

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

GUANGZHOU LIGHTSOURCE  
ELECTRONICS LIMITED; GUANGZHOU  
ZHUYUN TRADING CO., LTD.; AND  
CHANGTING COUNTY HUIMEI  
TECHNOLOGY CO., LTD.,

Plaintiffs,

v.

PINE LOCKS,

Defendant.

C.A. No. \_\_\_\_\_

JURY TRIAL DEMANDED

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**COMPLAINT FOR DECLARATORY JUDGMENT OF  
NONINFRINGEMENT AND INVALIDITY**

Plaintiffs Guangzhou Lightsource Electronics Limited (“Lightsource Electronics”); Guangzhou Zhuyun Trading Co., Ltd. (“Zhuyun Trading”); and Changting County Huimei Technology Co., Ltd. (“Huimei Technology”) (collectively, “Plaintiffs”) hereby bring this complaint against Defendant Pine Locks (“Pine Locks” or “Defendant”) and allege as follows:

**NATURE OF THE ACTION**

1. This is an action for declaratory judgment of noninfringement and invalidity of U.S. Patent No. 10,378,239 (the “’239 patent”). A copy of the ’239 patent is attached as **Exhibit A**.

**THE PARTIES**

2. Plaintiff Lightsource Electronics is a company organized under the laws of China with a place of business at 3/4/5th floor of Building F, (Plant A6), No. 5, Xinhe South Road, Baishui Village, Ningxi Street, Zengcheng District, Guangzhou City, Guangdong, 510000, China.

3. Plaintiff Zhuyun Trading is a company organized under the laws of China with a place of business at Room 2408, No. 620, Tianhe North Road, Tianhe District, Guangzhou City, Guangdong, 510000, China.

4. Plaintiff Huimei Technology is a company organized under the laws of China with a place of business at Building 10#, Building 408#, Tingjiang Pearl Plot B, Datong Town, Changting County, Longyan City, Fujian Province, 366300, China.

5. On information and belief, Defendant Pine Locks is a company organized under the laws of Isle of Man with a principal place of business at 24 Athol Street, Douglas, Isle of Man, IM1 1JA.

6. On information and belief, Pine Locks is the assignee of all rights, title, and interest in the '239 patent.

7. On information and belief, Pine Locks does not manufacture or sell any products; rather, Pine Locks is a patent assertion entity for the '239 patent.

#### **JURISDICTION AND VENUE**

8. The Court has original subject matter jurisdiction under 28 U.S.C. §§ 2201, 2202, 1331, and 1338(a) because this action arises under the laws of the United States, in particular the Patent Act of the United States, 35 U.S.C. §§ 100 et seq., and seeks relief under the Federal Declaratory Judgment Act.

9. The Court has personal jurisdiction over Pine Locks under Fed. R. Civ. P. 4(k)(2).

10. Venue is proper in this Court under 28 U.S.C. § 1391(b)(3) because Pine Locks is subject to personal jurisdiction in this District. Venue is also proper under 28 U.S.C. § 1391(c)(3) because Pine Locks is not a resident of the United States and therefore may be sued in any judicial district.

## **BACKGROUND**

11. Plaintiff Zhuyun Trading sells smart locks under the “Yamiry” brand. Zhuyun Trading sells a majority of its Yamiry smart locks through Amazon.com. The Amazon Standard Identification Number (“ASIN”) of these Yamiry brand smart locks is B0CGLQ4N2Y.

12. Plaintiff Huimei Technology sells smart locks under the “Kucacci” brand. Huimei Technology sells a majority of its Kucacci smart locks through Amazon.com. The ASIN of these Kucacci brand smart locks is B0CGRRHXT6.

13. Plaintiff Lightsource Electronics manufactures smart locks, including the Yamiry and Kucacci brand smart locks with ASINs B0CGLQ4N2Y and B0CGRRHXT6, respectively. Lightsource Electronics supplies these smart locks to Zhuyun Trading and Huimei Technology for sale on Amazon.com.

