

# Swing Door Service Installation Packet

Do Not Discard  
Leave With Homeowner

# Swinging Patio Door

## Handle Set Installation Instructions

A #2 Phillips Screwdriver is required.

A Hex-wrench for set screws is provided in the hardware package.

To prevent damage to the handle set while in construction phase, use the enclosed construction handle to operate the door. Lift to engage multipoint to close door. Push down to open the door.

Use water to clean. Do not use brass cleaner. It will remove the protective coating.

**NOTE:** Handles and backplates vary in style. For proper operation, the hardware must be installed in the following order:

**1** Apply the backplate gasket (8) to the inside of the exterior backplate (1). Push gasket firmly onto plate to ensure a tight seal. Apply the backplate gasket (8) to the inside of the interior backplate (2). Apply interior (2) and exterior (1) backplates and fasten loosely with the two screws (6) provided. Note: The screw heads must be on the interior side of the door.

**2** Insert the two piece handle shaft (3) into the handle. Be sure to orient the shaft (3) as shown. Screw the set screw until flush with handle using the allen wrench. See Figure 2. Note: This may seem to be a tight fit. Insert the handle into the latch hole.

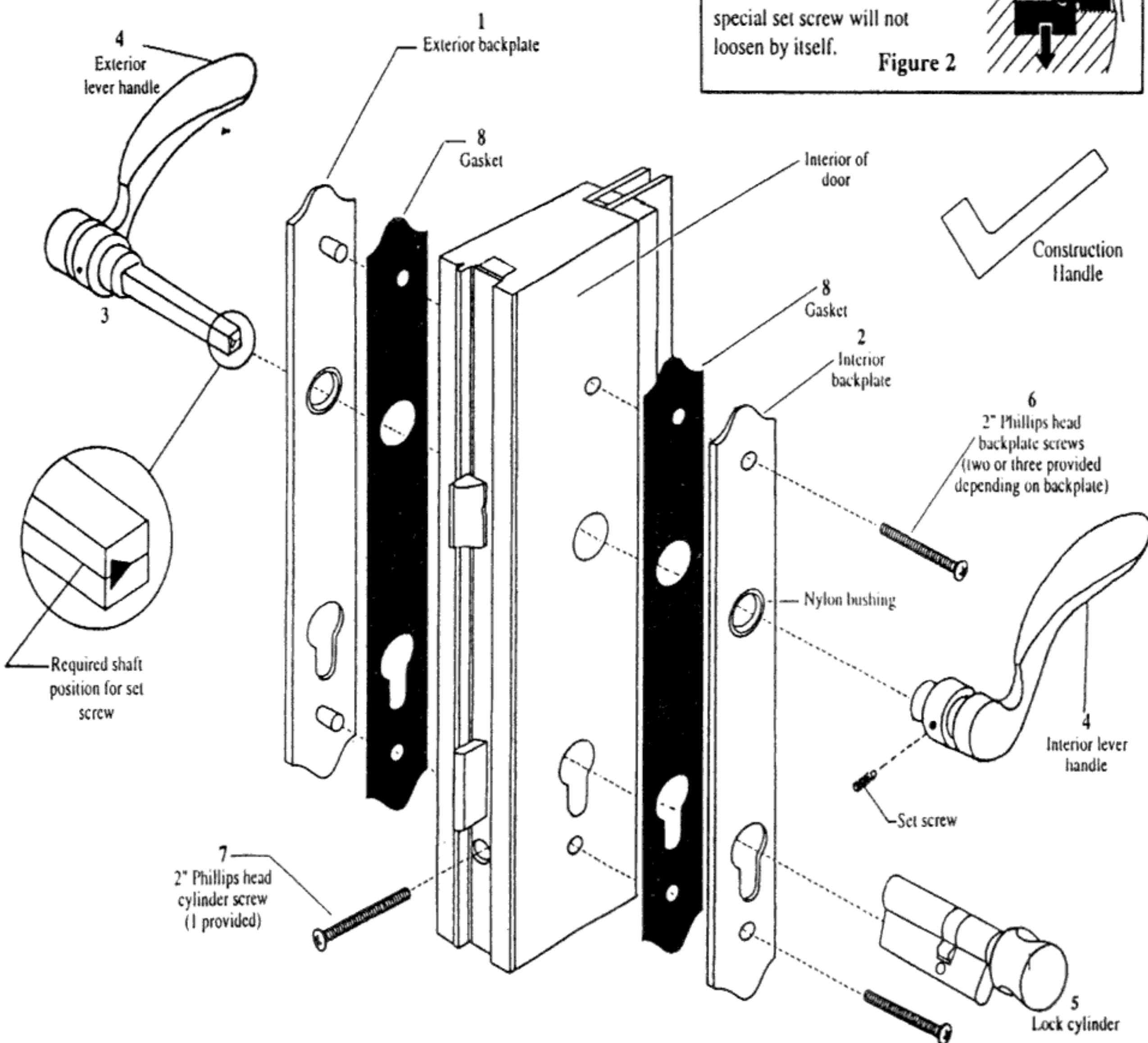
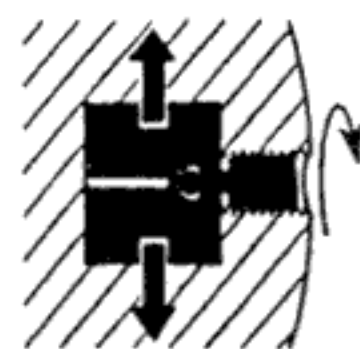
**3** Install the interior handle on the shaft through the latch hole, pressing tightly to the backplates. Tighten the interior handle set screw with allen wrench. Screw until flush with handle.

**4** Insert the keyed cylinder from the interior side of the door until it is flush with the exterior backplate. Install the cylinder screw (7) in the screw hole below the deadbolt in the edge of the door.

