Tektrim

"Modern Made Easy"

Universal Molding and Baseboard (UMB)

Tektrim Corporation
1302 Kingsdale Ave
Redondo Beach CA 90278 USA
tel: +1(888)999-0216
fax: +1(888)999-0217

Copyright ©2009 Tektrim Corporation. All rights reserved.

Tektrim UMB™ is a registered trademark of Tektrim Corporation

Tektips® for the Tektrim UMB is a registered trademark of Tektrim Corporation.

The content of this guide is protected under copyright law. Please remember that no part of this guide may be reproduced, stored in a retrieval system, or transmitted in any form, electronic, mechanical, or otherwise, without the prior written permission of Tektrim Corporation. The unauthorized reproduction of this guide could be a violation of the rights of the copyright owner.

Please understand that the content of this guide is for informational use only, is subject to change without notice, and is not a commitment by Tektrim. Tektrim assumes no responsibility or liability for any errors or inaccuracies that may appear in this guide.

Tektrim Corporation, 1302 Kingsdale Avenue, Redondo Beach CA 90278, USA.

Brief Table of Contents

Table of Contents

Detailed Table of Contents

Welcome

Welcome to the Tektips for the Tektrim UMB (Universal Molding and Baseboard). This manual tells you everything you need to know about getting started with the Tektrim UMB, installing the UMB, and installing the finished baseboard.

In this manual

This manual contains the following chapters:

Getting started

Follow these steps to use this manual:

1. Start with reading Chapter 1 for a high-level description of the UMB. This chapter also walks through all the steps you need to take to install the UMB, drywall, and baseboard, with links to the appropriate chapters in this manual.
2. Read Chapter 2, Chapter 3, and Chapter 4 for detailed instructions on how to install the UMB. The UMB is installed before the drywall, because the UMB controls the straightness and the level of the bottom edge of the drywall. Chapter 2 provides instructions on setting the height of the UMB, Chapter 3 provides instructions on cutting the UMB material, and Chapter 4 provides instructions on fastening it to the framing.
3. Read Chapter 5 for detailed instructions on how to install the drywall. Install the drywall after UMB installation is complete.

4. Read Chapter 6 for information about installing the baseboard. In most cases, the baseboard is installed after completing the drywall, painting, and flooring. However, there are some exceptions where it is more practical and economical to install the baseboard before installing the floor. Chapter 6 also tells you about those exceptions.

For more information

Please contact Tektrim for questions about Tektrim products or how to install them. For more information, see the Tektrim Website or Contact Tektrim directly.

Website

http://www.tektrim.com

Contact

Tektrim Corporation
1302 Kingsdale Avenue
Redondo Beach CA 90278

tel: 1-888-999-0216
fax: 1-888-999-0217

Chapter 1

Overview of the UMB

This chapter presents an overview of the Tektrim UMB, summarizes the steps you need to take to install the UMB, and includes the following sections:

- "Universal Molding and Baseboard (UMB)" on page 1 describes the Tektrim UMB, and describes why the UMB is a new concept in flush baseboard moldings, compared to the conventional "old" way.
- "Installing the UMB" on page 7 describes, step by step, how to install the UMB, drywall, and finished baseboard, with links to the relevant chapters, for each step, in this guide.
- "Environmental issues" on page 8 describes why Tektrim products are environmentally sound building choices.

Universal Molding and Baseboard (UMB)

The Tektrim Universal Molding and Baseboard (UMB) enables you to achieve, in a way that is fast, easy, and economical, a spectacular flush baseboard detail, that is clean, straight, and beautiful.

The UMB is engineered to do all the following:

- Create a straight line at the joint between the drywall and the baseboard.
- Solve the most difficult aspects of flush baseboard installation.
- Compensate for uneven framing.
- Support the drywall between the studs in the framing, to eliminate the need for expensive blocking.
- Install before the drywall, so that its installation does not slow down the construction project.

The Tektrim UMB solves the problems of creating flush baseboards the "old way."

Creating flush baseboards the “old way”

In the past, creating a modern baseboard detail that is flush to the wall was challenging. Architects and fine builders have struggled to achieve a beautiful flush baseboard with the existing products that are available, because it is not easy to create a line that is straight and clean.

Now, the UMB provides the perfect way to execute the assembly of a beautiful flush baseboard.

A solution that is modern, easy, and beautiful

The UMB is a brand new and leading edge concept in flush baseboard details. The UMB creates beautiful results with even the most challenging flush baseboards and shadow lines. Never before has it been this easy to create and install a contemporary flush baseboard.

The UMB provides solutions for the difficult-to-execute details that contemporary architecture wants and needs, because the UMB is specifically designed to achieve these details.

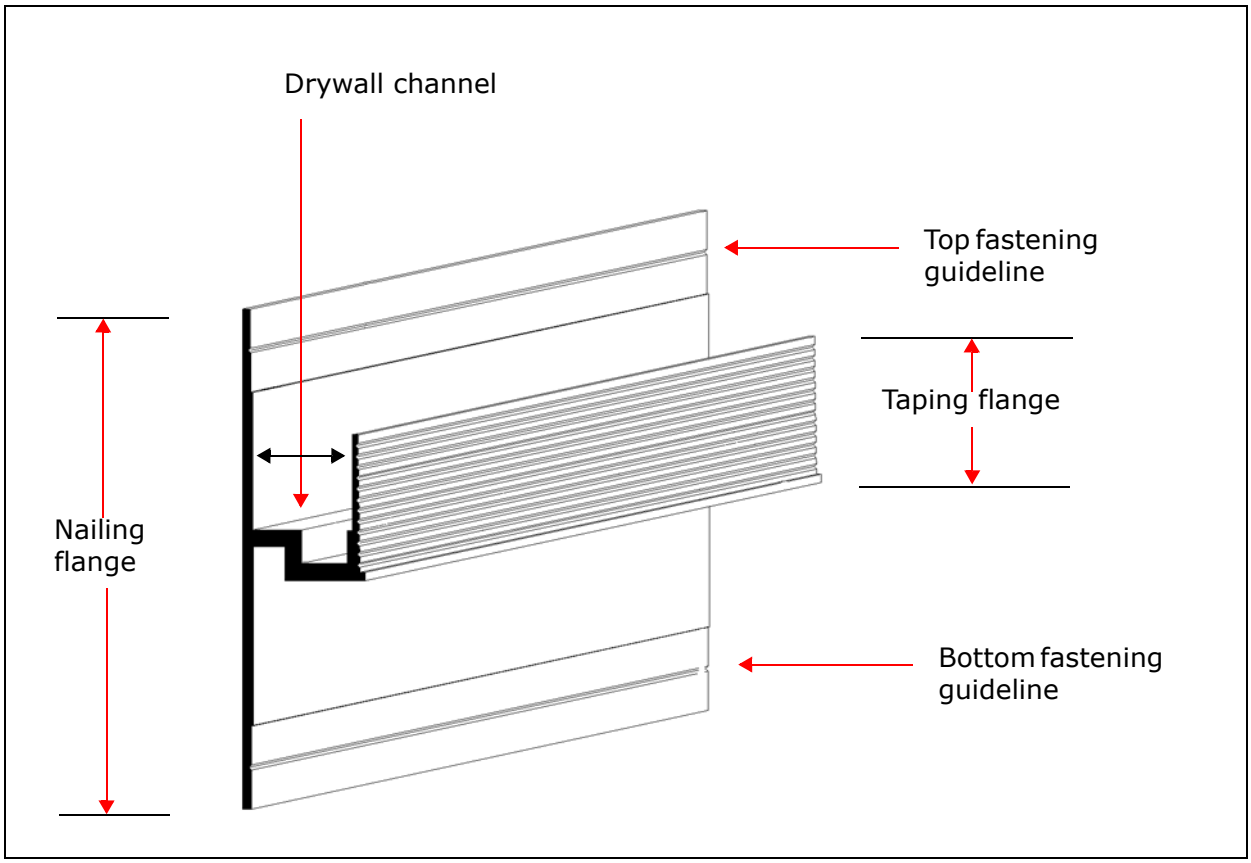
The UMB:

- solves the most difficult aspects of installation, and,
- creates beautiful results quickly and easily.

Parts of the UMB

Figure 1-1, next, shows the parts of the UMB. Reference this figure when reading this guide, for any questions about terminology or part names.

Figure 1-1: *Parts of the UMB.*



Here is a description of the parts of the UMB that are labeled in Figure 1-1:

- *Drywall channel*—Drywall rests in the *drywall channel* of the UMB. For instructions on installing drywall in the drywall channel, see Chapter 5, "Installing the drywall," on page 37.
- *Nailing flange*—Screws or nails are placed in the*nailing flange* when the UMB is fastened to the framing. The nailing flange is engineered to conform to uneven framing, while supporting the drywall between studs in the framing, and the baseboard below. Chapter 4, "Fastening the UMB to framing," on page 25, has more information about fastening the UMB to the framing.

- *Top fastening guideline* and *bottom fastening guideline*—When the UMB is fastened to the wall, the *top fastening guideline* and the *bottom fastening guideline* are used as a guide to install screws or nails to the nailing flange. Drywall is also screwed to the top fastening guideline when the drywall is installed. Chapter 5, "Installing the drywall," on page 37, has more information about drywall installation.
- *Taping flange*—Drywall is taped to the *taping flange* with bonder, during the drywall taping and finishing process. For more information on taping drywall to the UMB, see "Taping the drywall to the UMB" on page 47 of Chapter 5.

Benefits of the UMB

The UMB is a leading edge solution, and its advantages include that it:

- *Eliminates expensive blocking*—The top of the nailing flange both:
  - makes the UMB easy to install, and,
  - more importantly, supports the edge of the drywall between the studs in the framing.

  Traditionally, blocking is installed at the bottom of every wall that has a flush baseboard. Blocking is expensive and consumes time. The UMB eliminates this extra work.
- *Supports the baseboard*—The bottom of the nailing flange both:
  - supports the baseboard, and,
  - aids the installation of the baseboard.
- *Is engineered to produce good results*—Both the top and bottom of the nailing flange are engineered to deform when fastened to a stud that is not flush with the face of the adjacent studs in the framing. The center of the UMB is strong and holds the drywall taping area straight and true. Even when the framing is not perfect, the finished product does not look wavy and ugly. This feature helps drywall contractors, and the finished project looks good.
- *Keeps things straight*—The UMB is inherently strong, and wants to stay straight. It acts as a straight edge, and helps keep the construction project straight.
- *Makes baseboard installation easy*—The UMB aids the installation of the baseboard. Because the UMB is straight and has a flange and a groove, the top edge of the baseboard is guided in straight and aligns automatically with the face of the drywall. No shimming is required.

- *Speeds up a construction project*—The UMB can be installed early in the project, before the drywall installation, and even before the electrical rough-in. Early installation of the UMB ensures that all the electrical plugs are set at an equal distance from the UMB, rather than from the uneven subfloor. Electricians can use gauge blocks to set their boxes so that the finished project is perfect, since they are not measuring off an uneven subfloor, but the exact top of the baseboard.

  This benefit applies equally well to other rough-in trade parts of the project, such as HVAC grills, speakers, and switches. All benefit from their installation relative to the UMB.

Comparing the UMB with conventional flush baseboards

Table 1-1, next, compares the Tektrim UMB with conventional flush baseboards.

Table 1-1: *The Tektrim UMB compared to conventional baseboards that are flush to the wall.*

	Tektrim UMB	Conventional flush baseboard details
Blocking between studs in the framing	Blocking between studs in the framing is not necessary, because the UMB flanges support both the drywall and the baseboard completely.	Blocking between studs in the framing is essential to support the baseboard, because the joints of conventional flush baseboards and drywall accessories are fragile.
Timing of installation	The UMB is installed before the drywall. Its installation does not slow down the construction project, because drywall hanging and taping are on the critical path, but UMB installation is not.	A conventional flush baseboard is installed after the drywall. Its installation slows down the whole project, because drywall hanging is on the critical path.

Table 1-1: *The Tektrim UMB compared to conventional baseboards that are flush to the wall.*

	Tektrim UMB	Conventional flush baseboard details
Setting the height of the drywall	The UMB sets the height of the drywall and other trade work, because the UMB is the level line. Other trades use that line to set their rough-in heights correctly.	Without the UMB, hanging drywall at the correct height off the floor is tough. Using gauge blocks or strips is costly and yields unpredictable results.
Accommodations for uneven framing	The UMB compensates for uneven framing, because the nailing flange is engineered to bend.	The framing must be shaved and the blocking must be flush in conventional flush baseboards. If the blocking is not perfect, the detail is not right.
Drywall installation	Drywall installs faster since drywall "drops" in the drywall channel of the UMB. The UMB keeps the drywall straight and strong between the studs of the framing.	Drywall installation is slower because the height must be correct.
Strength and durability	The UMB strengthens the joint between the baseboard and the drywall. The UMB is also tough, and can take more abuse than a conventional flush baseboard detail.	A conventional flush baseboard detail is fragile even if all its parts are installed correctly. The installer is sometimes called back to repair it the first time it is bumped.

Table 1-1: *The Tektrim UMB compared to conventional baseboards that are flush to the wall.*

	Tektrim UMB	Conventional flush baseboard details
Ease of installation	The UMB installs much more quickly than other drywall metal pieces install. The longer pieces of the UMB create less joints.	Conventional flush baseboards are difficult to install. The trim metal needs to be shimmed, and most rooms have joints that show and crack.
Price	UMB installation costs are less than those of most conventional flush baseboards.	Most conventional flush baseboards cost significantly more than the UMB.
Aesthetics	The UMB creates a line that is beautiful, straight, and clean.	Conventional flush baseboards are almost impossible to install perfectly.

