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Home & Garden > Home Safety

The Best Door Lock

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Your guide Tim Heffernan



After more than 40 hours of reporting, considering scores of

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recommended.

g eight different locksmiths, security urers, we're confident the <u>Schlage</u> oolt is the best lock for most people's est certification available for s extremely difficult to lockpick, and simple to install, and widely

\$35 from Home Depot

*At the time of publishing, the price was \$38.

The Schlage B60N is essentially a residential version of a high-security deadbolt lock. It's rated Grade 1 by <u>ANSI/BHMA</u>,¹ meaning it has passed the same hammering, prying, sawing, picking, and kicking tests as the toughest high-security locks that Schlage produces. Experts told us it's extremely difficult to lockpick the B60N—which, honestly, is not much of a concern anyway, because a Grade 1 lock like this is secure enough that a determined thief would be more likely to bypass it and find another way into the home. We asked four locksmiths to choose between this Schlage model and a similarly qualified deadbolt lock from Kwikset. They unanimously voted for Schlage.

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*At the time of publishing, the price was \$17.

The strike plate is the metal opening where the deadbolt engages with the doorframe—and strikes are not all the same. The better kind is known as a reinforced strike, and installing one is a cost-effective security upgrade that experts consider nearly as important as the deadbolt lock itself. After considering about a dozen, we settled on the **Battalion Strike Plate**: It's affordable, simple, tough, and very similar to the robust strikes many high-security deadbolts come with. That's because, like them, it features an integral metal-lined bolt-hole, which adds strength against kicking and other forms of forced entry. It also mounts to the doorframe with four screws; many standard strike plates use only two.

One complaint: The screws it comes with are just 2 inches long, when 3 inches or even 4 inches is much better—you may want to find longer screws for a stronger attachment to the doorframe. If the Battalion isn't available, the <u>Prime-Line U 9539</u>, which we also looked at, is virtually identical.

If you're looking for a guide to deadbolts that can be controlled via app or smart-home integration, read <u>The Best Smart Lock</u>.

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Also great

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\$35* from Amazon

\$35 from Home Depot

*At the time of publishing, the price was \$38.

The research

\$13* from Amazon

*At the time of publishing, the price was 17.

Collapse all

Why you should trust us

Deadbolt locks are a home's first line of defense, which means recommending one is serious business. They also come in a huge range of quality, materials, design, and toughness. In addition to reading multiple professional and personal reviews to winnow the list to genuine contenders, I spoke with four locksmiths, a standards coordinator at the Builders Hardware Manufacturers Association (BHMA, a leading tester and certifier of deadbolts), as well as a world-renowned expert on lock design and security, and representatives of most of the major lock manufacturers.

The pro experts we interviewed are:

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eph Lock and Alarm in Jackson Heights,

<u>ksmith & Hardware</u>, in Astoria, Queens.

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Richard Reichert, owner of <u>Major Lock & Glass</u> in Ridgewood, Queer

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- Marc Weber Tobias, a lock and security expert who has consulted with the FBI and other law-enforcement agencies, as well as lock manufacturers including Kwikset. He is the co-principal of Security.org, which operates <u>The Sidebar</u> (aimed at law-enforcement and security professionals) and <u>In.Security</u> (aimed at locksmiths and consumers). Tobias also sits on UL's technical-standards panel for locks, safes, and alarms, which establishes guidelines for testing and certification.
- Marty Hoffman, vice president of marketing at Kwikset/Weiser, a major supplier of deadbolts for the residential market.
- Clyde Roberson, director of international sales and field services at Medeco, a subsidiary of high-security conglomerate Assa Abloy, which comprises four of the leading high-security lock companies: Medeco, Mul-T-Lock, Assa, and Abloy.

Schlage declined to speak with me.³

What sort of lock are we talking about?

Most external doors feature two types of lock: a lower one on a knob or handle, and an upper one generally identified by a thumbturn inside, and only a keyhole outside. The upper one's called a deadbolt. The deadbolt is

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x ome security, and it's the one we discuss in

the lock that really

counts for nome security.

