SERVICE INSTRUCTION

Field (SDL - Simulated Divided Lite) Grille Removal and Application

These instructions apply to:

Pella® 350 Series 2011 - 04/2021
Pella® 250 Series 2014 - Current

Tools Required:

- Miter Saw
- Measuring Tape
- Scissors
- Safety Glasses
- SHURLINE® 10-in-1 tool
- Putty Knife (Qty 2)
- Small 1-1/2" wide rubber or wooden roller
- Soft Dead Blow Hammer (Rubber Mallet)
- FEIN Vibrating cutting/de-glazing tool or equivalent (optional)

Supplies Needed:

- Masking Tape
- Ammonia-Free Glass Cleaner
- Cable/Wire Ties
- Pencil
- Isopropyl Alcohol (70%)
- Clean soft Lint-free Fabric or paper cloths
- Silane Coupling Agent: Gap- 11: 11 oz aerosol: Custom-Pak Products, Inc. N118W18981 Bunson Drive Germantown, WI 53022

Read all instruction steps thoroughly before beginning SDL - simulated divided lite grille removal and/or application.

- Read and observe all safety instructions from the tool and solutions manufacturers.
- Wear appropriate personal protective equipment as recommended by the equipment and chemical manufacturers.

NOTE: A vibrating cutting tool is another option to use for SDL - grille removal.

NOTE: The longer the SDL - grilles have been applied, the harder they will be to remove.

1 SDL - Grille Removal:

A. Spray into the back side (where the grille meets the glass) of the Applied SDL - grille(s) to be removed with Isopropyl Alcohol (70%).



B. Keep area wet with Alcohol for five (5) minutes before proceeding to step 1C.

C. Beginning near one end of the SDL - grille bar, begin to tap a 10-in-1 tool (or equivalent) under the SDL - grille bar to start to loosen the SDL - grille from the glass.



CAUTION: Tap the end of the tool only. DO NOT hit the glass directly.

NOTE: To help absorb the shock of the hammer blows, place a small pad on the end of the tool. (i.e. A folded paper towel duct taped to the end will work.)

D. When the 10 in 1 tool is cut through the grille adhesive, replace it with a stuff putty knife and move the tool along the grille bar, tap the tool under the SDL - grille bar. Continue this process along the length of the SDL - grille bar.



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1 SDL - Grille Removal (Continued):

E. Apply alcohol as needed to keep the adhesive wet and work slowly the along the SDL - grille bar to loosen from the glass pushing putty knife or 10 in 1 tool under the bar until the SDL - grille bar leg is loosened from the glass.





F. When one leg of a multiple leg SDL - grille is loosened from the glass, move to another leg, repeating the steps A-E on each leg until the SDL - grille is removed. Remove the SDL - grille.





G. There may be some tape residue left on the glass. Remove the tape, alcohol may be added to assist in removing. Clean the glass.



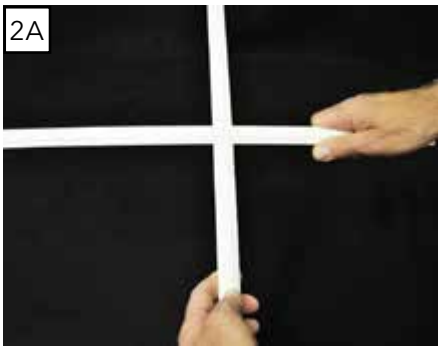
2 SDL - Grille Preparation:

NOTE: SDL - grilles may be installed in a horizontal position when the sash may be removed or in the vertical position when the unit remains installed. Preparation steps 2 & 3 are the same whether installing the SDL - grilles horizontally or vertically.

NOTE: SDL - grilles are typically applied in a manner to provide for equally divided lites in the glass. In most cases, SDL - grilles are provided cut to correct length with the angle trimmed on each end of the bar(s) for application to the window glass for interior or exterior surface application. SDL - grilles for shaped units are not provided cut to the correct length and must be held up to the window, aligned correctly, marked and cut to fit.