Installing the UMB

Follow these steps to install the UMB:

1. Determine the height at which to install the UMB. Chapter 2, "Determining the height to install the UMB," on page 11, provides instructions on determining the height at which to install the UMB.
2. If the subfloor is not level, provide solutions to this problem. “What to do when the subfloor is not level” on page 14 in Chapter 2 provides solutions for a subfloor that is not level.
3. Cut the UMB just as you would cut any long, thin trim. Chapter 3, "Cutting the UMB," on page 19, provides information about cutting the UMB and cutting aluminum in general.

4. Fasten the UMB to the framing. See Chapter 4, "Fastening the UMB to framing," on page 25 for options on fastening the UMB to both wood and metal framing.
   - If the framing is wood, see "Fastening the UMB to wood framing" on page 26 in Chapter 4.
   - If the framing is metal, see "Fastening the UMB to metal framing" on page 32 in Chapter 4.
5. Install the drywall. See Chapter 5, "Installing the drywall," on page 37, for detailed instructions about installing drywall.
6. Install the floor.

   Note: In some cases, the materials of the floor and the baseboard make it more practical and economical to install the floor after installing the baseboard. If this is the case, do Step 7*, next, before* Step 6*. To see if this may be the case, read* "When to install the floor and when to install the baseboard" on page 54 *of* Chapter 6*.*
7. Install the finished baseboard. See Chapter 6, "Installing the baseboard," on page 53, for more information about installing the baseboard.

Environmental issues

Tektrim is highly committed to the global environment, and Tektrim is very serious about keeping the built environment sustainable and green. Tektrim is constantly improving its products and processes to minimize any negative environmental footprint.

The aluminum UMB

The Tektrim UMB is made of aluminum, and can be made of recycled aluminum. Aluminum is an environmentally sound material choice of building products. Aluminum is highly sought after for recycling, due to its high scrap price at recycling centers. A higher percentage of aluminum is recycled around the world than any other material. The percentage of aluminum that is recycled each year is projected to increase for the foreseeable future.

Environmental resources

See the following links for more information about aluminum as a building material and for further concerns about how designs and material selections impact the environment:

http://www.aluminum.org

http://www.world-aluminium.org/Sustainability

http://www.aac.aluminium.qc.ca

http://www.aec.org/assets/pdfs/lifecycle.pdf

http://www.umich.edu/~nppcpub/resources/compendia/architecture.html

http://www.themetalinitiative.com/content/building_with_metal/types_of_metal/aluminum.cfm

Chapter 2

Determining the height to install the UMB

This chapter shows how to determine the correct height to install the UMB, including:

Setting the height of the UMB

Follow these steps to set the height of the UMB:

1. Determine the thickness, or build-up, from the subfloor to the top of the finished flooring material. This is the height of the finished floor relative to the subfloor.
2. Determine the height of the baseboard. You can usually find the baseboard height by checking the architectural plans or asking the architect, foreman, job superintendent, project manager, or designer.
3. Determine the height of the shadow line, if any.
4. Add the numbers from Step 1, Step 2, and Step 3 together to get the height at which to set the UMB.

Height of the floor material	+	Height of the baseboard	+	Shadow line	=	Height of the UMB

Figure 2-1, next, shows how to find the height of the UMB by adding the heights of the baseboard, finish floor, and shadow line (if any).

Figure 2-1: *Find the height of the UMB by adding the heights of the finish floor, baseboard, and shadow line.*

Example 2-1

In this example, the subfloor is a concrete slab. The finished floor is tile that will be ¾ inch thick. In other words, after installation, the finished floor will be ¾ inch higher than the subfloor. The architectural plans determine that the baseboard will be 4 inches high.

You can calculate the height to set the UMB at, because you have the following information:

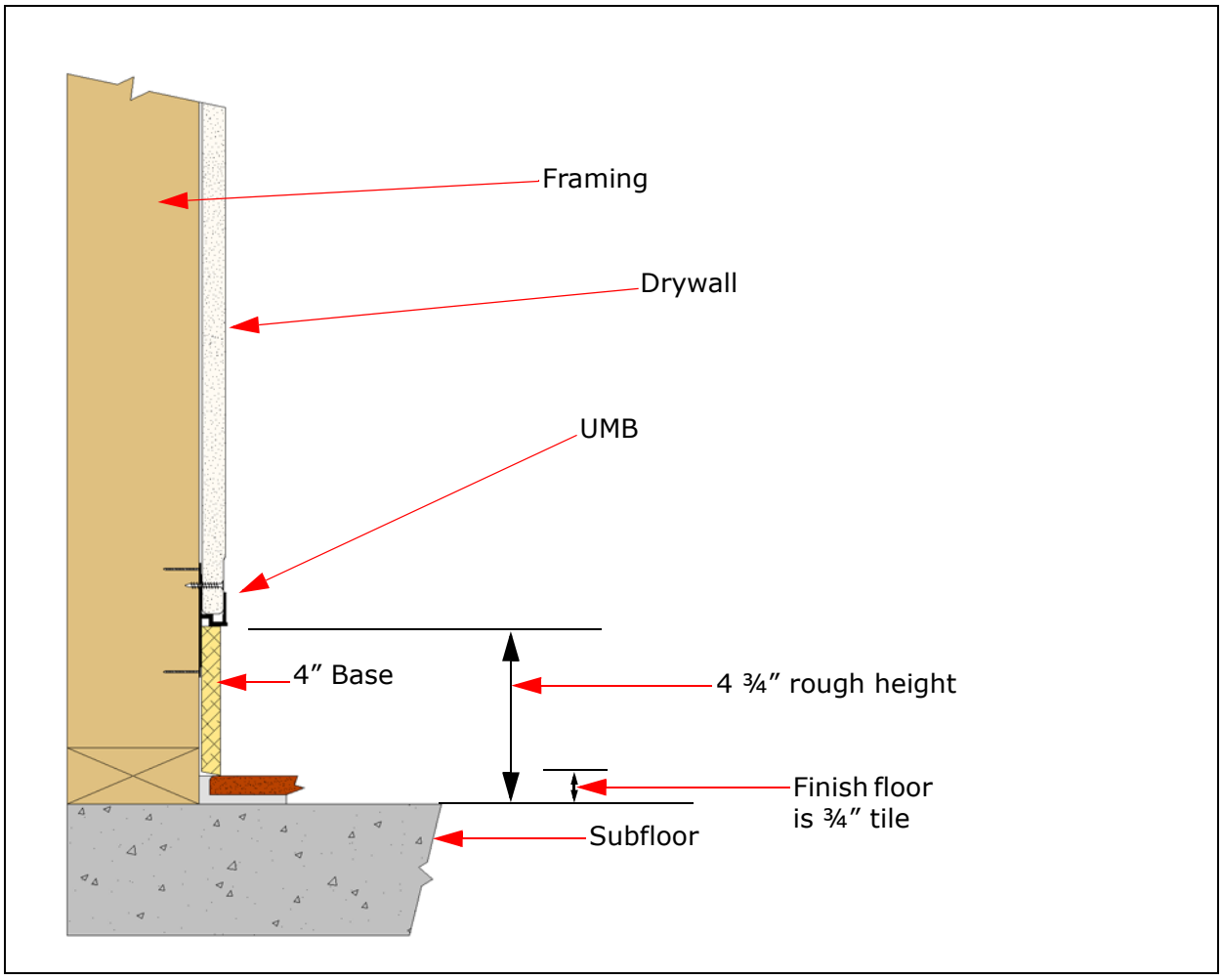
- The tile will be ¾ inch thick. (See Step 1.)
- The baseboard will be 4 inches high. (See Step 2.)
- There will be no shadow line. (See Step 3.)

Add these numbers to get 4 and ¾ inch. (See Step 4.) This is the height at which to install the UMB. (See Figure 2-2.)

¾ inch (tile) +
4 inches (baseboard) +
0 inches (shadow line)
= 4 ¾ inches

Figure 2-2, next, shows the height at which to install the UMB in Example 2-1, when the tile floor is ¾ inch and the baseboard is 4 inches.

Figure 2-2: *The height at which to install the UMB is 4 and ¾ inches, when the floor is ¾ inch and the baseboard is 4 inches.*



Example 2-2

In this example, conversations with the architect determine that there will be no baseboard, and a ¾ inch shadow line. In other words, there will be a ¾ inch space between the UMB and the floor. The subfloor is a concrete slab, and the finished floor is tile that will be ¾ inch thick.

You can calculate the height to set the UMB at, because you have the following information:

- The tile will be ¾ inch thick. (See Step 1.)
- There will be no baseboard. (See Step 2.)
- The shadow line will be ¾ inch. (See Step 3.)

Add these numbers to get 1 and ½ inch. (See Step 4.) This is the height at which to install the UMB.

¾ inch (tile) +
0 inches (baseboard) +
¾ inch (shadow line)
= 1 ½ inches

What to do when the subfloor is not level

A subfloor that is not level can have several causes. However, to manage a subfloor that is not level, do one of the following:

- Install the UMB relative to the subfloor; that is, out of level. For more information, see "Installing a UMB that follows the subfloor" on page 15.
- Install the UMB level and level the subfloor or finish flooring. There are many good products on the market for floor leveling. For more information, see "Installing a UMB that is dead level" on page 16.

In other words, the solution is to know whether to install the baseboard dead level or following the out-of-level subfloor.

Talk to the general contractor before installing the UMB, to decide whether to level the subfloor. Consider the following factors when making this decision:

- The context of the installation.
- The budget.
- The expectations of the client and the architect.

A tile floor or a stone floor is typically floated dead level. In these cases, the UMB and the baseboard need to also be installed dead level.

When a floor is made of wood plank, carpet, or sheet goods, it may not be installed dead level. In these cases, the baseboard can be installed relative to the subfloor that is out of level.

Installing a UMB that follows the subfloor

Perform the following steps to install a UMB that follows the subfloor:

1. Determine the height at which to install the UMB. See "Setting the height of the UMB" on page 11 to determine the height at which to install the UMB.
2. Cut several wood gauge blocks to set the baseboard height quickly and easily as you install the UMB.

   Note: A useful tip when using gauge blocks is to cut them square so that they are the correct measurement every way they are facing.

   In Example 2-1, the installed height of the UMB is determined to be 4 and ¾ inch. So, in this example, cut several gauge blocks 4 and ¾ inch square.
3. Start cutting the first piece of UMB. See Chapter 3, "Cutting the UMB," on page 19 for information about cutting the UMB.
4. Position the UMB on the floor resting on the gauge blocks that you cut in Step 2.
5. Fasten the UMB to the framing and continue installing the rest of the project.

Figure 2-3, next, shows how to use wooden blocks as a height gauge by setting the UMB on them.

Figure 2-3: *Cut square blocks to the dimensions of your UMB height and position the UMB on the floor resting on these gauge blocks.*

Installing a UMB that is dead level

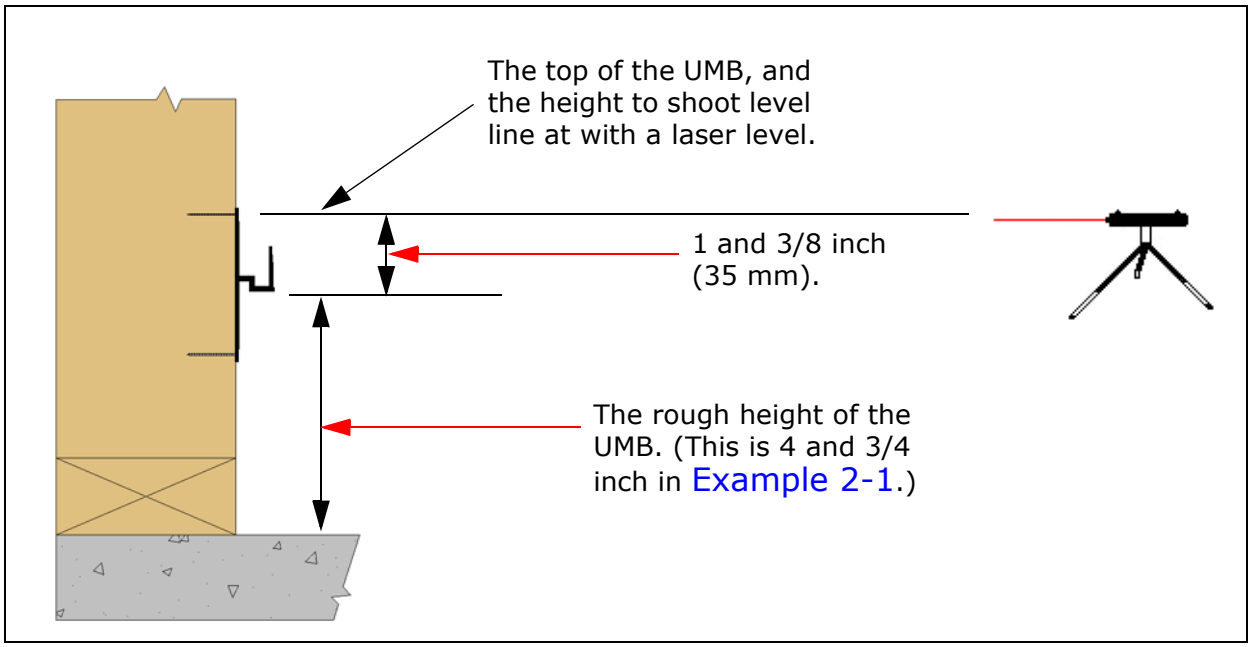
Layout for a level floor is generally easy.

Perform the following steps to install a UMB that is dead level:

1. Use a laser level, transit level, or builder's level to shoot a line around the area to receive the UMB and the baseboard. (See Figure 2-4.)
2. Install the UMB relative to that level line.

Figure 2-4, next, shows dimensions for installing the UMB for a level floor.

Figure 2-4: *In this figure, the height at which to install the UMB is 4 and ¾ inches, because the floor is ¾ inch and the baseboard is 4 inches.*



What to do after setting the height of the UMB

Once you know the height to install the UMB, you can begin cutting your UMB material to the appropriate dimensions. SeeChapter 3, "Cutting the UMB," on page 19 for more information and instructions on cutting the aluminum UMB.