Why you need a new door lock

If you've bought a home or rented a new apartment but haven't changed the lock(s), you should get a new deadbolt, or at least have a locksmith install a new cylinder—the part the key goes into and that locks and unlocks the door. If you rent your place, you should also change the lock, either with a new deadbolt or cylinder, if your lease allows you to. The chief concern is what's called key control. "Who knows how many neighbors have a key [to your existing lock]?" said locksmith Wayne Winton. "How many ex-boyfriends or ex-girlfriends have a key? They may be lying in the yard in a hide-a-key rock. Who knows?"

Besides these specific concerns, your locks may also simply be old, meaning worn out, outdated, or both. Lock technology—specifically resistance to lockpicking and other forms or stealth entry—has advanced significantly in the last decade.

But a secure door lock is not enough

If you take anything away from this guide, let it be this: Replacing your deadbolt lock does little to improve your home security if you leave other unknown bilities unaddressed. Say you get a new deadbolt. So what, if your

We'd like to learn about how you and your household consume The New York Times content and use digital devices... , if your door can be busted open with one t Tobias put it to me, "Security is not a layers and variables if it's done right."

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leave other vulnerabilities unaddressed.

A comprehensive security upgrade would involve installing things like Wirecutter's picks for a <u>home security system</u> and our picks for <u>wireless</u> <u>outdoor home security cameras</u>, as well as additional lighting, a stronger door and new windows, plus window gates, or at least better window locks. It would not be cheap.

There is, however, one very cheap, very easy, and very often ignored security upgrade that you can do yourself, even if you're not changing the deadbolt. Install a <u>reinforced strike</u>—that's the metal plate the deadbolt slides into, and it's what anchors the door to the doorframe. Everyone I spoke to for this guide—Tobias, the locksmiths, lock manufacturers—recommended this as a first step to enhanced home security.

How we picked this lock (!)

Before we spoke to a single expert, our research revealed that deadbolt locks come in a vast array of quality, cost, design, and availability. Some go for less than \$10 at a hardware store; others cost \$200 or more and are available only through certified locksmiths. The cheap ones may be opened with nothing more than a screwdriver; to open the expensive, high-security deadbolts. "vou have to destroy the door," said Corsini of

We'd like to learn about how you and your household consume The New York Times content and use digital devices... York City. (And you often have to have lly installed.) We set out to find a balance

Go lbolts that were widely available at hardware stores, could be installed by a homeowner, and met our

emergency, like a house fire, and for that reason are often outlawed in residences.

- <u>Grade 1</u> joint-certification to standard A156.2-2011 by the American National Standards Institute and the Builders Hardware Manufacturers Association (ANSI/BHMA). This is the top rating by the leading certifiers of locks. Certified products must pass tests against hammering, prying, and brute-force entry. They must be also be reliable for 250,000 lock-unlock cycles.
- Affordable pricing. You can get a fine deadbolt for under \$50. Beyond \$100 or so, you get into the realm of high-security deadbolts—and that's before cost of installation. Go too cheap, though, and you'll lose the Grade 1 certification we considered essential.

Most of our experts said your money is better spent on upgrades to window locks, lighting, and other broad security measures than on a high-security deadbolt.

These requirements allowed us to dismiss a huge number of generic, bigbox-brand deadbolts. If your deadbolt is branded Defiant, Gatehouse,

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it's likely rated Grade 3 (the lowest -or simply advertised as "tested to" Grade ess jargon that you can often assume If you take your home's security seriously, More on this in <u>The competition</u>, below.

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broad security measures than on a high-security deadbolt.

After research and reporting eliminated most other brands, we were left looking primarily at two manufacturers: Schlage and Kwikset (branded as Weiser in Canada). They're long-standing, dedicated, and respected lockmakers. Both offer ANSI/BHMA Grade 1-rated deadbolts—the highest level of certification against forced entry. They're widely available at Amazon and the big-box hardware stores. And almost any DIYer can install them in a few minutes.

I specifically asked the locksmiths I spoke with and security expert Marc Weber Tobias about two hot-button issues in lock security: <u>lockpicking</u> <u>and a technique called lock-bumping</u>, in which a specialized key is inserted into a lock cylinder and tapped with a hammer or other tool to make the lock mechanism jump into the "open" position. All said that these techniques are not a significant concern for homeowners and apartment dwellers. Most tellingly, Tobias, who has done more than anyone alive to highlight these methods as security risks for government, industry, and law enforcement, said bluntly of homeowners' concerns: "Here's the thing: burglars are not picking locks. Burglars aren't dealing with that."

