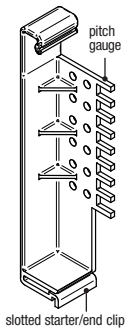
Installation Instructions for UnderShield® Water Diversion System

Lifetime Limited Warranty

Before You Begin

GLOSSARY

Grid bar – 1 ½" x 1 ½" x 97 ½" pvc profile which is attached to underside of deck joist.



UnderShield clip – pvc clip attached to grid bar. Clips are used for the installation of UnderShield panels and to achieve pitch.

UnderShield starter/ end clip – when clip is installed with slotted end of clip facing down.

UnderShield clip pitch gauge – notched side of the grid clip.

Ledger board - A ledger board is a horizontal lumber beam attached to an existing wall and used to tie in construction elements such as porch roofs and decks. A deck ledger is installed as part of the deck frame construction. The frame is then attached at either end, with the deck joists butting up to it. The last deck board against the house wall will be attached to the ledger's top edge in the case of a deck where it is parallel to the joists.

Divider board - 2" x 8" pressure treated board used to divide a deck into two smaller areas that will accomodate UnderShield.

CertainTeed SAINT-GOBAIN

IMPORTANT:

Always wear safety glasses when cutting and drilling decking products.

IMPORTANT FIRE SAFETY INFORMATION

Exterior vinyl building materials require little maintenance for many years. Nevertheless, common sense dictates that builders and suppliers of vinyl products store, handle and install vinyl materials in a manner that avoids damage to the product and/or the structure. Owners and installers should take a few simple steps to protect vinyl building materials from fire:

To home and building owners: Rigid vinyl is made from organic materials and will melt or burn when exposed to a significant source of flame or heat. Building owners, occupants and outside maintenance personnel should always take normal precautions to keep sources of fire, such as barbecues, and combustible materials, such as dry leaves, mulch and trash, away from UnderShield.

TOOLS REQUIRED

Safety glasses
Gloves
Tape measure
Step ladder
Cordless drill/driver
#2 Robinson (square drive bit)
Snips
Utility knife
Chalk line
Level
12" speed square
Vinyl snap lock punch

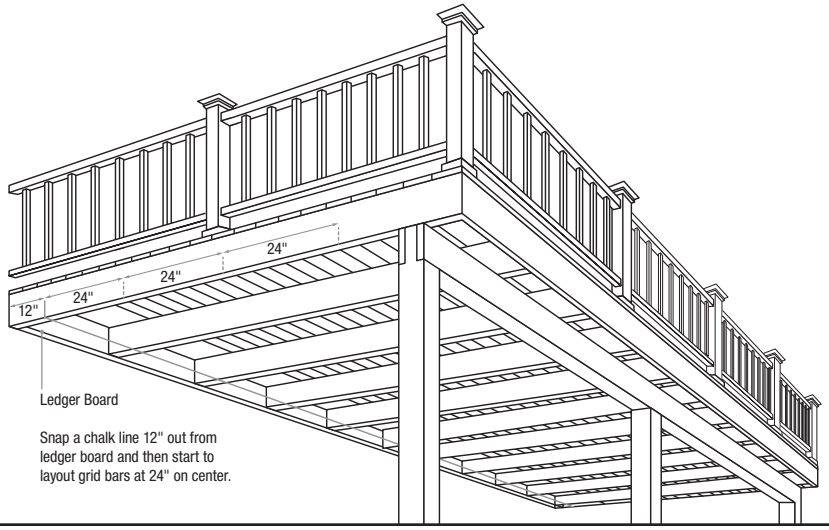
Additional material required
1" J channel
Flashing
Gutter and Downspout
Fascia boards

GETTING STARTED

Before installing UnderShield be sure to inspect the underside of the deck to ensure that all joists are structurally sound. Minor irregularities can be compensated using shims. Check the pitch of the deck to ensure you will get the proper pitch for UnderShield.

Optional fan/light installation: refer to separate fan/light installation sheet.