14. On April 16, 2024, Plaintiff Zhuyun Trading received an email from Amazon (sent via patent-evaluation@amazon.com) advising that Defendant Pine Locks believes ASIN B0CGLQ4N2Y infringes the ’239 patent. The email advises that ASIN B0CGLQ4N2Y will be removed from Amazon.com within three weeks unless certain action is taken such as filing a lawsuit against the patent owner for declaratory judgment of noninfringement of the asserted patent. Amazon assigned the infringement complaint ID 15120395161.

15. On April 16, 2024, Plaintiff Huimei Technology received an email from Amazon (sent via patent-evaluation@amazon.com) advising that Defendant Pine Locks believes ASIN B0CGRRHXT6 infringes the ’239 patent. The email advises that ASIN B0CGRRHXT6 will be removed from Amazon.com within three weeks unless certain action is taken such as filing a lawsuit against the patent owner for declaratory judgment of noninfringement of the asserted patent. Amazon also assigned the infringement complaint ID 15120395161.

16. To avoid having their smart locks removed from Amazon.com, Plaintiffs Zhuyun Trading and Huimei Technology are necessary plaintiffs to this complaint.

17. Plaintiff Lightsource Electronics, as the manufacturer and supplier of the smart locks Pine Locks accused of infringing the '239 patent, has a reasonable apprehension, and there exists a reasonable potential, that Pine Locks will file an action against Lightsource Electronics and allege that Lightsource Electronics infringes the '239 patent by making, using, selling, offering for sale, and/or importing into the United States the same smart locks it manufactures and supplies to Plaintiffs Zhuyun Trading and Huimei Technology.

18. As a result of the foregoing, a justiciable controversy exists between Plaintiffs and Pine Locks as to whether the smart locks with ASINs B0CGLQ4N2Y and B0CGRRHXT6 infringe the '239 patent and whether the claims of the '239 patent are valid and enforceable.

### **FIRST CLAIM FOR RELIEF**

#### **(Declaratory Judgment of Noninfringement of U.S. Patent No. 10,378,239)**

19. Plaintiffs repeat, reallege, and incorporate each and every allegation contained in all previous paragraphs as if fully set forth herein.

20. Pine Locks purports to be the owner by assignment of the '239 patent with all right, title, and interest thereto.

21. The smart locks with ASINs B0CGLQ4N2Y and B0CGRRHXT6 (collectively, the "Accused Smart Locks") do not infringe any independent claim of the '239 patent (i.e., independent claims 1, 2, or 5).

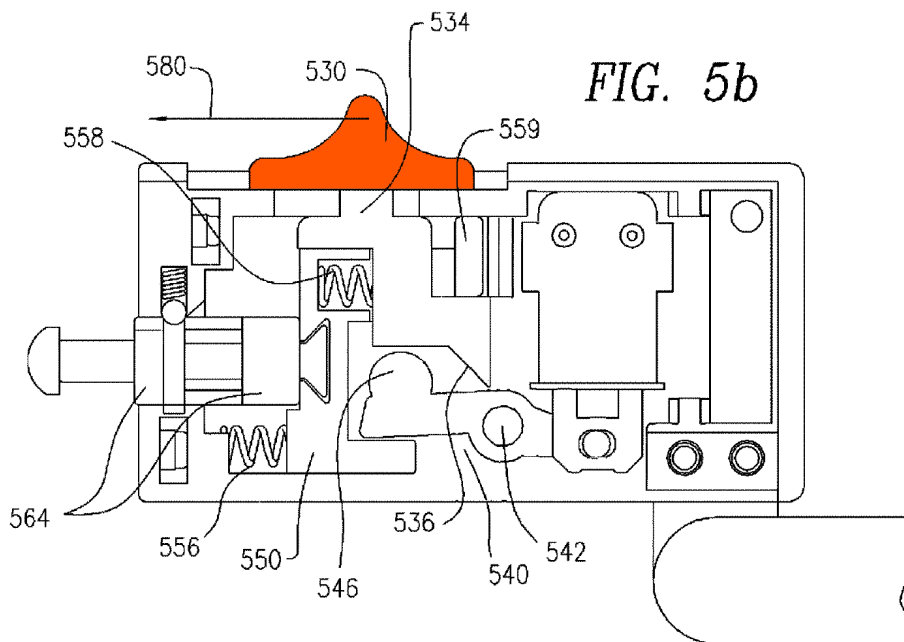
22. For example, independent claims 1 and 2 recite the following limitations:

- "***a user operable slider*** which is configured to be moved to mechanically operate the locking system to move the locking element into the locked

position” (’239 patent at claim 1 (emphasis added)).

