## REKEYING MANUAL

**Kwikset**®

TITAN IM



## Rekeying Is A Great Customer Service That's Easy To Learn

TITAN'S SUPERIOR ENGINEERING MAKES REKEYING EVEN EASIER.

Rekeying is a valuable customer service that will be even more valuable to your Titan customer. And, thanks to Titan's superior engineering, the job will be even easier than ever before.

When your customers buy a new TITAN knob, deadbolt, lever, or handleset, they have selected a superior product which provides them with the extra security and peace of mind they need. Having a single key to operate all the locks in their home will add security as well as convenience. That feeling of security is what your customers are looking for. This might be the difference that makes the

That's were jou come in. Your customer may not a now it's possible to rekey new locks purchased in your store, or, they might think that Titan locksets are not compatible with their existing Kwikset door hardware. In fact, Titan products have a removable cylinder which make them even easier to rekey, and they can easily be keyed alike to any Kwikset lock.

Have your customer give you their existing key, follow the procedures you'll learn in this manual, and you have a happier customer. You've also made an extra sale.

This manual will tell you everything you need to know about rekeying Titan entry locksets. But first, here are a couple of things you should know about Titan.

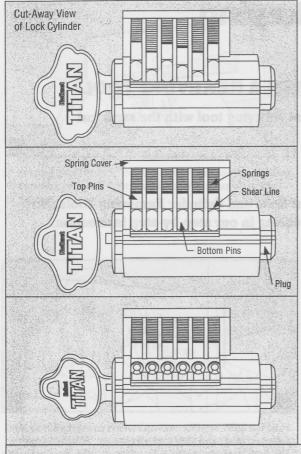
**Titan's six-pin key cut:** all existing Kwikset locks, and most other brands as well, are made with a five-pin cylinder. Titan is made with a six-pin cylinder so there are more key cut combinations, which makes it more difficult to pick and less likely that any two people will have matching keys. It does not mean that it is more difficult to rekey. In fact it's easier. And there is no problem keying a six-pin lock to match a five-pin lock.

**Titan's removable cylinder:** Titan's specially engineered cylinder is removable in seconds with the Titan Cylinder Rekeying Tool. Rekeying Titan products is easier to do and easier to learn. This will save time for you and add convenience for your customers. All this adds up to additional sales for you.

The rest is simple. Everything you need to know is in the pages that follow.



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#### Very quickly, here's what makes Titan locks click.

Titan locks operate by how the cuts on the keys match with the pin tumblers inside the cylinder plug. There are two sets of six pins in each lock, top and bottom, and a set of springs. The top pins are all the same size and are flat on both ends. You do not, at least right now, want to deal with top pins or springs.

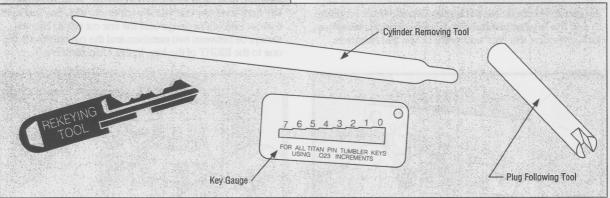
You only want to deal with bottom pins, which are of different lengths (in .023" increments) and are tapered on both ends.

For the lock to work, the cuts of the key must enable all six bottom pins to be flush with the cylinder plug. This is called the shear line.

In the top photo, there is no shear line because some bottom pins are out of place. That key won't operate this lock.

Put in the correct key (middle photo) and all the pins line up to form the shear line and the key will operate the lock (bottom).

When you rekey a lock, you simply replace the bottom pins according to the cut combination of the key you want to use. And you can do all this with a few very simple tools.



The tools to do the job.

Inside a Titan Rekeying Kit are the different bottom pin sizes you need to rekey a lock, a Key Gauge for reading the cuts on a key, a Cylinder Removing Tool (affectionately known as a "pickle fork"), and a Plug Following Tool, a very simple device which keeps lock parts from spattering across the room when you remove the plug (which houses the pins, and into which the key fits) from the cylinder.

There are also extra top pins, springs and other parts in the kit, but you don't need to be concerned with those now.

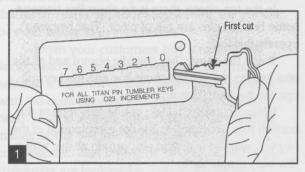
# TITAN Deadbolt Rekeying Section I

#### **REKEYING TITAN DEADBOLTS WITH A REKEYING TOOL**

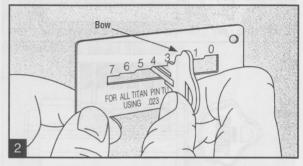
NOTE: When making a new key, also make a new rekeying tool with the same cut combination as the new key.

Here's where you start.

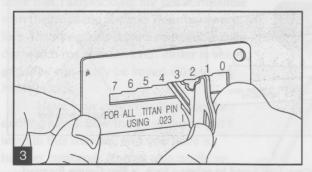
You've learned about top and bottom pins, shear lines and Cylinder Removing Tools. Now take a look at parts of a lockset we will be referencing in our step-by-step instruction.



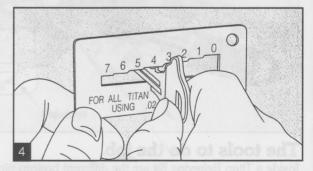
Before you can rekey a lock, you have to know what pins to use. For obvious security reasons, Titan doesn't print keycut combinations on the packaging. We use this key gauge to find the key-cut combination. Before disassembling the lock, measure the cuts and write down the numbers.



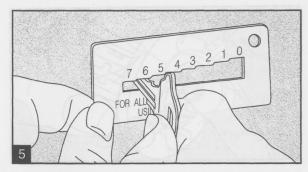
Hold the NEW key (the one with which you want this lock to be keyed alike) and slide it into the gauge. ALWAYS gauge a key from the bow end out. To measure, slide the key to the narrow end of the gauge until the first cut stops. This will always be between two numbers and the cut number is the one to the RIGHT of the key. In this example it is a 3.



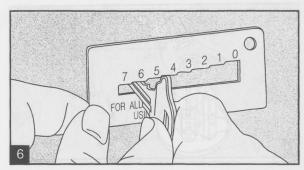
Position the next cut and move the key down the gauge until it stops. The second cut of this key is a 2. You can slide the gauge or the key, the result is the same. The first cut comes after the shoulder next to the bow.



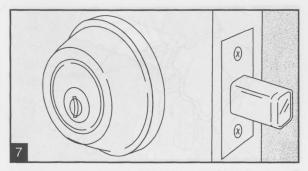
Do the same for the third cut which is a 4. Remember, always read the number above and to the right of the key. Also, remember to read the cuts from the bow of the key out (the bow being the part you hold with your fingers).



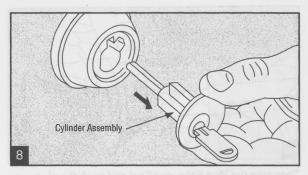
It's also a good idea to double check that you are reading the correct cut each time. In this case, cut number four is a 6.



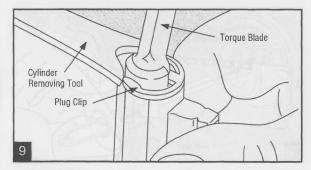
Finally, the last cut is a 5. So we have a key with a cut combination of 3-2-4-6-2-5. Of course, you've written that down as you went along. When the time comes, you'll know exactly which pins to select. But first, let's take apart a lockset.



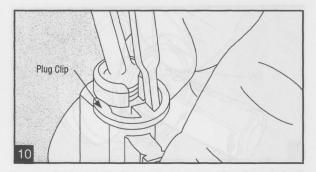
Deadbolt on door.



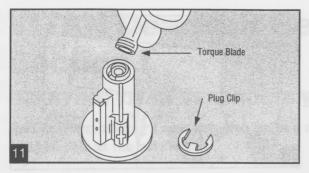
Insert current Cylinder Rekeying Tool fully and rotate 120° (slightly more than 1/4 turn) counterclockwise. Pull cylinder assembly straight out. Rotate Rekeying Tool back to vertical position and remove from cylinder.



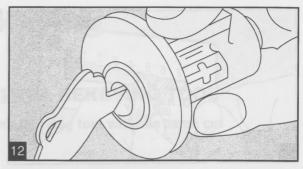
Lay cylinder assembly on a flat surface. The cylinder assembly is completely exposed now. The torque blade must be removed. To do this fit the forked end of the Cylinder Removing Tool into the open end of the plug clip and push it out.