**Use only outdoor rated/approved ceiling fans, lights and accessories with the UnderShield system.*

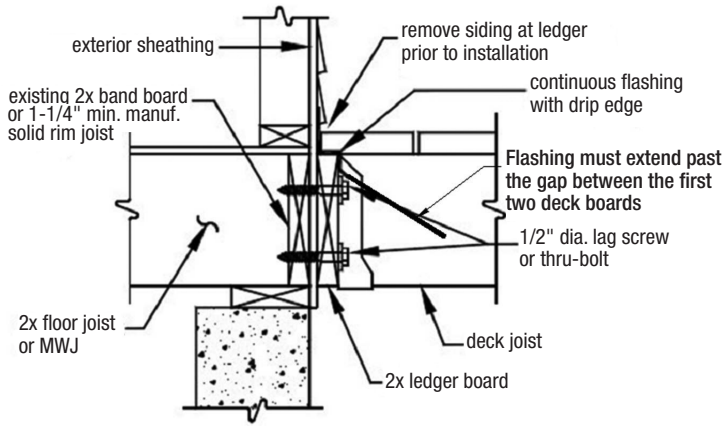


Snap a chalk line 12" out from ledger board and then start to layout grid bars at 24" on center.

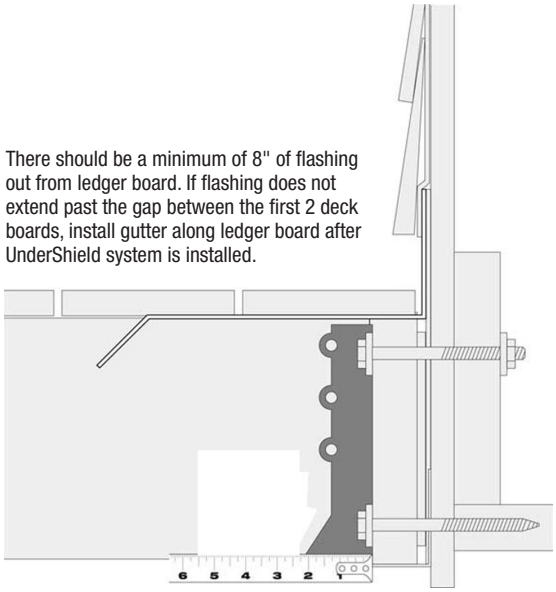
Installation

STEP 1

Make sure your ledger board is properly secured and flashed. Install flashing along ledger board extending out a minimum of 8". Flashing should extend beyond the gap between the first and second deck boards.



There should be a minimum of 8" of flashing out from ledger board. If flashing does not extend past the gap between the first 2 deck boards, install gutter along ledger board after UnderShield system is installed.



STEP 2

Measure width of deck to determine number of panels required (convert width to inches). Divide width by six. Reduce number of panels by one. Multiply that number by 6. Subtract from total width and divide by two. This will give you the size for the first and last panel. The first and last panel can not be less than 2-1/4" (measurement does not include panel hook). Adjust if necessary. When using beaded panels you must have a minimum of ¾" of material next to the bead of the panel.

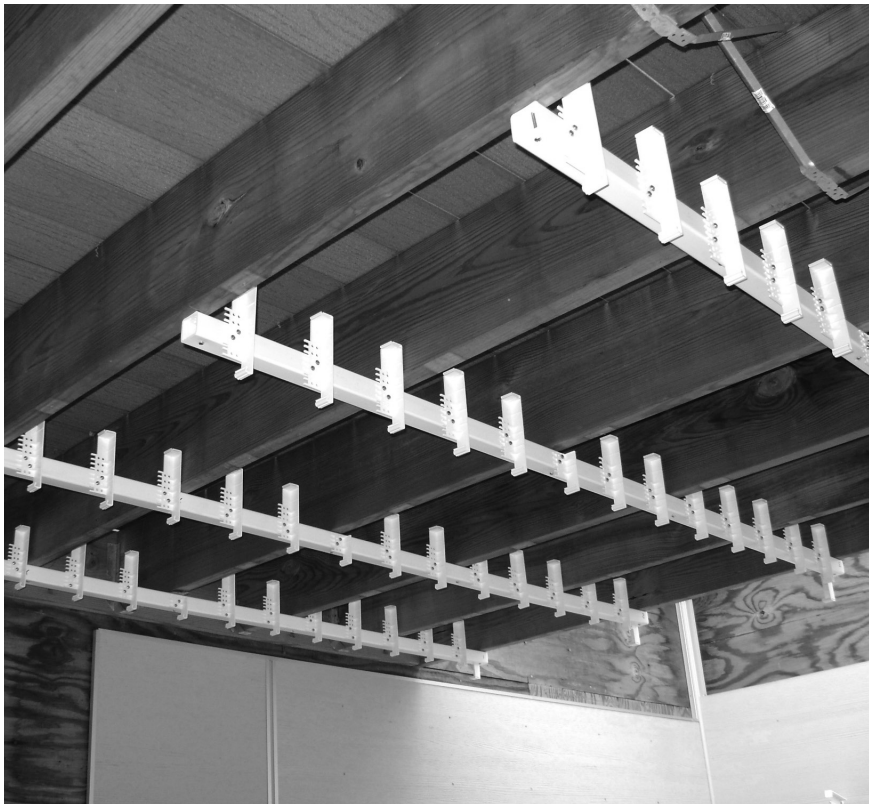
Example: If deck width = 17',
17'= 204", 204"÷ 6" = 34 panels,
34 – 1 = 33 panels, 33 x 6" = 198",
204" – 198" = 6", 6"÷ 2" = 3".
The first and last panel would be 3".

