

CCV INSPECTION REGULATIONS FOR MECHANICAL SECURITY

Version 3.0

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FOREWORD

Theft of and out of vehicles can be mitigated by installing the right aftermarket security systems. Users and risk bearers both want to be sufficiently assured that the security provided is functional and has been correctly installed in/on the vehicle. The desired functionality, as well as the installation, can be demonstrated through certification.

This document describes the requirements and assessment methods of security systems and is used in the CCV Certificatieschema Systemen Voertuigbeveiliging (CCV Certification Scheme for Vehicle Security Systems).

The CCV Certificatieschema Systemen Voertuigbeveiliging (CCV Certification Scheme for Vehicle Security Systems) does not stand alone. Certified security systems are installed by installation companies that are recognised on the basis of the CCV Erkenningsregeling Inbouwbedrijven Voertuigbeveiliging (CCV Recognition Scheme for Vehicle Security Installation Companies) and the CCV Inbouwvoorschrift Voertuigbeveiliging (CCV Installation Regulations for Vehicle Security). The CCV Risicomodel Voertuigbeveiliging (CCV Vehicle Security Risk Model) provides guidance regarding which security should be installed.

The CCV is the scheme manager of these documents. The CCV Commission of Stakeholders Vehicle Security has given a positive opinion on the adoption of these documents.

This text of this compliance scheme is issued under the auspices of the Centrum voor Criminaliteitspreventie en Veiligheid (Centre for Crime Prevention and Safety) in Utrecht.

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1 SUBJECT AND SCOPE

1.1 SUBJECT AND SCOPE

This document describes the requirements and the inspection method of security systems in vehicles as part of the Keurmerk CCV Voertuigbeveiliging (CCV Vehicle Security Certification Mark).

The term vehicle refers to: passenger vehicles, trucks, work equipment, trailers, and watercrafts. Vehicles are means of transporting people and goods, containers therefore also fall within the scope of this definition.

This document is applied in conjunction with the CCV Certificatieschema Systemen Voertuigbeveiliging (CCV Certification Scheme for Vehicle Security Systems).

Certification (approval) is possible for different types of mechanical security. The table below gives a number of self-explanatory examples.

It is possible that in the future new types of mechanical security will be offered that are not mentioned in the table.

Category	Type of lock (examples)
Immobiliser system (a security device that prevents the unwanted movement of the vehicle)	Gearbox lock
	Steering shaft lock
	Pedal lock
	Steering wheel clamp (steering lock)
	Wheel clamp
Coupling security (a security device that prevents any unwanted coupling or uncoupling to parts of a combination)	Kingpin lock
	Coupling lock (drawbar lock)
	Towing eye lock
(Cargo) hold protection (security devices that prevent the unwanted opening of containers, the cargo space of a commercial vehicle, or the cabin)	Door lock, bonnet lock (single or combined)
	Tow bar door lock
	Container door lock
Watercraft protection (security devices that prevent the unwanted removal of a watercraft's outboard motor)	Outboard motor lock

Approval may be issued for any security that meets the requirements of these inspection regulations.

The supplier shall indicate on the application:

- For which class (standard/heavy) approval is requested;
- Whether it concerns vehicle-based security.

1.2 MECHANICAL VEHICLE-BASED SECURITY

A vehicle-based immobiliser system is subject to specific additional requirements following which a vehicle certificate can be issued. These requirements are described in paragraph 5.9. The vehicle certificate and the specific additional requirements guarantee the quality of the installation and make it possible to check whether the mechanism was locked during the theft.

1.3 TRANSITIONAL PROVISIONS

This document replaces the Keuringsvoorschrift Mechanische Beveiliging (CCV Inspection Regulations for Mechanical Security) Version 2.0. Version 3.0 will take effect on 1 July 2022.

After the effective date, the periodic assessment of new products on all requirements of the Inspection Regulations version 3.0 must take place. Version 2.0 expires on 1 July 2023 (1 year after the effective date). Products that have not been assessed with positive results by then will lose their approval. An exception to this is a decision whereby the period is exceeded because of the assessment of corrective measures, see chapter 10 of the certification scheme. Approved products in stock may be delivered with approval until the end of the transitional period.

