

M. FINAL ASSEMBLY (Fig. 13)

All that remains now is to install the three plastic covers #20, #21, #23, and the Gap Cover #24, and fit the trim strip back into place and shave as necessary to fit Cover #20 on to and off of the Striker Bracket #25.

Start with the long Lock Cover #21 with the rectangular hole opening on the left and engage the shallow bulkhead flanges at the right end into the two notches in the left end of Cover Mount #22. Align over the Rectangular Rear Mount #7, and firmly apply pressure against the closed door to "snap" the cover into place flush against the door surface. The square shaft of the Segment Gear should be exposed through the rectangular hole in the Cover #21.

Next, align the Hinge Cover #23 over the Cover Mount #22 and locate the closed end about 1/4" from the hinge edge of the door, then apply the same pressure to "snap" the cover onto the Cover Mount #22. This Cover #23 will slide left or right if necessary to assure clearance against an adjacent wall or extra thick door trim.

Next, slip the Short Cover #20 over the Black Ball on the Striker Bracket #25 and snap the closed end over the two angular tabs at the left end of the Bracket. If a section of the trim strip was cut away as described above, it may be necessary to trim a small amount off the exposed ends of the cut trim strip to allow the Short Cover to snap into place. If the trim strip was removed, then cut the strip square where marked and reinstall the upper and lower pieces on to the door jamb insuring the Short Cover can be removed in the future without having to remove the trim strips.

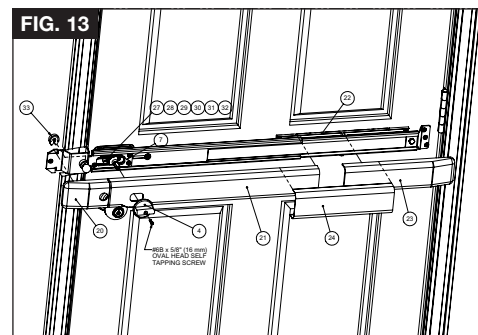
The final cover part to install is the Gap Cover #24 with the holes pointing downward and centered over the open gap between #21 and #23.

Lastly, install Twist Knob #4 onto the exposed square shaft of the Segment Gear, with the gripping portion of the Knob pointing up and down when the lock is in the "unlocked" position. Use the single #6(B) x 5/8" (16mm) long brass Oval Head Phillips brass plated screw to retain the knob on the Gear shaft. Do not over tighten to avoid stripping the plastic in the hole in the end of the Gear shaft. Rotating the Twist Knob #4 counterclockwise one-quarter turn should activate the lock and secure the door, while turning it back clockwise should release the Security Bar #9 from the Striker Bracket #25.

You will find a small yellow rubber device, part #33, provided for use if the household has young children. Slip it over the shaft under the black ball and it will prevent a child from activating the override lock and inadvertently locking a parent or guardian outside the building. To store the "Blok" device for immediate access, hammer a small nail into the door trim at the top of the door well above a child's reach.

This completes the installation of THE ULTIMATE LOCK by Millennium Lock Systems. Register your Ultimate Lock Serial Number on line with the company at www.millenniumlocksystems/warranty.com or mail a post card with your name, address, phone number, S/N of the lock and date installed. The serial number of your lock is located inside the small channel #11.

BE SAFE, AND SET THE LOCK AND SECONDARY PIN BEFORE RETIRING EVERY NIGHT.