**5** Tighten the backplate screws.

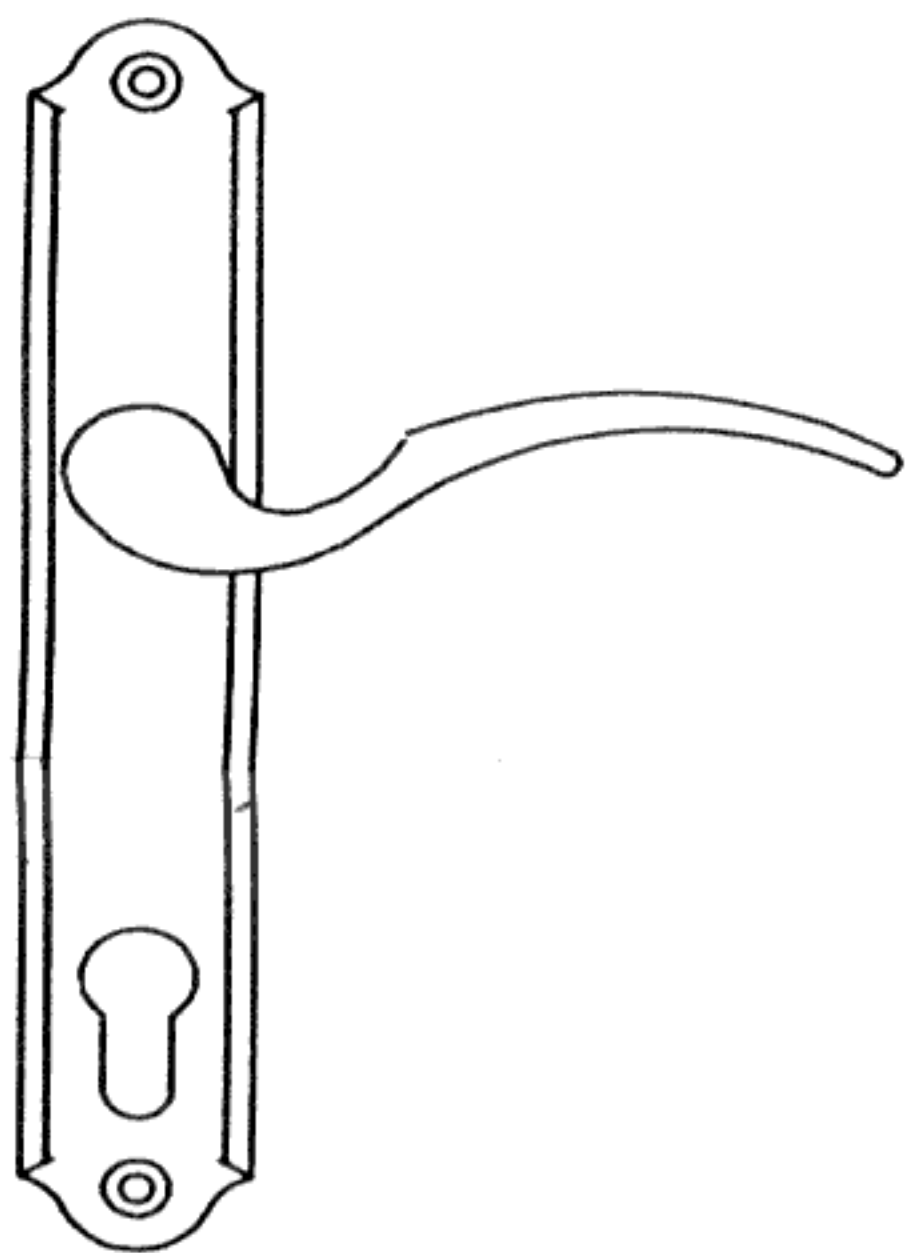
The tip of the set screw spreads the spindle inside the lock and inside the handle as well. The special set screw will not loosen by itself.

Figure 2



# HANDLE INSTRUCTIONS

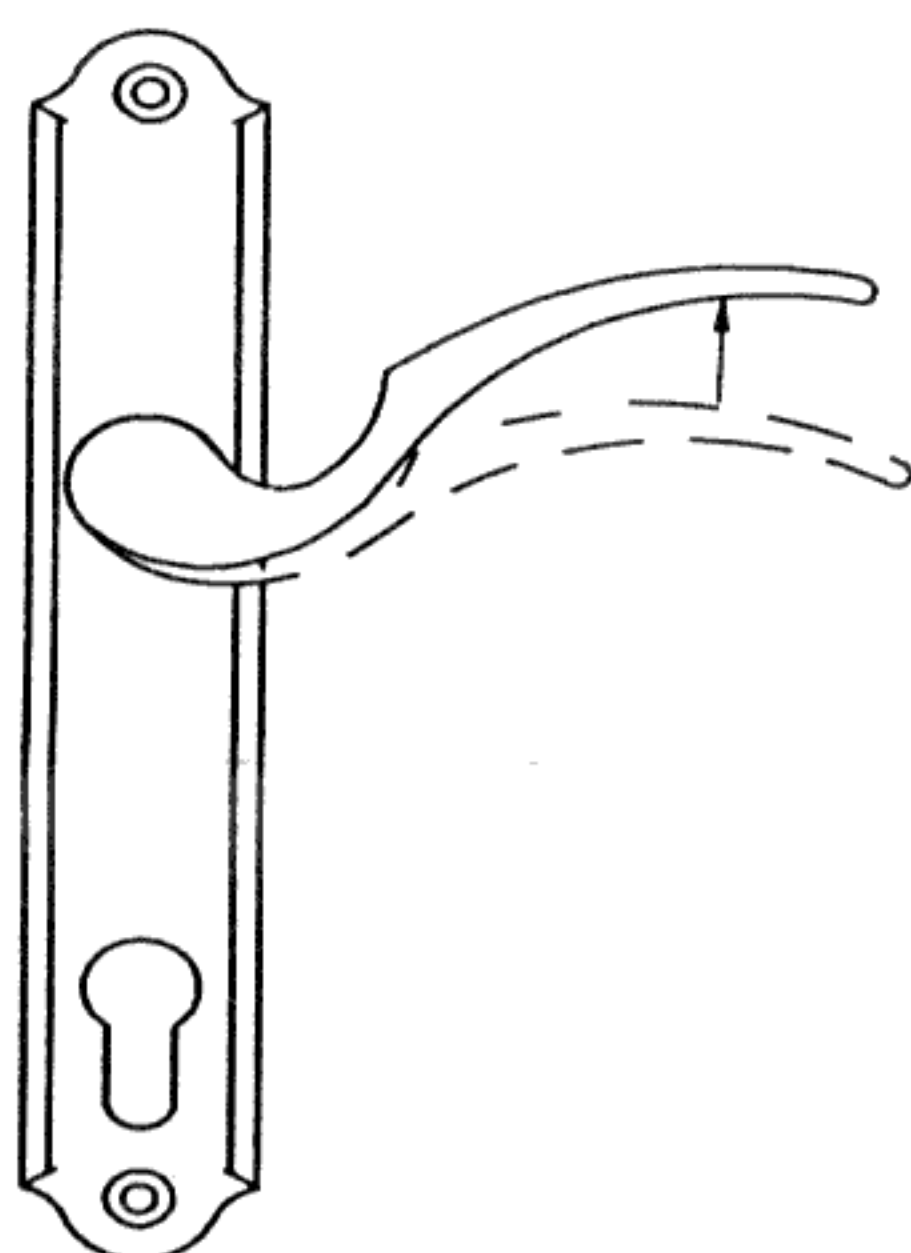
Handles and backplates vary in style.



