UNDER DECK Oasis

Installation Guide

INTRODUCTION

Thank you for choosing Under Deck Oasis to handle your deck drainage needs! We believe that you have made a wise decision and that you will enjoy your new outdoor space for years to come!

The purpose of this Installation Guide is to give a general overview for the Under Deck Oasis installation process. Every deck is different, and no small booklet can possibly cover every possible situation and design variance. We believe that understanding the general concept for installing the system will give you the insight to make on-the-job decisions.

More detailed installation video's can be found on our website, **underdeckoasis.com** - it is highly recommended that you watch all of those videos to completion before beginning your Under Deck Oasis installation.

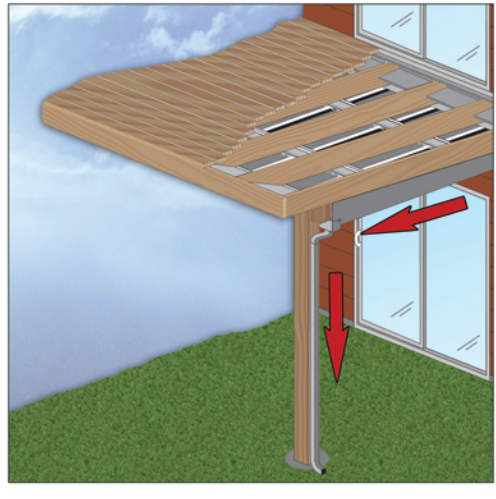
It is also recommended that you read this entire Manual before beginning your installation.

If you have questions or concerns, please call our office at 616-425-8188 BEFORE you begin.

DISCLAIMER

We would like to reiterate that every deck and installation is a unique challenge. Under Deck Oasis is not to be held responsible for information in this manual that may not be valid for a particular install, or for information that may be "missing" from this guide. We are not responsible for the mishandling of materials or any mistakes that may be made by a third party who may be installing the system.

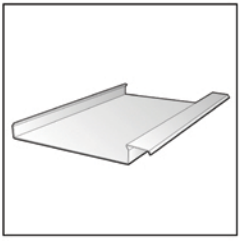
WHAT IS UNDER DECK OASIS?



Under Deck Oasis is a dropped-ceiling made entirely out of Aluminum, that also acts as a water carrying system that diverts the rain that would normally drip through your deck to a location of your choice. The system is pitched into a rain gutter, then also pitched toward one end to a downspout, creating a "twisted plane" that ensures proper water flow. The purpose is to leave the space under your deck dry and beautiful for the enjoyment of the home-

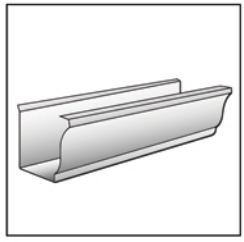
MAIN COMPONENTS

Under Deck Oasis is Comprised of 5 Main Components:



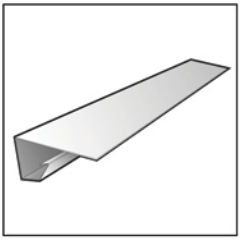
Panel

Creates the ceiling, and carries water into the gutter.



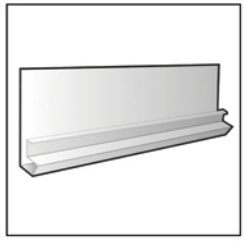
Gutter

A standard rain gutter used to collect all the water from the panels and divert it to the Downspout.



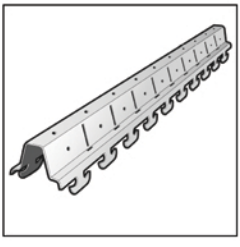
G-Channel

An Aluminum Channel that installs opposite of the Gutter, that holds one end of the Panel.



Side Cap

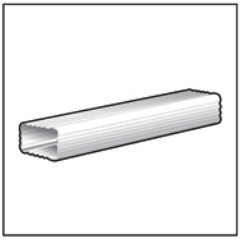
The side piece that encloses the ceiling system on both ends, and also carries water.



