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With its readiness to respond to any challenge, Mul-T-Lock provides peace of mind through offering comprehensive, customized, top security cylinder locking solutions and service worldwide.

The ASSA ABLOY Group is the world's leading manufacturer and supplier of locking solutions, dedicated to satisfying end user needs for security, safety and convenience.

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Interactive[®] **CLIQ[®]**



Launching electromechanical locking systems to the ultimate level of security



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Choosing a sophisticated locking system: Where security is an issue, compromise is simply not an option

In a world increasingly challenged by mounting security threats, the need for comprehensive locking systems has become an essential requirement in virtually every conceivable market sector. From government and law enforcement agencies to public institutions, commercial and industrial enterprises, private residences and beyond, there is a growing demand for superior locking solutions that address a wide gamut of complex and sensitive issues.

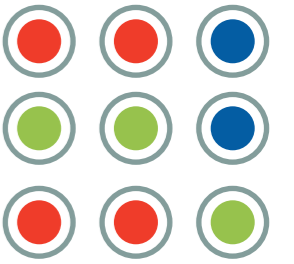
When it comes to locking systems, flexibility is key; for most organizations with complex infrastructures, security is as much of an issue of who to **let in** as it is of whom to **keep out**. To that end, security-minded enterprises require a comprehensive and highly sophisticated solution that enables permission-based access to different locks at designated times throughout their facilities.

According to this model, personnel with varying degrees of security clearance are issued keys that permit them to gain entry into specific areas of a building, campus or office space during clearly defined windows of time. Organizations and institutions that rely upon the preservation of mission-critical data or the protection of other assets and property on their premises can thus be assured that access is both granted and denied according to predefined parameters on a 24/7 basis. This concept can be as complex as providing several foremen working in an industrial facility with keys to the supply warehouse that work only during the hours of their shift – or as straightforward as making sure that the gardener mowing the lawn of your private residence can only open the tool shed with his key when you are at home.

The Challenge: Locking on to the ultimate high security system

Creating an intricate locking system with permission-based access is a formidable task. The system needs to be as uncomplicated to maintain, as it is difficult to breach. There needs to be a framework in place for granting and denying access, replacing lost keys, preventing their duplication and enabling the updating of the entire locking network according to plan.

Standard cylinders – no matter how robust – are obviously inapplicable for such complex environments, since by nature they cannot be programmed to allow or deny entry based on time-specific considerations. Moreover, once a key is lost the cylinder must be changed. On the other end of the spectrum, electronic locking systems may meet the requirements of the time/permission challenge, but their difficult wiring and installation in standard international profiles can be a nightmare for locksmiths. In addition, they are typically extremely expensive and therefore unsuitable for many budget conscious organizations. Finally, should the electronic mechanism be compromised, there is no mechanical mechanism in place to back it up.



flexibility is key



highly sophisticated solution



ultimate high security system



compromise is simply not an option

Interactive® CLIQ®:

Opening the door on new concepts in locking

Mul-T-Lock's Interactive CLIQ presents a hybrid electromechanical locking solution, which offers the ultimate synergy between the tried-and-true reliability of superior mechanical keys and cylinders and the programming sophistication and flexibility inherent in electronic locks.

