

Exterior Sealants Guide

"Attention: The information contained in this sealant guide was created by Winnebago Industries, Inc. for manufacturing purposes. Sealing processes and the type of sealant used can change depending upon a variety of circumstances. Duplication of a sealing process used by manufacturing may be difficult on a completed motor home. This information should be used as a reference tool. Please contact Winnebago Industries Technical Service for assistance."



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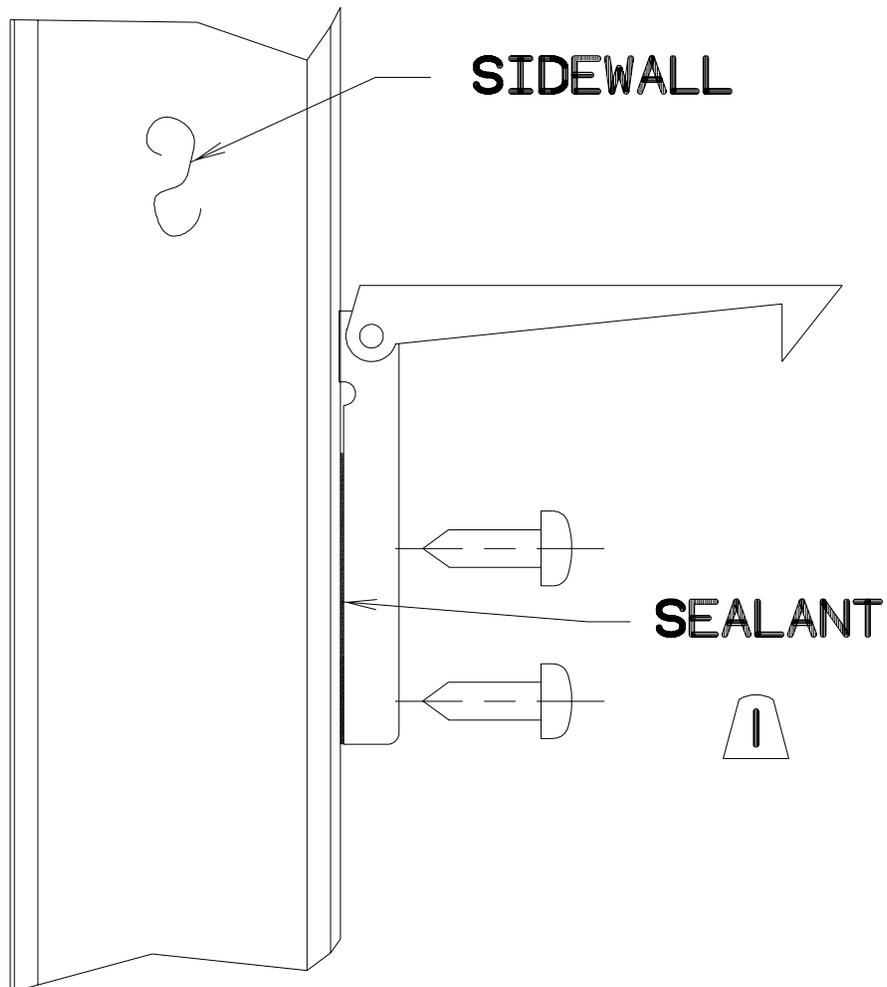
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LUGGAGE DOOR CATCH

Revision Date: 11/4/97

ref-4

1. Apply sealant (69640-22) to the back of the catch. Be sure the tape covers the holes so the screw will pick up the tape as it is screwed into the sidewall. If the catch is not screwed into the luan sidewall it does not need the sealant.

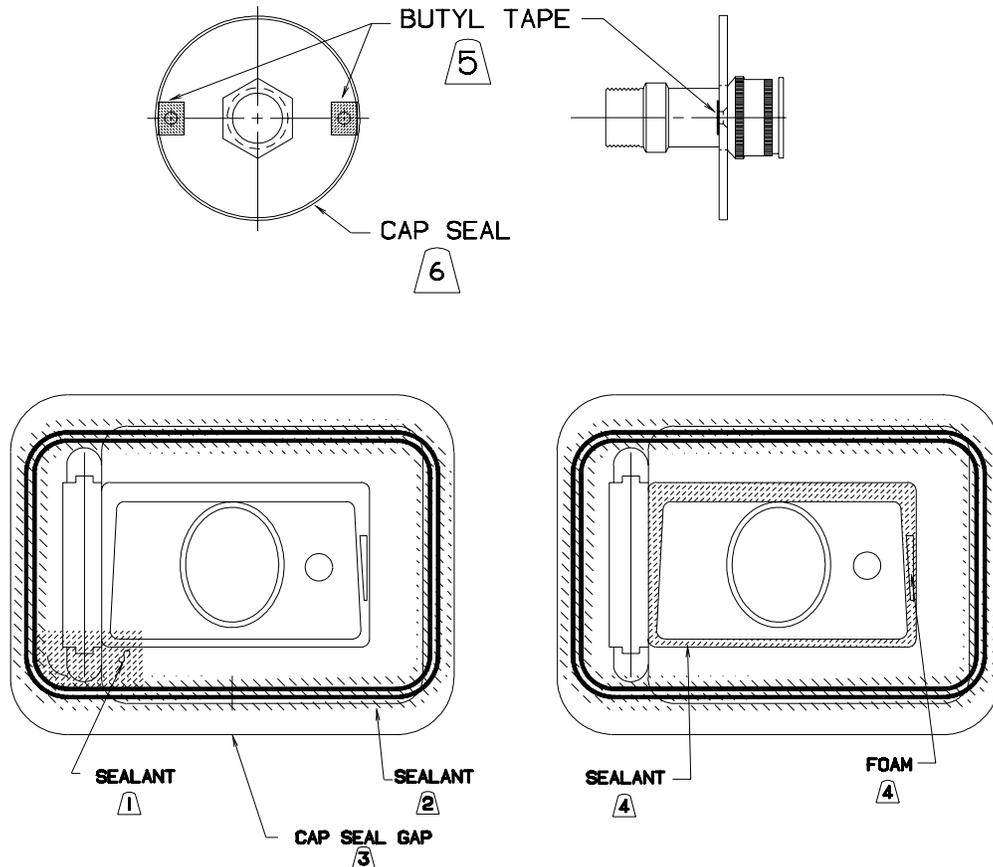


CITY & GRAVITY WATER FILL

Revision Date: 8/4/00

ref-5

1. Apply sealant (131264-01 or 69640-02) to the bottom hinge point sealing the pocket for the hinge from the interior.
2. Apply tape (69640-15) around the water fill. A small gap, 5-mm max., is acceptable at the tape splice on the bottom side of the fill.
3. Apply cap seal (72889) to the cover to wall joint. Leave a 6-mm to 25-mm gap in the cap seal at the bottom of the cover.
4. To back wall mounted water fills foam (100128-02) must be added to the backside of the door latch slot. After installation silicone (131264-01) must be applied from the inside around the perimeter of the opening to fill joint. Step one is not necessary.
5. To the city water fill apply butyl tape (69640-18) to the backside of the boss for the attachment screw.
6. Apply cap seal (72889) to the perimeter of the city water fill.

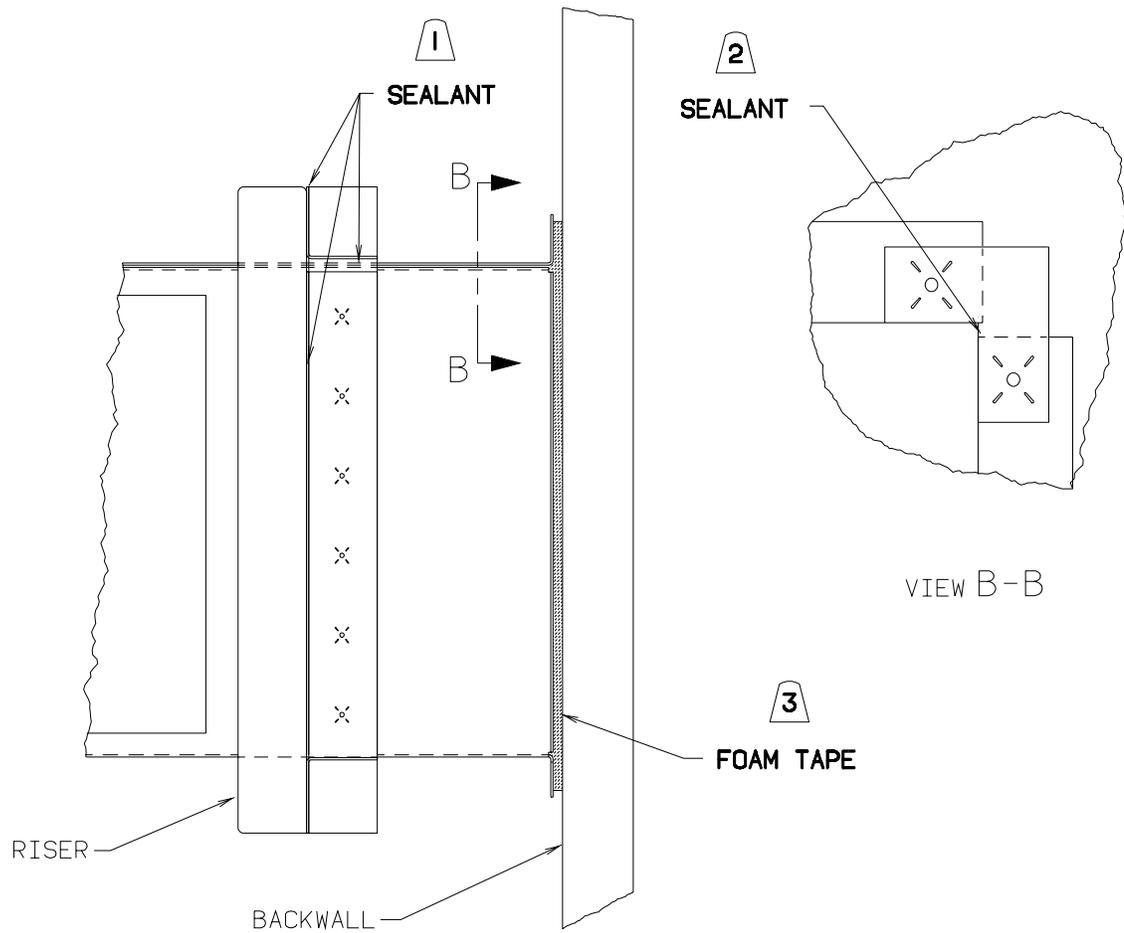


BACKWALL HEAT COMPARTMENT

Revision Date: 4/13/99

ref-15

1. Apply sealant (69640 or 102352) to the compartment flange to riser joint. Seal around the flange and any corner joints.
2. Apply sealant (69640 or 102352) to the void in the corner pieces. (Four places)
3. Apply foam (104692-01) to the outer flange of the compartment, sealing the compartment to backwall joint.

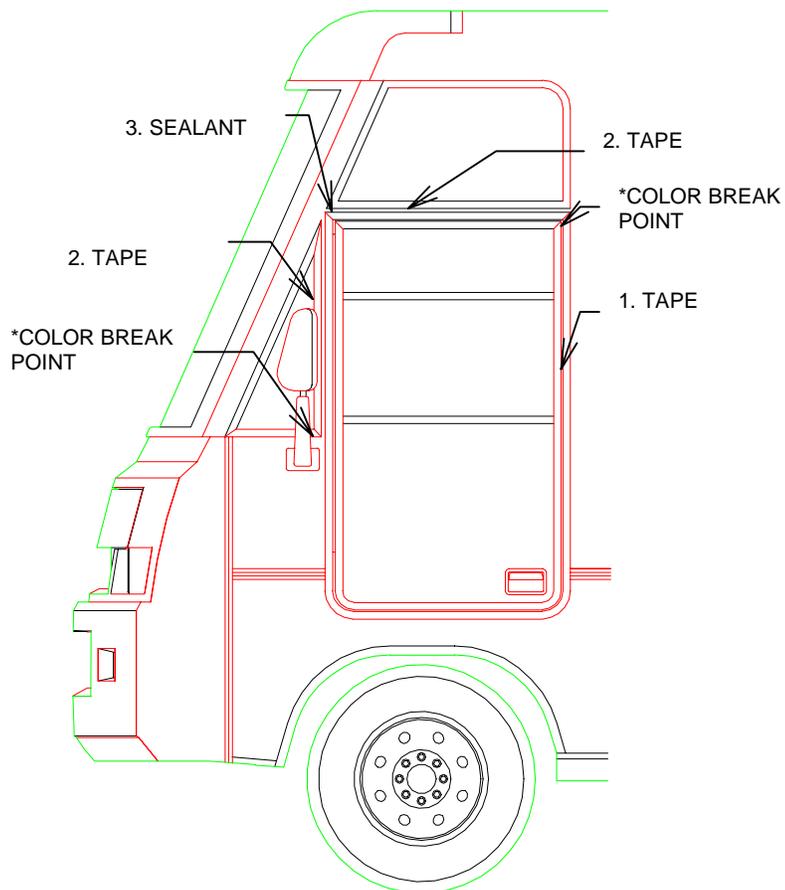


DRIVER DOOR 1998

Revision Date: 6/13/97

ref-19

1. Apply butyl tape (69640-18 & 69640-20) to the backside of the door flange before installation.
2. Black decal tape is applied between the vista window, slant window and driver door before windows and door are installed.
3. Apply sealant (72889) in the A post to sidewall seam between the vista window and the slant window. Be sure to force sealant into the seam under the slant window and the vista window to prevent water leaking.

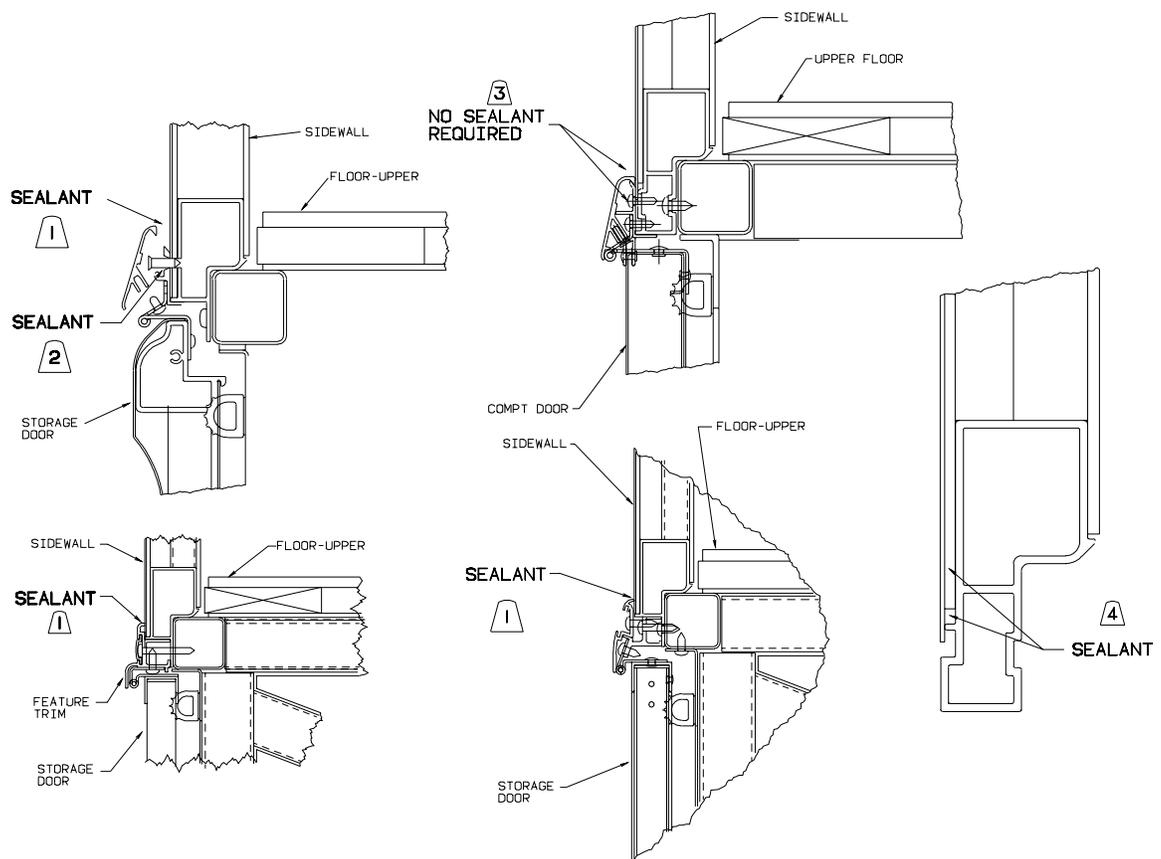


FEATURE TRIM

Revision Date: 5/16/01

ref-20

1. Apply sealant (to units with feature paint 102352-02 after painting; to units without feature paint 72889) to the top edge of the feature trim. Trowel per aesthetic requirement.
2. Apply sealant (131264-01 or 72889) to the drilled hole before attaching the trim.
3. On A Bodies and 400's, steps 1 and 2 are not required.
4. Apply sealant (72889) to the gap created by the end of the luan and the aluminum extrusion. Then coat the exposed luan with anti-wick material (124109). **DO NOT** seal the area below the leg that supports the fiberglass.