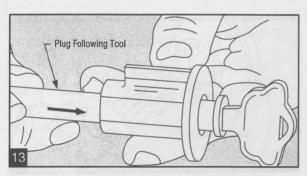
Remove the plug clip completely using the other end of the Cylinder Removing Tool. **Use care not to deform plug clip.** 



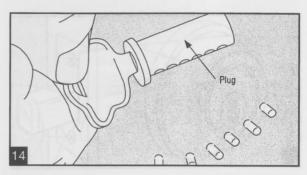
Lift out the torque blade.



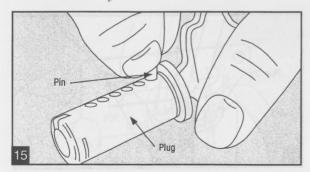
Insert old key or Removal Tool, turn 45° to the right or left.



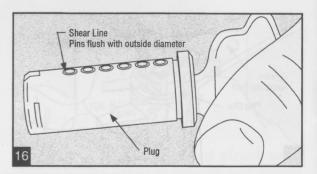
Then take the Plug Following Tool and push the plug out from the back. Make sure it stays tight against the plug or the top pins and springs will fall out (see page 24 if top pins and springs fall out). Also, make sure the Plug Following Tool sticks out at least one inch. Leave it in place until you reassemble.



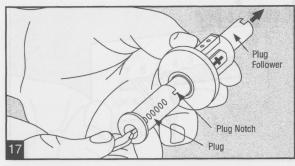
Drop out the old pins, remove the old key and insert the new key. (We will assume you have already gauged the new key.)



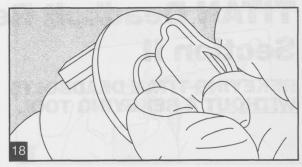
Begin inserting the new pins from the rekeying kit according to the cut combination of the new key. You may handle the bottom pins with tweezers or your fingertips. As in our example, use a No. 3 bottom pin for the first position which is a No. 3 cut depth on the key. A No. 2 bottom pin for the second position. A No. 4 pin for the third, etc.



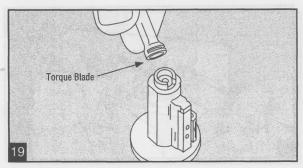
If all the bottom pins are the proper size for the key, your shear line will be flush.



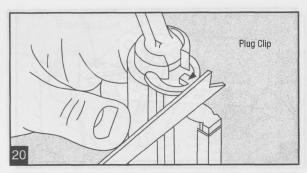
Begin reassembly in the same manner you began; position the key 45° to the right or left so that top pins will not fall into the plug notch, then use the plug to push the Plug Following Tool back through the cylinder.



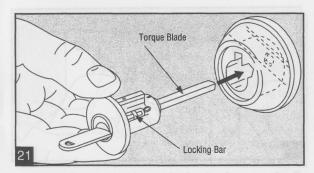
Holding the plug firmly into the cylinder with your thumb, turn the key straight up and pull it out.



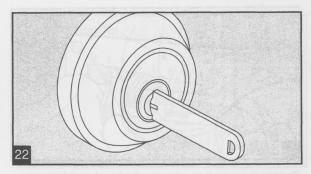
Put the lock cylinder assembly face down and insert torque blade.



Use the Cylinder Removing Tool to reseat the plug clip then insert key and test to make sure everything works and turns properly.



Insert new Rekeying Tool into cylinder. Rotate approximately  $120^\circ$  counterclockwise until locking bar is flush with cylinder body. Align torque blade with latch hole.



Insert cylinder into lockset.

Model 780 (single-cylinder) - Make sure torque blade aligns properly with latch hole and turnpiece hole.

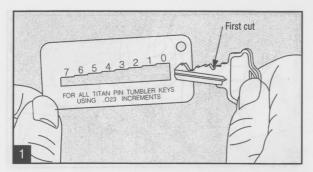
Model 785 (double-cylinder) - When inserting exterior cylinder, rotate Removal Tool to vertical position with cuts of key up. This will turn the solid torque blade in a position where it will not droop down. Insert cylinder into lockset until it stops. Rotate Removal Tool clockwise until locking bar is flush with cylinder. Then push cylinder in fully. Rotate tool clockwise to vertical position and withdraw. Check with new key for proper function.

# TITAN Deadbolt Rekeying Section II

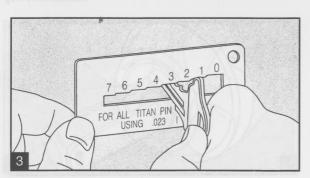
## REKEYING TITAN DEADBOLTS WITHOUT A REKEYING TOOL

#### Here's where you start.

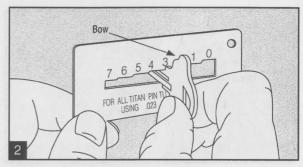
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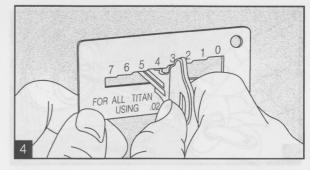
Before you can rekey a lock, you have to know what pins to use. For obvious security reasons, Titan doesn't print key-cut combinations on the packaging. We use this key gauge to find the key-cut combination. Before disassembling the lock, measure the cuts and write down the numbers.



Position the next cut and move the key down the gauge until it stops. The second cut of this key is a 2. You can slide the gauge or the key the result is the same. The first cut comes after the shoulder next to the bow.



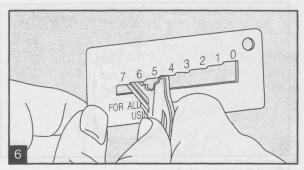
Hold the NEW key (the one with which you want this lock to be keyed alike) and slide it into the gauge. ALWAYS gauge a key from the bow end out. To measure, slide the key to the narrow end of the gauge until the first cut stops. This will always be between two numbers and the cut number is the one to the RIGHT of the key. Here that is a 3.



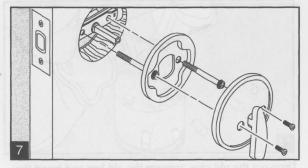
Do the same for the third cut which is a 4. Remember, always read the number to the right of the key. Also, remember to read the cuts from the bow of the key out (the bow being the part you hold with your fingers).



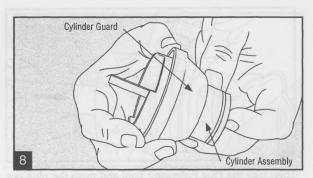
It's also a good idea to double check that you are reading the correct cut each time. In this case, cut number four is a 6.



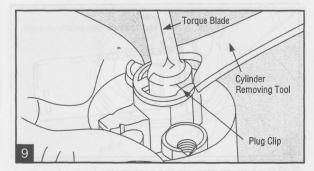
Finally, the last cut: a 5. So we have a key with a cut combination of 3-2-4-6-2-5. Of course, you've written that down as you went along. When the time comes, you'll know exactly which pins to select. But first, let's take apart a lockset.



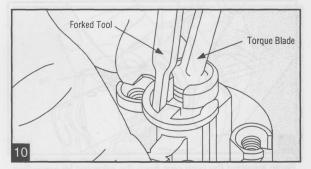
Remove deadbolt from door. With single-cylinder deadbolts, you'll only be dealing with the keyed side of the lock. With double-cylinder deadbolts, both cylinders will need to be rekeyed.



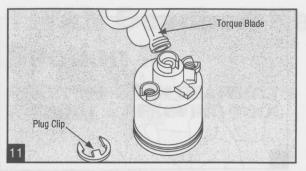
Remove cylinder assembly from cylinder guard.



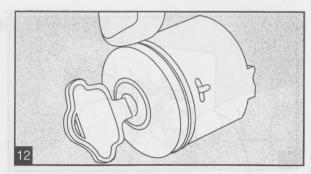
The cylinder assembly is completely exposed now. The torque blade must be removed. To do this fit the forked end of the Cylinder Removing Tool into the open end of the plug clip and push it out.



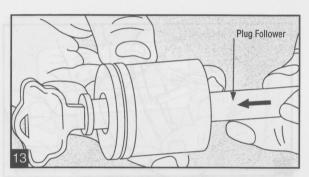
Remove the plug clip completely using the other end of the Cylinder Removing Tool. **Use care not to deform plug clip.** 



Lift out the torque blade.



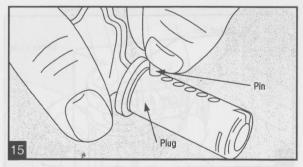
Insert old key or Removal Tool, turn 45° to the right or left.



