



Key systems, cylinders and keys

Table of Contents

Key system introduction	3
Key system configuration steps	3
Cylinder formats	4
Patented Keying System (VAULT)	5
Interchangeable cores — small format	6
Interchangeable cores — large format	7
Construction cores	7
Mortise, rim and high security cylinders	8
Compatible keyways	9
Keyway types	10
Construction master keying	10
Key blanks	10
Key and cylinder marking	11
Levels of keying	11
2, 3 and 4 level key systems	12
Designing a keying system	13
Keying systems glossary	14
Keying system worksheet (example)	16
Keying system worksheet (for duplication)	17
Master key system summary form	18
Keying schedule form	19
Procedures	20



Key system design

What is a key system?

A key system allows you to control access to all of the locked openings in your facility from the front door to high security server rooms. It is the result of the choices you make for the cylinders on your locks as well as ease of key duplication you prefer for your facility. For instance, if high security is your top priority you should consider a system where key design is restricted and duplication is tightly controlled. Other facilities may prefer convenient and easily accessible key duplication.

System configuration steps

1 Identify the openings in your building

Before you begin to configure your system, identify all of the openings in your facility. Start at the exterior and move through the building's core. Consider grouping openings into categories, such as by building, department or floor. This will allow you to consider the security level and key control for each area of the building.

Openings might include:

- Exterior entrances
- High occupancy rooms
- Low occupancy rooms
- Office Space
- High security technology rooms
- Mechanical room

2 Select a cylinder format



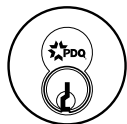
Conventional cylinders

Full size cylinders designed specifically for PDQ products. Conventional cylinders require some breakdown of the lock for removal and replacement. The types of cylinders available are:

Key-in-knob/lever, mortise and rim cylinders, based on the industry standard plug diameter of 1/2".

Interchangeable cylinders

Can be replaced and installed without breakdown of the lock.



Small format (SFIC)

Can be used to replace cores from other brands (Arrow, Best, Falcon, PDQ, etc.). Based on the industry standard plug diameter of 1/2".



Large format (LFIC)

Large format interchangeable cores are based on the industry standard plug diameter of 1/2" utilizing the same key families as conventional cylinders. (These vary from manufacturer to manufacturer.)

3 Select a keyway and key control



Open key control

Standard keyways easily duplicated and available without any ordering formalities.



Exclusive key control (PDQ1, PDQ2)

Keyways which use blanks that are very hard to find in the marketplace.



Restricted key control (TA, PDQ3)

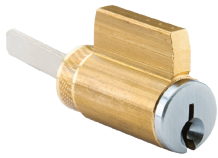
Special non-stock keyways set aside for limited use and a higher degree of key control. A letter of authorization is required to process orders for keys, blanks and cylinders.



Patented keying system (VAULT)

Patented keyways set aside for limited use and a higher degree of key control. A letter of authorization is required to process orders for keys, blanks and cores.

Cylinders



Conventional

Conventional Cylinders



PDQ's high quality conventional cylinders provide the standard level of security and functionality.

Interchangeable Core (IC) cylinders

Interchangeable core (IC) offers maximum flexibility to the building owner. Whenever a key is lost or stolen, locks can be rekeyed quickly by non-locksmith personnel. All it takes is the special "control" key. This key is used to remove and install all cores in the system. Just go to the door, remove the old core and install the new one with the control key. Security is regained in seconds! Unlike most other brands, PDQ interchangeable cores can always be integrated into existing systems with no adverse effect on the key system. IC cylinders are available in two sizes:



SFIC

Small Format Interchangeable Core (SFIC)



Based on a plug diameter smaller than the standard 1/2", SFIC cores are interchangeable with other SFIC installations.



LFIC

Large Format Interchangeable Core (LFIC)



Based on the industry standard plug diameter of 1/2", PDQ large format interchangeable cores (LFIC) are available for a variety of different key system types from standard and basic, to restricted and high security.



High security
key in knob cylinder

Standard High Security Cylinders

Conventional Key in Knob

Interchangeable Core - SFIC and LFIC

PDQ High Security cylinders are available in a number of formats, including the standard, KIK (Key In Knob or lever) cylinder used in most PDQ cylindrical locks, as well as a unique Mortise/Rim Cylinder that can be used in either configuration. All standard High Security cylinders feature 2 hardened anti-drill pins as well as our unique and proprietary PDQ keyway with sidebar.



High security
SFIC and LFIC cores
(SFIC shown)



UL 437
High Security Cylinders

UL 437 High Security Cylinders



437

For additional security, PDQ offers select cylinders in a UL437 package. These optional cylinders feature a minimum of 11 anti-drill, stainless steel pins and UL437 certification. UL437 available in all mortise, mortise rim and KIK keyed functions.

Patented Keying System (VAULT)

PDQ VAULT - Patented Key Control for Maximum Security

Featuring the Exclusive VAULT Door for Total Key Control

At the heart of the **PDQ VAULT** system is the patented **VAULT Door** — a precision-engineered, tapered gate inside the core that physically blocks unauthorized keys from entering.