1.4 OVERVIEW OF THE MOST IMPORTANT CHANGES

The most important changes as compared to version 2.0 are:

- the document has been redesigned and reorganised for better readability and maintenance in the future;
- a number of requirements have been rephrased, taking into account the original intention;
- the way in which the requirements will be assessed has been indicated;
- a wall anchor cannot be certified separately, this including the applicable requirements, has therefore lapsed;
- a new requirement has been defined for cargo area security;
- requirements 5.1.4 and 5.4.10 in the inspection regulations version 2.0 have lapsed;
- the wording of the categories and locks has been changed.

2 REFERENCES

The following documents that are referred to are relevant to these inspection regulations. Only the quoted version applies to dated references (static reference). The latest version of the document (including supplemental and correction sheets) referred to applies to undated references (dynamic reference).

Transitional periods referred to in these documents are binding, unless other certification terms and conditions have been laid down in this certification scheme and the inspection regulations. Other standards or documents mentioned in these standards and documents apply, as indicated herein.

The certification body is in possession of all of the documents mentioned. The supplier is in possession of the documents marked with a * (if applicable to the mechanical security).

CCV Certificatieschema Systemen Voertuigbeveiliging (CCV Certification Scheme for Vehicle Security Systems)		*	CCV Website
CCV Inbouwvoorschrift Voertuigbeveiliging (CCV Installation Regulations for Vehicle Security)		*	CCV Website
CCV Keuringsvoorschrift Voertuigbeveiliging (CCV Inspection Regulations for Vehicle Security)		*	CCV Website
Keurmerk CCV Voertuigbeveiliging - termen en definities (CCV Vehicle Security Certification Mark - terms and definitions)			CCV Website
NEN-EN 1670:2007	Building hardware - Corrosion resistance - Requirements and test methods	*	NEN, Delft
NEN-EN-IEC 60529:1991/A2: 2013/C1:2019	Degrees of protection provided by enclosures (IP Code)	*	NEN, Delft
ECE R116	Regulation No 116 of the Economic Commission for Europe of the United Nations (UN/ECE) – Uniform technical prescriptions concerning the security of motor vehicles against unauthorised use	*	Internet
NEN-EN 12320:2012	Building hardware - Padlocks and padlock fittings - Requirements and test methods	*	NEN, Delft
ART MBT-04:2019 incl. addendum 1:2020	HOMOLOGATION DIRECTIVE MECHANICAL SECURITY SYSTEMS FOR TWO-WHEELED VEHICLES		ART Foundation
	Addendum 1 to HOMOLOGATION DIRECTIVE MBT-04:2019		
TMS-05: 2022	SKG-IKOB - Test methods for locks (for mobile objects)		SKG-IKOB

3 TERMS AND DEFINITIONS

3.1 TERMS AND DEFINITIONS

For the purposes of this document, the following terms and definitions apply. All terms and definitions used in and with the documents accompanying the Keurmerk CCV Voertuigbeveiliging (CCV Vehicle Security Certification Mark) are included in the document “Keurmerk CCV Voertuigbeveiliging - termen en definities” (CCV Vehicle Security Certification Mark - terms and definitions).

Attack test	Test in which the effectiveness of the blocking is removed with established tools: <ul style="list-style-type: none"> - Intelligent test, non-destructive in which the lock mechanism or the cylinder is manipulated; - Brute force test: destructive.
Blocking system (mechanical)	Assembly of locking tab and locking cup.
Blocking mechanism	Part of the blocking system that is moved directly by the key mechanism.
Outboard motor lock	A mechanism designed to prevent the outboard motor from being taken away unintentionally when locked.
Container door lock	A mechanism that can be locked and, when locked, should prevent the doors of a container (or: the cargo area of a commercial vehicle) from being opened unintentionally.
Container lock	A mechanism which can be locked and which, when locked, should prevent the unwanted hooking of a container.
CCV	Centre for Crime Prevention and Safety. The CCV is the scheme manager and owner of the inspection regulations.
Commission of Stakeholders	The committee that provides support for the scheme and is responsible for the content of the inspection regulations. This committee represents interested parties and involved parties.
Cylinder	Assembly of cylinder core and cylinder housing.
Cylinder housing	Fixed part of the cylinder in which the blocking of the cylinder core takes place.
Cylinder core	Movable part of the cylinder in which the blocking of the cylinder core takes place.
Door lock, bonnet lock	A mechanism that can be locked and, when locked, will prevent the unwanted opening of the door of the cargo space or bonnet.
Kingpin lock	A mechanism that fits around the ball (the “kingpin”) of a semi-trailer, can be locked and, when locked, should prevent unwanted removal of the semi-trailer or removal of the kingpin.
Coupling lock (drawbar lock)	A mechanism that encloses the coupling of the drawbar (or is built into the coupling), can be locked and, when locked, should prevent the unwanted removal of the trailer or caravan.
M.O.	Modus Operandi: how the vehicle or mechanical security is sabotaged/stolen.
Master key	Key with which it is possible to open a group of locks, each of which also has its own unique key.
Pedal lock	A mechanism that locks at least 2 pedals, including the accelerator pedal, are clamped in such a way that driving the vehicle becomes virtually impossible.
Key	<i>Mechanical key:</i> Mechanical, coded (metal) instrument that only fits into the key mechanism to which it belongs.