Carrier

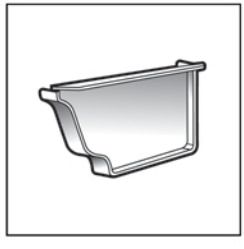
The track system that hangs from the deck joists, that hold the panel in place.

SECONDARY COMPONENTS



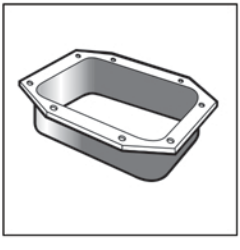
The Downspout

Comes off the Gutter and carries the water away. Usually installed on a deck post.



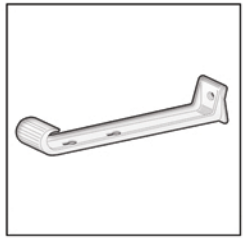
End Caps

Used to cap the ends of the Gutter.



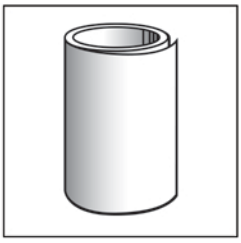
Downspout Outlet

Used to attach the Downspout to the Gutter.



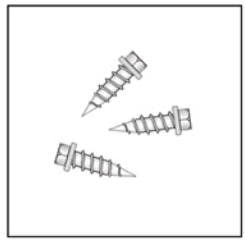
HangTite Hidden Hangers

Aluminum hanger used to hang the Gutter.



Trim Coil

An aluminum coil used to create Pan Flashing and Over Flashing.



Zip Screws

Small screws used to secure several components.

1 1/2" Stainless Steel Screws

Used to hang the Carriers and other components.

Sealant

An opaque caulk used to make areas of the system watertight.

SITE PREPERATION

It is important to prep your installation site before you begin the installation.

Make sure the working area is clear. Remove all furniture, tables, and other debris from underfoot.

Remove any nails, hooks, wires and hangers from underneath the deck. Anything that may prevent a quick installation or damage the system components needs to come out before beginning.

If the system calls for lights or fans, make sure all electrical lines are in place. Find out more about light prep here: **https://underdeckoasis.com/electrical-install.php**

Taking the time to prep the installation site in this manner can save a lot of time and headache later.

SQUARING OFF

Before beginning the installation process, we would like to make a note about "squaring off" the installation area.

Generally speaking, it is always a good idea to "square off" any areas that may prove difficult to install the Under Deck Oasis product.

Squaring off means to use additional lumber to build out around irregular or anomalous areas like posts, vents, and cut outs in the deck design.

ELECTRICAL LEAD LINE INSTALLATION

Please follow these guidelines for running an electrical lead line before the Under Deck Oasis ceiling system is installed.

· Locate the spot where the light or fan will be located. Run Romex electrical line through the deck joists, securing it with staples.

· Leave 4' to 6' of extra Romex.

· Do not connect to, or use, any kind of electrical box. Under Deck Oasis will provide a small flat pan surface mounted to the system.

TOOL LIST

In order to install the Under Deck Oasis system properly, it is recommended to have access to most of the tools listed below. Not all these tools are needed for every job, but most will be needed at some point in the installation.

Speak to your Under Deck Oasis representative about your specific job if you are not clear on which tools you may need.

EQUIPMENT

Step Ladder
Several small step ladders 5' to 7' - used for being high in the air installing the panels.

Siding Break
A 10' siding break is ideal - For bending and forming the "G Channel & Side Cap"

Saw Horses
4 to 6 saw horses - Used for a work space, cutting space, etc.

Extension Cords
Electrical cords & Power Strips - Used for powering all your equipment.

POWER TOOLS

Cordless Screw Driver
For drilling and screwing in the components.

Reciprocating Saw
Used to cut through bolts, wood and anything else that's in your way.

10" Chop Saw
10" Chop saw or Radial arm saw with a fine tooth carbide blade - used to to cut the panels.

Skill Saw
Rarely used, but can come in handy for difficult cutting situations.

Caulk Gun
For spreading sealant.

Coping Saw
Used to trim components.