GENERAL CHASSIS SEALANT PROCEDURES

Revision Date: 10/7/97

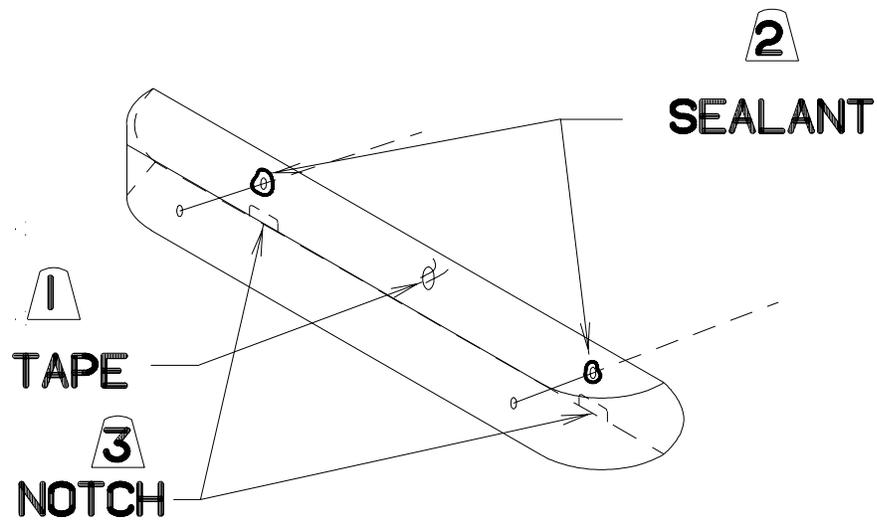
1. Apply polyurethane foam (110744) to the inside of the B pillar tube to prevent air infiltration into the coach through the tube.
2. Apply polyurethane foam (110744) to any floor frame tube that creates a path to the sealed portion of the coach.

CENTER BRAKE LIGHT

Revision Date: 10/24/00

ref-22

1. Wrap enough butyl tape (69640) around the wires to fill the wire hole in the sidewall.
2. Apply sealant (72889 or 131264-01) around the screw attachment holes on the back of the light fixture.
3. Using notching tool cut two notches in the base plate of the light if the lens or base does not have notches.
4. **Note: The new sealed light with a gasket that started in October of 2000 is acceptable with the gasket only. No sealant required.**



GENERAL RULES FOR FLOOR SEALANTS

Revision Date: 11/20/98

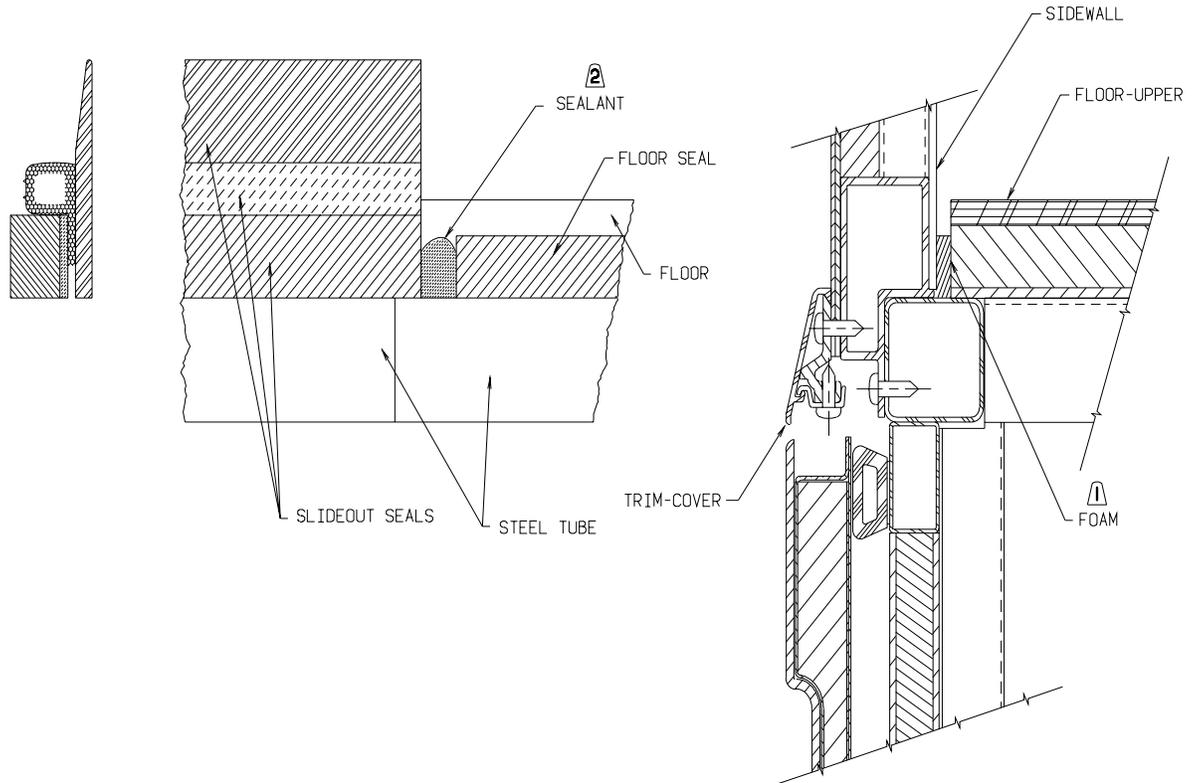
1. As a general rule sealant applied to the frame to sub-floor joint is black silicone. (131264-01) Any sub-floor installed in the chassis building is sealed with urethane (72889), either black or gray depending on the cosmetic concerns.
2. As a general rule sealant applied between the main floor and frame is urethane (72889) with a 5mm minimum bead diameter, either black or gray depending on the cosmetic concerns. The sealant is applied to all cross members that contact the floor. Special care must be taken to insure the joints exposed to the exterior(i.e. wheel wells, gas fills, LP tank, etc.) are completely sealed. Silicone (131264-01) is allowed around the outside perimeter on units that are difficult to work with.
3. Foam tape (104692-01) can be used to seal non-structure members, i.e. seal plates, furnace box etc. Any structural members must use the sealants referred to in item 2.
4. Keep in mind these are general rules. Sealant procedures for specific areas may change these rules.

SHORT SIDE-WALL TO FLOOR JOINT SEALING

Revision Date: 1/31/00

ref-24

1. Apply foam (104692-01) to the edge of the floor.
2. Apply sealant (72889) to the edge of the floor before and after the end of the slide-out cutout. The seal should be at least 1 inch high. The sidewall must be installed before the sealant has firmed up (30 Min).

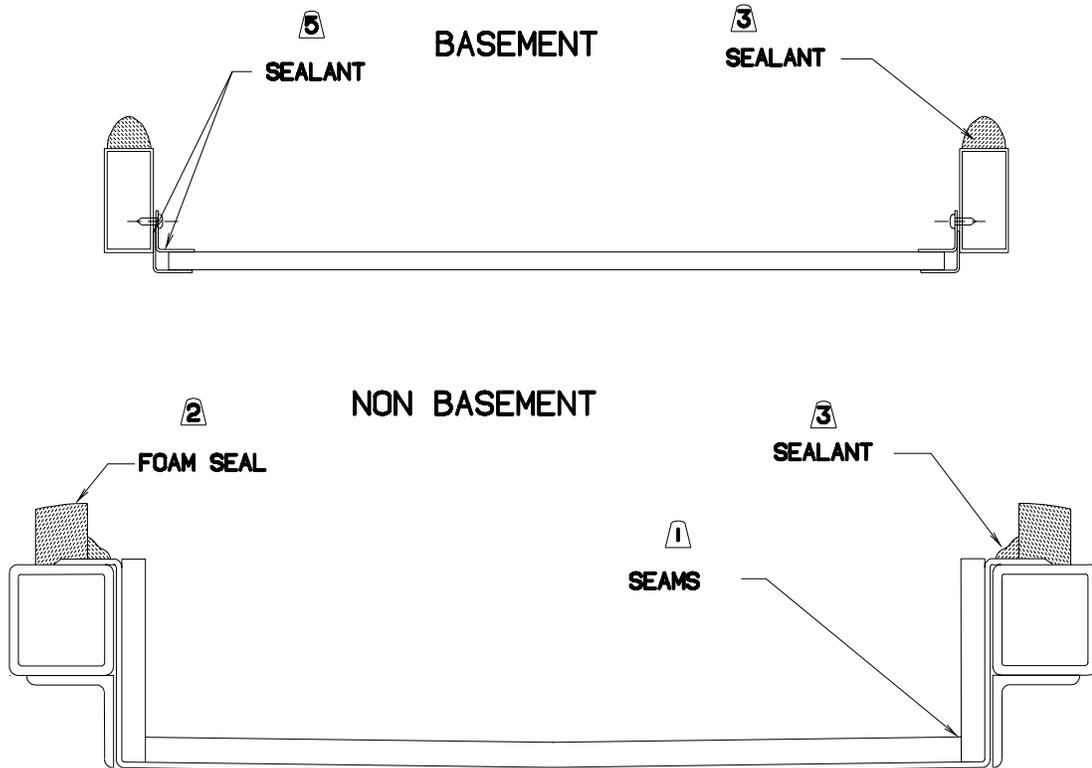


HEAT DUCT

Revision Date: 3/10/00

ref-25

1. Seal all joints on the insulation surface with aluminized tape (088479-01).
2. To non basement units apply foam seal (104692-01) to the edge of the duct.
3. Apply sealant (072889-18 or 19) to the top of the tube. The bead profile should be 4 mm high at a minimum on the basement motor home and 9mm high at a minimum on the non-basement motor home.
4. Seams joining the heater box to the duct should be sealed with aluminized tape (088479-01).
5. Seal (072889-18 or 19) the joint formed by the duct bottom and the support angle. This should seal any voids and the edge of the foam board from the heated air. Apply seal (72889-18 or 19) to the joint formed by the support angle and the floor tube sealing any voids.

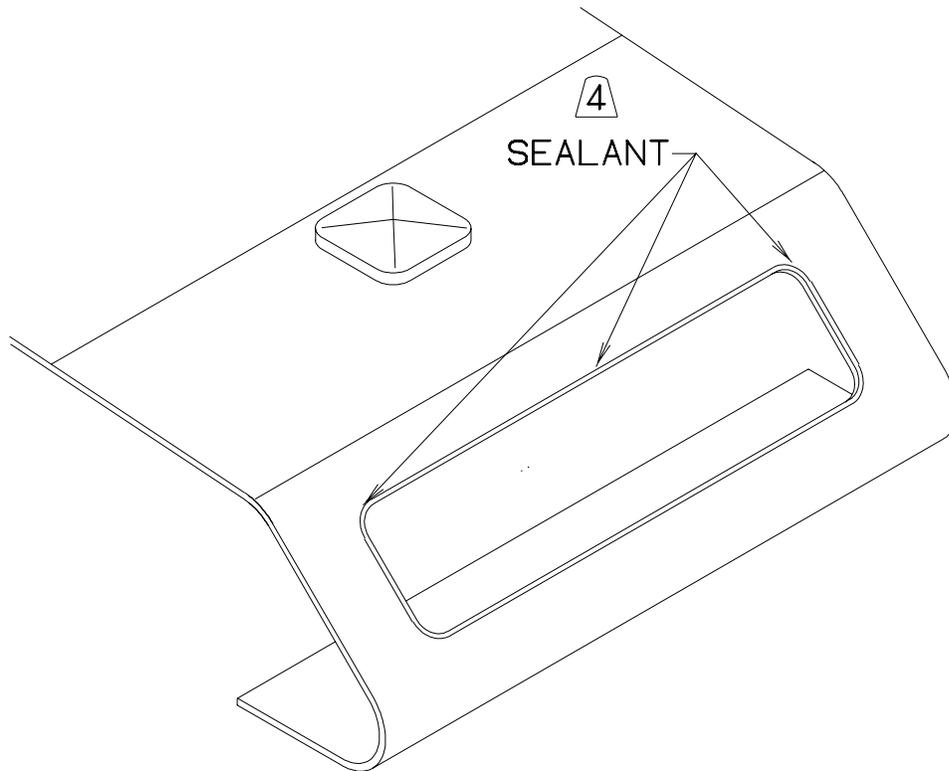


FOUR RADIUS CORNER WINDOWS

Revision Date: 4/2/98

ref-28

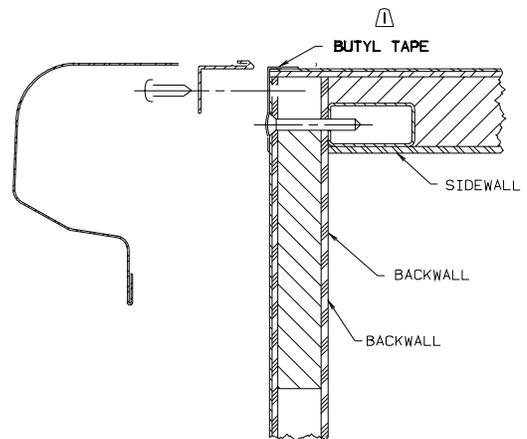
1. Wipe the inside surface of the window flange that will have the butyl applied to it, with adhesive promoter (87211-01) or Isopropyl alcohol (900058-01). Apply butyl tape (69640-11) to the perimeter of the window. Start the tape on the bottom of the window. Be careful not to stretch the tape on the corners.
2. To install the window, hold it parallel to the opening and install in the sidewall. Do not push the top edge in first and then set the bottom because the butyl will roll off the window flange into the opening causing a leak.
3. Trim the squeeze out. Take care, when removing the trimmed butyl squeeze out, not to pull all the butyl tape from under the window flange.
4. Apply sealant (131264-01-02) to the front bunk window. The sealant is applied to the top joint of the window and roof panel through the two top radii and can extend an inch past the radii.