	<i>Digital key:</i> Digital authorisation used to release or activate the locking mechanism of a mechanical security device.
Key card	A card on which the key number and other relevant key data are displayed.
Key mechanism	Part of the lock that “recognises” the key.
Key number	Number and/or letter designation indelibly marked onto a key or label, or electronic coding on a corresponding key card, which is connected to the key’s encoding.
Key variety, practical	The number of encryption options actually applied.
Key variety, theoretical	The arithmetically determined maximum number of encoding options per profile.
Lock	A mechanism used to lock an object or to block or lock a moving part of the vehicle.
Lock housing	Part of the lock containing the key mechanism and the locking mechanism.
Locking cup	Part of the blocking device in which the locking tab is received.
Locking tab	Part of the blocking system that is moved directly through the cylinder core.
Time-to-defeat	The time during which a part of the mechanical security or the entire mechanical security withstands an attack test and the blocking functionality is effective.
Steering shaft lock	A mechanism that locks the steering shaft in a position that prevents steering.
Towbar door lock	A mechanism, mounted on the tow bar, that prevents the rear door of a cargo area from opening far enough to access the cargo area.
Triangle lock	A mechanism that fits into the towing eye of a semi-trailer, can be locked and, when closed, will prevent the unwanted removal of the semi-trailer.
Gearbox lock	A mechanism that locks the gearbox’s shift mechanism, preventing operation of the shift lever: <ul style="list-style-type: none"> - for automatic transmissions in the P position; - for vehicles with a manual transmission in neutral or reverse. Preferably in reverse because in neutral the vehicle can be towed or pushed away.
Vehicle-based mechanical security	A mechanism in which the mounting components, the locking mechanism and the key mechanism as a whole are permanently mounted in/on the vehicle, whereby the removal of the key is linked to the activation of the security.
Wheel clamp	A mechanism that can be locked so that the locked wheel can no longer rotate freely and thus prevents the unwanted removal of the vehicle.

4 CLASSIFICATION

4.1 CLASSIFICATION

In the inspection regulations, the product requirements are arranged in two categories/classes:

- | | |
|--------------------|--|
| Class Standard (*) | Effective products aimed at the occasional thief. The products have a nominal time-to-defeat of at least 3 minutes using hand tools that are easy to carry and that can be hidden on the body. |
| Class Heavy (**) | Effective products aimed at the professional thief. The products have a nominal time-to-defeat of at least 5 minutes with the use of heavier tools. |

Appendix 1 lists the tools used in Class Standard and Class Heavy testing.

5 INSPECTION REQUIREMENTS

5.1 GENERAL

In the requirement, the number as used in version 2.0 of this inspection regulations is adopted and indicated as [x.y.z].

5.1.1 [5.1.5]	The same requirements for systems that interact on several car parts, for example, steering wheel/pedal, apply to individual systems.
5.1.2 [5.1.10]	The system, when notified by the certification body, is adapted to the specific M.O. for the specific make and type of security (see Appendix 2).
5.1.3 [new]	Separate locks certified on the basis of another certification scheme do not always have to be fully assessed. The certification body, in consultation with the testing authority, determines the extent to which the data can be adopted on the basis of the corresponding test report.

5.2 ASSESSMENT METHODS

In this chapter, the applicable assessment methods are indicated for the requirements.