Metal Snips
Used for cutting various aluminum components.

Hack Saw with Fine Blade
Used to trim components.

Flash Lights
It gets dark under decks sometimes, so a flashlight can help.

Razor / Utility Knife
Main purpose is to score the aluminum components.

Standard Hammer
Helpful for removing and reinstalling deck boards, etc.

Magnetic ¼" Driver Hex Bit
Used to screw in the zip screws provided in your kit - standard and 6".

Flat Pry Bar
Used for prying up deck boards if needed.

Metal File
Used to smooth out your aluminum cuts.

Siding Zip Tool
Used for popping the panels in and out.

Tape Measure
Minimum of 25'.

3/4" Drill Bit
Used for installing light fixtures.

Speed Square
Used for ensuring everything is square.

SUPPLIES

2x Wood
(Various sizes, 2x4, 2x6, 2x8, etc) Used for any build-out that is needed.

CLEAN UP

Broom
Push brooms work best for clean up after the install is complete.

Box of Rags
Good rags are invaluable for clean up and also during installation.

Drop Cloths
Great to put down before the job begins to protect patios, landscaping, windows, etc.

Solvent (Acetone)
Used to clean up any sealant.

PART 1 - DRAINAGE LOCATION AND FLASHING

1. Determining Drainage Location

Determining the downspout location is the first step for a successful installation. The Gutter is typically on the outside beam of the deck, but can also be installed on the house. The downspout will typcially be on one end of the Gutter but on some occasions the Gutter can have a downspout on both ends.

Slope direction is away from the house, toward the beam.

Slope direction is toward the house, away from the beam.

2. Finish Options for Beam

Beams that are constructed from two or more pieces of lumber, creating an "open" beam, are sometimes considered unfinished, and it may be possible to see the Under Deck Oasis Panels in the gap.

There are several options for finishing this, but it is NOT recommend to wrap the beam with aluminum. Small irregularities in the wood will cause the aluminum to not sit flat. A favored option is to use cedar to finish the beam. Composite decking materials and staining are other options for finishing.


Open beam deck construction.

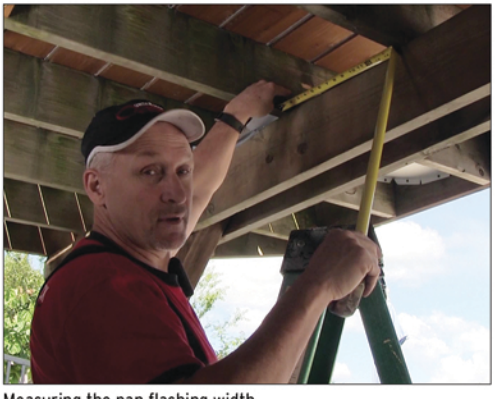

Open beam wrapped with composite decking.

3. Measuring for Pan Flashing

Pan flashing is used on decks with cantilevers that are less than a 32". Trim coil is used to flash back over the beam, carrying water into the main system Panels. This alleviates the need for another Gutter on the cantilever area. Decks with a larger than 32" cantilever will require an independent system and Gutter on the outside of the beam.

To measure the pan flashing width, measure from the inside of one joist to the inside of the next. Make sure to independently measure every joist - they will not all be the same!

Add ½" to the initial measurement to create the cup in the pan. Add another 1½" for what will become the screw tabs on the pan. For example, if the joists are 14" apart, add 2" total for a correct measurement of 16".



Measuring the pan flashing width

Measuring the pan flashing length

To measure for the length of pan flashing, run a tape measure from the inside of the beam to the inside of the outer rim joist. Then, add an extra 2" for a screw tab on the back, and drainage lip on the front.

4. Creating Pan Flashing

Split the provided trim coil into the appropriate lengths, based on your measurements.

TIP: Use a small hand clamp to stop the trim coil from rolling.

Use a straight edge and a pencil to mark the trim coil. Use a heavy duty razor knife to score the aluminum, then bend it at the score mark to snap it apart.

Once the pieces are separated, mark the width of the trim coil at the same time to prep it for the break.