MILLENNIUM LOCK SYSTEMS™ "THE ULTIMATE LOCK"™

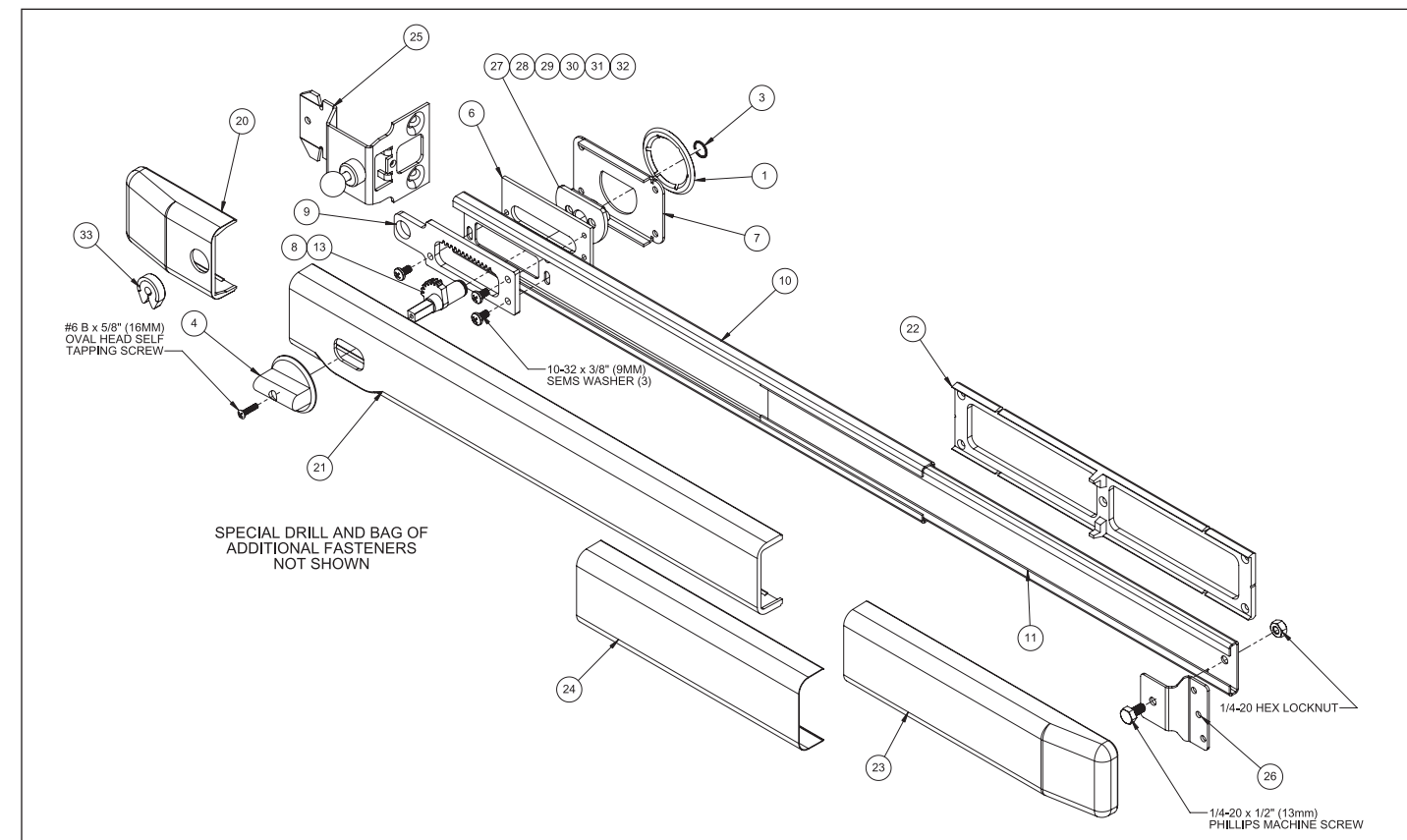
INSTRUCTIONS FOR INSTALLATION OF THE "MILLENNIUM LOCK SYSTEM" MLS-4000

**ANY QUESTIONS, PLEASE FEEL FREE TO CONTACT US
ONLINE AT OUR WEBSITE www.theultimatelock.com**



IMPORTANT: It is strongly recommended the system be installed by a professional locksmith or licensed contractor.

1. The first thing to establish is that you have the correct lock system for your door. This kit is made for entrance doors that swing inward and whose inside surface is FLUSH within 1/16" (1.5mm) of the adjacent drywall surface. It will "piggy-back" with, and is operated by, your current "Deadbolt" keylock. Check that your lock is listed in paragraph #4 as being able to connect to one of the six Insert parts provided, otherwise plan to replace the Deadbolt with one of the locks listed, readily available from major hardware supply stores.
2. Carefully unpack and check that all the parts are provided in the package, as shown in this exploded drawing.