CODE	DESCRIPTION
A - administrative	Assessment of administrative records such as design documents, certificates, declarations, (test) reports <ul style="list-style-type: none">• A-A: Assessment for presence• A-C: Assessment for completeness• A-J: Assessment for correctness, verification <p><i>Assessment A-C can only be performed if the documents are present (A-A). The assessment A-J can only be performed if the documents are present (A-A) and complete (A-C).</i></p>
F	Functional test
V	Visual
M	Manual

5.3 GENERAL REQUIREMENTS

REQUIREMENT		METHOD OF ASSESSMENT
5.3.1 [5.1.6]	Systems combined with other systems should not adversely affect each other in terms of performance requirements, operation, and safety.	<ul style="list-style-type: none"> • Visual • A-J (supplier's declaration)
5.3.2 [5.2.2]	Electrical and electronic components used in the mechanical security should meet the applicable requirements in the CCV Keuringsvoorschrift Voertuigbeveiliging (CCV Inspection Regulations for Vehicle Security).	<ul style="list-style-type: none"> • A-J
5.3.3 [6.3.1]	The mechanical security must be able to undergo a complete opening and closing cycle 5,000 times, after which it will still function properly (while observing the maintenance instructions).	<ul style="list-style-type: none"> • A-J (manufacturer's report)
5.3.4	The mechanical security should be able to pass the environmental tests described in paragraph 6.2.	<ul style="list-style-type: none"> • See paragraph 6.2.
5.3.5	The mechanical security should be able to pass the attack tests described in paragraph 6.3.	<ul style="list-style-type: none"> • See paragraph 6.3.
5.3.6 [5.4.7]	The data concerning keys provided will be stored by the manufacturer or his representative for at least 3 years.	<ul style="list-style-type: none"> • A-A (manufacturer's declaration)

5.4 IDENTIFICATION

REQUIREMENT		METHOD OF ASSESSMENT
5.4.1 [5.1.2] [5.4.1]	The mechanical security is marked with a brand (name or registered figurative mark) and type (specific or general type designation).	<ul style="list-style-type: none"> • Visual
5.4.2 [5.4.1]	The mechanical security is provided with a traceable feature like a unique lock number or production code by which the manufacturer can be identified.	<ul style="list-style-type: none"> • Visual

5.5 MANUAL AND DOCUMENTATION

REQUIREMENT		METHOD OF ASSESSMENT
5.5.1 [5.1.7] [5.4.6]	A user manual shall be available that includes, at a minimum: <ul style="list-style-type: none"> operating instructions, including procedures for key use; procedure for obtaining (spare) keys; operating conditions; how to deal with defects; periodic maintenance (what and how). 	<ul style="list-style-type: none"> A-C
5.5.2 [5.4.7]	If new or additional keys are supplied by the manufacturer or its representative, this must only be done upon presentation of proof of ownership, e.g. as a key card or proof of warranty.	<ul style="list-style-type: none"> A-A (manufacturer's declaration)
5.5.3 [5.1.8]	Assembly instructions must be available upon delivery of the mechanical security. It should describe how the mechanical security is assembled and include a projection or overview of the components.	<ul style="list-style-type: none"> A-C

5.6 TRAFFIC SAFETY AND SAFE USE

REQUIREMENT		METHOD OF ASSESSMENT
5.6.1 [5.1.1] [5.2.1]	The mechanical security must be safe. The manufacturer drafts a declaration to this effect.	<ul style="list-style-type: none"> A-J

INFORMATION

The manufacturer should analyse the potential risks with respect to, but not limited to:

- The safe use of the security by the user;
- [5.2.4] the maintenance of the European approval of the vehicle to which a security is fitted;
- [5.3.1] the traffic safety. The mechanical security must in no way endanger road safety when activated or not activated.

See also: <https://www.rdw.nl/zakelijk/branches/fabrikanten-en-importeurs/typegoedkeuring-aanvragen/typegoedkeuring-van-componenten>.

Examples:

- [5.1.3] spontaneous/unintentional blocking upon activation of the mechanical security by the driver or passenger;
- spontaneous/unintentional blocking due to vehicle operation, such as sudden braking;
- spontaneous/unintentional blocking due to resonances;
- intervention to a moving part of the vehicle due to a part of the mechanical security coming loose;
- the prevention of injury from protruding parts or during operation and use of the mechanical security (consider also Machine Directive 2006/42/EC).

Specifically:

- [5.2.3] drilling, welding or modifying essential safety components is not permitted;
- [5.3.2] the security system should not interfere with or be connected to the vehicle's braking system, Unless express written permission has been given by the vehicle's manufacturer. Example: pneumatic braking system.

