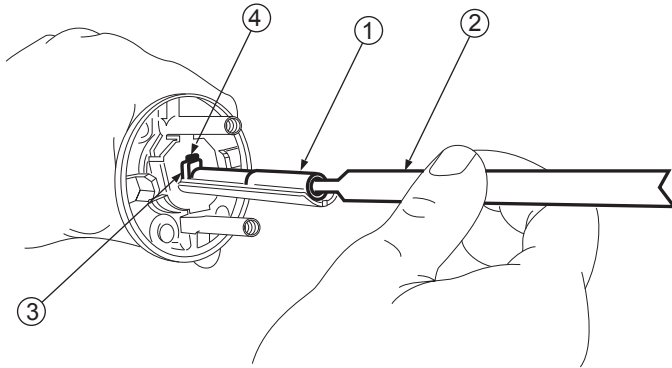


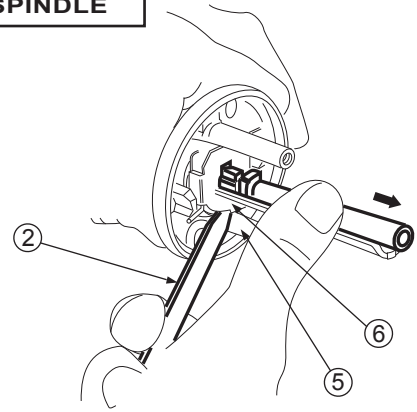
# Instructions for Removing and Replacing Cylinder of Entry Knob.

## A. ALIGN SPINDLE



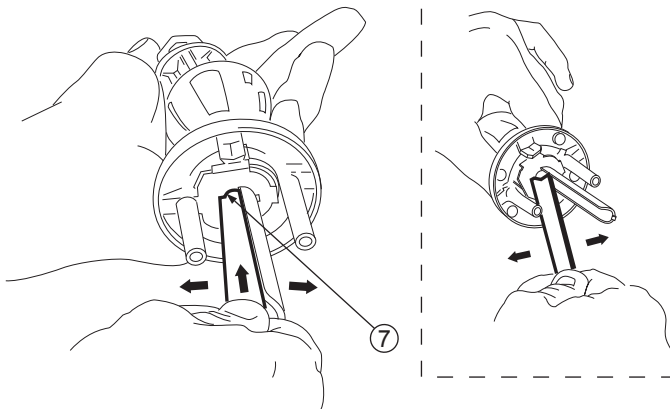
1. Remove key from Cylinder.
2. Rotate Round Spindle (1) with cylinder removing tool (2) to line up boss (3) with slot (4).

## B. REMOVE SPINDLE



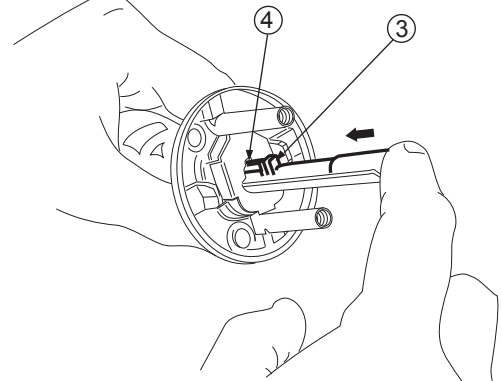
3. Insert cylinder removing tool (2) edgewise between screw stem (5) and the detent slide (6) rotating tool clockwise to position shown. Apply slight leverage to remove spring tension while holding spindle downwards allowing spindle to drop out. If necessary use free thumb to assist removal. If spindle rotates, repeat step 2.

## C. REMOVE CYLINDER



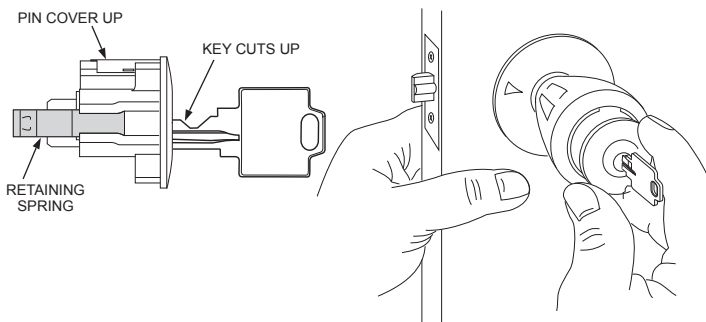
4. Insert cylinder removing tool in lock housing (7) pushing together cylinder retaining springs by moving tool up and down and push cylinder out of knob. If door not available, note position of cylinder in knob for reassembly.