Place the aluminum in the siding break, using the outside edge of the siding break as a straight edge, score the aluminum along your width measurements, and bend up with the siding break to separate the aluminum. Do not throw the excess aluminum away! It will be used later for additional flashing.

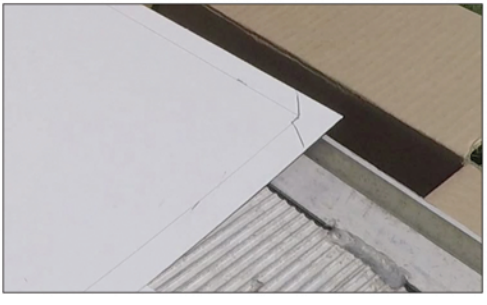
Remove the excess aluminum from the width measurement

Seperate the pieces of pan flashing to length

Now, make the screw tabs on the sides of the pan flashing blanks. Mark your pans on three sides at ¾". This measurement is used because it creates a perfect tab for screws, but also because many siding breaks have an automatic ¾" bend setting.

Using tin snips, cut a 'Z' parent on the corners so that the tabs will bend properly.

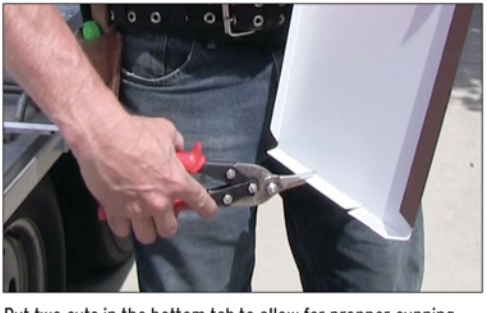
Mark your pans at 3/4" to create your tabs



Creating a Z pattern aloows for proper tab folds

Returning to the siding break, bend the tabs up to slightly more than 90 degrees. Bending slightly more than 90 degrees will allow for the cupping of the pan. Cut twice into the back tab to help it bend.

Bend the tabs up slightly past 90°



Put two cuts in the bottom tab to allow for propper cupping

5. Installing Pan Flashing

Bend the pan flashing panel so it has a slight cupping in the center, then slide it back over the beam, to the far end of the cantilever. Using ½" stainless steel zip screws, secure the pan to the joists by screwing through the tabs created earlier.

Slide your pan flashing up over the beam

Secure your pans with zip screws

The pans now need to be sealed. Using the provided sealant, reach in above the pan and run a heavy bead along the top edges of the pan.

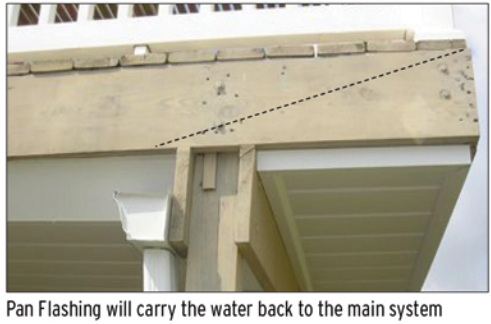
TIP: Use your finger or a wooden dowel to smooth the sealant bead, creating a secure seal on the pan.

Seal your pan flashing

Create a lip on your pan and then seal it

Next, create a lip on the drip-edge of the pan to ensure water does not roll back under the pan, and then seal the bottom edge of the pan against the beam. Repeat this process between all the joists.

Pan flash between every joist



Pan Flashing will carry the water back to the main system

6. Creating Over Flashing

Over flashing is created with the excess metal removed from the pan flashing pieces. Over flashing is used to flash over the G-Channel and the Side Cap, creating an additional water barrier.

Create a 3/4" tab on one side of the over flashing

Create a 15º drip line on the other side

Using the siding break, create ¾" tab on ONE side of the over flashing. On the other side, you will create a ¾" bend at approximately 15 degrees, creating a "drip line".

TIP: Over flashing is easier to work with in lengths of about 5'.

7. Installing Over Flashing

The over flashing will be installed on the opposite side of the deck from the pan flashing and Gutter location, above where the G-Channel will go. The over flashing will install about ¼" below the ledger board, allowing room for sealant.

