ULC
STANDARD

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STANDARD FOR BURGLARY RESISTANT KEY LOCKS

Prepared and Published by:

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The intended primary application of this standard is stated in its scope. It is important to note that it remains the responsibility of the user of the standard to judge its suitability for the particular application.

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REFERENCE PUBLICATIONS

The documents shown below are referenced in the text of this Standard. Unless otherwise stated elsewhere in this Standard such reference shall be considered to indicate the edition and/or revision of the document available at the date on which the Committee approved this ULC Standard.

Standards Published by the American Society for Testing and Materials
100 Barr Harbor Drive, West Conshohocken, PA, 19428-2959, U.S.A. Telephone: (610) 832-9500

ASTM B117-94	Standard Practice for Operating Salt Spray (Fog) Testing Apparatus.
ASTM D5423-93	Specification for Forced-Convection Laboratory Ovens for Evaluation of Electrical Insulation.

STANDARD FOR BURGLARY RESISTANT KEY LOCKS

PREFACE

This is the Reaffirmation of the First Edition of the Standard for Burglary Resistant Key Locks, CAN/ULC-S328.

This Edition of the Standard has been formally approved by the ULC Standards Committee on Physical Security Equipment.

This Standard has been developed in compliance with the requirements of SCC for accreditation of a Standards Development Organization.

Only metric SI units of measurement are used in this Standard. If a value for measurement is followed by a value in other units in parentheses, the second value may be approximate. The first stated value is the requirement.

In Canada, there are two official languages, English and French. All safety warnings must be in French and English. Attention is drawn to the possibility that some Canadian authorities may require additional markings and/or installation instructions to be in both official languages.

This First Edition National Standard of Canada has been reaffirmed.

Attention is drawn to the possibility that some of the elements of this Canadian standard may be the subject of patents rights. ULC Standards shall not be held responsible for identifying any or all such patents rights.

Requests for interpretation of this Standard should be sent to ULC Standards. The requests should be worded in such a manner as to permit a “yes” or “no” answer based on the literal text of the requirement concerned.

The review and action to revise or reaffirm this Standard will not exceed 5 years from the date of publication, unless the Standard is identified as fitting within a stabilized category, whereby the review will commence within the appropriate time frame set out by ULC Standards.

This Standard is intended to be used for conformity assessment.

1. SCOPE

1.1 These requirements cover mechanical key locks categorized as follows:

A *Cabinet locking cylinder*;

B *Door locks*;

C *Locking cylinders*;

D *Security container key locks* utilizing Type 1 and Type 2 locks; and

E *Two-key locks.*

1.2 At the manufacturer's option, a suffix 'C' may be used to denote a key lock which has been tested using carbide or carbide tip drill bits. A suffix 'V' may be used to denote a type of key lock which has been tested using electrically operated vibrating needles as available from locksmith supply sources.

2. GLOSSARY

NOTE: For the purpose of this Standard, the definitions in *italic print* shall apply:

CABINET LOCKING CYLINDER - A key cylinder for use in cabinets, drawers, and the like to resist unauthorized opening by picking methods, impression techniques, forcing methods, pulling, or drilling the cylinder.

COMMON HAND TOOLS - Chisels and screwdrivers no more than 380 mm long, hammers having 1.5 kg head mass, jaw-gripping wrenches, and pliers.

DOOR LOCK - A locking assembly of the rim or mortise type for use on doors of stores, buildings, residences, and the like to resist unauthorized opening by jimmying the door, picking, impression techniques or drilling the *locking cylinder* or assembly, sawing or drilling the lock bolt, pulling the lock cylinder, or other method involving the use of small hand tools.

DRIVE PIN - A protrusion on or through a cam or tumbler that engages the adjacent tumbler.

DRIVER CAM - A component that engages the tumblers and moves the lock bolt during the ordinary opening or closing procedure.

FENCE - A part of the *lever* that fits into the tumbler *gates*, permitting the *lever* to engage the *driver cam.*

GATE - The cutout in the periphery of the tumbler that is engaged by the *fence* on the *lever* assembly.

LEVER - A component that retracts the bolt.

LOCKING CYLINDER - A key cylinder for use in *door lock*s, alarm control switches, alarm shunt switches, utility locks, and the like to resist unauthorized opening by picking methods, impression techniques, forcing methods, pulling, or drilling the cylinder.

NET WORKING TIME - The time during which an attack is actively in progress on the sample. It excludes the time required for test preparation, safety precautions, and delays.

PICKING TOOLS - Common or standard patterns, as well as those designed for use on a particular make or design of key lock.

PORTABLE ELECTRIC TOOLS - High speed hand held drills that:

A May operate up to 5000 rpm;

B Have no greater than 9.5 mm chuck size;

C Use high speed steel drill bits no larger than 6.5 mm; and

D Have maximum power consumption of 1250 W.

PULLER MECHANISM - Either a slammer type or a screw type device designed to apply a pulling force to the *locking cylinder*. Slammer type device employs a sliding impact with a maximum travel length of 300 mm and a maximum head mass of 1.5 kg.

SECURITY CONTAINER KEY LOCK - A Type 1 or Type 2 key lock designed for use on collection safes, key locked safes, and similar containers to resist unauthorized opening by picking, impression techniques, drilling, pulling, punching or forcing methods.

TUMBLER WHEEL - An assembly, usually in the form of a circular disc, having a *gate* and *drive pin* whose locations may be set to selected positions to permit the user to change the combination.

TWO-KEY LOCK - A two-key, plate tumbler type block designed for use on safe deposit boxes, collection safes, and the like to resist unauthorized opening by picking, impressioning or forcing methods.

3. INSTALLATION AND OPERATING INSTRUCTIONS

3.1 A copy or draft of the installation and operating instructions intended to accompany each key lock or component, or equivalent information, is to be used as a guide in the examination and test of the key lock or component.

3.2 The instructions shall include such directions and information as deemed by the manufacturer to be necessary for the proper and safe installation, maintenance, and operation of the key lock.