



Security Manufacturing Corp.

INSTRUCTIONS

#PS-10

COMPLETE SERVICE KIT FOR
PICKING & DECODING
GM DOUBLE-SIDED IGNITIONS
IN-DASH & COLUMN MOUNTED

MADE IN U.S.A.

A-1 Security Manufacturing Corp.
3001 West Moore Street
Richmond, Virginia 23230
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Security Manufacturing Corp.

INSTRUCTIONS

IN COLUMN DESIGNS

IMPORTANT

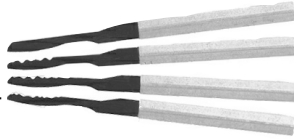
Replacement Parts are available ONLY to Registered owners of this equipment.

PLEASE REGISTER TODAY

PARTS

Four Piece Rocker Pick Set

Repl Part #PS2-A01.. PS2-A02 .. PS2-A03 ..PS2-A04



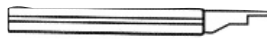
Special Key

Repl Part #PS2-009

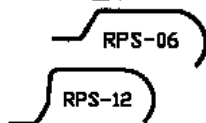


Decoding Tool

Repl Part #31



Side-Bar Pressure Tools (2)



T-25 Torx Wrench

Repl Part #HDW-613



4mm Nut Driver

Repl Part #HDW-614



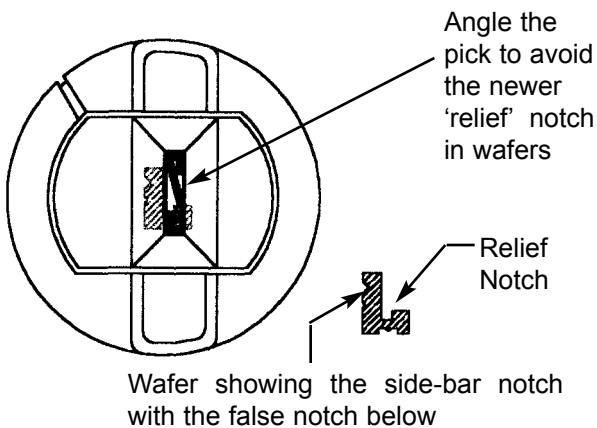
Lock Cylinder Release Tool

Repl Part # PS2-007

IMPORTANT NOTICE

Beginning in mid-year 1998, GM double -sided ignitions were fitted with wafers having a relief notch. When picking this lock, greater success will be achieved through the following procedure.

When inserting the pick, angle it counter-clockwise. This will prevent the pick from falling into the relief (false) notches as you 'rock' the wafers.



THE FOLLOWING ARE GENERAL RULES TO REMEMBER FOR SERVICING THE NEW G.M. 1994-1998 10-CUT LOCK SYSTEM

There are no 4-1 or 1-4 adjacent cuts.

There are no #4 depth cuts in the first space (closest to the bow).

There are no #1 depth cuts in the 10th space (closest to the tip).

Three identical cuts will only appear in space 8, 9 & 10.

In spaces 1 through 9, there are never three consecutive cuts of the same depth.

The total number of depths can add up to either even or odd numbers.

There are only 9 tumblers in the ignition lock plug - there is no space for #10.

G.M. MODULAR IGNITION LOCK SERVICE FOR 10-CUT PASSENGER CARS

Remove the negative battery cable on vehicle equipped with vats/pass. Note: On Buick Riviera and Oldsmobile Aurora, the battery is under the rear seat. If vehicle is equipped with a tilt design, raise wheel.

Remove the black snap-on bezel from around the ignition lock.

If front wheels are exerting pressure on the steering column, ie: from being forced against a curb, take the load off the steering column by depressing the steering wheel lock bolt, located on the top end of the column at about the 8 o'clock position.

Move to the right side of the vehicle. If it has a console, put your left leg over it & get as close to the column as possible.

LOCK CYLINDER SET - PICKING & REMOVING SEQUENCE

1. Insert a small screw driver between the back of the ignition plug & the lower column cover, at about the 10 o'clock position, & gently pry on the lock cylinder making the ignition lock come out a little. This will allow for easier entrance of the pressure tool used in the next step.

2. Insert the tip of the pressure tool between the ignition lock plug & lock cylinder housing. Start sliding the tip counter-clockwise while applying slight pressure to the curved end moving it away from the face of the ignition lock (see Figure 1). This will direct the tip of the pressure tool between the side-bar and the lock cylinder housing (see Figure 2).