Run a bead of *sealant* along the back tab that will go directly onto the wall, then install the over flashing with 1½" screws.

TIP: You may want to pre-drill your screw holes in the over flashing, making it cleaner to install.

Run a bead of Sealant along the back tab

Seal the top of the Over Flashing

Lastly, run a final bead of sealant on the top of the flashing, and smooth it out with your finger or wooden dowel.

PART 2 - INSTALLING THE GUTTER AND SIDE CAP

8. Prepping the Joists at the Beam for Gutter Installation.

Water can sometimes track down the bottom of a joist and get into the small gap between the joist and the beam. To help prevent this, clean the area where the joist and the beam meet with a wire brush, then seal it with the provided sealant. Repeat this on all joists.

Clean the gap below the joist with a wire brush

Seal the space between the beam and the joist

9. Setting The Alignment Carrier

A temporary "alignment Carrier" is used to determine the location of the Gutter, and the G-Channel.

The first Carrier is always installed 42" from the wall (or beam) depending on the flow of the system. Measure and mark at 42" on the joist.

Measure out 42" to place the first Carrier

Temporarily secure the Carrier to the joist

Then, using 1½" screws, install a TEMPORARY Carrier loosely against the joists.

TIP: Do not screw the Carrier down tight, leave about ⅛" gap between the Carrier and the joists.

Leave this for now and continue on to prepping the Gutter.

10. Notching Gutter For Side Cap

A notch will need to be created in the Gutter that the Side Cap will rest in.

Start by trimming the small tab off the end cap.

The Side Cap needs to rest in a notch in the Gutter

Use the Side Cap to create a stencil on the Gutter

Temporarily place the end cap on the gutter by tapping it on there. Using an excess piece of side cap, trace the profile of the side cap onto the gutter. Remove the end cap and use snips to cut out your marks.

Remove any burs on the aluminum with a file.

Cut the notch out the Gutter with your snips

Remove any aluminum burs with a file

Replace the temporary end cap, and confirm the Side Cap fits snugly into the notch.

If everything is fitting together correctly, continue by permanently securing the end cap with a crimper tool, and then seal the inside of the end cap.

Check that the Side Cap fits snuggly into the gutter

Secure and seal the end cap

11. Temporarily Hang The Gutter To Determine The Panel Pitch

Place one of the provided HangTite Hidden Hanger in the center of the Gutter. Secure the Gutter to the center of the beam. Both ends of the Gutter will be free, allowing the Gutter to move freely and be pitched by hand, like a seesaw.

Use a centralized Hanger as a pin

Adjust the pitch of the Gutter to 1/8" per foot

The pitch of the Gutter drop should be ⅛" per foot.

Now, the previously installed alignment Carrier comes into play.

Use one of the Panels as a "test Panel" by sliding it up over the Gutter, then securing it into the alignment Carrier.

Put the Panel into the Alignement Carrier

Use your level to ensure proper pitch

Take a 4' level and use it against the pitch of the Panel. Drop one end of the level until it reads at true level.

12. Installing Side Cap

Now that the pitch has been determined, remove the Panel and the temporary alignment Carrier.

Take a 10' piece of Side Cap and slide it into the Gutter, using the notch removed earlier from the Gutter as a guide, until the Side Cap is a few inches into the Gutter.

Slide the Side Cap into the notch in the Gutter

Create tabs for an adjoinment of 2 pieces

Use a single zip screw to temporality pin the Side Cap to the outer joist.

Adjoin any additional pieces of Side Cap at this point by creating ½" tabs on one end of the Side Cap so it fits smoothly into the other piece.

Use Over Flashing above the adjoined Side Cap

Secure and seal the Side Cap

Install over flashing above all areas of the side cap that have been adjoined, to ensure no water will be where the seams are.

Once the pieces of Side Cap are adjoined and in place, permanently secure them using zip screws about every 8". Finish by running sealant on the top of the Side Cap to seal it against the joist so no water can run behind it.

