

Installing Interior Doors

Standard Work Practices for
Habitat for Humanity of Metro Denver

Preparation

Safety Notes:

- Follow all practices for **safe lifting and carrying**: *always move doors in pairs.*
- Follow all policies for **safe pneumatic nailer use.**
- Communicate where and how you are installing, and **limit traffic** through doorways where you're working *before* you begin.
- **Never leave a door unattended** until *completely* installed.



Get your tools:

- 6' level
- 2' – 4' level
- Trim nailer (minimum 16ga.)
- 2 ½" finish nails
- Hammer
- Utility blade / shim saw

Remember:

Never leave a pneumatic nailer unattended while attached to its air hose.
Always disconnect and set nailer out of the way while not in active use.

Preparation

Get your door:

- Make sure it's the right **size**.
- Make sure it's the right **swing**.



Size and swing will be written on the **hinge-side of the door frame**.

Architectural floor plan of a bathroom. A door is labeled '3' and is circled in purple. A purple arrow points from this door to the 'DOOR SCHEDULE' table below.

KEY	DOOR SIZE	HARDWARE	SWING
1	3'-0" W x 6'-8" H	KEY LOCK/DEADBOLT	RH
2	3'-0" W x 6'-8" H	KEY LOCK/DEADBOLT	LH
3	2'-6" W x 6'-8" H	PASSAGE	RH
4	2'-6" W x 6'-8" H	PASSAGE	LH
5	2'-0" W x 6'-8" H	PASSAGE	RH
6	2'-0" W x 6'-8" H	PASSAGE	LH
7	2'-6" W x 4'-0" H	PASSAGE	LH
8	PR 2'-6" W x 6'-8" H	BI-FOLD	BI-FOLD

It's a good idea to **double-check the plans** to be sure this is accurate.



Size and swing will also be written on the **door jamb**.