3. Tools needed for the installation are: Phillips screwdrivers #1 and #2, pencil, tape measure, yardstick or chalk string, small adjustable wrench or 7/16th inch (11mm) box wrench, small bubble level, electric or battery drill, 1/16th inch (1.5mm) and 3/32th inch (2.5mm) drill bits, claw hammer, fine-tooth wood saw or vibrating saw, 3/4"(19mm) diameter Spade drill, 1/2"(13mm) wood chisel, some bearing grease, a black marking pen and all tools specified if installing a deadbolt and keylock assembly for the first time. A special 4-3/4" (12cm) long Parabolic drill has been provided to pre-drill all the holes for the #10 wood screws to avoid splitting wood members and wringing out Phillips head drives.
4. Locate the corresponding letter on the surface of the six half-circle inserts that will install correctly with your deadbolt lock from this list: A-Older Schlage locks * B- Newer Schlage Max Grade II * C- Kwik-Set * D- Weiser * E- ASSA-Abloy * F- Defiant - (The identifying name of your existing deadbolt manufacturer is likely on the strike plate or the deadbolt latch plate.) Discard the other five inserts. Locks not specifically covered may match any one of the six inserts, or you will need to replace your obsolete lock with one of the six mentioned. ASSA locks are the highest security locks available from your local locksmith. Discard the unused inserts.

Read these directions through carefully once to familiarize yourself with the procedures that follow for right-hinged doors. Their hinge pins are on the right when viewed looking at the inside of the door. If the hinge pins are on the left side, follow the instructions and invert the Deadbolt, Keylock and Part No's 6, 7, 8 or 13, 9, 10, 21, 26 and inserts 27-32.

MILLENNIUM LIMITED ONE YEAR WARRANTY Warranty Policy

Every Millennium lock is thoroughly inspected before leaving the factory. It is warranted to be free of defects from workmanship and materials for a period of ONE YEAR from the date of original purchase. Should any trouble develop during this one-year period, return the complete lock system, freight prepaid, to Millennium Factory or Authorized Service Centers. Send to 6150 Richmond Avenue, Suite 209, Houston, TX 77057 or call 1-866-MLS-4005 (1-866-657-4005) for one of Millennium's Authorized Service Centers. Our hours of operation are Monday thru Friday, 9:00 am - 5:00 pm Central time. If inspection shows the trouble is caused by defective workmanship or material, Millennium will repair (or, at our option, replace) without charge. Register your Serial Number on line at www.millenniumlocksystems/warranty.com.

This Warranty does not apply where:

- Repairs have been made or attempted by others
- Repairs are required because of normal wear and tear
- The lock has been abused, misused or improperly installed
- Alterations have been made to the lock or its components

In no event shall Millennium be liable for any indirect, incidental or consequential damages from the sale or use of the product. This disclaimer applies both during and after the term of the warranty.

Millennium disclaims liability for any implied warranties, including implied warranties of "merchantability" and "fitness for a specific purpose", after the one-year term of this warranty.

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. Some states do not allow the exclusion or the limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

A. HINGE SCREWS (Fig. 1)

The Hinge side of the door is just as important to strengthen as the lock side. Twelve long wood screws have been provided to dramatically increase the impact resistance of the combined door hinges. This important step is necessary to square-up the door within the door frame BEFORE the lock is installed. Now, open the door wide and starting with the top hinge only, remove four (4) of the six or eight screws **farthest** from the hinge pin. Next, use the special 4-3/4"(12cm) long Parabolic Drill provided to pre-drill and install two (2) 1-1/2"(38mm) long flathead wood screws into the door edge and two (2) 2-1/2"(64mm) long flathead wood screws through the door jamb and into the studs of the building structure. These last long holes may be drilled at a slight angle toward the center of the wall to insure the screws are fully seated into the wall studs. Do not exceed 5° angle. Remove the same screws from the other two hinges, and drill and install the remaining screws respectively. Check the door for proper closure. Plane or file any part of the door edge that may now be rubbing the door jamb. If screws drive difficult, use some soap or lube to reduce friction.