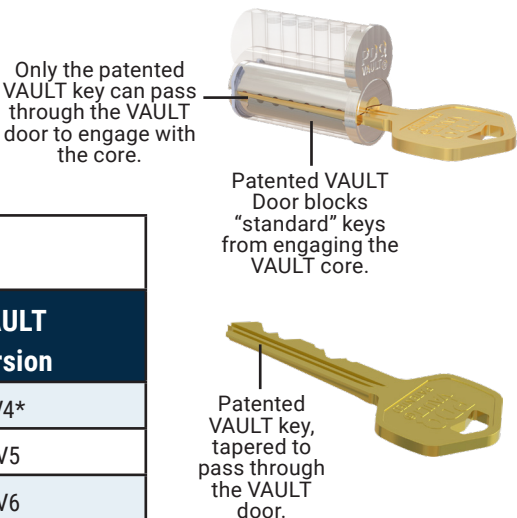
Only the specially tapered **VAULT Key** can pass through this barrier, not allowing standard keys to even engage with the core. That means **you control who gets access, and when.**

But here's the smart part:

VAULT Keys can still operate many **standard cores** (check for availability), allowing you to phase your upgrade over time. Secure the perimeter first, then work your way inside — all without disrupting your current system.

- ✳ **VAULT Door blocks old keys**
- ✳ **VAULT keys pass through + operate legacy cores**
- ✳ **Phased upgrade = reduced downtime & cost**
- ✳ **Patent-protected peace of mind (Patent #12338653 through 2044)**
- ✳ **VAULT cores and keys are BHMA certified**
- ✳ **Backed by a 5-year warranty**

How it Works



Standard SFIC Keyways	
SFIC Version	VAULT Version
A	VA
B	VB*
E	VE
F	VF*
J	VJ*
K	VK*
L	VL*
M	VM*

*Coming Soon

PDQ Keyways	
SFIC Version	VAULT Version
P4	V4*
P5	V5
P6	V6
P7	V7*
P8	V8*

*Coming Soon

Hybrid Capabilities	Increased Security	Adaptability
VAULT keys allow the management of a hybrid keying solution by operating both PDQ and standard SFIC cores (backward compatibility). Large facilities and campuses with multiple buildings can easily undergo phased adaptations thanks to VAULT's design.	The patent (#12338653) for our VAULT keying system is protected until 2044. In order to provide a more secure keying system, unauthorized duplication of VAULT keys is prohibited.	Any manufacturer's locking hardware that needs a small format interchangeable core (SFIC) can easily incorporate VAULT. Quick core or key changes and customized master keying are made possible by VAULT. There is no need to spend extra money on a new key cutter or combination kit because VAULT is compatible with the standard SFIC service equipment that is already in place, including standard-issue key cutting equipment.

Interchangeable cores

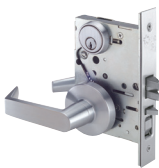
Small format IC core (SFIC)



- A small format interchangeable core (SFIC) has a universal design and can replace any other SFIC
- PDQ's Small Format Interchangeable Core (SFIC) Cylinders are similar to "BEST®" with regards to its functionality but with the added security of the sidebar mechanism
- The sidebar mechanism rests inside the plug of the core making it unnecessary to dismantle to combine or pin the cylinder
- SFIC High Security Cylinders available in 626 finish only

SFIC availability

Mortise and cylindrical locks



MR Series



XGT/GT Series



SX Series



GP Series



SD Series



CL Series

Exit device trim



6N
Narrow Escutcheon



6W
Wide Escutcheon



6G
Grip Pull



6T
Thumb Latch



6P
Pull Plate



6S
Sectional/Rose



6C
Cylinder Only



4EW Series



4EN Series



4GW Series



4S Series

Deadbolts



MJ Series



KM Series



KV Series

Interchangeable cores

Large format IC core (LFIC)



- A large format interchangeable core (LFIC) is usually manufacturer specific and cannot interchange with other cores.
- PDQ's Large Format IC Cylinders utilize the Schlage® format
- Cylinders are available in high security and UL437.
- Cannot be sold "0" bitted
- Available in 626 finish only

LFIC availability

Mortise and cylindrical locks



MR Series



XGT/GT Series*



GP Series*



SD Series

Deadbolt



MJ Series

Exit device trim



6EW Series



6EWM Series



6EN Series



6GP Series



6GN Series



6GW Series



6S Series*



4EW Series



4EN Series



4GW Series



4S Series*

*Only available in Philadelphia lever and in 626 (26D) finish

Construction Cores

Temporary construction cores are an excellent way to ensure the security of a construction site. Another more secure way to ensure the security of the construction site is the use of temporary cores. PDQ offers both standard and disposable construction cores for this purpose. The standard cores are painted black above the keyway identifying them as construction cores. These can be returned at job's end for a full credit. Disposable cores are not key lockable and are discarded when the job is complete.



XGT with Construction Core

Mortise, rim and high security cylinders

Standard mortise cylinders

- Available in 6 Pin and 7 Pin
- Available in 605, 606, 612, 613E, 625, 630
- Available 1-1/4" and 1-1/2"
- Unique Mortise Rim Combo 1-1/8"
- PDQ offers open, restricted keyway, Exclusive High Security, and UL 437 cylinders to meet all your keying needs
- High Security and UL 437 keys are NOT available uncut
- High Security Cut Keys must be ordered through the factory. A registration card is sent with the original order
- PDQ Mortise cylinders accommodate the PDQ high security LFIC cylinder and utilize the Schlage® LFIC configuration.
- Certified to ANSI/BHMA A156.5, Grade 1 for cylinders and input devices



Standard rim cylinders

- Available for all keyed functions, 6 Pin or 7 Pin
- Standard 6 pin cylinder keyed to 5 pins
- Available in TA restricted keyway
- PDQ Rim cylinders accommodate the PDQ high security LFIC cylinder and utilize the Schlage® LFIC configuration.