Fig. 1 Apply slight pressure as you slide tip in direction indicated

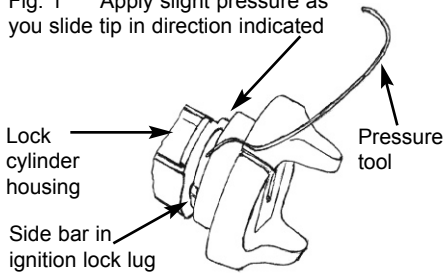


Fig. 2 Pressure tool properly seated between cylinder housing & top of side bar. Note the 5/8" distance

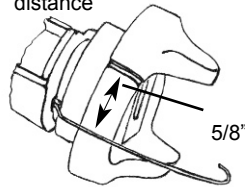
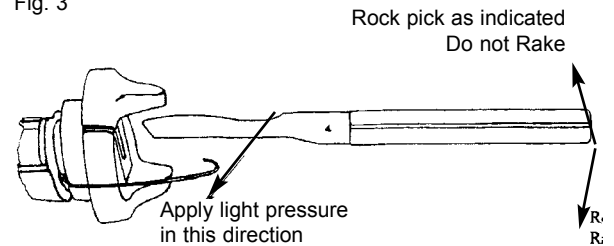


Fig. 3



3. Lightly lubricate the wafers with a good quality spray lubricant. Insert the #4 pick fully into the key way & push down on the pick to force all tumblers go down together. Apply very light pressure to the side-bar by pulling the curved end of the tool away from the lock (see Fig.3). Maintaining slight pressure on the side-bar, use a rocking motion with the pick. As the side-bar starts to drop, feel it move through the pressure tool. Continue rocking the pick while trying to turn the plug toward the "on" position with the wings until the lock is picked. You may have to repeat the rock & turn sequence several times to pick.

If after 30 to 40 seconds the lock will not turn, try pick #3, then #2, then #1. Some locks with greater variances will demand a little more time & patience. You may be putting too much pressure on the pressure tool - back off and start again.

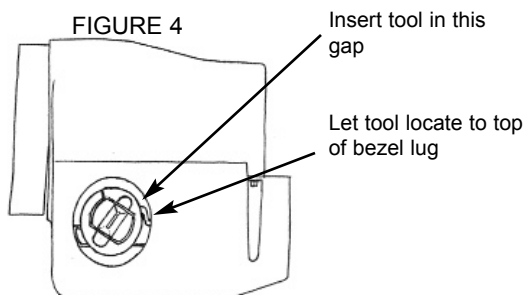
While this kit is "user friendly", you are urged to spend some time practicing before using this system in the field.

4. Once the side-bar is depressed, turn the plug to the "on" position and, if possible, remove the pressure tool. If removing the pressure tool proves too difficult, it can be accomplished when the cylinder and housing are removed in Step 5.

IMPORTANT: The lock cylinder plug must be in the "ON" position to remove it and the cylinder housing from the column.

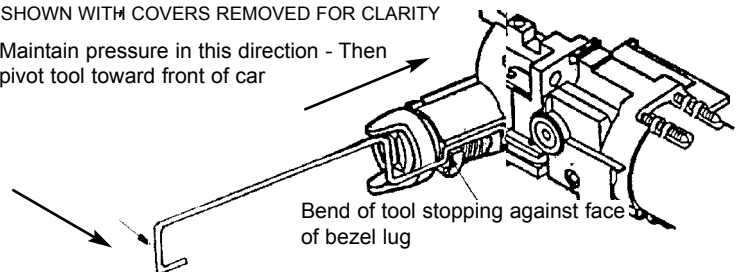
5. Push the lock cylinder into the column to relieve pressure on the lock cylinder retainer. Insert the lock cylinder release tool at the 2 o'clock position in the space between the lower shroud and the plug face (wings) (see Figure 4). Let the tool locate on the top of the bezel lug and slide it in until the bend in the tool stops against the face of the lug. Holding the tool firmly against the face of the bezel lug, pivot it toward the front of the car to release the housing retainer and allow removal of the lock cylinder housing set. NOTE: You may have to insert a small screw driver between the back of the ignition lock face "wings" and the lower column cover to very carefully, pry the lock cylinder from the column housing.

FIGURE 4



SHOWN WITH COVERS REMOVED FOR CLARITY

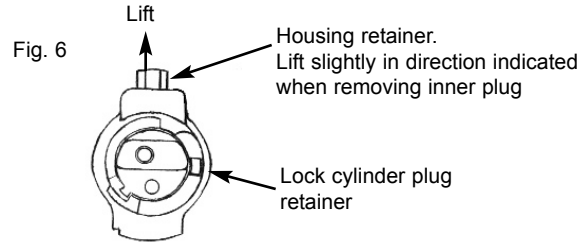
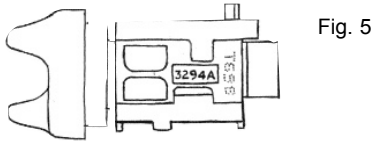
Maintain pressure in this direction - Then pivot tool toward front of car



VATS/PASS CAUTION: There is just enough slack in the vats/pass wire to allow the lock cylinder set to be removed from the column housing. DO NOT twist or turn the vats/pass ignition lock cylinder because it will affect the proper wire routing and DO NOT let the ignition plug hang from the wire.