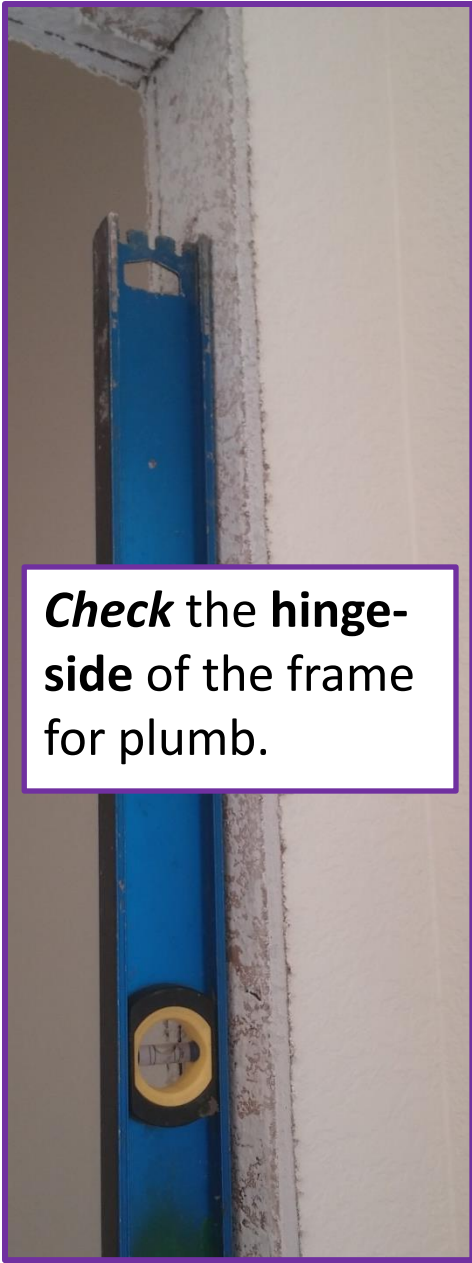
Preparation



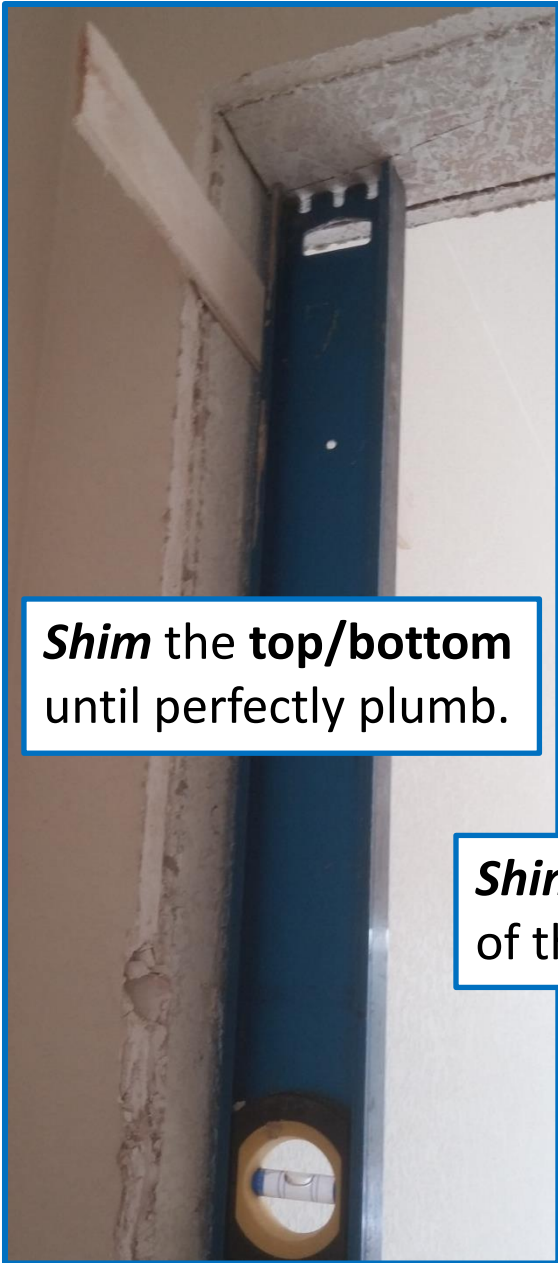
Clean up the hinge-side of the jamb.

- Cut back any **drywall edges** that overhang the framing.
- Scrape off any **excess mud/texture**.
- Check for any **nail heads** sticking out, and sink them.
- If there are any big chunks or overhangs on the *handle-side* jamb, clean those off – but be much pickier about the hinge-side.


Preparation



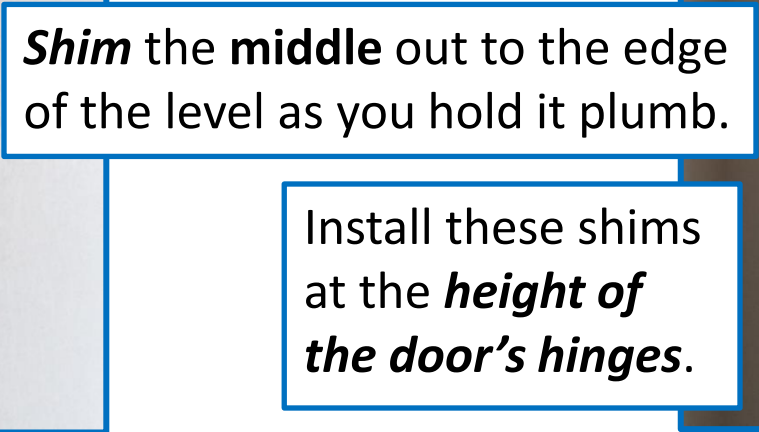
Check the **hinge-side** of the frame for plumb.




Shim the **top/bottom** until perfectly plumb.



Cut the shims to fit and **nail** into place.



Shim the **middle** out to the edge of the level as you hold it plumb.