Chapter 3

Cutting the UMB

This chapter shows how to cut the aluminum UMB, and includes the following sections:

Getting ready to cut the UMB

Before cutting the UMB, be sure that the following is done:

- The height at which to install the UMB is calculated and determined. For information on doing this, see Chapter 2, "Determining the height to install the UMB," on page 11.
- If the subfloor is not level, there is a solution to this problem. For more information, see "What to do when the subfloor is not level" on page 14 in Chapter 2.
- Proper aluminum cutting safety procedures are taken. Cutting the UMB is the same as cutting any aluminum part or accessory. All the same procedures and safety precautions apply.

Steps to cut the UMB

Follow these steps to cut the UMB:

Note: Follow all standard industry safety procedures. Wear safety glasses.

1. Use a chop saw with a blade that is designed specifically for cutting aluminum. See "Selecting a cutting blade" on page 21 for more information about choosing a blade that is specifically designed for cutting aluminum.
2. Set up the saw table so that it is like that of a carpenter getting ready to cut and install long thin trim.

   Note: Safe practice includes clamping the aluminum against the chop saw fence.
3. Allow the chop saw to come up to full speed before starting the cut.
4. Feed the blade slowly and steadily through the UMB until the cut is complete. (See Figure 3-1.)
5. Allow the blade to come to a full stop in the down position before raising it up from the aluminum material.
6. Be sure that the chop saw blade is kept clean and lubricated regularly during the workday. See "Maintaining the cutting blade" on page 23 for more information.

Figure 3-1, next, shows how to use a chop saw to cut the aluminum UMB.

Figure 3-1: *Feed the chop saw blade slowly and steadily through the aluminum UMB.*

Selecting a cutting blade

Use a sharp carbide tipped blade that is designed specifically for cutting aluminum. This is typically called a metal cutting blade. Use a metal cutting blade for:

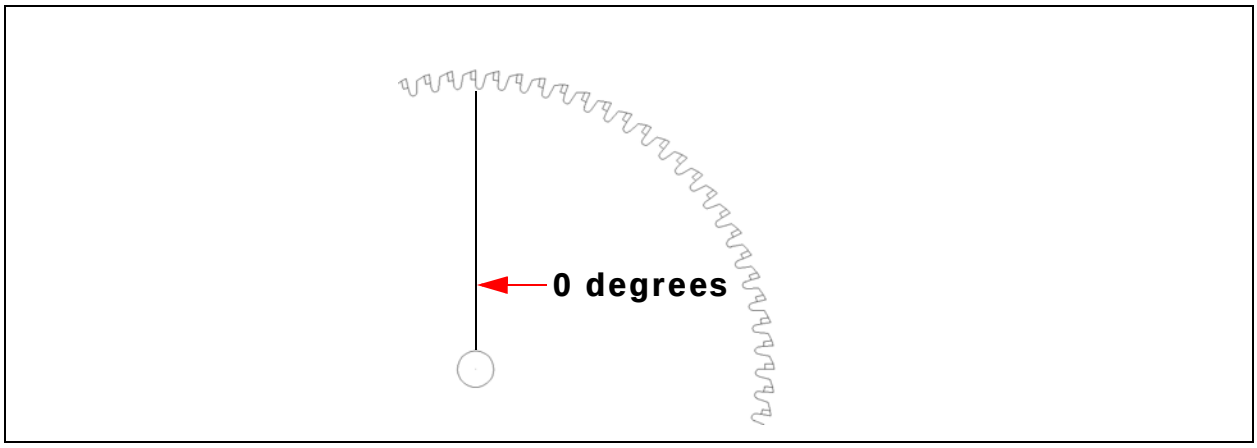
- Safe cutting.
- Good results.

A metal cutting blade has a different tooth geometry than a comparable wood blade. It cuts cleanly and is safer to use, because its teeth do not have any tooth hook. Blades with tooth hook are designed for severing wood fibers and are prone to catching or grabbing in aluminum, creating an unsafe condition.

Metal cutting blades

Figure 3-2, next, shows a typical metal blade. Its teeth have zero tooth hook.

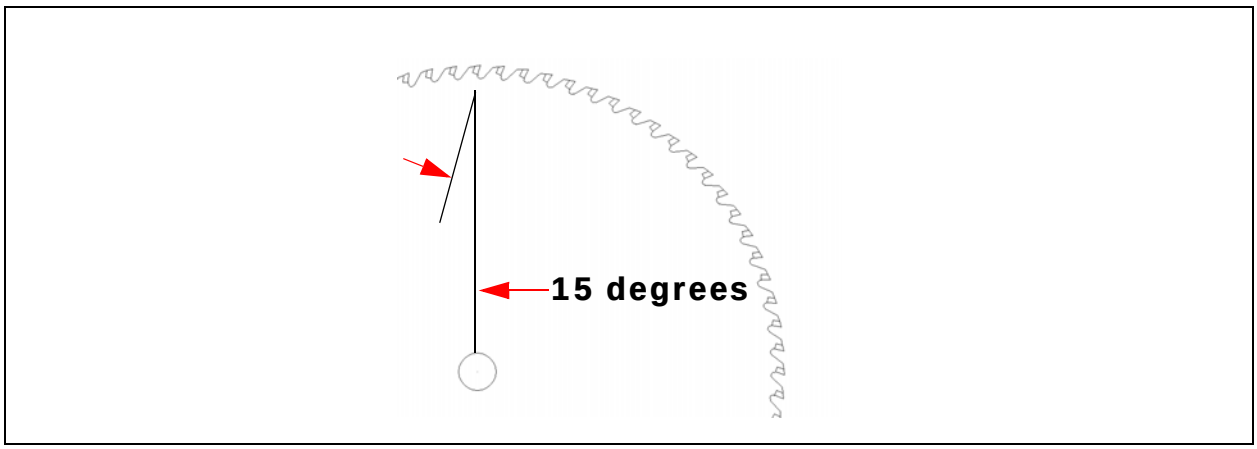
Figure 3-2: *A typical metal cutting blade. Its teeth have no tooth hook.*



Wood cutting blades

Figure 3-3, next, shows a typical wood blade. Its teeth have more hook.

Figure 3-3: *A typical wood cutting blade. Its teeth have more tooth hook than that of a metal cutting blade.*



Maintaining the cutting blade

Apply stick or spray lubricant periodically to the blade to keep it clean and cutting smoothly.

What to do after cutting the UMB

Once the UMB is cut to the appropriate dimensions, it is ready to be fastened to the framing. See Chapter 4, "Fastening the UMB to framing," on page 25 for information about and instructions on fastening the UMB to the framing.

- If the framing is wood, see “Fastening the UMB to wood framing” on page 26 in Chapter 4.
- If the framing is metal, see “Fastening the UMB to metal framing” on page 32 in Chapter 4.

Chapter 4

Fastening the UMB to framing

This chapter shows how to fasten the UMB to wood and metal framing, and includes the following sections:

Getting ready to fasten the UMB

Before you fasten the UMB to the framing, be sure that all the following is done:

- The height at which to install the UMB is calculated and determined. For information on doing this, see Chapter 2, "Determining the height to install the UMB," on page 11.
- If the subfloor is not level, a solution to this problem is determined. For more information, see "What to do when the subfloor is not level," on page 14 in Chapter 2. So, if the subfloor is not level, plan to do one of the following:
  - Install the UMB level, and be sure to have a level line with which to work. For more information, see "Installing a UMB that is dead level," on page 16 in Chapter 2.
  - Install the UMB relative to the subfloor, and have the correct gauge blocks in hand. For more information, see "Installing a UMB that follows the subfloor," on page 15 in Chapter 2.
- The UMB material is cut to the appropriate dimensions. Cutting the UMB is like cutting any other aluminum part. For more information, see Chapter 3, "Cutting the UMB," on page 19.

To fasten the UMB to the wall, read the directions in one of the following sections:

- “Fastening the UMB to wood framing,” next, to fasten the UMB to wood framing.
- “Fastening the UMB to metal framing,” on page 32, to attach the UMB to metal framing.

Fastening the UMB to wood framing

This section shows how to fasten the UMB to wood framing.

(For information about fastening the UMB to metal framing, see “Fastening the UMB to metal framing,” on page 32.)

Use one of the following methods to fasten the UMB to wood framing:

- *Nails*. For more information, see “Fastening with nails,” next.
- *Screws*. For more information, see “Fastening with screws,” on page 29.

Figure 4-1, next, shows how to fasten the UMB to wood framing with a nail gun.

Figure 4-1: *Using nails with a nail gun is the fastest way to fasten the UMB to wood.*

Fastening with nails

Nails are the fastest way to fasten the UMB to wood framing. Use a nail gun to fasten the nails to the UMB and the framing. Read this section for information about selecting and placing nails in the UMB.

To fasten the UMB to wood framing with nails, follow these steps:

1. Select the size and type of nail that you need. The recommended nail to use is a finish nail that is:
   - 1¼—1½ inch long
   - 15—16 gauge

Another choice of nail may be appropriate if the head of the nail is tight to the nailing flange and does not interfere with the installation of the drywall and the baseboard later.

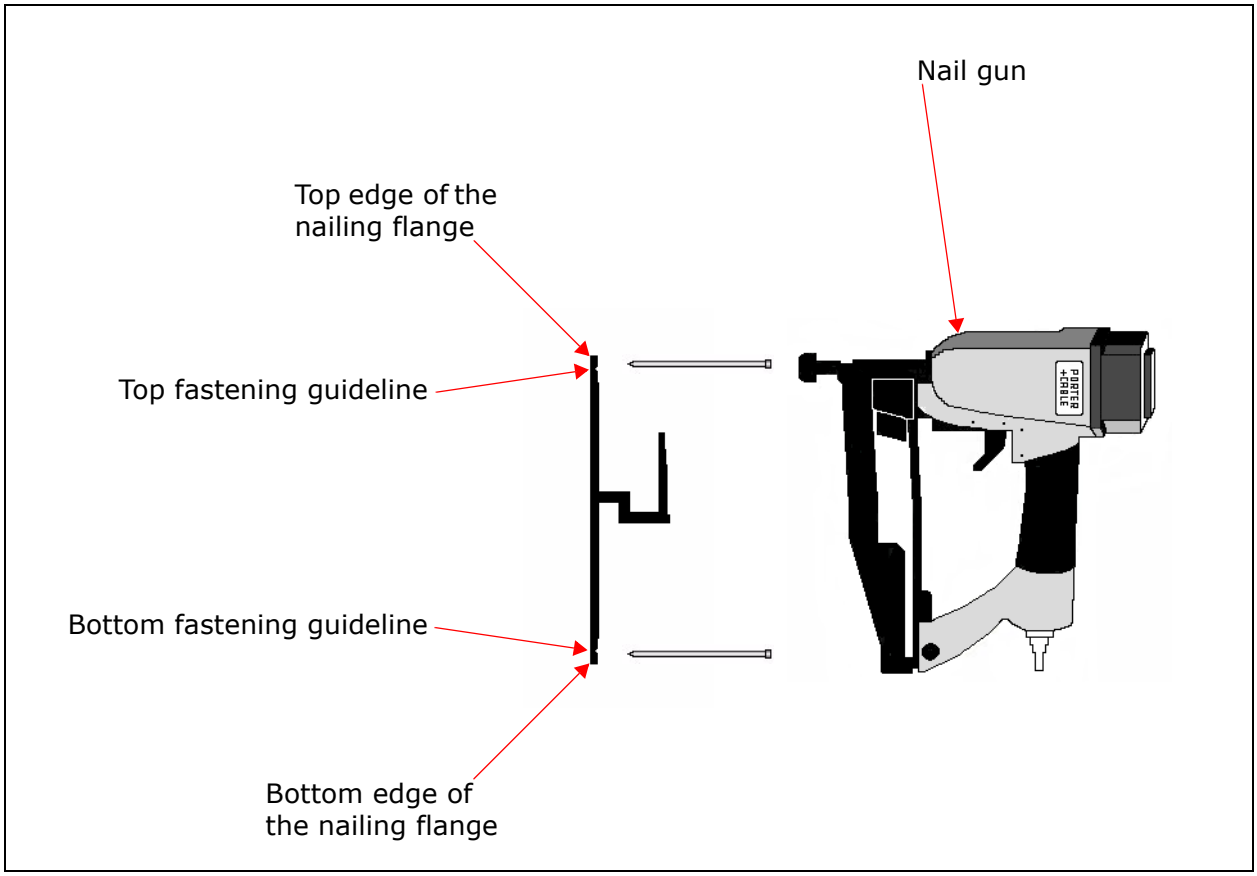
2. Center the first nail in the top fastening guideline that is ¼ inch (6mm) from the top edge of the nailing flange of the UMB. See Figure 1-1 in Chapter 1 to see the exact locations of the top fastening guideline and the nailing flange.

   Note: Follow all standard industry safety procedures. Wear safety glasses.

3. Adjust the air pressure of the nail gun so that the head of the nail creates a slight dent, or set, in the fastening guideline of the nailing flange of the UMB.
4. Shoot the nail into the fastening guideline so that it attaches the UMB to the wood stud.
5. Repeat Step 2 to Step 4 to place the second nail in the bottom fastening guideline of the UMB. The bottom fastening guideline is ¼ inch (6mm) from the bottom edge of the nailing flange of the UMB. See Figure 1-1 in Chapter 1 to see the exact locations of the bottom fastening guideline and the nailing flange.
6. Repeat Step 2 to Step 5 for each stud to which you will attach the UMB.

Figure 4-2, next, shows how to place nails correctly in the UMB.

Figure 4-2: *Placing nails correctly in the UMB.*



Fastening with screws

Screws are an excellent way to fasten the UMB to wood framing. Use a screw gun to fasten the screws to the UMB and the framing. Read this section for information about selecting and placing screws in the UMB.