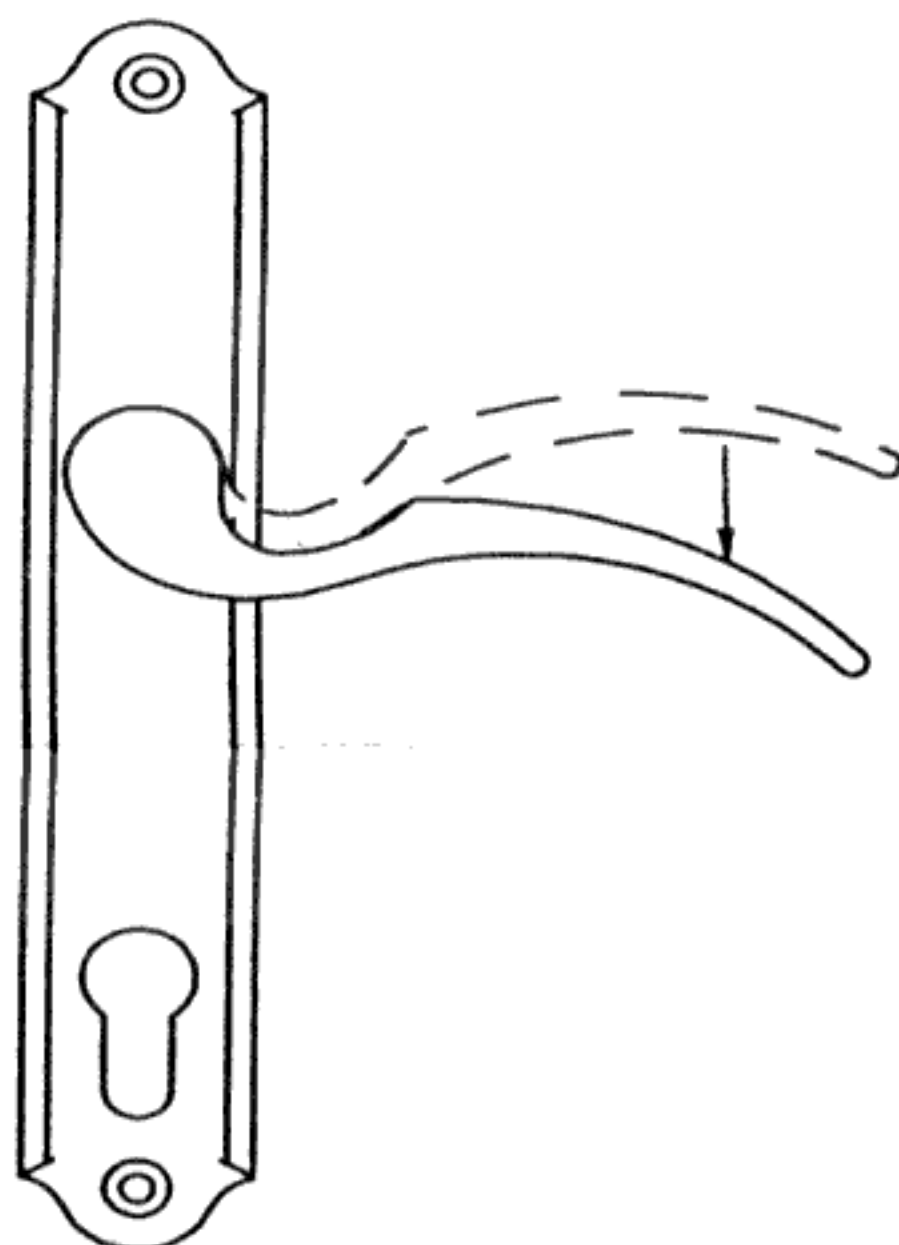
To lock automatic system, push door shut. Multipoint engages automatically.

To lock manual system, lift handle to engage multipoints prior to engaging deadbolt.

Use key or thumbturn to engage deadbolt.



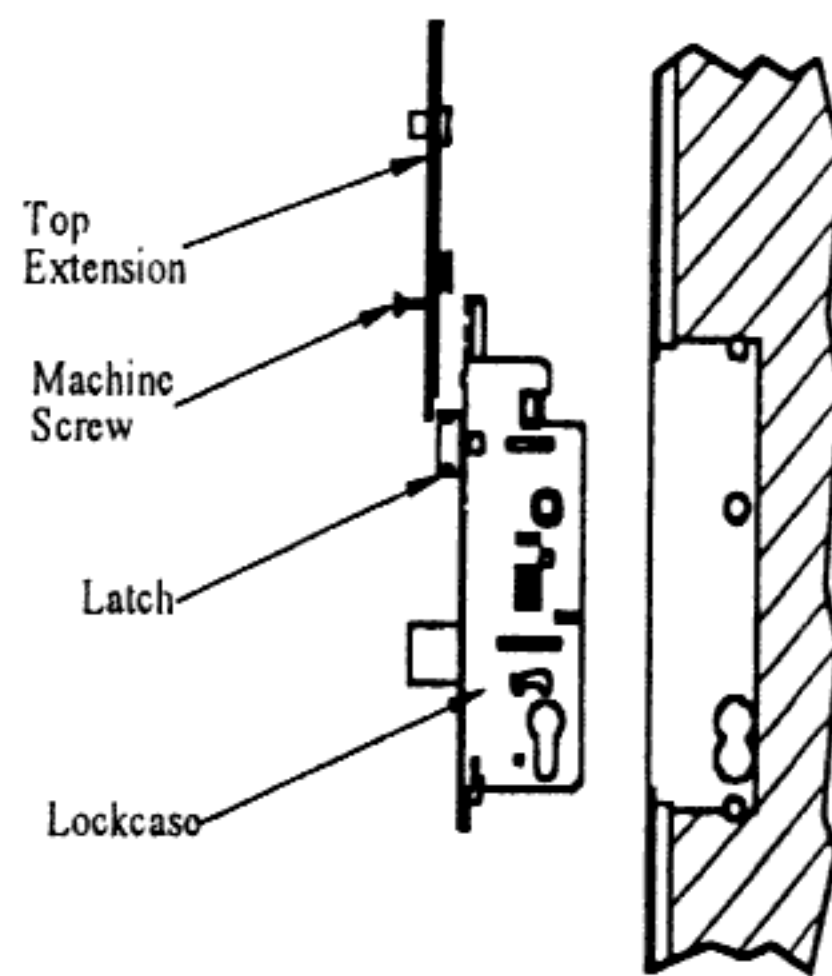
If deadbolt will not fully engage, manually engage system by lifting handle prior to engaging deadbolt.