6. Obtain the key code from the lock cylinder housing. This code, if stamped, will be a very faint dot style of print on the curved rear part of the lock housing (see Fig.5).

HINT: To enhance code visibility use a black felt marker or lead pencil to darken area of code, then wipe surface with a cloth to highlight the faint dot style of code marking.



NO CODE STAMPED ON THE IGNITION HOUSING

Position the lock cylinder set so that you are viewing it from the end opposite the "wings" and the "ON" position is maintained as in Figure 6. With a small screwdriver, press the lock cylinder plug retainer inward, releasing it and allowing the plug to slide out of the lock housing. You may have to lift up slightly on the housing retainer to release it if the plug does not want to slide out.

Allow the plug to come out of the housing far enough to begin exposing the lock cylinder plug retainer. Use your thumb can keep pressure on the plug retainer so that the plug can be removed without losing the plug retainer & spring (see Fig.7). Set retainer and spring aside for reuse later. NOTE: As the plug is coming out, and the side-bar becomes exposed, if it appears fully seated in the plug, you may be able to hold it in this position.

Clamp the tail piece of the plug into a vise to hold it.

Re-pick the plug while holding finger pressure on the side bar.

Remove lock cylinder plug from the vise. Be careful not to move the side-bar retaining tool.

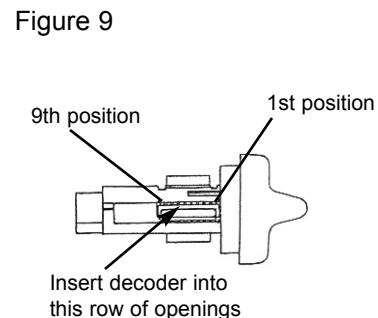
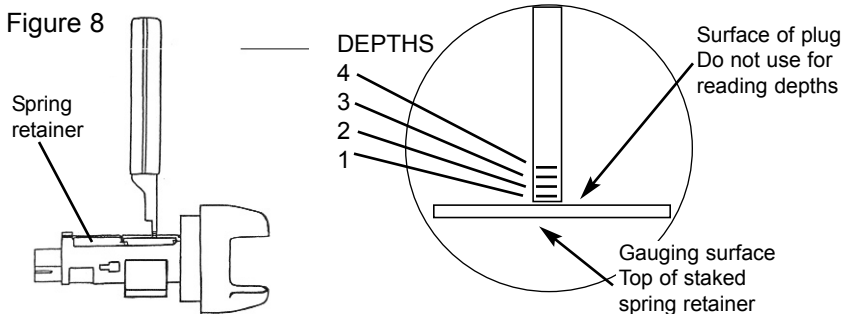
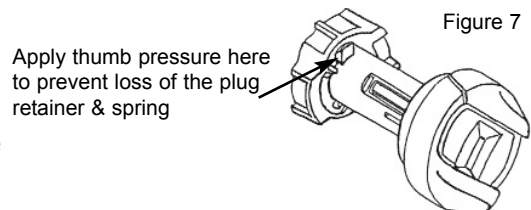
Hold plug so that the spring retainer is facing up.

With a slight plug rotation, you can see into the tumbler cavities.

Insert the decoder tool into tumbler cavities #1 through #9 and record the depth for each position (see Figures 8 & 9). Read depth on decoder tool using the top of the lock cylinder tumbler spring retainer cover as the reference surface. NOTE: The 10th position is not in the ignition lock plug. See enclosed chart for space positions.

Cut a new key, insert it into lock and check for proper operation.

NOTE: It is suggested that this procedure be used on one or more new G.M. 10 Cut ignition lock cylinders to get acquainted with the decoder tools and how to use them.



G.M. MODULAR IGNITION LOCK SERVICE FOR 10-CUT PASSENGER CARS EQUIPPED WITH A "TOP HAT" DESIGN

1. If the vehicle is equipped with a tilt design, raise wheel and then remove the tilt lever. Locking pliers may be necessary to remove the lever. Use caution to prevent damage to the tilt lever during removal.

2. Using the T-25 torx wrench provided, remove the (3) screws securing the lower shroud to the upper shroud. Snap apart lower shroud from upper shroud. (See Figure 1.)

