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Patent No. 4,163,376

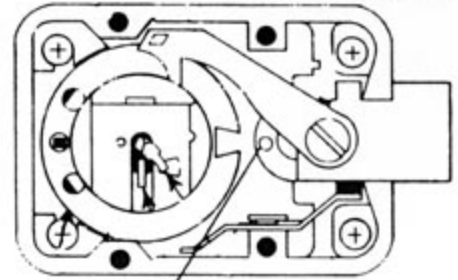
## OPERATING & CHANGING INSTRUCTIONS FOR:

T8410 & T8415 Manipulation-proof Combination Locks,  
T8430 & T8435 X-Ray & Manipulation-proof Combination Locks.

### Torque Adjusting Instructions:

With cover removed, insert a 3/32 allen wrench into adjusting screw(See Diagram). Turn clockwise to tighten or counter clockwise to loosen.

NOTE: Manipulation-proof locks should not be adjusted to less than 18 in. ozs. of dialing torque.



Torque Adjusting Gear

8400 Series Lock

**Before operating the lock or changing the combination, READ THESE INSTRUCTIONS THOROUGHLY.**

At the top of the dial ring an opening index is provided for normal dialing and opening. At the left of the opening index, a changing index is provided for use only when setting a new combination. The arrow knob in the center of the dial controls the Manipulation Proof feature. This is a precision lock with maximum security against manipulation; therefore, extreme care must be used to align the combination numbers with indices.

Turn the dial slowly and steadily. If, after turning the correct number of revolutions any number is turned beyond the opening index mark, the entire series of combination numbers must be re-dialed. **DO NOT TURN BACK TO REGAIN PROPER ALIGNMENT OF THE NUMBERS.** Each time a selected number is aligned with the opening index, a revolution is counted.

**CAUTION: Do not turn the Arrow Knob when dial is set at any position other than "0".**

### TO UNLOCK ON A FACTORY SETTING

**TO UNLOCK ON FACTORY SETTING - TURN DIAL "LEFT" 4 TURNS STOPPING ON "50" TURN DIAL RIGHT, STOPPING WHEN "0" IS ALIGNED WITH THE OPENING INDEX. THE FIRST TIME. HOLD THE DIAL WITH "0" ALIGNED WITH THE OPENING INDEX AND TURN THE SMALL ARROW KNOB 90° TO THE RIGHT. CONTINUE TURNING THE DIAL TO THE RIGHT UNTIL THE BOLT RETRACTS.**

### TO UNLOCK ON A 3 NUMBER COMBINATION - Example 50-25-50

1. Turn dial to the LEFT, stopping when "50" is aligned with the opening index, the FOURTH time.
2. Turn dial to the RIGHT, stopping when "25" is aligned with the opening index, the THIRD time.
3. Turn dial to the LEFT, stopping when "50" is aligned with the opening index, the SECOND time.
4. Turn dial to the RIGHT, stopping when "0" is aligned with the opening index, the FIRST time.
5. HOLD THE DIAL WITH "0" ALIGNED WITH THE OPENING INDEX and turn the small arrow knob to the RIGHT as far as it will go.
6. Turn the DIAL to the RIGHT until it stops. The bolt is now fully retracted and the safe or cabinet may be opened. The above procedure is used with any three-number combination substituting the selected numbers for the example numbers 50-25-50.

**CAUTION: When used in conjunction with PLUNGER LOCK, the combination lock must be operated first.**

over

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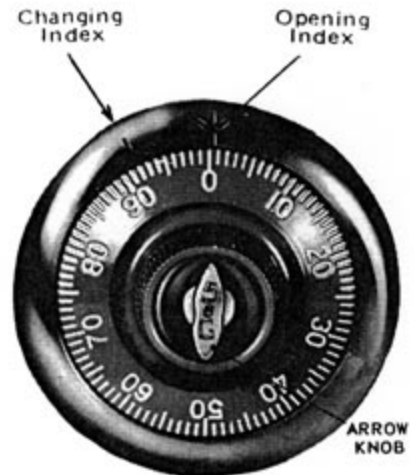


Figure 1.

## TO LOCK:

Turn the dial to the **LEFT**, stopping when "0" is aligned with the opening index. Hold the dial in alignment and turn the arrow knob one quarter turn to the **LEFT**, then continue to turn the dial to the **LEFT** for at least five complete revolutions.

## CHANGING TO A NEW COMBINATION

Make up a new combination, selecting 3 sets of numbers of your own choosing. **DO NOT** use numbers between 35 and 55 for your last number. (e.g. 46-82-13). For maximum security, **DO NOT** use numbers ending in 0 or 5 and **DO NOT** use numbers in a rising or falling sequence. e.g. 35-50-75 is not as good a combination as 54-38-72.

**CAUTION:** Use Change Key 6720 on this Series lock, other keys will not function properly.

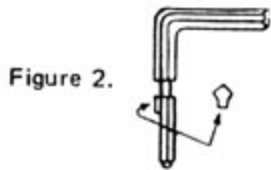


Figure 2.

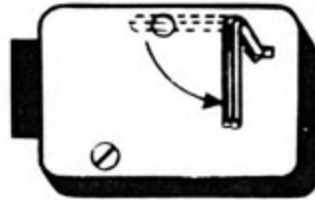


Figure 3.

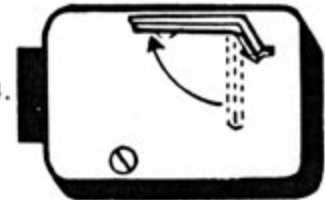


Figure 4.

1. Using the changing index, dial the existing combination as explained in paragraphs 1-2-3 in the "To Unlock" section above.
2. Hold the dial with the last number at the changing index and insert the changing key in the key hole in the back of the lock (see Figure 2). Insert the key until the wing is entirely inside the lock and comes to a positive stop.
3. Turn key one quarter turn to the **LEFT** (see Figure 3). With the changing key in this position, turn the dial to the **LEFT**, stopping when the first number of the newly selected combination aligns with the changing index the **FOURTH** time.
4. Turn dial to the **RIGHT**, stopping when the second number is aligned with the changing index the **THIRD** time.
5. Turn the dial to the **LEFT**, stopping when the third number is aligned with the changing index the **SECOND** time. Holding the dial in this position, turn the changing key back to the **RIGHT** and remove it (see Figure 4).

The new combination you have selected is now set in the lock.

**BEFORE CLOSING THE CABINET**, try the new combination several times, using the opening index.

**WARNING:** Never insert the changing key in the lock when the cover is removed. Always be certain that the wing of the changing key is entirely within the lock (as illustrated) before turning the key.

**IF AN ERROR HAS BEEN MADE IN SETTING A NEW COMBINATION**, we suggest that an accredited locksmith be called.