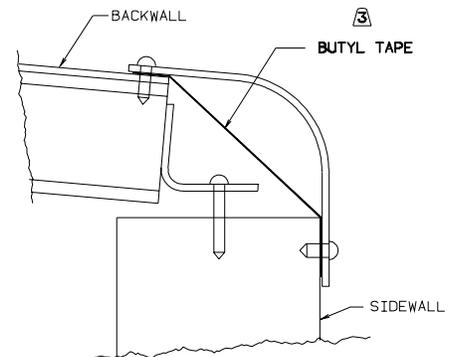
"F" & "D" SERIES SIDEWALL TO BACKWALL JOINT

Revision Date: 07/09/02
ref-29

1. Apply butyl tape (69640-09) to the sidewall and backwall surface so that it is between the corner trim and the walls. On the F and G, insure that the tape covers the back wall attachment screws.
2. Apply sealant (72889) to any exposed wood, (i.e. Wire paths tooling holes etc.), under the horseshoe trim that would allow water to penetrate the backwall.
3. Apply butyl tape (69640-09) to the sidewall and backwall surface so that it is between the corner trim and the walls. On the D, insure the tape is behind the screw holes on the trim.
4. Apply sealant (72889) seams at the bottom edges of the backwall between the aluminum sheeting and the steel sidewall attachment bracket. Insure the seam is filled to prevent water infiltration.



F SERIES



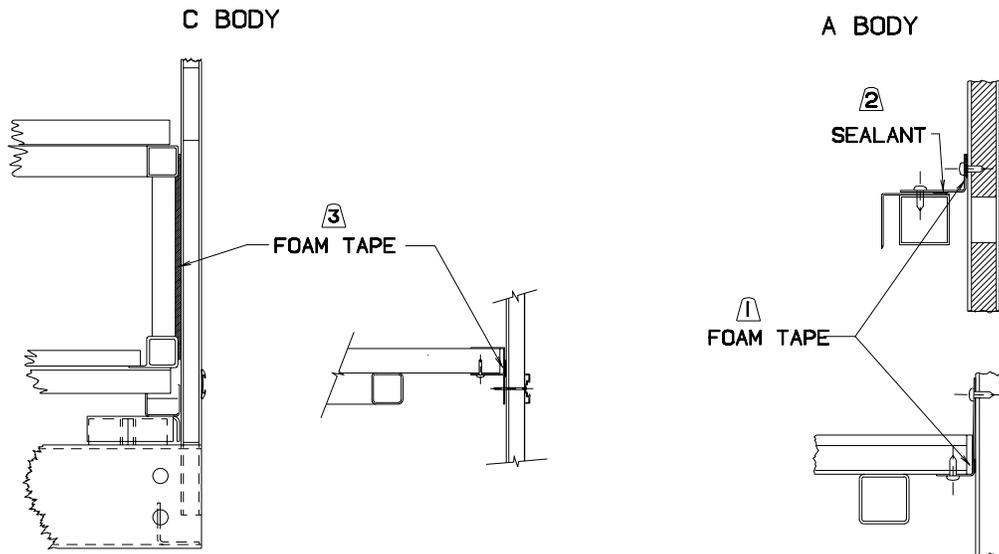
D SERIES

FLOOR TO BACK WALL JOINTS

Revision Date: 12/22/97

ref-30

1. Apply foam tape (100128-02) to the floor side of the joint.
2. Apply butyl tape (069640-15) to the steel angle joints shown. Be sure the carpet is to the inside edge of the butyl tape to prevent the carpet edge from wicking water into the compartment and the butyl tape seals any notches in the angle.
3. Apply foam tape (104692-01) to the floor side of the joint.

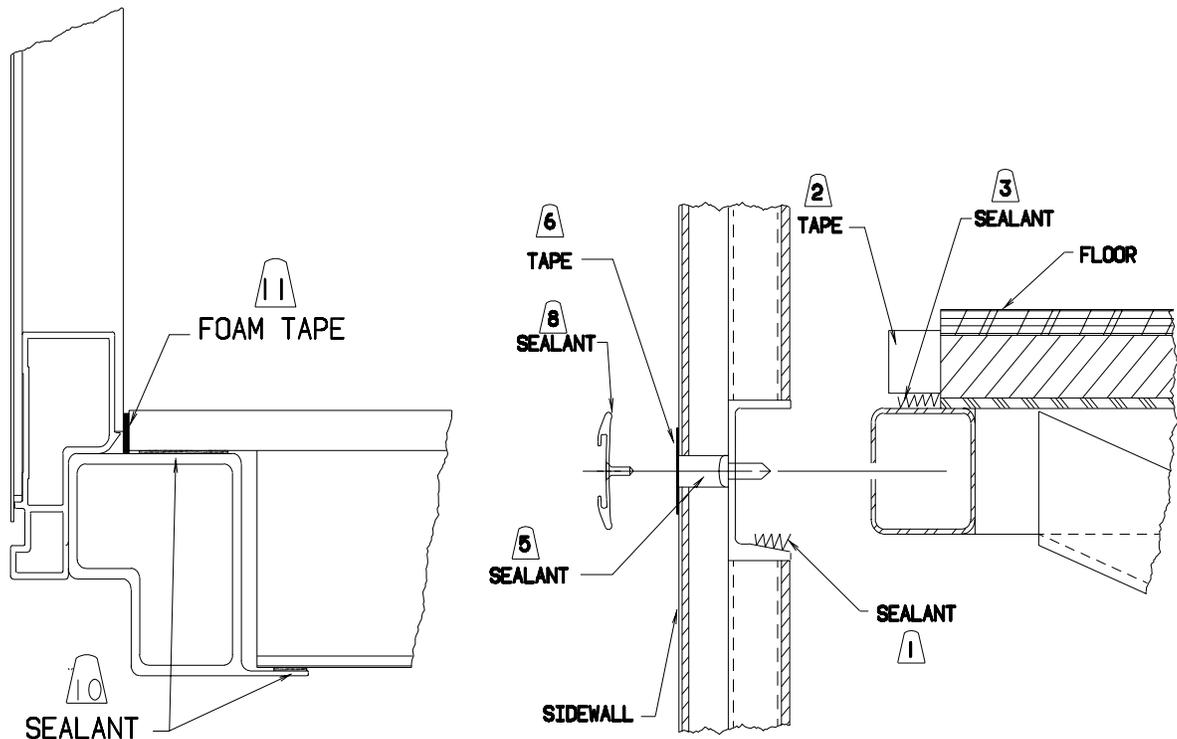


THICK FLOOR & 300 SERIES SIDEWALL TO FLOOR JOINT

Revision Date: 12/7/00

ref-31

1. Apply sealant (131264-01 or 100932-01 or 72889-18 or 19) to the bottom edge of the u channel.
2. Apply tape (104692) to the edge of the floor.
3. Between the tape and the floor tube apply sealant (100932-01)
4. Install the sidewall.
5. Seal the attachment screw hole with sealant (131264-01 or 72889).
6. Apply butyl tape (69640-17) to the sidewall. The tape should cover the attachment holes and be trapped to the sidewall with the feature trim.
7. Install the trim
8. Apply cap seal (72889) to the top edge of the feature trim and trowel per aesthetic requirements.
1. Seal any voids in the sidewall to basement joint with sealant (72889-18 or 19).
2. Apply sealant (72889) in 2 places to the floor to chassis frame rail joint. Trowel level any squeeze out on the top plywood to tube joint.
3. Apply foam seal to the edge of the plywood floor.

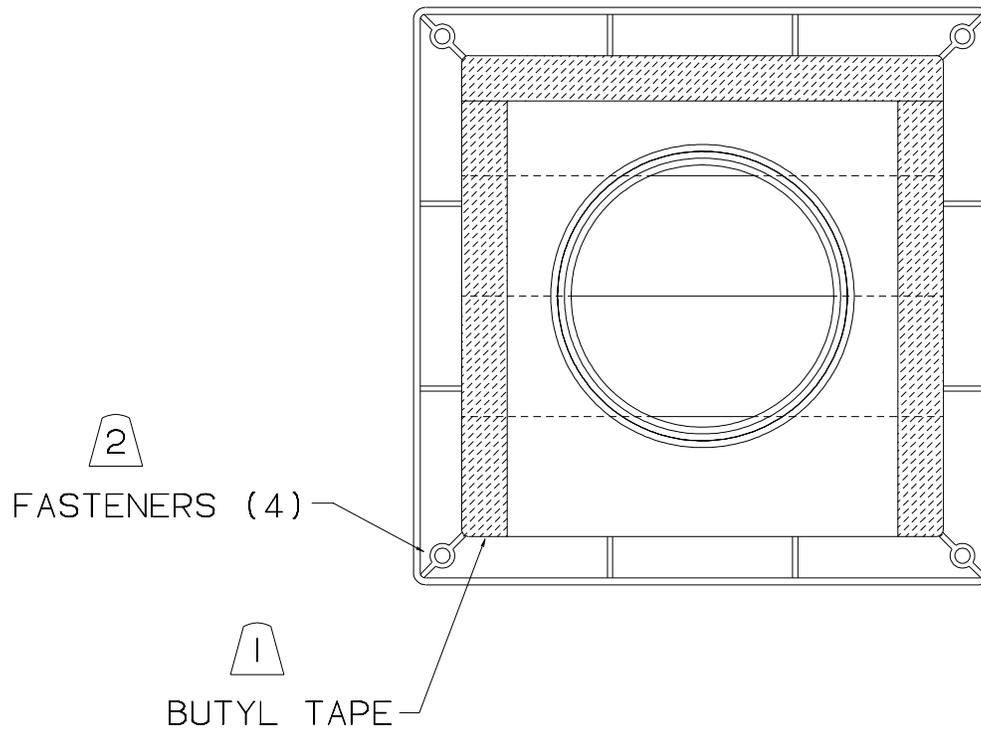


DRYER VENT

Revision Date: 12/16/02

ref-32

1. Apply butyl tape (69640-15 or 69640-32 if dryer vent is in a painted area) to the back of the dryer vent on the top and both sides. If the surface has screw holes in it the butyl tape must cover the screw holes. **Note: If the dryer vent is removed the butyl tape in both steps 1 & 2 must be replaced.**
2. Wrap butyl tape (69640-22) around the four fasteners before screwing them through the vent and into the sidewall.



WATER HEATER SEALING

Revision Date: 10/18/02

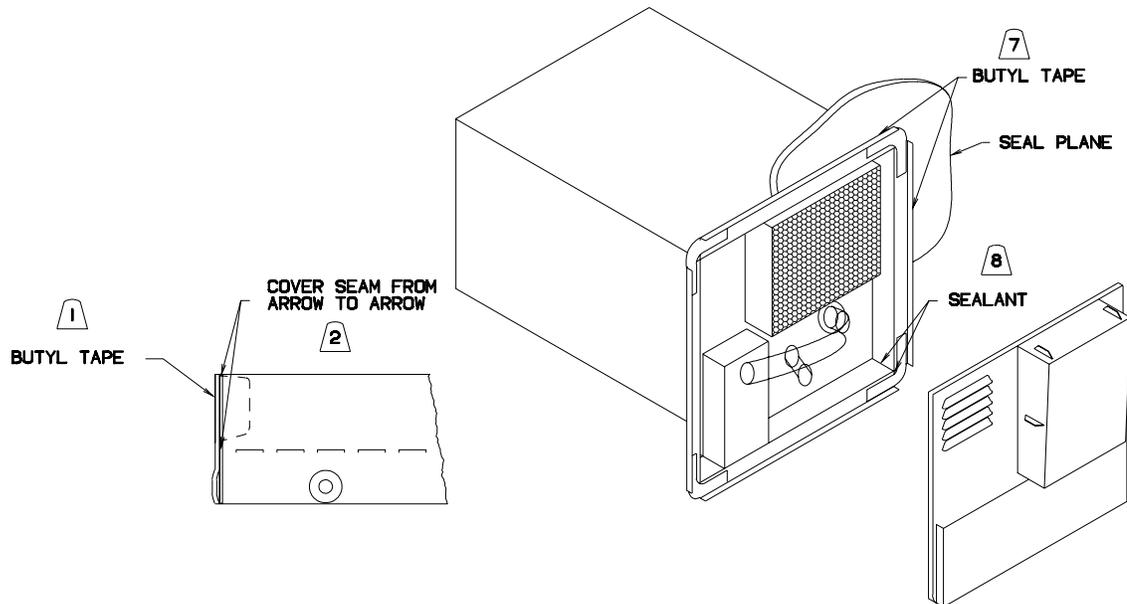
ref-33

Sidewall Installation- (DO NOT USE SILICONE)

1. Apply butyl tape (69640-07) to the perimeter of the heater that will be sealed against the sidewall. The tape seam should be along the bottom edge of the heater, not on the corner. Cover the screw holes and the perforations on the bend line with the tape. Be careful not to stretch the butyl around the corners
2. Insure the water heater corners are sealed along the complete edge of the flange.
3. Bend the flange 90 degrees. Seat in the sidewall opening and attach. Be sure the tape does not bunch up around the screw enough to keep the heater flange from seating against the sidewall. Butyl tape should be observed all along the sidewall to heater joint.
4. Apply sealant (72889) to the water heater to sidewall joint at the top, around both top radii, and in any empty screw holes along the flange or corner brackets. Trowel per aesthetic requirements. Do not apply to the bottom edge of the joint.
5. Apply sealant (72889) at the door hinge points to seal the openings.
6. Apply sealant (72889) to the grommet surrounding the copper line coming through the face of the water heater so that the grommet is airtight.

Seal Plane Installation- (DO NOT USE SILICONE)

7. Apply butyl tape (69640-14) to the perimeter of the heater that will be sealed against the sidewall. The tape seam should be along the bottom edge of the heater, not on the corner. Cover the screw holes and the perforations on the bend line with the tape. Be careful not to stretch the butyl around the corners.
8. Apply sealant (72889) at the bottom corner seams and the door hinge points as required to seal the openings.
9. Apply sealant along the top edge of the water heater and around both radii. Trowel per aesthetic requirements.
10. Apply sealant (072889) to the grommet surrounding the copper line

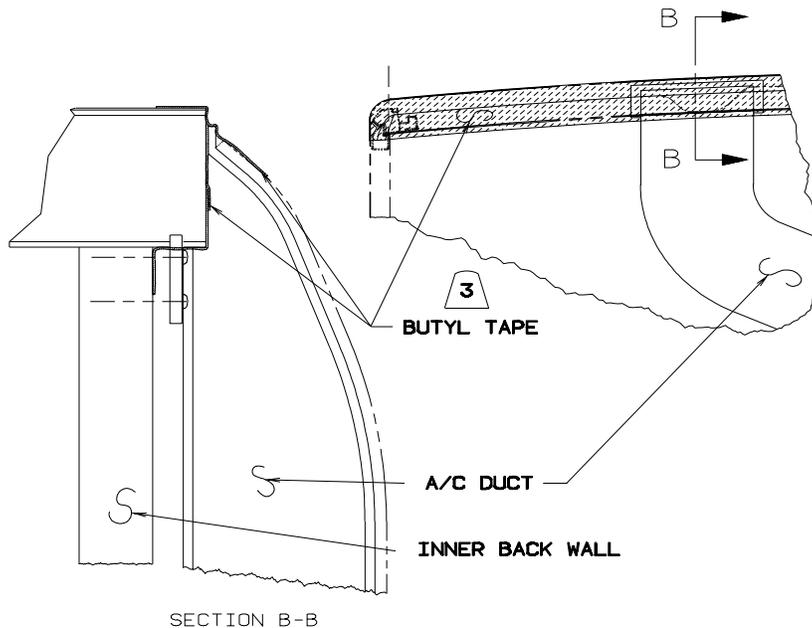


FULL BACKWALL FIBERGLASS BACK CAP

Revision Date: 9/3/98

ref-34

1. Apply foam seal (104692-01) to the inner back wall in the window cutout area when a window is not installed. Seal all joints on the steel transition piece between the trunk opening in the inner back wall and the trunk door in the fiberglass back wall.
2. Apply butyl tape (69640-09) to the side wall and inner back wall from top to bottom of the sidewall.
3. Wrap butyl tape (69640-09) around the back edge of the roof sealing against the inner back wall. If air ducts are installed, form the tape around the ducts keeping in mind the tape seals the end of the roof from water.
4. Plug the ends of the extrusions with foam and cover them with sealant (72889).
5. Apply butyl (69640-02) to the side trim insuring that the screw holes are covered.
6. Apply butyl (69640-02) to the roof to back cap trim insuring that the screw holes are covered.
7. Attach the trim insuring that the butyl is compressed.
8. Apply sealant (131264-03) to the front and back edges of the rear cap trim.
9. Apply sealant (72889) to the radius and edge of the rear cap, from the side trim to the roof trim.
10. Apply sealant (72889) to the ends of the rear cap trim.

