Key systems, cylinders and keys

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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.
Cylinders

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:

Small format interchangeable core (SFIC)

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

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 cylinders

Conventional key in knob

Interchangeable core - SFIC and LFIC

PDQ High Security cylinders are available in a number of formats, including a 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. For additional security, PDQ offers several of its cylinders in a UL437 package. These optional cylinders feature a minimum of 11 Anti-Drill pins, Stainless steel pins and UL437 certification. The UL 437 cylinders are available in Kik, Mortise and Rim designs.
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

<table>
<thead>
<tr>
<th>MR Series</th>
<th>XGT/GT Series</th>
<th>SX Series</th>
<th>GP Series</th>
<th>SD Series</th>
<th>CL Series</th>
</tr>
</thead>
</table>

Exit device trim

<table>
<thead>
<tr>
<th>6EW Series</th>
<th>6EWM Series</th>
<th>6EN Series</th>
<th>6GP Series</th>
<th>6GN Series</th>
<th>6GW Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>6S Series</td>
<td>4EW Series</td>
<td>4EN Series</td>
<td>4GW Series</td>
<td>4S Series</td>
<td></td>
</tr>
</tbody>
</table>

Deadbolts

<table>
<thead>
<tr>
<th>MJ Series</th>
<th>KM Series</th>
<th>KV Series</th>
</tr>
</thead>
</table>


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

Deadbolt

Exit device trim

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.
Mortise, rim and high security cylinders

**Standard mortise cylinders**
- Available in 6 Pin and 7 Pin
- Available in 605, 606, 612, 613, 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.

**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**

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

**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” bitting, 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

<table>
<thead>
<tr>
<th>KEYWAY</th>
<th>PDQ KEYWAY CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schlage C (Default)</td>
<td>SCC</td>
</tr>
<tr>
<td>PDQ Restricted</td>
<td>TA</td>
</tr>
<tr>
<td>Arrow AR1</td>
<td>ARA</td>
</tr>
<tr>
<td>Corbin 59A1</td>
<td>CO59A1</td>
</tr>
<tr>
<td>Corbin 60</td>
<td>CO6</td>
</tr>
<tr>
<td>Corbin L4</td>
<td>CL4</td>
</tr>
<tr>
<td>Russwin D1</td>
<td>RUD</td>
</tr>
<tr>
<td>Russwin 981</td>
<td>RUD981</td>
</tr>
<tr>
<td>Schlage E</td>
<td>SCE</td>
</tr>
<tr>
<td>Schlage C</td>
<td>SCC</td>
</tr>
<tr>
<td>Schlage C-K</td>
<td>SCC-K</td>
</tr>
<tr>
<td>Sargent LA</td>
<td>SAL</td>
</tr>
<tr>
<td>Sargent RA-RC</td>
<td>RA-RC</td>
</tr>
<tr>
<td>Yale E1R</td>
<td>YA8</td>
</tr>
<tr>
<td>Yale GA</td>
<td>GA</td>
</tr>
<tr>
<td>Falcon E-R</td>
<td>FAL</td>
</tr>
<tr>
<td>Kwikset</td>
<td>KW</td>
</tr>
</tbody>
</table>

### Small format (SFIC) interchangeable core

<table>
<thead>
<tr>
<th>KEYWAY (BEST COMPATIBLE)</th>
<th>PDQ KEYWAY CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PDQ Exclusive</td>
<td>PDQ1</td>
</tr>
<tr>
<td>PDQ Restricted</td>
<td>PDQ2</td>
</tr>
</tbody>
</table>

### Large format (LFIC) interchangeable core

<table>
<thead>
<tr>
<th>KEYWAY (SCHLAGE COMPATIBLE)</th>
<th>PDQ KEYWAY CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schlage C (Default)</td>
<td>SCC (Default)</td>
</tr>
<tr>
<td>PDQ Restricted</td>
<td>TA</td>
</tr>
</tbody>
</table>

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 unauthorized duplication by lock shops, hardware and home centers. They provide a higher level of security, with authorization required for the order of key blanks for duplication. 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

<table>
<thead>
<tr>
<th>Level of Keying</th>
<th>Key Name</th>
<th>Abbreviation</th>
<th>Key Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level II</td>
<td>Master Key</td>
<td>MK</td>
<td>AA</td>
</tr>
<tr>
<td>Level I</td>
<td>Change Key</td>
<td>CK</td>
<td>1AA, 2AA, etc.</td>
</tr>
</tbody>
</table>

### Three Level System

<table>
<thead>
<tr>
<th>Level of Keying</th>
<th>Key Name</th>
<th>Abbreviation</th>
<th>Key Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level III</td>
<td>Grand Master Key</td>
<td>GMK</td>
<td>A</td>
</tr>
<tr>
<td>Level II</td>
<td>Master Key</td>
<td>MK</td>
<td>AA, AB, etc.</td>
</tr>
<tr>
<td>Level I</td>
<td>Change Key</td>
<td>CK</td>
<td>AA1, AA2, etc.</td>
</tr>
</tbody>
</table>

### Four Level System

<table>
<thead>
<tr>
<th>Level of Keying</th>
<th>Key Name</th>
<th>Abbreviation</th>
<th>Key Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level IV</td>
<td>Great Grand Master Key</td>
<td>GGMK</td>
<td>GGMK</td>
</tr>
<tr>
<td>Level III</td>
<td>Grand Master Key</td>
<td>GMK</td>
<td>A, B, etc.</td>
</tr>
<tr>
<td>Level II</td>
<td>Master Key</td>
<td>MK</td>
<td>AA, AB, etc.</td>
</tr>
<tr>
<td>Level I</td>
<td>Change Key</td>
<td>CK</td>
<td>AA1, AA2, etc.</td>
</tr>
</tbody>
</table>
2-, 3- and 4-level systems