A. Assemble the SDL - grille, DO NOT remove the backing paper from the adhesive tape at this time.



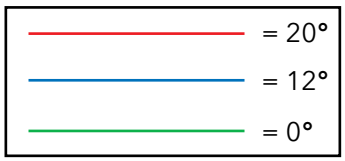


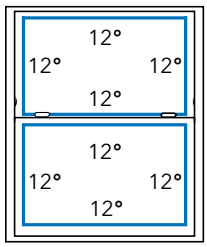
B. Test fit the SDL - grille in the window making sure it lays flat on the glass surface. The gap between the ends of the grilles and the window frame should be no more than 1/32", (which is about the thickness of a typical credit card, if a credit card fits in the gap, the gap is too large and SDL - grilles need to be re-ordered.)



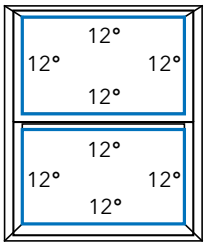
2 SDL - Grille Preparation (Continued):

C. If needed, trim the ends of the SDL - grilles to the correct angle for the window type to which the SDL - grille is being applied. Use a miter saw to cut the correct angle based on the information provided below.

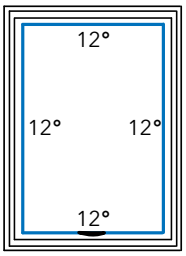




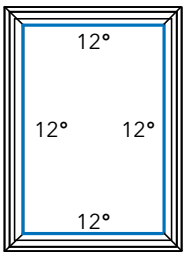
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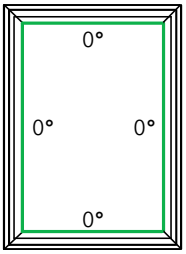
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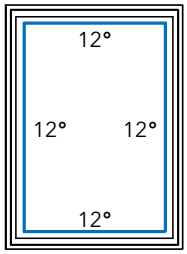
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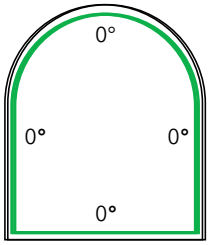
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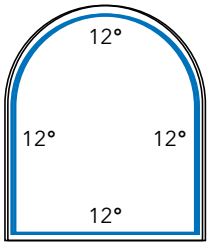
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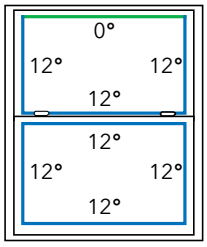
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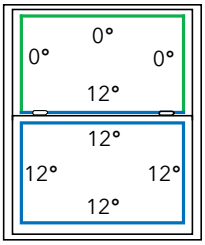
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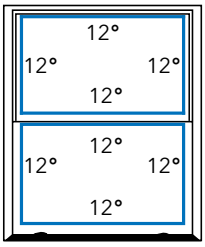
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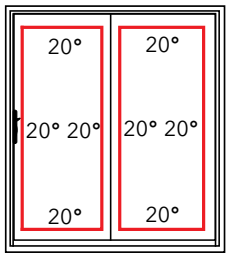
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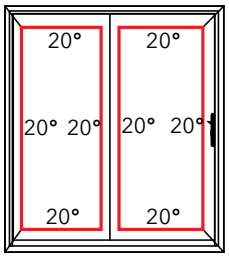
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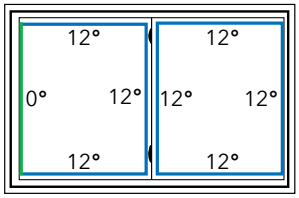
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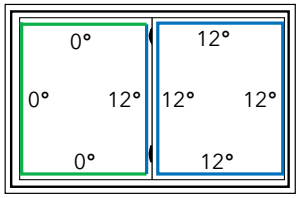
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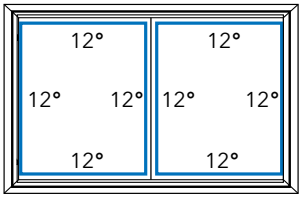
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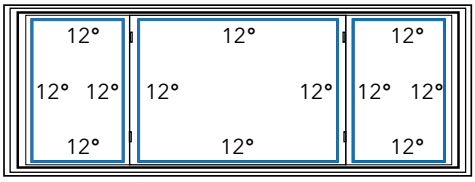
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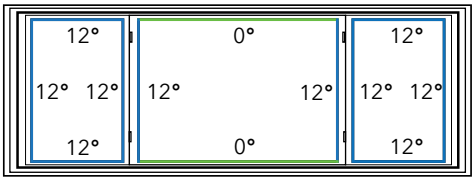
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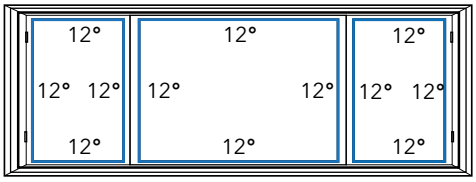
SW EXTERIOR