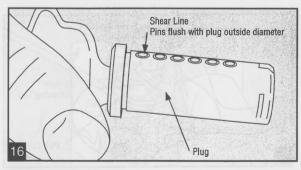
Then take the Plug Following Tool and push the plug out from the back. Make sure the Plug Following Tool stays tight against the plug or the top pins and springs will fall out (see page 43 if this happens). Also, make sure the Plug Following Tool sticks out at least one inch. Leave it in place until you reassemble.



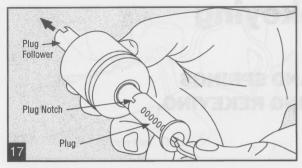
Drop out the old pins, remove the old key and insert the new key. (We will assume you have already gauged the new key.)



Begin inserting the new pins from the rekeying kit according to the cut combination of the new key. You may handle the bottom pins with tweezers or your fingertips. As in our example, use a No. 3 bottom pin for the first position which is a No. 3 cut depth on the key. A No. 2 bottom pin for the second position. A No. 4 pin for the third, etc.



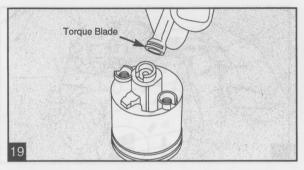
If all the bottom pins are the proper size for the key, your shear line will be flush.



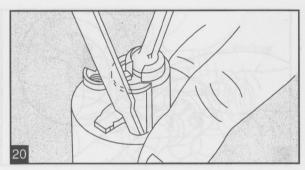
Begin reassembly in the same manner you began; position the key 45° to the right or left so that top pins will not fall into the plug notch, then use the plug to push the Plug Following Tool back through the cylinder.



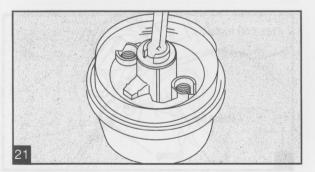
Holding the plug firmly into the cylinder with your thumb, turn the key straight up and pull it out.



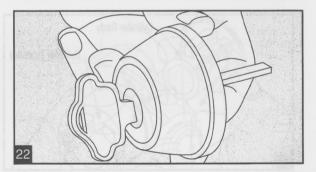
Put the lock cylinder assembly face down and insert torque blade.



Use the Cylinder Removing Tool to reseat the plug clip then insert key and test to make sure everything works and turns properly.



Insert rekeyed cylinder assembly back into cylinder guard and cover.

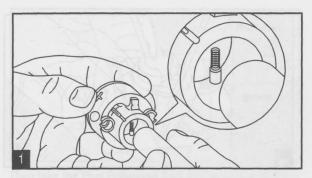


And your deadbolt rekeying is completed. If your customer has purchased a double-cylinder model, simply rekey the other cylinder in exactly the same manner, and the same pin combination. Check with key for proper function.

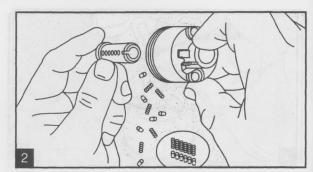
# TITAN Deadbolt Rekeying Section III

WHAT TO DO IF THE TOP PINS AND SPRINGS ACCIDENTALLY DROP OUT DURING REKEYING.

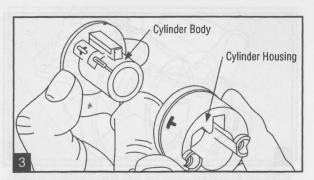
This portion deals with the situation whereby when using a Plug Following Tool it is used incorrectly and the plug and tool separate enough to allow one or more top pins and springs to fall out of the cylinder body. Now, all top pins, springs and pin cover must be removed. The procedure for rekeying is as follows:



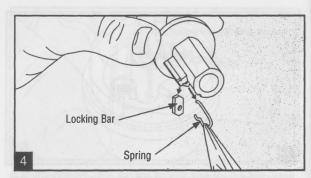
Pins and springs accidentally drop.



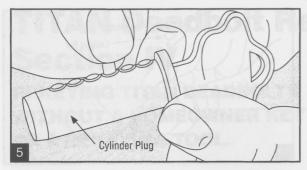
Pull plug completely out of cylinder body allowing all six top pins and springs to fall out.



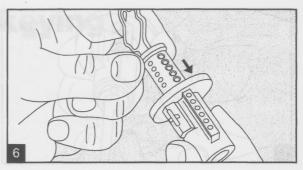
Pull cylinder body out of cylinder housing.



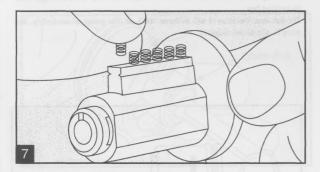
Remove spring and locking bar from cylinder body.



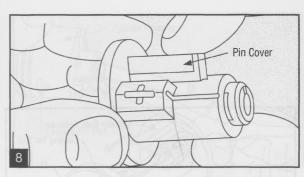
Insert new key into plug and add correct bottom pins to be flush with shear line. (Outside diameter of plug.)



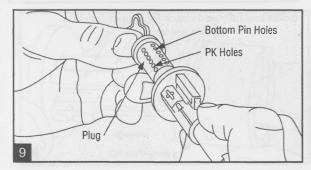
Insert plug (with key still inside plug) into cylinder body. Hold plug in body and remove key.



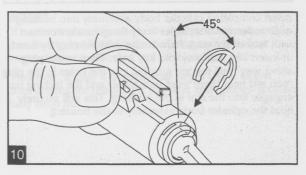
Finish pinning cylinder body with top pins and springs.



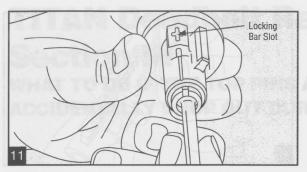
Install pin cover, by applying even pressure over springs until all four detent clamps on cover are engaged.



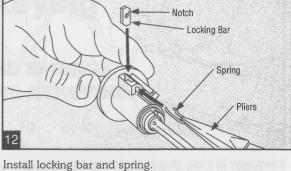
Insert key then push out plug with Plug Following Tool. Use care not to drop out bottom pins.



Remove key from plug, rotate plug 45° counterclockwise so that the PK holes line up with the top pins and springs. Use caution not to allow bottom pins to fall out of plug. Reinsert plug in this new position pushing into cylinder body fully. Plug Following Tool will fall out. Install plug clip and torque blade at 45° degree angle of plug. DO NOT ROTATE PLUG YET.

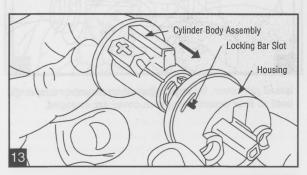


Rotate plug counterclockwise by hand until bottom of plug slot lines up with locking bar slot in cylinder body. Look into locking bar slot.

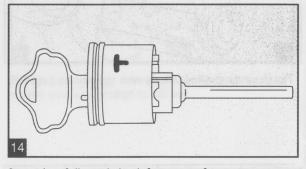


**Caution:** Locking bar must be installed with notch toward pin cover and plug, and visible with key removed. Lock will not operate unless locking bar is correctly installed. Locking bar must be flush or below cylinder body. If not, rotate plug slightly either way until it is. Push spring in as shown until it snaps into locking bar slot. Spring will need to be depressed in order to push into cylinder body, and, through hole in locking bar.

Do not over bend as it will deform. Still, at this point of assembly, the plug is not to be rotated.



Insert completed cylinder body assembly into housing until underside of cylinder body flange makes contact with face of housing. Now rotate cylinder plug by hand, or insert key part way into key hole. Then rotate plug either way until the top pins fall into the holes in the plug (you will hear them snap into place) and the locking bar engages into the slot in the housing. This will securely hold the cylinder body assembly to the housing.

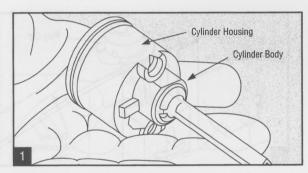


Insert key fully and check for proper function.

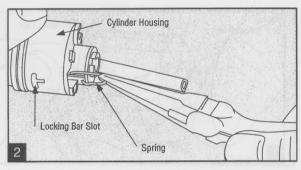
# TITAN Deadbolt Rekeying Section IV

REKEYING TITAN DEADBOLTS WITHOUT A HOMEOWNER KEY OR A REKEYING TOOL.

#### Procedure to remove cylinder body assembly from housing.

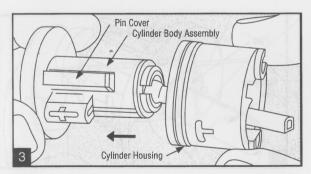


Cylinder body and housing assembly.