Standard/high security comparison

FEATURES	STANDARD	HIGH SECURITY HS UL 437
Unique Floating side Pins	Standard	Standard
Exclusive Keyways	Standard	Standard
Patented Cylinder and Key	Standard	Standard
Pick Resistant Pins	Standard	Standard
Anti Drill Points	Two	Eleven Maximum
Nickel Silver Side Bar	Standard	Standard
Stainless Steel Top/Bottom Pins		Standard
UL 437 High Sec Listing		Standard

High security cylinders

KIK cylinders (conventional key in knob/lever)

- High Security 6 Pin Maximum fits standard combination cylinder w/Lazy tailpiece
- UL 437 6 Pin Maximum fits standard combination cylinder w/Lazy tailpiece
- Not available in "0" biting, must be keyed
- Both Available in 606, 626

LFIC cylinders

- PDQ's Large Format IC Cylinders utilize the Schlage® format
- Cylinders are available in high security and UL437.
- Cannot be sold "0" bitted
- Available in 606, 626

SFIC cylinders

- PDQ's Small Format Interchangeable Core (SFIC) Cylinders are similar to "BEST®" with regards to its functionality but with the added security of the sidebar mechanism
- The sidebar mechanism rests inside the plug of the core making it unnecessary to dismantle to combine or pin the cylinder
- SFIC High Security Cylinders available in 606, 626



Compatible keyways

PDQ offers a complete line of conventional keyways including: rim, mortise, key in knob/key in lever configurations. Most cylinders come standard as 6 pin (keyed for 5 pins). Our highly trained keying personnel can tailor a system to your needs. KA, Master Key, Cylinder and Key marking are all available. Computer controlled etching on our keys puts the finishing touches on any job and provides an extra level of professionalism.

Conventional cylinder

Schlage C (Default)	SCC
PDQ Restricted	TA
Arrow AR1	ARA
Corbin 59A1	CO59A1
Corbin 60	CO6
Corbin L4	CL4
Russwin D1	RUD
Russwin 981	RUD981
Schlage E	SCE
Schlage C	SCC
Schlage C-K	SCC-K
Sargent LA	SAL
Sargent RA-RC	RA-RC
Accentra (Yale) E1R	YA8
Accentra (Yale) GA	GA
Falcon E-R	FAL
Kwikset	KW

Small format (SFIC) interchangeable core

KEYWAY (BEST COMPATIBLE)	PDQ KEYWAY CODE
BEST A (Default), B, C, D, E, F, G, H, J, K, L, M, Q, R, WA, WB, WG, WH, TB, TD, TE	A (Default), B, C, D, E, F, G, H, J, K, L, M, Q, R, WA, WB, WG, WH, TB, TD, TE
PDQ Exclusive	PDQ1
	PDQ2
PDQ Restricted	PDQ3

Large format (LFIC) interchangeable core

KEYWAY (SCHLAGE COMPATIBLE)	PDQ KEYWAY CODE
Schlage C (Default)	SCC (Default)
PDQ Restricted	TA

Other keyways available. Contact PDQ Technical Service.

Keyways, construction master keying and key blanks

Keyways



Standard (Open) keyways

Best suited for applications where fast and easy key duplication is required and low key control is required.



Exclusive keyways (PDQ1, PDQ2)

PDQ offers two exclusive key systems that utilize key blanks that are very hard to find in the marketplace, thereby reducing the chances of unauthorized duplication.



Restricted keyways (TA, PDQ3)

The PDQ restricted keyway is only available from PDQ and is shipped directly to the authorized end user. Restricted key systems are ideal when there is a significant need to eliminate an unauthorized duplication by lock shops, hardware and home centers. They provide a higher level of security, with authorization required for the order of keys. Each key is registered and no blank keys are sold. A letter of authorization on the end user's stationery must be submitted with the initial order to establish the authorized ship to location

Construction master keying (CMK):

PDQ offers the CMK keying option which provides extra security during the transition from the construction phase to completion. A construction master key operates all PDQ cylinders while the building is under construction. Upon completion of the construction phase, it can be voided without removing the cylinders from the locks simply by turning the change key in each cylinder. PDQ utilizes the "lost ball" method. Upon completion of the job, any permanent (Change Key or Master Key) will initiate the lost ball and render the construction key void. Larger jobs may require more master pins allowing only the TMK to initiate the ball and render the construction key void. Interchangeable core jobs with construction keying further require a construction control key to install and remove cores during the construction phase. PDQ goes to great lengths to ensure the permanent master and change keys for the system are packed and shipped separately. To further protect the security of the job, all orders for construction keying must include the names and addresses of individuals to whom the construction, permanent master and change keys should be sent.

Key Blanks

Conventional



Large bow

Ideal for special keys which must be visibly distinctive within a key system, or for very specialized marking.