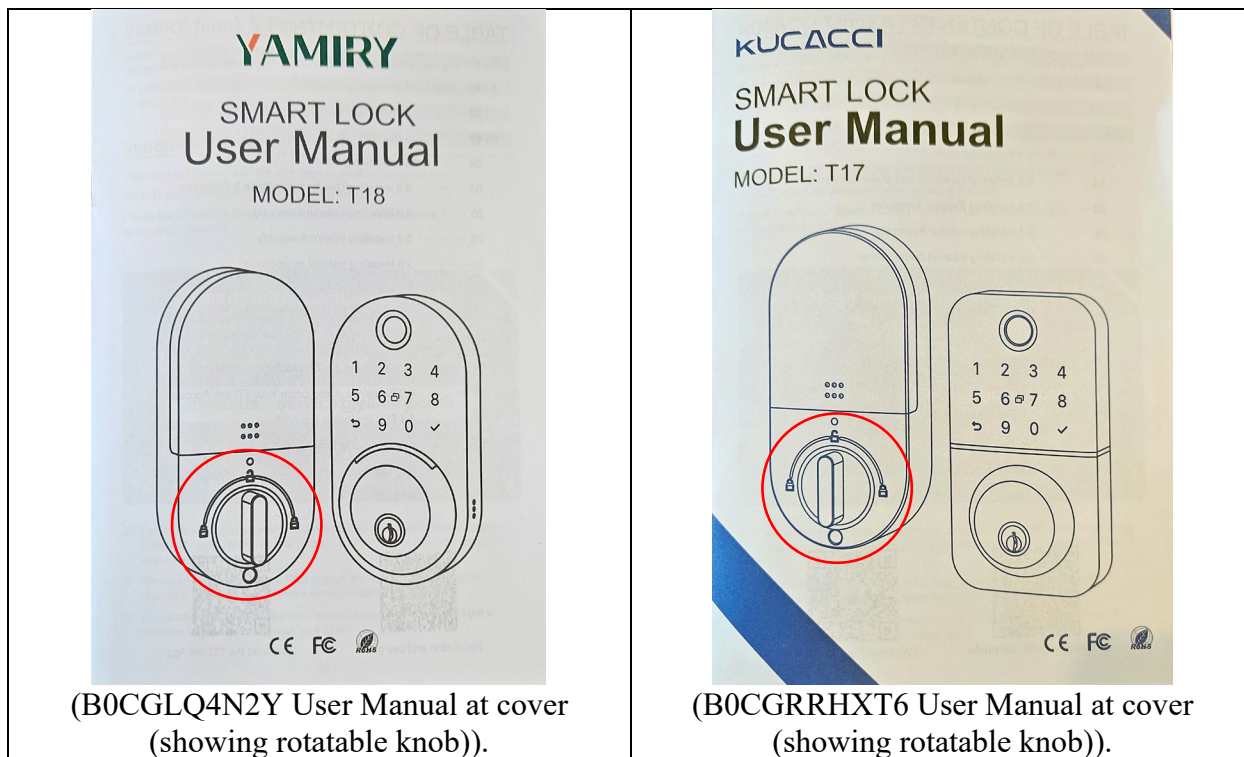
- “*a thumb slider*, which is mechanically positioned to push an actuator, which actuator is, in turn, coupled to a lock head and further comprising a latch which is configured to assume a latched position at which the locking element is in the locked position” (’239 patent at claim 2 (emphasis added)).