Remove spring with long nose pliers. Pull straight back using care not to deform spring.

Use the U-shaped spring you just pulled out to pick out the locking bar from the slot in the housing.



Pull out cylinder body assembly. Then disassemble by removing pin cover and dropping out all pins and springs. Remove plug clip and plug. Begin rekeying with new keys and reassemble.

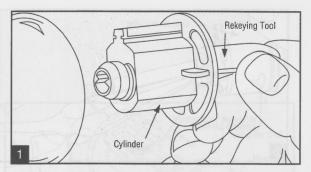
#### NOTES:

If a rekeying tool is made, the cylinder body assembly can be assembled with the housing easily. Follow instructions on rekeying with a rekeying tool.

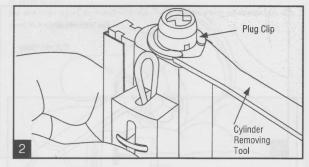
However, if only a homeowner key is used, follow instructions for rekeying if top pins and springs accidentally drop out.

# TITAN Knobs Section I

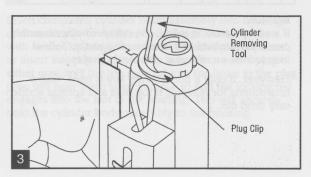
## REKEYING TITAN KNOBS WITH A REKEYING TOOL



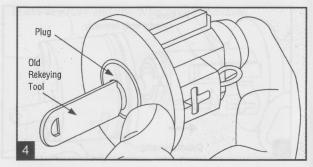
Insert Rekeying Tool into cylinder. Rotate 90° (1/4 turn) counterclockwise and pull out cylinder. Remove Cylinder Rekeying Tool from cylinder. Failure to do this could allow the plug to come out of the cylinder body dropping pins and springs.



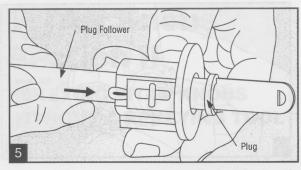
Fit forked end of Cylinder Removing Tool into open end of plug clip and push it out (use screwdriver if tool is not available).



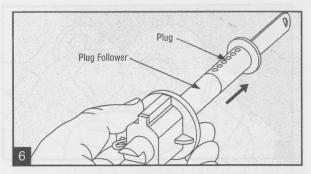
Move the plug clip out the rest of the way with the other end of the Cylinder Removing Tool (or small screwdriver). Use care not to deform plug clip.



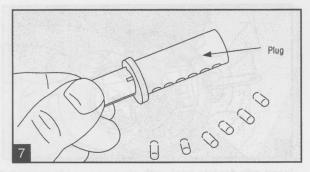
Reinsert old Rekeying Tool. Use thumb to hold key or plug in place. (With the plug clip off the plug it could slide out, dropping pins and springs.)



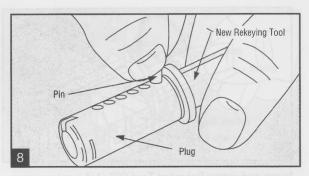
Take the Plug Following Tool and push the plug out from the back. Make sure the Plug Following Tool stays tight against the plug or the top pins and springs will fall out. (See page 43 if this happens.)



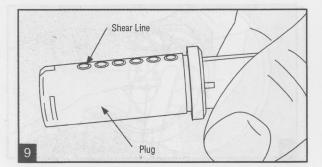
Make sure the Plug Following Tool sticks out at least one inch. Leave it in place until you reassemble.



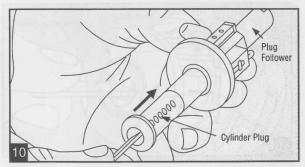
Drop out the old pins, remove the old Rekeying Tool and insert the new Rekeying Tool. (We will assume you have already gauged the new rekeying tool.)



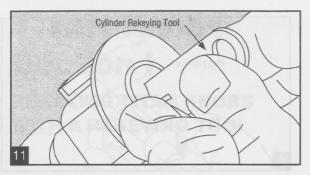
Begin inserting the new pins from appropriate compartments in the rekeying kit according to the cut combination of the new key. You may handle the bottom pins with tweezers or your fingertips.



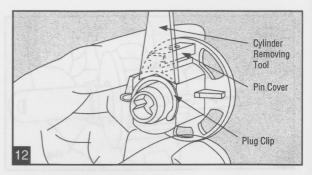
If all the bottom pins are the proper size for the key, your shear line will be flush.



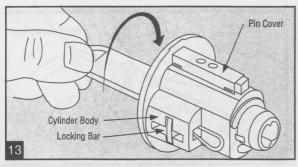
Start reassembly in the same manner you began. Use the cylinder plug to push the Plug Following Tool back through the cylinder.



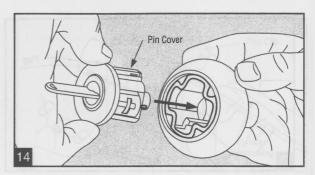
Holding the plug firmly into the cylinder with your thumb, turn the Cylinder Rekeying Tool straight up and pull it out.



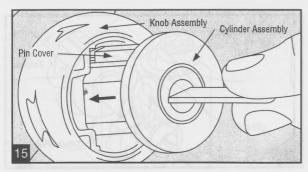
Use the Cylinder Removing Tool to reseat the plug clip. Test cylinder with key to make sure it turns properly.



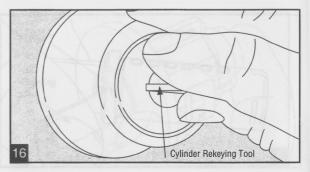
Insert and rotate Rekeying Tool  $90^{\circ}$  (1/4 turn) counterclockwise. Locking bar must be flush with cylinder body for insertion into knob.



Insert cylinder into knob with pin cover up (do not install upside down) if lockset is not on door.



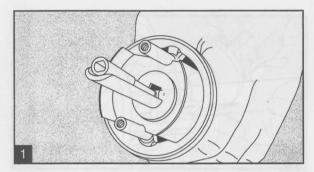
Insert cylinder assembly into knob assembly. Make sure that the cylinder pin cover is in the up position.



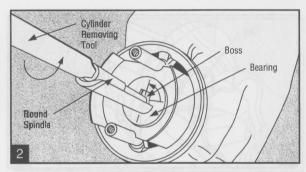
Rotate the Rekeying Tool  $90^{\circ}$  (1/4 turn) clockwise to vertical position and remove. Check with homeowner key for proper function.

# TITAN Knobs Section II

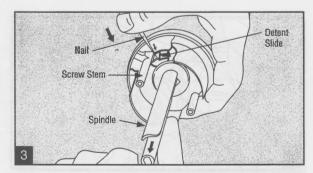
## REKEYING TITAN KNOBS WITHOUT A REKEYING TOOL



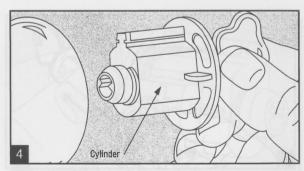
Remove lockset from door.



Rotate the round spindle with the Cylinder Removing Tool (or small screwdriver) to line up the boss of the spindle with the slot of the bearing.

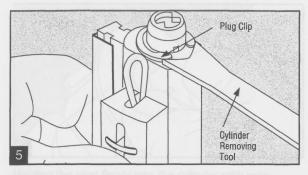


Insert a household nail or small screwdriver between the screw stem and the detent slide. Apply slight force by pressing nail against detent slide to remove spring tension while holding spindle downwards allowing spindle to drop out. If necessary use free finger to assist spindle removal. If spindle rotates, repeat step (2).

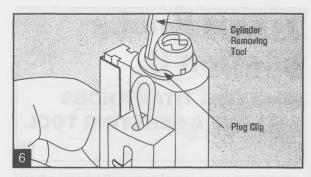


Insert homeowner key, rotate 180° (1/2 turn) counter-clockwise and pull out cylinder.

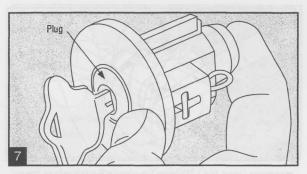
**CAUTION:** Rotate the key back 180° (1/2 turn) and remove from cylinder. Failure to do this will allow the plug to come out of the cylinder body dropping pins and springs if plug clip is removed first.



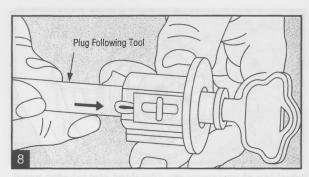
Fit forked end of Cylinder Removing Tool into open end of plug clip and push it out (use screwdriver if tool is not available).