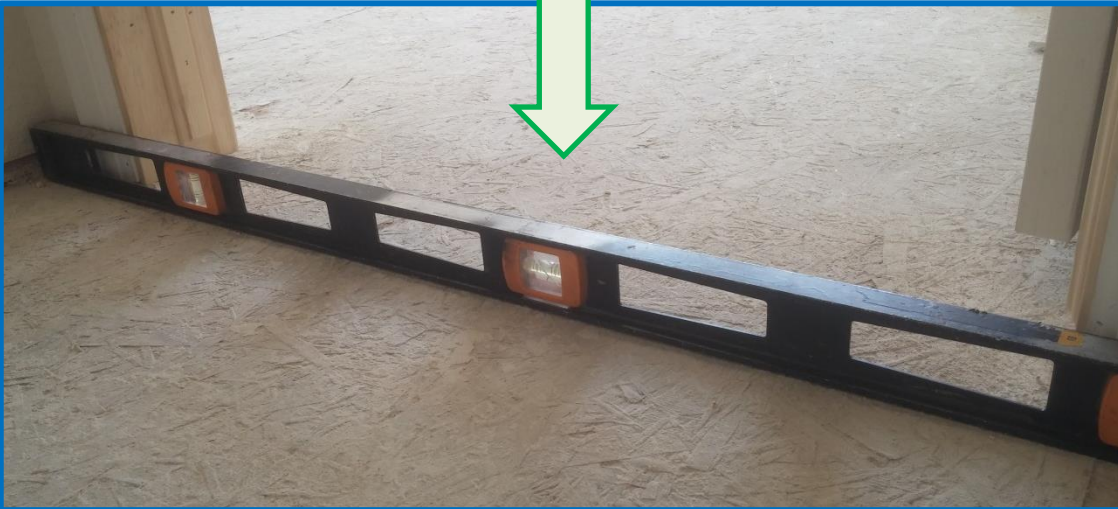


Install these shims at the **height of the door's hinges**.

Preparation

Check the floor for level.

- If *out of level*, place an appropriately-sized shim next to the lower jamb.
 - Don't nail it down; this is just temporary.



Preparation

Prep the door itself.

- Remove the temporary brace at the bottom.

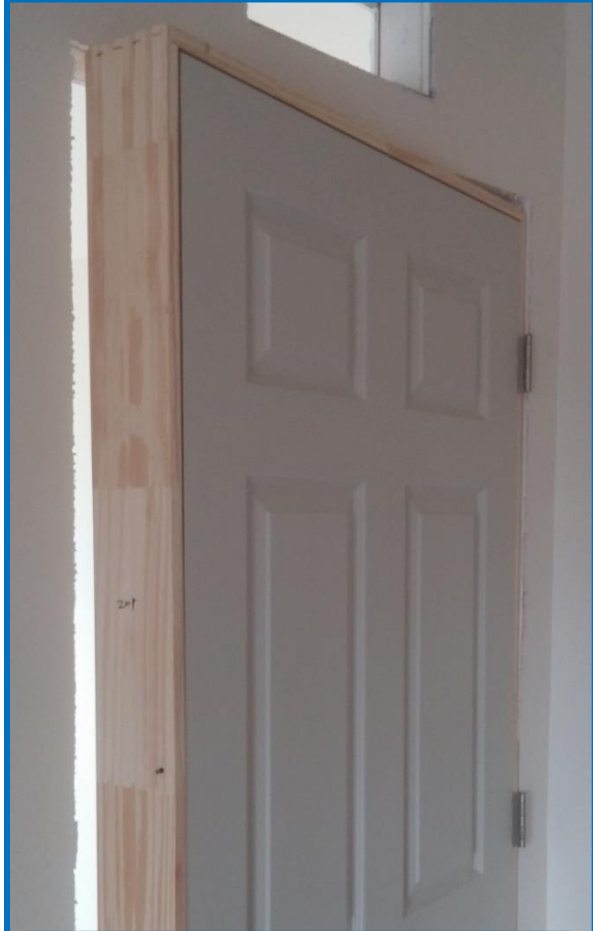


Be sure to remove any nails/staples from the bottom of the jamb that would interfere with it sitting flat on the floor.