B. KEYLOCK REMOVAL (NO Drawing)

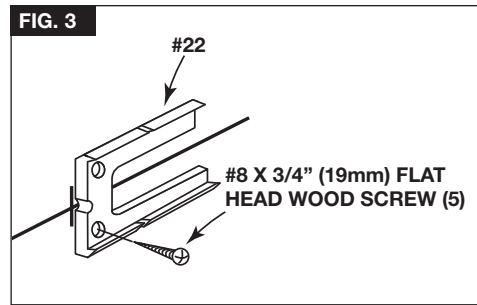
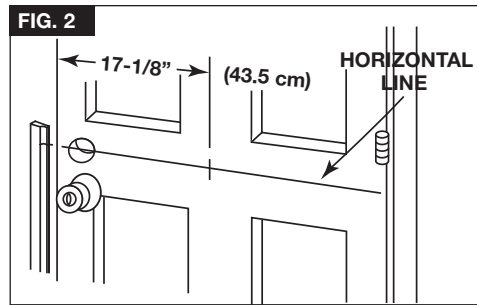
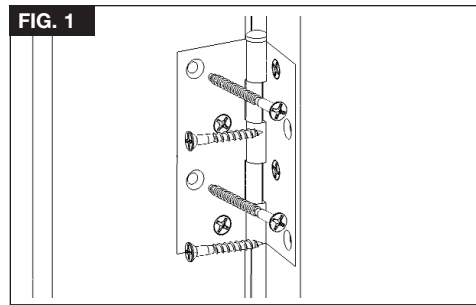
With the deadbolt retracted, and the outside entry key inserted in the lock, remove the deadbolt actuator lever, knob or keylock on the inside of the door, unscrew the two through-bolts and carefully catch the outside keylock assembly from falling. Note the position of the lock tailpiece (shaft) and then set aside for reinstallation later. There should now be a 1-1/2" (38mm) or 2-1/8" (54mm) diameter hole through the door exposing the deadbolt mechanism.

C. PREPARATION (Fig.2)

Draw or snap a horizontal chalk or pencil line across the door through the center of the exposed hole. Extend the mark across the gap to the corner edge of the door jamb. Measure exactly 17-1/8 inch (43.5cm) from the lock edge of the door and make a short vertical pencil line across the horizontal line just drawn.

D. COVER MOUNT (Fig.3)

Place the left end of the plastic Cover Mount #22 to the right of, and just touching, the short vertical pencil line 17-1/8" (43.5cm) from the edge of the door. Align the two (2) notches on the middle of each end of the Cover Mount #22 with the horizontal pencil line on the door, then pilot drill 3/32nd" (2.5mm) and install the five (5) #8 (9mm) x 3/4" (19mm) long Phillips flathead woodscrews into the door. Snug the screws, but DO NOT over tighten the five screws to avoid splitting the Mount plastic, completing the installation of the Cover Mount #22.