We didn't test our candidates in the traditional side-by-side product comparison we typically do for other guides: Given that they were all

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standards, we didn't expect to uncover es. Rather, we relied on the real-world ple who address homeowners' security differentiation.

The Best Door Lock | Reviews by Wirecutter

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The <u>Schlage B60N</u> is our pick as the best deadbolt for most people. This single-cylinder lock is affordable, widely available, and far more difficult to <u>lockpick or bump</u> than many others in its price range. It's passed enough physical tests to earn a Grade 1 rating by <u>ANSI/BHMA</u> (the highest rating possible), which means it's essentially a residential version of Schlage's true high-security deadbolts, which are meant for

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ildings. Installing the B60N is f finishes (<u>satin nickel</u>, <u>aged bronze</u>, <u>oil-</u> <u>ique pewter</u>, <u>bright chrome</u>, <u>satin chrome</u>, ch your current hardware. While reporting niths to make a choice between Schlage

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Mike Tierney, standards coordinator for BHMA, at length, and this <u>summary PDF</u> may be of interest.) A steel sleeve protects the bolt against sawing, prying, and ice-pick attacks, and its sloped, sealed external housing means thieves can't easily grab and twist it with pliers to break the lock mechanism. (Most Grade 1 deadbolts, including the B60N's main competitor, the Kwikset 980, also feature these protections.)

This lock has been repeatedly sledgehammered, Sawzalled, and crowbarred—and stayed locked.

When it comes to resisting stealth entry, the B60N features a five-pin tumbler that's mounted with spool pins. Spool pins (they're shaped like their name suggests) are much harder to pick and bump than standard cylindrical pins, which are used in many older and/or cheaper designs like the "tested to Grade 3" locks we eliminated from consideration. That's because spool pins have sharp edges, and as locksmith Wayne Winton explains, "When you bump it, you make the pins jump up, but they catch on those sharp edges. That also makes it more difficult to pick, because you get a false set [a false indication that the pins are in the right place to unlock the deadbolt]." Simply put, the B60N is hard to bump or pick; Winton, a highly accomplished lockpicker, considers Schlage tumblers "kind of nastv" to overcome.

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petitor, the Kwikset 980, is inherently kable, due to its different design: it has s opposed to the Schlage's <u>pin-tumbler</u> hs, point-blank: If they were limited to

Kwikset or Schlage-the non-high-security models available to everyda

Wayne Winton, Tri-County Locksmith Service: "I prefer Schlage highly over Kwikset."

In short: Schlage has the confidence of every professional we spoke with. And faced with the B60N, most thieves would look for other points of entry—like your windows—or, more likely, simply move on to a more vulnerable home.

Flaws but not dealbreakers

We'd gladly point out any flaws in the Schlage B60N, but this product is generally excellent. One complaint is that it comes with a very basic strike —a pierced metal plate that leaves the bolt-hole lined with unreinforced wood. To Schlage's credit, the strike is made of thick metal and is anchored by a pair of seriously robust 3-inch screws, but we prefer reinforced strikes that line the bolt-hole with metal, like the one that comes with the Schlage 600, 700, and 800 series (see <u>The competition</u>, below); and we prefer three or more screws, too. To that end, we also have a pick for a reinforced strike you can pair with this lock.

The B60N's strike is made of thick metal and anchored by two robust screws, but our experts still recommend installing a reinforced strike.

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defense against breaches of "key control": • more importantly who could have, your s hold of a B60N's keys can have a copy locksmith. But we're not convinced that's a First, simply by replacing your deadbolt

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A good reinforced strike: Battalion Strike Plate

The Battalion Strike Plate features a strong metal-lined bolt-hole and is attached by four screws. (The flat piece in the foreground is a largely decorative cover; most locks and strikes come with them.)

Also great	
	Battalion Strike Plate
	A \$20 security upgrade
	Everyone we spoke to—locksmiths, security experts, lockmakers—said a reinforced strike is the most cost- effective security upgrade, and the Battalion is a winner.
	\$13* from Amazon
	*At the time of publishing, the price was \$17.