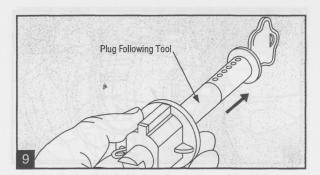
Remove the plug clip completely using the other end of the Cylinder Removing Tool (or small screwdriver). **Use care not to deform plug clip.** 



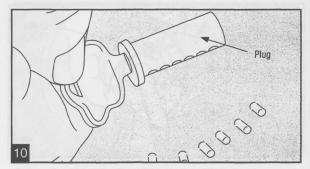
Reinsert old key. Use thumb to hold key or plug in place. Caution: With the plug clip off, the plug could slide out, dropping pins and springs.



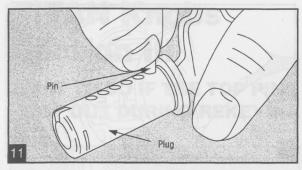
Take the Plug Following Tool and push the plug out from the back. Make sure it stays tight against the plug or the top pins and springs will fall out. (See page 24 if this happens.)



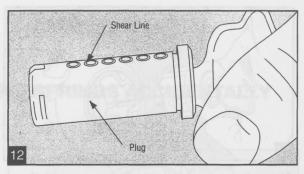
Make sure the Plug Following Tool sticks out at least one inch. Leave it in place until you reassemble.



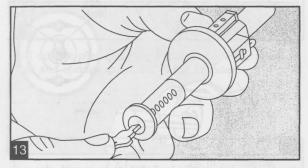
Drop out the old pins, remove the old key and insert the new key. (We will assume you have already gauged the new key.)



Begin inserting the new pins from appropriate compartments in the rekeying kit according to the cut combination of the new key. You may handle the bottom pins with tweezers or your fingertips.



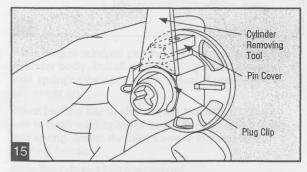
If all the bottom pins are the proper size for the key, your shear line will be flush.



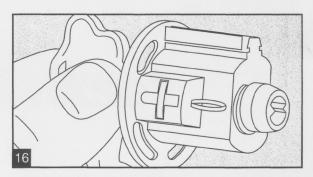
Start reassembly in the same manner you began. Use the plug to push the Plug Following Tool back through the cylinder.



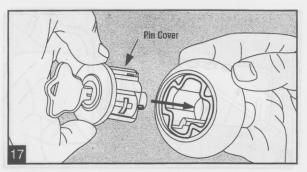
Holding the plug firmly into the cylinder with your thumb, turn the key straight up and pull it out.



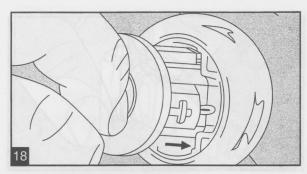
Use Removing Tool to reseat the plug clip. Test cylinder with key to make sure it turns properly.



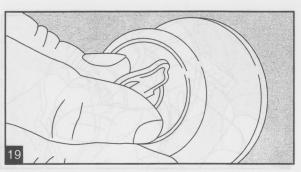
Insert key and turn  $180^{\circ}$  (1/2 turn). Now cylinder is ready to install in knob.



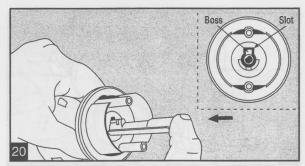
Align cylinder assembly with pin cover up, with the top position of knob. Make sure when knob and cylinder are reinstalled into door, cylinder always remains in the up position (pin cover is up).



Insert cylinder assembly into knob assembly. Make sure that cylinder pin cover is in the vertical position.



Rotate the key 180° (1/2 turn) and remove key.

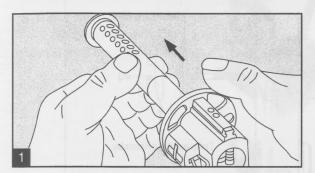


Replace round spindle by lining up boss with slot and push spindle until it snaps into place.

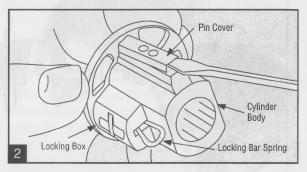


# TITAN Knobs Section III

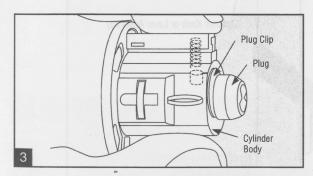
## WHAT TO DO IF THE TOP PINS AND SPRINGS ACCIDENTALLY DROP OUT DURING REKEYING



Pull out the plug and Plug Follower Tool and allow all pins and springs to fall out of the cylinder.



Pry off pin cover with small screwdriver. Remove locking bar spring and locking bar.

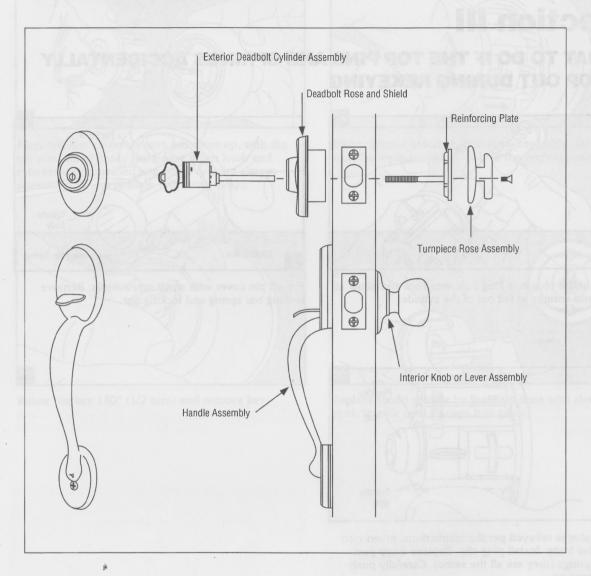


After plug is rekeyed per the instructions, insert into cylinder body. Install plug clip. Replace 6 top pins and springs (they are all the same). Carefully push pin cover on.

Place locking bar in slot. Rotate key until locking bar is flush with cylinder body. Secure with locking bar spring. Insert the homeowner key and test locking function.

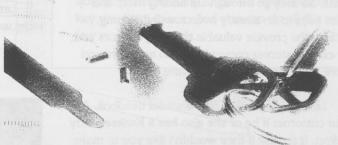
Note: Plug Following Tool is not required.

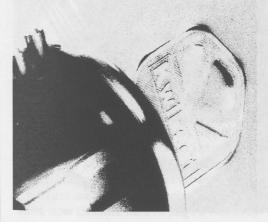
## **TITAN Handleset**



R E K E Y I N G M A N U A L







Kwikset.

# Rekeying Is A Great Customer Service That's Easy To Learn

There's an old saying in the hardware and home center business that, when someone comes into a store looking for a drill, they don't want a drill. They want a hole.

When people buy a new deadbolt, entry lockset or handleset, they also want the convenience of having one key operate all the locks in their home. Most of them just don't realize that they do because most people don't even know that kind of service exists. So they go through life adding more and more keys to an already overcrowded keyring. Locksmiths provide valuable rekeying services and, for extra customer convenience, so are more and more home centers and hardware stores.

That's where you come in.

Let's say you sell a new Kwikset deadbolt. Ask your customer if he or she also has a Kwikset entry lockset. If so, ask if they wouldn't like you to make it so the key to their new deadbolt will also work with their existing entry lockset. It will only take a few minutes and cost a few dollars, you say. And they say, "that's a real convenience I hadn't thought of. I'd like that."

Naturally, it works in reverse, and it works if the customer buys both a deadbolt and an entry lockset or handleset. **But be sure both locks being keyed alike are the same brand.** 

You ask for their existing key, follow the procedures you'll learn in this manual (and in Kwikset's rekeying video, "One Key Can Do It All") and you have a happier customer. You've also made an extra sale.

Before we go into the mechanics of how one key can do it all, first let's define some terms, then take a quick look at how locks work.

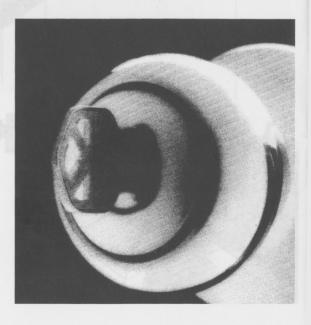
**Terminology**: When keying two locks alike, you are actually changing the pin-tumblers in one of the locks so that it will have the same "cut combination" as the other.