E. RECTANGULAR REAR MOUNT, PLASTIC INSERT AND KEYLOCK INSTALLATION (Fig. 4)

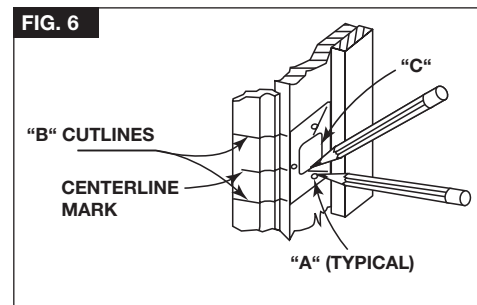
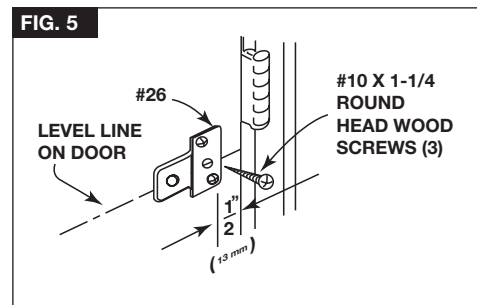
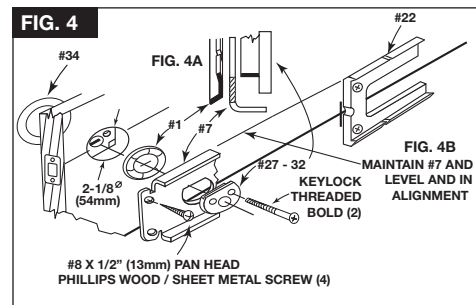
Place the selected plastic "D" shaped Insert #27-32 into the "D" shaped hole in steel Mount #7 as shown in (Fig. 4). If the hole in the door is 2-1/8" (54mm) diameter, retain the insert with Spacer Ring #1, being sure larger Insert flange diameter is between the folded edges of the Mount as shown in (Fig. 4A). This Spacer Ring #1 will center the Mount/Insert assembly in the 2-1/8" (54mm) hole, and cannot be removed after assembly over the Insert body diameter. If the hole through the door is only 1-1/2" (38mm) diameter, do not use the Spacer Ring and discard it. Before installing this sub-assembly and replacing the keylock, peel the backing paper to expose adhesive and apply the I.D. Ring #34 to the outside surface of the door centered around the 2-1/8" (54mm) hole, being sure the lettering on the Ring is reading correctly when viewed from the outside. Next, place one of the original keylock threaded bolts into one of the two identical holes in the plastic Insert and locate the assembly in the hole through the door with the flat part of the "D" shaped hole up and the bent flanges toward you. Hold this while reinstalling the keylock assembly with the deadbolt retracted and the lock key in the unlocked configuration. The tail piece that extends from the back of the lock must enter the larger hole in the plastic insert. Now screw the through bolt back into the keylock assembly enough to hold all parts loosely together. At this point it is a good idea to test the original keylock for proper operation of the deadbolt, and correct if necessary. If the key does not operate the deadbolt correctly, remove the lock and turn the lock tailpiece to another position and install again into the deadbolt operating mechanism. When determined to operate correctly, install the other through bolt, align, center and level everything and snug the through bolts firmly. Again check that lock operation is smooth with no increased resistance. You may now pilot drill the four (4) corner hole locations in Mount #7 with the 3/32" (2.5mm) drill bit, after being sure the bent flange of the assembly is absolutely level as shown in Fig. 4B. [Remember that Lock Cover #21 will snap over Mount #7 which has to be horizontal on the finished door and aligned perfectly with the edges of the previously mounted Cover Mount #22]. Install the four (4) #8 (9mm) pan head Phillips wood screws, recheck level, and tighten the screws, completing the Mount/Insert assembly and lock reinstallation.

F. PIVOT BRACKET (Fig. 5)

Locate the edge of the Pivot Bracket #26 (with the three (3) holes) approximately 1/4" (13mm) from the hinge edge of the door and centered on the horizontal line on the door. Drill and install the three (3) #10 (5mm) x 1-1/4" (32mm) long round head Phillips wood screws. The single hole in the Bracket should be elevated to the left of the screws, and directly over the horizontal line drawn on the door.

G. STRIKER LOCATION TEMPLATE (Fig. 6)

First, remove the original Striker Plate from the door jamb and any other parts located below the surface of the Striker. Next, fold the paper template on its fold line and place on the corner of the door jamb so the centerline of the template is aligned exactly with the horizontal line drawn on the inside door surface and the corner of the jamb. (See Fig. 6) Pencil through or otherwise mark the two holes (A) location on to the door jamb, and at the same time mark the top and bottom edges of the template at the fold (B) indicating where a section of the trim strip will need to be removed so the Short Cover #20 will snap over the #25 Striker Bracket assembly. Finally, pencil around the rectangular opening (C) marking any wood showing in the window, as this too may need to be removed for deadbolt clearance.