STEP 3

Measure length of deck to determine number of grid bars required. UnderShield is designed for a maximum length of 16'. For runs longer than 16' a divider board will be required. The divider board will run across the deck, dividing the deck into two sections. Divider board will need to be strong enough to support the attachment of one or possibly two gutters.

STEP 4

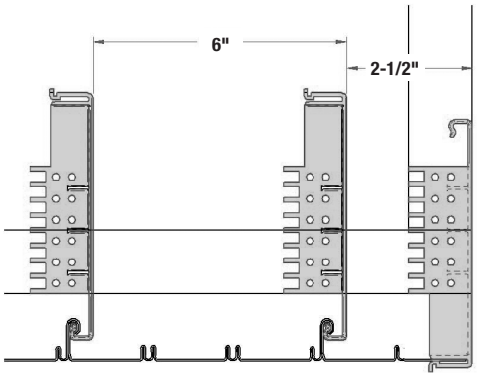
Determine number of grid bars. First grid will be installed 12" from ledger board. Last grid bar must be installed a maximum of 12" from outside edge (beam/gutter board). Intermediate grid bars are installed on 24" centers.



Installation

STEP 5

Layout clip placement on grid bars. Starter/ end clip will be installed at the end of grid bar. Placement of next clip will be determined by the size of your first panel. Subtract ½" from panel size. Now measure from the end of the grid bar for this clip location (based on our example it would be 2 ½" from the end). All other clips will be spaced at 6" between clips. Mark location of joist for clip interference. Number and transfer marks to other grid bars.



STEP 6

Install clips using (2) ¾" stainless steel screws (figure A), on first grid bar pitch gauge is even with grid bar. Starter/end clip installs on the back side of the grid bar (figure B). All other clips will install on the front. When you reach the other side of the deck the starter/end clip is installed facing the last clip (figure C). Install clips on each additional grid bar moving down one step on the pitch gauge (figure D) as you move towards the outer edge of the deck. Any clips that will interfere with joist can be trimmed down using snips (figure E).