The rear portion of the lower shroud is attached to the upper shroud with (2) push-in bellows-type locators. These must be snapped out of their locating holes in the upper shroud.

3. Note the location and routing of the passlock wire going into the lock cylinder housing in the column. Very carefully pull on this wire to create a little slack so the ignition lock plug and housing can be removed from the column when picked.

4. The side bar pressure tool #RPS12 will clear the 'Top-hat' design of the lock cylinder plug & allow proper positioning between the side bar & housing. Proceed to page 3, steps 2,3, & 4.

5. With the lock cylinder picked and turned to the "on" position, insert the passenger car end of the release tool into the hole in the column. This will release the housing retainer and allow removal of the lock cylinder and housing set.

6. Carefully slide the housing out of the column, (use care to avoid damaging the passlock wire) and rotate the assembly clockwise to expose the code. See step 6 of the passenger car portion of the manual.

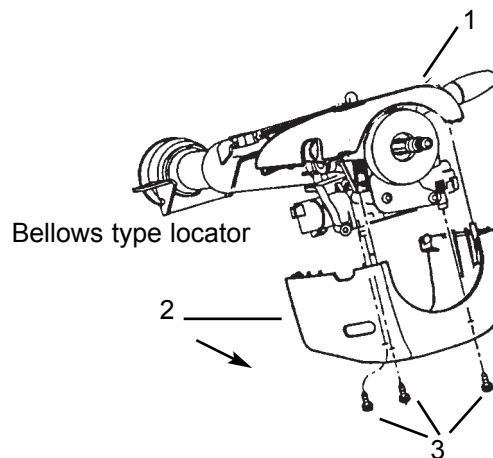
7. If additional servicing or decoding of the lock cylinder plug is required, the procedure will be the same as in the passenger cars (without Top-Hat design) section of the manual with the following exceptions:

A. The lock cylinder housing is attached to the column with the passlock wire.

B. When the lock cylinder plug is removed from the housing, the (2) spring loaded pins in the face of the housing could fall out of the housing. Use care to prevent this from happening.

C. Once the lock cylinder plug is removed, re-install the pass lock cylinder housing into the column about ½ inch so that it will not hang on the wire.

- 1 UPPER COLUMN TRIM COVER
- 2 LOWER COLUMN TRIM COVER
- 3 COLUMN COVER ATTACHMENT SCREWS



WRAP UP SEQUENCE

The lock combination can now be determined by using a code book or code software. Cut keys as follows:

Non-Vats Applications: From code, cut a new key, insert it into the ignition lock and check for proper operation.

Vats/Pass Applications: From code, cut a double-sided vats/pass "adapter key", insert it into the ignition lock and check for proper operation.

With the key in the lock and the lock turned to the "on" position, allowing the spring loaded housing retainer to retract, reassemble the lock cylinder set into the column. Use Caution on Vats/Pass ignition housings to maintain original wire routing.

Reattach the negative battery cable.

On Vats/Pass vehicles, hook up a vats/pass interrogator and interrogate the ignition lock cylinder using the tool manufacturer's procedures. After the proper vats/pass value has been identified, cut the code on a vats/pass key blank that has the proper value.

Reinstall the black snap bezel around the ignition in the lower cover.

TRUCK SECTION

G.M. TRUCK IGNITION LOCK SERVICE FOR 10-CUT

BLAZER, S/T BLAZER, SUBURBAN, AND C/K TRUCK, YUKON, SONOMA, AND SIERRA

These G.M. model trucks are 10 cut single key security systems. The ignition locks in these vehicles do not have a removable lock cylinder housing as do the passenger cars. Instead, the housing is bolted to the steering column and the ignition key alarm actuator works off the side of the ignition plug and not off the end of the plug as in the passenger cars. With this design, there is no direct access to the ignition plug retainer. Also, the opening in the upper shroud for the ignition plug is smaller than the plug face ("wings"). Therefore, the following procedure and tools must be used when removing the ignition lock plug for servicing or decoding.