XOX STD INTERIOR



XOX HP INTERIOR



XOX EXTERIOR

D. Place a piece of masking tape on each edge of the frame at the approximate location the end of the SDL - grille will align with the frame. Measure to find the location to place the center of the bar against the frame and make a pencil mark on the tape.

E. Place a piece of tape on each end of the SDL - grille bar and place a mark on the tape at the center of the bar.

NOTE: When the SDL - grille is applied, align the marks on the SDL - grille with the marks on the frame.







3 Glass Cleaning and Preparation:

Cleaning:

The glass surface must be clean and free of all dirt, dust and contaminants before applying the SDL - grilles.

A. Apply a glass cleaner such as **ammonia-free** Windex® Glass & Surface cleaner or Sparkle® Glass Cleaner to the glass. **DO NOT** spray surrounding exterior finishes. Use a clean soft cloth to clean the glass surface. Be sure to wash the entire glass surface.

NOTE: Discard soiled cloths and use a new cloth for each sash to avoid cross contamination of glass surfaces.

Dry the glass surface after washing with a lint free paper or cloth towel.

Pre-treatment:

Application of a 'Silane Coupling Agent' to the glass surface is required to ensure proper adhesion of the tape to the glass prior to installing SDL - grilles.

B. Apply Gap-11 pre-treatment solution to the glass surface by spraying the solution following the SDL - grille pattern to be installed. Take care to not apply too much coupling agent to avoid run down off the glass onto any surrounding painted surfaces.

NOTE: Use the masking tape markers installed on the sash frame during the measurement as a location guide for applying the pre-treatment solution to the glass.

C. Dry the glass surface after applying pre-treatment using a lint-free paper or cloth towel. Allow the pre-treatment to completely evaporate from the glass surface before applying the SDL - grilles (3 minutes).



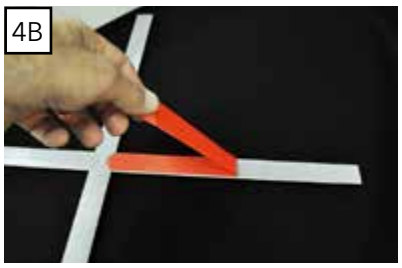
4 Horizontal SDL - Grille Application:

NOTE: For Vertical SDL - grille application, go to step 5.

A. Lay some cable ties on the glass in the area where the SDL - grille will be adhered to the glass. The ties will keep the adhesive tape off the glass to allow for proper positioning of the SDL - grille.

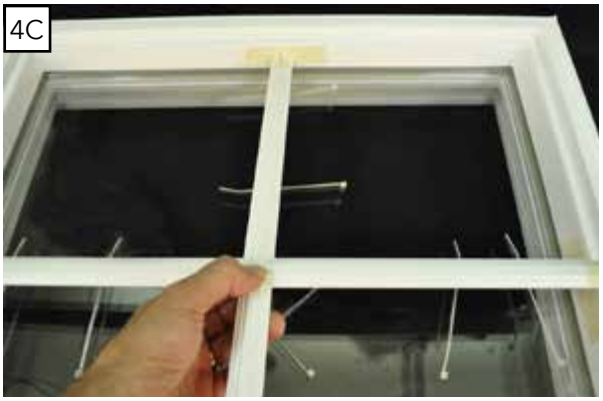


B. Lay the grille on a clean flat surface with the tape side up and carefully remove the release paper from the SDL - grille application tape.