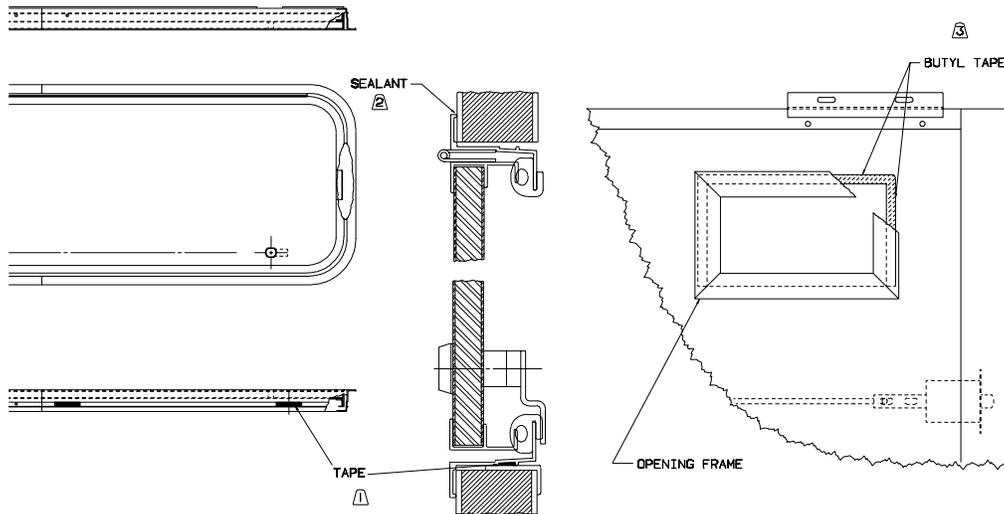


FRP PANEL LUGGAGE COMPARTMENT DOORS

Revision Date: 7/8/99

ref-35

1. Apply a 2-inch long piece of butyl tape (69640-15) to the bottom of the jamb covering the screw holes. Set the door into the opening and drive the fasteners through the jamb, **BOTTOM EDGE FIRST**. Verify fasteners go through butyl.
2. Cap seal perimeter of Jamb with sealant (72889). Trowel per aesthetic requirements. If the doors will have accent paint applied, sealant (102352-02) is applied after accent paint.
3. Apply butyl tape (69640-22) to the top and sides of the cutout for the opening frame.

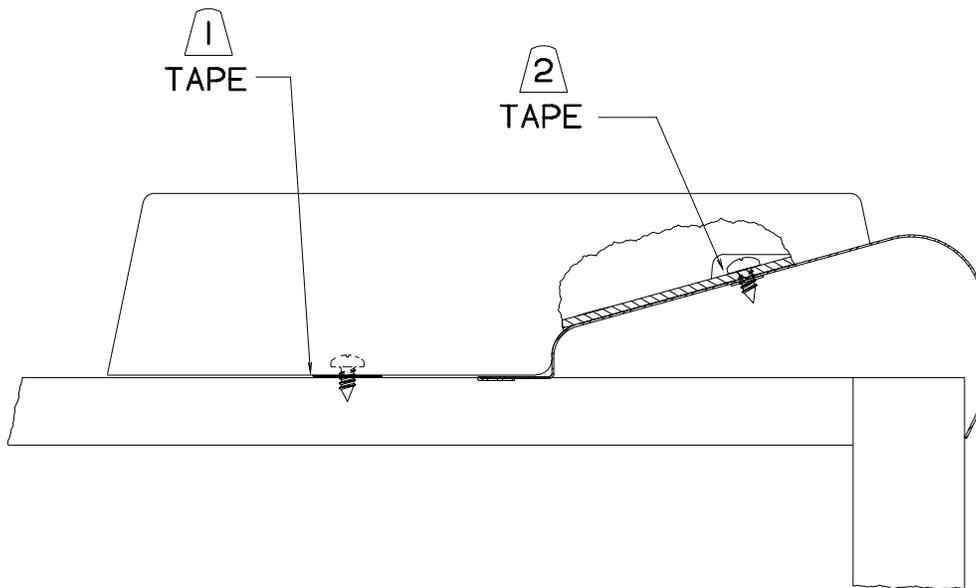


F-SERIES TAIL LIGHT ASSEMBLIES

Revision Date: 8/8/97

ref-36

1. Apply butyl tape (069640-10) to the back of the tail light pod covering any hole that a screw will be driven through into the back wall.
2. Apply butyl tape (069640-14) to the metal surface that the screw will drill. The tape prevents rust bleeding from shavings or the drilled hole.

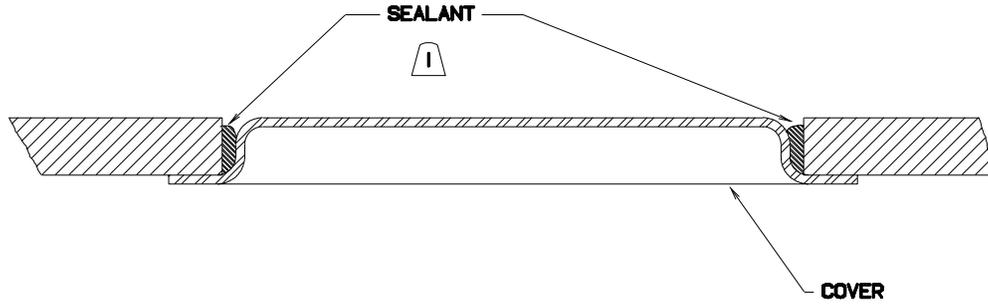


GAS TANK PUMP COVER

Revision Date: 1/9/97

ref-37

1. Apply sealant (131264-01) around the cover, at the cover to floor joint.

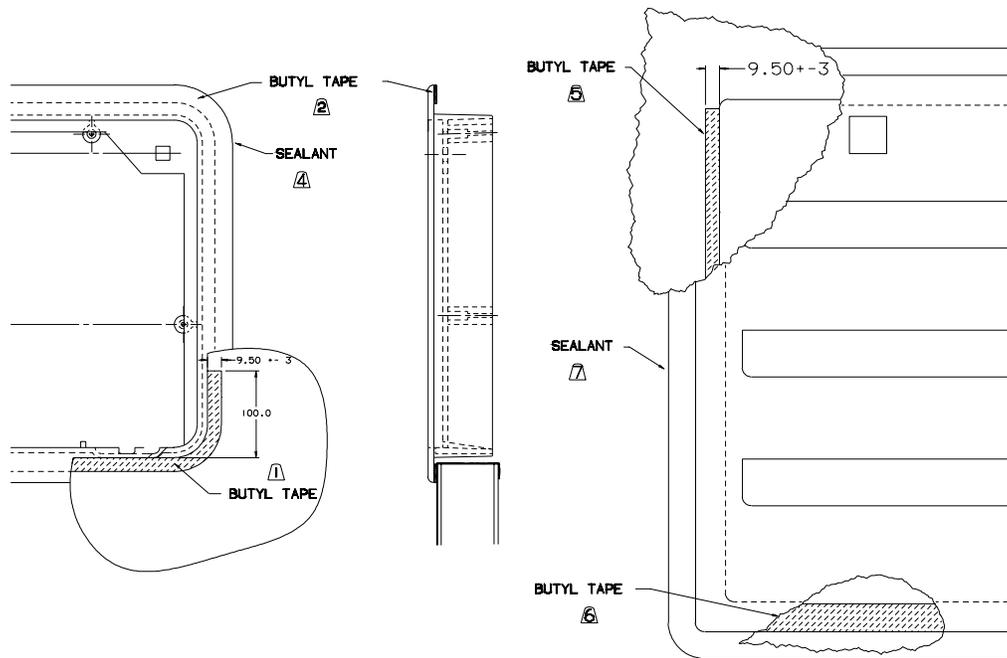


REFRIGERATOR COMP. DOOR SEALING

Revision Date: 12/16/02

ref-41

1. Apply butyl tape (69640-09) to the bottom third of the door cutout in the sidewall.
2. Apply butyl tape (69640-19 or 69640-03 if door is located in a painted area) all around the inside edge of the doorjamb. The butyl tape should be even with or overhang the jamb edge. Leave a 25 mm \pm 15 gap at the tape splice at the bottom of the door. Using the press tool, seat the door to the sidewall in the butyl tape. Maintain pressure with the tool for a minimum of 30 seconds. Squeeze out should be observed all around the door perimeter.
3. Trim the butyl tape per aesthetic requirement.
4. On the **222HD only**, cap seal (72889-20) any voids or gaps around the perimeter of the lower refrigerator doorframe. A 2-inch gap is left at the bottom center of the doorframe.
5. Apply butyl tape (69640-09) to the bottom and both sides of the cutout.
6. Apply butyl tape (69640-23) to the entire flange that forms the sealing joint between the wall and the doorjamb. Leave a 25 \pm 15mm gap at the tape splice at the bottom of the jamb.
7. On refrigerator doorframe in the slide-out room, cap seal (72889-20) the perimeter, top and sides. Do not seal the bottom.

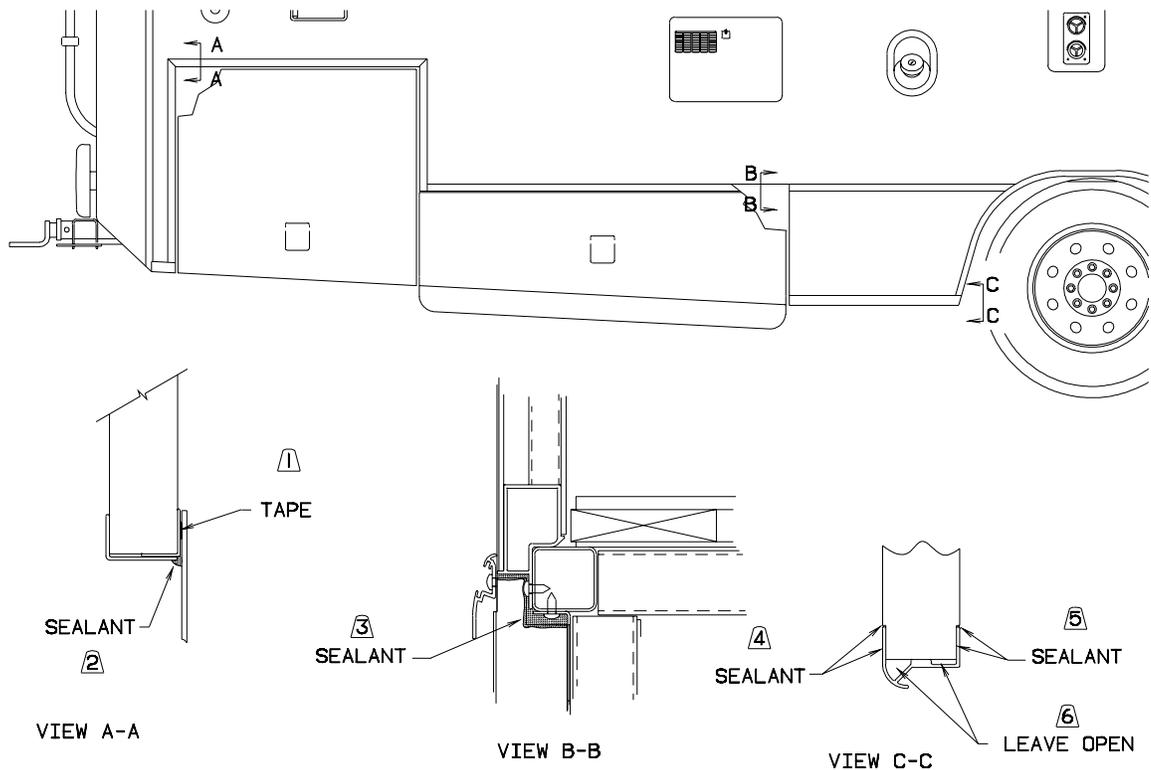


SEAL PLANE AND GENERAL TRIM

Revision Date: 5/11/98

ref-43

1. Apply foam tape (100128-02) to the perimeter of seal planes above floor.
2. Apply sealant (072889-18 or 19) to the joint formed by the door frame angle and the seal plane.
3. Apply sealant (072889-18 or 19) to the joint formed by the side wall trim and the floor and side wall tube. This joint also exists at the entrance door, front and back.
4. Apply sealant (072889) to the trim joint. This applies to a mitered joint as well as the shown, notched joint. Any exposed Luan at the joint should be covered.
5. Apply sealant (053766-02) to the back joint. **CAUTION: This material cannot be applied to foam.**
6. **Do not** fill these areas with sealant. These are drains for any incidental water



POWER CORD DOOR SEAL

Revision Date: 10/11/96

1. Apply butyl tape (69640-09) to the bottom of the door opening through the bottom radii and up the sides 3 inches. Insure that the tape extends to both sides of the wall covering the cut edge.
2. Install the bottom attachment angle.
3. Install the door and cap seal with sealant (72889).