23. The “user operable slider” or “thumb slider” claim limitation is illustrated in FIG. 5b of the ’239 patent:



(’239 patent at Fig. 5b (color added to slider 530)). “Referring to FIG. 5b, when a user applies thumb pressure on the thumb slider 530 in the direction of the arrow 580, ... the lock head 564 and the actuator 550 cannot move back to the right. This is the locking position.” (’239 patent at 5:3-27).

24. The Accused Smart Locks do not have a “user operable *slider*” or a “thumb *slider*” to manually operate the lock. Instead, the Accused Smart Locks use a knob *rotation* method to manually lock or unlock a door:



25. Independent claim 5 recites the following limitation:

- “a short term electrical power storage device, the storage device being configured to store said electrical power temporarily for a duration

*sufficient to operate the moving mechanism to move the locking element into the unlocked position*, and said short term power storage device being without any connection to an external DC and/or AC power source, and said storage device being configured to receive said electrical power to *temporarily power and operate* said electrical controller and said moving mechanism solely from said mobile cell phone device” (’239 patent at claim 5 (emphasis added)).

26. This very narrow limitation requires the lock to only have “*short term*” power storage that only stores power “*temporarily for a duration sufficient* to operate the moving mechanism to move the locking element into the unlocked position.” According to the ’239 patent specification, “the connector 26 houses a *primary winding* which delivers A/C power *that charges* an internal battery or a short term storage capacitor located inside the lock body 50 in order to *temporarily power the lock body* to enable changing the state (open or closed) of the locking element 60[.]” (’239 patent at 3:9-14). Put simply, independent claim 5 does not merely claim a battery power source.

27. In contrast, the Accused Smart Locks are powered by 4 AA batteries:



(photo of B0CGLQ4N2Y smart lock (showing battery compartment holding 4 AA batteries)).



(photo of B0CGRRHXT6 smart lock (showing battery compartment holding 4 AA batteries)).

**3.6 Installing Batteries**

- 1) Insert 4 AA alkaline batteries.
- 2) Install the battery cover.
- 3) Installation Complete.
- 4) First time installing the batteries, deadbolt will shoot out automatically once to detect working direction. (Initial passcode "123456 ✓" is available to unlock at this time.)

**4 User Guide**

Please scan this QR code to watch the simple step by step User Guide video to set up your smart lock.

**4.1 System Initialization**

- 1) Open the back panel cover and make sure that batteries are installed and working.
- 2) Long press the Reset Button for around 5 seconds to wake up the lock.
- 3) Hear the prompt for entering the initial password, then release the reset button, touch the keypad and enter "000 ✓" to initialize successfully.
- 4) Complete the initialization, and start to add the door lock to TTLock App.

08

(B0CGLQ4N2Y User Manual at 8 (showing battery compartment holding 4 AA batteries)).

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(B0CGRRHXT6 User Manual at 8 (showing battery compartment holding 4 AA batteries)).



Common battery power is not “*short term* electrical power storage” “configured to store said electrical power *temporarily for a duration sufficient to operate the moving mechanism*” as claimed. Therefore, the Accused Smart Locks cannot infringe independent claim 5.

28. Accordingly, Plaintiffs have not infringed and do not infringe any claim of the '239 patent.

29. An actual and justiciable controversy therefore exists between Plaintiffs and Pine Locks regarding whether Plaintiffs have infringed any claim of the '239 patent.

30. Plaintiffs seek and are entitled to a judgment declaring that they have not infringed and do not infringe, directly or indirectly, any claim of the '239 patent either literally or under the doctrine of equivalents.

31. This is an exceptional case under 35 U.S.C. § 285, entitling Plaintiffs to reimbursement of their attorneys' fees, costs, and expenses from Pine Locks.

### **SECOND CLAIM FOR RELIEF**

#### **(Declaratory Judgment of Invalidity and/or Unenforceability of U.S. Patent No. 10,378,239)**

32. Plaintiffs repeat, reallege, and incorporate each and every allegation contained in all previous paragraphs as if fully set forth herein.

33. At least by implication of Pine Locks' allegations that the Accused Smart Locks infringe the '239 patent, Plaintiffs contend that the '239 patent is invalid and/or unenforceable for failure to meet the conditions of patentability set forth in the Patent Laws of the United States, including without limitation 35 U.S.C. §§ 101, 102, 103, 112, and 282.