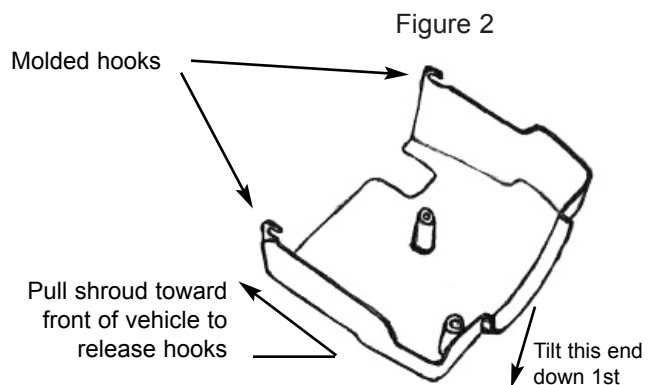
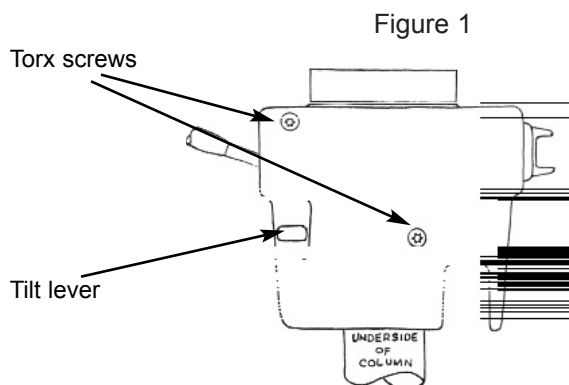
Disconnect the negative battery cable.

Set column in mid-position (if equipped with tilt design).

Remove tilt lever—just simply grab and pull to remove. NOTE: It may be hard to remove, but it will come out (see Fig.1).

Using the torx wrench, remove the 2 "T-25" torx head screws holding the lower shroud to the column (see Figure 1).

Very carefully tilt the front part of the lower shroud down from the steering wheel (see Figure 2). The lower shroud will then swing from two molded hooks located at the uppermost rear portion of the lower shroud. Push the lower shroud forward (toward the front of vehicle) to release the two hooks from the upper shroud. BE VERY CAREFUL NOT TO BREAK THE HOOKS. Reinstall tilt lever if needed.



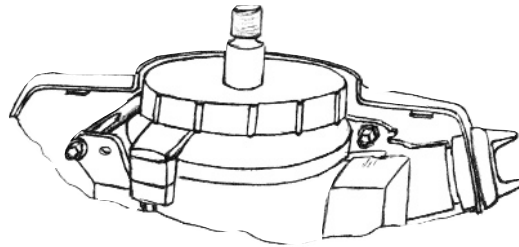
From the underside of the column housing locate the 2 "E-5" torx head screws holding the upper shroud in place (see Fig 3).

The screw on the lower left side of the upper shroud goes into a plastic upper shroud mounting stud. This stud should be held with a 7mm wrench so that only the bottom screw will be loosened. Loosen this screw 1-1/2 turns with the 4mm nut driver provided. DO NOT REMOVE THE SCREW.

The screw on the right side of the column is up inside the upper shroud just in front of the ignition plug housing. Look up under the shroud to find this screw, then loosen it 1-1/2 turns also. Note the half hole in the housing next to the screw hole.

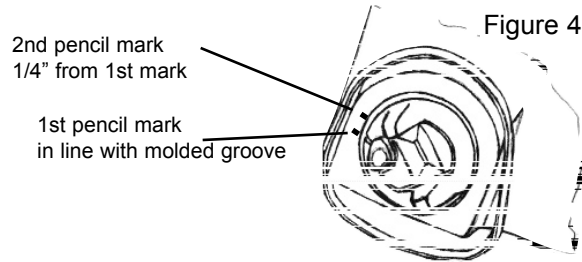
With the two screws loosened, the upper shroud can float. As in the passenger car procedure, the rest of steps are performed from the right side of the vehicle.

Figure 3



1. Drape two rubber bands (about 2 3/8 dia.) over the hump of the upper shroud covering the ignition lock housing (see Fig 4). Pull the rubber bands down under the column & hook them to the flat metal casting on the left side of the column (Fig 3). This will cause the upper shroud to shift slightly allowing more room to insert the pressure as described in step 5.

2. Using a pencil, make a small mark on the upper shroud in line with the molded groove on the face of the ignition plug. Then, in a clockwise direction, make another mark 1/4" away from the first mark. (see Figure 4).



3. Pre-position ignition plug release tool into the access hole in the lock housing (see Fig. 5) using the following steps.