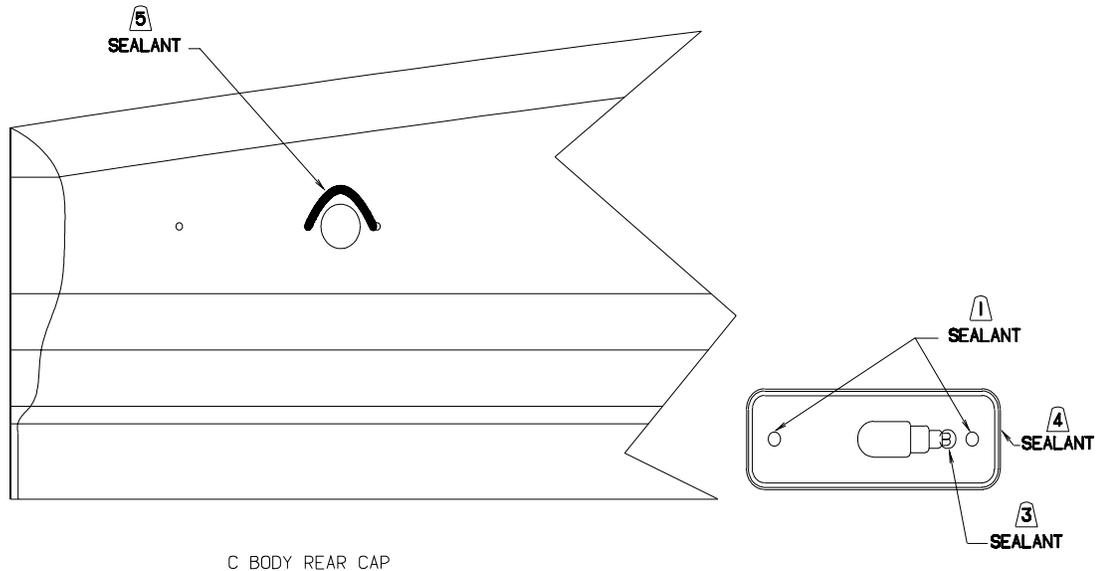
CLEARANCE LIGHT SEALING

Revision Date: 07/09/02

ref-46

1. Apply sealant (131264-01 or 72889) around the perimeter of the base and to the screw holes on the inside of the base. Option: On panel construction the wires can be connected, placed in the hole and then sealant applied in the hole and around the perimeter of the hole. Sealant still must be place over the screw holes before the screw is used to attach the light.
Note: Sealant (102352-02) can be used in place of the silicone in areas were silicone is not allowed.
Note: H bodies with the base gasket do not need step 1.
2. Install the light with no 8 screws.
3. Apply sealant (131264-01 or 72889) to the light wires where they go through the base. (If the option is used the light wires do not need sealant applied to the inside) Then finger trowel the sealant around the screw heads and wires to insure coverage.
4. Apply sealant (131264-01 or 72889) around the perimeter of the light base after installation and trowel to aesthetic requirements.

Note: In areas were water infiltration is not an issue, plastic trim etc., this procedure need not be followed.

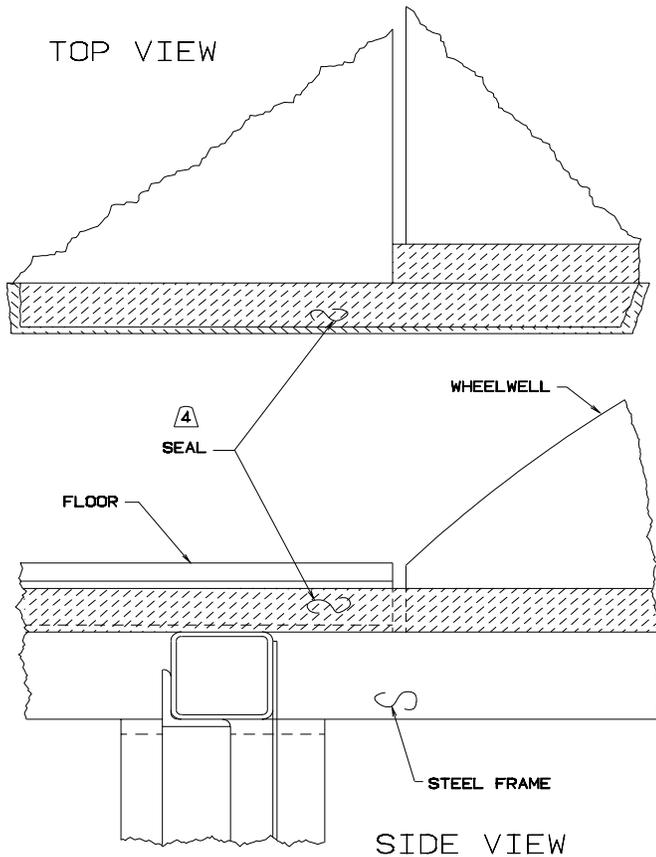


WHEEL WELL SEALING

Revision Date: 6/4/97

ref-47

1. Apply a minimum one-inch bead of sealant (100932) to the flange of the wheel well. When attaching the wheel well to the floor squeeze out should be observed.
2. **All units except M & F series.** Apply foam (104692) to the edge of the wheel well that makes the wheelwell to sidewall joint. Apply a half-inch bead of sealant (100932) above the foam on the wheelwell. Install the sidewall and attached the wheel well to the sidewall. Review the joint to insure no voids remain and the foam tape remains in place.
3. **All M series.** Attach the plastic wheel well to the metal frame with pop rivets. Cap seal the metal to plastic joint with sealant (100932). Review joint for any voids.
4. **All F series.** Apply sealant (72889) to the joint formed by the wheel well and the steel frame tube. Add a second row of foam seal (104692) along the wheel well between the floor cut out for the wheel well. This will maintain a dust seal between the sidewall and the floor.

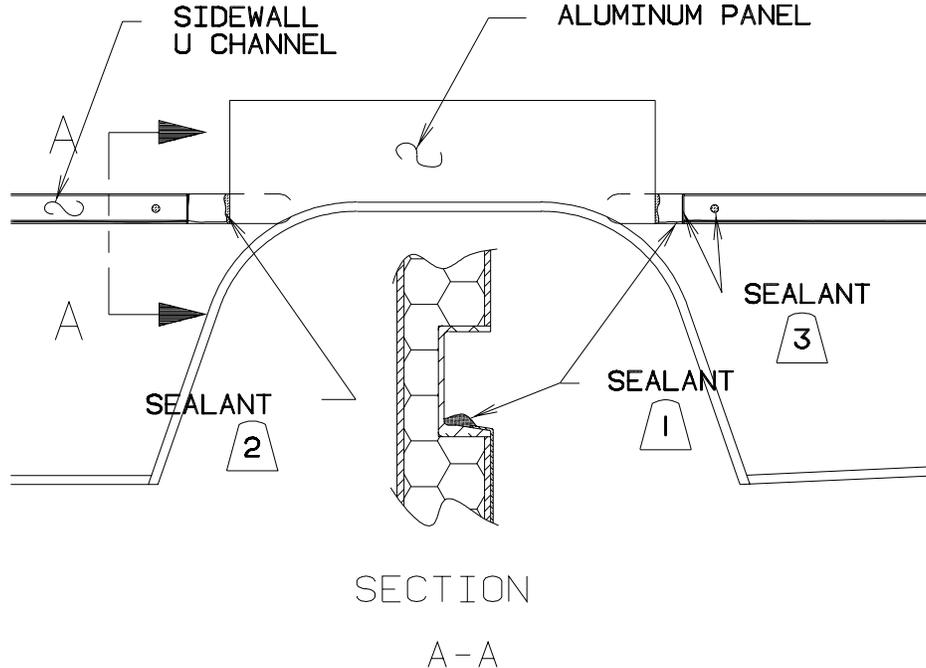


WHEEL WELL SEALING, (full length side wall)

Revision Date: 12/2/97

ref-48

1. The sealant (131264-01, 72889-18 or 19, or 100932) applied to the u channel to seal the inner aluminum skin to the u channel should continue past the u channel up to the foam next to the wheel well trim. Any edges of aluminum that could allow water into the sidewall panel must be sealed.
2. If the side wall foam has been routed out from behind the aluminum panel, creating a cavity. The cavity must be filled with urethane foam (110744-01). Care must be taken to prevent excess foam as it could interfere with sidewall installation.
3. Apply sealant (131264-01, 72889-18 or 19, or 100932) to the joint formed by the end of the u channel and the side wall foam. Seal any exposed hole in the u channel that allows a water path into the sidewall.

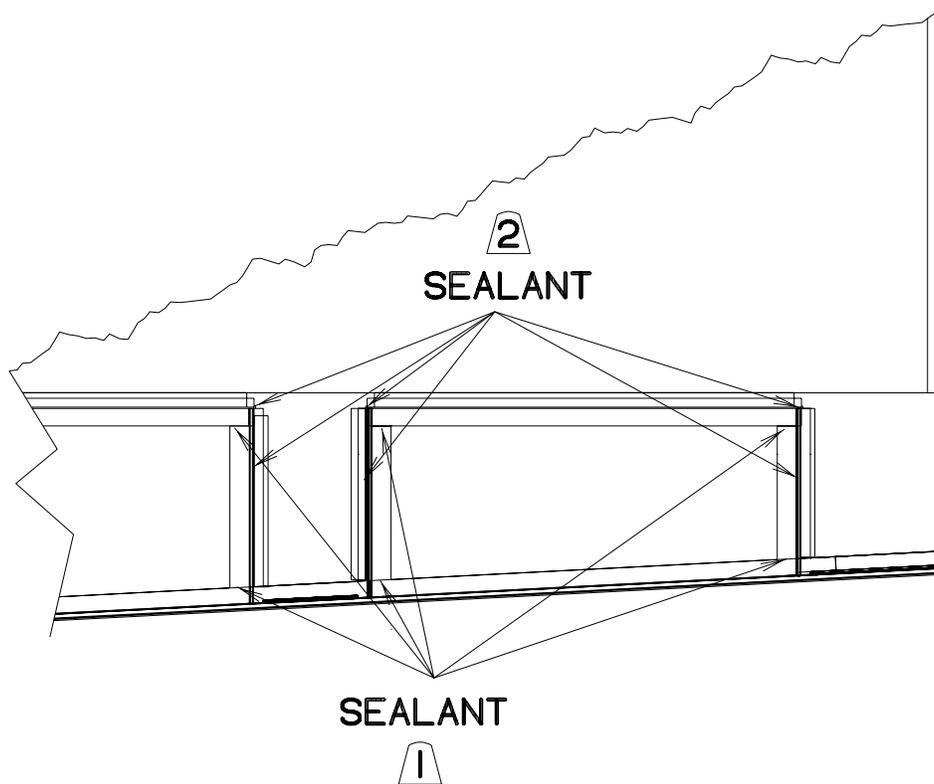


SQUARE DOOR JAMB SEALING (full length side wall)

Revision Date: 1/8/98

ref-49

1. Apply sealant (131264-01) to the seams formed by the horizontal and vertical pieces of the jamb.
2. Apply sealant (131264-01) to the joint formed by the sidewall and the jamb around the inside perimeter of the jamb. Be sure the relief cut into each corner for the jamb is sealed.



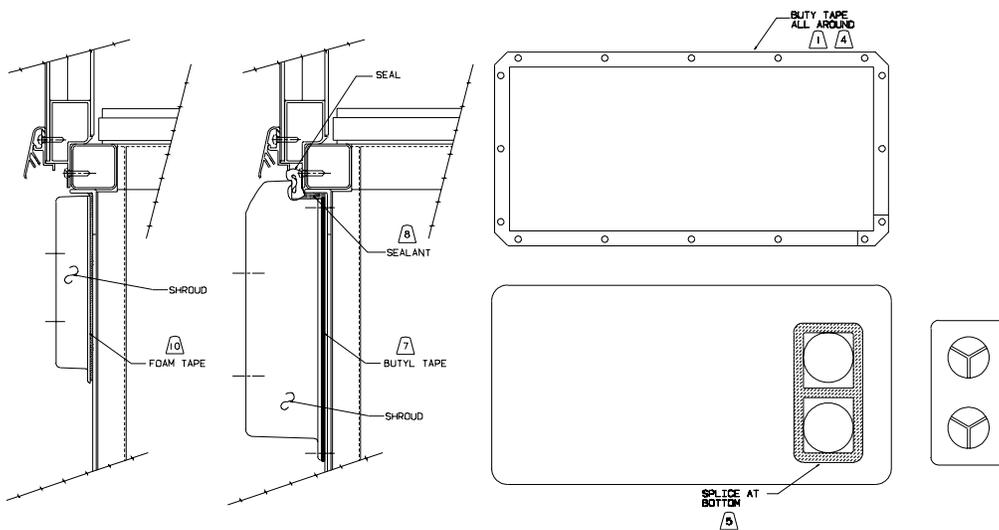
FURNACE DOOR FRAME & VENT SEALING

RECTANGULAR FRAME--PN. 98668 & vent

Revision Date:2/2/00

ref-51

1. Apply butyl tape (69640-21) to the flange. Insure the screw holes are covered and the tape is back from the outside edge of the frame 1/8-inch.
2. Install the frame with the splice corner on the frame and the tape at the bottom.
3. Trim excess no sooner that 1/2-hour after the frame is installed.
4. Cap seal (72889) the top and sides of the flange. **Note: do not** cap seal on furnaces installed in the back wall.
5. Apply butyl tape (69640-02) to the door or sidewall around the furnace vent openings.
6. Install the vents and trim any excess butyl.
7. Apply butyl tape (69640-20) to the shroud flange
8. After attaching the shroud fill the gap between the shroud the floor tube and the D seal with sealant (72889).
9. Cap seal any voids between the shroud flange and the seal plane with sealant (72889). Trowel per aesthetic requirements.
10. Apply foam tape (069640-01) to the flange and the top edge of the shroud. Procedure 5 applies to the metal vent-cover in this application also.

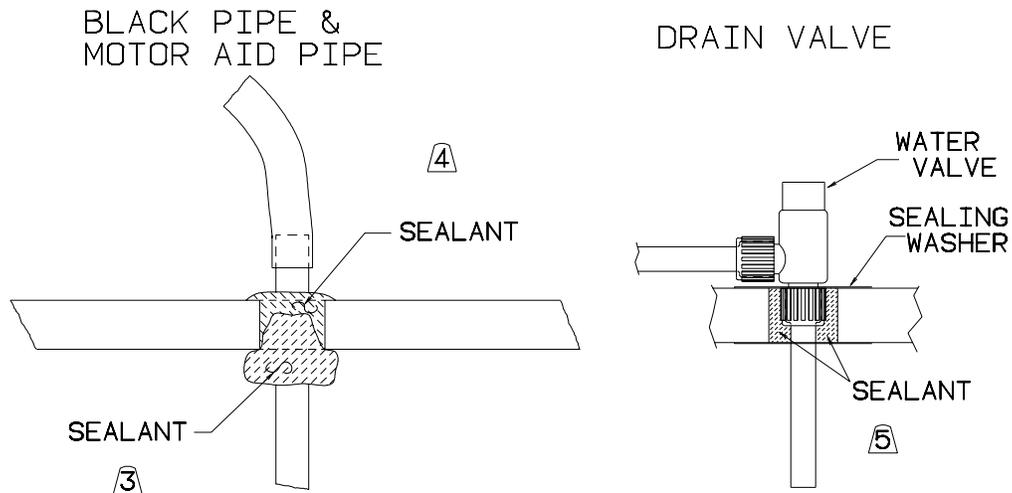


PIPE & TUBING THROUGH THE FLOOR

Revision Date:1/19/99

ref-52

1. For black pipe, attach sealing plate (94346) to the bottom surface of the floor. Apply sealant (131264-01) or urethane foam (110744) from the top to fill remaining voids.
2. If the plate cannot be attached to the bottom surface of the floor fill the void around the pipe with urethane foam (110744).
3. For motor aid pipes wrap butyl tape (69640-03) around the pipe creating enough thickness to fill the hole in the floor and allow material to lay against the bottom of the floor when the pipe is positioned. The tape should wedge into the void between the pipe and the floor opening when the pipe is pulled up through the floor.
4. From the top side of the floor, fill any remaining voids with sealant (72889).
5. For drain valves apply sealant (72889 or 131264-01) around the tube filling the void.