34. An actual and justiciable controversy exists between Plaintiffs and Pine Locks regarding the invalidity and/or unenforceability of the '239 patent.

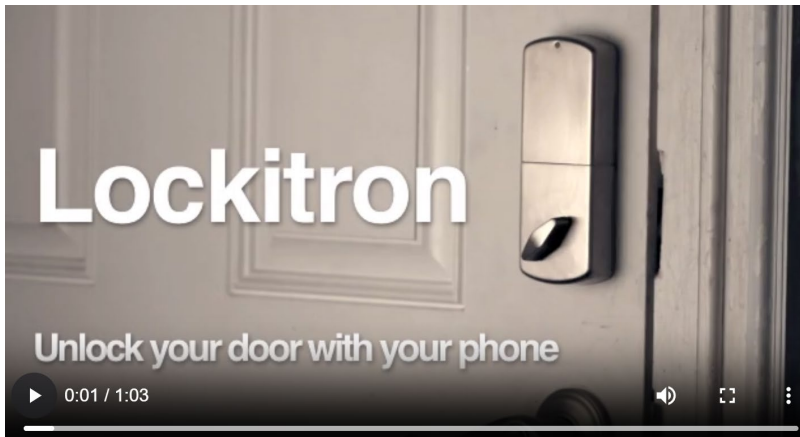
35. Plaintiffs seek and are entitled to a judgment declaring that the claims of the '239

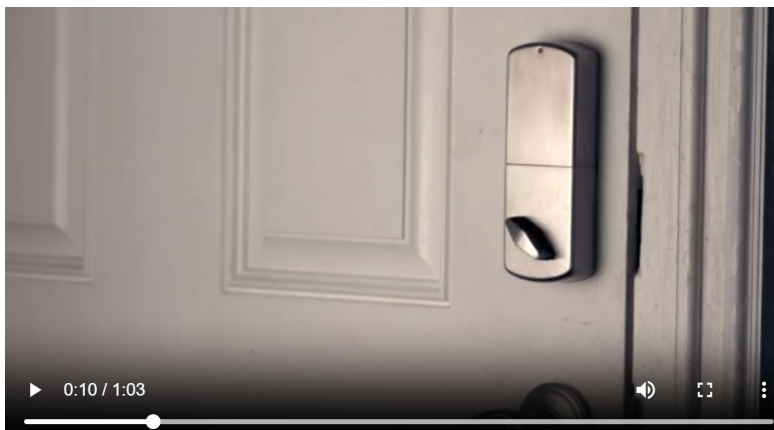
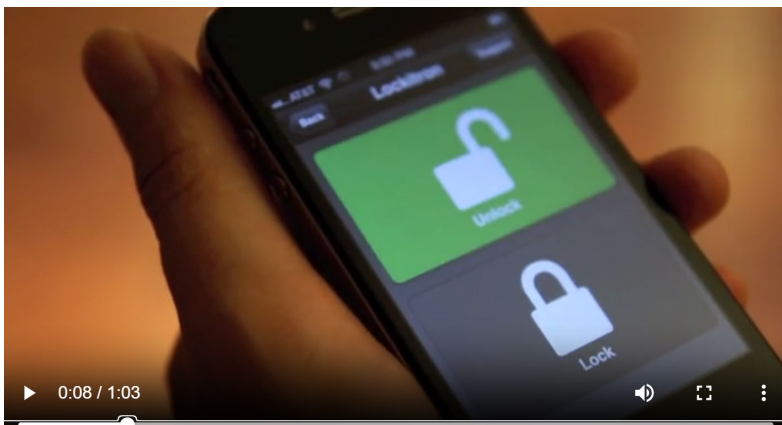
patent are invalid and/or unenforceable.