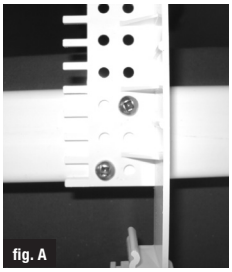


fig. A

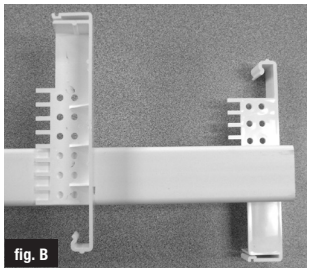


fig. B

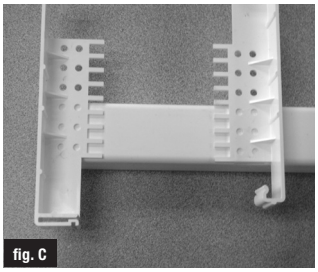


fig. C

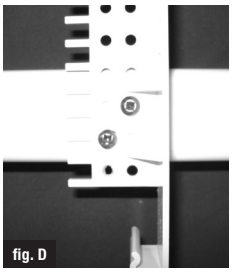


fig. D

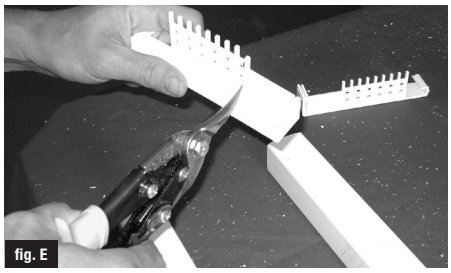


fig. E

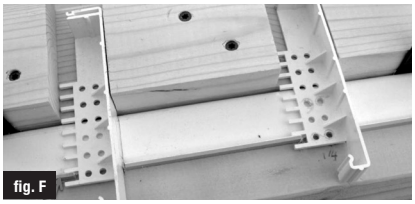
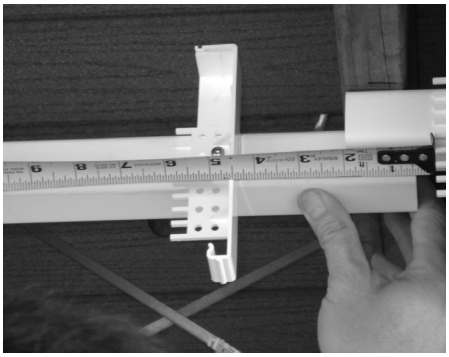
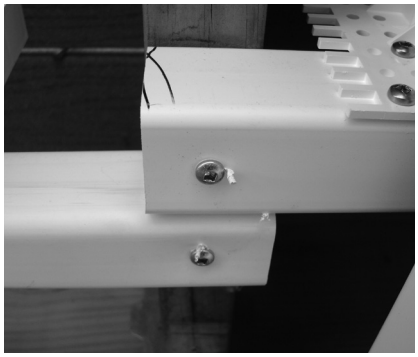


fig. F

UnderShield Jig helps with installation of clips and grid bar. Ask your distributor for details (figure F).

For decks wider than 8' additional grid bars will be required. Ensure that distance between last clip on previous grid bar and first clip on next grid bar is 6". Layout remaining clips spaced at 6". Grid bars ends can be overlapped. Grid bars are installed even with the outside edges.





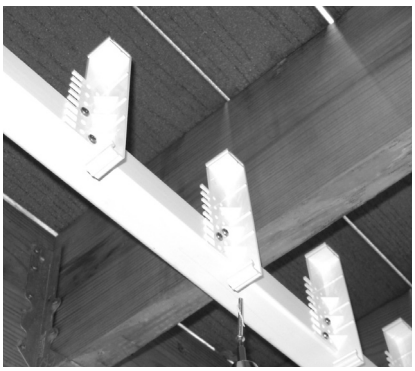
STEP 7

Layout grid bars on underside of deck. Measure 12" out from ledger board in two spots and snap a line using a chalk line. Layout additional grid bars at 24" on center. Last grid bar is installed a maximum of 12" from outer edge (beam/gutter board).

Installation

STEP 8

Attach grid bars to underside of deck using 2-½" stainless steel screws. Use one screw per joist. End of grid bars will be even with outside joist. Be sure to level and shim grid bars as needed. If using a gutter system you may want to install gutter before installing last grid bar.

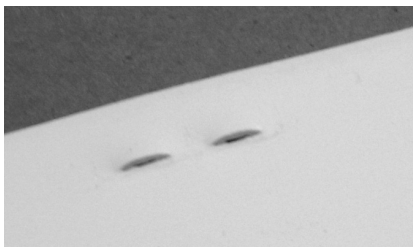


STEP 9

Panel Length
Measure from ledger board to outer edge (beam/gutter board) (note-panels will be cut 2-½" shorter than this). Cut first panel to width using a utility knife (based on our example it would be 3"). Be sure to cut off from the panel side with the hook facing out. Remember when using beaded panels you must have a minimum of ¾" of material next to the bead of the panel.

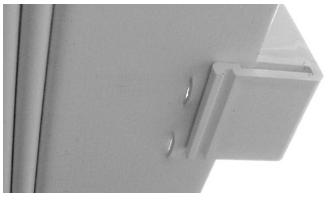
Once cut to size, create tabs in panel at clip locations using snap lock punch. Be sure notches face down so they will lock into starter/end clip.

Optional gutter: If finishing end with a gutter system it is easier to install before installing panels. Be sure the panels will clear the gutter and any hardware used to install it.



STEP 10

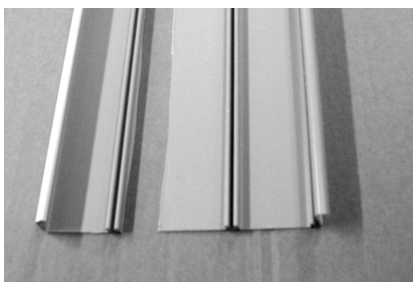
Install panels – Insert first panel into starter/end clips then hook over next clip. Install panels leaving a ½" gap between the panel and ledger board. Next panel will install by starting at one end and then zipping over the hook of the previous panel. Be sure that you are connected for the entire length of the panel and that you are locked into the clip. Repeat this for each additional panel until you reach the other side of the deck.



NOTE: Locking the panels together creates a tight lock. Panels will not easily slide on each other. Be sure to line up panel ends before zipping over the hook of the previous panel.