A reinforced strike is a cost-effective security upgrade that experts

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the deadbolt itself. That's because the tion between the deadbolt, which is orframe—securing the door to the wall of put it bluntly: "If a door gets opened, it's y on this first: Make the connection to the

mounts to the doorframe with four screws—two through the face (like any strike would have) and then two more through the bottom of the bolt-hole pocket.

One complaint: The screws the Battalion comes with are just 2 inches long, but longer screws mean a stronger attachment to the doorframe. Again, you're better off with 3 inches or even 4 inches (in #8-size wood screws). You can pick these up for about 50¢ apiece at any hardware store, and we recommend doing so.

If the Battalion isn't available, the <u>Prime-Line U 9539</u>, which we also looked at, is identical. Installing either of them involves little more than a drill, a screwdriver, and perhaps a hammer and chisel, to make room for the strike plate by clearing out a bit of wood on the door jamb. That last task may sound difficult, but it's manageable. If you need a lesson, here's <u>how it's done</u>.

You'll want to use 3-inch screws like those that (from bottom up) come with our main pick and high-security deadbolt recommendation; the 2-inch screws (top) that come with the Battalion Strike Plate aren't long enough to fully anchor to the doorframe.

The competition: Kwikset 980 and the rest

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ry measure of comparison for the Schlage 1-rated deadbolt priced for residential use, etitor to the Schlage B60N. Because the <u>umbler</u>, versus the Schlage's <u>pin tumbler</u>,

it's inherently bump-proof and exceedingly pick-resistant. But we don't

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you can do this all from the outside—and you can back those screws up, pull the lock off the door, gain entry, and put it all back together and nobody would ever know. I can do do that in about 5 minutes."

Another of the 980's main selling points is Kwikset's unique SmartKey system, which allows homeowners to rekey the cylinder themselves in a few minutes. That theoretically adds a layer of security: If your keys are lost or stolen, you can generate a new, different key yourself, rather than buying a whole new deadbolt with a different key. (Watch a video of the process.) But after its introduction in 2007, SmartKey came under widespread criticism for being vulnerable to physical attack due to its design; in the most infamous demonstration, Vancouver locksmith Terry Whin-Yates opens one in seconds. I asked Kwikset's vice president of marketing, Trevor Hoffman, about this, and though he declined to go into specifics, he said the problem has been fixed. (The change is a reshaping of the sidebar that keeps it from being twisted out of its groove by force, as Kwikset demonstrated to security journalists last year.) Hoffman also acknowledged that the rekeying capability isn't terribly important to Kwikset owners: "We've been doing a lot of consumer research on this. Quite honestly, some people don't think about it or they're not aware of it. A lock purchase happens about once every seven years, so it's not top-ofmind for everyone."

All this said, the revamped SmartKey deadbolts are considered excellent

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s. The Kwikset 980 <u>topped Consumer</u> lired), for example—although the Schlage ed. Finally, to reiterate: The 980 is rated ing it's got the top certification against

recommend the Kwikset Kevo above all others. That's because it offers a great balance of robust security, low cost, and usability—not least, an easy wireless interface with iOS and Android that makes it simple to give guests or renters temporary access to a property, while many competitors require special software.

Both Schlage's and Kwikset's deadbolts offer excellent protection against physical and stealth attacks. In the case of smart locks, Kwikset's ease of operation sets it apart. In the case of traditional deadbolts, where pure performance is the metric, Schlage gets the edge, based on our locksmiths' universal recommendations.

Beyond that strong Kwikset candidate, you're left with the dozens of nonsmart-lock items you'll find on the first few pages of a "deadbolt" search on Amazon, Home Depot, or Lowe's:

We dismissed Kwikset's lower-priced deadbolts in the <u>700</u> (SmartKey) and <u>600</u> (pin tumbler) series; they are rated to ANSI/BHMA Grade 2 and 3 respectively, much less stringent certifications.

Locks by Baldwin and Falcon also got "Recommended" ratings <u>from</u> <u>Consumer Reports</u>, but are more difficult to find; we think you're best served sticking with a major brand, if only to make purchasing and servicing them easier.