To open, disengage deadbolt with key or thumbturn, push handle down to stop and then open door.

# INSTALLATION OF MULTIPOINT SWING DOOR HARDWARE

1. When the door is in the open position, the bevel on the latch should push the latch into the lockcase when you close the door. If you need to reverse the latch, see Hardware Adjustment Sheet.
2. Slide main gear (shown in drawing) into place aligning holes drilled in door face with cylinder, handle holes and lockcase to properly accommodate trim.
3. Install handle set per Swinging Patio Door Handle Set Installation Instructions.



**Diagram A**

4. Remove machine screw in top of lockcase. Slide top extension into place and fasten to lockcase with the supplied machine screws to door edge. Use #6 screws. The #6 screws should be screwed in flush with the faceplate, but not overtightened. Test gear with the door in the open position. Engage system by lifting handle (note if multipoint system operates on the edge of the door) and extend deadbolt by turning thumbturn. If the system operates on the door edge and the deadbolt operates, the hardware system in the door is fully functional. If not, please see the Troubleshooting Guide.

**PLEASE NOTE: MAIN GEAR AND EXTENSIONS SHOULD BE HAND-TIGHTENED ONLY. EXCESSIVE FORCE MAY CAUSE DRIVE RAIL TO BIND AND INHIBIT SYSTEM OPERATION.**

# HLS SYSTEM MAINTENANCE

1.     **Trim Maintenance:**

DO NOT SUBJECT TRIM TO ABRASIVE OR SOLVENT-BASED  
CLEANING MATERIALS OR EARLY TARNISHING WILL RESULT!  
Clean with a dry soft cloth. Trim may be waxed with any non-abrasive  
automotive wax.

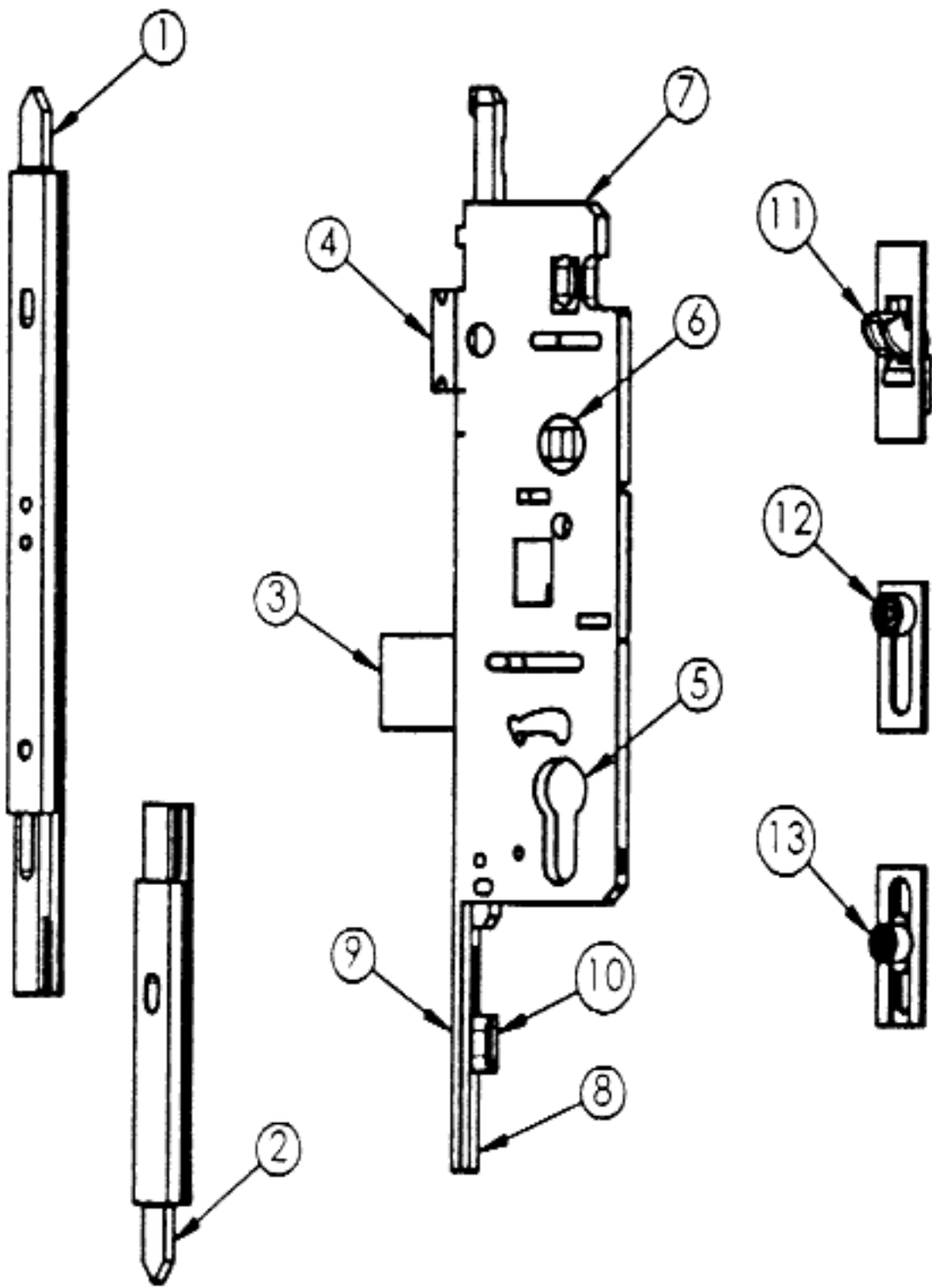
2.     **Profile Cylinder:**

At least once a year, apply dry graphite in cylinder keyways. This may be obtained  
from most hardware stores or locksmiths. Cylinders are available in rekeyable  
versions in Schlage C and Weiser 5 pin keyways. Key blanks are available at most  
hardware stores.

