Date: 01/01/2017

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www.PhysicalHomeDefense.com

PHYSICAL HOME DEFENSE™

TM

Door Guard TM

Certified installer's workbook.

Contents

Introduction

Comments Ms. Terry Happer-Scheier
TM
Public Safety Committee Meeting
City of Overland Park, KS (a suburb of Kansas City)

August 9, 2006

In the summer of 1996, four women were sexually assaulted in their Overland Park homes. This series of crimes resulted in the police department conducting hundreds of residential security surveys. During the surveys, the Crime Prevention Unit continually encountered insecure door types. The officers were faced with a dilemma on how tell homeowners the best method to properly secure this type of door assembly.

To help find a solution to this door problem a request was made to the Kansas City Homebuilders Association to determine if anyone would be willing to help the police department resolve the problem. Two individuals, Mr. Dave Allen and Mr. Ron Olberding stepped forward to express an interest.

Dave Allen and Ron Olberding had been homebuilders for many years but were not familiar with how to properly secure a door assembly. So they decided to experiment. They constructed a wall section in a shop located at 12960 Quivira so they could test their ideas. Allen and Olberding purchased numerous door assemblies, installed them into the wall section they had constructed, and invited the OPPD officers to witness various types of force attacks. Over the course of several years, they have tested numerous doors, locks, windows, and hardware. The work accomplished by Dave and Ron led the Crime Prevention Unit to evaluate many other aspects of residential security. Their effort caused the police department to make some dramatic changes to their residential security recommendations. In 1998, the police department worked toward changing the City's building codes to incorporate improved security measures into new home construction. Since that time, Shawnee, Lenexa, and Olathe have adopted the residential security ordinance that was drafted and adopted by Overland Park.

Ron and Dave have assisted the police department in numerous training sessions inviting officers to their "barn" to test and witness attacks on various doors, to see how security hardware is installed and be given an opportunity to receive "hands on training."

In 2001 and in 2005, Ron and Dave traveled at their own expense to Washington, DC to assist Officer Mike Betten while he made presentations at the National Crime Prevention Conference. Their portable display allowed participants at this conference the opportunity to "kick test" doors. This provided valuable "hands on" experience to conference attendees. These sessions with Officer Betten have continually been ranked high among the conferences "best" features.

Recently, Ron and Dave participated in the City's Building Safety Week setting up their display so residents could see and feel the difference a secure door makes to their homes.
The work, effort, and cooperation by Dave Allen and Ron Olberding is an excellent example of the community policing philosophy at its best. As a result, the Overland Park Police Department's residential security program is second to none!

Please join me in showing our appreciation to Mr. Dave Allen and Mr. Ron Olberding.

Plaque Presentation

Chapter 1

Securing doors is a three-step process.
Testing we have done.

As you read in the introduction, we have literally tested hundreds of door units and hardware to see what works and what doesn't work. At the University of Kentucky, where crime prevention officers receive their training, they teach a variety of different security methods to physically secure the home. The only problem is, none of these methods have ever been tested in a lab or in real life applications. Some of their recommendations are to run 3 inch screws through the strike plate into the wall framing. There are a few problems with this method.

1. We have tested it and it does not hold up. Typically it only takes one or two kicks and the jamb splits right out. The main reason why is because when you install your long screws they typically only catch the inside edge of the wall framing and a lot of time only go into the drywall. Remember, your door frame sticks in a ½ inch past your wall framing to allow for a ½ inch of drywall. The standard thickness of a door is 1 ¾ of an inch. Half the thickness of your door is 7/8 of an inch, so if you use a standard 2 hole strike plate, the 2 three inch screws are only catching 3/8 of an inch of the inside edge of your wall framing (7/8 - ½ = 3/8). You might think a four hole strike plate would be better, but only two of the four screws are going to hit your wall framing. The other two will just screw into your drywall.

2. You cannot use 3 inch screws on a sidelited door unit.

3. In most homes nowadays doors are installed with no shimming either behind the hinges or behind the strike plates. The only thing 3 inch screws accomplish is to pull the jamb farther away from the door. This in turn produces a larger gap between the door and frame which allows the deadbolt plenty of room to either slide out of the strike plate or split the frame out.

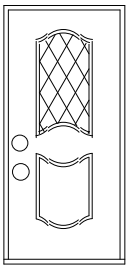
What we have found to be true in all the testing we have done is that securing your door is a three step process.

1. Secure the frame
2. Install a quality grade 2 dead bolt or better.
3. Protect the edge of the door with an escutcheon plate or U – shaped door edge protector. We are currently developing an L – shaped escutcheon plate. This will secure the door but won't interfere with the weather stripping.

In the following chapters you will see how our products are installed and why they are so effective. If you would like to see some of the testing we have done, go to our website and watch some of our testing videos.
www.PhysicalHomeDefense.com

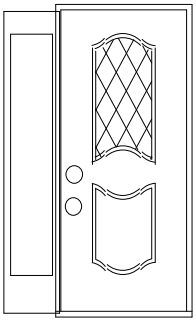
Chapter 2

Identifying different types of doors



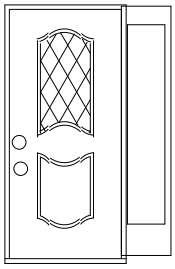
Single door unit

Requires 2 Door Guard model SD68 single door unit.
One for the strike side and one for the hinge side.
And one 6 hole strike plate.



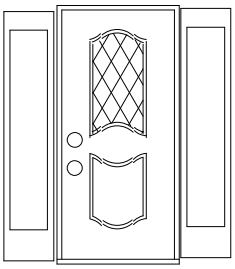
Single sidelite door unit with sidelite on the strike side.

Requires a Door Guard model RTO1250 or a RTO750,
An SD68 Door Guard for the hinge side and an L-shaped strike.



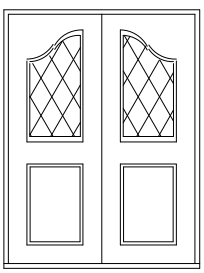
Single sidelite unit with sidelite on the hinge side.

Requires an RTO1250 or 750 and an SD68 with a 6 hole strike



Double sidelite unit.

Requires two – RTO1250 or 750's and an L-shaped strike plate



Double door unit.

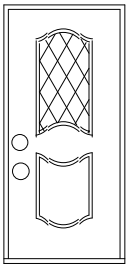
Requires an SD68 and four surface mounted throw bolts.

All units above require an L-shaped escutcheon plates to match the door hardware color.

Chapter 3

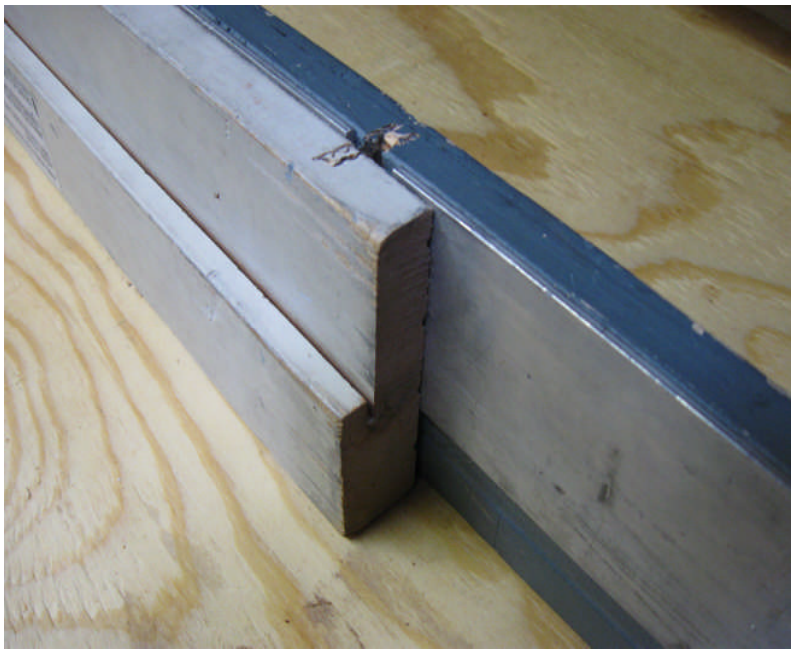
Identifying which Door Guard ® product to use.

A single door unit is simple, you use an SD68 and that is it. It is used for either new construction or retrofit applications.



We have three different products for a sidelited door unit.

1. An SL68, which is for new construction, will only be discussed briefly in this manual. It is sold to millwork companies and is built into the door unit and sent out already installed.



2. An RTO1250. The 1250 stands for the decimal equivalent of the 1 ¼ or 1.250 inch wide plate and is used on a 1 ½ inch wide mull post.