Only available in Schlage C

Interchangeable core



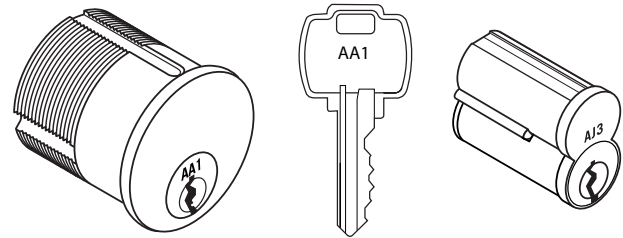
Key and cylinder marking/levels of keying

Keys and cylinders can be stamped with markings (codes). This tells how the cylinder is keyed, eliminating trial and error. Lock mix-ups during installation or key mix-ups afterward are less likely to happen - and easier to straighten out if they do. For example, the symbol AA1 shown in the illustration identifies the lock to be operated by grand master key A, master key AA and change key AA1. Upon written authorization from the building owner to an authorized PDQ distributor, a bitting list can be furnished for each job to translate the symbols into key bittings. If a key is lost, a replacement key can be ordered by number from the PDQ distributor.

Visual key control (VKC)

For greater convenience

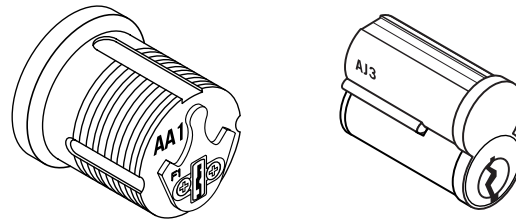
The key symbol is stamped on the plug face or other visible portion of the front of the cylinder. This makes identification fast and convenient. The disadvantage is that stolen or lost keys can be easily matched to the locks they operate. Also, restamping cylinders when they are rekeyed results in damage to the finish.



Concealed key control (CKC)

For greater security

For greater security, specify CKC on the cylinders. The key symbol is stamped in a concealed location, such as the rear of the cylinder or the side of an interchangeable core. It is not visible to the general occupants of the building but can be accessed by authorized personnel upon removal of the cylinder or core.



Levels of keying

This chart shows the divisions of a master key system and hierarchies of access. For security reasons, systems higher than four levels are not recommended.

Two Level System

Level of Keying	Key Name	Abbreviation	Key Symbol
Level II	Master Key	MK	AA
Level I	Change Key	CK	1AA, 2AA, etc.

Three Level System

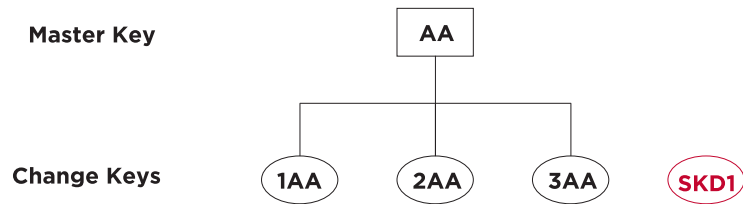
Level of Keying	Key Name	Abbreviation	Key Symbol
Level III	Grand Master Key	GMK	A
Level II	Master Key	MK	AA, AB, etc.
Level I	Change Key	CK	AA1, AA2, etc.

Four Level System

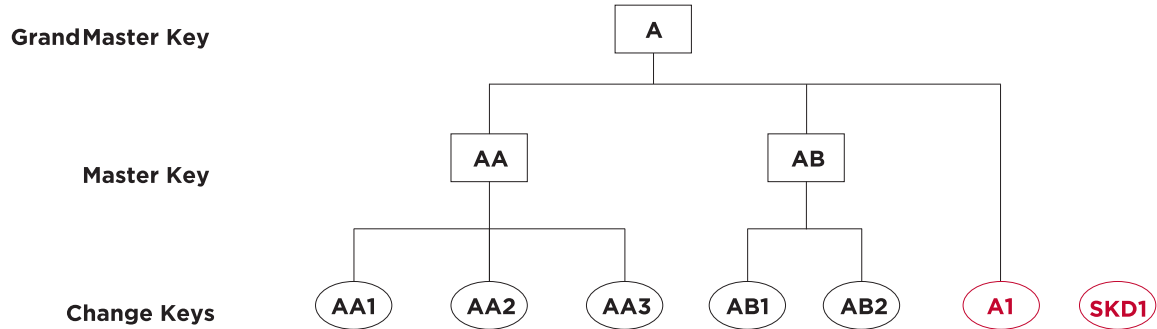
Level of Keying	Key Name	Abbreviation	Key Symbol
Level IV	Great Grand Master Key	GGMK	GGMK
Level III	Grand Master Key	GMK	A, B, etc.
Level II	Master Key	MK	AA, AB, etc.
Level I	Change Key	CK	AA1, AA2, etc.