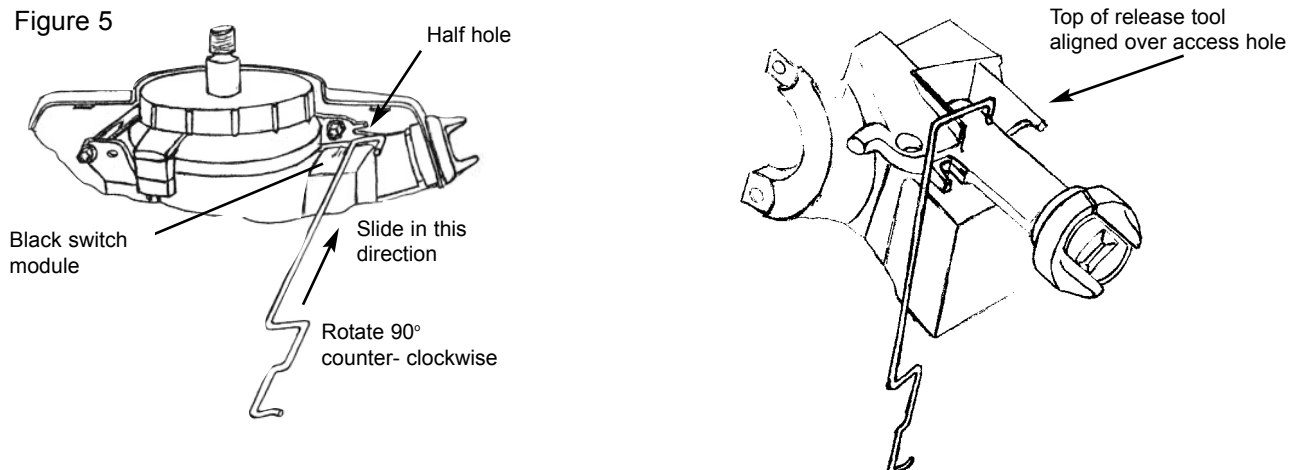
3A. Lay the tool against the black ignition switch module.

3B. Slide the tool up the switch module aligning the shaft of the tool on the outside of the leg of the half-hole as shown in Fig. 5.

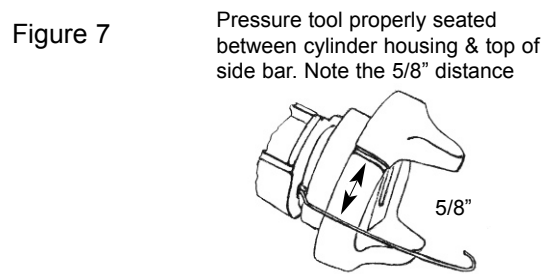
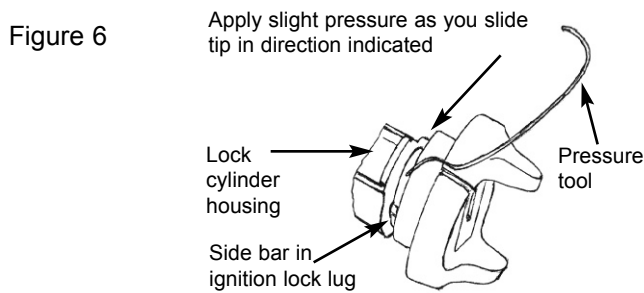
3C. As the tip of the tool nears the top of the housing, rotate it approximately 90° counter-clockwise letting the tip enter the access hole in the lock housing.

3D. At this time let the tool hang freely from the access hole. It will be used later in step 9.

Figure 5



4. Insert the tip of the pressure tool between the ignition lock plug and lock cylinder housing at a point opposite the molded groove on the face of the ignition (see Figure 6). Start sliding the tip counter-clockwise while applying slight pressure to the curved end moving it away from the face of the ignition lock (refer to Figure 6). This will direct the tip of the pressure tool between the side-bar and the lock cylinder housing (refer to Figure 7).



The truck ignition lock reacts to picking the same as the passenger car 10-cut locks. But, on the truck plug, even when the side-bar is fully depressed, the plug will only turn a few degrees. This is because a pin in the ignition key alarm switch is keeping the plug from turning. The special key furnished in the kit will be needed to move the side mounted actuator and hold the key alarm switch pin clear when the lock has been picked.

5. Lightly lubricate the plug wafers with a good quality spray lubricant before picking. Insert the #4 fully into the key way and push down on the pick to make all tumblers go down together. Apply very light pressure to the side-bar by pulling the curved end of the tool away from the lock as shown in Figure 7 above. Maintaining slight pressure on the side-bar, use a rocking motion with the pick. As the side-bar starts to drop, you can feel it move through the pressure tool. Continue rocking the pick and trying to turn the plug toward the "on" position with the wings until the lock is picked. You may have to repeat the rock and turn sequence several times to pick the lock. If after 30 to 40 seconds the lock will not turn, try pick #3, then #2, then #1. Some locks with greater variances will demand a little more time and patience. If the tumblers get hard to manipulate, you may be putting too much pressure on the pressure tool - back off and start again.

6. When the lock has been picked, turn it until the molded groove on the outside diameter of the ignition plug aligns with the second pencil mark on the upper shroud. At this point the ignition plug should be pressing lightly against the alarm pin and preventing further rotation. **DO NOT FORCEABLY TURN THE PLUG BEYOND THIS POINT.**

7. Now install the special key all the way into the ignition plug and turn to "run" position. Then remove the special key.