We'd like to learn about how you and your household consume The New York Times content and use digital devices... eadbolts sold at big-box stores under ouse, Faultless, Weslock, and Delaney. often advertised as "exceeding ANSI ; a mealy-mouthed way of saying they

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Locksmith Winton favorably mentioned the security strike made by <u>Door</u> <u>Jamb Armor.</u> It's certainly as reinforced as you could wish, as it's several feet long and attaches to the doorframe with nine screws. But installing it is more work than most people would consider reasonable.

What about high-security locks?

We did not make a high-security deadbolt pick, because they a) are all universally excellent; b) generally have to be purchased at a dedicated locksmith shop, and often have to be professionally installed; and c) are more than most homeowners need. The major brands are <u>Abloy</u>, <u>Assa</u>, <u>Medeco</u>, <u>Mul-T-Lock</u> (all fall under one corporate roof, Assa Abloy, but their designs are unique), and Schlage's high-security lines—<u>the 600, 700</u>, <u>and 800 series</u>.

Based on our research, we're confident that all will provide exceptional security, but our experts' input leads us to slightly favor Schlage. The 600 series uses a standard key, but features an additional spool pin in the cylinder—six, versus the B60N's five—making it that much harder to pick. And the 600-, 700-, and 800-series deadbolts are more heavily built than the B60N, and come with a metal-lined strike. The 700 and 800 series models employ Schlage's Primus key system, which adds a second set of

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ing virtually impossible for all but true adds key control: Only the lock owner can litional keys.

Go Most of our experts said that for nonneowners, it's wiser to buy a good, affordable Grade 1 deadbolt like t

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ago caught the public imagination. And picking is a possibility among burglars—though not a likely one—so lockmakers have taken steps to make their locks very hard to pick.

In the case of pin-tumbler locks—like our pick—lockmakers often replace the traditional cylindrical pins with spool-shaped pins or other variants. The end goal is the same: to make it hard for a lockpicker to accurately feel what is happening inside the tumbler as they work. That makes it less likely they'll succeed in opening the lock. As you move up into the highsecurity lock realm, lockmakers today also often add a second set of pins, operated by a second set of teeth or a sidebar on the key, that also have to be correctly set before the lock will open. This pushes their pickability into the realm of near impossibility for all but the most skilled expert.

In the past decade or so, a second form of stealth entry has caught the public imagination: lock bumping. It involves using a bump key, aka a "9999 key" (because all its teeth are 9s, the highest tooth-set) to make the pins of a pin-tumbler lock jump upward, via the tap of a hammer or other basic tool. At the same time, the would-be thief twists the bump key in the lock. Done right, all the pins can be caught the moment they align in the "open" position, and the lock springs open. You can find all manner of <u>YouTube videos</u> showing people bumping locks. Newspapers and shows have covered the technique often and breathlessly. But is it a serious threat? Here's Winton:

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se they want to report about it. It's like a magic es it work? Yes. Is it easy? No. Not even close. ou: I have never, ever used a bump key to help eir home. I've tested the theory, and I've tried ut the new cylinders, like the Kwikset Smartke

How to replace a deadbolt lock

To replace a deadbolt, you'll need at least a medium Phillips screwdriver. You may need a chisel ($\frac{1}{2}$ -inch or so) and a hammer, to enlarge the slot for the strike. You may also need a drill and a 1-inch spade bit, to enlarge the bolt-hole. A drill with a screwdriver bit will also make the installation of a reinforced strike easier—driving multiple 3-inch screws by hand is a chore.

There's no better way to learn how to do a job like this than to simply watch someone else work. Tom Silva and Kevin O'Connor from *This Old House* show the whole process in <u>this video</u>, though they're working on a new door. If your door already has a deadbolt installed that you're replacing, you'll start at 1:25 in the video, when the spade bit comes out. (You won't need to create the original through-door hole, which *TOH* demonstrates in the first 90 seconds).

Footnotes

1. ANSI is the American National Standards Institute, a leading certifier of home, construction, and chemical wares akin to UL and NSF. BHMA is the Builders Hardware Manufacturers Association, a certifier that specializes

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 \mathbf{x} it certification is the standard for lock

of Reichert because he lives in a Queens, help manage. He has serviced many

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Further reading



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The Best Smart Garage Door Opener Controller



Alexa Smart-Home Starter Kit

The Best Locking Pliers

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