2-, 3- and 4-level systems

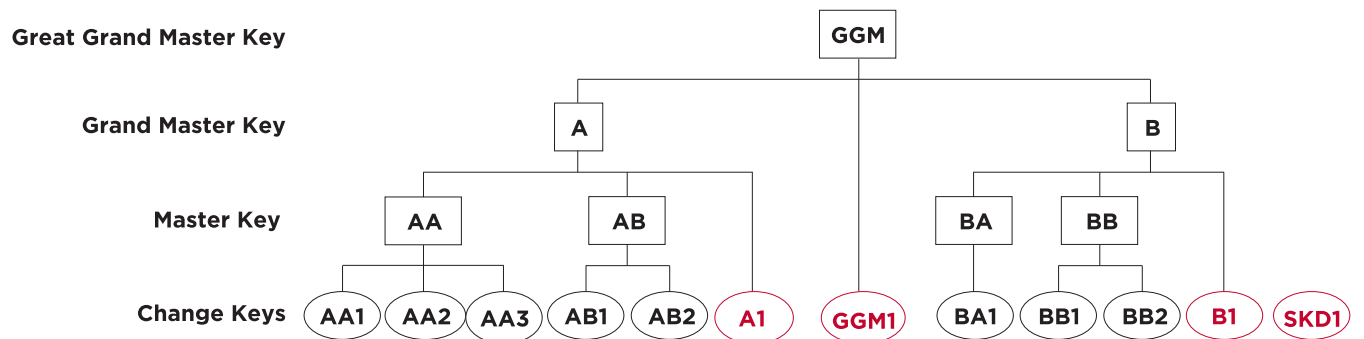
2- Levels of keying



3- Levels of keying



4- Levels of keying



Designing a keying system

The security of a building is only as good as its keying system. And since the keying system is the backbone to it all, it is very important that a number of steps be taken in the planning of any keying system.

Step 1

Determine the type of locking system

- Conventional "open & restricted keyways"
 - Not contract controlled

Step 2

Establish the level of the master key system. The higher the level the less secure.

- Level two – "Simple Master Key system"
 - Change key, and master key only
- Level three – "Grand Master Key system"
 - Change key, master key, and Grand Master Key
- Level four – "Great Grand Master Key system"
 - Change key, master key, Grand Master Key, and Great Grand Master Key
- Levels higher than four are not recommended for security reasons
 - With more levels, additional master pins in each chamber of the cylinder would be required, and with the additional master pins the possibility of unauthorized key interchanges could occur

Step 3

Establish key hierarchy, key issuing policies and procedures, and administrative disciplines.

- Who, if anyone is authorized to carry the top master key?
- Who carries master keys and change keys?
 - Does every employee receive a key?
- What disciplinary action(s) is being put in place for violations?
 - Fines or Deposits
 - > Lost keys
 - > Keys not returned
 - Will there be a key receipt required?
 - > Where will that be kept?
- Who is the systems administrator?
 - Authorized to purchase
 - Responsible for Key Control Administration
- Who is the Key Control Administrator?
 - Maintain key control software & all transactions

Step 4

System Layout

- For security reasons, systems higher than 4 levels are not recommended
- Helpful Hints
 - KISS "Keep It Simple System"
- Lowest level possible
- Key to the building security objectives NOT to the people
 - Determine if the system is to be designed for Security or Convenience
- No cross keying, especially with patented locking systems and higher
- Key alike within master key groups as much as possible
 - Avoid top-heavy systems (example; few change keys used under masters)
- Has the right function of lockset been selected?
 - Storeroom vs. Classroom vs. Entry
 - Single cylinder vs. double cylinder
 - > If double cylinder, how is the inside cylinder to be keyed?
- Provide adequate quantity of keys
 - Top Master keys "limit the number of these to only a few"
 - Master keys "also limit the number these"
 - Change keys per key set and/or per keyed alike sets
 - Special operating keys
 - > Control keys "limit the number of these" Separate the internal departments into sectors, example are:
- Perimeter
 - Including all exterior doors, roof surfaces, gates and fences, and adjacent buildings.
- Operations
 - Sensitive areas crucial to daily operations, such as plant engineering, security and mechanical operations.
- Management
 - Areas that are vital for daily business activities, primarily human resources, administration, executive offices, IT, sales, and accounting.
- Services
 - Areas that provide employees and visitors with services, such

as restrooms, medical treatment areas, housekeeping, food service, retail (unless it's a leased outside source).

- Unique Applications
 - Door openings requiring access control hardware where key override is required, or any other special application which would be unique.
- Tenants
 - Any tenants that are not part of the building.

Step 5:

Service and Maintenance

Follow proper service schedules and procedures. Recommendations include the following:

- Utilize an in-house or outside locksmith
 - Ensure proper training
 - Establish key cutting log
 - Establish service request procedures
- Have service equipment available
 - Key kit
 - Code cutter that complies with system's depths and spacing specifications
 - Locksmithing tools, fixtures and accessories
- Establish stock levels and requirements to avoid misuse of multi-section key blanks
 - Additional cylinders ready for emergencies
 - Additional key blanks (of all keyways)

Keying systems glossary

Bitting - the numbers which represent the cuts of a key; the actual cuts or combination of a key

Blade - the part of a key that may contain the cuts and the millings

Bottom pin - a cylindrical shaped tumbler with a conical point at the end that comes in direct contact with a key

Bow - the portion of the key that serves as the grip or handle

Bumping* - the portion of the key that serves as the grip or handle

Cam - a lock or cylinder component that transfers the rotational motion of a key or cylinder plug to the bolt that works of a lock

Capping block - a fixture used to aid installation of caps on small format interchangeable cores