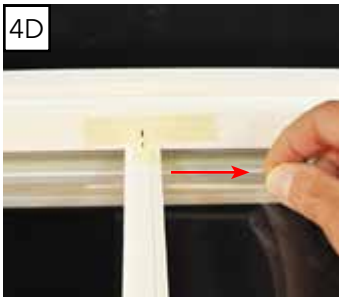


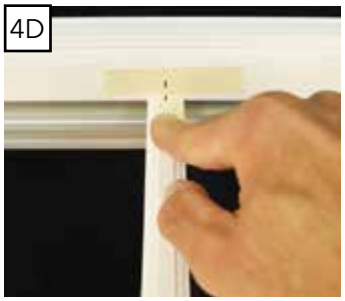
4 Horizontal SDL - Grille Application (Continued):

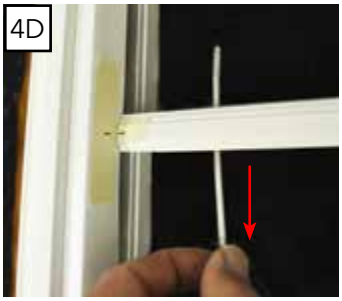
C. Position the SDL - grille with the adhesive tape side down over the glass and lay it on top of the cable ties to prevent it from touching the glass. Align the mark on the taped ends of the SDL - grille bars with the marks on the masking tape on the frame.



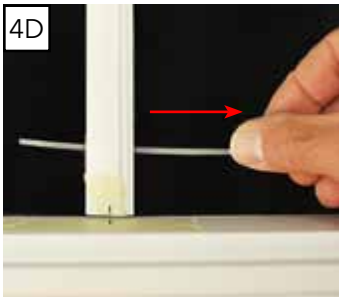
D. At each SDL - grille bar end, make sure the taped marks align and then pull out the cable tie and press the SDL - grille to the glass. Work around the glass until all the ends are pressed against the glass. Pull the cable ties out from the center and press the SDL - grille against the glass.

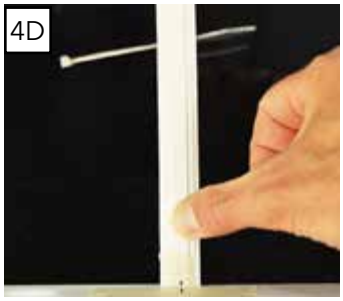




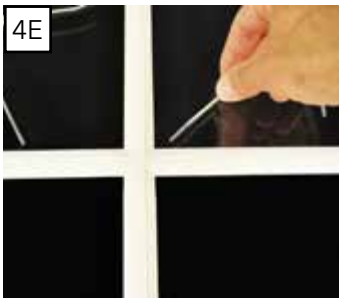








E. When all the SDL - grille bar ends are pressed against the glass; work towards the center of the SDL - grille and remove the center cable ties then press the center of the SDL - grille to the glass.





4 Horizontal SDL - Grille Application (Continued):

F. Firmly roll all surfaces of each SDL - grille bar using a 1-1/2" roller (or equivalent) to press SDL - grille bar tape to the glass and ensure complete tape contact and adhesion.



NOTE: Firm application pressure develops better adhesive contact and helps improve bond strength. Typically, good surface contact can be attained by applying enough roller pressure to ensure the tape experiences approximately 14 psi pressure. Failure to ensure complete application tape contact may result in delamination of the SDL - grille from the glass surface.

G. Inspect each SDL - grille bar to ensure the application tape is fully contacting the glass, repeat rolling SDL - grille bars as needed.

H. Remove the masking tape markers from the SDL - grille bars and the frame.



Repeat steps 1-3 on the other side of the window as needed.

5 Vertical SDL - Grille Application:

A. Lay the SDL - grille on a clean flat surface with the tape side up and carefully remove the release paper from the SDL - grille application tape.