## D. REPLACE SPINDLE



5. Replace round spindle by lining up boss (3) with slot (4) and push spindle until the detent spring snaps into place.

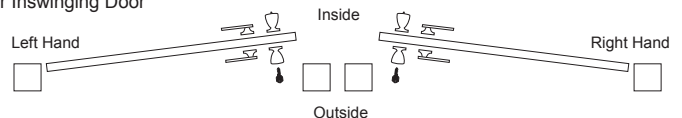
## E. REPLACE CYLINDER



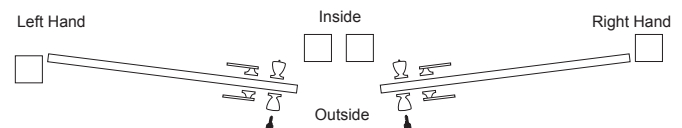
6. Install knob on door if door is available.
7. Position cylinder so that pin cover and key cuts are in the upward position (as shown in illustration). Align cylinder with guides in knob and insert, pressing until retaining springs snap into position.
8. If key will not remove, begin again at step "A" and insure step "E" procedures are followed.

## F. HOW TO DETERMINE HAND OF DOOR

### For Inswinging Door



### For Outswinging Door



The hand of a door is always determined by facing the outside of a door.

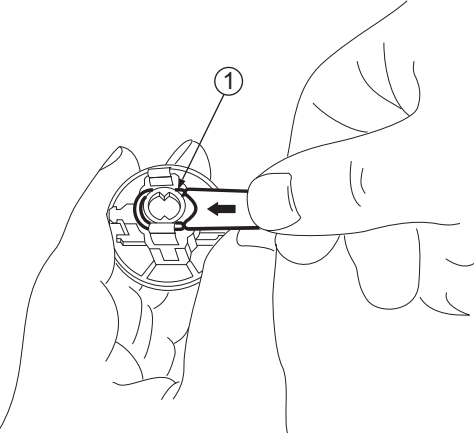
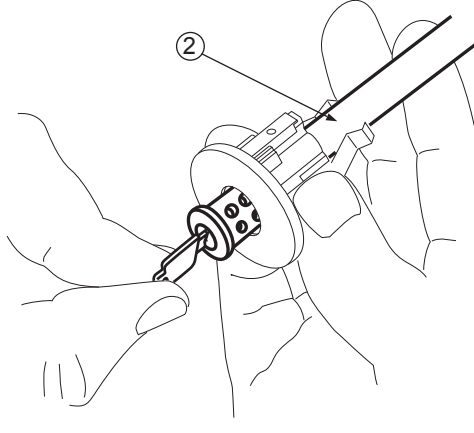
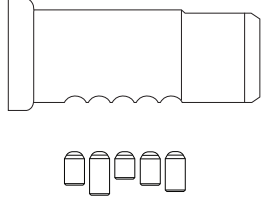
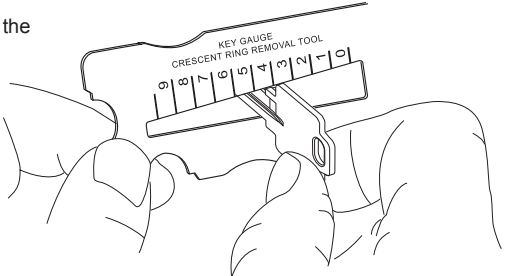
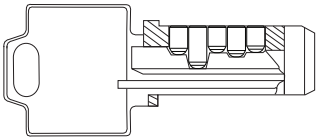
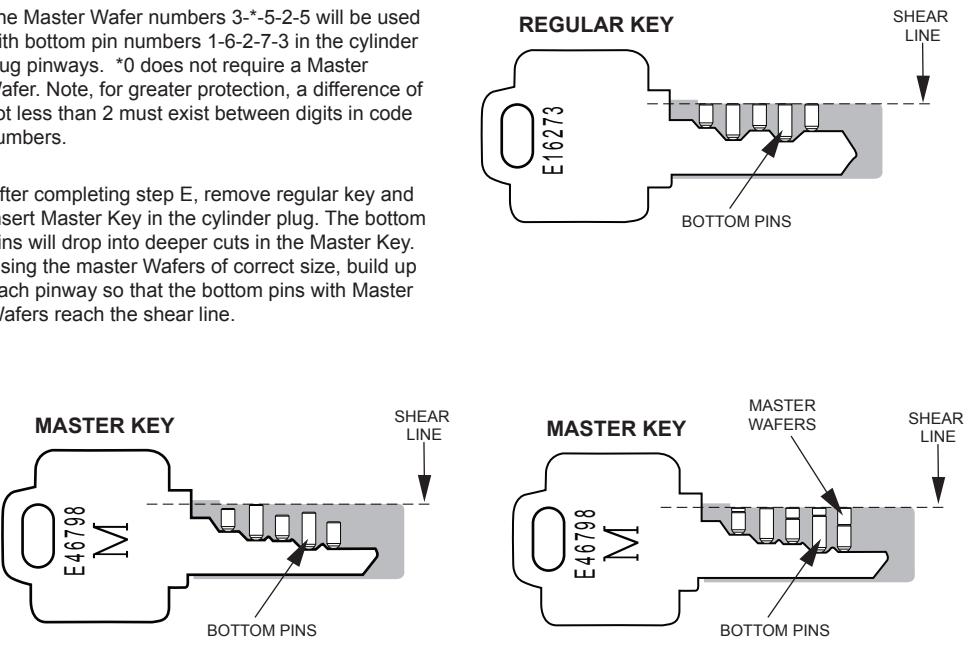
- If the hinge is on the left side of the door, then the door is left-handed.
- If the hinge is on the right side of the door, then the door is right-handed.

