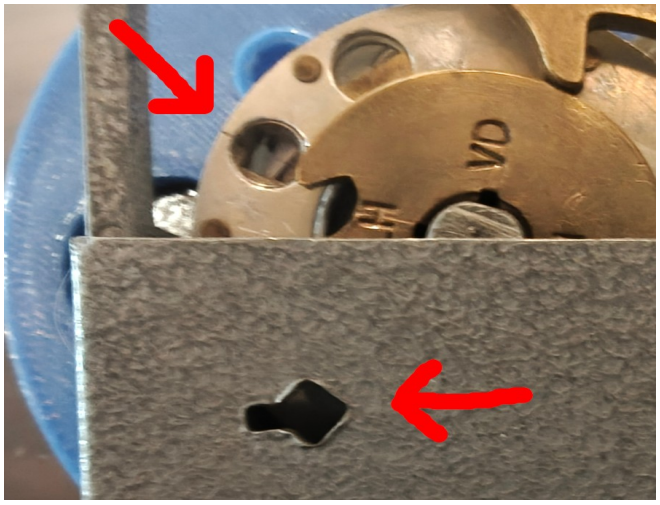
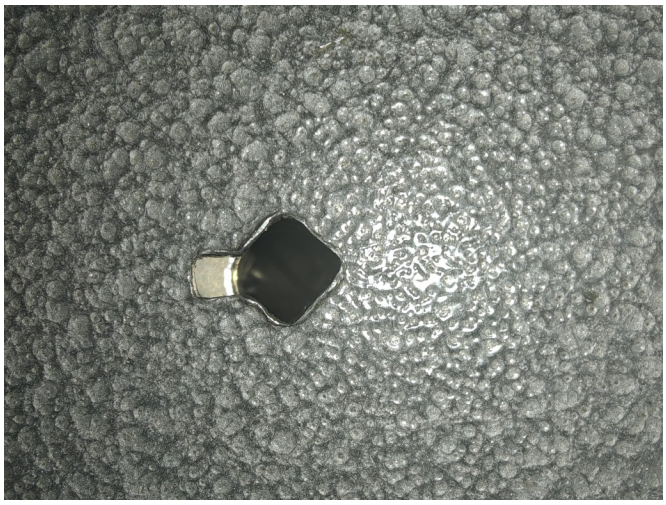
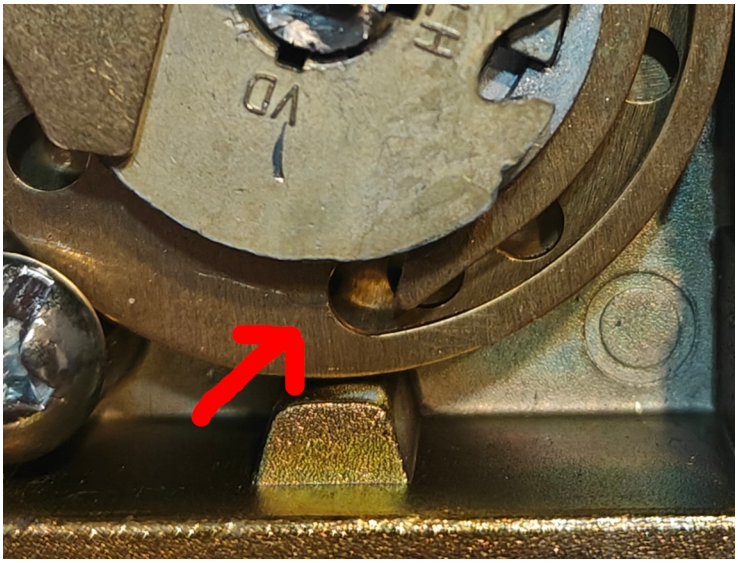
Scoping a safe lock change key hole





To scope a change key hole on a safe lock to identify the combination, you are looking for the change key hole in the wheel to line up with the change key hole in the back cover. Different brands have differently shaped change key holes. Above we see the square change key hole in the wheel of an S&G as well as the corresponding hole in the back cover. Below is an example of a LaGard change key hole

You can see that LaGard change key holes are more circular in shape. The hole in the back cover of a LaGard lock will be a half circle. You may have noticed that the areas near the change key holes differ from brands as well. These features are useful to determine when we will be close to lining up the change key holes of the wheel and back cover.