B. Gently arrange cable ties on the adhesive side of the grille as needed to allow for proper positioning of the SDL - grille on the glass. The number of cable ties will depend on the size of the SDL - grille bars.



C. Position the SDL - grille with the adhesive tape side toward the glass; align the mark on the taped ends of the SDL - grille bars with the marks on the masking tape on the frame. With the marks aligned, press one of the ends to the glass.





5 Vertical SDL - Grille Application (Continued):

D. At each SDL - grille bar end, make sure the taped marks align and then pull out the cable tie and press the SDL - grille to the glass. Work around the glass until all the ends are pressed against the glass.

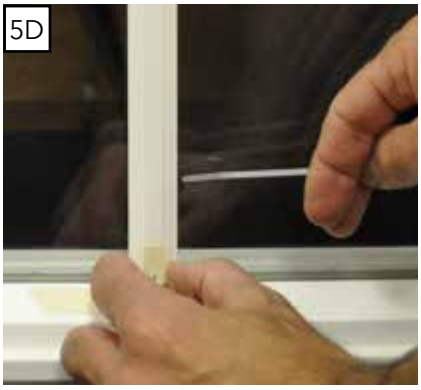


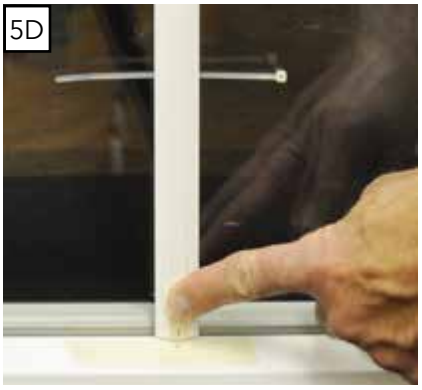










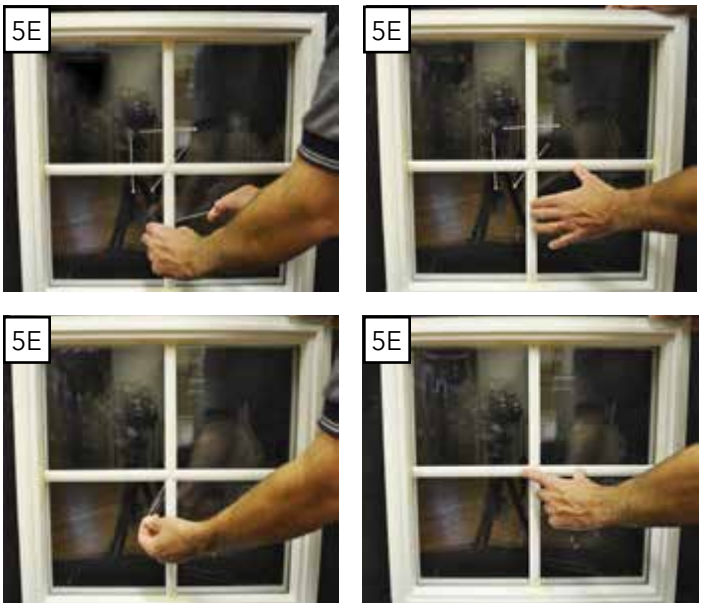






5 Vertical SDL - Grille Application (Continued):

E. Pull the cable ties out from the center of the SDL - grille and press the SDL - grille against the glass.



F. Firmly roll all surfaces of each SDL - grille bar using a 1-1/2" roller (or equivalent) to press SDL - grille bar tape to the glass and ensure complete tape contact and adhesion.



NOTE: Firm application pressure develops better adhesive contact and helps improve bond strength. Typically, good surface contact can be attained by applying enough roller pressure to ensure the tape experiences approximately 14 psi pressure. Failure to ensure complete application tape contact may result in delamination of the SDL - grille from the glass surface.

G. Inspect each SDL - grille bar to ensure the application tape is fully contacting the glass, repeat rolling SDL - grille bars as needed.

H. Remove the masking tape markers from the SDL - grille bars and the frame.

Repeat steps on the other side of the window as needed.