**Note:**  
All options are show for the sake of terminology.  
Not all will be on the gear system you have.

**TERMINOLOGY:**

- 1.     Top Shootbolt
- 2.     Bottom Shootbolt
- 3.     Deadbolt
- 4.     Latch Bolt
- 5.     Cylinder Hole
- 6.     Handle Hole
- 7.     Lockcase
- 8.     Drive Rail
- 9.     Faceplate
- 10.    Screw Support
- 11.    Tongue
- 12.    Roller
- 13.    Auto-Release Roller





# TROUBLESHOOTING GUIDE

## Multipoint Swing Door Hardware

Be certain door is square in frame before adjusting other hardware. With the door in the open position, engage system by lifting handle (note if multipoint system operates on the edge of the door) and extend deadbolt by turning thumbturn. If the system operates on the door edge and the deadbolt operates, the hardware system is fully functional.

### 1. SYSTEM WILL NOT OPERATE WHEN YOU LIFT THE HANDLE

**Probable Cause:** Improper installation of handle set.

**Solution:** Remove handle and reinstall. See Handle Set Installation Instructions.

### 2. SYSTEM OPERATES IN THE OPEN POSITION WHEN YOU LIFT THE HANDLE BUT NOT IN THE CLOSED POSITION WITH THE DOOR SHUT

**Probable Cause:** Relationship of door in the frame.

**Solution:** Check to make sure the door is square in the frame.

**Probable Cause:** If automatic version, the auto release pin may not be adjusted properly.

**Solution:** See Hardware Adjustment Sheet.

### 3. LOCKING POINTS WILL NOT ENGAGE WITH DOOR SHUT

**Probable Cause:** Deadbolt is not fully extending.

**Solution:** Clear away anything blocking travel of deadbolt (insulation, wood, etc).

### 4. AUTO RELEASE PIN DOES NOT ENGAGE MECHANISM WHEN DOOR CLOSES, AND THE AUTO RELEASE PIN IS PROPERLY ADJUSTED (only in automatic version)

**Probable Cause:** Drive rail binding.

**Solution:** Back out screws along faceplate as needed until gear moves freely with the door closed. If the system does not operate with the screws loosened, call your Customer Service Department.

### 5. DAMAGED AUTO RELEASE PIN (only in automatic version)

**Probable Cause:** Bent or otherwise visibly damaged pin.

**Solution:** Remove pin and order replacement. By removing the pin the gear becomes semi-automatic (multipoint locking points engage when handle is lifted up). Gear will be functional until pin can be replaced. See "Converting to Semi-Automatic System" on Hardware Adjustment Sheet.

6. DEADBOLT WILL NOT FULLY ENGAGE

**Probable Cause:** Locking points are not fully engaged. System design does not permit deadbolt operation unless locking points are fully engaged.

**Solution:** Check system again for binding problems. Confirm deadbolt extends fully into strike. Check to confirm locking points are correctly engaging strikes on the frame.

7. THUMBTURN OR KEY WILL NOT TURN

**Probable Cause:** Backplates may not be on straight.

**Solution:** Confirm that inside and outside holes line up with lockcase. Loosen backplate screws ½ turn.

8. HANDLE WILL NOT ATTACH PROPERLY

**Probable Cause:** Cladding is interfering with installation holes.

**Solution:** File cladding down even with wood, so backplates can line up properly.

9. SET SCREWS WILL NOT GO INTO HANDLE COMPLETELY

**Probable Cause:** Shaft is not installed properly.

**Solution:** Remove handle to see how shaft is installed. See Handle Set Installation Instructions for proper assembly and position of shaft.

10. BOTTOM ROLLER MOVES BUT TOP ROLLER DOES NOT

**Probable Cause:** Top extension drive rail is not connected at the lockcase.

**Solution:** Remove screws used to attach top extension to the door and the machine screw that attaches it to the lockcase, and remove top extension. Place the end of the drive rail (the "L" shape) in the lockcase above the latchbolt, as you slide the top extension into the door. Fasten with a screw at the lockcase and the one up higher. Operate the gear to make sure it works. Then finish installing the rest of the screws.