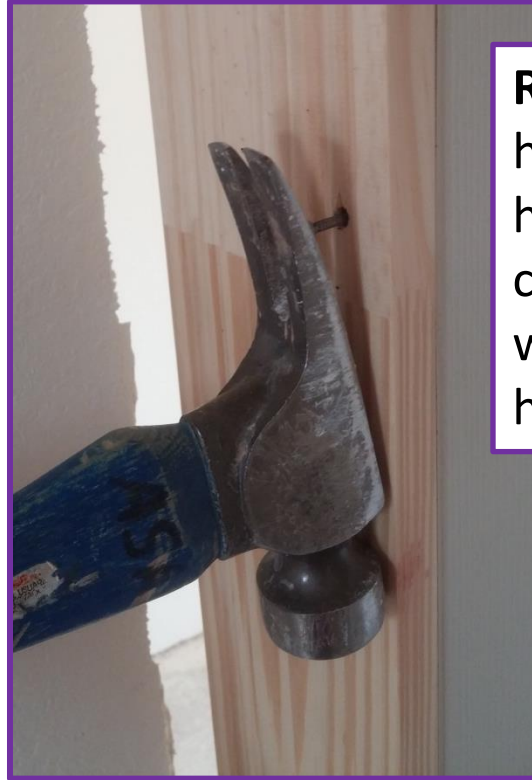


Immediately remove any nails sticking out of this board and **bend over any staples.**

Setting the Hinge-Side



Set the door *roughly* in place: **tuck the hinge-side** of the jamb tight into the frame.



Remove the duplex nails from the handle side. These temporarily hold the door in place, so be careful *not* to let the door wrack when you pull them out. Tuck the handle-side of the jamb in place.

Carefully **swing the door open** and rest it on something to prevent its weight from pulling the entire jamb away from the frame.



Setting the Hinge-Side

If your wall is plumb:

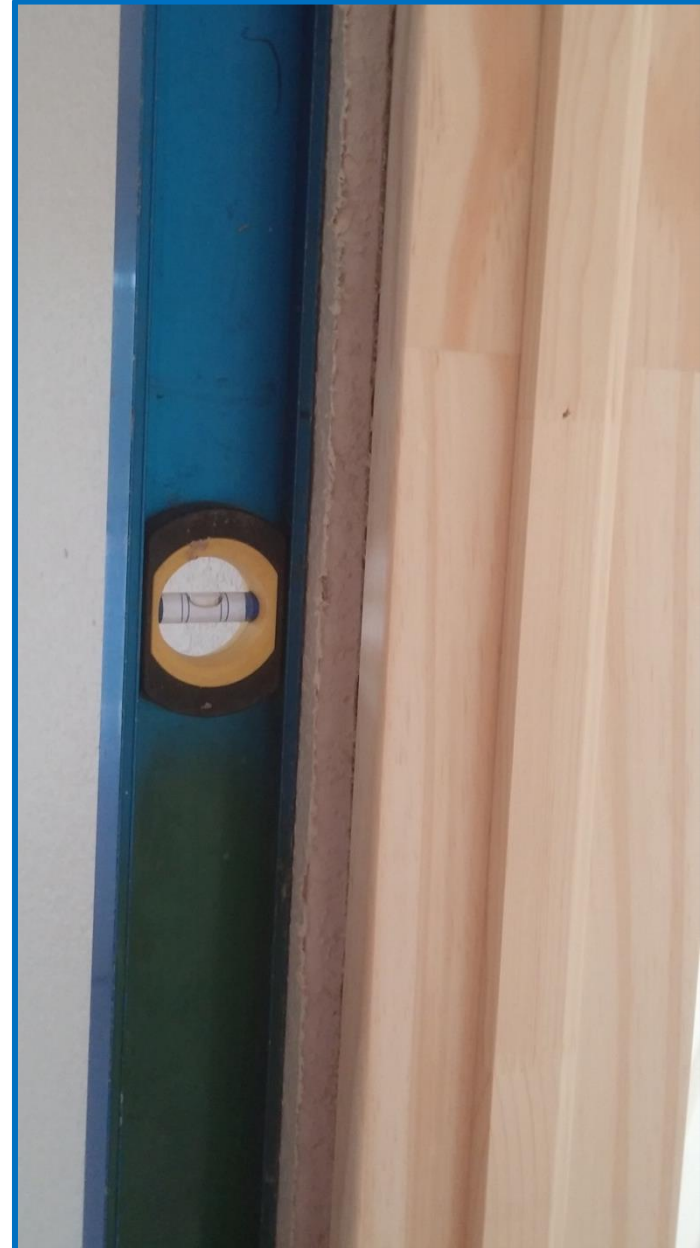
- Line the jamb up with the edges of drywall.