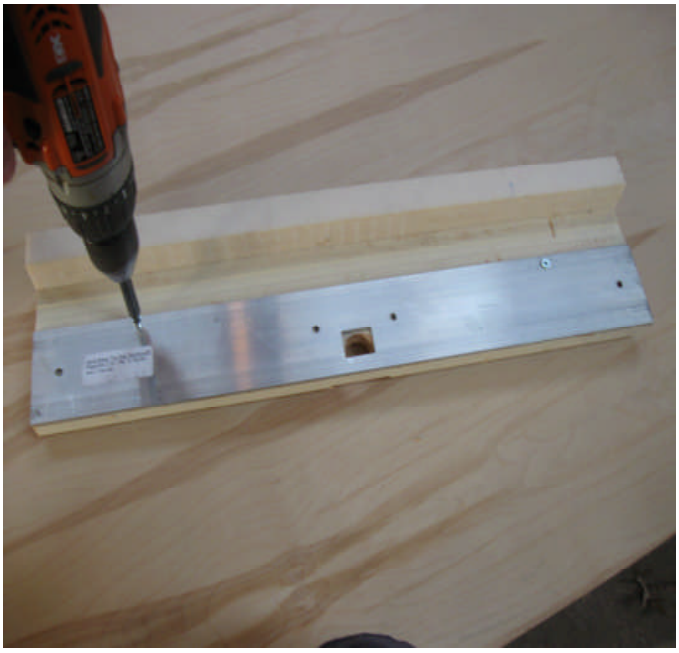
3. An RTO750. The 750 is the decimal equivalent of the 5/8 inch wide plate or .750 and is used on a one inch wide mull post.

Chapter 4

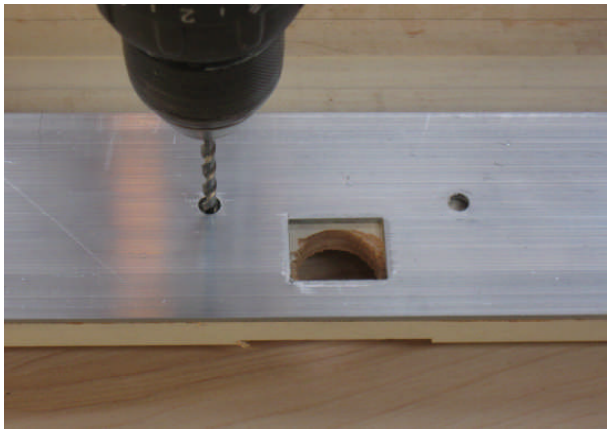
Installation of an SD68 Door Guard on a single door unit.

If retro-fitting an existing door then ignore the two off setting holes.

If installing a whole new door unit, just line up the dead bolt hole in the Door Guard with the dead bolt hole in the door frame. Hold Door Guard even with the inside edge of the door frame and attach Door Guard with 1 inch screws (not provided) through the 2 off setting holes.



Using the other four remaining holes in the Door Guard as a template, drill an 11/64 inch pilot hole through the frame and then install the door.

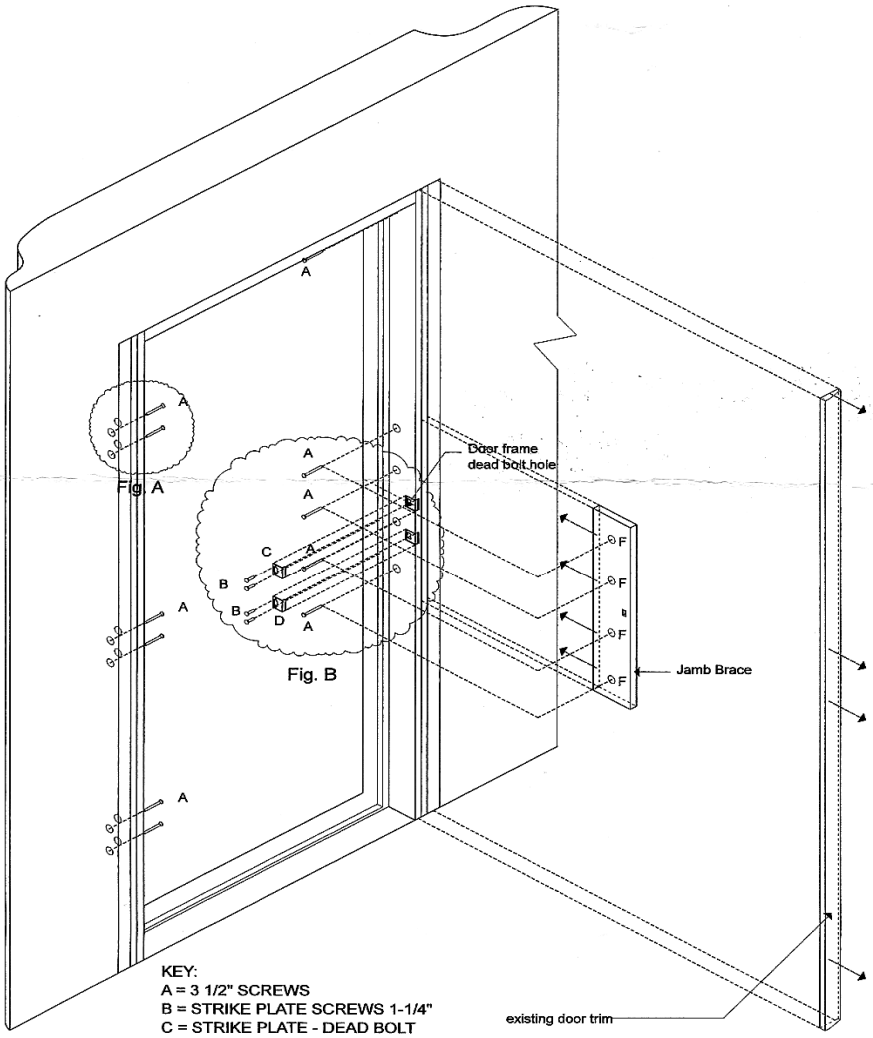


2. Retro-fitting and existing door.

Jamb Brace ®
The Door Reinforcer

SD-68

NOTE: If retro-fit ignore counter sink holes 'E'. If installing whole new door unit attach JAMB BRACE prior to installing door unit, using holes 'E' and 1" screws (not provided)
Line up dead bolt hole in jamb brace with dead bolt hole in door frame.
Hold 'JB' even with inside edge of door frame and attach using 1" flat head screws. Then using 4 holes 'F' as template drill 1/8" pilot holes through frame prior to installing door unit.
We recomend the installation of a wrap-around 'Escheon Plate' on door after installation.



KEY:
A = 3 1/2" SCREWS
B = STRIKE PLATE SCREWS 1-1/4"
C = STRIKE PLATE - DEAD BOLT
D = DOOR LATCH
E = COUNTER SUNK HOLES
F = 1/4" PRE-DRILLED HOLES

* (MUST USE ONLY 11/64" DRILL BIT)

TOOLS REQUIRED
1) electric drill
2) 1/8" + 11/64" drill bit
3) chisel
4) utility knife
5) hammer

STEP 1.
Remove door trim from dead bolt side. Recommend you remove hinge side trim also to allow for shimming. Remove weather stripping if needed.

STEP 2.
Remove Debris/ nails and shims from 1/2" space on both sides of frame

STEP 3.
Recommend that you shim behind all hinges and secure with (2) 3 1/2" screws (not provided) in each hinge. This would be a good time to adjust the door to insure proper functioning.

STEP 4.
Install new grade 2 deadbolt (Recommended). Attach U-shaped door edge protector. (Escheon plate) on dead bolt. (Required)

STEP 5.
Using the enclosed template pre-drill 4 holes in door drame for 3 1/2" screws (enclosed) using an 11/64" drill bit.

STEP 6.
Slide 'JB' into cavity between door frame and wall framing. Run 3 1/2" screw into the top predrilled hole so that it extends through the top hole of the 'JB' to hang in place.

STEP 7.
Shim between 'JB' and wall framing so that the 'JB' is tight to the backside of the door frame. Do this for all 3 holes. You need to shim the door frame over as close as you can to the door, but make sure it doesn't interfer with the doors operation. Run 3 1/2" screws through the 3 pre-dilled holes. Finally remove the top screw shim and re-attach with 3 1/2" screw.

STEP 8.
Use the 6 hole strike plate (enclosed) for your deadbolt strike plate. Using the strike plate as a template drill a 11/64 inch hole for all 4 counter sunk holes. Repeat this process for your 2 hole door latch strike plate (use your existing strike plate). Finally attach both strike plates with 1 1/4" Thread cutting screws (provided).THIS MUST BE DONE!