To fasten the UMB to wood framing with screws, follow these steps:

1. Select the size and type of screw that you need carefully.

   The screw heads must not protrude out from the nailing flange of the UMB. If they do protrude out, they may interfere with the installation of the drywall and the baseboard later.

The recommended type of screw to use as a first choice is one of the following:

- thin pan head screw
- modified truss head screw

A good choice size screw to use is a #8 x ¾ inch screw. To see if it installs correctly, try installing a piece of baseboard and drywall as a test.

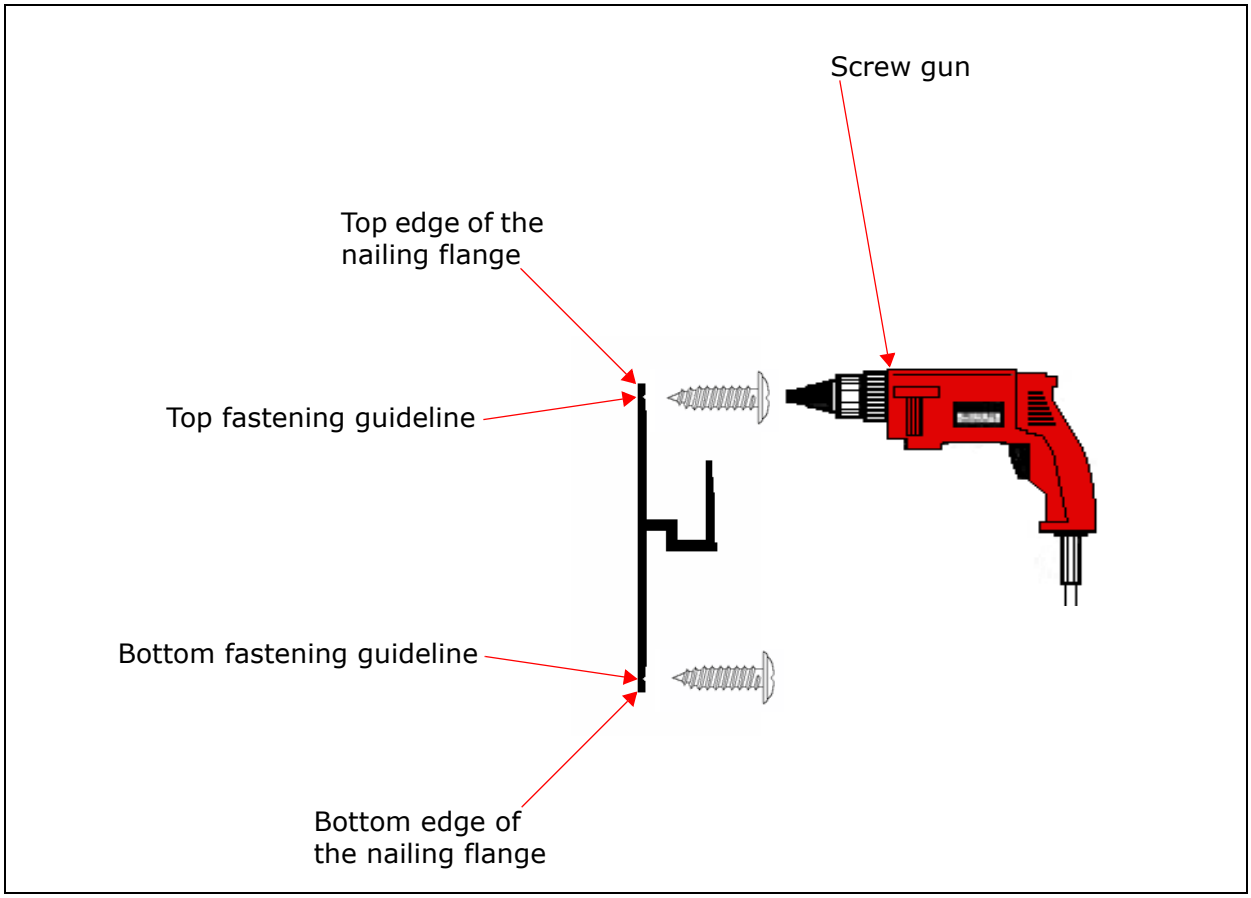
2. Center the first screw in the top fastening guideline that is ¼ inch (6mm) from the top edge of the nailing flange of the UMB. See Figure 1-1 in Chapter 1 to see the exact locations of the top fastening guideline and the nailing flange.
3. Apply the screw into the fastening guideline of the UMB so that it attaches the UMB to the wood stud.

   Note: Follow all standard industry safety procedures. Wear safety glasses.

4. Repeat Step 2 to Step 3 to place the second screw in the bottom fastening guideline of the UMB. The bottom fastening guideline is ¼ inch (6mm) from the bottom edge of the nailing flange of the UMB. See Figure 1-1 in Chapter 1 to see the exact locations of the bottom fastening guideline and the nailing flange.

Figure 4-3, next, shows how to place the screws correctly in the UMB.

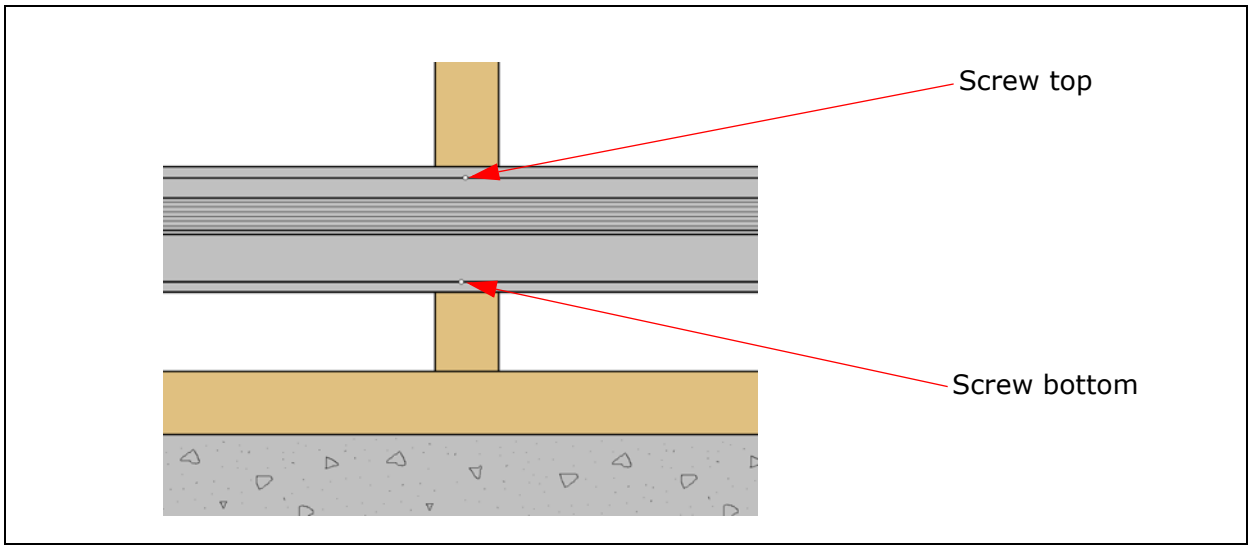
Figure 4-3: *Placing screws correctly in the UMB.*



5. Repeat Step 2 to Step 4 for each wood stud to which you will attach the UMB.

Figure 4-4, next, shows a front view of the fastener location with two screws in one stud.

Figure 4-4: *A front view of the UMB fastened to the framing, with two screws in one stud.*



Fastening the UMB to metal framing

This section shows how to fasten the UMB to metal framing.

(For information about fastening the UMB to wood framing, see "Fastening the UMB to wood framing," on page 26.)

Use one of the following methods to fasten the UMB to metal framing:

- *Pop rivets*. For more information, see "Fastening with pop rivets," next, and Figure 4-5.
- *Tapping screws*. For more information, see "Fastening with tapping screws," on page 34, and Figure 4-6.

Fastening with pop rivets

Pop rivets are an excellent way to fasten the UMB to metal framing, especially on light metal studs such as 22 and 25 gauge studs, because pop rivets are:

- *Easy*—You can just drill holes and rivet.
- *Fast*
- *Strong*
- *Very flush to the UMB*—The greatest benefit of pop rivets is that the heads of the rivets are very flush to the UMB; this feature makes installation of the drywall and the baseboard easy.

Use a pop rivet gun to fasten the pop rivets to the UMB and the framing.

To fasten the UMB to metal framing with pop rivets, follow these steps:

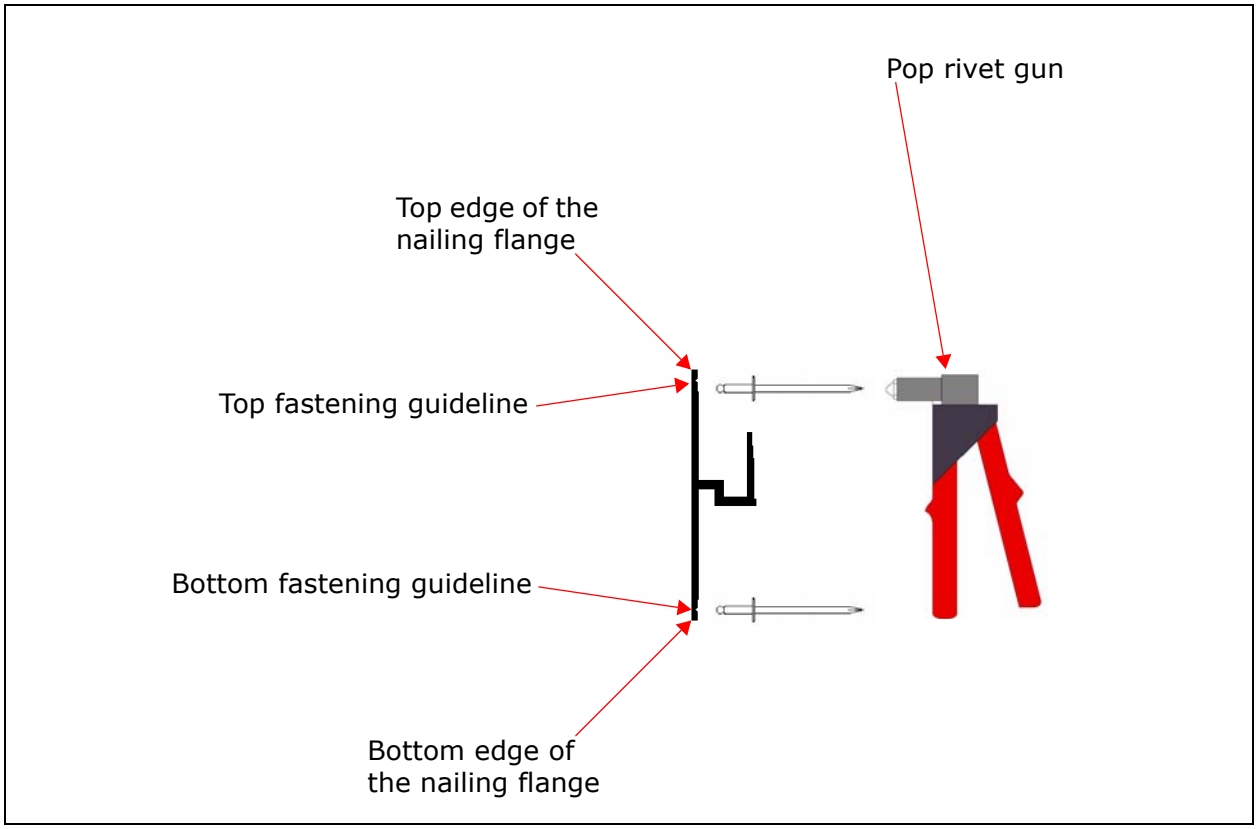
1. Center the first rivet in the top fastening guideline that is ¼ inch (6mm) from the top edge of the nailing flange of the UMB. See Figure 1-1 in Chapter 1 to see the exact locations of the top fastening guideline and the nailing flange.

   Note: Follow all standard industry safety procedures. Wear safety glasses.

2. Use the pop rivet gun to install the rivet into the fastening guideline of the UMB so that it attaches the UMB to the metal stud of the framing.
3. Repeat Step 1 to Step 2 to place the second rivet in the bottom fastening guideline of the UMB. The bottom fastening guideline is ¼ inch (6mm) from the bottom edge of the nailing flange of the UMB. See Figure 1-1 in Chapter 1 to see the exact locations of the bottom fastening guideline and the nailing flange.

Figure 4-5, next, shows how to place the rivets correctly in the UMB.

Figure 4-5: *Placing pop rivets correctly in the UMB.*



4. Repeat Step 1 to Step 3 for each metal stud to which you will attach the UMB.

Fastening with tapping screws

Tapping screws are another way to fasten the UMB to metal framing. Use a screw gun to fasten the screws to the UMB and the framing. Read this section for information about selecting and placing screws in the UMB.

> *Note: Do not use screws on light gauge studs, such as 22 and 25 gauge studs. Use pop rivets instead. For information about using pop rivets, see* "Fastening with pop rivets," on page 33, *and* Figure 4-5.

To fasten the UMB to metal framing with tapping screws, follow these steps:

1. Select the type of screw that you need carefully.

Choose a screw that has a thin pan head, or a low profile head, so that it installs with a minimum of head protrusion. A thin pan head on the screw makes the installation of the drywall and the baseboard easy.

Do not use any of the following types of screws:

- bugle head drywall screws
- flat head screws
- round head screws

2. Center the first screw in the top fastening guideline that is ¼ inch (6mm) from the top edge of the nailing flange of the UMB. See Figure 1-1 in Chapter 1 to see the exact locations of the top fastening guideline and the nailing flange.