If your wall is out-of-plumb:

- Offset the top and bottom of the jamb from the drywall to account for it. Split the difference between top and bottom.
- We'll fix the drywall discrepancy later when we install casing, but the door jamb *has* to be plumb!

Always nail the top of the jamb first, then plumb the side of the jamb to nail the middle and bottom.

- Wherever you installed shims, be sure to nail *into* those shims.
- Nailing above or below them may bend (and bind) the jamb, pulling it tight to framing at the nails and pushing it out at the shims.



Setting the Hinge-Side

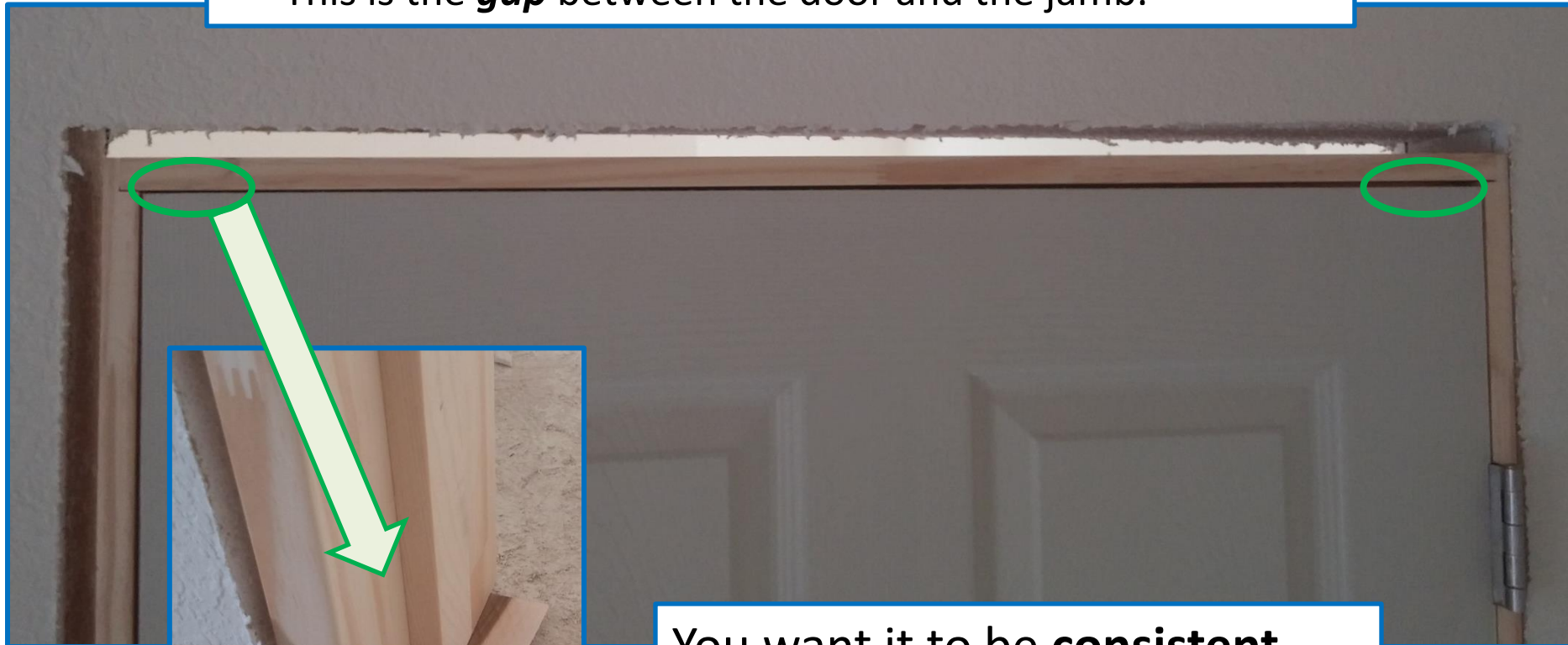


Double check that the jamb is plumb in *both* directions *before* moving on to the handle side.

Setting the Handle-Side

Close the door and **check the *reveal* at the top.**

- This is the ***gap*** between the door and the jamb.



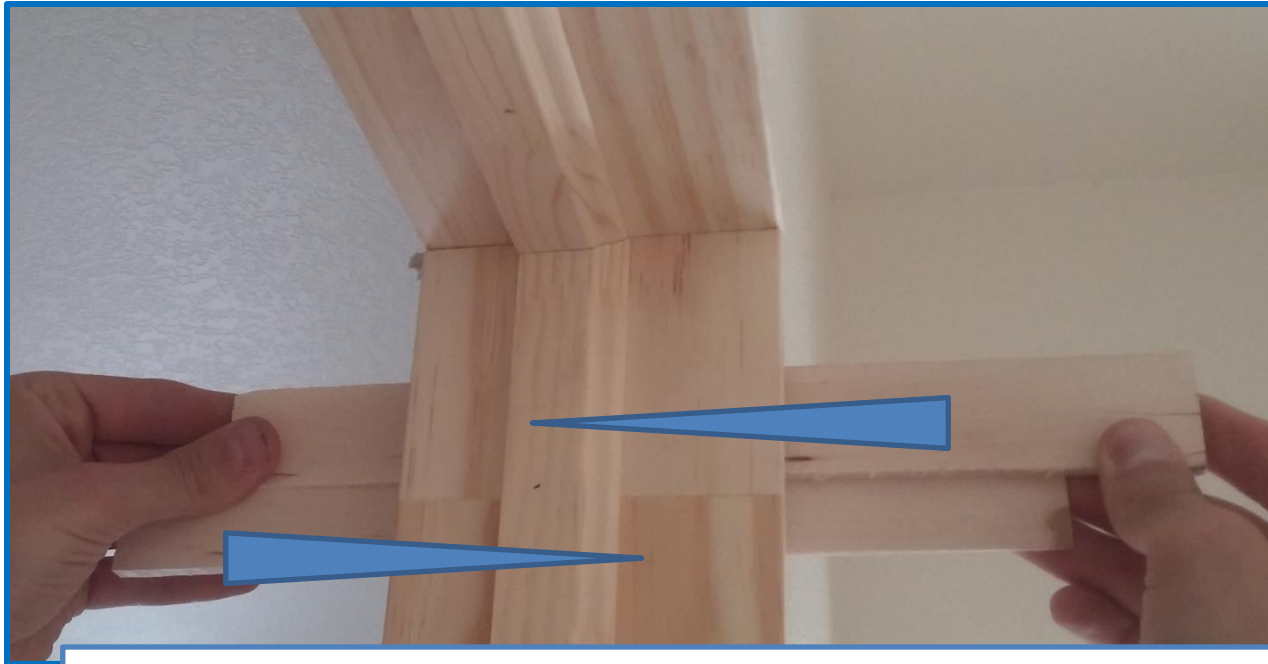
You want it to be **consistent.**

- If one side has a *smaller* gap, shim under the jamb on *that* side.