STEP 9.
Re-apply both weather stripping and trim. Attach owner-furnished 2-hole strike plate over 6-hole dead bolt strike plate

'JB' = Jamb Brace

PATENTS NO. 5,241,790
PATENTS NO. 6,185,881
PATENTS NO. 7,134,246

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The Door Reinforcer

SD-68

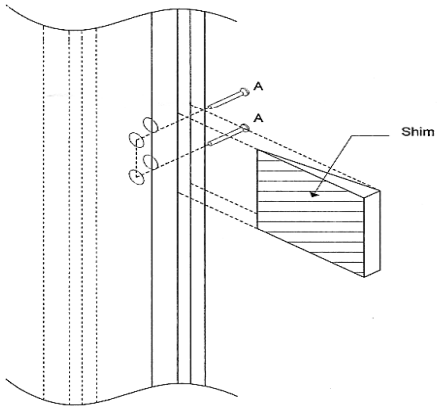


FIG. A
(HINGE LOCATION)

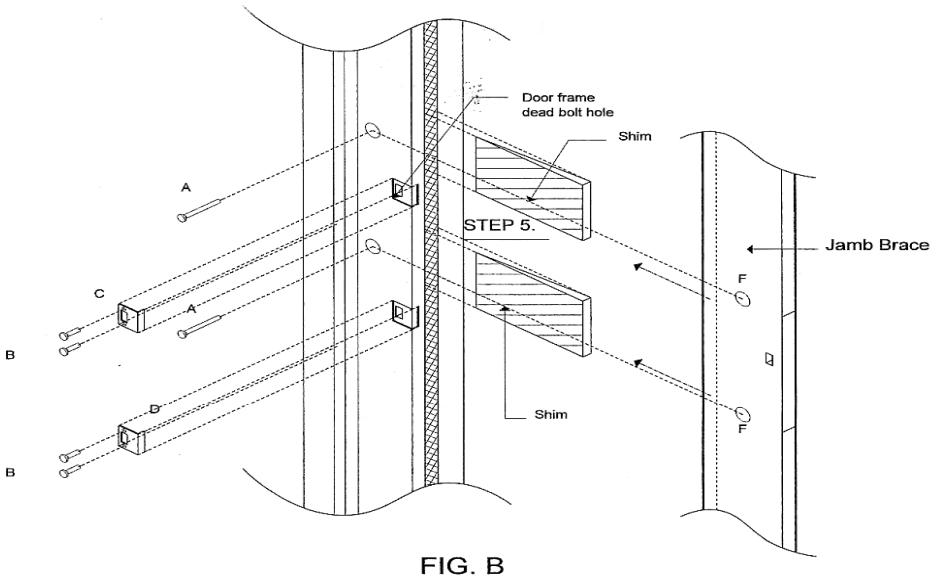
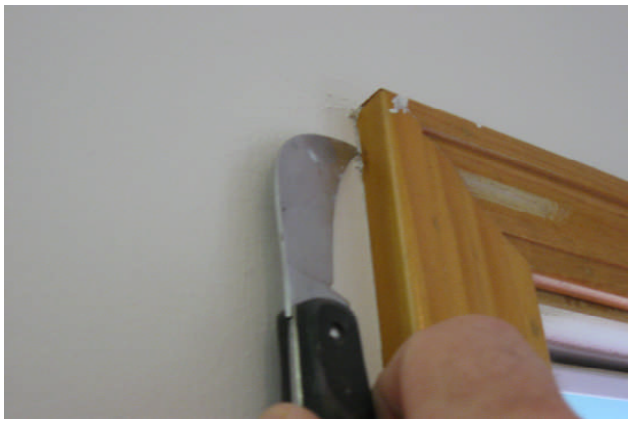


FIG. B
DEAD BOLT

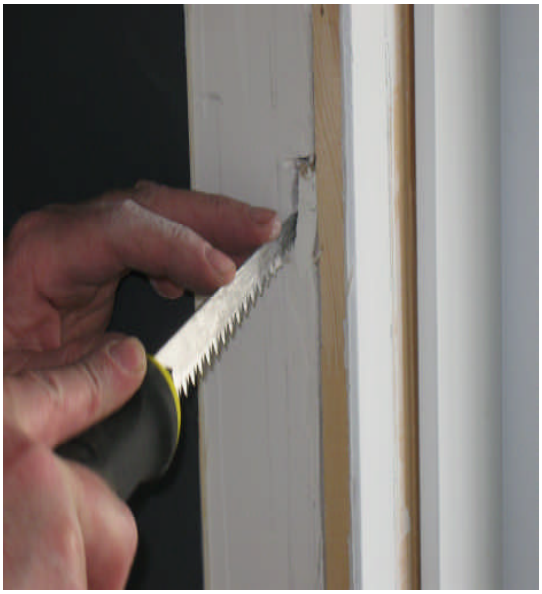
PATENTS NO. 5,241,790
PATENTS NO. 6,185,881
PATENTS NO. 7,134,246

www.JambBrace.com

Using a utility knife or hook knife cut the caulked in joints for the trim all the way around the trim.



Carefully remove the trim so as not to break it. It's usually best to start at the bottom and work your way to the top. Sometimes the top corner of the trim will be nailed together and will need to be carefully separated.



A lot of times when the drywall is installed, it is cut tight to the door frame and therefore it is necessary to cut it back to the stud to allow for the insertion of the Door Guard and the shims. It is important to cut it all the way back to the stud to allow for proper shimming.

If strike plates are installed that wrap around the door frame it will be necessary to remove them prior to installing the Door Guard. Sometimes there might be a cheap reinforcing plate similar to the Door Guard installed. It will need to be removed before the Door Guard can be installed. Usually these plates are just stapled in place and are fairly easy to remove.

Remove existing door hardware and install new hardware. This is important to ensure proper spacing when shimming the door later.

Addressing hinge side on a single door unit without removing trim

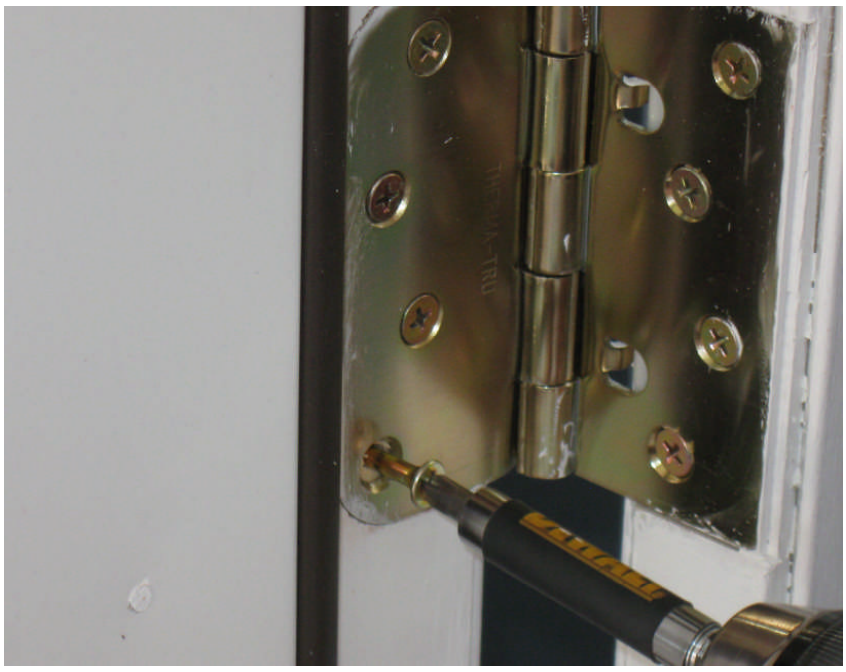
For the bottom 2 hinges

Starting with the bottom hinge, remove all 4 screws from door frame and pull the hinge plate back.

Drill 2 countersink holes between the existing holes and towards the outside of the frame.

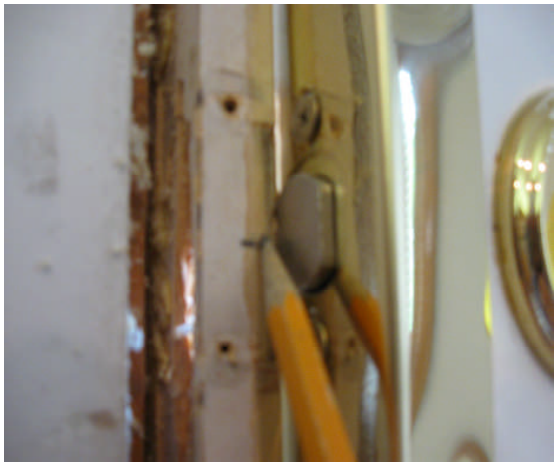
Install 2 – 3 ½ inch screws through the 2 countersink holes stopping them so they are flush with the door frame.

Lay the hinge plate back against the frame and run 2 – 3 ½ inch screws through the 2 holes towards the outside of the frame. Do the same for the middle hinge. It is best to drill an 11/64 inch pilot hole first and then install the 3 ½ inch screws.



Having the 2 screws located behind the hinge plate prevents the door frame from spreading during a prying attack.

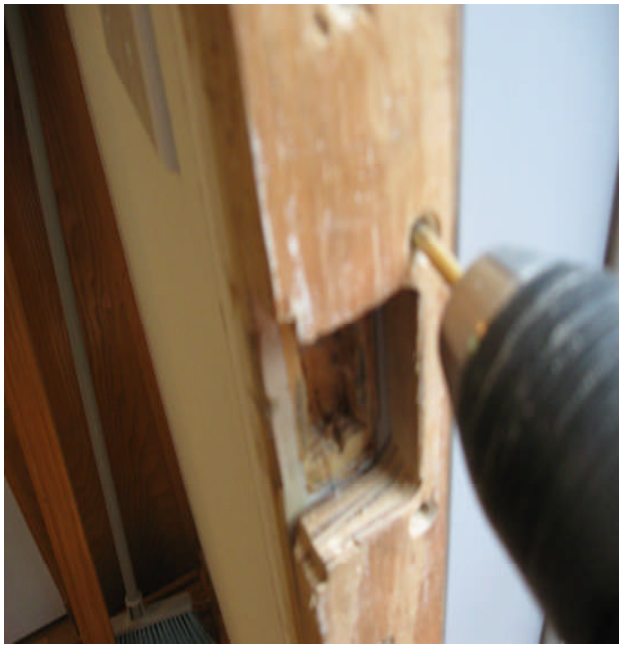
On the top hinge, run at least one 3 ½ inch screw through a hole towards the outside of the frame. This keeps the door from sagging. Not too many people can kick this high, so it isn't necessary to run the screws behind the plate.