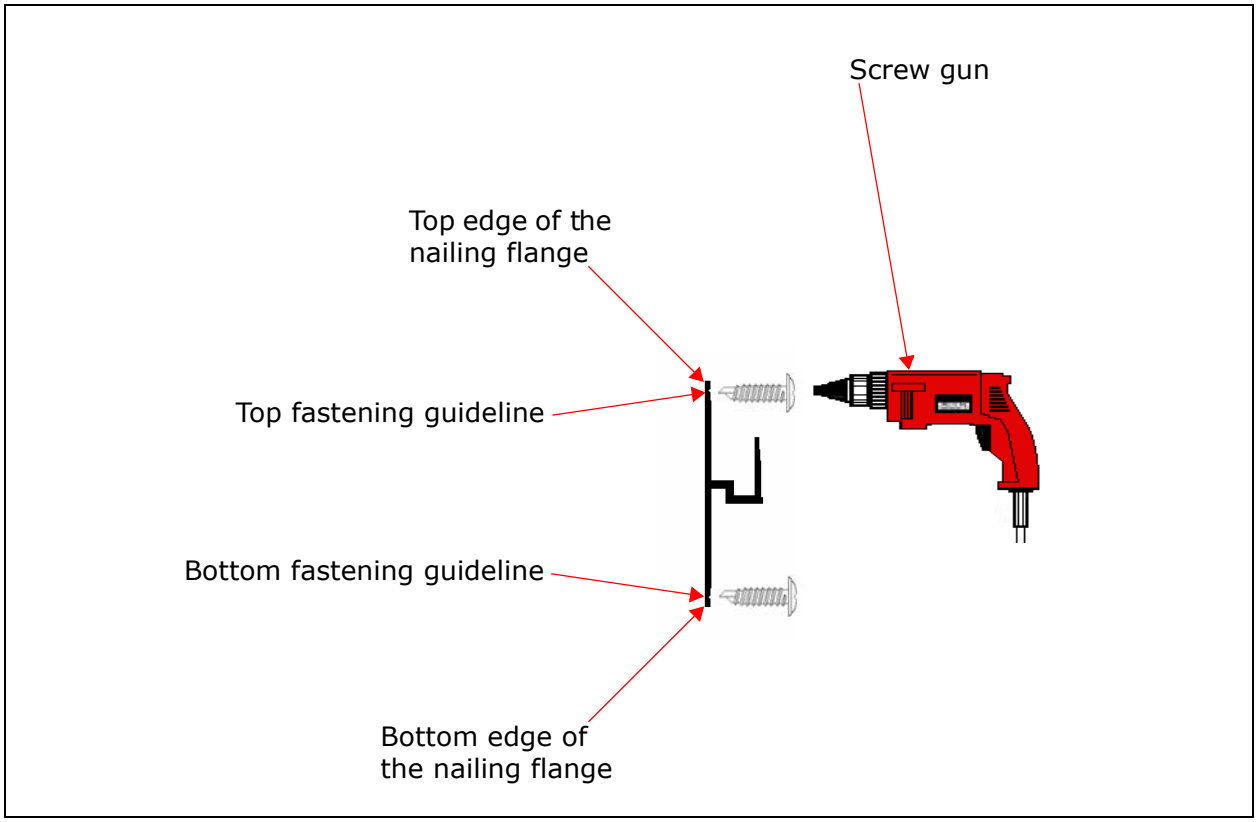
   Note: Follow all standard industry safety procedures. Wear safety glasses.

3. Apply the screw into the fastening guideline of the UMB so that it attaches the UMB to the metal stud. Be sure to not overdrive the tapping screws so that the threads strip out in the metal stud.

4. Repeat Step 2 to Step 3 to place the second screw in the bottom fastening guideline of the UMB. The bottom fastening guideline is ¼ inch (6mm) from the bottom edge of the nailing flange of the UMB. See Figure 1-1 in Chapter 1 to see the exact locations of the bottom fastening guideline and the nailing flange.

Figure 4-6, next, shows how to place the screws correctly in the UMB.

Figure 4-6: *Placing screws correctly in the UMB.*



5. Repeat Step 2 to Step 4 for each metal stud towhich you will attach the UMB.

What to do after fastening the UMB

Once the UMB is fastened to the framing, the drywall can be installed. For detailed instructions on installing drywall, see Chapter 5, "Installing the drywall," on page 37.

Chapter 5

Installing the drywall

This chapter shows how to install the drywall, and includes the following sections:

Getting ready to install the drywall

Before installing the drywall, be sure that the UMB is fastened to the framing. For more information, see Chapter 4, "Fastening the UMB to framing," on page 25.

Steps to install the drywall

Follow these steps to install drywall with the UMB:

1. Measure the sheet of drywall. For more information, see "Measuring the drywall" on page 39.
2. Insert the drywall into the drywall channel in the UMB. For more information, see "Inserting drywall into the drywall channel" on page 40.
3. Fasten, or attach, the drywall to the UMB. This step is unique to the UMB. For more information, see "Fastening the drywall to the UMB" on page 45.

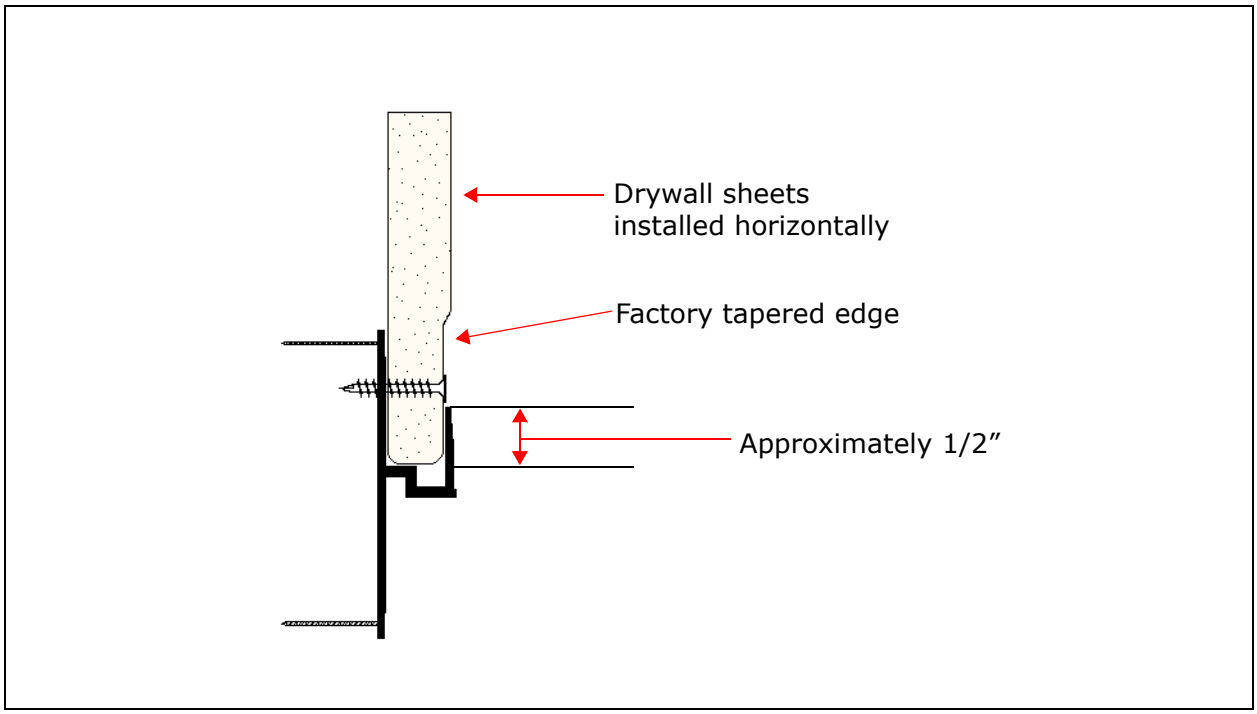
4. Tape the drywall to the UMB. For more information, see "Taping the drywall to the UMB" on page 47.

In general, use conventional installation techniques to install drywall with the UMB, except:

- Take vertical measurements from the inside bottom of the drywall channel in the UMB.
- Install the drywall horizontally, with the tapered edge inserted into the drywall channel in the UMB.
- Apply screws to fasten the drywall to the UMB between the studs in the framing.
- Apply tape with bonder to the UMB.

Figure 5-1, next, shows drywall installed in the drywall channel of the UMB.

Figure 5-1: *Drywall installed in the channel.*

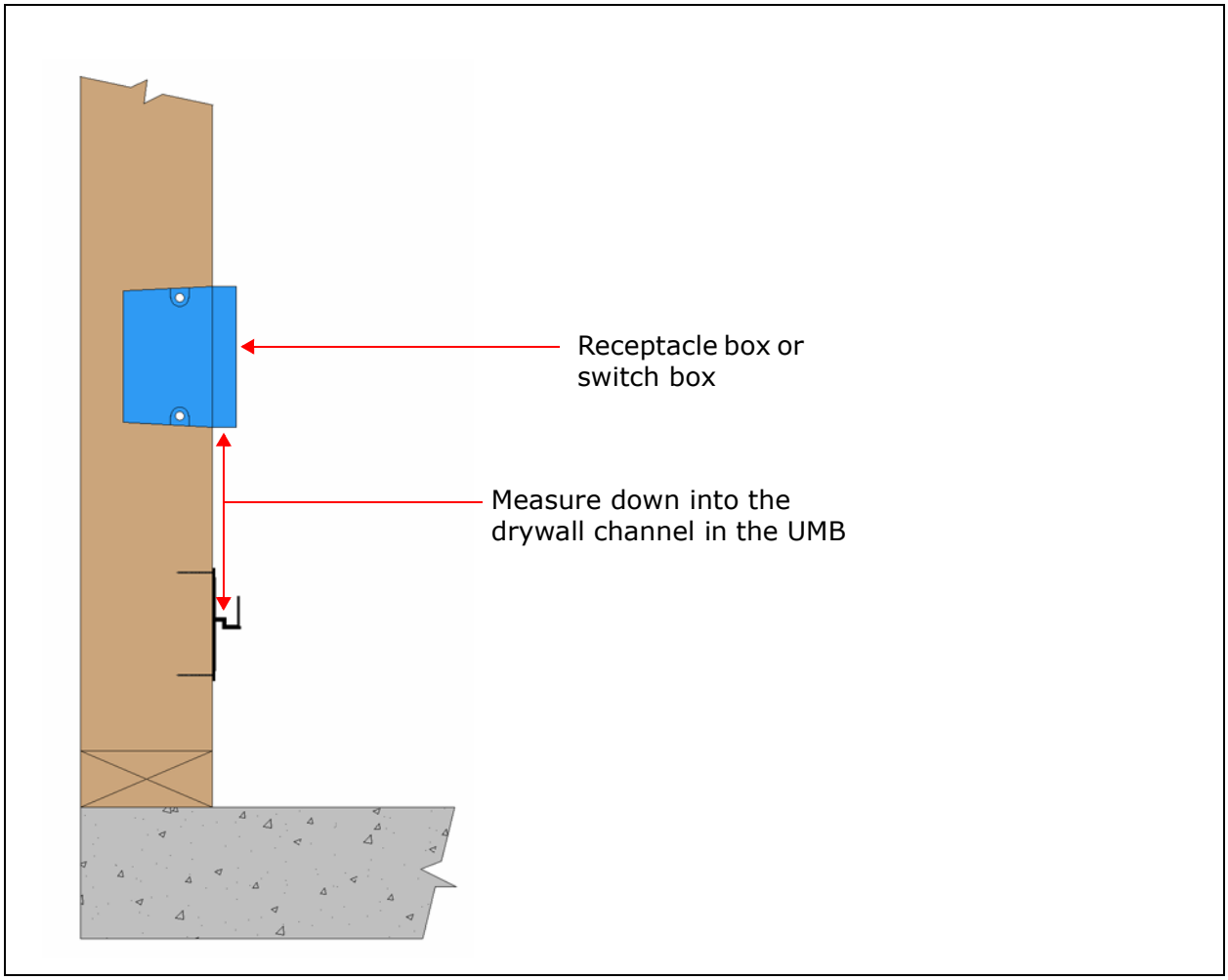


Measuring the drywall

Take all vertical measurements of distances to the UMB, such as the location of a switch box or a receptacle box, to the bottom inside of the channel where the drywall will rest in the drywall channel in the UMB. Do not measure to the top of the taping flange of the UMB.

Figure 5-2, next, shows how to measure down into the drywall channel in the UMB.

Figure 5-2: *Take all vertical measurements to the bottom inside of the drywall channel of the UMB.*



Inserting drywall into the drywall channel

Follow these steps to insert the drywall into the drywall channel in the UMB:

1. Hold the drywall sheet up horizontally with the tapered edges of the drywall sheet at the top and bottom.
2. Set the drywall sheet on the UMB. Keep the bottom edge tight to the UMB and keep the top edge out from the wall 6 to 10 inches.
3. Push the bottom edge of drywall against the UMB and drop it into the drywall channel in the UMB. A helpful tip to drop the sheet into the channel is to use your knees to push the sheet in at the bottom, while using your hands to wiggle the top edge.

Figure 5-3, next, shows the bottom edge of drywall pushed against the UMB and dropped into the drywall channel in the UMB.