Setting the Handle-Side

*Then check the **side** reveal:*

Start at the top corner. This reveal is set by the corner of the jamb, so shim out the distance until snug.



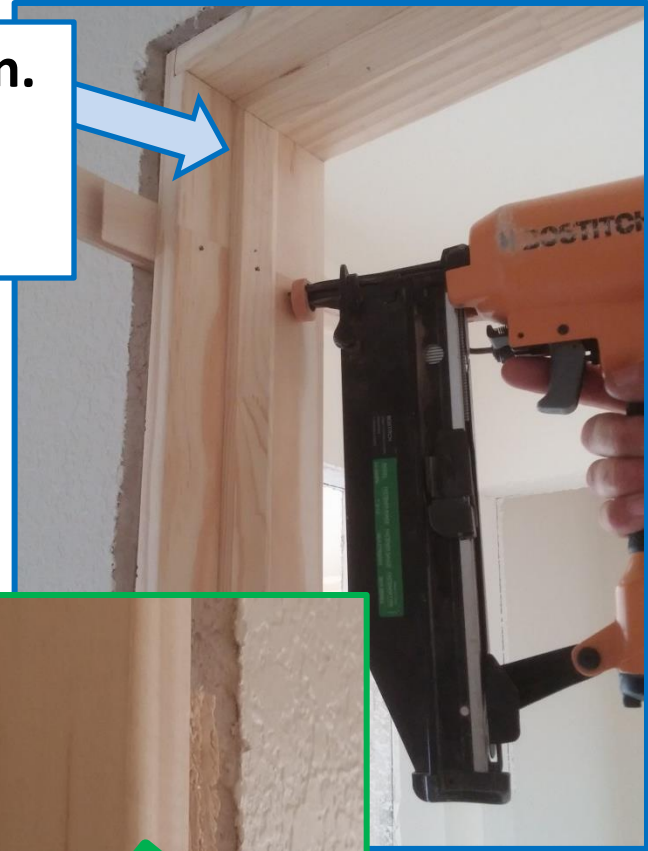
Always shim in pairs and alternate the angles.

- *Otherwise* when nailed tight to shims the jamb will be pulled out of square.
- You *can* use off-balance shims to correct a twisted frame.

Setting the Handle-Side

Nail each set of shims before moving on.

- Make sure to nail *through* the shims.
- Use three nails at each shim.



Trim each set of shims before moving on.

- Leaving them sticking out is a **safety hazard**, and you'll want to use the cut scraps anyway.



Using a **utility blade**, score and snap the shims.

Using a **shim saw**, be careful not to cut the finished face of the jamb.



Make sure to cut shims cleanly. They must be *flush with or set back from* the edge of the door jamb and drywall or they will interfere with casing installation.

Setting the Handle-Side

Work down the door, shimming to the same reveal.

- **Always plumb the jamb before nailing** each set of shims.



Use a ***minimum*** of four sets of shims: top and bottom, then two on either side of the *handle*.

If there is a **bow** in the **jamb** anywhere between these points, shim and nail it straight.



Wrapping Up

Check the door:

- **Close it;** see if it swings *open*.
- **Open it;** see if it swings *shut*.
- **Open it halfway;** see if it swings *at all*.

If it *doesn't* move, it's good!

Check the stop:

- The door should close tight to this vertical stop from top to bottom.

If there is a gap at top or bottom:

- Re-check *both* jambs for plumb, and correct if necessary.
- If both jambs are plumb, use a small block as a buffer and tap the stop over with a hammer until the gap is gone.