It is possible that the certification body still identifies certain risks for which the manufacturer has not taken appropriate measures or can substantiate that the product is roadworthy and can be used safely. This is then a rejection.

5.7 KEY MECHANISM

REQUIREMENT		METHOD OF ASSESSMENT
5.7.1 [5.4.2]	Keys must have a permanently legible identification, for example, a brand name.	<ul style="list-style-type: none"> • Visual
5.7.2 [5.4.3]	The key number should be marked on the key, on an attached label or on a key card associated with the mechanical security.	<ul style="list-style-type: none"> • Visual
	If the key number is applied to a label that has been attached with a ring, the supplier of the mechanical security system shall provide a means for checking that, when a key is presented, the corresponding key number can be verified.	<ul style="list-style-type: none"> • A-A (declaration)
5.7.3 [5.4.4]	A visible lock number and corresponding key number may not have a recognisable connection.	<ul style="list-style-type: none"> • Visual
5.7.4 [5.4.5]	Locks must be supplied with a minimum of two to a maximum of five identical keys. The number supplied with the lock will be specified in the approval.	<ul style="list-style-type: none"> • Visual
5.7.5 [5.4.8]	Reordered original keys must be indelibly marked "C" (copy) or "D" (duplicate).	<ul style="list-style-type: none"> • Visual • A-A (declaration)

REQUIREMENT		METHOD OF ASSESSMENT
5.7.6 [5.4.9, 5.4.10]	The key mechanism should have a practical key diversity of at least 5,000 per profile, to be determined according to ART MBT04, 4.1.12 to 4.1.15. The number of code possibilities for digital keys shall be 10,000.	<ul style="list-style-type: none"> A-J (declaration with substantiation)
5.7.7 [5.4.11]	Supplying master keys is not allowed.	<ul style="list-style-type: none"> Visual A-A (declaration)

5.8 BLOCKING MECHANISM/LOCK MECHANISM

REQUIREMENT		METHOD OF ASSESSMENT
5.8.1 [new]	A mechanical cargo area security that automatically locks shall be equipped with a device inside to prevent entrapment.	<ul style="list-style-type: none"> Manual

5.9 MECHANICAL VEHICLE-BASED SECURITY

REQUIREMENT		METHOD OF ASSESSMENT
5.9.1 [5.1.3]	A mechanical vehicle-based security shall only be capable of being moved from an unlocked position to a blocked position, and vice versa, by a specific operation (as in the case of a bicycle lock).	<ul style="list-style-type: none"> Manual
5.9.2 [5.4.12]	It should only be possible to remove the keys of mechanical vehicle-based security from the blocked position.	<ul style="list-style-type: none"> Manual
5.9.3 [new]	The attachment materials of a mechanical vehicle-based security should not be removable (e.g. shear bolts).	<ul style="list-style-type: none"> Visual
5.9.4 [new]	A vehicle-based road immobiliser system is supplied with a vehicle-specific assembly instructions.	<ul style="list-style-type: none"> A-C

5.10 ASSEMBLY

REQUIREMENT		METHOD OF ASSESSMENT
5.10.1 [5.1.9]	All assembly hardware required for assembly must be included.	<ul style="list-style-type: none">• Visual
5.10.2 [5.4.13]	The connecting articles of mechanical security are, where accessible, secured against unscrewing after assembly.	<ul style="list-style-type: none">• A-J (assembly instructions)

6 DESCRIPTION OF THE TESTS

6.1 GENERAL

- The mechanical security and its components are tested as indicated below. The tests are carried out where applicable (for example, outside locks are subject to dust, corrosion and freeze test requirements).
- The mechanical security and its components are tested in an arrangement that approaches reality as closely as possible.
- The mechanical security and its components are tested in the condition in which they have been assembled and delivered. The mechanical security is placed in accordance with the operating manual or in such a way that is the most logical for the user. The positioning of the product parts during the tests to be performed is determined by the test authority.
- The test set-up used during a type test is retained (together with a reference copy of the security system) by the testing institute.

Insofar as not specified, the tests are carried out according to directive: TMS-05 (SKG-IKOB).

6.2 ENVIRONMENTAL TESTS

The environmental tests are performed so that the mechanical security continues to function properly under various conditions.