Figure 5-3: *Drywall installed in the channel.*

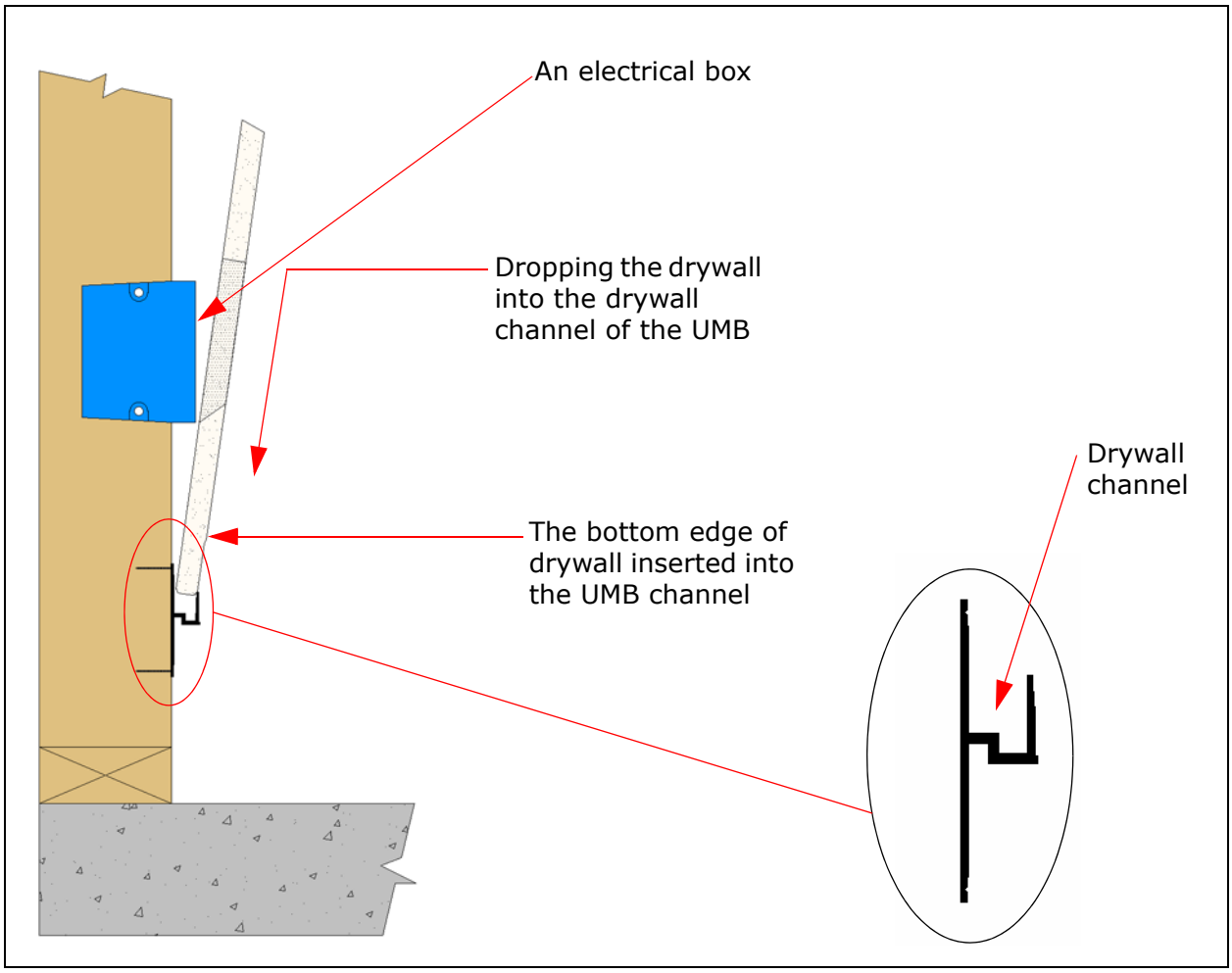


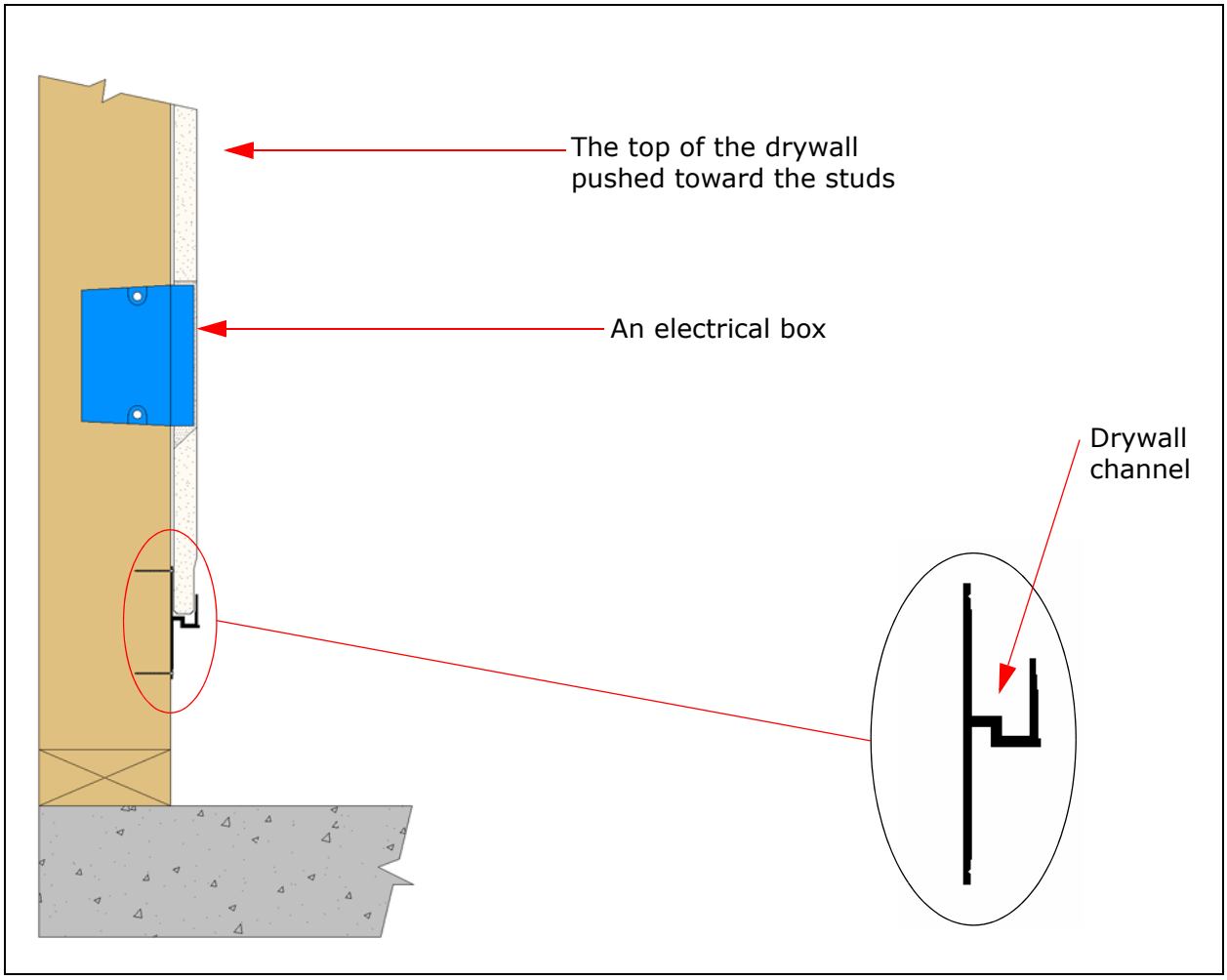
Figure 5-4, next, shows how to slip the drywall into the drywall channel of the UMB.

Figure 5-4: *To install drywall, set the sheet of drywall on the UMB, hold the sheet out at the top, use your knee to keep the bottom of the drywall on the drywall channel, and slide the drywall into the drywall channel.*

4. Push the top of the drywall toward the studs of the framing so that it is in contact with the wall and ready to fasten.

   Figure 5-5, next, shows the top of the drywall pushed toward the studs in the framing.

Figure 5-5: *Drywall installed in the channel.*



5. Fasten the top of the drywall to the framing conventionally. Using screws rather than nails is highly recommended.

Figure 5-6, next, shows how to fasten the drywall to the framing.

Figure 5-6: *Fasten the drywall to the framing conventionally.*

6. Fasten the bottom edge of the drywall to the UMB, as described in "Fastening the drywall to the UMB," next.

Fastening the drywall to the UMB

This step is unique to the UMB. While the top of the drywall can be fastened to the framing conventionally, the bottom edge of the drywall must be screwed to the top of the nailing flange of the UMB.

Follow these steps to fasten the drywall to the UMB:

1. Select #6 x 1" coarse thread drywall screws to use.
2. Install the screws at 8 inches (20 cm) on center, to draw the back of the drywall sheet in contact with the top of the nailing flange of the UMB.

Figure 5-7, next, shows how to screw the bottom edge of the drywall to the top of the nailing flange of the UMB.

Figure 5-7: *Put two screws between the studs just barely above the taping flange of the UMB.*

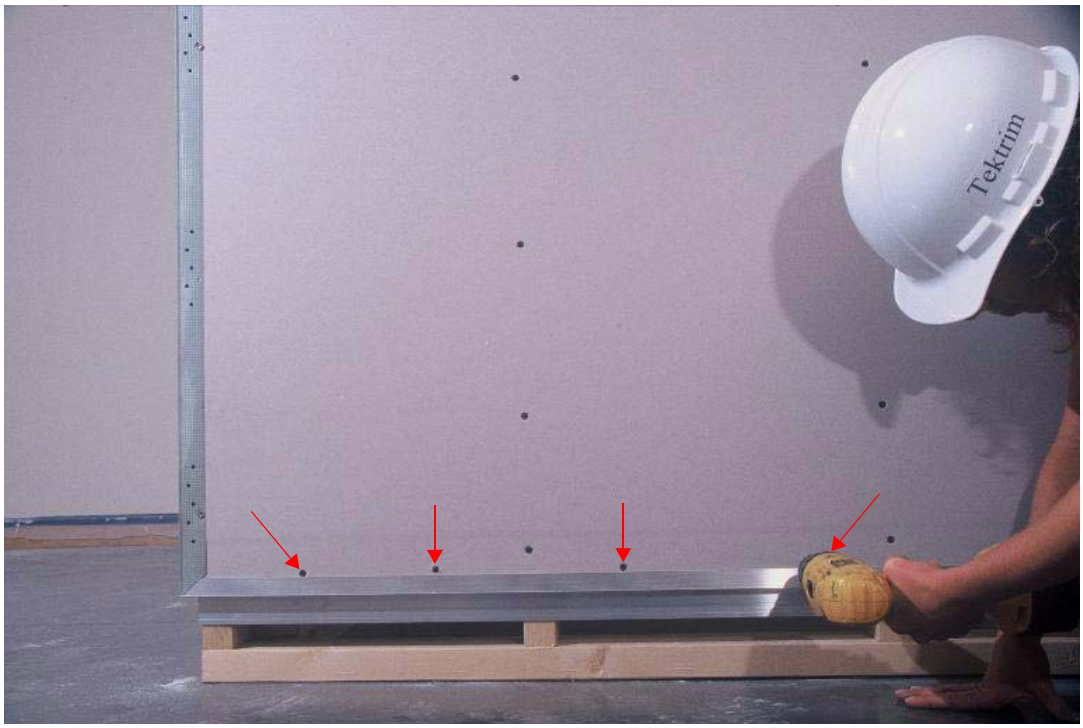


Figure 5-8, next, shows the exact location of the screws that fasten the UMB to the drywall.