Next remove the existing strike plates for both the dead bolt and door knob.

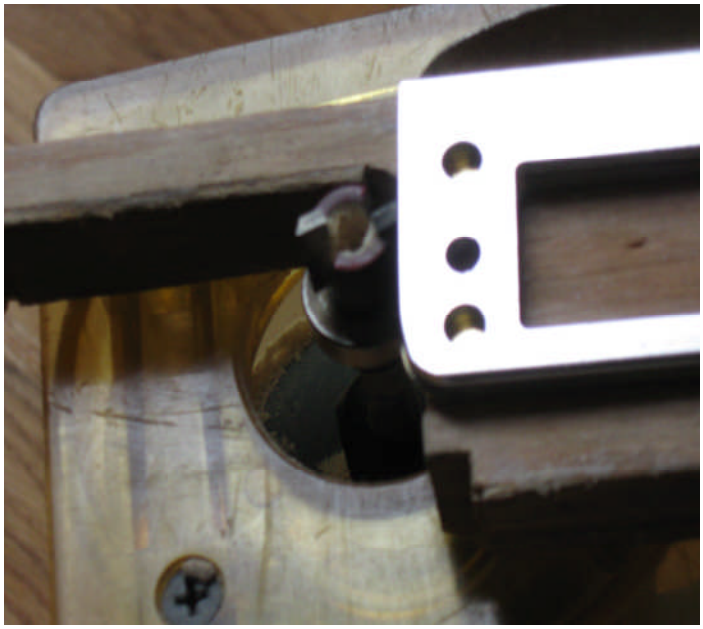
It is also helpful to remove the weather stripping before using the router template.

With the door in the almost closed position, mark the center of the dead bolt on the inside edge of the door frame. This will allow for the proper positioning of the template.



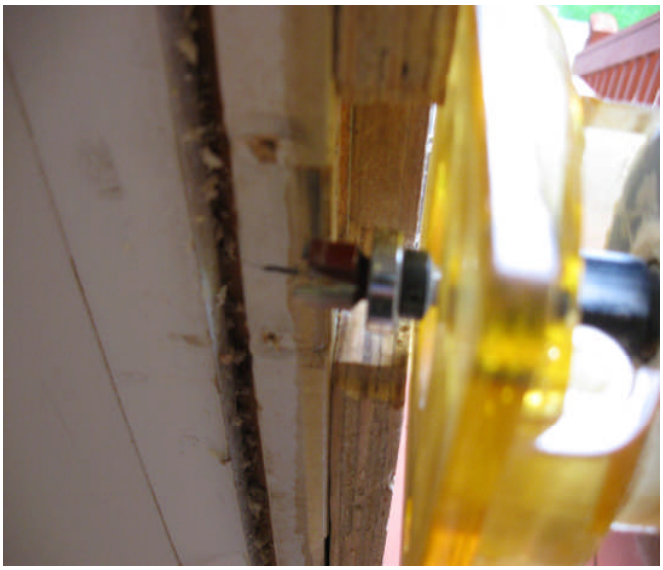
Now that the hinges have been secured and the new hardware has been installed, it is now time to install the Door Guard. You must first use either the paper template or the router template (both are supplied by EWI) and drill an 11/64 inch pilot hole for each of the 4 required locations for the 4 – 3 ½ inch screws. Be sure to center the template on the center mark for the dead bolt.

If using the router template then remove the template once the pilot holes have been drilled and drill all 4 holes to the full depth of the drill bit.



Before re-attaching the template to the door frame you must first check to see if you router is set to the right depth. It should be the depth of the 6 hole strike and the decorative cover strike.

Next re-attach the router template to the frame with 2 – 3 ½ inch screws through the predrilled holes that are the closest to the deadbolt. This will hold the template in place while you router out for the strike plate.



Use a router to router out for both the 6 hole strike and the decorative strike plate.

Run a 3 ½ inch screw through the top hole of the Door Guard. This will allow it to hang in place while shimming the lower 3 holes.

Shim behind the lower 3 holes.

When shimming the Door Guard in place be sure to keep the gap between the door and frame as close as possible but be sure to leave enough room to allow for proper operation, about 1/8 of an inch. This is why it is important to have the new hardware installed along with the escutcheon plate. An 1/8 inch gap is normally sufficient to allow for any later expansion due to humidity.

Once the lower three holes are shimmed and secured with 3 ½ inch screws, remove the top screw, shim and reinstall the top screw.

Using a utility knife, score each shim and snap it off so it’s flush with the jamb.

Rei
nstall
weather
stripping.

Temporarily attach the 6 hole strike plate for the dead bolt and the 2 hole strike for the knob with the ¾ inch screws that came with the door hardware.

Close the door and throw the dead bolt. If the dead bolt throws freely then the strike plates are properly aligned. If the dead bolt hits the strike plate when you throw it, then they are not properly aligned and you will have to move one or both of the strikes and recheck.

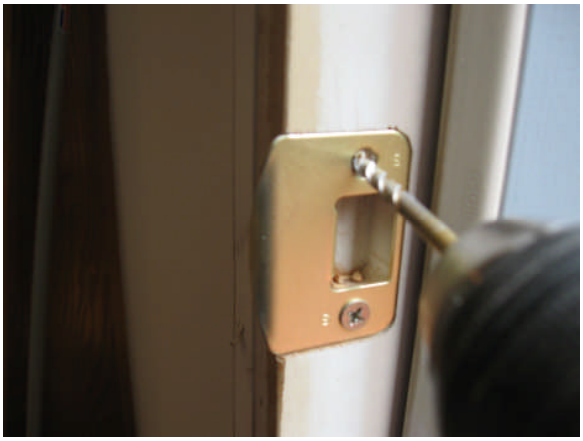
Once the strike plates are properly aligned you will then need to use your 11/64 inch drill bit and drill a pilot hole for the thread cutting screws. On the dead bolt strike you will need to drill through the four countersink holes. For the door latch strike you will need to drill through the vacant hole.

Grab your thread cutting screws (TCS). You will notice there are two brass and four silver. You will want to make sure you use the two brass TCS in the brass door latch strike plate. You will need to have extra TCS in different colors, which you can order from EWI, so you can be sure the screws will match the strike plate color. The most common colors are Brass, silver or oil rubbed bronze. We use brass screws for antique brass strikes. The screw color for the 6 hole doesn't matter as they will be covered up.

Be sure to turn the clutch setting on your drill down to about the midway point so you will not strip out the pilot holes in the Door Guard. You may need to practice this in some sample holes before you install the Door Guard. If you strip out one of the holes you will need to remove the TCS and install a #10 x 3 ½ inch wood screw. It is important to not strip out the holes in the Door Guard.

Once the TCS have been attached you will then need to remove the ¾ inch wood screws that held the strikes in place.

For the door latch strike plate, once the ¾ inch wood screw is removed, drill an 11/64 inch pilot hole and install the last TCS.



For the dead bolt strike, attach the decorative 2 hole strike over the top of the 6 hole strike with the same ¾ inch wood screws you used to temporarily hold it in place while drilling your pilot holes. Sometimes the wood screw will hit the Door Guard if the 6 hole strike is routered in too deep. In this case you will need to drill an 1/8 inch pilot hole through the Door Guard and then install the wood screw. Do not use anything larger than an 1/8 inch bit or the wood screw will not attach to the frame. If this happens then you will need to use a longer #8 head screw to attach the decorative strike plate.

Please remember to clean up you mess periodically especially if your working on a hard wood floor as the metal shavings will grind into the floor if you step on them. It's also important to clean up any drywall debris right away so it does not grind into the floor also.

Using a trim gun or hand drive trim nails, reattach the interior trim.

For stain grade trim you will need to putty the holes and then do a final clean.

For paint grade trim (not shown here), you will need to use a calk that matches the trim color and caulk in the joints and the nail holes.

Note: Sometimes it's easier to calk the trim in before you attach the decorative strike plates.

Finally, do a final check to ensure proper operation of the door and the door hardware and then do a final clean and load up all your tools. Have the homeowner operate the door to ensure they are happy with its operation.

Chapter 5

Installation of an RTO1250 Door Guard on a single and double sidelited door unit.

Jamb Brace ®
The Door Reinforcer

RTO1250

Edward Wayne Inc. DBA
Edward Wayne Industries
10308 Metcalf # 308
Overland Park, KS. 66212
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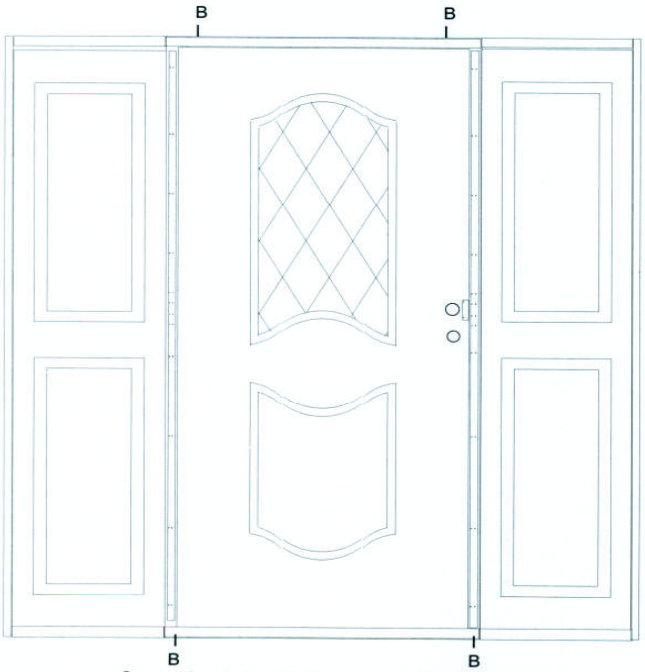
Fax (816) 943-8601
www.JambBrace.com
For video installation instructions

Tools Required

1) Cordless drill
2) 1/8" drill bit
3) Chisel
4) Utility knife
5) Hammer
6) Hack saw

Points B

(Shimming recommended)
Secure door frame using 3" Screws provided, up into header.