8. Remove the rubber bands.

9. Turn and Hold the ignition lock plug "wings" to the crank position. Pull down on the hanging plug release tool (assembled in step 3), release the "wings" and grasp the side-bar pressure tool, then let up on the plug release tool. The plug will snap back to "run" position.

10. Set the side-bar pressure tool aside and remove the ignition lock plug and plug release tool.

11. Obtain key code from lock plug. Refer to Figure 8 for code location. The code is a very faint dot style marking. If the code is unreadable go to the "NO CODE STAMPED" section in the passenger car portion of this manual.

12. Cut the proper code on both sides of the replacement key and check all locks for proper operation.

13. Remove tilt lever (if installed).

14. Relocate upper shroud and tighten torx screws. Remember to hold the left upper shroud mounting stud while tightening that screw.

15. Reinstall the ignition lock plug into the column and check for proper operation.

16. Carefully install the lower shroud and screws.

17. Install tilt lever.

18. Install negative battery cable.

19. Check all systems for proper operation.

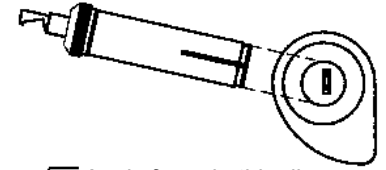


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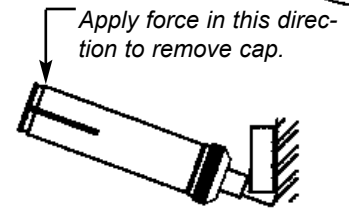
INSTRUCTIONS

IN DASH

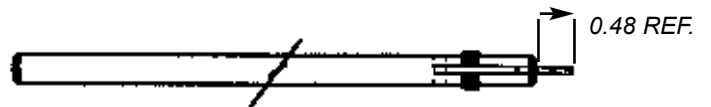
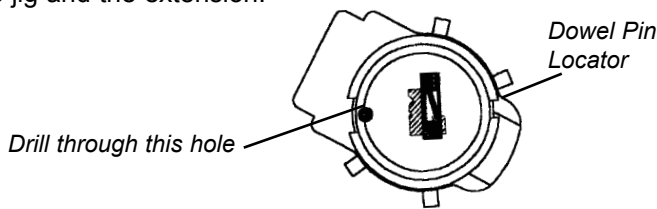
1. Insert slotted end of Removal Tool (PS3-022) into the bezel of the ignition. Tighten the brass thumb nut. Gently rock the tool up and down while pulling toward you to remove the bezel. Loosen brass thumb nut and remove tool from bezel.



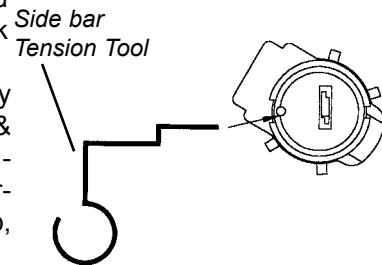
2. Place the hooked end of the removal tool against the ignition cap at the 9 o'clock position. The "hook" must be under the lip of the ignition cap. From this point, "CAREFULLY" pry the cap with its inner black plastic support from the ignition. Using needle nose pliers, straighten the (3) tabs on the cap and set it aside for reuse. Keep the inner black support with the cap.



3. Position and hold the Drill Jig (PS3-020) against the face of the ignition plug with the alignment pin of the jig at the 3 o'clock position and seated in the notch on the outer edge of the plug. Using a hand drill and the Drill Bit Extension (PS3-A28), drill a 3/32 diameter hole thru the face of the ignition plug and into the opening of the side-bar slot. Set aside the jig and the extension.



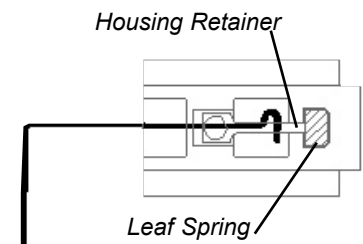
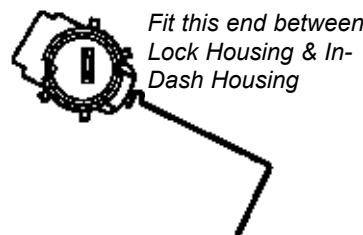
5. Insert the Side Bar Tension Tool (PS3-026) thru the hole just drilled and onto the side-bar. When inserting this tool, the loop end should be at 6 o'clock and the inserted end at 12 o'clock. Insert the # 4 Rocker Pick fully into the keyway. Apply very light pressure to the side-bar by rotating the looped end of the pressure tool clockwise. Rock the pick up & down and as the side bar drops in, the pressure tool loop will move to the 8 - 9 o'clock position. You may have to repeat the "rock & pick" procedure several times to pick the lock. If after 30 to 40 seconds the side-bar will not drop, release side-bar pressure and try again using another single-sided pick.