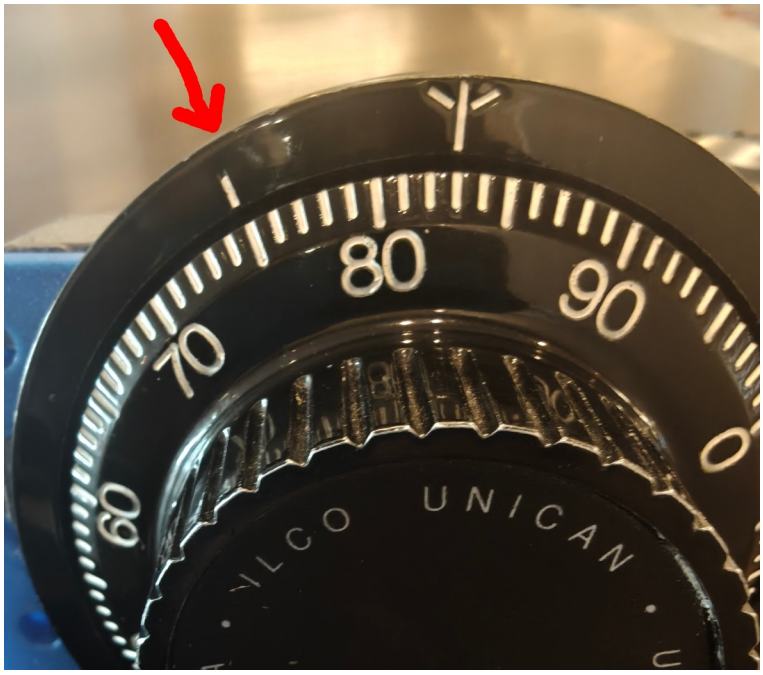


The wheel furthest from the drive cam is always labeled as wheel 1, counting up by 1 for each wheel until we reach the drive cam. The drive cam being the smaller wheel directly connected to the dial with a “drop-in” cutout on it. There is always one wheel per number in the combination with the label of that wheel corresponding to the same number in the combination, e.g. wheel 1 corresponds to the first number in the combination. In the case of most locks, the wheel closest to the back cover, the wheel you first see when looking through the change key hole, is going to be the first wheel that moves when spinning the dial. In a 3 wheel lock this would be wheel 3. The exception is Mosler which places its

drive cam closest to the dial which means that the first wheel we see through the change key hole will be wheel 1.

The process to determine the combination through the change key hole is in three major parts, one for each wheel. I will first cover the most common scheme of wheel 3 being the first wheel seen through this hole. Any time we read the number on the dial, we must use the change index instead of the opening index and ALL DIALING MUST BE PRECISE!

The opening index is the line at the 12 o'clock position. The change index is the line either to the left or right of the opening index, depending on the brand. Hence, the picture shows 75 at the change index not 83 which is at the opening index.



Finding the 3rd number

1. Spin the dial to the left at least 3 full rotations.
2. Keep spinning left until you see the change key hole in the wheel line up with the change key hole in the back cover. The number at the change index is the 3rd number in your combination.

Finding the 2nd number

1. Spin the dial to the right at least 3 full rotations and the stop on 0.
2. Spin the dial to the left 1 full rotation and then keep spinning until the 3rd number in the combination lines up with the change index.
3. Looking through the change key hole on the back cover, you should see the change key hole of the 3rd wheel. If you do not see a second change key hole behind it, repeat steps 1-3 but replace the number 0 in step 1 with 98. The next time you repeat these steps, replace 98 with 96. Repeat until you see a second change key hole.
4. Once you see the change key hole of the 2nd wheel, it must line up as perfectly as possible with the first. If it is not lined up, either add one or subtract one from the number you dialed to in step 1 until it is lined up. The number at the change index is the 2nd number in the combination.

Finding the 1st number

1. Dial in combinations (using the opening index now) using your 2nd and 3rd number and attempt to open the lock. For the 1st number you will start at 0 and increment by 2 until the lock opens. If your 2nd and 3rd numbers are 20 and 30 then you would start by dialing 0-20-30 and if it doesn't open then 2-20-30 and then 4-20-30, etc.

For locks such as the Mosler which has their wheel 1 closest to the back cover, you will simply follow the standard dialing procedure to open them. But using the change index instead of the opening index and using the change key hole to determine when to stop instead of relying on knowing the number to stop on.

1. Start by turning left 3 full rotations and then keep turning until you see the first change key hole of a wheel through the back cover. The number at the change index is your 1st number in the combination.
2. Turn right 2 full rotations and then keep turning until you see a second change key hole through the first. The number at the change index is your 2nd number in the combination.
3. Turn left 1 full rotation and then keep turning until you see the 3rd change key hole. The number at the change index is your 3rd number in the combination.