Interactive: Mechanical locking reliability

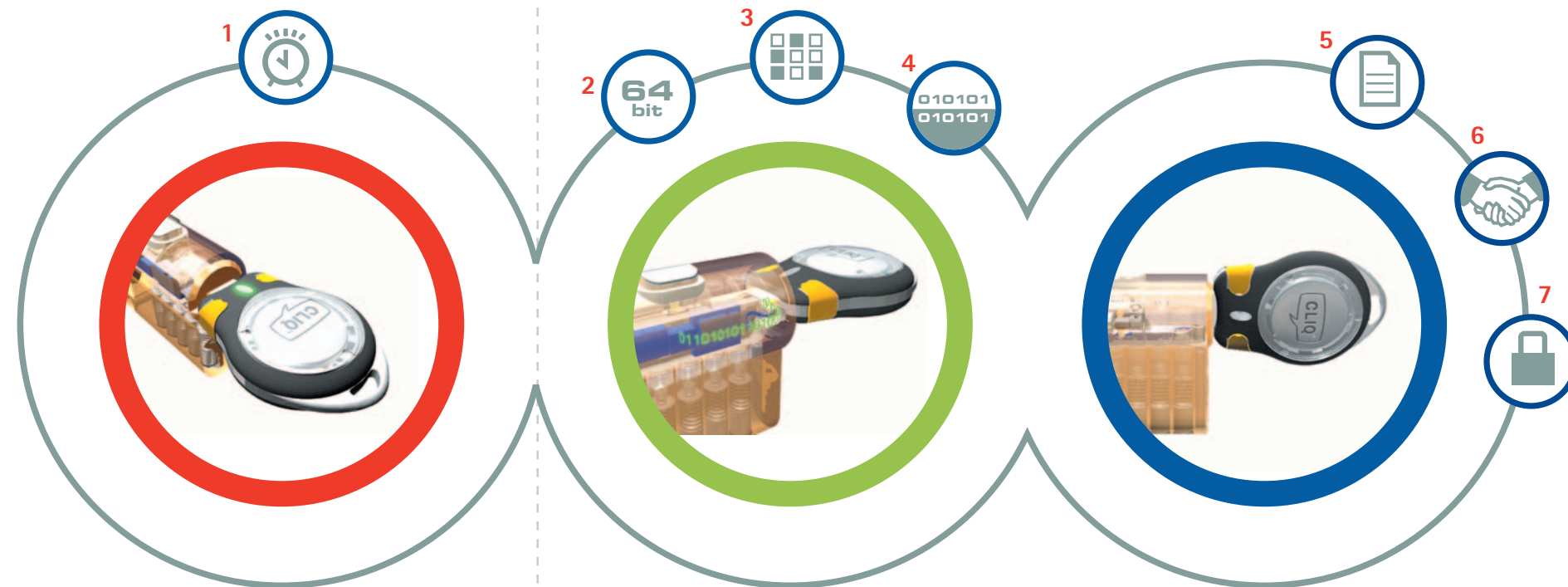
It begins with Mul-T-Lock's field-proven Interactive locking system that provides extreme levels of security. Each key is cut with an individual combination. The Interactive keys incorporate two high precision floating pins that interact with spring-loaded pins in the cylinder plug, producing a "virtual combination" when the key is inserted into the lock. The special construction of the key makes it virtually impossible to duplicate. The Interactive patented key and key blank provide increased control over key cutting, to achieve a higher level of customer security.

CLIQ: Electronic innovation

In addition to this state-of-the-art, patent-protected mechanical locking system, Mul-T-Lock has integrated ASSA ABLOY'S innovative and proprietary CLIQ technology, based on highly miniaturized data encryption electronics that can be embedded directly inside the key and core of a cylinder, which make for an electromechanical system that is intelligent, flexible and highly customizable.

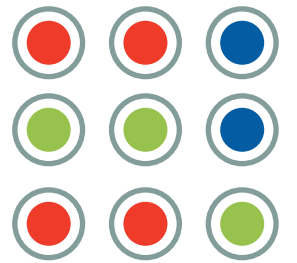
- The Interactive CLIQ key contains a unique electronic I.D. code, designated for one individual only, that cannot be duplicated, altered or corrupted. A replaceable, long-life battery is also inserted into the key and serves as the sole power source for the entire key and cylinder system.

- The **electronic mechanism embedded in the cylinder**, is a self contained unit. This translates into **no wiring whatsoever**. Consequently, the highly intelligent cylinder installs with ease like any normal cylinder – making it a pleasure for locksmiths accustomed to dealing with standard international profiles and customers who want to benefit from sophisticated locking systems – without reconstructing doors and wiring entire buildings.



HOW IT WORKS:

Simple operation, sophisticated results



1. The key is inserted into the cylinder. When the contact pin meets the contact strip an **electronic "wake up" signal** is subsequently generated.
2. The cylinder awakens and generates a **random 64-bits number**.
3. The key answers by transmitting an **encrypted number**.
4. **The number is decrypted** and compared to the response calculated by the cylinder's microprocessor.
5. **A log of the interaction** - user, time, result etc. - is automatically stored in the cylinder's memory for retrieval.
6. **If there is a data match**, the blocking mechanism is released and the identification process continues. Based on parameters such as key identity and the specific time of day that the user is permitted access, **the Interactive mechanical element is cleared for activation** and the key can turn the cylinder.
7. If the key is not authorized the mechanical element in the locking system will simply **remain locked**.

electronic innovation

CLIQ technology

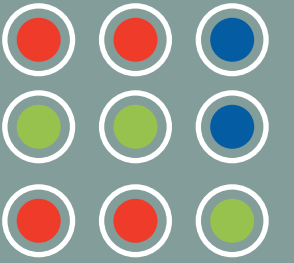
flexible

intelligent electromechanical system



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Interactive® CLIQ®: Smart system, intuitive management



The Interactive CLIQ locking system is supported by several user-friendly components that turn the complex functions of running a secure locking system into simple maintenance tasks.