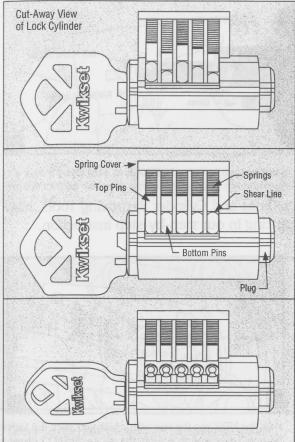
Therefore, "repining" is a more accurate word to use than "rekeying." But that's what it has been called for generations and we're not about to change that. "Keying alike" is just another term for rekeying.

In the pages that follow, you will learn how to rekey a Kwikset key-in-knob entrance lockset, a single-piece entrance handleset and a security deadbolt. While most of the techniques are the same, there are some differences in how you take the locks apart and put them back together.

Before you get to that, you will also learn the first step in rekeying: gauging the cuts of a key so you will be able to read its "combination" and select the proper size pins.

Let's get underway by learning how locks work.





#### Very quickly, here's what makes Kwikset locks click.

Kwikset locks operate by how the cuts on the keys match with the pin tumblers inside the cylinder plug. There are two sets of five pins in each lock, top and bottom, and a set of springs. The top pins are all the same size and are flat on both ends. You do not, at least right now, want to deal with top pins or springs.

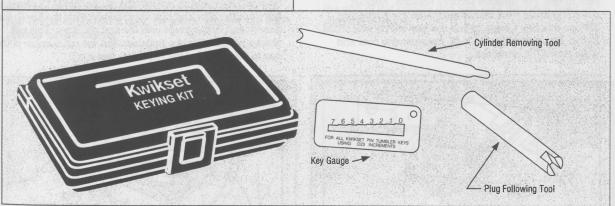
You only want to deal with bottom pins, which are of different lengths (in .023" increments) and are tapered on both ends.

For the lock to work, the cuts of the key must enable all five bottom pins to be flush with the cylinder plug. This is called the shear line.

In the top photo, there is no shear line because some bottom pins are out of place. That key won't operate this lock.

Put in the correct key (middle photo) and all the pins line up to form the shear line and the key will operate the lock (bottom).

When you rekey a lock, you simply replace the bottom pins according to the cut combination of the key you want to use. And you can do all this with a few very simple tools.

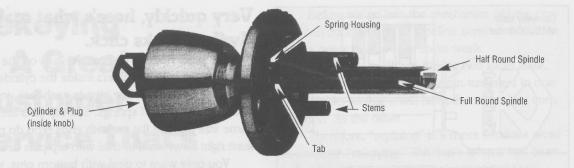


The tools to do the job.

Inside a Kwikset Rekeying Kit are the different bottom pin sizes you need to rekey a lock. A Key Gauge for reading the cuts on a key. A Cylinder Removing Tool (affectionately known as a "pickle fork"). And a Plug Following Tool, a very simple device which keeps lock parts from spattering across the room when you remove the plug (which houses the pins, and into which the key fits) from the cylinder.

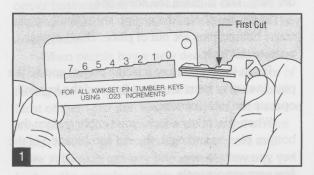
There are also extra top pins, springs and other parts in the kit, but you don't need to be concerned with those now (Shown: Mini Keying Kit No. 272).

27

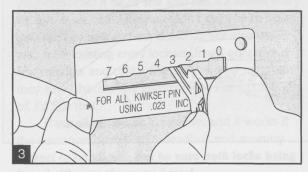


#### Here's where you start.

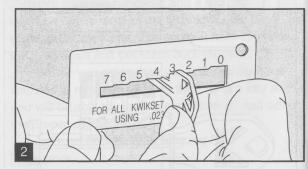
You've learned about top and bottom pins, shear lines and Cylinder Removing Tools, now take a look at parts of a lockset we will be referencing in our step-by-step instruction.



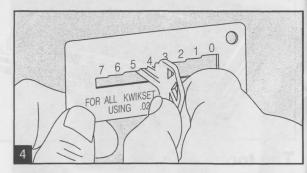
Before you can rekey a lock, you have to know what pins to use. For obvious security reasons, Kwikset doesn't print key-cut combinations on the packaging. We use this Key Gauge to find the key-cut combinations. Before disassembling the lock, measure the cuts and write down the numbers.



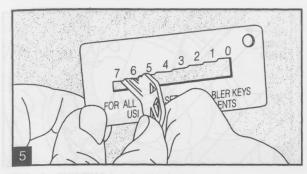
Position the next cut and move the key down the gauge until it stops. The second cut of this key is a 2. You can slide the gauge or the key, the result is the same. The first cut comes after the shoulder next to the bow.



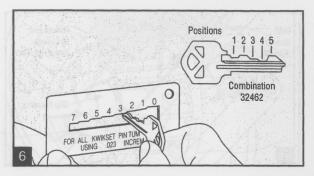
Hold the NEW key-the one with which you want this lock to be keyed alike-and slide it into the gauge. ALWAYS gauge a key from the bow end out. To measure, slide the key to the narrow end of the gauge until the first cut stops. This will always be between two numbers and the cut number is the one to the RIGHT of the key. Here that is a 3.



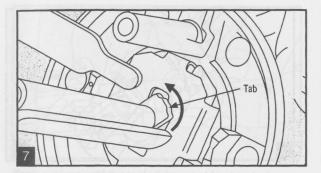
Do the same for the third cut which is a 4. Remember, always read the number to the right of the key. Also, remember to read the cuts from the bow of the key out (the bow being the part you hold with your fingers).



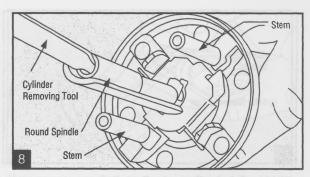
It's also a good idea to double-check that you are reading the correct cut each time. In this case, cut number four is a 6.



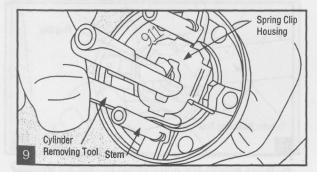
Finally, the last cut: a 2. So we have a key with a cut combination of 3-2-4-6-2. Of course, you've written that down as you went along. When the time comes, you'll know exactly which pins to select. But first, let's take apart a lockset.



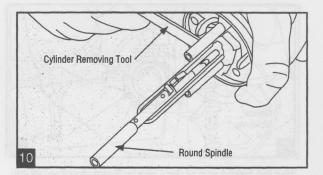
Before you can take the first step, removing the spindle, align the tab so it is perpendicular to the bottom of the half-round, as shown at right. Be sure to remove key from cylinder before starting.



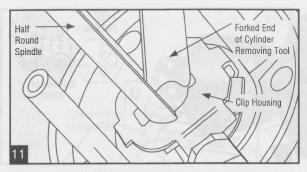
Insert the pointed end of the Cylinder Removing Tool into the end of the spindle and turn until the tab is lined up with the stems.



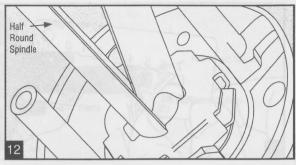
Slide the edge of the pointed end of the Cylinder Removing Tool between the curved side of the half-round and stem and under the side of the spring clip housing and push in hard on the clip.



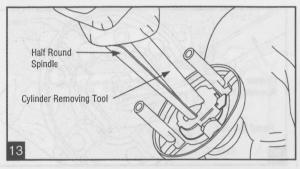
Hold the lock with the spindle down and it will fall out. If not, keep pressing with the tool and use your thumb on the spindle.



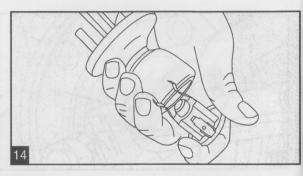
To remove the cylinder place the forked end of the tool down the half-round spindle to the clip housing. You'll see a hole there, and you have to fit the forked end of the Cylinder Removing Tool under the top of that hole and open it up.



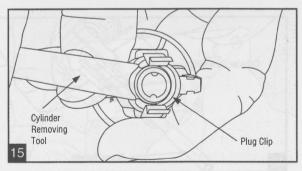
Once you have raised the clip housing, slide the tool all the way in until it stops. Be firm, but not forceful. Keep the Cylinder Removing Tool perpendicular to the half-round spindle all the time.



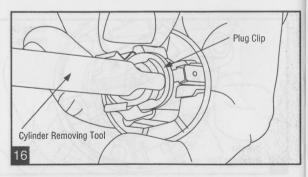
With the Cylinder Removing Tool all the way in, put your other hand over the top of the knob, covering the cylinder and plug. Then move the tool up and down and push – HARD!