Change key - a key that operates one cylinder or a group of keyed alike cylinders in a key system

Combinate - to set a combination in a lock, cylinder, or key

Construction cores - temporary cores for use during the construction phase of a building that can later be easily removed and replaced with permanent cores

Construction master key (CMK) - a key normally used by construction personnel for a temporary period during building construction. It may be rendered permanently inoperative without disassembling the cylinder

Control key - a special key used for the removal and replacement of an interchangeable core

Core - a complete unit, often with a "figure eight" shape, which usually consists of the plug, shell, tumblers, springs, plug retainer and spring cover(s). It is primarily used in removable and interchangeable core cylinders and locks

Cut key - a key that has been bitted or combined

Disposable construction core* - used with interchangeable core keying, where nonessential locking doors are used within a construction project. Locks are supplied with disposable plastic cores

Dummy cylinder - a non-functional facsimile of a rim or mortise cylinder used for appearance only, usually to conceal a cylinder hole

Ejector pin - a tool used to drive all the elements of a pin chamber out of small format interchangeable cores

High security cylinder - a cylinder that offers a greater degree of resistance to any two or more of the following: picking, impressioning, key duplication, drilling or other forms of forcible entry. The keys also are controlled so only authorized people can make

duplicates

Housing - that part of a locking device designed to enclose the core

Interchangeable core - a cylinder designed to be removed and/or installed with only a special key called a control key; no tools or removal of the lock required to change the core

Key blank - an uncut key manufactured to allow its entry into the keyway of a specific cylinder

Key control - any method or procedure that limits unauthorized acquisition of a key and/or controls distribution of authorized keys. A systematic organization of keys and key records

Key symbol - an uncut key manufactured to allow its entry into the keyway of a specific cylinder

Key system schematic - a drawing with blocks utilizing keying symbols, usually illustrating the hierarchy of all keys within a master key system. It indicates the structure and total expansion of the system

Keyed alike (KA) - of or pertaining to two or more locks or cylinders which have or are to have the same combination. They may or may not be part of a keying system

Keyed different (KD) - of or pertaining to a group of locks or cylinders, each of which is or is to be combined differently from the others. They may or may not be part of a keying system

Keying - any specification for how a cylinder or group of cylinders are or are to be combined in order to control access

Keying schedule - a detailed specification of the keying system listing how all cylinders are to be keyed and the quantities, markings, and shipping instructions of all keys and/or cylinders to be provided

Keyway - the opening in a lock or cylinder that is shaped to accept the key bit or blade of a proper configuration. The exact cross sectional configuration of a keyway as viewed from the front. It is not necessarily the same as the key section

Large format interchangeable core (LFIC)* - a key removable core that can be used in all or most of the core manufacturer's product line. No tools (other than the control key) are required for removal of the core. Recognized as a core having a universal figure 8 shape, and is generally unique in size to a specific manufacturer. An interchangeable core that is too large to fit into a small format interchangeable core housing

Levels of keying - the divisions of a master key system into hierarchies of access

Keying systems glossary

Master key - a key that operates all master keyed locks or cylinders in a key system or a part thereof

Master key system - any keying arrangement that has two or more levels of keying

Master keyed - of or pertaining to a cylinder or group of cylinders that are or are to be combined so that all may be operated by their own change key(s) and by additional key(s) known as master key(s)

Master pin - a cylindrical shaped tumbler, flat or crowned on both ends, used between the bottom and top pins to create additional shear lines

Pattern key - an original key kept on file to use in a key duplicating machine when additional keys are required

Pin tumbler - usually a cylindrical shaped tumbler; three types are used: bottom pin, master pin, and top pin

Plug - the part of the cylinder which contains the keyway, with tumbler chambers usually corresponding to those in the cylinder shell

Plug follower - a tool used to remove the plug while retaining the top pins and springs, and possibly other components in the shell

Removable core - a key removable core that can only be installed in one type of cylinder housing, E.G., Rim cylinder or mortise cylinder or key-in-knob lock

Rim cylinder - a cylinder with a tailpiece to actuate the lock mechanism typically used with surface applied locks and attached to the lock or door with a mounting plate and machine screws

Selective master key - an unassociated master key that can be made to operate any specific lock(s) in the entire system in addition to the regular master key(s) and/or change key(s) for the cylinder without creating key interchange. Examples include:*

- (ENG) Engineering key
- (HSCP) Housekeeping key
- (JAN) Janitor's key
- (SEC) Security key
- (GRND) Grounds key

Shear line - a location in a cylinder at which specific tumbler surfaces must be aligned, removing obstruction(s) that prevent the plug from moving

Shell - the part of the cylinder that surrounds the plug, usually containing tumbler chambers corresponding to those in the plug

Shim - a thin piece of curved stainless steel used to unlock the cylinder plug from the shell by separating the pin tumblers at the shear line

Sidebar - the secondary locking device operated with a patented side bit milling design

Small format interchangeable core (SFIC)* - a key removable core that can be used in all or most of the core manufacturer's product line. No tools (other than the control key) are required for removal of the core. Recognized as a core having a universal figure 8 shape, and is small in size. An interchangeable core that is too small to fit into a large format interchangeable core housing