13. Securing Side Cap To Gutter

Tighten up the joint where the Side Cap meets the Gutter by removing any "give" with a zip screw.

Tighten up the "give" between the Side Cap and the Gutter

Attach the End Cap to the Side Cap with a Zip Screw

Simply run a zip screw through the top, outside corner, into the Side Cap. Holding the Side Cap with your hand will help ensure the screw takes properly.

14. Setting The Gutter Pitch

The desired pitch for your Gutter is ⅛", over a 4' span.

At this point the high end of the Gutter is determined.

At the mid-point of the Gutter, use a 4' level to determine a proper ⅛" drop over the span of your level. To do this, place the level against the Gutter, then drop the level until it reads true. The space between the Gutter and the level should be ⅛" or just over.

Set the pitch from the high end to the center

Set the pitch from the center to the low end

Most likely the HangTite Hidden Hanger you used earlier, to temporarily hang the gutter, will need to be removed to allow proper pitching.

If there is too much or too little space between the Gutter and the level remove the Hang-Tite Hidden Hanger "center pin" and reposition it.

15. Installing the Second Side Cap and End Cap

Now that the Gutter is set to pitch, install the Side Cap on the other end. Using the Side Cap, mark the gutter where the side cap will join it just like on the first side. Then cut out the piece that is marked.

Use Side Cap to cut the notch in the Gutter

Put on the End Cap and seal it

TIP: This may be slightly more difficult with the Gutter hanging. It helps to come at your cut from above with the snips facing down.

Use a file to remove any burs.

Place an end cap on the outside of the Gutter and secure it with crimpers, then seal it.

The Gutter should now have the correct pitch and be ready to be fully secured.

16. Securing and Sealing Gutter

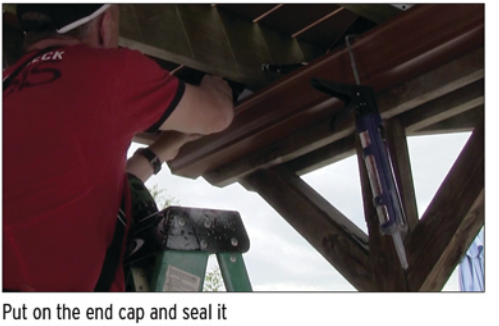
To secure the Gutter, use one HangTite Hidden Hanger approximately every 2' over the entire span of the Gutter.

Use HangTite Hangers about every 2'

An 8" drill bit makes it easier to get over the gutter

Once the HangTite Hidden Hangers are secured, use zip screws every 8" along the back of the Gutter. This ensures that the back of the Gutter is more snug against the wood and will be much easier to seal tight with the sealant.

Use Side Cap to cut the notch in the Gutter



Put on the end cap and seal it

TIP: Having an 8" Driver Bit on your drill makes it easier to reach tight spaces above the Gutter.

Now that all the screws are in place, run a bead of sealant along the top of the Gutter to ensure that no water can get between the Gutter and the beam.

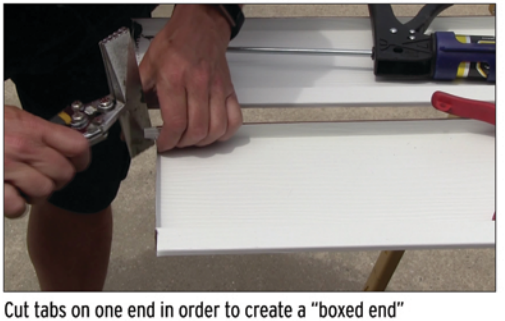
TIP: Hang your tube of Sealant on the Gutter to keep track of where you left off.

PART 3 - INSTALLING PANELS AND FINISHING

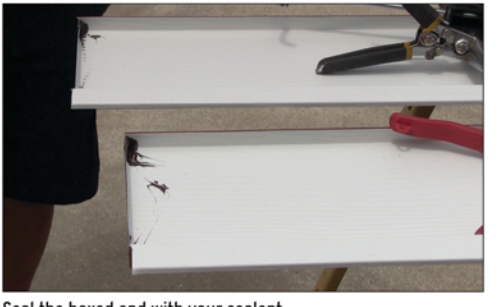
17. Preparing Panels for Installation

Every Panel that comes with the Under Deck Oasis system needs to be cut to exact length and modified on-site before it can be installed.