H. TRIM STRIP REMOVAL (Fig. 7)

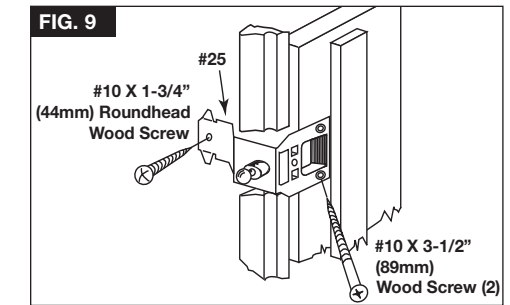
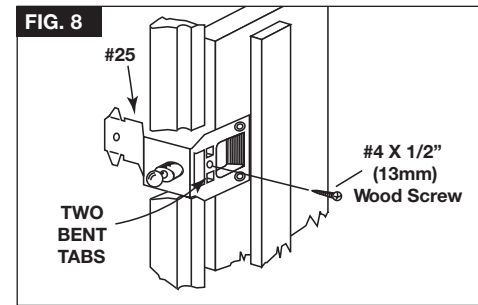
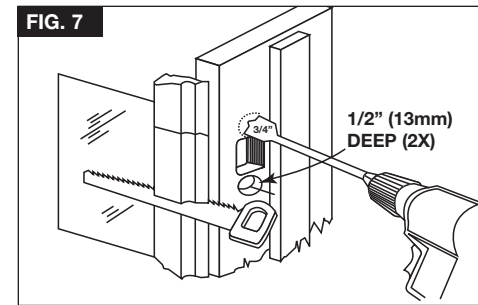
Transfer the two pencil marks previously drawn at (B) on to the trim strip, and using a fine tooth saw and protective piece of sheet metal or plastic on the wall adjacent to the trim strip, cut the section out as marked. A vibrating saw (German FEIN Multi-Master or equivalent) is an excellent tool to cut and shave the trim strip. An alternative to this procedure is to carefully remove the entire vertical trim strip after it has been marked, install the Bracket assembly #25 and cut the trim strip as marked to fit against the Short Cover #20 after the entire installation is complete.

I. PREPARATION FOR THE STRIKER BRACKET ASSEMBLY #25 (Fig. 7 - 8)

Using a 3/4" diameter (19mm) Spade drill (Fig. 7), bore the two holes marked as (A) from the plastic template at least 1/2" (13mm) deep to accept the two formed pockets in the Striker Bracket. If required, also remove any material penciled in the rectangular window to a minimum depth of 1-1/8" (28mm) deep for clearance of the dead bolt. Place the Striker Bracket in position and close the door to determine if there is enough space to mount the Striker Bracket without having to mortise the Bracket into the door jamb. If the door closes freely without pinching the Bracket, proceed to mount the Bracket on centerline with the single #4 (3mm) flat head wood screw by drilling a 1/16" (1.5mm) hole through the single centered countersunk hole and installing the screw. A steel tack can also be used to retain the Bracket position. The purpose of this screw is to hold the Bracket in perfect location while the other three power screws are installed. Check now that the bracket is on center and that the deadbolt will enter the rectangular window in the Bracket. If the deadbolt enters the previous clearance hole without interference, then no wood needs to be removed. **IF** the door pinches the Bracket, you must mark the outline of the Bracket and mortise the jamb material with a wood chisel deep enough to accept the Bracket thickness and have the door edge close smoothly without rubbing the Bracket.

J. MOUNTING THE STRIKER BRACKET #25 (Fig. 9)

The Bracket has two bent tabs that hook on the edge of the door jamb board and locate the position of the Bracket to accept the new Security Bar #9. In cases where the door thickness is less than 1-5/8" (41mm), it may be necessary to chisel a small undercut in the vertical wooden door stop strip so the tabs on the Bracket will seat against the corner of the door jamb. Proceed to locate the Bracket with the #4 (3mm) flat head wood screw or a tack as described above. With the Bracket now seated, pilot drill and install the single #10 (5mm) x 1-3/4" (44 mm) long round head wood screw in the single hole at the left end of the bracket. This screw will go through the drywall surface and screw into one of the studs behind the wall. Next, using 4 inches (10 cm) of the long drill provided, and the paper template as a guide, drill two holes at a 30° angle through the two recessed pockets in the bracket. (See Fig. 9) Install the two (2) #10 (5mm) x 3-1/2" (89mm) long flat head Phillips wood screws, being sure they seat below the surface of the Bracket. This completes the installation of the Bracket #25. The #4 flat head wood screw or tack can be removed and discarded if desired.