Figure 5-8: *Location of the screws that fasten the UMB to the drywall.*

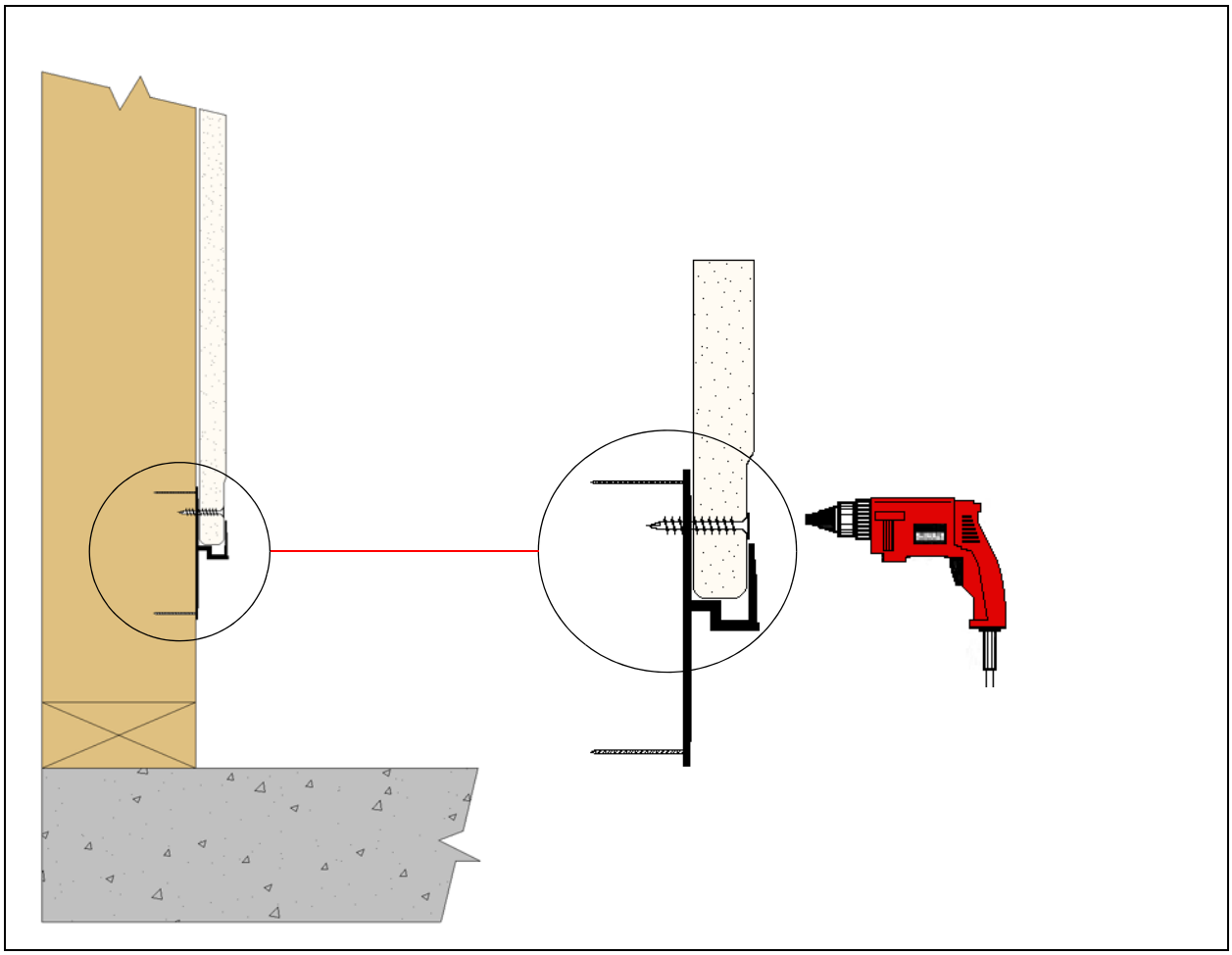
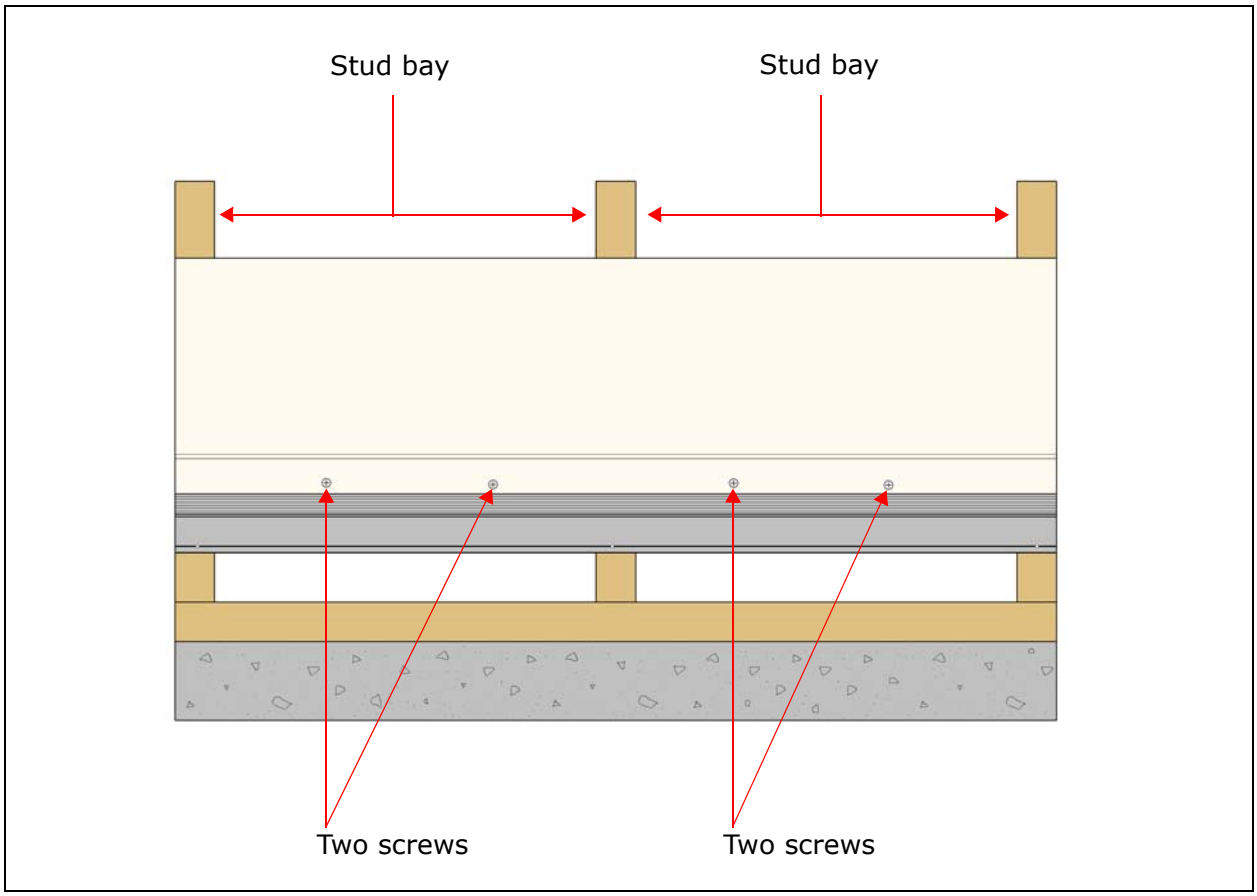


Figure 5-9, next, shows the location of these screws as seen from the front, when you face the wall and the front of the UMB.

Figure 5-9: *The location of the screws, as seen from the front.*



Taping the drywall to the UMB

Taping the drywall to the UMB is highly recommended. Although drywall is not usually taped to metal framing, the practice of taping drywall to the UMB results in few, if any, cracks in the future.

Follow these steps to tape the drywall to the UMB:

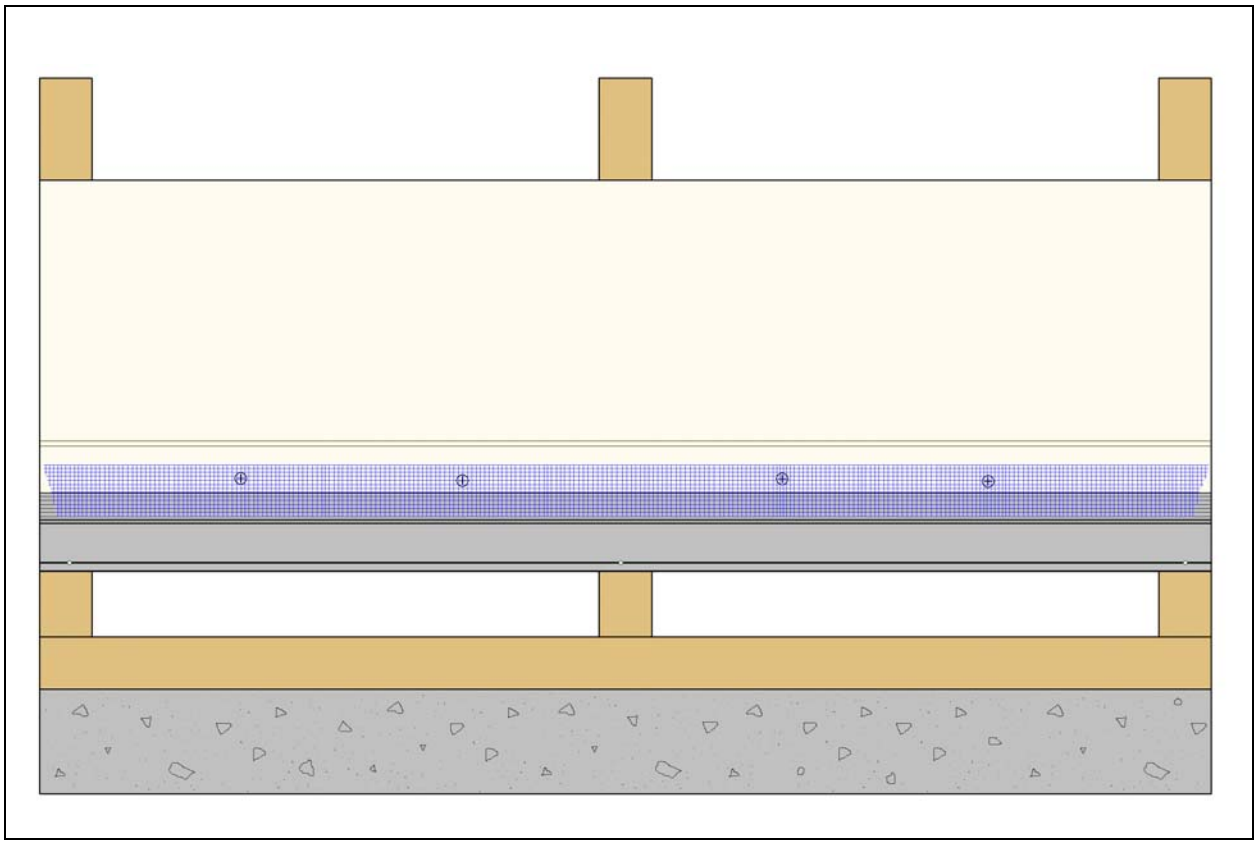
1. Apply screen tape along the joint of the drywall and the UMB.

Figure 5-10, next, shows how to tape the joint between the drywall and the UMB.

Figure 5-10: *Apply screen tape or paper tape to the joint between the drywall and the UMB.*

Figure 5-11, next, shows screen tape applied to the joint of the drywall and the UMB.

Figure 5-11: *Screen tape applied to the joint of the drywall and the UMB.*



2. Apply one coat of bonder, or white glue, over both the screen tape and the entire aluminum taping flange of the UMB.

   Note: If you are using paper tape instead of screen tape, apply the drywall bonder to the taping flange before taping begins.

Figure 5-12, next, shows how to apply bonder to both the UMB and the screen tape.

Figure 5-12: *How to apply bonder to the UMB and the screen tape.*

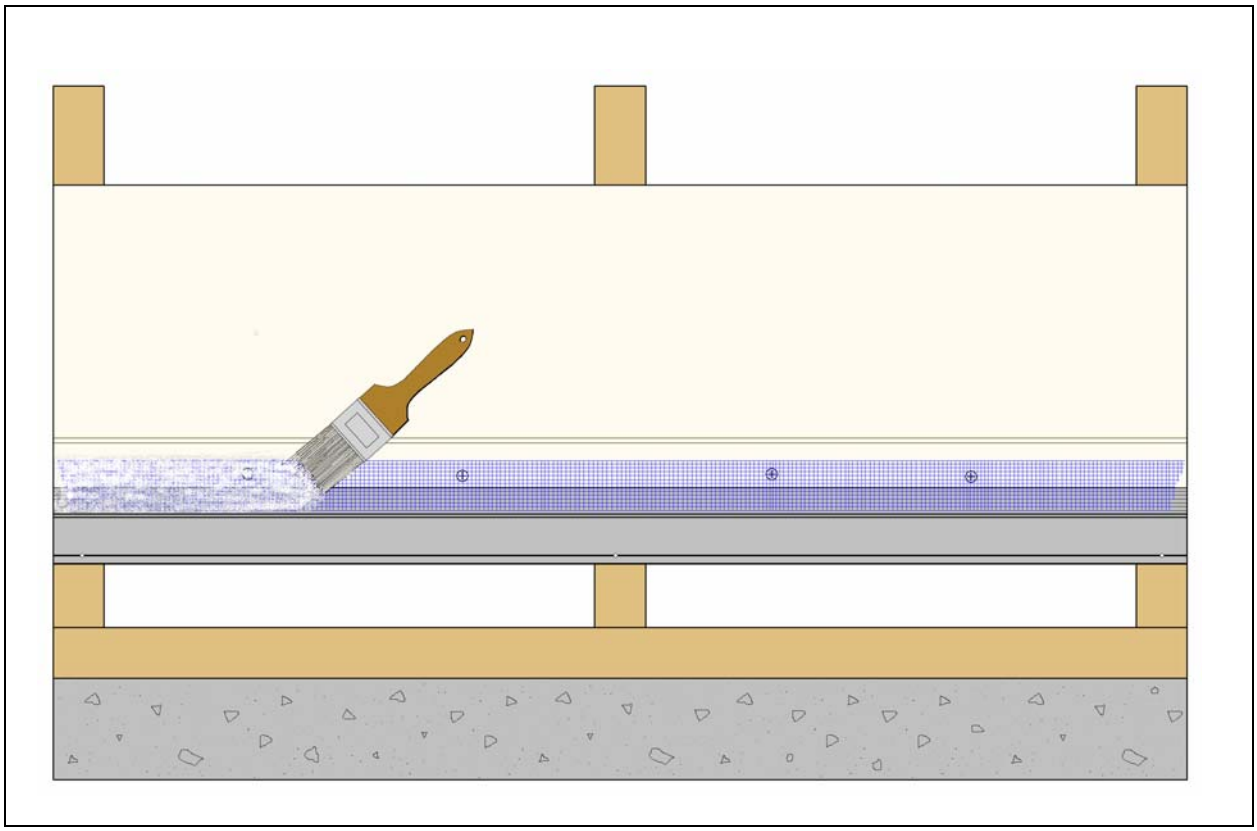


Figure 5-13, next, also shows the application of the bonding agent.

Figure 5-13: *Applying bonder.*

3. Tape the rest of the drywall conventionally.

   Figure 5-14, next, shows the drywall installation being finished.

Figure 5-14: *Tape and finish the rest of the drywall conventionally.*

What to do after installing the drywall

Once the drywall is installed, the baseboard and floor can be installed and finished. See Chapter 6, "Installing the baseboard," on page 53 for information about installing baseboards and floors that are made from several different materials.

Chapter 6

Installing the baseboard

This chapter shows how to install the baseboard, and includes the following sections:

Getting ready to install the baseboard

Before you install the baseboard, be sure that both the UMB and the drywall are installed. See Chapter 5, "Installing the drywall," on page 37 for detailed instructions on installing drywall.

Steps to install the baseboard

Follow these steps to install the baseboard:

1. Determine whether to install the baseboard before or after the finish floor. In other words, decide to do one of the following:
   - Install the floor first and install the baseboard second.
   - Install the baseboard first and install the floor second.

   The order to install the baseboard and floor depends on the materials of both the baseboard and the floor. For more information, see "When to install the floor and when to install the baseboard" on page 54.
2. Install the baseboard before or after installing the floor, as decided in Step 1. For more information on installing the baseboard, see "Installing the baseboard" on page 60.