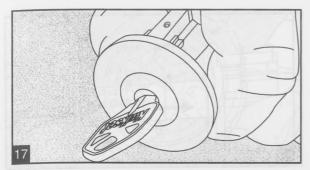
The cylinder will come right out in your hand. For most, this is the most difficult part of rekeying. It takes practice to get the tool in under the clip housing, and getting just the right motion and pressure to pop the cylinder loose.



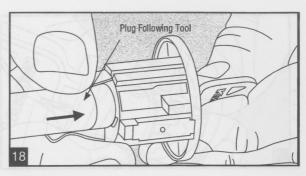
Use the forked end of the Cylinder Removing Tool to get the plug clip started out of its notches.



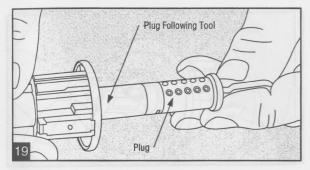
Then use the pointed end to free it completely. Use care not to deform plug clip.



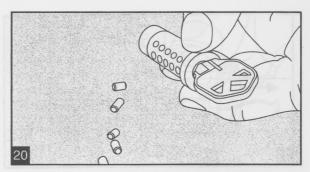
Slide the EXISTING key for this lock into the keyway and turn the key about 45° to the right or left.



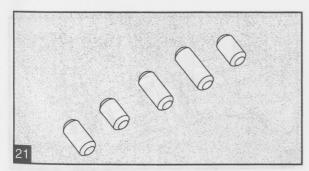
Still holding the plug firmly in the cylinder, take the round end of the Plug Following Tool (the notched end is for old-style locks) and use it to PUSH the plug out from the rear. Push it steadily, do not pull the plug.



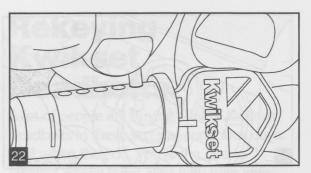
Keep pushing until the tool sticks out at least an inch. **Leave it in place until you reassemble**. Carefully remove the plug, holding it by the key and don't turn it.



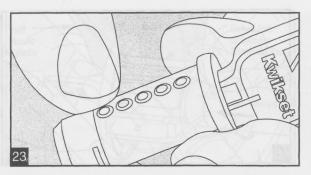
Now you can see the bottom pins in the plug. Turn it over and let them fall out. Then throw them away. It's not worth the time and possible sorting errors to restock them.



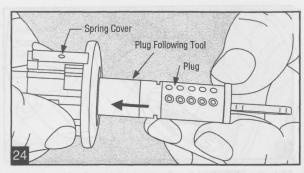
Checking the key-cut combination you gauged earlier, you'll go into the appropriate compartments in the Rekeying Kit and select the pins which match those cuts: 3-2-4-6-2. A No. 3 bottom pin to a No. 3 key cut depth, a No.2 to a No.2, etc.



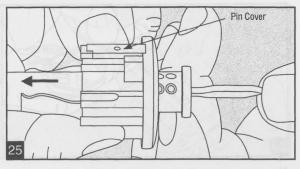
Put the new key into the plug and, working from the bow end of the plug, drop in the first pin – here a No. 3. Some people find using their fingers easier, others prefer tweezers. Either way, it takes some patience to deal with these tiny pins.



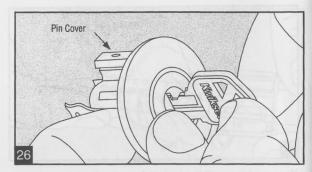
Drop the pins in one by one, from the key end out and you'll see them all flush with the top of the plug.



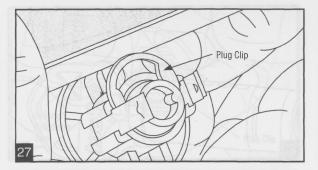
Now all you have to do is reassemble the lock in exactly the reverse order. Start by placing the end of the plug against the end of the Plug Following Tool. Again, turn the key so it is about 45° to the right or left of the spring cover. Then slowly and smoothly PUSH the Plug Following Tool back into the cylinder with the plug.



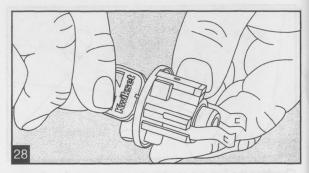
When it's all the way in the cylinder, turn the key so it is in line with the pin cover on top of the cylinder. You're through with the Plug Following Tool, but hold the plug and cylinder firmly together.



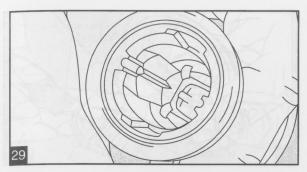
This is important. Hold the plug all the way into the cylinder with your thumb. Making sure the key is still in line with the pin cover, pull out the key. Keep pressure on the plug until the key is out.



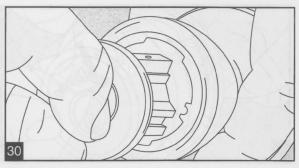
Put the plug clip back in from the top and use the Cylinder Removing Tool to snap it back into place. Be sure inside edges of the clip line up with grooves in the plug.



Turn the key back to the vertical position, in line with the pin cover on top of the cylinder.



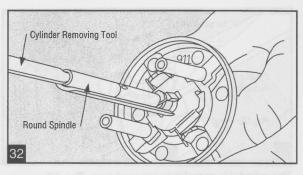
See the wide channels top and bottom inside the knob cavity and the pin cover on top of the cylinder? With the curved side of the half-round toward your body, align the pin cover with the top channel in the knob cavity.



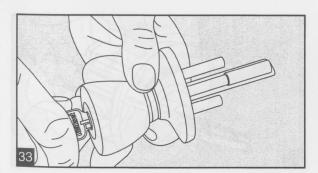
Keeping the pin cover aligned with the top channel, put the cylinder all the way into the knob, then press until it is firmly seated. You will hear the spring clips snap into place.



Hold assembly by the stems and work the key back and forth a few times to make sure everything is in proper order.



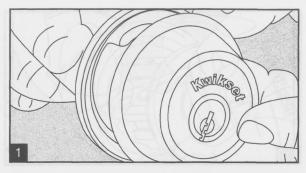
Almost done! Take the spindle, slide it, tab-end first and tab up, down the half-round and push it home until it clicks into place.



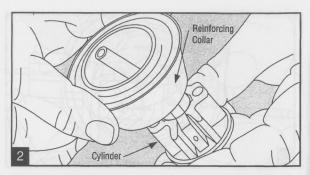
You have rekeyed a Kwikset lockset! But check your work. Turn the key and make sure the spindle turns and the plug rotates in the cylinder. Now you really have done a rekeying job.

### Rekeying Kwikset Deadbolts.

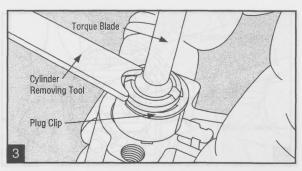
A lot of people are buying a lot of Kwikset deadbolts in these security-conscious days. And when they do, you're the one to suggest keying them alike with their entry locksets. In rekeying a deadbolt, the principle is exactly the same, but a few of the parts are different.



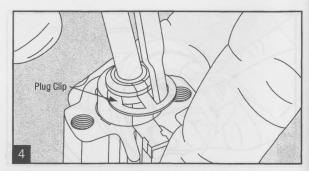
With single-cylinder deadbolts, you'll only be dealing with the keyed side of the lock. With double-cylinder locks, both sides will need to be rekeyed.



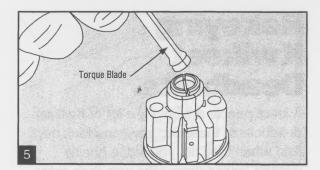
Turn the lock face down and remove the steel reinforcing collar and cover.



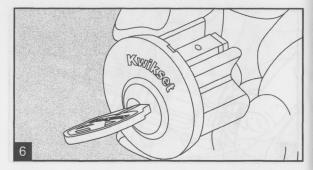
The cylinder is completely exposed now. The difference from a lockset is the deadbolt has a torque blade instead of a spindle. To remove the torque blade, fit the forked end of the Cylinder Removing Tool into the open end of the spring clip and push it out.



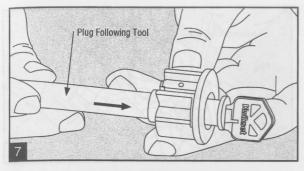
Move the clip out the rest of the way with the other end. Use care not to deform plug clip.