Standard key coding system - an industry standard and uniform method of designating all keys and/or cylinders in a master key system. The designation automatically indicates the exact function and keying level of each key and/or cylinder in the system, usually without further explanation

Surreptitious entry* - the use of entry or bypass techniques that cannot be detected via disassembly and detailed inspection of lock components

Tailpiece - an actuator attached to the rear of a cylinder, parallel to the plug, used on rim, key-in-knob or other special cylinders

Top pin - a cylindrical shaped tumbler, flat or crowned on both ends, that is installed in direct contact with the tumbler spring

Tumbler - a movable obstruction of varying length in a cylinder that makes direct contact with a key or another tumbler and prevents an incorrect key from operating the lock or cylinder

Visual key control (VKC) - a specification that all keys and the visible portion of the front of all lock cylinders be stamped with standard keying symbols

Zero bitted - of or pertaining to a cylinder which is or is to be combined to keys cut to the manufacturer's reference number "0" bitting

Example keying system worksheet

Job Reference Utica General Hospital

Information New Wing

Date 12/12/18 By K. Rollins

Approved By T. Roosevelt

Date 1/1/19

Master AA	Area/Dept Perimeter	# of Changes 20	Master AE	Area/Dept Services	# of Changes 40	Master	Area/Dept	# of Changes	Master	Area/Dept	# of Changes	Direct Special Changes directly under the Top Master Key # of Changes 6
Master AB	Area/Dept Core Areas	# of Changes 20	Master AF	Area/Dept Future	# of Changes 20	Master	Area/Dept	# of Changes	Master	Area/Dept	# of Changes	
Master AC	Area/Dept Management	# of Changes 40	Master AG	Area/Dept Future	# of Changes 40	Master	Area/Dept	# of Changes	Master	Area/Dept	# of Changes	
Master AD	Area/Dept Patient Services	# of Changes 20	Master AH	Area/Dept Future	# of Changes 40	Master	Area/Dept	# of Changes	Master	Area/Dept	# of Changes	
Master	Area/Dept	# of Changes	Master	Area/Dept	# of Changes	Master	Area/Dept	# of Changes	Master	Area/Dept	# of Changes	
Master	Area/Dept	# of Changes	Master	Area/Dept	# of Changes	Master	Area/Dept	# of Changes	Master	Area/Dept	# of Changes	

SKD	1
Door# or Area	Access Control

SKD	2
Door# or Area	Drug Carts

SKD	3
Door# or Area	Pharmacy

Special Instructions



Date _____

Grand Master Key	
Area/Dept	

CMK ☐ Construction Master Keying

```

graph TD
    MK[Master Key] --- A1[Area/Dept]
    MK --- A2[Area/Dept]
    MK --- A3[Area/Dept]
    MK --- A4[Area/Dept]
    MK --- A5[Area/Dept]
    MK --- A6[Area/Dept]
    A1 --- C1_1[# of Changes]
    A1 --- C1_2[# of Changes]
    A1 --- C1_3[# of Changes]
    A2 --- C2_1[# of Changes]
    A2 --- C2_2[# of Changes]
    A2 --- C2_3[# of Changes]
    A3 --- C3_1[# of Changes]
    A3 --- C3_2[# of Changes]
    A3 --- C3_3[# of Changes]
    A4 --- C4_1[# of Changes]
    A4 --- C4_2[# of Changes]
    A4 --- C4_3[# of Changes]
    A5 --- C5_1[# of Changes]
    A5 --- C5_2[# of Changes]
    A5 --- C5_3[# of Changes]
    A6 --- C6_1[# of Changes]
    A6 --- C6_2[# of Changes]
    A6 --- C6_3[# of Changes]
    C1_1 --- D1_1[Direct]
    C1_1 --- SC1_1[Special Changes directly under the Top Master Key]
    C1_1 --- C1_1_3[# of Changes]
    C1_2 --- D1_2[Direct]
    C1_2 --- SC1_2[Special Changes directly under the Top Master Key]
    C1_2 --- C1_2_3[# of Changes]
    C1_3 --- D1_3[Direct]
    C1_3 --- SC1_3[Special Changes directly under the Top Master Key]
    C1_3 --- C1_3_3[# of Changes]
    C2_1 --- D2_1[Direct]
    C2_1 --- SC2_1[Special Changes directly under the Top Master Key]
    C2_1 --- C2_1_3[# of Changes]
    C2_2 --- D2_2[Direct]
    C2_2 --- SC2_2[Special Changes directly under the Top Master Key]
    C2_2 --- C2_2_3[# of Changes]
    C2_3 --- D2_3[Direct]
    C2_3 --- SC2_3[Special Changes directly under the Top Master Key]
    C2_3 --- C2_3_3[# of Changes]
    C3_1 --- D3_1[Direct]
    C3_1 --- SC3_1[Special Changes directly under the Top Master Key]
    C3_1 --- C3_1_3[# of Changes]
    C3_2 --- D3_2[Direct]
    C3_2 --- SC3_2[Special Changes directly under the Top Master Key]
    C3_2 --- C3_2_3[# of Changes]
    C3_3 --- D3_3[Direct]
    C3_3 --- SC3_3[Special Changes directly under the Top Master Key]
    C3_3 --- C3_3_3[# of Changes]
    C4_1 --- D4_1[Direct]
    C4_1 --- SC4_1[Special Changes directly under the Top Master Key]
    C4_1 --- C4_1_3[# of Changes]
    C4_2 --- D4_2[Direct]
    C4_2 --- SC4_2[Special Changes directly under the Top Master Key]
    C4_2 --- C4_2_3[# of Changes]
    C4_3 --- D4_3[Direct]
    C4_3 --- SC4_3[Special Changes directly under the Top Master Key]
    C4_3 --- C4_3_3[# of Changes]
    C5_1 --- D5_1[Direct]
    C5_1 --- SC5_1[Special Changes directly under the Top Master Key]
    C5_1 --- C5_1_3[# of Changes]
    C5_2 --- D5_2[Direct]
    C5_2 --- SC5_2[Special Changes directly under the Top Master Key]
    C5_2 --- C5_2_3[# of Changes]
    C5_3 --- D5_3[Direct]
    C5_3 --- SC5_3[Special Changes directly under the Top Master Key]
    C5_3 --- C5_3_3[# of Changes]
    C6_1 --- D6_1[Direct]
    C6_1 --- SC6_1[Special Changes directly under the Top Master Key]
    C6_1 --- C6_1_3[# of Changes]
    C6_2 --- D6_2[Direct]
    C6_2 --- SC6_2[Special Changes directly under the Top Master Key]
    C6_2 --- C6_2_3[# of Changes]
    C6_3 --- D6_3[Direct]
    C6_3 --- SC6_3[Special Changes directly under the Top Master Key]
    C6_3 --- C6_3_3[# of Changes]
  