Secure threshold with 3" screws through frame into sill.

It is strongly recommended you use a wrap around/ U-shaped escution plate on dead bolt and a minimum Grade 2 dead bolt.

Patent #'s 6,085,465
6,305,127
6,430,876
6,679,004
6,901,706

Step 1.
Remove existing center mould if any.

Step 2.
Mortise in L-Shaped strike plate (provided) for dead bolt. (Refer to detail below). You will have to mortise in on the inside face of jamb for the L-shaped tab and deeper into frame to allow for an overlying 2 holed strike that is provided with your dead bolt. This will ensure that the dead bolt color will match the strike plate cover. See drawing below.

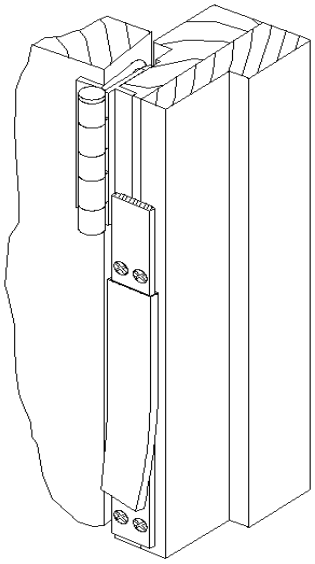
Step 3.
Position JAMB BRACE so that center 2 closest sets of holes line up with extended tabs on L-shaped strike plate (see drawing). Note: you may have to flip JB so that holes line up properly with tabs. If Dead Bolt is located more than 6" above door knob you may have to cut off excess JB with a hacksaw.

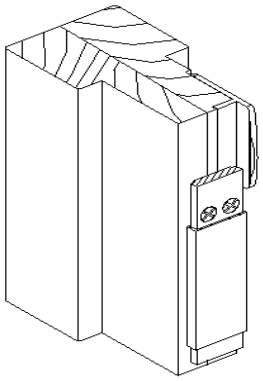
Step 4.
Once holes are lined up properly, use an 9/64" drill bit to drill a pilot hole at top of JB. Once hole is drilled, secure JB with 3" screw. Do the same for a middle and bottom hole. Once JB is secured at all 3 locations, drill pilot holes for all remaining holes and secure with 3" screws.

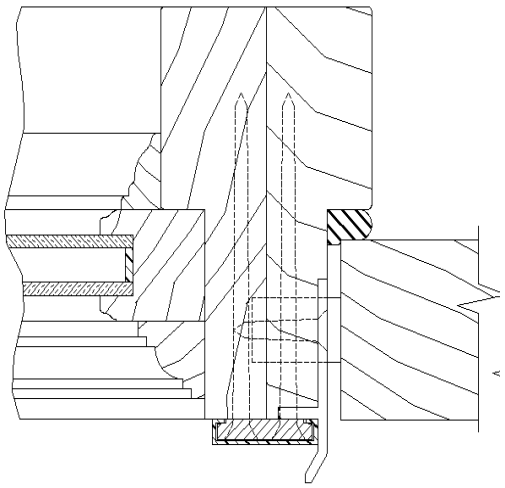
Step 5.
Repeat steps 3 and 4 above for the hinge side, except you won't be attaching an L-Shaped strike plate. Be sure to hold JB far enough away from hinges to allow for plastic snap on cover.

Step 6.
Cut plastic Snap-On cover to the correct length using a hacksaw and attach to JB. Note: Metal JB strip may be shorter than plastic cover.

RTO1250 for side lited door units with a mull post of 1 ½ inches.







Remove both the dead bolt and door knob strike plates.

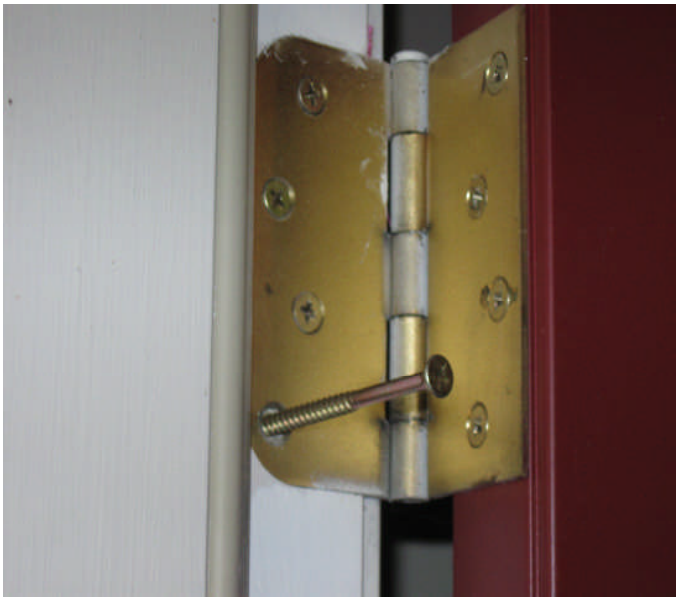
Using a utility knife or a hook knife, cut the caulking joint between the interior mull center strip and the door frame. On some newer sidelited door units the millwork companies are using what's called a continuous sill system, which means the mull post is a solid one piece construction. With this type of construction there normally is no decorative trim strip covering the interior mull post that has to be removed. See Chapter 6.

using a flat bar or chisel, remove the mull center strip. Sometimes the floor tile has been installed around the mull center strip. If this is the case then you will need to either cut the strip even with the top of the tile, or start removing the strip at the top first and the work your way down. You will then have to lift the strip upward pulling it out of the tile.

Sometimes after removing the mull center strip there are a few trim nails remaining in the jamb. You will need to remove these with a nail puller before you can proceed.

It may also be necessary to remove any excess caulking on the mull center post. This can normally be done with a sharp chisel.

Once again, it is always a good idea to install the new door hardware before proceeding with the Door Guard installation.



On a single sidelited door unit, it is always important to secure the hinge side of the door the same way as we did on a single door unit.

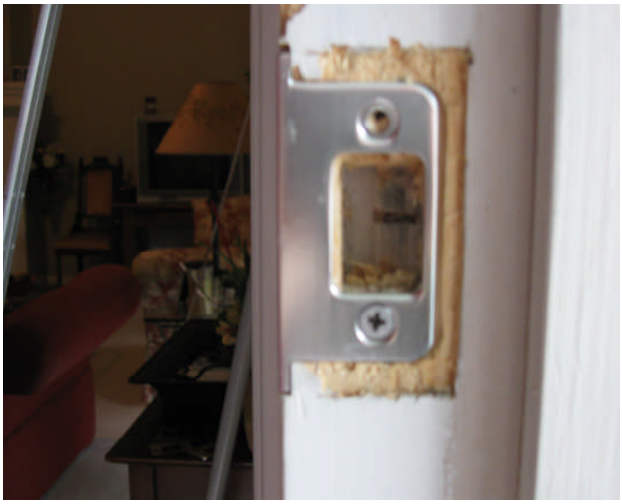
With the dead bolt slightly extended, close the door and mark the center of the dead bolt on the door frame. This will be useful when attaching the routing template to ensure you are routing out for the strike plate in the right location. Sometimes doors shift and move and the original strike plate location may be a little off. It is a good idea to make any adjustments to the door that are necessary for proper operation before you mark the frame for the deadbolt strike.

Before attaching the router template to the door frame, be sure to check that the router is set to the right depth.

It may be necessary to remove the weather stripping before attaching the template.

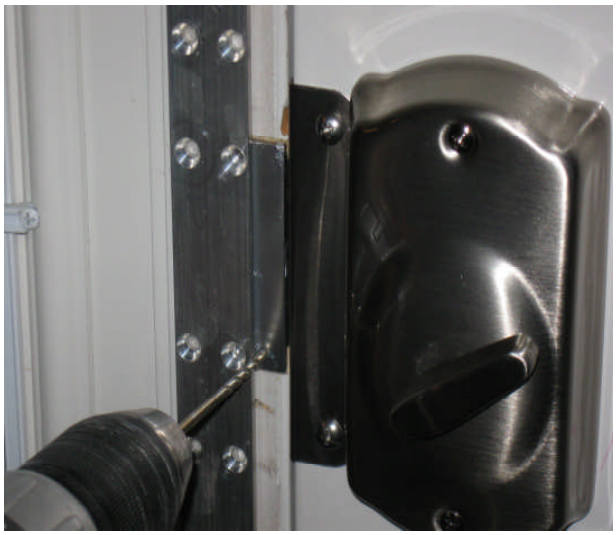
Once the template is attached to the door frame, use the router to mortise out both sides of the door frame for the L-shaped strike plate.