- **Intuitive software programs**, loaded on standard PCs, enable organizations to manage their dynamic security needs through easily accessible interfaces. You can grant or cancel user access, eliminate keys from the network, and designate times of access for every member of your enterprise quickly and efficiently
- A separate exterior **Programming Device (PD)**, serves as a link between the information stored in the PC and all of the keys and cylinders in the system. Since the PD doesn't store the data it receives, there is no chance of compromising the system.
- A **Control Key**, which facilitates simple and intuitive maintenance throughout the entire locking system, is inserted into the PD and recognized for authenticity. It then uploads all of the latest data generated in the various software programs concerning each individual cylinder and key in the network.
- **Security Personnel** can now insert the Control Key in every lock in the network and download the data into the cylinder's memory.
- The Control Key also **retrieves Audit Trails** from the cylinders, so that precise data concerning every interaction between a lock and key is readily accessible at all times.



INTUITIVE
SOFTWARE PROGRAMS

control key



intuitive software programs



programming device (PD)



security personnel



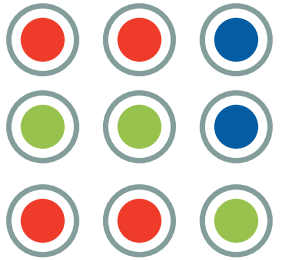
retrieves audit trails



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Unprecedented Benefits



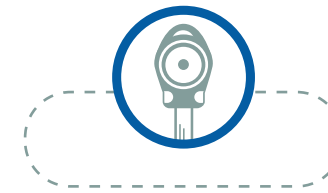
The Interactive CLIQ locking system provides security-minded organizations and private users with a wealth of superior functionality and benefits that are not available in other locking solutions:



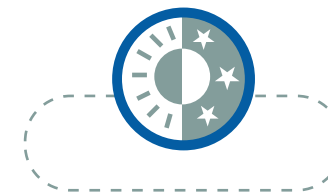
The best of both worlds – the dual, patent-protected technologies employed in Interactive CLIQ represent a truly successful marriage of electrical and mechanical locking systems, offering a double layer of impenetrable security.



Data Tracking – Audit Trail Control is an absolute necessity if you hope to keep tabs on the efficacy of your locking network. Interactive CLIQ's Control Key enables you to easily access precise data from every cylinder in your facility and upload it swiftly into your PC for review.



Individual Keys – Encrypted with tamper-proof codes, each key is designated for use by one individual only. If the key is lost, it is simply rendered obsolete for use by the network controller. This enables total control of every key distributed to personnel. A new key, with a new code, can then be generated and will be recognized by the cylinders for which it is granted access.



Time-based permission – Interactive CLIQ enables you to designate specific windows of time (as often as necessary) wherein access to a given cylinder by a given user is permitted – an essential component of ensuring the ultimate in high security and seamless, trouble-free maintenance for the entire system.



Convenient and cost-effective – our dual-locking systems are wire free, simple to install, and easy to plan and use on a daily basis. You get all of the comparable benefits of an electronic control system at a fraction of the cost – and the added value of a robust mechanical mechanism.

the best of both worlds

data tracking

individual keys

time-based permission

convenient and cost-effective

Founded in 1973, **Mul-T-Lock®** is a worldwide leader in developing, manufacturing and marketing High Security products for institutional, commercial, industrial and residential applications. **Mul-T-Lock** holds hundreds of international patents for its innovative products, which include mechanical cylinders, locks and padlocks, electromechanical locking systems, automatic assembly and key-cutting machines and complementary accessories. With a highly skilled workforce of nearly 500, **Mul-T-Lock's** factories are fully automated, using state of the art technologies, including robotics and customized machinery, the majority of which is manufactured in-house.

The Company sells its vast arsenal of field-proven, high security solutions in more than 100 countries and is equipped to support over 100 million users through the auspices of 25,000 service centers deployed worldwide. All **Mul-T-Lock** products comply with the toughest international standards, including ISO 9001/2000, UL, CEN, VDS, SKG, CPC and A2P.

Mul-T-Lock is a fully owned subsidiary of ASSA ABLOY, the world's leading manufacturer and supplier of locking solutions, with an annual turnover of more than \$3 billion and more than 30,000 employees worldwide. ASSA ABLOY is traded on the Stockholm Stock Exchange.



worldwide leader



high security products



innovative products



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