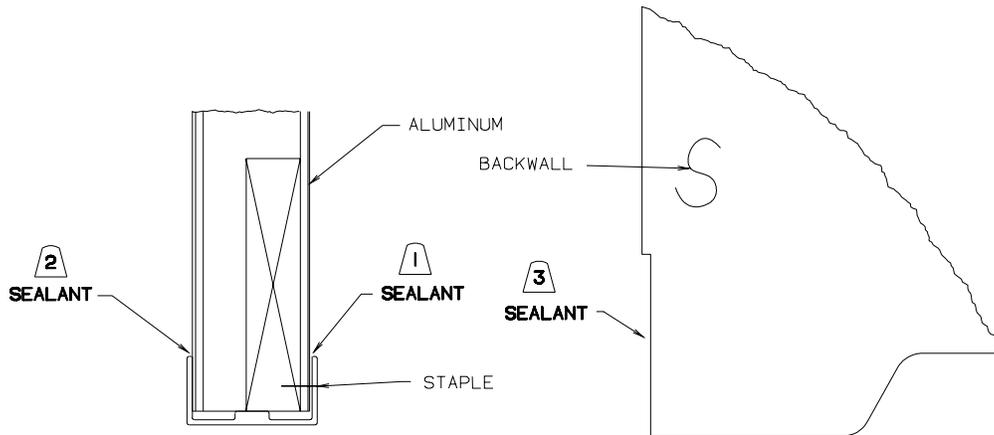


SIDE WALL BOTTOM TRIM SEALING

Revision Date: 9/2/99

ref-57

1. After stapling bottom trim in place apply sealant (131264-01, -02) to the trim to sidewall joint; inside surface of the wall. Apply sealant around the wheel well trim also.
2. Apply sealant (72889) to the outside trim to sidewall joint including the wheel well. Trowel per aesthetic requirements. With the shorter sidewall, the trim around the drop down section for the entrance door, if painted, can be sealed (094401-04) after paint.
3. Apply sealant (100053-02) to the notched edge of the back wall insuring all wood is covered.

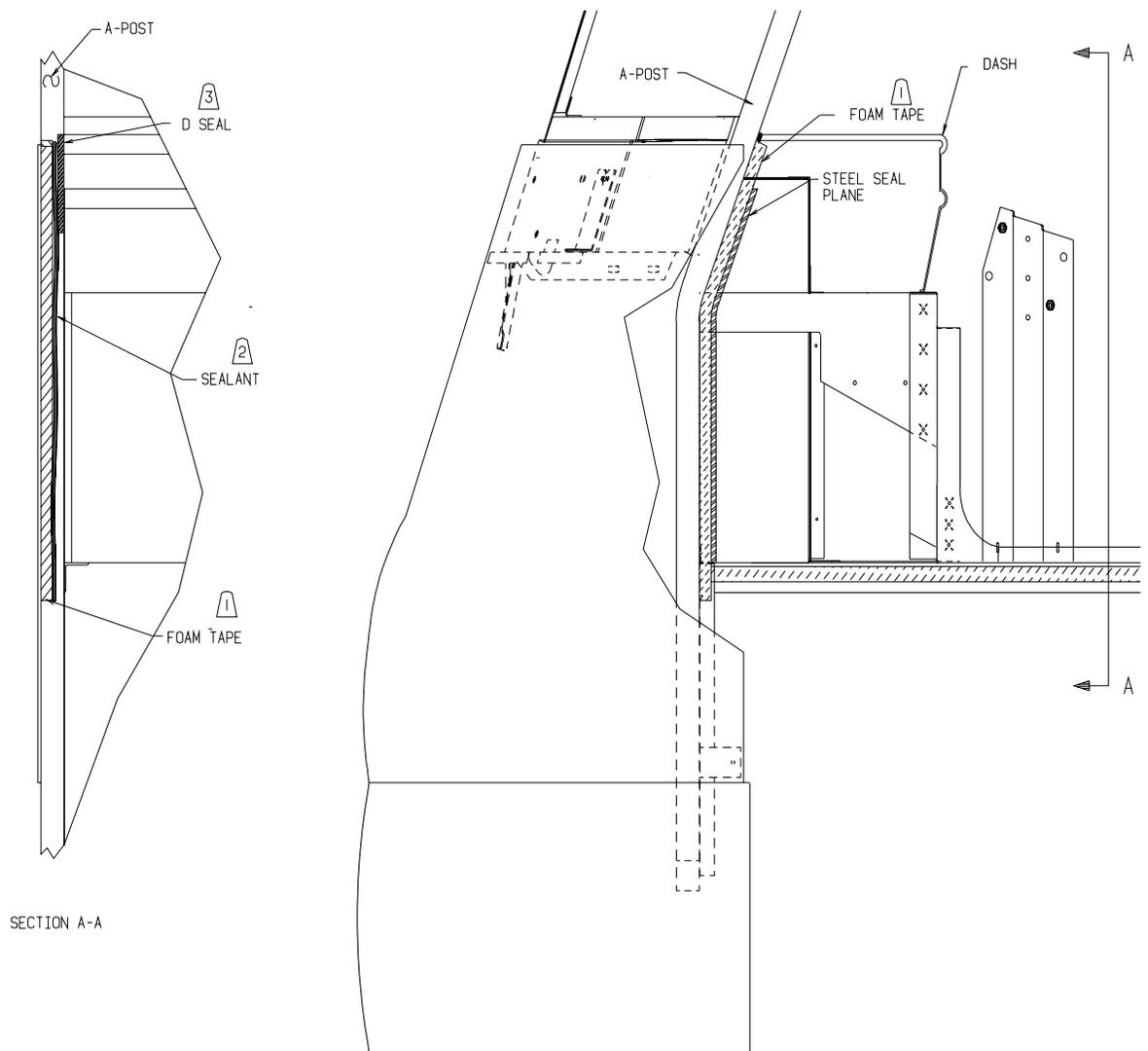


A-POST TO SIDE WALL; EXPORT

Revision Date: 6/13/97

ref-59

1. Apply foam tape (104692-01) to the outside edge of the A-post tube, from the dash to below the cab floor.
2. Apply D seal (112160-01) to the A post from the dash edge past the top edge of the seal plane.
3. Apply a 1/2 inch diameter bead of sealant (100932 or 131264-01 or 72889-18 or 19) to the A-post tube along the inside edge of the foam tape.

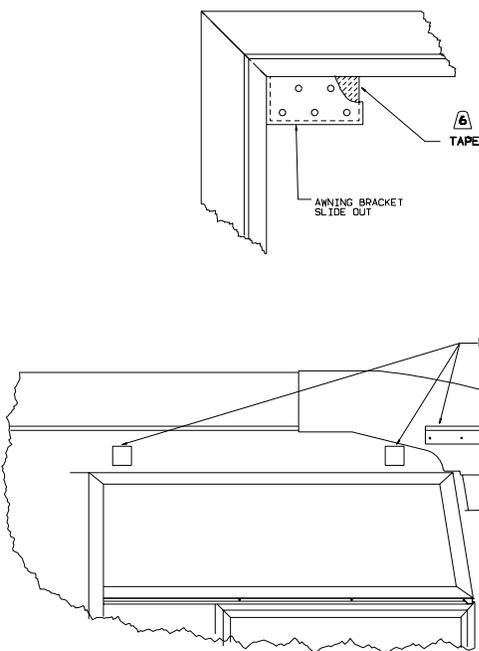
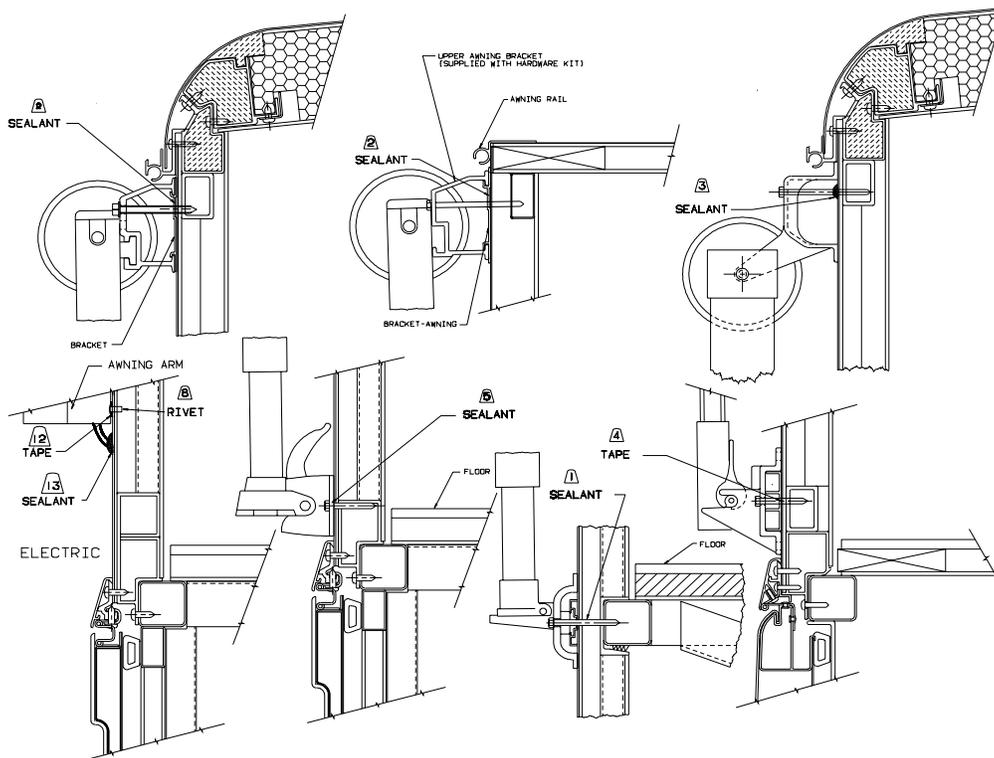


AWNING SEALING

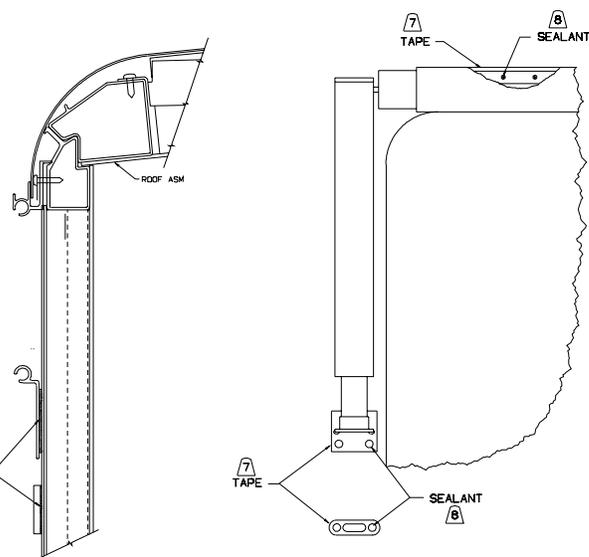
Revision Date: 12/16/02

ref-61

1. After the hole for the attachment screws are drilled, fill the hole with sealant (72889) leaving sealant around the hole before attaching the mounting bracket. When installed, sealant should be visible around the fastener as it enters the sidewall.
2. Apply butyl tape (69640-15 or 069640-32 in painted areas) to the awning bracket. Be sure the tape covers the holes the mounting screws will pass through.
3. After the hole for the attachment screws are drilled, fill the hole with sealant (72889 or 102352-02). After installing the bolt apply a generous bead of sealant around the bolt to sidewall joint. **NOTE:** This step only applies to the shown awning model.
4. Apply tape (69640-10) to the support extrusion centered on the screw holes.
5. Apply butyl tape (69640-15 or 069640-32 in painted areas) to the back of the bracket covering the hole the mounting screw goes through before attachment. Trim excess tape.
6. Apply butyl tape (69640-10) to the slide-out awning bracket; make sure all five holes are covered with the butyl tape. Keep the tape at least 3 mm away from the bottom and the sides of the bracket to reduce tape squeeze out.
7. Apply butyl tape (69640-15 or 069640-32 in painted areas) behind the awning rail, the foot support and the hook to seal the fasteners.
8. If rivets are used sealant (72889 or 102352-02) must be applied to the head of the rivet sealing the mandrel.
9. After the awning is installed seal (72889 or 102352) any splice in the awning rail. Be careful not to fill the water trough with sealant that would block the water flow.
10. On the Q Series apply butyl tape (69640-03) to the back of the support brackets mounted to the frp cap and the bottom spacer blocks. Apply butyl tape (69640-19) to the fastener holes in the back of the awning body.
11. On the P Series apply butyl tape (69640-07 or 69640-13 when located in a painted area) to the back of the awning support rail and butyl tape (69640-17) to the spacer block. Apply butyl tape (69640) to the fastener holes in the back of the awning body.
12. Apply tape (69640-15 or 069640-32 when located in painted areas) to the awning arm, covering the rivet holes used to attach the arm to the sidewall.
13. On the electric awning apply sealant (72889) to the hole in the sidewall the electrical wires come out of. Insure material is pumped into the hole and fills the opening to the outside surface of the fiberglass skin at a minimum. The sealant must coat the luan. The sealant can protrude out from the sidewall so long as it does not interfere with the awning covers. The procedure also applies to the electric door awning.



Q ENTRANCE DOOR AWNING



P ENTRANCE DOOR AWNING

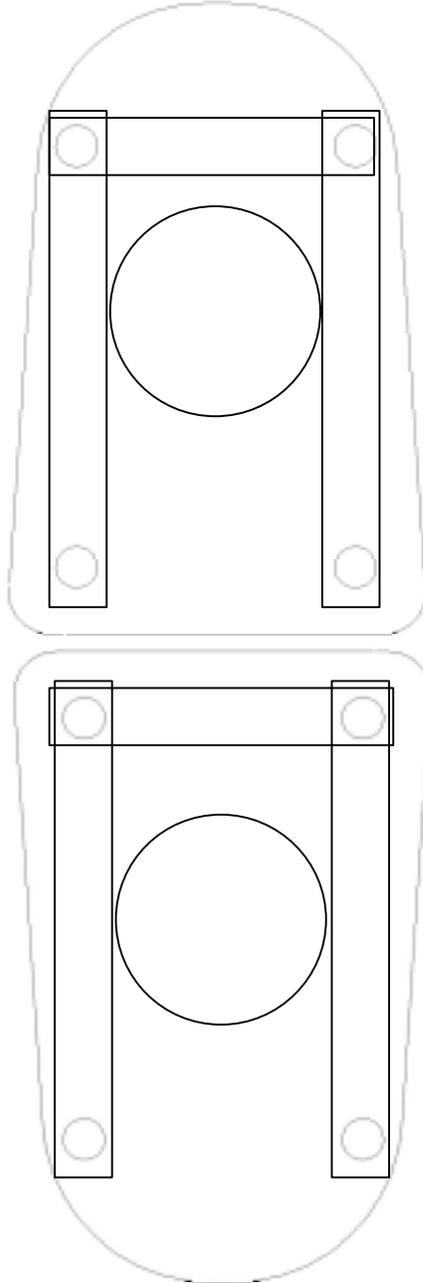
WINDOW AWNING

ASSIST HANDLE

Revision Date: 12/16/02

ref-63

1. Apply tape (69640-15 or 069640-32 when located in a painted area) around the perimeter of the both bases, making sure the screw holes are covered. **Do not** seal the entire perimeter of the bases. This allows a moisture outlet for the handle.