Sometimes the original strike plate is elongated. You can either reattach the elongated strike plate over the EWI L-shaped strike or put a standard strike over the EWI strike and use wood filler to fill in where the old elongated strike used to be.



Attach the L-shaped strike with a short screw. This will hold it in place while you line up the overlying reinforcing plate.

Center the overlying reinforcing plate over the L-shaped strike plate so that the center two holes line up with the extended tabs on the L-strike. Drill a pilot hole in the hole right above the L-strike (do not try to drill through the L-strike until the longer plate is attached). Run a 3 inch screw into the pilot hole to attach the longer plate to the frame.



Do the same for a hole at the top and bottom of the longer plate and attach with a 3 inch screw. This will secure the longer plate in place and allow you to drill pilot holes for the remaining countersink holes and install the rest of the 3 inch screws.

Next drill an 11/64 inch pilot hole through the upper head jamb next to the mull post. You will want to drill it behind the weather stripping and then install a 3 ½ inch screw up into the header above the door. This will anchor the door frame at the top. **Note:** If there is a transom on top of the door this step will not be necessary.

You will need to do the same through the bottom of the door frame behind the weather stripping. This will anchor the bottom threshold in place.

Next reinstall the weather stripping.

Next mark the plastic snap on cover to length.

Once it is marked to length, use a fine tooth saw such as a coping saw and cut the plastic cover.

Next, snap the cover on over the longer Door Guard.

Once the plastic cover is in place you may need to caulk in the joints. Run a small bead of and wipe off the excess with your finger or a wet paper towel.

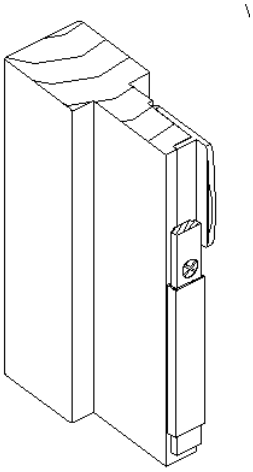
For double sidelited door units you will need to install a Door Guard on the hinge side also. You will not be using an L-shaped strike plate so you will not have to worry about lining any of the holes up. You will need to make sure you hold the Door Guard far enough away from the hinges so you will still be able to attach the plastic snap on cover. You will notice how the plastic snap on cover is close to the hinge, but not touching it.

8 foot tall doors require 3-RTO JB units. you will need to cut about a 1 foot long piece from the extra Door Guard and attach it to the top of the door frame. You will notice that it does not need to be filled in solid. This will allow you to attach the 8 foot plastic cover all the way to the top. 8 foot covers are a special order item.

Chapter 6

Installation of an RTO750 Door Guard on a single and double sidelited door unit.

The RTO750 unit is installed the exact same way as the RTO1250. The only difference is that it is a narrower unit and used on mull posts of 1 inch or less in width. This is normally what is called a Thurma-Tru continuous sill system. This door system normally doesn't have a mull center strip to remove.

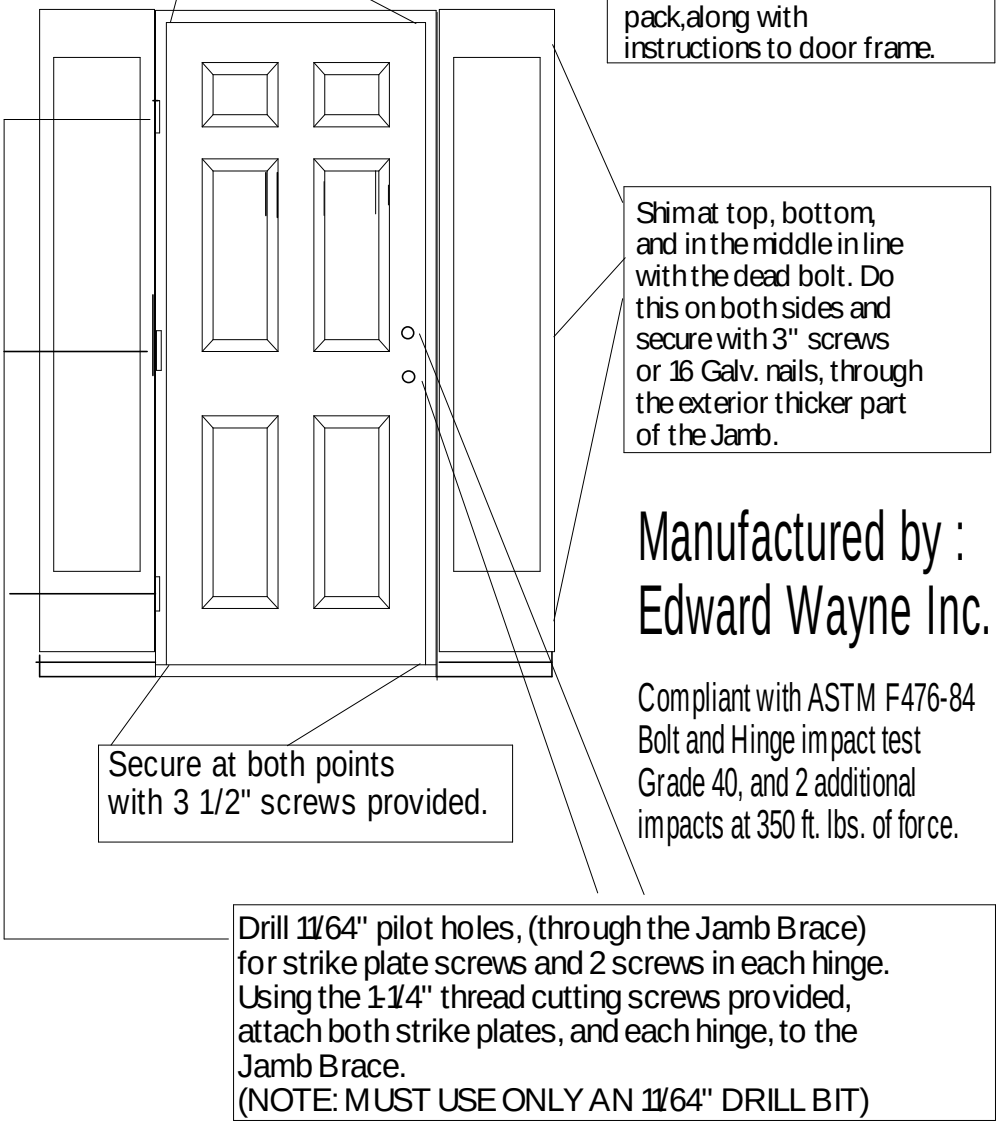


RTO750 for side lited door units with a mull post of 1inch, i.e. (Thurma-Tru) doors.

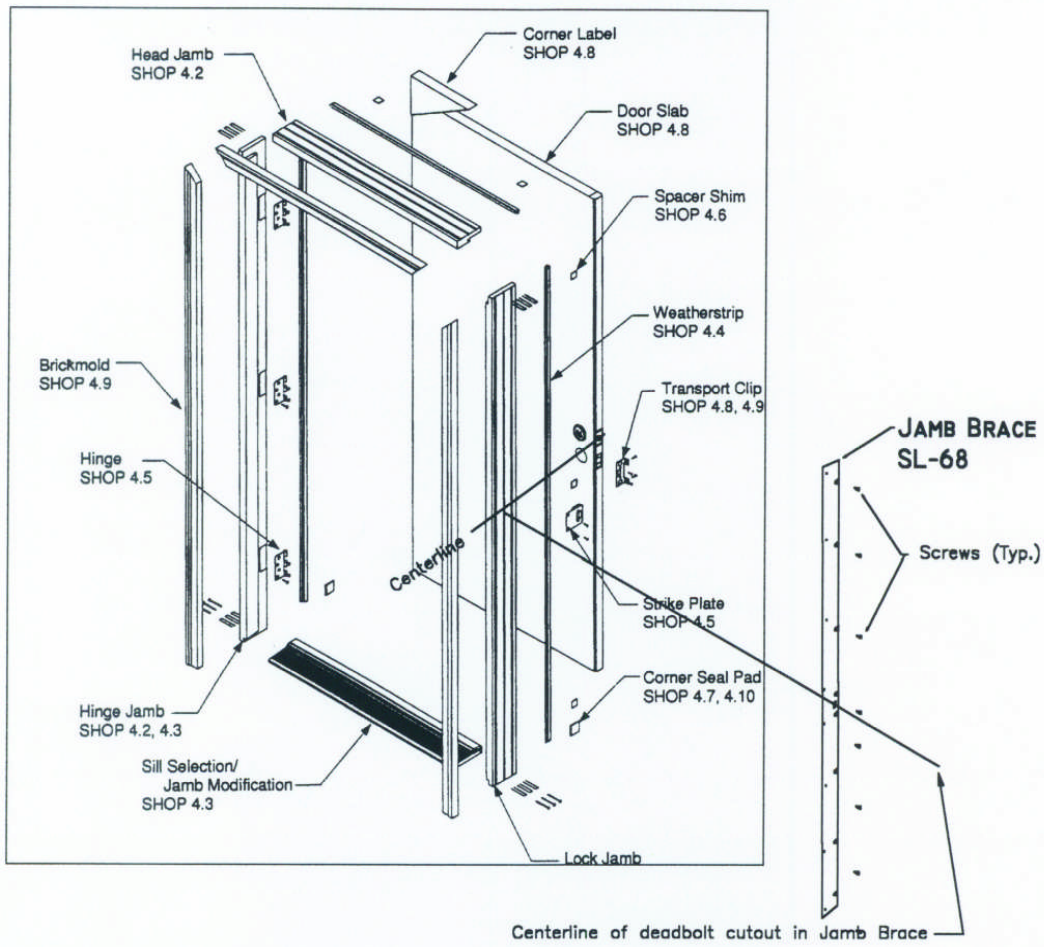
Chapter 7

Installation of an SL68 Door Guard
on a single and double sidelited door unit.
New door replacement only.