11. IF DOOR HAS PLAY OR IS NOT SEALING CORRECTLY

**Probable Cause:** Roller cams are not adjusted properly.

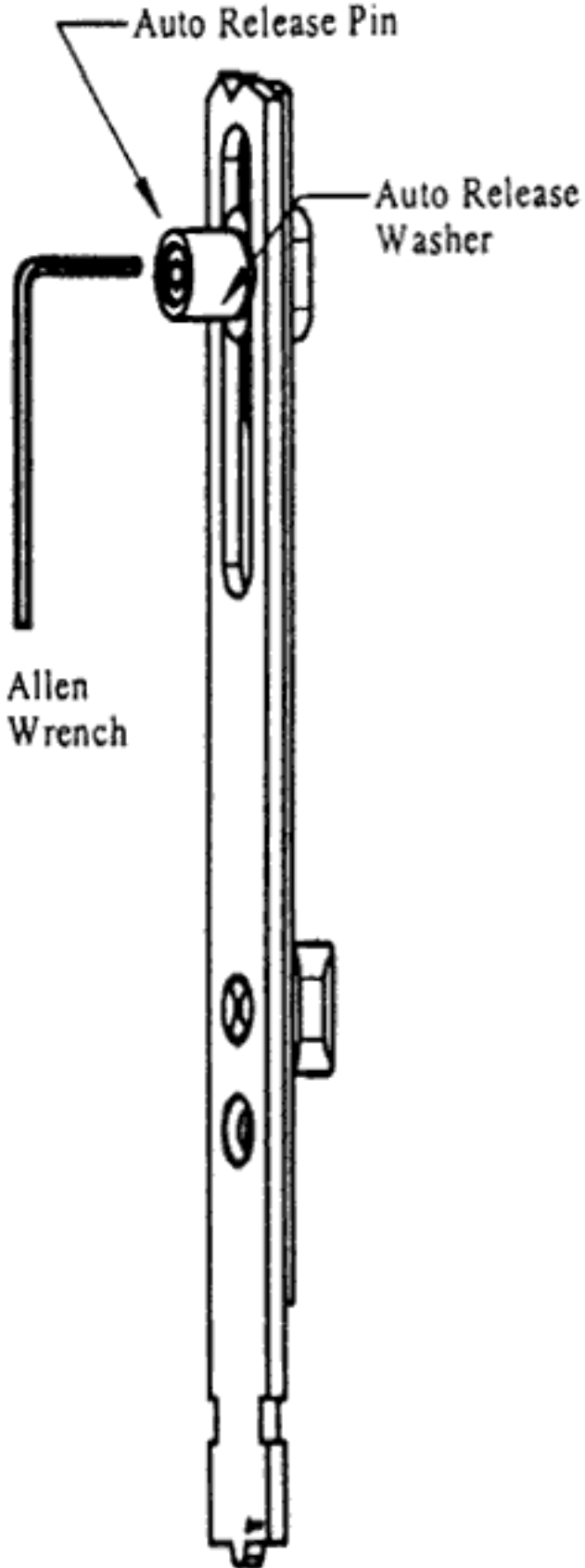
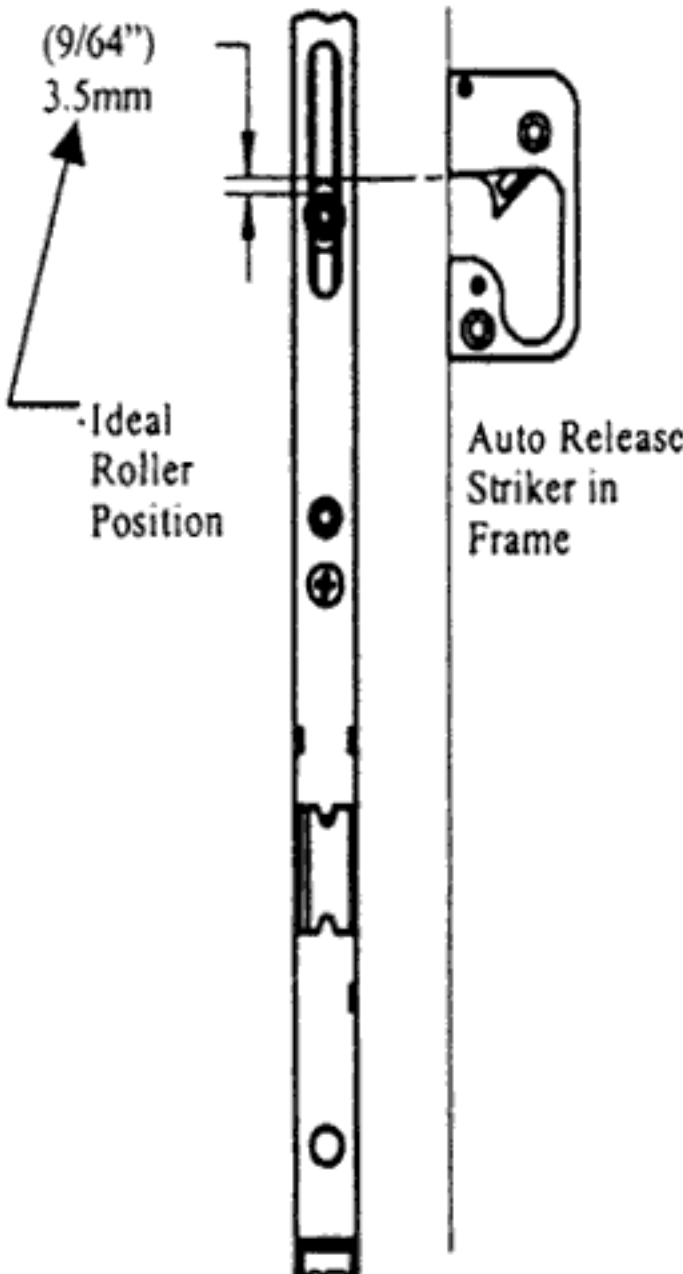
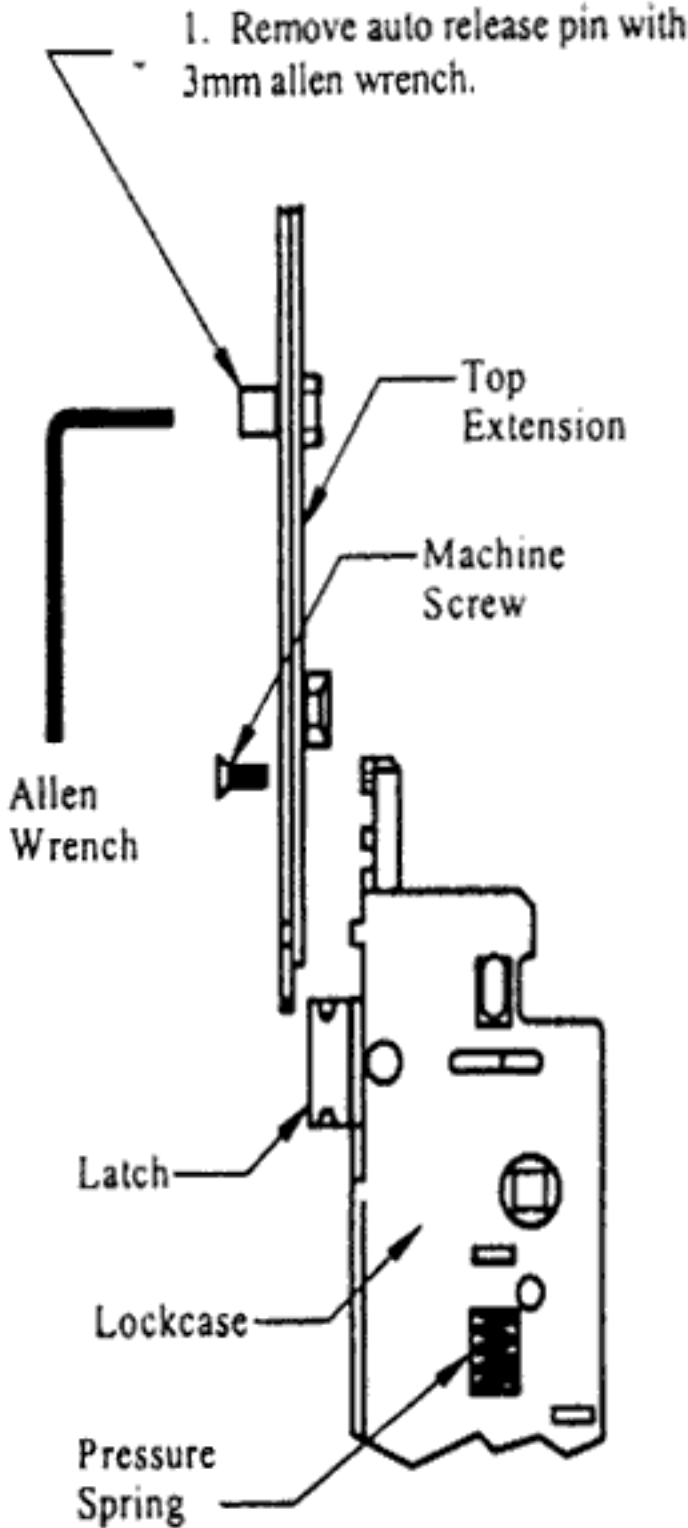
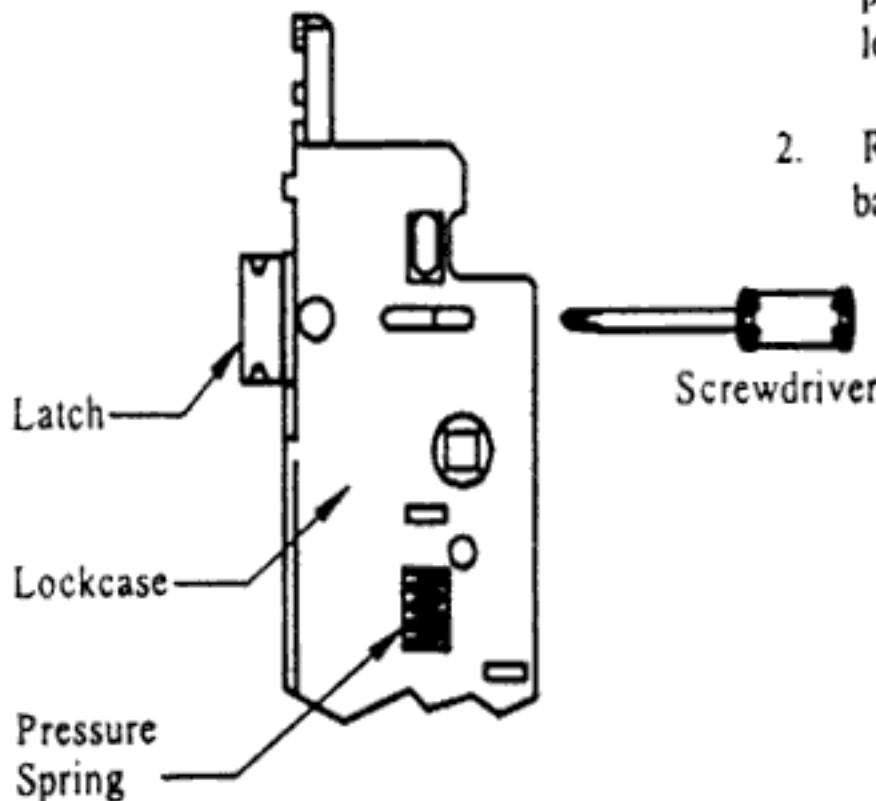
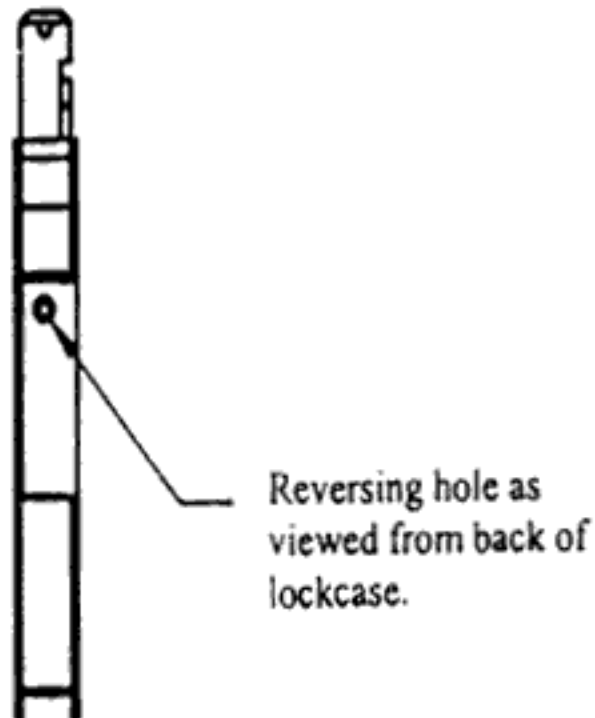
**Solution:** Use 4mm allen wrench to adjust rollers which will apply more pressure to the strikers. The rollers will turn 360°. At 12 o'clock the roller is at the highest position. At 3 o'clock the roller is at the most right position. At 6 o'clock the roller is at the most left position. By watching the mark on the top of the roller you can see the roller move from its current position.