Upon completion of each environmental test (drop test, freeze test, dust test or corrosion test, not: attack test), the components of the mechanical security shall not have undergone any deformations and/or changes that could adversely affect the operation of the mechanical security at that time or over time.

6.2.1 CORROSION TEST [T1]	
Standard:	EN 1670 Grade 3 (96 hours)
Assessment	Function test (and visual assessment of corrosion resistance)

6.2.2 DUST TEST [T2]	
Standard	NEN-EN-IEC 60529 IP5 (8 Arizona dust)
Assessment	Function test

6.2.3 FREEZE TEST [T5]	
Directive	TMS-05 (SKG-IKOB), paragraph 2.2.3 <ul style="list-style-type: none">- Duration of cycle: 30 hours- Number of cycles: 1
Assessment	Function test

6.2.4 FALL TEST [T6] (Not for permanently mounted systems)	
Directive	TMS-05 (SKG-IKOB), paragraph 2.1.3 - Height 1 metre - Working surface Concrete - Number of drops o Separate lock parts 50x o Complete mechanical security 5x
Assessment	Function test

6.3 ATTACK TEST

- Before carrying out the attack tests, the mechanical security and its construction/placement and technical specifications are studied, and based on this, a choice is made from the tools and attack method.
- The selected tools may be used, sharpened, and handled at the discretion of the testing institute.
- Appendix 1 indicates which tools can be used.
Electric tools (220 V, power current) are not allowed, but rechargeable tools are.
If practice shows that other attack methods/tools are used, these may be selected by the testing institute in consultation with the certification body.
- The mechanical security is tested on a supplied vehicle (part) or a specific test setup. The vehicle(part) shall have the same service life as the security itself.
- The test must be performed six times, four of which are brute force tests, and two of which are intelligent tests.
- An attack attempt is stopped if, within the attack test, the mechanical security loses its security function.
- After completion of the attack tests, normal operation (opening/closing) is no longer possible.

The attack test should be performed on all parts of the mechanical security accessible in normal use.

6.4.1 BRUTE FORCE ATTACK TEST	
Directive	TMS-05 (SKG-IKOB), paragraph 2.4.2 Minimum attack time: - Standard 3 minutes - Heavy 5 minutes

6.4.2 INTELLIGENT ATTACK TEST	
Directive	<p>TMS-05 (SKG-IKOB), paragraph 2.4.1</p> <p>Minimum attack time</p> <ul style="list-style-type: none"> - Standard 3 minutes - Heavy 5 minutes

6.4.2 ATTACK TEST ASSESSMENT	
Assessment class standard	<p>A result of less than 2 minutes in just one test will always result in rejection.</p> <p>There should be no more than two test results where the time-to-defeat is found to be between 2 and 3 minutes.</p>
Assessment class heavy	<p>A result of less than 4 minutes in just one test will always result in rejection.</p> <p>There should be no more than two test results where the time-to-defeat is found to be between 4 and 5 minutes.</p>

APPENDIX 1 - TOOLS

This concerns all normally available tools with possibly minor adjustments. Make and type numbers of the tools may change, in case of replacement, tools of similar characteristics and quality will be chosen.

CLASS STANDARD

TOOLS	MAKE	TYPE
Bolt cutters 60 cm	BAHCO/ FACOM	4559-24"/ 178/24 red 990.BF1 (600 mm, 24")
Pliers/concrete Bending Pliers	KNIPPEX	99-300 (30 cm)
Pipe wrench 24 cm	GEDORE	145-10
Saw blades HS	BAHCO	HS 12" 18 TPI
Saw blades HSS/BI-METAL	SANDFLEX/BAHCO	300 mm 12" 18 TPI or 24 TPI
Saw blades wolfram	WOLFRAM	K4 Tungsten Carbid/RemGrit GH 12"
Adjustable wrench	GEDORE	60-10 250 10"
Set of spanners/wrenches (20 pcs)	GEDORE	No. 1B
Set of screwdrivers (6 pcs)	GEDORE	154 S series
Chisels	B Swiss Tools	Max 250 mm
Bench hammer 500 grams	GEDORE/ Peddinghaus	500 1H-500/Hickory 500 gr
Various pliers	KNIPPEX	Max. length 20 cm
Tubular lock picker	HPC/Wendt	Miscellaneous
Lock picking set	HPC/Wendt	Various sets
Lock pick gun	ILCO	PickTool
Lock pick	MBA/Miscellaneous	Granite Pick/Silver Bullet
Paper clip, ballpoint, awl etc.	--	
Cable clamp 60 cm	FELCO	C.16
Nail puller 50 cm	HABERO	120 - 500
Impact wrench/dent puller	MIDLOCK	Impact weight 1,000 gr
Pipe wrench 58 cm	GEDORE	175 - 2
Tyre lever	GEDORE	38/20" (50 cm)
Cordless Drill (14.4 V) drill bits: High Speed Steel Kobalt	MAKITA/HITACHI Various brands	BDF440/DS14DSL (3.0 Ah) D338RN HSSE/A777
Battery grinder disc: cutting disc	BOSCH BOSCH	GWS 12V-76 (3.0 Ah) 76 x 1.0 thick
Electronic manipulation tools	ZIEH-FIXEER/Wendt	Electropick EPG-3600