2- Levels of keying

Master Key

Change Keys

1AA  2AA  3AA

SKD1

3- Levels of keying

GrandMaster Key

Master Key

Change Keys

AA1  AA2  AA3  AB1  AB2  A1

SKD1

4- Levels of keying

Great Grand Master Key

Grand Master Key

Master Key

Change Keys

AA1  AA2  AA3  AB1  AB2  A1  GGM1

SKD1

BA  BB  B1
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
**Keying systems glossary**

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

**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  
- (HSKP) 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
## Keying System Worksheet

**Job Reference**

**Information**

**Date**

**Approved By**

**Date**

### Grand Master Key

**Area/Dept**

**Selectives**

**Control Key**

**CMK**

**Used with IC cores only**

**Construction Master Keying**

### 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**

### Direct

**Special Changes directly under the Top Master Key**

**# of Changes**

### Single Keyed Changes

**SKD**

**Door# or Area**

**SKD**

**Door# or Area**

**SKD**

**Door# or Area**

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

### Special Instructions

---
# Master Key System Summary Form

| Sold To:            | Ship To:            |  |  |  |  |  |  |  |
|---------------------|---------------------|  |  |  |  |  |  |  |
| __________________  | __________________  |  |  |  |  |  |  |  |
| Date ______________ | Date ______________ |  |  |  |  |  |  |  |
| Purchase Order No.  | Purchase Order No.  |  |  |  |  |  |  |  |
| ____________________| ________________ |  |  |  |  |  |  |  |

## Job Name and Address:

<table>
<thead>
<tr>
<th>Qty</th>
<th>GGGM</th>
<th>GGM</th>
<th>GM</th>
<th>MK/Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Key Quantity:

<table>
<thead>
<tr>
<th>Qty</th>
<th>Change Keys:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Per Cylinder</td>
</tr>
<tr>
<td></td>
<td>Per Keyed alike Group</td>
</tr>
<tr>
<td></td>
<td>Per Keyed different cyl.</td>
</tr>
</tbody>
</table>

## Change Keys:

<table>
<thead>
<tr>
<th>Qty</th>
<th>Special Function</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Control</td>
</tr>
<tr>
<td></td>
<td>Main</td>
</tr>
<tr>
<td></td>
<td>CMK</td>
</tr>
<tr>
<td></td>
<td>HKP</td>
</tr>
<tr>
<td></td>
<td>CMK Ctrl</td>
</tr>
<tr>
<td></td>
<td>MECH</td>
</tr>
<tr>
<td></td>
<td>EMK</td>
</tr>
<tr>
<td></td>
<td>ENG</td>
</tr>
<tr>
<td></td>
<td>SKD Ctrl</td>
</tr>
<tr>
<td></td>
<td>JAN</td>
</tr>
<tr>
<td></td>
<td>SKD CMK</td>
</tr>
<tr>
<td></td>
<td>OTHR</td>
</tr>
<tr>
<td></td>
<td>Blockout</td>
</tr>
</tbody>
</table>

## System Info:

- **NEW**
- **Existing System**
- PDQ SO #
- Your original PO# ________________
- Original date of order

## System Level:

- 1-SKD
- 2-MK
- 3-GM
- 4-GGM
- 4-GGGM
- 4-GGGGM

## Cross Keying:

<table>
<thead>
<tr>
<th>Key Symbol</th>
<th>Operated by (OB)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
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<tr>
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<td></td>
</tr>
</tbody>
</table>

## Type:

- High Security
- IC
- Standard
- Other

## Keys:

- Standard SCC
- Restricted*
- Specific Keyway: ________________

*Restricted Keyway requires system approval

<table>
<thead>
<tr>
<th>Qty</th>
<th>5 Pin</th>
<th>6 Pin</th>
<th>7 Pin</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

## Key Control:

- Visual Key Control Keys Only
- Visual Key Control Keys and Cylinders
- Visual Key Control Cylinders Only
- Concealed Key Control Keys and Cylinders
- Concealed Key Control Cylinders Only
- DND
- US Property DO NOT DUPLICATE
- Special Marking: ____________________________

## 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: ____________________________

2230 Embassy Drive, Lancaster, PA 17603 • 1-800-441-9692 • Fax: 717-656-6892

---

This sheet to be used with Keying Schedule Form
# Keying Schedule Form

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Key Symbol</th>
<th>Hand (Specify Qty)</th>
<th>Door Number (Up to 10 Characters)</th>
<th>Heading (Up to 10 Characters)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>RH</td>
<td>LH</td>
<td>RHR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>LHR</td>
</tr>
</tbody>
</table>

Customer Name:  
Purchase Order No.  
Page of  
Quantity:  
Series/Function/Trim:  
Finish:  
Options:  
Special Stamping:  

This sheet to be used with Keying Schedule Form

2230 Embassy Drive, Lancaster, PA 17603 • 1-800-441-9692 • Fax: 717-656-6892
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:

• bitten lists
• security blanks and cut keys
• master level cut keys
• protected key blanks, cylinders and plugs
• pyramid key blanks, cylinders, and plugs

Example authorization letter

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 bitten 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
SECURING CONFIDENCE
OPENING POSSIBILITIES

Phone: 800.441.9692
Tech Support: 833.2.PDQTEC (833.273.7832)
FAX: 717.656.6892 | 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,
Kansas City, MO | Denver, CO | Henderson, NV | Auburn, WA

Design Office: Milan, Italy

pdqlocks.com