12. KEY DOES NOT WORK IN CYLINDER

**Probable Cause:** Cylinder was rekeyed incorrectly.

**Solution:** Check with Builder or Installer to see if cylinder was rekeyed to match other doors in the house. If so, return to locksmith to rekey properly.

## Hardware Adjustment Sheet

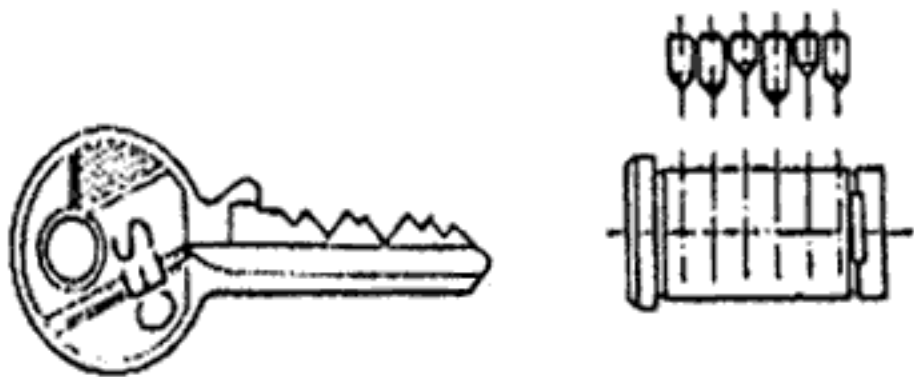
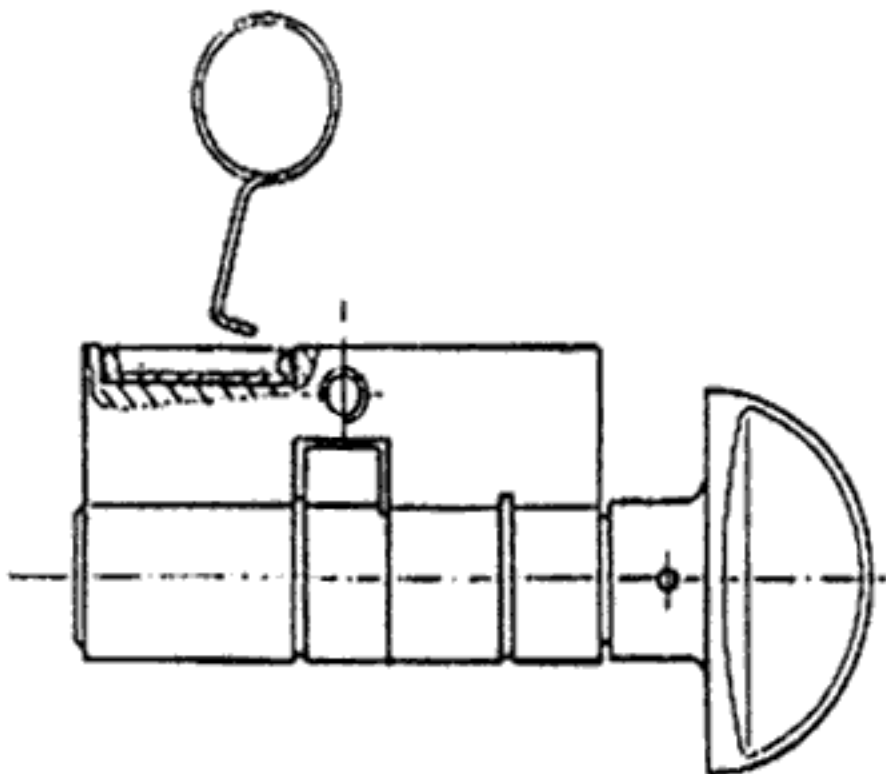
|   |   |   |
|---|---|---|
| <p><b>Adjustment of Automatic Roller</b></p>  <p>Auto Release Pin</p> <p>Auto Release Washer</p> <p>Allen Wrench</p>  | <p><b>Positioning of Automatic Roller</b></p> <p>Front View<br/>Gear and Extension</p>  <p>(9/64")<br/>3.5mm</p> <p>Ideal Roller Position</p> <p>Auto Release Striker in Frame</p> <p>Loosen screw to adjust position of auto release pin, then tighten to fix position.</p> | <p><b>Converting to Semi-Automatic System</b></p> <p>1. Remove auto release pin with 3mm allen wrench.</p>  <p>Top Extension</p> <p>Machine Screw</p> <p>Allen Wrench</p> <p>Latch</p> <p>Lockcase</p> <p>Pressure Spring</p> <p>Converting to Manual system</p> <p>1. Remove the auto release pin with 3mm allen wrench.</p> <p>2. Remove the pressure spring.</p> |
| <p><b>Reversing Latch (new version)</b></p> <ol style="list-style-type: none"> <li>1. Push small screwdriver or punch into reversing hole and push latch up until latch clears lockcase.</li> <li>2. Rotate latch 180° and release back into lockcase.</li> </ol>  <p>Latch</p> <p>Lockcase</p> <p>Pressure Spring</p> <p>Screwdriver</p>  <p>Reversing hole as viewed from back of lockcase.</p> |   |   |



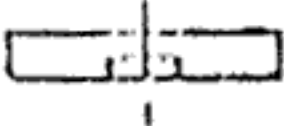
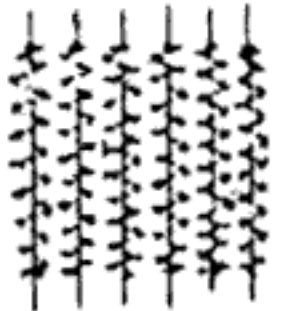



# REKEYING OF CYLINDERS

Key blanks at the store:                      Schlage (SC1) or Weiser depending upon original order

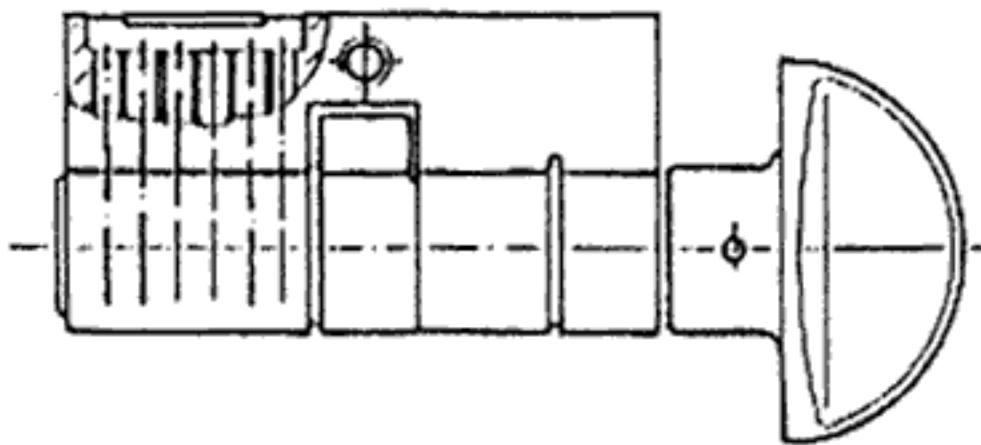
- 1. Remove the plastic inserts and all pins and springs.
- 2. Prepare and check the needed core pins with the new key and testcore. If they fit properly, continue to Step 3.



- 3. Place the assembling funnel and fill in:  
  
Core (bottom) pins (see Step 2)  
Housing (top) and diabol (top spool) pins  
Springs

|     |   |                   |
|-----|---|-------------------|
| (A) |  | Plastic Insert    |
| (B) |  | Springs           |
| (C) |  |                   |
| (D) |  |                   |
|     |  | Assembling Funnel |

- 4. Remove the assembling funnel and fix the plastic insert (E) by pressing.



Ordering key blanks from HTL:                      SCH 50/27      5 Pin Schlage Keyway

# INSTALLATION INSTRUCTIONS

## 90 DEGREE TURN CYLINDER

1. Loosen set screw (C) on knob using the allen wrench provided.
2. Remove knob (D) from body of cylinder (B).
3. Insert key (A).
4. Push the pin (E) down with the ring wrench (F) included.  
Turn cylinder shaft (B) until the arrow is pointing down (G).
5. Holding in this position, insert the cylinder body into door from the outside in.
6. Engage lock with key (A).
7. Fix knob (D) horizontally on cylinder shaft (B) with set screw hole (C) downwards.
8. Tighten set screw (C). Install cylinder screw.

### TO REMOVE CYLINDER:

Loosen and remove cylinder screw and repeat steps 1 – 5 above.

**Remember:** Cylinder must be removed from the outside.