36. For example, a start-up company Apigy Inc. marketed its keyless smart lock systems under a Lockitron brand as early as 2011. On information and belief, the first Lockitron system was disclosed to the public as early as 2011. It comprises a lock body including a locking element such as deadbolt, and a moving mechanism configured to operate the locking element. The Lockitron system also allows electronic devices such as smartphones to lock and unlock the deadbolt. The Lockitron system also has a rotatable knob to mechanically operate the deadbolt.

37. Pine Locks has been on notice of the Lockitron prior art at least since it received a copy of the complaint filed in *Smonet Technology Co., Ltd. et al. v. Pine Locks*, 1:23-cv-00781-SBP (D. Colo.) in the District of Colorado on March 28, 2023. See **Exhibit B** (*Smonet v. Pine Locks* complaint) at ¶¶ 32-35.

38. For example, a publicly available video captured by the Internet Archive on August 5, 2011, demonstrates the Lockitron smart lock. See [https://web.archive.org/web/20110805041612/https://lockitron.com/video/lockitron\\_demo.mp4](https://web.archive.org/web/20110805041612/https://lockitron.com/video/lockitron_demo.mp4). With the prior art Lockitron smart lock, a door can be locked and unlocked remotely via a phone application that causes a user operable knob to rotate accordingly:





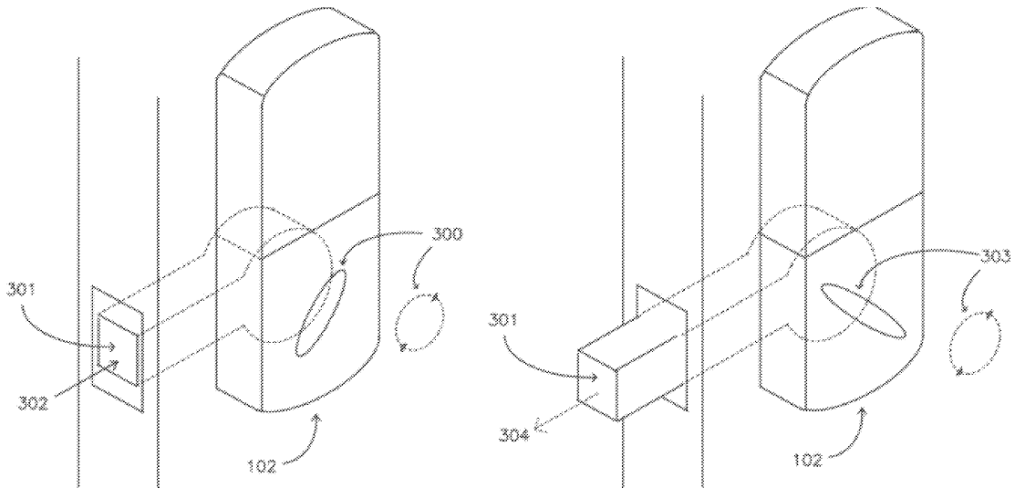
(screenshots from Internet Archive video).

39. Lockitron prior art was also published on Nov. 8, 2012, in U.S. Pub. No. 2012/0280789 (the “’789 publication”), entitled “Systems and Methods for Controlling a Locking Mechanism Using a Portable Electronic Device.” A copy of the ’789 publication is attached as **Exhibit C**.

40. The ’789 publication “relates to access control for security purposes, and more specifically to electronic access control mechanisms which can be locked or unlocked remotely using commands issued from a ... portable electronic device, or other computer devices[.]... Non-limiting examples of a computer device may include ... a smart phone [or] a mobile phone[.]” (’789 publication at ¶ [0003]. *See also id.* at [0007] (“The present disclosure relates to a network (e.g., Internet) accessible system and web service to communicate with remotely

operable locks.”)).

41. Figure 3 in the '789 publication illustrates a rotatable knob that can be remotely actuated to lock and unlock a deadbolt. See '789 publication at [0039] (“FIG. 3 depicts one type of door lock 102 in unlocked 302 and locked (304) positions. The thumbturn (300) is rotated clockwise or counterclockwise to drive a spindle which will insert or retract the bolt (301) from the door frame. The thumbturn can be actuated remotely [to] enable a motor which will drive a gearing system which rotates the spindle. This type of door lock is commercially available[.]”).