STEP 11

Cut last panel to size using a utility knife. Be sure to cut off side with hook facing in. Once cut to size, create tabs in panel at clip locations using a snap lock punch. Be sure notches face down so they will lock into clip. Zip panel over previous panel and then insert into starter/end clip.

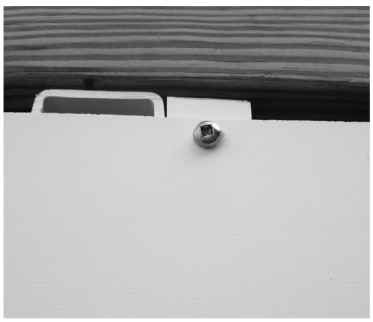


STEP 12

Finish the edge along ledger board by sliding 1" J channel over the end of the panels. J channel can be slid in from the side of deck.

STEP 13

Finish exposed side edges with fascia panel. Measure and cut to length. Do not cut fascia 2-½" shorter like you did for panel. Attach fascia to center clip with 3/4" stainless screw. Finish sides by installing fascia boards. Remove center screw when using fascia boards. Fascia boards should extend a minimum of 1" over fascia panel.



Care and Maintenance

The UnderShield product is designed as a water diversion system under normal weather and rain conditions; however it is not a waterproof roof system. Proper cleaning and flushing of debris by the property owner is important to allow the rain water to flow unobstructed to the exit point and to not create excess weight buildup on the surface of UnderShield. The System can temporarily experience minor drips. Occasional droplets on the underside also could result from normal condensation. Having a qualified professional install and follow the installation instructions carefully is necessary for best performance.

CARE AND MAINTENANCE

If debris such as leaves gets in the system, you will need to periodically flush out the system with a garden hose. This can be done from above or possibly from access to the sides by removing the fascia panel.

CLEANING UNDERSHIELD

UnderShield resists most common household stains, but it will become dirty like any product exposed to atmospheric conditions. Periodic washing with a soft bristle brush and clean water from a garden hose may be necessary to remove surface dirt. Chalk may also accumulate on the surface. This is a normal condition for pigmented materials exposed to the elements. For the best appearance, clean UnderShield at least once a year. To remove soil, grime and chalk from UnderShield, use a garden hose, a soft bristle brush, and a bucket of soapy water. (You can also use the solution described below in the section dealing with mildew.) Thoroughly rinse UnderShield with clean water from a garden hose. Avoid prolonged or high pressure rinsing of open ventilated areas. Keep cleaning solution off surrounding fixtures and surfaces not scheduled for washing.

NOTE: We do not recommend power washing UnderShield as it can cause moisture intrusion, damage, and/or discoloration.

Stubborn stains
If you can't remove especially stubborn stains using normal household detergents, request a cleaner from your contractor or your local building materials retailer. Always test any cleaner on an inconspicuous area before full use.

Mildew
Mildew may be a problem in some areas, especially warmer climates with consistently high humidity. Mildew appears as black spots on surface dirt and is usually detected in areas not subjected to rainfall, such as under eaves and porch enclosures. To remove mildew, prepare a solution as follows:

– 1/2 cup detergent (Tide, for example)

– 2/3 cup trisodium phosphate (Soilax, for example)

– 1 quart 5% sodium hypochlorite (Clorox, for example)

– 3 quarts water

CAUTION: Greater concentration may cause damage to UnderShield

If the above solution does not readily remove mildew spots, ask your contractor or your local building materials retailer for a mildew cleaner.

WARRANTY INFORMATION

These instructions describe and illustrate the steps involved in installing CertainTeed UnderShield. Their purpose is to provide detailed information and how-to tips that will simplify the installation process. CertainTeed shall not accept any liability or responsibility under its written warranty for failure caused by application that does not meet the requirements for proper installation. These requirements are outlined throughout these instructions. Any deviations from these requirements should be addressed and approved in writing by CertainTeed Corporation. In rare incidents, intense sunlight reflected from glass on vinyl may create heat buildup and cause the vinyl to distort. To help minimize the effects of heat buildup from reflected sun, the homeowner may take one or more of the following measures:

- Install a screen in the window causing the problem.
- Install an awning over the window to break the line of light reflection.
- Use shrubbery to protect the area of siding from reflections.

Damage to UnderShield caused by contact from deck cleaning chemicals, deck stains, deck treatment products, grease drippings, or heat from sources such as grills, laundry or furnace vents, and hot tubs is not covered under the warranty.

Building codes and regulations vary throughout the country. Be sure to check with your local code official or governing body for the building requirements in your area.

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20 Moores Road
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www.certainteed.com

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