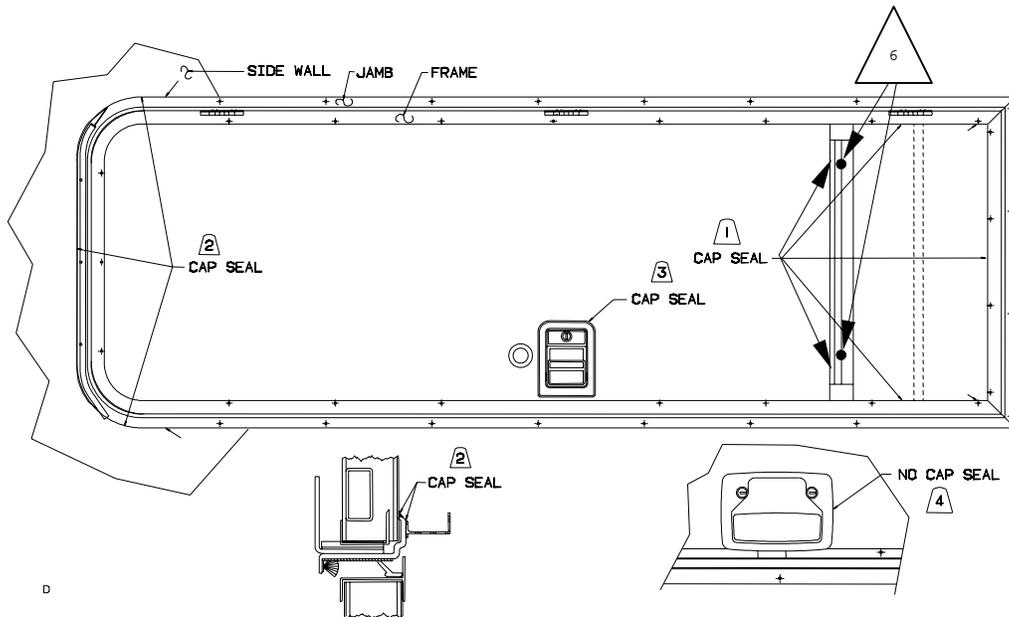


COACH ENTRANCE DOOR

Revision Date: 01/14/03

ref-64

1. Apply sealant (072889) to the seam near the bottom of the door before the trim is applied. Remove excess sealant. Apply sealant (72889 *or 094401-04 after paint*) to the bottom exterior section of the entrance door and the frame to insert joint. On doors without feature trim, cap seal from the screw indicated by the arrow on the side, continue along the bottom and up the other side to the screw indicated by the arrow. On doors with feature trim, cap seal from the bottom edge of the feature trim, down the side, along the bottom and up the other side to the bottom of the feature trim.
2. Apply sealant (72889 or 094401-04 after paint) to the top exterior section of the entrance jamb, jamb to sidewall joint. Sealant should extend past the top radii approximately 2 inches. Sealant (72889 or 094401-04 after paint) should also be applied to the drip rail to jamb joint preventing water from dripping between the jamb and drip rail extrusion. **On units where this area will be painted, sealing should occur after the unit has been painted.**
3. Apply sealant (72889) around the door latch to cap seal.
4. No sealant is necessary around this style handle.
5. If the access hole for the wires to the step switch is accessible from the bottom of the unit it should be sealed (72889 or 131264-01). This is especially important if the hole is in a wheel well or other area subject to water exposure.
6. Before the feature trim is applied, apply butyl tape (069640-17) to the seam toward the bottom of the entrance door. Make sure the attachment screws will go through the tape, and that no tape is visible once the trim is installed.

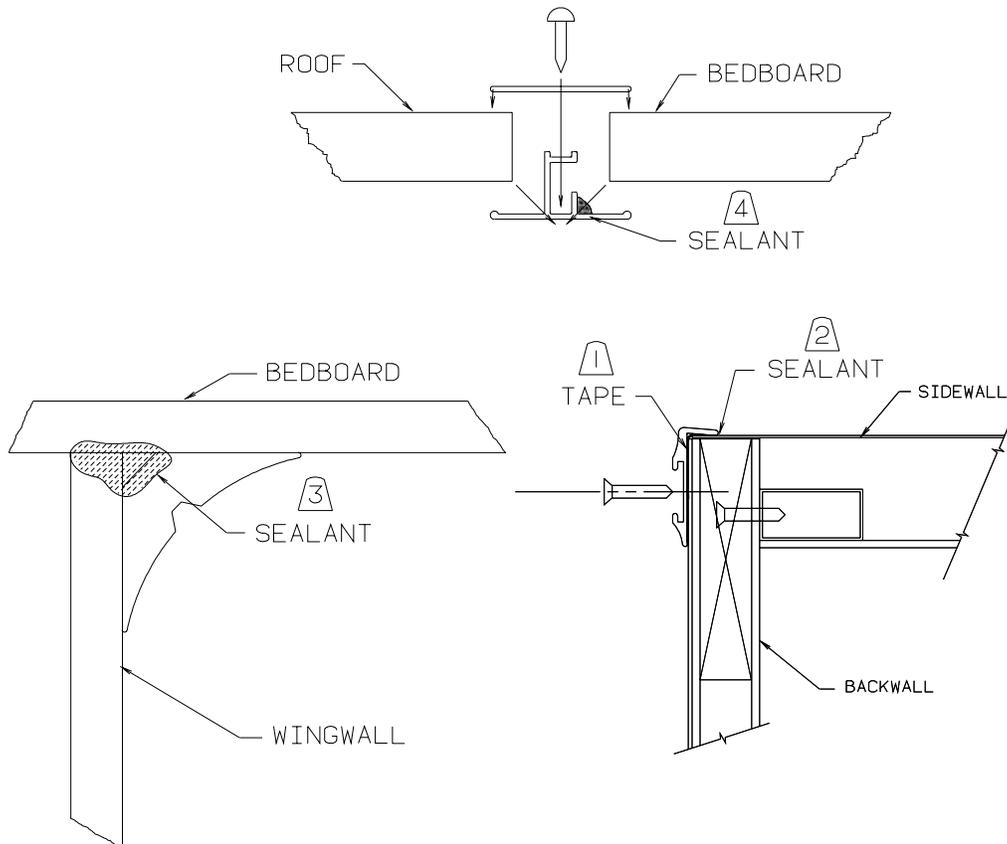


C BACK WALL TO SIDE WALL JOINT AND BEDBOARD JOINTS

Revision Date: 3/15/02

ref-70

1. Apply butyl tape (69640-10) to the sidewall and back wall surface covering the back wall attachment screw and the sidewall to back wall joint.
2. Apply cap seal (72889) to the sidewall to corner trim joint. Units with accent paint below the feature trim are sealed with clear (102352-02) after painting. Trowel per aesthetic requirements.
3. Before sidewall is attached, apply generous amount of sealant (072889 or 131264-01) to gap behind aluminum spacer block, and smear sealant along joint of bed-board and wing-wall.
4. Apply bead of sealant (094401-04) to corner of the length of aluminum extrusion, attach to bedboard

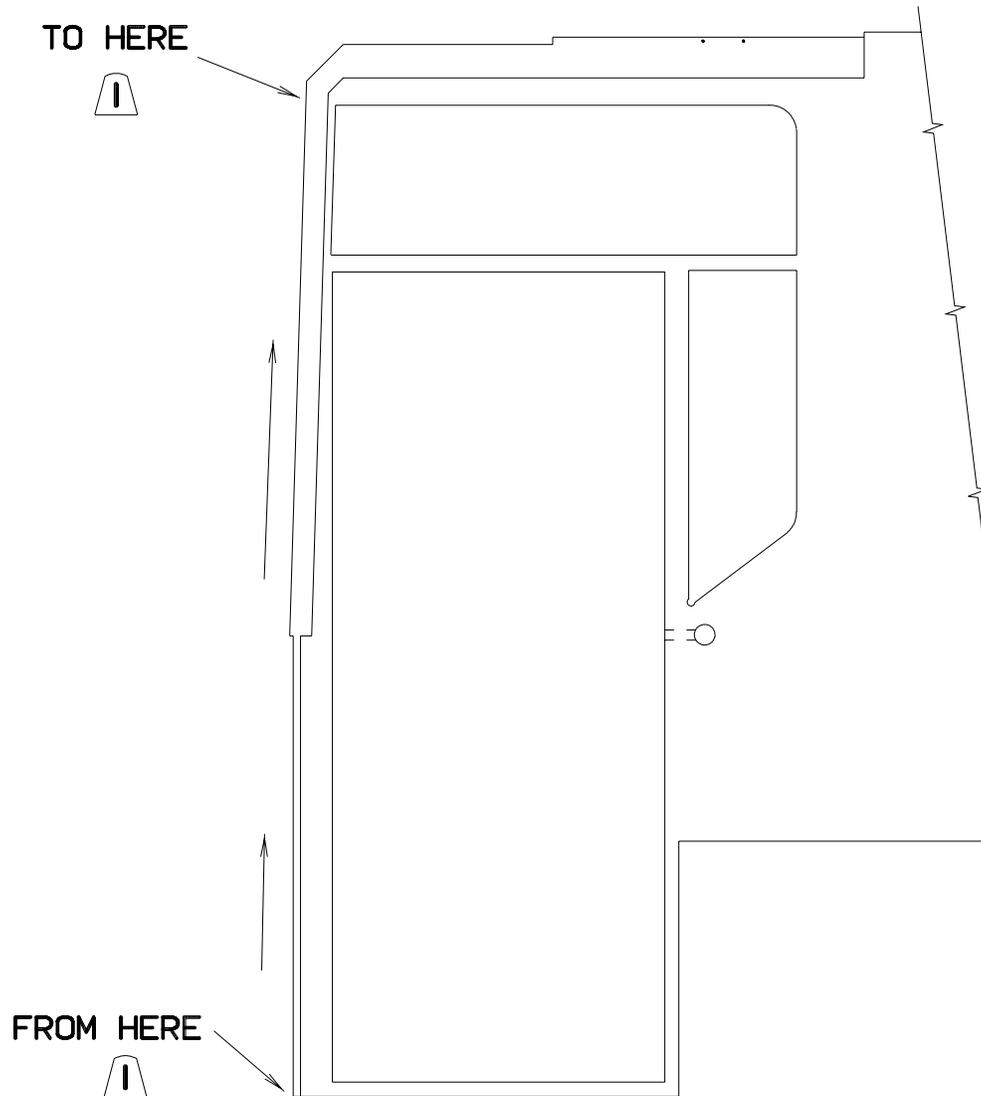


SIDEWALL TO A-POST SEAL WITH THE FRONT ENTRY DOOR

Revision Date: 6/18/99

ref-71

1. Apply sealant (72889) to the joint formed by the front edge of the sidewall and the cab A post. Insure the luan edge is covered.

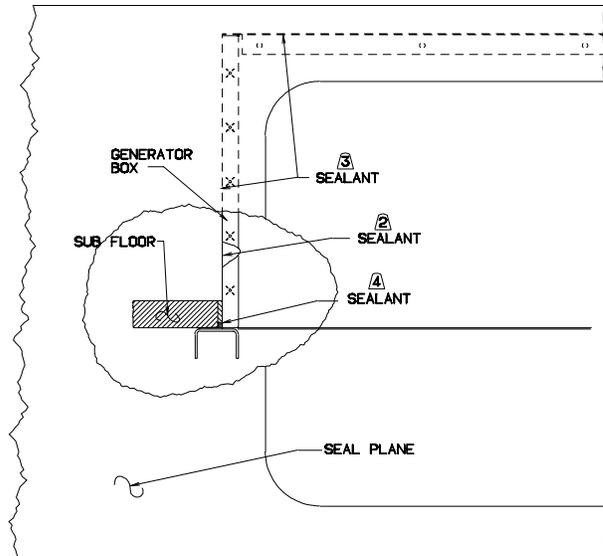
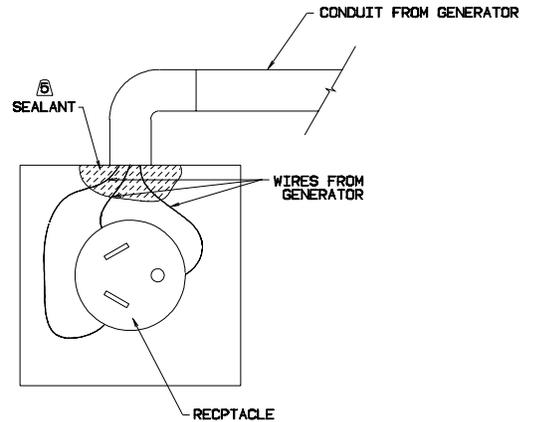
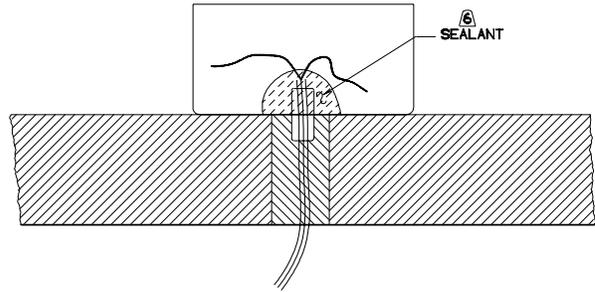


GENERATOR COMPARTMENT SEALING

Revision Date: 11/3/97

ref-72

1. Any void or path that will allow exhaust fumes to enter into the basement or coach of the unit must be sealed.
2. Apply sealant (94401-03) to all panel seams on the interior of the box.
3. Apply sealant (94401-03) to the joint formed by the perimeter of the box and the seal plane. Seal any gaps or holes at the panel seams.
4. Apply sealant (72889-18 or 19 or 131264-01) around the perimeter of the compartment before the sub floor is installed. This seals the sub floor to the compartment.
5. Apply sealant (110744-01) around the wires coming from the generator through the conduit to the receptacle.
EXCEPTION- If the receptacle box does not have access to the basement or coach, it does not have to be sealed.
6. Apply sealant (110744-01) to any wire that could create a path for exhaust to enter the coach or basement from the exterior of the unit.