(’789 publication at Fig. 3.)

42. The deadbolt illustrated and described in the '789 publication (and the other Lockitron prior art) is materially the same as that used in the Accused Smart Locks:

**3 Installation**

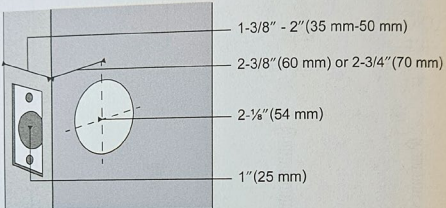
Please scan this QR code to watch the easy step by step installation video before attempting to install your Smart lock.



**3.1 Preparing Door**

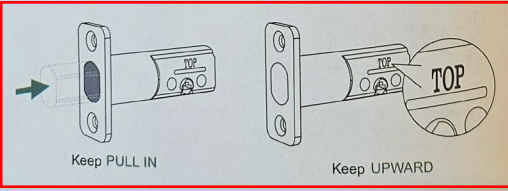
☞ Check the door's dimensions

- Measure to confirm that the door thickness is between 1-3/8" to 2" (35mm-50mm).
- Measure to confirm that the hole in the door is 2-1/4" (54mm).
- Measure to confirm that the door's backset is between 2-3/4" or 2-3/4" (60mm-70mm).
- Measure to confirm that the hole in the door edge is 1" (25mm).



**3.2 Installing Deadbolt and Strike & Strike Box**

1) Install the deadbolt on the door using screw A. Make sure the deadbolt always keep PULL IN and the letters (TOP) keep at the TOP.




04

(B0CGLQ4N2Y User Manual at 4 (showing standard deadbolt used with lock)).

**3 Installation**

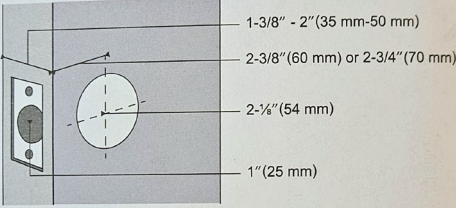
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**3.1 Preparing Door**

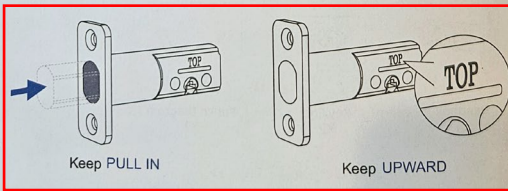
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**3.2 Installing Deadbolt and Strike & Strike Box**

1) Install the deadbolt on the door using screw A. Make sure the deadbolt always keep PULL IN and the letters (TOP) keep at the TOP.



04

(B0CGRRHXT6 User Manual at 4 (showing standard deadbolt used with lock)).

Such deadbolts have been described in the prior art for many years. For example:

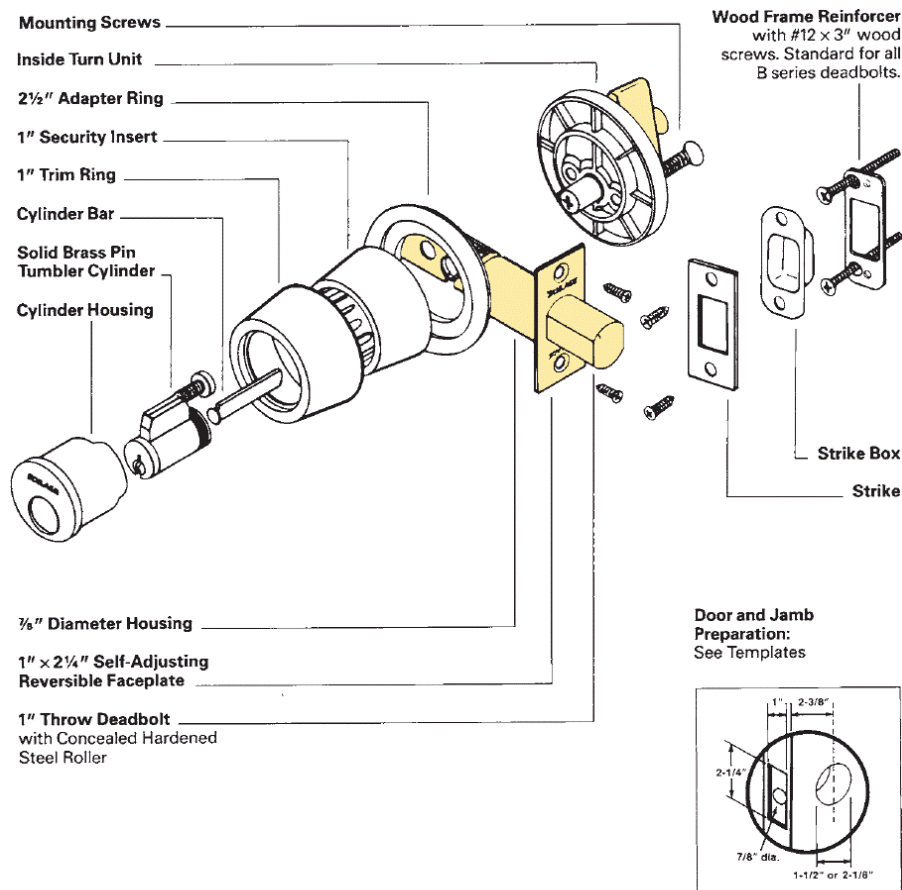


Figure 7.21 Schlage's B Series Deadbolt Lock. (Schlage Lock Company)

**Exhibit D** (BILL PHILLIPS, THE COMPLETE BOOK OF LOCKS AND LOCKSMITHING (6th ed. 2005)) at 118 (color added to standard deadbolt assembly and rotatable knob).

43. Therefore, Defendant's unreasonable and frivolous interpretation of at least the "user operable *slider*" and "thumb *slider*" limitations in independent claims 1 and 2, respectively, effectively accuse prior art of infringement, which necessarily invalidates the '239 patent.

44. This is an exceptional case under 35 U.S.C. § 285, entitling Plaintiffs to reimbursement of their attorneys' fees, costs, and expenses from Pine Locks.

**RELIEF REQUESTED**

WHEREFORE, Plaintiffs respectfully request the Court to enter judgment in its favor and against Defendant as follows:

- a. Ordering Defendant to withdraw Amazon Complaint ID 15120395161 and to make no further complaints of infringement to Amazon against Plaintiffs based on the '239 patent;
- b. An order enjoining Defendant and those in privity with Defendant from asserting the '239 patent against Plaintiffs and Plaintiffs' representatives, agents, affiliates, subsidiaries, vendors, and customers;
- c. Declaring that Plaintiffs have not and do not directly or indirectly infringe any valid and enforceable claim of the '239 patent, either literally or under the doctrine of equivalents;
- d. Declaring the '239 patent invalid and/or unenforceable;
- e. An order declaring that this is an exceptional case under 35 U.S.C. § 285 and awarding Plaintiffs their attorneys' fees, costs, and expenses incurred in this action;
- f. An award to Plaintiffs of their costs and disbursements; and
- g. Such other relief to which Plaintiffs are entitled under the law and any other further relief as the Court deems just and proper.

**DEMAND FOR JURY TRIAL**

Plaintiffs demand a trial by jury on all claims and issues so triable.

Dated: May 2, 2024

RIMON, P.C.

By: /s/ Zhun Lu  
Zhun Lu (#4427)  
200 Continental Drive, Suite 401  
Newark, DE 19713  
Telephone/Facsimile: (302) 688-7566  
zhun.lu@rimonlaw.com

OF COUNSEL

John E. Handy (*pro hac vice forthcoming*)  
1765 Greensboro Station Place Tower I, Suite 900  
McLean, VA 22102  
Telephone/Facsimile: (703) 559-7360  
john.handy@rimonlaw.com

*Attorneys for Plaintiffs Guangzhou  
Lightsource Electronics Limited;  
Guangzhou Zhuyun Trading Co., Ltd.; and  
Changting County Huimei Technology Co.,  
Ltd.*