One end of the Panel is going to be folded up to create an "end cap", and the other end is going to be folded down to create a tongue that will drain the water into the Gutter.



Cut tabs on one end in order to create a "boxed end"



Seal the boxed end with your sealent

One Panel will need to have a "twisted tongue" made on one end. This will be the first Panel. The "twisted tongue" is needed so the Panel lays properly against the side cap and the Gutter.

The other end needs a lip to allow water to flow into the Gutter

Create a "Twisted Tongue" on one Panel

18. Installing First Panel

The first Panel is now ready to be installed. The first Panel does not install into a Carrier. In fact, the Carriers should not be installed at this point.

The first Panel is the one that has the "Twisted Tongue" which was created when prepping the panels.

Slide the Panel up into the Gutter, then into the G-Channel, then slide it back into the Side Cap.

Slide the panel into the Gutter, G-Channel, and Side Cap

Secure the panel to the Side Cap

Then secure the first Panel to the Side Cap with a zip screw about every 3'.

19. Installing Carriers

As determined ealier by installing the alignment Carrier, the first Carrier will be installed 42" out from the house / beam.

The other Carriers will then need to be spaced somewhere between 28" - 42" apart. To determine that number, measure from the position of the first Carrier to the Gutter, then divide that by the number of Carriers left to install. The goal is to have equal spacing between the remaining Carriers.

Measure the spacing for the Carriers

Set your Carriers on the edge of the Panel

Place the end of the each Carrier onto the edge of the Panel so it locks in to the teeth on the Carrier. Lift up the Carrier and secure it with a 1½" screw, into the fourth or fifth joist away from the first Panel. If more than one Carrier is needed for length, simply butt one up againast the other.

Secure the Carrier 4 or 5 joists away from the first Panel

Secure the Carrier at the closest joist

Do not use the manufactured holes in the Carrier, drill through the Carrier to create your own holes. Do not screw it down tight. This screw will be adjusted later to follow the pitch of the Gutter.

Now that the Carriers are lined up in position, use another 1½" screw to secure the Carrier into the closest joist away from the Panel. Make sure there are no waves in the first Panel when this is done.


Set your TEST Panel to determine Carrier pitch


Another view of the TEST Panel

Now, use another Panel as a TEST Panel to determine if your Panels are flowing the pitch of the Gutter.

Snap in the TEST Panel at the far end of the Carriers, between two joists if possible - Making sure it is inside the G-Channel as well. The TEST Panel should rest snugly against the lip of the Gutter, with no space between the TEST Panel and the Gutter. There should also not be any dips or bellies in the Panel.

Now, adjust the Carriers using the first screw that was placed, to ensure proper fit against the pitch of the Gutter.

20. Adjoining and Installing G-Channel

Using snips, cut out small triangles on each bend of the G-Channel on the end being adjoined. This will create "tabs" that can then be gently folded in, allowing one piece of G-Channel to smoothly insert into the other.


Create fold tabs in the G-Channel


Overlap the pieces of G-Channel

Insert the adjoining piece about 2" - 4" into the other to ensure proper overlap.

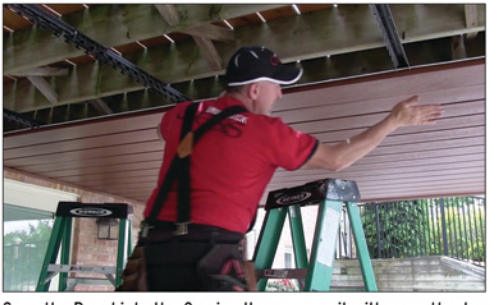
21. Installing Panels

Now that the Carriers are set and pitched properly, start installing the rest of the Panels.

Start by placing the end of the Panel, with the lip on it, fully up into the Gutter until it touches the back of the Gutter. Be careful not to damage the panel or sealant on the back of the Gutter.