```

The diagram illustrates a hierarchical structure of keys. At the top is the **Master Key**. It branches into six **Area/Dept** keys. Each **Area/Dept** key branches into three **# of Changes** keys. The **# of Changes** keys are further divided into **Direct** and **Special Changes directly under the Top Master Key**. The diagram is a tree structure with a central vertical line and horizontal branches.

SKD	
Door# or Area	

SKD	
Door# or Area	

Change key only, will not be operated by any other key within the system

Master Key System Summary Form

Sold To: _____ Ship To: _____ _____ _____		q Sheet 1 of _____ q Date _____ Purchase Order No. _____	
Job Name and Address: _____ _____ _____ _____ _____	Key Quantity: _____ Qty q GGGM _____ q GGM _____ q GGM _____ q GM _____ _____ _____ _____ _____	Change Keys: _____ Qty q Per Cylinder _____ q Per Keyed alike Group _____ q Per Keyed different cyl. _____ Special Function _____ Qty Control _____ Main _____ CMK _____ HKP _____ CMK Ctrl _____ MECH _____ EMK _____ ENG _____ SKD Ctrl _____ JAN _____ SKD CMK _____ OTHR _____ Blockout _____ OTHR _____	
System Info: q NEW q Existing System PDQ SO # _____ Your original PO# _____ Original date of order _____	MK/Group _____ _____ _____ _____ _____	Cross Keying: Key Symbol _____ Operated by (OB) _____ _____ _____ _____ _____ _____	
System Level: q 1-SKD q 2-MK q 3-GM q 4-GGM q 4-GGGM q 4-GGGGM Type: q High Security q IC q Standard q Other	Additional Information: _____ (Including system expansion and Special Remarks) _____ _____ _____ _____ _____ _____ Name of individual in organization who is knowledgeable about this project should clarification be required. Name: _____ Phone: _____		
Keys: q Standard SCC q Restricted* q Specific Keyway: _____ *Restricted Keyway requires system approval q 5 Pin q 6 Pin q 7 Pin Key Control: q Visual Key Control Keys Only q Visual Key Control Keys and Cylinders q Visual Key Control Cylinders Only q Concealed Key Control Keys and Cylinders q Concealed I Key Control Cylinders Only q DND q US Property DO NOT DUPLICATE q Special Marking: _____		2230 Embassy Drive, Lancaster, PA 17603 • 1-800-441-9692 • Fax: 717-656-6892	



[illegible]

19

Procedures

Letter of authorization for restricted keyway information

No letter is needed when the items are to be drop shipped directly to the end user. In all other cases, to preserve the security of the end user's keying system, PDQ requires a letter of authorization on the end user's letterhead to obtain the following:

- Bitting lists
- Security blanks and cut keys
- Master level cut keys
- Protected key blanks, cylinders and plugs
- Pyramid key blanks, cylinders, and plugs

XYZ Corporation

1 Main St.
Anytown, USA 00001
(203) 555-5555

(Current Date)

PDQ Key Systems Dept.

We authorize Tri City Distributors to obtain a copy of the bitting list for our keying system GGMX5555. We also authorize them to order the quantities of master keys on our attached purchase order 1581C.

Sincerely,

Felix Unger
XYZ Corporation

Example authorization letter



SECURING CONFIDENCE **OPENING POSSIBILITIES**

Phone: 717.656.4281

Tech Support: 800.441.9692

Email: help@pdqlocks.com

Headquarters: 2230 Embassy Drive, Lancaster, PA 17603
P.O. Box 6426, Lancaster, PA 17607

Regional Distribution Centers: Lancaster, PA | Norcross,
GA | Auburn, WA

Middle East Manufacturing: Dammam, Kingdom of
Saudi Arabia