CLASS HEAVY

All tools of class Standard with the addition of the tools mentioned below.

This concerns all normally available tools with possibly minor adjustments. Make and type numbers of the tools may change, in case of replacement, tools of similar characteristics and quality will be chosen.

TOOLS	MAKE	TYPE
Bolt cutters 90 cm	BAHCO/FACOM GEDORE	4559-36 (900 mm, 36") TA8178900
Pipe wrench 40 cm	GEDORE	145-16
Adjustable wrench (24")	GEDORE	62-600 24"
Spanners/wrenches	GEDORE	L > 40 cm
Screwdrivers	GEDORE	L > 40 cm
Chisels	HABERO	L > 250 mm
Point chisel	HABERO	L > 250 mm
Bench hammer 1500 grams	HABERO	620 H-1500 (1.5 kg)
Impact wrench/dent puller	MIDLOCK	Impact weight 1500 gr
Pipe wrench 70 cm	GEDORE	175 - 3
Battery grinder disc: cutting disc	BOSCH/ miscellaneous	misc. 14.4 V Diameter max. 125 mm, thickness 1.0 mm
Punching iron (point) 100 cm	HABERO	152-1000 (1 m)
Punching iron (point) 140 cm	HABERO	151-1500 (1.4 m)

APPENDIX 2 - M.O. AND INSPECTION REQUIREMENTS

Effective vehicle security is characterised by:

- The correct security measures are applicable to the risk;
- the correct installation method.

The CCV Risicomodel Voertuigbeveiliging (CCV Vehicle Security Risk Model) indicates which security measures must be applied.

In the addition of functionalities (such as blocking, alarming, detection,) the requirements of the security system are also focused on known M.O.

As scheme manager, the CCV has a Committee for Attack Resistance Assessment (CBA) that has the following tasks:

- Analysing (new and changing) M.O.;
- Indicating the extent to which adapted inspection requirements must take effect.

Input for the CBA can be:

- signalling that the theft percentage exceeds a certain limit, to be determined by the CvB Vehicle Security;
- signals from the field;
- signals from the police that a new M.O. has been detected or, for example, the discovery of a location with several stolen vehicles;
- at the request of the parties.

The CBA investigates:

- what the M.O. is and which tools have been used;
- Whether this M.O. is practical and if it can be widely used;
- to what extent the manufacturer has to adapt the mechanical security to account for this M.O. and for which brand(s) and type(s.);
- to what extent the requirements for the systems or their installation must be adapted.

The CBA records the analysis and conclusions in a report and makes it available to the certification body. With this report, the certification body informs the supplier and specifies within what time period the mechanical security must be adjusted.

CENTRE FOR CRIME PREVENTION AND SAFETY

The Centre for Crime Prevention and Safety is the centre that develops and implements coherent tools to increase social security. The CCV encourages cooperation between public and private organisations to integrally reduce crime and forms a link between policy and practice.

With these instruments developed by the CCV, instruments developed by other parties, or (technical) instruments already present at the market level, there may be a need to demonstrate the quality of achieved performances.

The CCV manages compliance schemes for this, for which a structure has been set up with the participation of interested parties.

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The Centre for Crime Prevention and Safety is an initiative of the Ministry of Justice, the Ministry of the Interior and Kingdom Relations, the Dutch Association of Insurers, the employers' organization VNO-NCW, the Association of Dutch Municipalities and the Council of Chief Constables.