**WARNING:** This Manufacturer advises that no lock can provide complete security by itself. This lock may be defeated by forcible or technical means, or evaded by entry elsewhere on the property. No lock can substitute for caution, awareness of your environment, and common sense. Builder's hardware is available in multiple performance grades to suit the application. In order to enhance security and reduce risk, you should consult a qualified locksmith or other security professional.

1412 Keying Kit  
28739/01

# Instructions for Keying and Masterkeying Cylinders

Procedure is the same, regardless of model shown in illustrations.

A. REMOVE PLUG CLIP	B. REMOVE PLUG	C. REMOVE OLD PINS
 <p>Push plug clip (1) off with screwdriver or cylinder removing tool, using a side to side motion.</p>	 <p>Insert key and turn plug 1/4 turn clockwise. Push plug out of cylinder with plug following tool (2) and leave in cylinder. The plug following tool will keep the top tumbler pins and springs in place.</p>	 <p>Drop pins out of plug.</p>
D. KEY MEASUREMENT		E. FOR RANDOM KEYING
<p>The key code number on the side of the key bow specifies the correct size bottom pin for the cuts on that key, starting with the pin hole closest to the face of the plug. If there are no key code numbers stamped on the side of the key bow, use the key gauge to measure and note the key cut combination of the key or keys.</p> 		<p>Insert key into plug. Drop bottom pins into proper holes with pin numbers that match measured depths (flat side up). Tops of pins should be flush with outside diameter of plug. Proceed to step G.</p>  <p><b>NOTE:</b> For regular (random) keying skip to step G, for Masterkeying, proceed to step F.</p>
F. MASTER KEYING		G. INSTRUCTIONS FOR REASSEMBLY OF CYLINDER AFTER KEYING
<p>Determine proper size of master wafers to be used, see the example used below.</p> <p>4 6 7 8 9 The Code or key cut numbers from the higher Master Key  <del>-1 6 2 7 3</del> The Code or key cut numbers from the Regular key, <b>subtracted</b>.            3 0 5 2 5 The size of Master Wafers to be used.</p> <p>The Master Wafer numbers 3*-5-2-5 will be used with bottom pin numbers 1-6-2-7-3 in the cylinder plug pinways. *0 does not require a Master Wafer. Note, for greater protection, a difference of not less than 2 must exist between digits in code numbers.</p> <p>After completing step E, remove regular key and insert Master Key in the cylinder plug. The bottom pins will drop into deeper cuts in the Master Key. Using the master Wafers of correct size, build up each pinway so that the bottom pins with Master Wafers reach the shear line.</p> 		<p>After proper pins are in place, leave key in plug.</p> <p>Hold plug in 1/4 turn clockwise position, as when it was removed, in step B. Push the plug against plug following tool until the tool is fully out of cylinder and plug is all the way in.</p> <p>Install plug clip (1) downward as shown, if applicable, install tail piece before installing plug clip.</p> <p>Remove key.</p> 