Raise the other end and slide it back into the G-Channel. The panel should now hang freely, being supported solely by the G-Channel and the Gutter.

Slide the Panel into the Gutter, then back into the G-channel



Snap the Panel into the Carrier, then secure it with a gentle slap

Now, lock it into each Carrier using the three step process:

1) Catch the Panel on the front teeth of each Carrier.

2) Rock the Panel back with your thumbs until a "click" is heard and felt.

3) Lastly, gently slap the Panel into place to lock it firmly.

Fine adjustments may need to be made to the screws holding the Carriers into place. This will ensure the panels stay snugly aligned with the dropping pitch of the Gutter.

22. Creating The Last Panel

Due to the varying size of decks, the last Panel of the system hardly ever needs to be the exact size of a pre-formed Panel. For example, you may only have 4" or 5" remaining, in which case our standard 8" Panel will not fit.

Modification of a Panel may need to be done on your siding break to fit the size you need. Leave out the second-to-last system Panel so there is enough room to work with to install the customized last Panel.

Slide the last Panel into the Side Cap then secure it with zip screws, just like on the first Panel. At this time, do not snap in the last Panel.

23. Installing the Final Panel

The final Panel to be installed will actually be the second-to-last Panel of the system ceiling. Once the customized last Panel is installed, there should only be space left for one remaining Panel before the system is complete.

Like the other Panels, start by sliding the last Panel into the Gutter, then back into the G-Channel until it can hang freely.

Now, using a flat bar, catch the front part of the lip onto the Carriers. Push the back side up and into the Carrier, then give the Panel a final slap to secure it fully.

Use a flat bar to secure the final Panel

Gently slap the last Panel into place

Slap the last Panel into place. This should complete the installation of the Panels.

24. Removing a Panel

There may be an occasion where the removal of a Panel from the within system is needed after it has been installed. To do this, a siding tool, also known as a zip tool, is neccessary.

Use a flat bar to secure the final Panel

Gently slap the last Panel into place

First, grab the Panel to be removed firmly and slide it out of the G-Channel, further into the Gutter, so it is clear of the G-Channel.

Slide the zip tool up into the panel until the first Carrier is reached. Pull the zip tool straight back to release the Panel from the Carrier. Do not pull down or the Panel might bend. Then gently release the Panel from it's connecting Panel.

SYSTEM MAINTENANCE

1. Clogging

The Under Deck Oasis system is unlikely to clog, however, clogging may occur where overly large or irregular gaps in the decks boards allow leaves and debris to fall through. In extreme cases this debris may collect around the downspout outlet. If such a clog occurs the simplest remedy is to remove the Panel nearest the downspout outlet and remove the clog by hand.

To prevent potential clogging where large amounts of debris fall onto the top of the deck, use a broom or leaf blower to remove the debris before it rains. This will prevent the debris from washing into the system.

2. Cleaning

Occasionally there may be a need or desire to clean the system Panels. To clean the Panels, we recommend using TSP (trisodium phosphate) cleaner. TSP is a cleaning agent, stain remover and degreaser, and can be purchased at most home improvement stores.

TSP can be harmful to the environment such as house plants and pets, so use with discretion. Dawn dish soap is another excellent alternative. Always use a soft cloth to avoid scratching the Panels.

3. Power Washing

In most cases, power washing the upper deck surface will have no effect at all on the Under Deck Oasis ceiling. Set your power washer to normal settings, (1300-3000 PSI), and avoid higher settings. In cases where the pressure is set too high, some of the water can push itself out through the deck system and cause "leaking". This is usually not a permanent problem, and the system will return to normal functionality (leak free) when you're not using the power washer. Overly large gaps between the decks boards can exacerbate this potential problem.

Remove anything that might be damaged by water below the deck before you power wash, and avoid using "deck wash" liquid or powder solutions that may contain ammonia nitrate and chlorine.

4. Mold

Under Deck Oasis is a mold neutral system that will neither prevent nor exacerbate mold growth. The system allows continued air flow and in most cases mold growth decreases.

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