6. Once the side-bar is depressed, turn the plug until rotation is stopped by the pressure tool binding. At this point, preventing counter-clockwise rotation of the plug, pull out the side-bar pressure tool and then continue rotating the plug to the "on" position.

IMPORTANT: The lock cylinder plug must be in the "ON" position to remove it and the lock cylinder housing from the dash board.

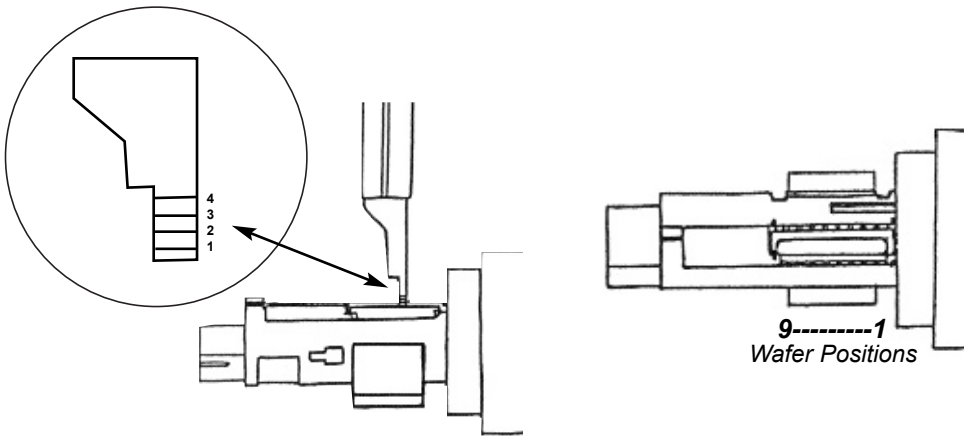
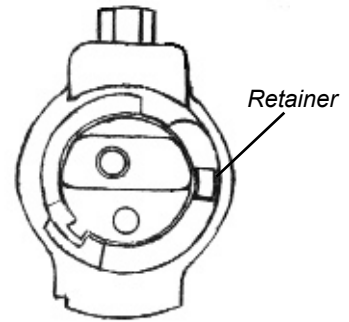
7. Push the lock cylinder into the dash to relieve pressure on the lock cylinder housing retainer. Insert the Lock Cylinder Release Tool (PS3-025), with curve toward the lock cylinder plug, between the lock cylinder housing and the dash housing at the 4 o'clock position. As you slide the tool between the housings, apply pressure on the lock cylinder retainer "leaf spring" disengaging the retainer from the in-dash housing. Remove the plug and plug housing from its dash housing. NOTE: You may need to pull on one of the bezel pins with pliers to help with the removal of the plug and housing.



8. Obtain the key code from the lock cylinder housing. This code will be a dot style of print on the curved rear part of the lock housing. HINT: To enhance code visibility, use a black felt marker or lead pencil to darken area of code, then wipe surface with a cloth to highlight the dot style code marking. NOTE: If no code is stamped on the housing, than decode the lock as instructed in step 10 below.

DEBURRING and DECODING

9. Maintaining the “ON” position of the lock cylinder set, press the lock plug retainer inward, releasing it and allowing the lock plug to slide out of the lock housing. Let the plug come out of the housing far enough to expose the lock plug retainer. This will allow you to keep thumb pressure on the retainer so that the plug can be fully removed and the retainer and it’s spring can be safely set aside for use at reassembly.



IMPORTANT

In order for the lock to function properly, you must debur the underside of the plug face to remove metal projections from drilling.

10. Using the same procedures as in steps 4 & 5, repick the plug while holding light pressure on the sidebar. Once the lock is picked and the sidebar drops in, continue applying pressure on the sidebar holding it in place. Then insert the Decoder (PS2-A05) into tumbler cavities #1 thru #9 recording the depth for each position. NOTE: The 10th position is not in the ignition lock plug. Having the code, cut a new key and check for proper operation.

REASSEMBLY

11. Align and assemble cap & support (from step 1) to face of plug. Stand plug and cap assembly on bench, cap side down. Put downward pressure on plug and carefully fold over the three tabs to clinch the cap onto the plug. Put key in plug, reassemble spring and retainer (from step 9) to plug and then plug to housing. Reattach bezel to housing being careful to properly align bezel mounting slots with mounting pins on housing. Turn key to “ON” position and reinstall unit back into dash housing.