JAMB BRACE THE DOOR REINFORCER (TM)
INSTALLATION INSTRUCTIONS FOR A DOUBLE SIDELIGHTED UNIT. Model # SL68



Patent #'s 5,241,790; 6,185,881; 7,134,246

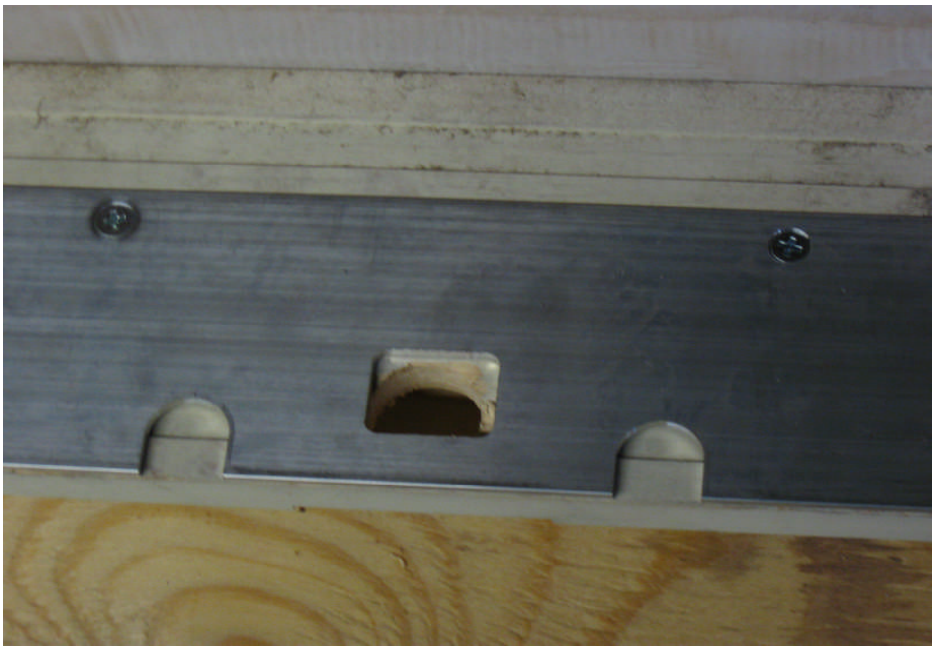


EWI JAMB BRACE

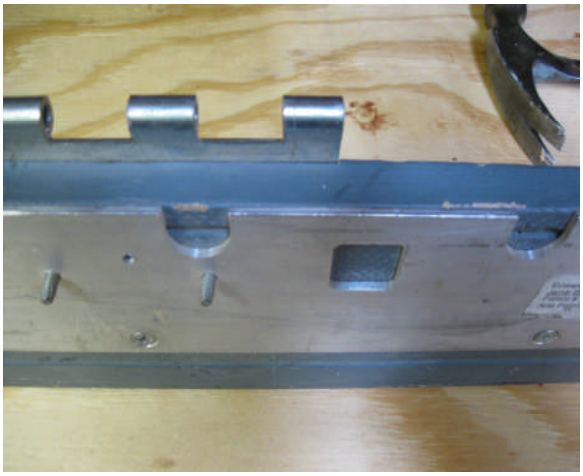
BASIC INSTALLATION: for **Shop Assembly SL-68** (2 required for double sidelight).
Jamb Brace fits between doorframe and sidelight(s).
The **Jamb Brace** is attached to the lock jamb with flat head screws. Place the Jamb Brace so it is flush with the inside face of the frame and the "U" shaped "notches" are facing the direction the door will swing. Align the deadbolt cutout in the Jamb Brace with the of the deadbolt location on the door and secure with the eight (8) screws provided. Attach sidelight(s) by aligning the unit and setting fasteners at the "U" shaped "notch" locations.

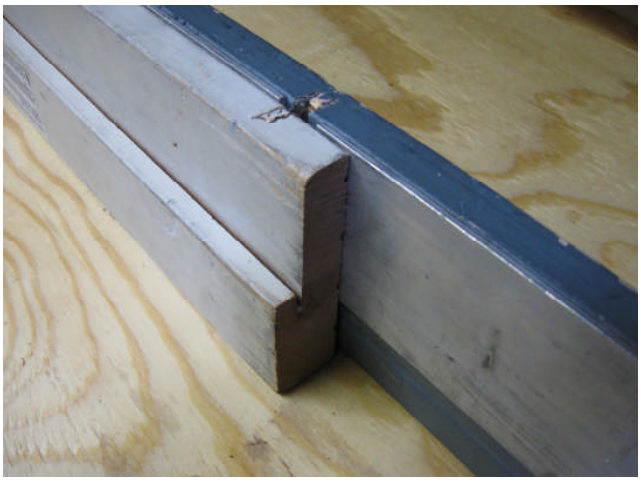
BASIC INSTALLATION: for **Assembly SD-68** (Standard door without sidelight).
The **Jamb Brace** on a single door is attached to the lock jamb using only TWO 1" screws (provided). Position the Jamb Brace and attach as described above. Drill four (4) – 1/8" pilot holes in the strike jamb using the Jamb Brace as the template. These holes are for the future field attachment of the unit to the rough opening framing member, and the weather-stripping conceals them. NOTE: field installation requires shim placement at these same points for proper Jamb Brace anchorage and support.

Center the dead bolt hole in the Door Guard with the dead bolt hole in the door frame and attach with eight 1” inch screws.



On the hinge side of a double sidelited door unit, line the dead bolt hole in the Door Guard so that it misses the Thread Cutting Screws for the center hinge. It is best to attach the sidelite door jamb to the door side jamb before drilling and attaching the TCS’s.





Chapter 8

Installation of an SD68 Door Guard on a French door / double door

The main problem with a double door is that you are trying to lock one operating door into another operating door. With this in mind the only option is to secure both doors in some way other than using a dead bolt.

The only way we have found secure this door type is to install a single door unit Door Guard (SD68) on the top head jamb. It installs the same as single door unit in that you have to remove the trim and install it in the middle above the intersection of the two doors.

Once the Door Guard is shimmed and secured with 3 ½ inch screws you will then install four surface mounted flush bolts, one on each door at the top and one on each door at the bottom.

You will then us the thread cutting screws that come with the Door Guard to attach the strike plates for the throw bolts to the Door Guard at the top of the door.

At the bottom of the door you will need to attach the throw bolts low enough so that when thrown they will project into either the hardwood floor or tile or what ever surface is installed. Another option, depending on what type of sill is used on the door, is to attach the strike plates for the throw bolts to the sill with 3 ½ inch screws and attach the throw bolts so that they just throw through the strikes. The latter was required on this door due to the fact that the face of the threshold was tiled and there was not enough room for the throw bolts to throw down into the floor. You must be careful when doing this though so you don't create a water penetration problem.

One final option is to replace the double door with a new double sidelited door unit. This can be a fairly expensive option but it is one that may be necessary, especially if the double doors are fairly old.

NOTE: Once this door type is secured as noted above, you will only be able to lock and unlock it from the inside. The homeowner will also need to be informed that this door will no longer meet egress requirements due to the height of the upper throw bolts. As long as they have another door to egress from on the same floor they will still be able to comply with city building codes.

Chapter 9

What type of dead bolt should be used and why?

Since 1997 we have tested several different types of dead bolts. Schlage, Kwikset and Master to name a few. The main reason we started testing dead bolts is due to an embarrassing incident that occurred during a press conference. In the Summer of 1997 we had set up a wall section to demonstrate how a door secured with only 3 inch screws would fail after a determined attack and how two other doors, that had been secured with Door Guards, would hold up. The first door the officer kicked on was the door with the 3 inch screws and it, as predicted, failed on the second kick. The next door demonstrated was one that had incorporated an SL68 new construction unit Door Guard. The officer approached and with one kick the door flew open. Thinking we had forgotten to lock the door, we went up to investigate. What we had found was, at the time, unimaginable. The throw bolt for the dead bolt had been ripped out of its housing and was laying on the floor, it was a Schlage B360. Luckily, the officer conducting the test pointed out that this was a perfect example of a dead bolt failure and proceeded to the next door where we were testing a single door unit (SD68) Door Guard. In the mean time we ran down to a local hardware store and grabbed a Kwikset dead bolt, brought it back and installed it. With the press still present we proceeded to retest the door and this time it performed as expected.