When to install the floor and when to install the baseboard

Consider the factors that are unique to the project and decide whether to install the baseboard before or after the floor. The order to install the baseboard and the floor depends on the materials of the baseboard and floor.

Generally, install the floor first, and then install the baseboard second. This order is called a Conventional installation, and is shown in Figure 6-1. However, reverse the installation order, if the materials of the baseboard and the floor make the reverse order more practical and economical. This is called a Reverse installation, and is shown in Figure 6-2.

Table 6-1, next, shows the installation orders that are recommended for some different materials of the floor and the baseboard.

Table 6-1: *Deciding the order of installation based on the materials of the floor and the baseboard*

Floor material	Baseboard material	Installation recommendation	See also
Hardwood	Hardwood	Conventional (see Figure 6-1)	page 58
Hardwood	Laminate	Conventional (see Figure 6-1)	page 58
Hardwood	Metal	Conventional (see Figure 6-1)	page 58
Hardwood	Pre-finished	Conventional (see Figure 6-1)	page 58
Stone (clefted)	Laminate	Reverse (see Figure 6-2)	page 59
Stone (clefted)	Metal	Reverse (see Figure 6-2)	page 59
Stone (clefted)	Pre-finished	Reverse (see Figure 6-2)	page 59
Stone (clefted)	Stone	Reverse (see Figure 6-2)	page 58
Stone (clefted)	Tile	Reverse (see Figure 6-2)	page 58
Stone (flat)	Laminate	Conventional (see Figure 6-1)	page 59
Stone (flat)	Metal	Conventional (see Figure 6-1)	page 59
Stone (flat)	Pre-finished	Conventional (see Figure 6-1)	page 59
Stone (flat)	Stone	Conventional (see Figure 6-1)	page 58
Stone (flat)	Tile	Conventional (see Figure 6-1)	page 58

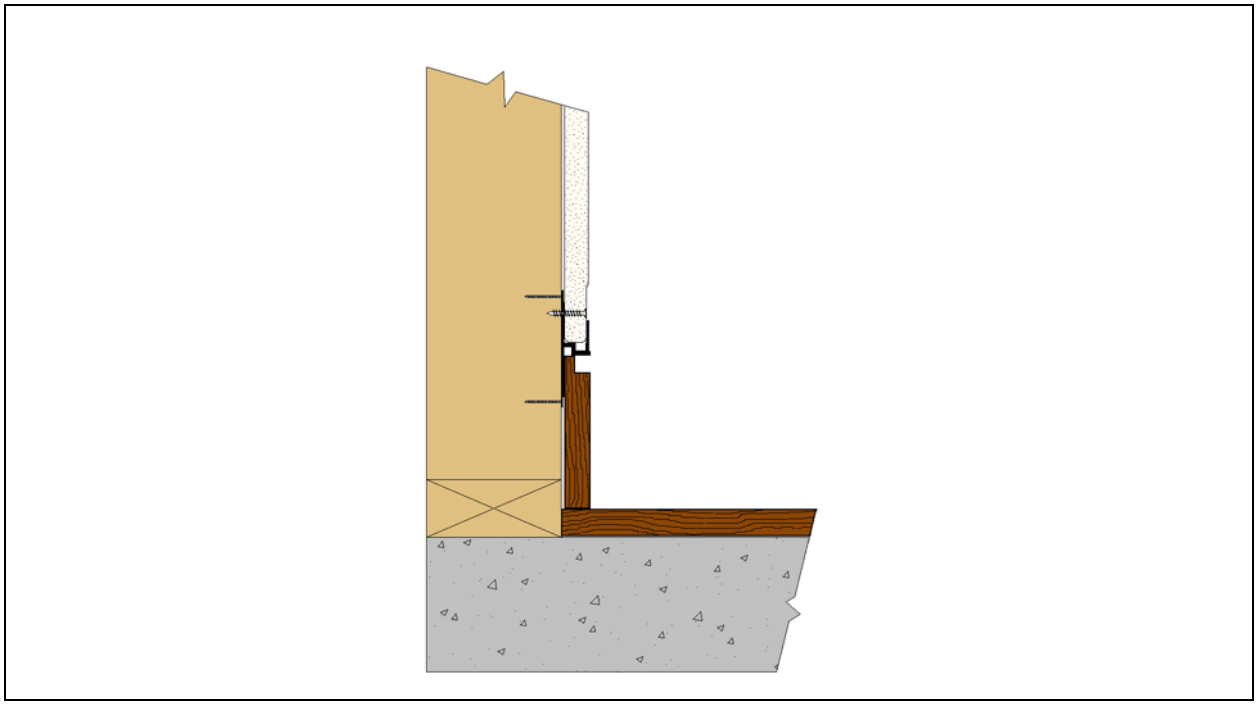
Table 6-1: *Deciding the order of installation based on the materials of the floor and the baseboard*

Floor material	Baseboard material	Installation recommendation	See also
Tile (flat)	Laminate	Conventional (see Figure 6-1)	page 59
Tile (flat)	Metal	Conventional (see Figure 6-1)	page 59
Tile (flat)	Pre-finished	Conventional (see Figure 6-1)	page 59
Tile (flat)	Stone	Conventional (see Figure 6-1)	page 58
Tile (flat)	Tile	Conventional (see Figure 6-1)	page 58
Tile (pillowy)	Laminate	Reverse (see Figure 6-2)	page 59
Tile (pillowy)	Metal	Reverse (see Figure 6-2)	page 59
Tile (pillowy)	Pre-finished	Reverse (see Figure 6-2)	page 59
Tile (pillowy)	Stone	Reverse (see Figure 6-2)	page 58
Tile (pillowy)	Tile	Reverse (see Figure 6-2)	page 58
Other	Other	Analyze the procedures and order of installation that produce the best result.	page 59

Conventional installation

Figure 6-1, next, shows a conventional installation that installs the floor first and the baseboard second.

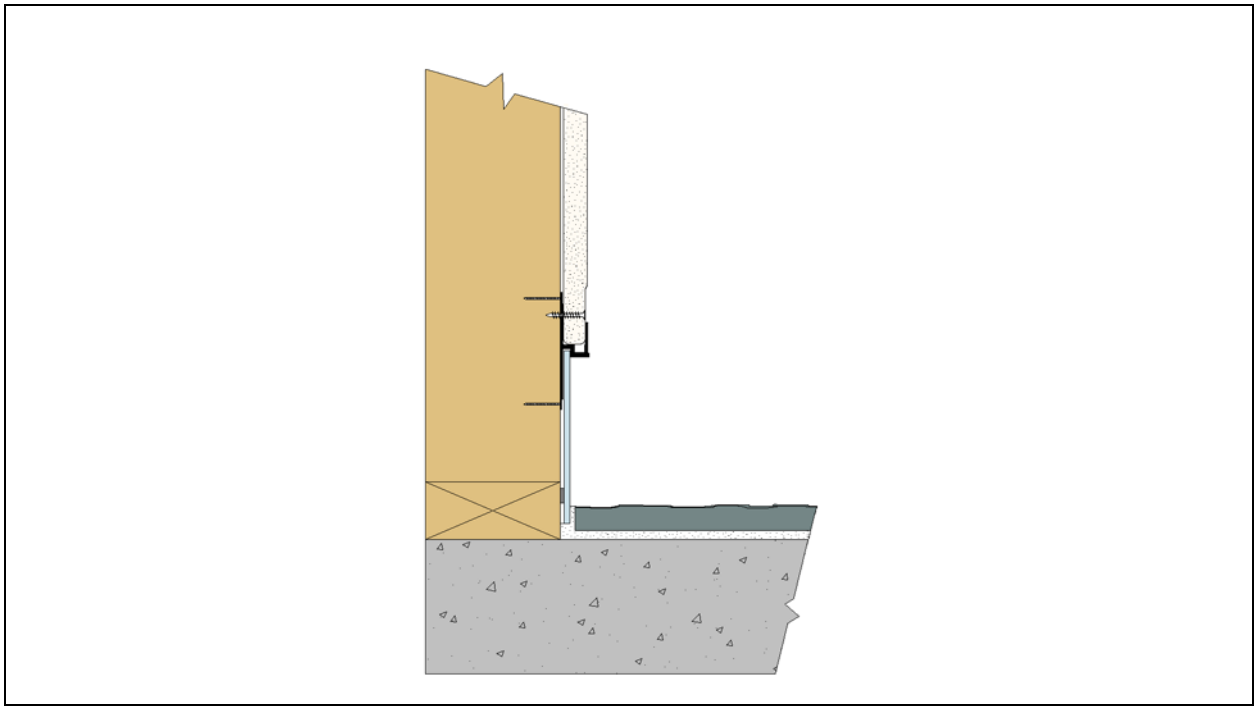
Figure 6-1: *A conventional installation. The floor is installed first and the baseboard is installed second.*



Reverse installation

Figure 6-2, next, shows a reverse installation that installs the baseboard first and the floor second.

Figure 6-2: *A reverse installation. The baseboard is installed first and the floor is installed second.*



Baseboard installation scenarios

This section contains tips on deciding the order of installation for some different installation scenarios, including:

- "Hardwood floor with hardwood baseboard" on page 58.
- "Hardwood floor with metal, laminate, or pre-finished baseboard" on page 58.
- "Tile or stone floor with tile or stone baseboard" on page 58.
- "Tile or stone floor with metal, laminate, or pre-finished baseboard" on page 59.
- "Floor or baseboard made of other unique materials" on page 59.

Hardwood floor with hardwood baseboard

Install the floor first and the baseboard second, as in a conventional or standard installation, shown in Figure 6-1.

Follow these steps for the best results in a Conventional installation of a hardwood floor with a hardwood baseboard:

1. Install the hardwood floor.
2. Sand the floor before installing the hardwood baseboard in Step 4, to minimize possible damage to the baseboard.
3. Apply one or two coats of finish to the floor before installing the hardwood baseboard in Step 4, to minimize possible damage to the baseboard.
4. Install the hardwood baseboard.
5. Fill and finish the baseboard.
6. Apply the final coat or coats of finish to the floor.

Hardwood floor with metal, laminate, or pre-finished baseboard

Install the floor first and the baseboard second, as in a conventional or standard installation, shown in Figure 6-1.

Follow these steps for the best results in a Conventional installation of a hardwood floor with a metal, laminate, or pre-finished baseboard:

1. Install the hardwood floor.
2. Sand the floor before installing the baseboard in Step 4, to minimize possible damage to the finished baseboard.
3. Apply one or two coats of finish to the floor before installing the baseboard in Step 4, to minimize possible damage to the baseboard.
4. Install the baseboard.
5. Apply one final coat of finish to the floor.

Tile or stone floor with tile or stone baseboard

Generally, install the floor first and the baseboard second, as in a conventional or standard installation, shown in Figure 6-1.

However, if the floor is a heavily clefted stone or a very pillowy tile, it is more economical to install the baseboard first and then the floor, to avoid the labor cost of scribing the baseboard to the uneven floor. This reverse installation is shown in Figure 6-2.

Follow these steps for the best results in a Reverse installation of a tile or stone floor with a tile or stone baseboard:

1. Install the baseboard.
2. Cut the floor material uniformly along the baseboard.
3. Install the floor.

Note: Protect the baseboard while installing the floor.

Tile or stone floor with metal, laminate, or pre-finished baseboard

Generally, install the floor first and the baseboard second, as in a conventional or standard installation, shown in Figure 6-1.

However, if the floor is a heavily clefted stone or a very pillowy tile, it is more economical to install the baseboard first and then the floor, to avoid the labor cost of scribing the baseboard to the uneven floor. This reverse installation is shown in Figure 6-2.

Follow these steps for the best results in a Reverse installation of a tile or stone floor with a metal, laminate, or pre-finished baseboard:

1. Install the baseboard.
2. Cut the floor material uniformly along the baseboard.
3. Install the floor.

Note: Protect the baseboard while installing the floor.

Floor or baseboard made of other unique materials

Analyze the procedures and order of installation that produce the best results. The most important considerations are:

- The possible damage that the installation of each material has relative to the other.
- The labor economics of the installation. Avoid situations where skilled and costly tradespersons need to scribe materials to each other.

For the best results, perform a mock-up scenario before installation and review the results with the architect and owner.

Installing the baseboard

This section contains tips on installing the baseboard, including:

- "Conventional baseboard materials" on page 60.
- "Unconventional baseboard materials" on page 60.

Conventional baseboard materials

Conventional baseboard materials are:

- Wood.
- Tile.
- Stone.

Install these common baseboard materials conventionally.

Unconventional baseboard materials

Some unique baseboard materials are:

- Metal of any finish.
- Plastics.
- Glass.
- Composites.
- Fiber optic lighting.
- Combinations of any of these.

The choice of the mounting system, fasteners or adhesives, is critical to the quality and longevity of the installation, and the aesthetics of the finished product. Choose the details, procedures, and adhesives after thorough research and consultation.

The manufacturers of the adhesives and the manufacturers of unique materials can provide helpful information. Test all products before installation to determine their strength, quality, and durability.

Example 6-1

In this example, you must install the following:

- A satin anodized aluminum baseboard.
- A bamboo floor.

Follow these steps to install a satin anodized aluminum baseboard over a bamboo floor:

1. Lay the aluminum baseboard sheet up on ¼ inch birch plywood backer.
2. Glue the aluminum baseboard to the UMB and the framing with 30 second or 60 second hot melt glue, to give initial grab.
3. Glue the aluminum baseboard again to the UMB and the framing with heavy lines of polyurethane, to give long-term durability.

Testing shows that hot melt glue can lose its bond over time, but polyurethane requires much more effort to remove.

If you use only polyurethane, expensive labor is wasted holding the baseboard in place, with sticks, blocks, and tape, during the set time of the polyurethane adhesive, which is 24 to 48 hours.

Index

Symbols

A

B

C

D

E

F

G

H

I

J

K

L

M

N

O

P

T

U

V

W

Index