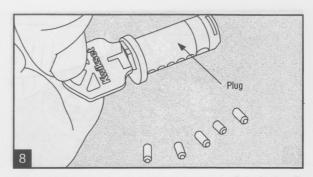
Then simply lift out the torque blade. From here on, the procedure is the same as you did the lockset.



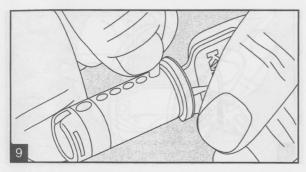
Insert the old key, turn it  $45^{\circ}$  to the right or left.



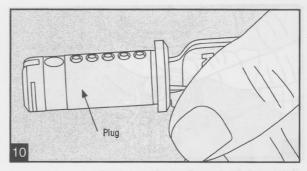
Then take the Plug Following Tool and push the plug out from the back. Make sure the Plug Following Tool sticks out at least an inch. Leave it in place until you reassemble.



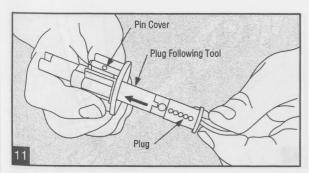
Drop out the old pins, remove the old key and insert the new key. (We assume you have already gauged the new key, just as you did with the lockset key.)



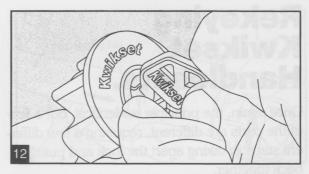
Begin inserting the new pins according to the cut combination of the new key. As mentioned earlier, whether you handle the pins with tweezers or your fingertips is your choice.



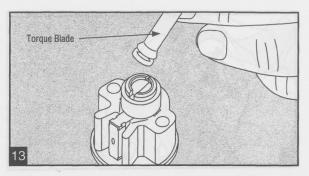
If all the pins are the proper size for the key, your shear line will be flush. That is, all bottom pins are flush with the outside diameter of the plug.



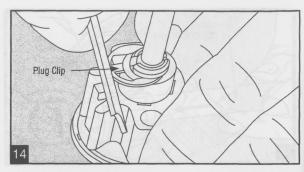
Then you begin reassembly the same old way; position key  $45^{\circ}$  to the right or left of the pin cover, then use the plug to push the Plug Following Tool back through the cylinder.



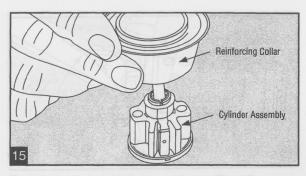
Holding the plug firmly into the cylinder with your thumb, turn the key straight up and pull it out.



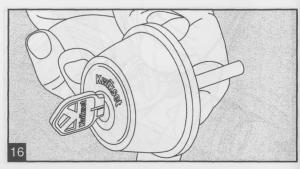
Put the lock face down and insert the torque blade.



Use the Cylinder Removing Tool to reseat the spring clip, insert key and test to make sure everything works and turns properly.



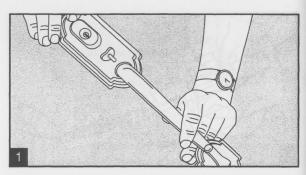
Put the reinforcing collar and cover back on.



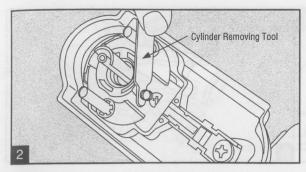
And your deadbolt rekeying is completed. If your customer has purchased a Kwikset double-cylinder model, simply rekey the other cylinder in exactly the same manner, and the same pin combination.

### Rekeying Kwikset Handlesets.

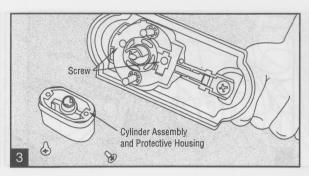
Once again, the principle is identical, but a few of the parts are different, requiring a few different steps in taking apart the lock and putting it back together.



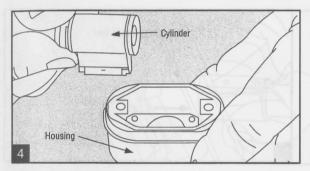
The locking mechanism of the one-piece handleset is different from the knob lockset.



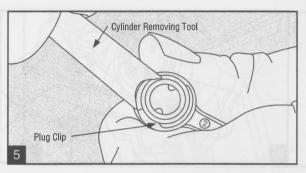
Start by using the Cylinder Removing Tool to compress and remove the latch spring exposing one of two screws to be removed.



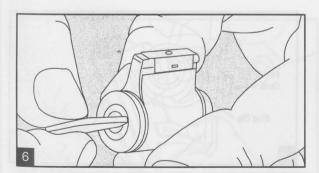
Use a Phillips head screwdriver to remove the two screws that hold the cylinder assembly and housing to the handleset.



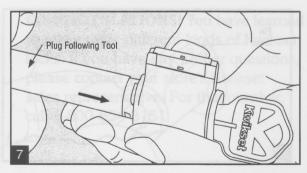
And the cylinder drops right out.



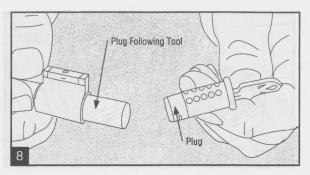
From here on, the steps are identical to rekeying a lockset, starting with removing the plug clip.



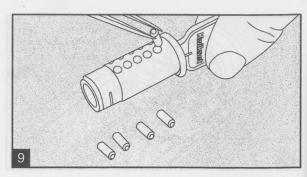
Insert the existing key for the lock and turn it 45° to the right or left.



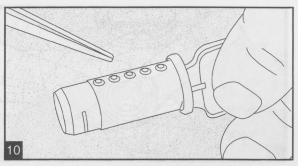
Place the Plug Following Tool at the back of the plug and push smoothly through the cylinder until the Plug Following Tool is out at least an inch.



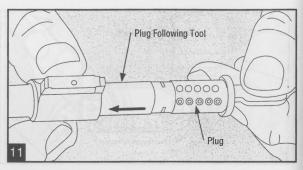
Insert the new key and drop out the old pins. (If you didn't gauge the key before starting, do it now and lay out the pins in order — from the bow end of the key out.)



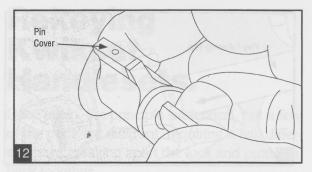
With the new key in place, begin dropping in the appropriate pins (this is a 6-5-4-4-5.)



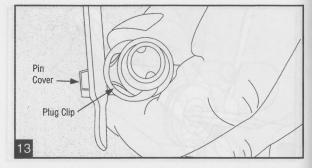
If the shear line is smooth, all the right pins are in the right holes.



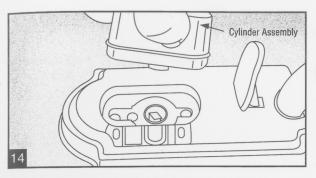
Holding the key  $45^{\circ}$  right or left of vertical, use the plug to push the Plug Following Tool back through the cylinder.



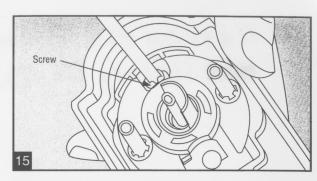
Turn the key so it's in line with the pin cover on top of the cylinder. Hold your thumb against the plug face and pull the key out.



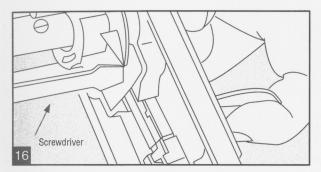
Replace the plug clip from the direction of the pin cover. Remember to align the open end with the groove in the plug.



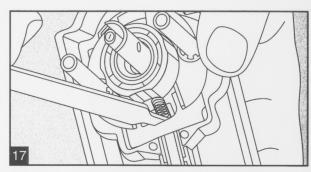
Place the cylinder assembly back into the housing.



You'll next be re-inserting the two screws and the spring, so you'll need to be sure the sliding part into which the spring fits is in the down position.



Hold it down by keeping the thumbpiece up with one hand, drop in and tighten the two screws with the other.



Still making sure the sliding part is down, insert one end of the spring, compress it until it fits and you are done.



Finally, check to make sure that both the key and the thumbpiece are operating properly.

**CONGRATULATIONS!** You have learned to rekey three different kinds of Kwikset locks. If you have any further questions, please contact your store's Kwikset sales representative. For that number, call 1-800-854-3151.

Return this Book

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