K. MOUNTING THE HINGE CHANNEL #11 (Fig.10)

Begin with the Hinge Channel #11 (smaller "C" shaped channel with open side toward you) and locate the single hole in the right end of the Channel directly under the extended end of Pivot Bracket #26, while inserting the 1/4-20 (6mm) x 1/2" (12mm) long Hex Head Phillips machine screw into the hole toward the door surface (threads should be behind the Channel #11) (Fig. 10). Next, capture the 1/4-20 Hex Locknut with the adjustable wrench or open end of a box wrench, and slip the nut up behind the Pivot Bracket #26 and engage the screw with the nut. Tighten enough so the Channel will pivot or rotate freely, but not rattle.

L. ASSEMBLY OF SECURITY BAR #9 TO CHANNEL #10, THEN SETTING SEGMENT GEAR 8 OR 13 (Fig.11 - 12)

Assemble Security Bar #9 and the Backplate #6 to the Lock Channel #10 with the three (3) 10-32 x 3/8"(9mm) long Sems Pan Head machine screws (star lock-washers attached), but do not tighten. Select the correct Segment Gear #8 or #13 to match the tail piece (turning shaft) of your keylock now pointing toward you in center hole of the plastic Insert A-F (Gear #13 fits Kwik-Set locks only). Engage the two "C" Channels #10 and #11 together, and position the smaller end of the security Bar even with the edge of the door. Insert the correct Segment Gear, WITHOUT SNAP RING #3, into the center hole in the selected Insert A-F and engage the Gear teeth with the mating teeth in the Security Bar #9 shown in (Fig.12). IMPORTANT: DO NOT INSTALL SNAP RING #3 YET. Using only the key in the keylock, turn the Segment Gear to extend the Security Bar to its' full extension with the door open, then retract it and check that the end of the Security Bar #9 is retracted flush with the edge of the door. If it protrudes out at all so as to interfere with the door closing or opening smoothly, reset the Segment Gear teeth with the rack teeth in the Security Bar #9 by one tooth at a time until the end of the bar, unlocked by the deadbolt key, is flush with the edge of the door. It is very important at this point to mark the mating rack gear tooth with a black marking pen or scribe so the Gear can be reengaged in the final position after being removed to install the retaining Shaft Snap Ring #3. You can now adjust the Security Bar #9 up or down to the center of the Striker Bracket opening and tighten the three SEMS lock washer screws firmly. With the locking system in the retracted (unlocked) position, drill a pilot hole 1-1/4" deep (32mm) at the left end of the horizontal slot in channel #10 and install the single #10 x 1-1/4" (32mm) washerhead wood screw until it touches the channel, then back the screw out just enough so the channel #10 slides smoothly.

Now is a good time to add some lubricating grease to the engaged portions of the Channels, the rack teeth in the Security Bar window, the gear teeth and the round shaft of the Segment Gear. BE SURE THE GEAR TEETH ARE PROPERLY IDENTIFIED FOR CORRECT OPERATION OF THE LOCK BEFORE INSTALLING THE SNAP RING. Now slide the Snap Ring #3 over the Segment Gear shaft until it drops into the groove in the shaft. You are now ready to permanently install the Segment Gear. Start the shaft of the Segment Gear into the center hole in the Plastic Insert. You will feel the shaft come to a stop due to the snap ring trying to enter the hole in the Insert. Align the marked Gear Teeth and lightly tap the Gear with a hammer just enough to start the ring into the hole and engage the gear teeth, confirming the Gear teeth are still aligned with the two marked teeth of the gear rack, so you can double check that the key operates both lock systems smoothly. When operating properly, tap the Gear all the way until it bottoms. The snap ring has now expanded into a recess at the bottom end of the hole and will retain the Gear from removal. If removal is necessary, it will require a hooked bar to get behind the gear face and pry with sufficient pressure to compress the ring into the shaft groove and allow the shaft to withdraw.

