

Arnold Sintricolaas 2005



How Do We Do That?

Rekeying a Profile Cylinder



Start by placing this cylinder with the bible in the vise. Using two small flat screwdrivers, one to hold one of the retainer C clip's end in place the other to bend the same retainer C clip away from the cylinder body. Do the same with the second retainer C clip, the C clips are made from a soft material and will be reused after rekeying the cylinder.

When we have a working key we need to prepare a removal key. This removal key is only used to remove the cylinder plug(s). Cut the head of the removal key and grind or file the bottom of the key at least $.040''$, this is needed so you can slide the center leg from the rekeying tool.

Insert this removal key in the cylinder and turn the key one half turn, from 12 O' Clock to 6 O' Clock. Then insert the rekeying tool with the two larger legs around the bible and the small leg into the keyway. With the rekeying tool in place, pull on the removal key and gently pull the plug out of the cylinder.

In a double cylinder situation you remove one cylinder plug at a time. Remove the first plug with the removal key, rekey this plug and insert the rekeyed plug without a removal key over the removal tool. Then insert the removal key in the second plug, turn the removal key and insert the removal tool for removal of the second plug and rekey the second cylinder.

Leave the thumbturn piece in place; only pull it out a little bit, so the cam will fall out of the cylinder. There will be a ball bearing and spring in the inside part of the cylinder. For rekeying of the outside cylinder plug, this thumbturn does not need to be removed completely.

You will remember of course where all parts are located in the cylinder. There will be a spring, a cam, and a driver. Make special note of how this driver is sitting. You can see in the picture a small slot in the driver. The bottom of the key will slide in this slot when the key is inserted.



When rekeying a mastered cylinder, make sure there are no master pins in the bible, pull out the removal tool one pin chamber at a time starting from the back. Use tweezers to remove master and top pin, (in this type of cylinder you may call them bottom pins). When your sure all master pins are removed, start at the front of the cylinder housing and insert bottom pins one at a time and push the removal tool over each chamber until all pins are in.

Removal Tool

Making your own removal tool you need some spring steel, about 1.800" X .900". The space between the side legs needs to be a snug fit to fit the bible of a profile cylinder, which is .410". Look in the picture and see where you may like to file at the beginning of the larger legs for

easier sliding onto the profile cylinder. The middle leg is about .065" wide. This leg is used to cover the pins and springs in the cylinder housing. This small leg is bent square about .015" higher than the larger legs.

Bend this tool at .760". Cut with a hacksaw 4 saw cuts in the long side of this bent material.

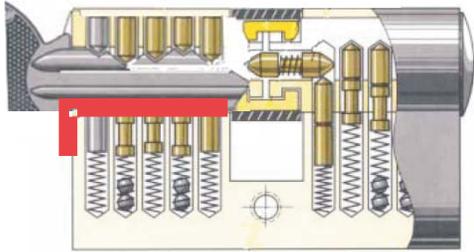


Height of legs 1.030"
Width of outside legs .260"
Width of middle leg .065"

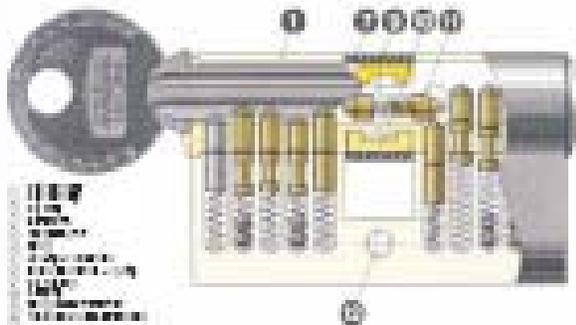


In the above picture you see the middle leg is bent slightly at different measurements

The above type of Profile cylinder is available from Edwards Builders Hardware
1 800 268-2521



Red Line indicates tool used to hold Bottom Pins and Springs in bottom of Profile Cylinder



There are more ways to rekey this type of cylinder.

Look for ways to remove the retaining clips. Always remember that we need to reuse them again. In some products we see removable closing caps on the bottom of the cylinder.

In a single type of cylinder, remove the inside mechanisms and place in sequence on your workbench. Place a working key in the cylinder or pick the cylinder. Find the right thickness follower, then insert from the inside and push the cylinder plug out of the housing.

When your cylinder is a double cylinder type, do not panic, there are ways to remove the plugs. Some

locksmiths will have magnetized followers. Each part will have a length long enough to fill the space in the center of the cylinder body where the cam is situated.

Still on the followers, you can make your own. Use a Ball-Point-Pen body, which has a diameter of .500", and cut it in lengths the same size as the space where the cam is located. Insert the first part of the small followers and push this part against the cylinder plug you need to remove. When the follower is in, place another follower and keep repeating till plug is removed.

In some cases you will not have the blanks on hand and the customer insists on having the old combination changed the same day.

Collect all the keys that your customer has available. Use one of the keys to remove the cylinder plug(s). When the plug(s) are removed, look at the key for the shallowest cut. Use one of the keys with the shallow cut, and cut second cut at least 2 increments deeper. Remove the corresponding pins and replace with the correct pins of the right size.

Use the modified key to duplicate the remainder of your customer collected keys. No need to explain to the customer how you made the new keys from the old ones.

Arnold



Follower made from a Ball-Point-Pen