After this potentially embarrassing demonstration, we began testing several different types of dead bolt. We found, at the time, that the best buy for the money was the Kwikset. This was confirmed also be the October 1997 issue of Consumer Reports, which listed the Kwikset as the best buy. We also tested Master and Emtech and found them to be more than sufficient. We did find out though that Master manufactured a builders grade, which is a grade 3 and a Grade 2. It was their grade 2 that held up the best. For clarification there are three different grades for dead bolts. Grade 1 is the best followed by grade 2 and then 3. Your grade 1's are typically your Medico and Assa Abloy's. Schlage makes a Primus which is a good dead bolt, but they used there B360 throw bolt which is a poor throw bolt.

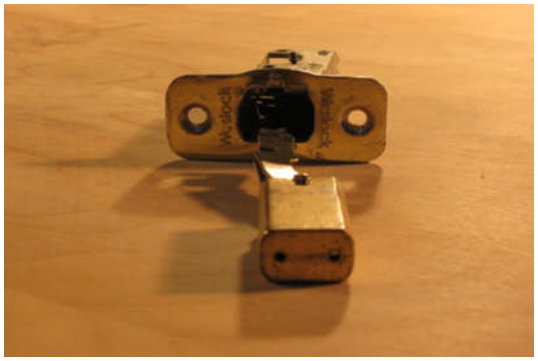
In 2006 some of the local Schlage reps had heard that we didn't have very good things to say about their dead bolt and called us on it. We invited them to our shop and asked them to bring a B360 with them so we could test it for them. We installed it in a standard door and began kicking. It failed on the second impact. Somewhat surprised they asked us to take it out of the door so they could take it back to corporate. Before they left with it, Dave Allen put a yellow post-it note on the box that read "Another quality product from Schlage, redesign it". Had we known that it would make it all the way to the President of the company's desk we might have been a little more politically correct. It got the point across however and we received a call from the Schlage reps a year later. They said they had a new prototype and asked if we would be willing to test it. We obliged and proceeded to beat the heck out of it. We kicked on it first and then tested it scientifically with our ram set to the hurricane impact standard of 350 ft. lbs. We told them that we could now recommend their product. They called the new dead bolt the B60 and it is sold

in all the Lowes and Home Depots across the country. Be careful though, they still have some of the old B360's in stock and the packaging looks similar.

Here is a list of dead bolts that tested well to impact testing and ones that didn't test so well.

Good	Not so good
Schlage B60	Schlage B360
Kwikset	Yale
Emtech	Omnia
Medeco	Weiser
Assa Abloy	

Schlage B360 (old one)



Weslock

Omnia

New Schlage B60

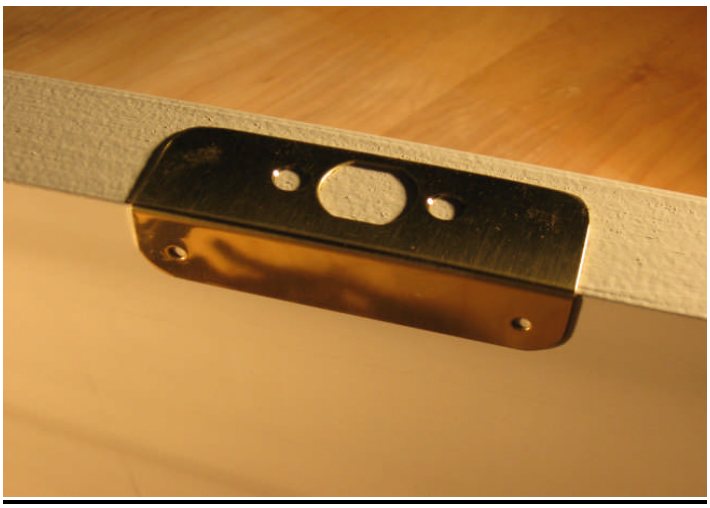
Chapter 10

Which type of escutcheon plate / door wrap / door edge protector to use.

This will be short, they all work just fine. The main difference between all of them is their size. Some are big and obtrusive and others are smaller. Some wrap around the dead bolt and door knob and some just around the dead bolt. We prefer the ones that protect the dead bolt area only. If you use the ones that wrap around the dead bolt and the knob you will have to know what the center-to-center spacing is between the two and in our opinion they look like crap because they are so large.

We are currently working on an L-shaped door wrap that is not only esthetically pleasing it is also extremely effective and will not interfere with the weather stripping on the exterior side of the door. Understand that some homeowners may not want the door wrap on their doors because they look ugly. You will need to make them understand that if they don't use it then there is no need to use the Door Guard. If they choose not to us the door wrap, the edge of the door will split out which will allow the door to fail during an attack.

This is a prototype. Notice this does not Wrap around the outside of the door.



This is the actual bright brass unit now in stock. We also have Satin Nickel, Antique Brass and Oil Rubbed Bronze now in stock.

Chapter 11

Why physical security should be addressed first and then use the alarm system to compliment it.

The alarm industry is roughly a $100 billion a year industry. They do an excellent job at convincing homeowners that the best way to secure their homes is to have an alarm system installed. There are several things they don't tell you though.

1. 99.7% of all alarms are false
2. They are selling a police response which the tax payers are paying for.
3. The alarm does nothing to keep the criminal out of your house, it just lets you know when their already in.
4. The average response time for an alarm call from the police is 15 to 20 minutes, depending on where you live.
5. It is not answered as and emergency response mainly because of the false alarm rate.
6. Several cities have adopted what's called verified response, which means the alarm company must verify that criminal activity is actually occurring before they police can be dispatched. This is also due to all the false alarm calls and adds more delay to a response.
7. False alarms can cost a smaller city as much as one million dollars in lost time due to chasing phantoms.
8. When the alarm system is activated it **seizes your phone line and prohibits you from dialing 911.**
9. **4th Amendment** challenges. Illegal search and seizure. Damon Stodlemeyer's attorney successfully argued Illegal Search and Seizure in a false alarm case and had drug charges dropped.

If you watch some of the video on our web site of the news clips of the security homes we have constructed, you will notice that the alarm activates while the perpetrator is still on the outside trying to get in. On most doors and windows the alarm is activated when the door is kicked open or when the window is broke out. As mentioned before, this does nothing to keep the person out. When we install the Door Guard or laminated glass, you are no longer able to kick the door open or break out the glass without a determined attack. If you use a standard door or window contact with our physical security the alarm will not be activated. What we use in place of the standard contacts is a shock sensor / door contact and a glass break detector. With the shock sensor / door contact the alarm is activated once the perpetrator starts to kick on the door, not once he has gained access. The same is true with the glass break detector. Once the laminated glass is broken it still won't allow access but it will set off the alarm.

When we talk to homeowners about securing doors, or anyone for that matter, it seems that about 50% of the time we are asked about the glass in the doors and or

windows. When Overland Park Kansas was trying to adopt their building security ordinance, they had originally included laminated glass in and around the doors and on all lower level windows that were accessible from ground level. This included glass that was accessible from decks or walkways. In order to gain support for the ordinance from the Home Builders Association, the laminated glass provision had to be dropped. The main reason this was allowed to be eliminated is because burglars only break through glass, in a forced entry situation, about 13% of the time. The majority of the cost associated with the ordinance, as it was originally written, was due to the laminated glass provision. Since breaking glass was only an issue about 13% it was determined that it was not cost effective and was eliminated.

When the two founders of Edward Wayne Incorporated, Ron Olberding and Dave Allen, constructed homes through their building company, Allen and Olberding Builders Incorporated, they determined that it was important to include laminated glass in the construction of these homes. The main reason why is because it was much more cost effective to address this issue while the house was being constructed. Laminated glass only adds about 20% to the cost of a window. Now keep in mind these aren't builder's grade windows. Laminated glass is heavier and therefore requires a better quality window which can be a little more expensive than the builder's grade. This makes it a little more difficult to calculate the additional costs because it's not an apples to apples comparison. We, however, have put a ballpark upgrade to the homeowner of **One Dollar** per square foot. This is still pretty cheap insurance when you consider the additional costs of an alarm system.

This brings me to my last point. You see on TV all the time "Get an alarm system installed for only $99". What they don't tell you is that that will normally only get you 2 door contacts and a motion detector which, by the way, tells you that someone is already in your house. Sounds pretty secure to me. They also don't tell you that you have to sign up for a three to four year alarm monitoring agreement which costs on average $30 to $40 per month. I think you can do the math.

To sum this up, the average upfront costs to install the Door Guard may be a little more expensive, but once it's installed you will never have to worry about it again, not to mention no more out of pocket costs. Compare this to an alarm system where the upfront costs are lower, but the addition monthly costs will continue forever if you choose to have it monitored. This doesn't include batteries and equipment replacement costs. As you can see, the cost of an alarm system over time will far exceed that of the Door Guard and all you have to do is remember to lock your door and dial 911. By the way, the quickest way to get a police response is to just dial 911, not the panic button on your alarm system.

Conclusion

Statistics

1. A burglary happens every 14 seconds and the majority are residential.
   FBI Uniform Crime Reports

2. One out of every 10 homes will be burglarized this year.
   National Crime Prevention Council

3. Over 93% of forced entry attempts are successful.
   FBI Uniform Crime Reports

4. The average take per burglary is $2096.
   FBI Uniform Crime Reports

5. There are 6,025 burglaries per day.
   FBI Uniform Crime Reports

6. The total loss per day to burglaries is $12,628,400
   FBI Uniform Crime Reports

Don't wait until it happens to your family and friends, secure your home now with Physical Home Defense and sleep a little easier tonight.

[1]