shall cause or permit the vehicle to stand on a road so as to cause any unnecessary obstruction of the road.'

C&U Regulation 104[MV(C&U)(NI) Regulation 120]

‘No person shall drive or cause or permit any other person to drive, a motor vehicle on a road if he is in such a position that he cannot have proper control of the vehicle or have full view of the road and traffic ahead.’

C&U Regulation 107 [MV(C&U) (NI) Regulation 123]

(1) ‘save as provided in paragraph (2), no person shall leave, or cause or permit to be left, on a road a motor vehicle which is not attended by a person licensed to drive it unless the engine is stopped and any parking brake with which the vehicle is required to be equipped is effectively set.

(2)’

RVL Regulation 27 Item 5 [RVL(NI) Regulation 30 Item 5]

‘No person shall use, or cause or permit to be used, on a road any vehicle on which any hazard warning signal device is used other than –

- (i) to warn persons using the road of a temporary obstruction when the vehicle is at rest; or
- (ii) on a motorway or unrestricted dual-carriageway, to warn following drivers of a need to slow down due to a temporary obstruction ahead; or
- (iii) in the case of a bus, to summon assistance for the driver or any person acting as a conductor or inspector on the vehicle; or
- (iv) in the case of a bus to which prescribed signs are fitted as described in sub-paragraphs (a) and (b) of regulation 17A (1), when the vehicle is stationary and children under the age of 16 are entering or leaving, or are about to enter or leave, or have just left the vehicle.’

7. In addition to the specific requirements mentioned above, devices must comply with all other legal requirements. Also an after theft vehicle immobilisation system must not interfere with an immobiliser fitted and approved to Directive 95/56/EC.

European Standard for After-Theft Vehicle Immobilisation Systems

8. It should be noted that work is in progress on a European Standard for After Theft Systems for Vehicle Recovery by the CEN TC 278 Road Transport & Traffic Telematics Working Group 14. Remote immobiliser systems are included in the scope of this work and the Home Office, police and system suppliers are involved in the preparation of the standard. Further details may be obtained from the British Standards Institution (020 8996 9000) quoting reference EPL/278/-/24.

Enquiries

9. Enquiries in the first instance should be addressed to ACPO Property Tracking Group (c/o ACPO CPI, 25 Victoria Street, London, SW1H 0EX (0207 227 3423).

F

SAMPLE AUDIT FORM FOR ASSESSMENT OF STOLEN VEHICLE TRACKING SYSTEMS

Company:							
Device name:							
Auditor:		Date:					
Stolen Vehicle Tracking Guidance clause		Questions		Answers		OK	
A1.2		Has all the relevant documentation been received?				NC	
1.1		Does the system uniquely identify one vehicle from all other vehicles? Does the system produce and update real-time information on the location of the vehicle?					
2.1		Evidence of BS 5750/ISO 9000 on quality assurance? If high risk loads, evidence of BS 5979?					
2.2		Does the SOC: Operate 24 hours a day , 365 days a year? Provide full backup monitoring systems in the event of down time? Have a full disaster recovery plan to enable continuation of service within 15 minutes (or 5 minutes for high risk loads)? Have procedures to comply with data protection act?					
2.3		Are measures in place to ensure that staff employed do not have criminal convictions that would pose a risk to security? If high value loads, evidence of BS 7858?					
3.1		Has the system demonstrated that it is technically and operationally viable and resilient to false alarms?					

Stolen Vehicle Tracking Guidance clause	Questions	Answers	OK	OB	NC
3.3	Does the positional accuracy and location definition of the system permit a realistic chance for the police to find the vehicle?				
5.5	Are there procedures to verify theft of the vehicle?				
7.2	Are there adequate management information procedures for assessing false alarms?				
9.1	Has a sample indemnity been provided?				
9.2	Does the company have public liability insurance?				
11.1	Evidence of installation of equipment to accepted standards?				
11.2	Evidence that the systems equipment supplier is certified ISO9002 or equivalent? Does the equipment carry a CE mark, 'e' mark, EMC certification and any necessary radio type approval? Is the device resistant to attack? Is the equipment such that it does not adversely affect the design function and safe operation of any vehicle?				
11.3	If appropriate, does the device conform to the guidance notes for remote engine degradation or immobilisation?				
11.4	Is the transmitted power level of radio Equipment compliant with the specified legal limits for the device? Have steps been taken to ensure that the equipment does not transmit outside of the licensed area?				
<u>Key:</u>					
OK the device meets the standard			OB a suggested improvement can be made		NC the device does not conform to the standard

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