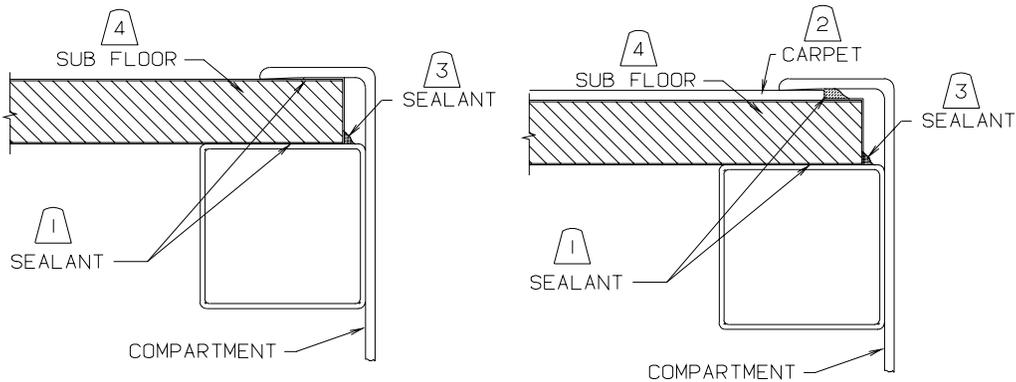


SUB FLOOR SEALING OF PLASTIC COMPARTMENTS

Revision Date: 3/7/95

ref-73

1. Apply sealant (106206 or 72889-18 or 19 or 100932) to sub floor support surface and the top edge of the sub floor.
2. If the sub floor is carpeted the carpet must be cut back so the carpet edge is sealed from moisture.
3. Apply sealant (106206 or 72889-18 or 19 or 100932) to the joint formed by the sub floor and the support tube. Enough sealant should be applied to seal any exposed wood. **If the sub floor panels have no exposed wood (i.e. a foam core) this step can be dropped.**
4. **NOTE: If the sub floor has an exposed foam core part number 106206 CANNOT be used.**



WINDSHIELD SEALANT AND ADHESIVE

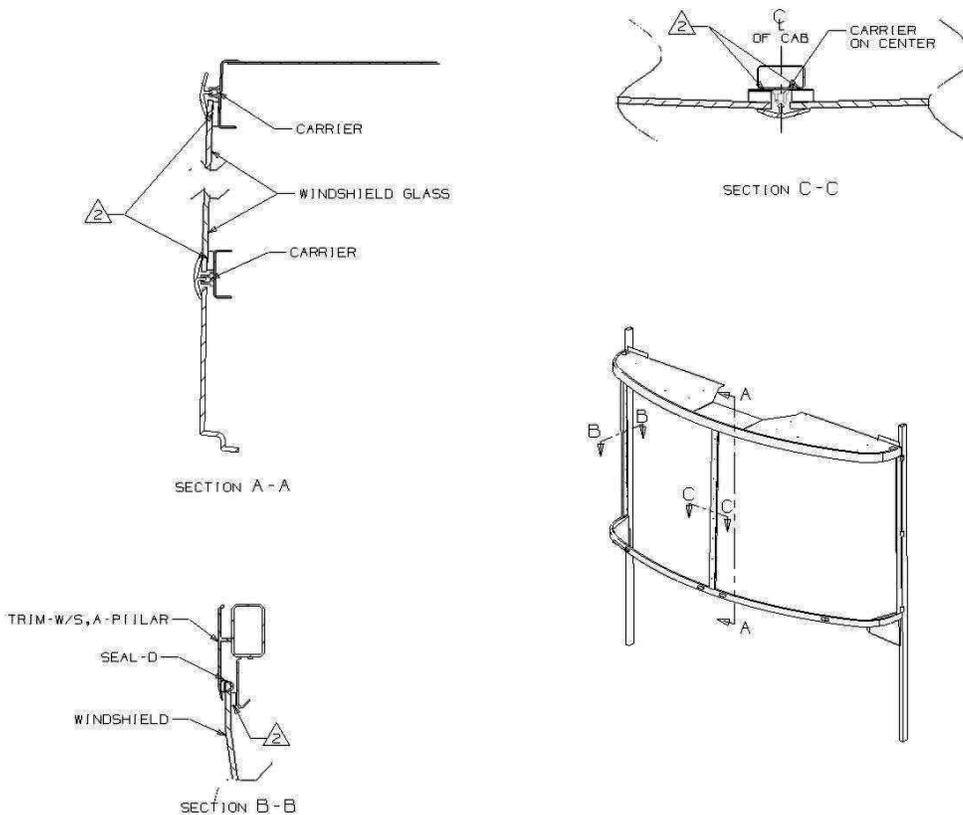
Revision Date: 08/14/02

ref-74

1. Clean and prime windshield and frame per windshield installation drawing.
2. Apply urethane adhesive (72889-05) to the top, bottom, and sides of each windshield. The adhesive should be at least 14 mm high with higher profiles required in some corners. The bead should be applied to the primed glass as close to the edge as practical. Care should be taken to insure sealer is around any rubber bumpers on the windshield.

NOTE: The operator must maintain a consistent speed on application of the urethane to maintain a good bead profile.

3. Install the glass using the fixture to locate the bottom edge before contacting the urethane. Place the windshield in position evenly contacting all the urethane at the same time. Push on the glass to assure seating and wet out of the urethane. The glass must be installed within **5 minutes** of urethane application.
4. **DO NOT** slide the bottom in first and then tip the top in as that will wipe the urethane from the bottom outside corner and reduce the wet out on the top edge of the glass.
5. Remove excess urethane and inspect the corners carefully for voids as this area is the most unreliable.

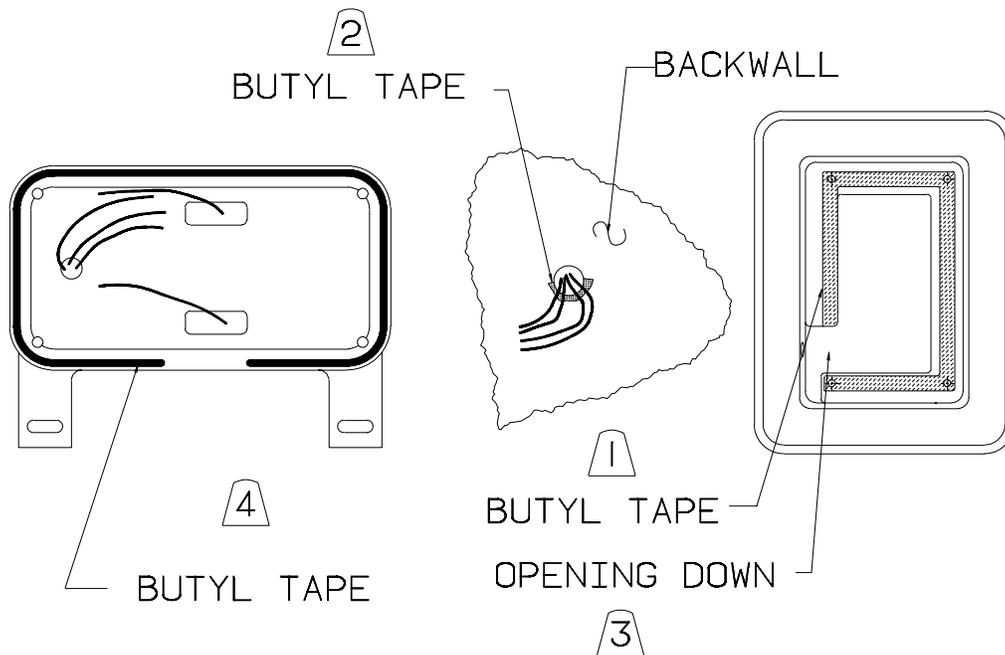


TAIL LIGHT C BODY (us)

Revision Date: 12/10/01

ref-75

1. Apply butyl tape (69640-21) to the raised section on the back of the pod. Insure that the screw holes are covered with tape. Take care not to bunch the tape, especially on the top side, creating extra thickness and a void.
2. Apply butyl tape (69640-10) to the bottom half of the hole in the sidewall that the tail light wires come out of. The purpose of the tape is to protect the wire from being cut by the cut edge of the fiberglass. If necessary more that half of the hole can be covered to protect the wires.
3. Be sure that the open area that the wires exit is positioned to the bottom. As pictured it will be to the bottom along the side. Turned 90 degrees it will be positioned along the bottom side. Be sure that the open area that the wires exit is positioned to the bottom.
4. Apply sealant (112864-01) into the slot around the perimeter of the base of the light, located on the rear side of the light. Apply the sealant around all four corners, leaving a drainage gap of at least 1 inch at the bottom of the light.
5. Ensure that the entire length of the sealant makes contact with the sidewall and compresses after the light is attached.

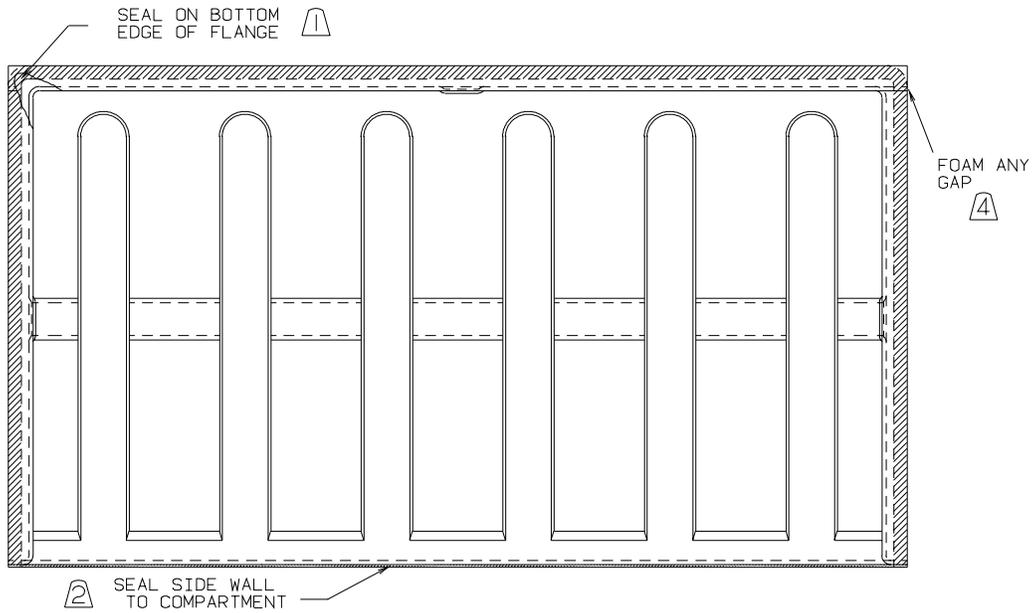


PLASTIC LUGGAGE COMPARTMENT *with seal plane*

Revision Date: 11/18/96

ref-76

1. Apply seal (112864-01) to the luggage compartment flange.
2. Apply seal (69640-03) to the compartment flange; center the seal on the rivet holes.
3. Inspect all seams and fill any voids with pumpable sealant. (72889 or 94401-03)
4. Apply urethane foam (72889) to any void or gap created from the box stepping down off the sub-floor to the outrigger leg.

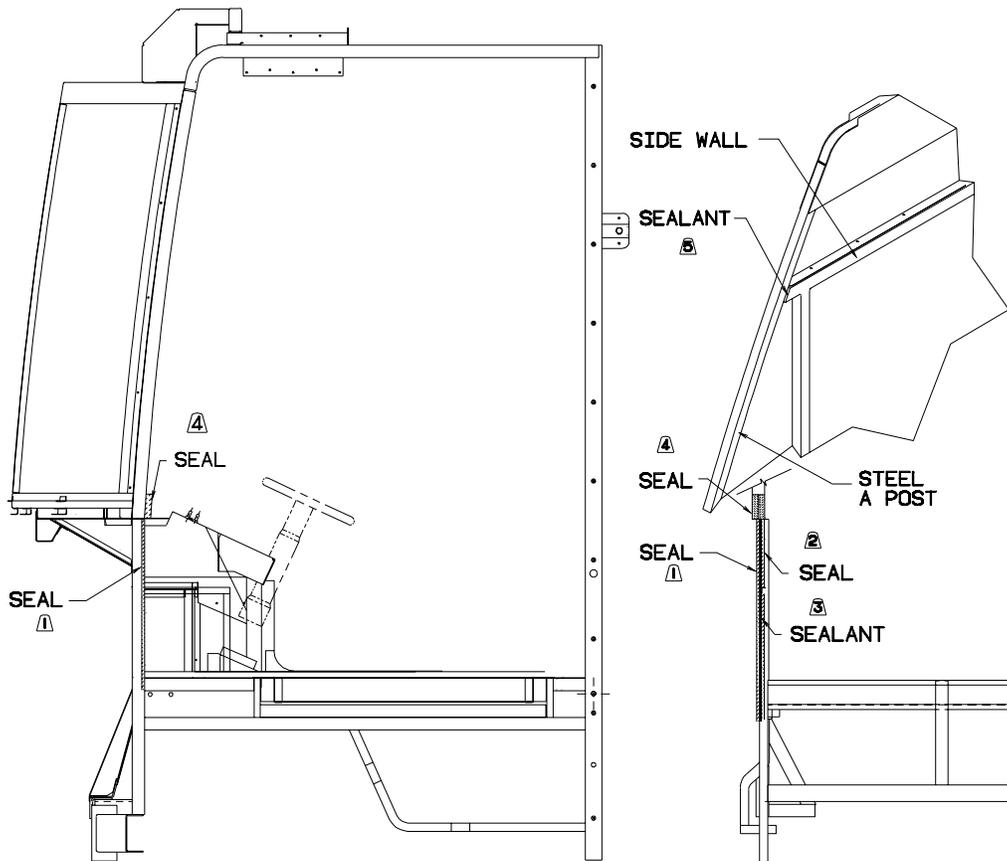


LOWER A-POST TO SIDE WALL; 96M, 98F, G, L

Revision Date: 4/23/98

ref-77

1. Apply seal (100128-02) to the outside, side, edge of the A post from the windshield tube down past the floor level.
2. Apply foam seal (100128-02) to the inside, rear edge of the A post from the windshield tube down past the floor level. If an angle is welded to the a post the foam seal should stop at the top of the angle and start again at the bottom of the angle.
3. Apply sealant (131264-01 or 72889-18 or 19 or 100932) to the outside, rear edge of the A post from the windshield tube down past the floor level.
4. Apply two pieces of foam seal (104692-01) to the inside edge of the A post. The pieces should be about 3 inches long.
5. Apply sealant (72889-18 or 19) to the joint formed by the A post, sidewall, vista window and slant window. Insure sealant pushes under both window flanges.

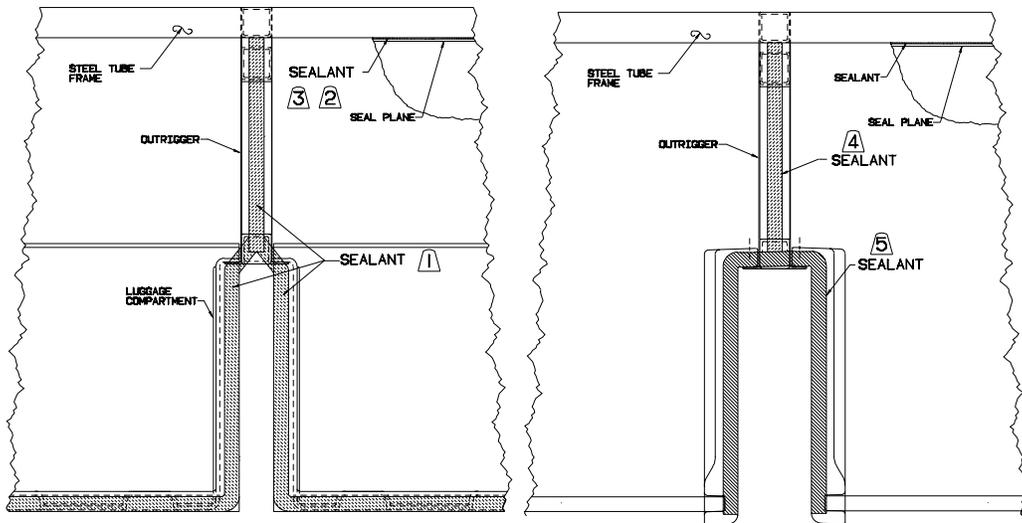


RISER SEALING with seal plane

Revision Date: 12/30/97

ref-79

1. Apply seal (69640-03) to the riser. The seal should join up with the seal on the luggage box flange
2. For a fastener-attached seal plane apply seal (69640-15) to the top edge of the seal plane and install. After installation check for any voids.
3. For a welded seal plane apply seal (102352 or 72889-18 or 19) to the floor tube/seal plane joint after welding.
4. If the riser falls between two compartments apply foam tape (99069-01). If the riser is exposed to the outside, apply seal (69640-03).
5. Apply seal (69640-03) to the end panel. If the riser is exposed to the outside there will be one piece of seal from the frame tube to the bottom of the box.

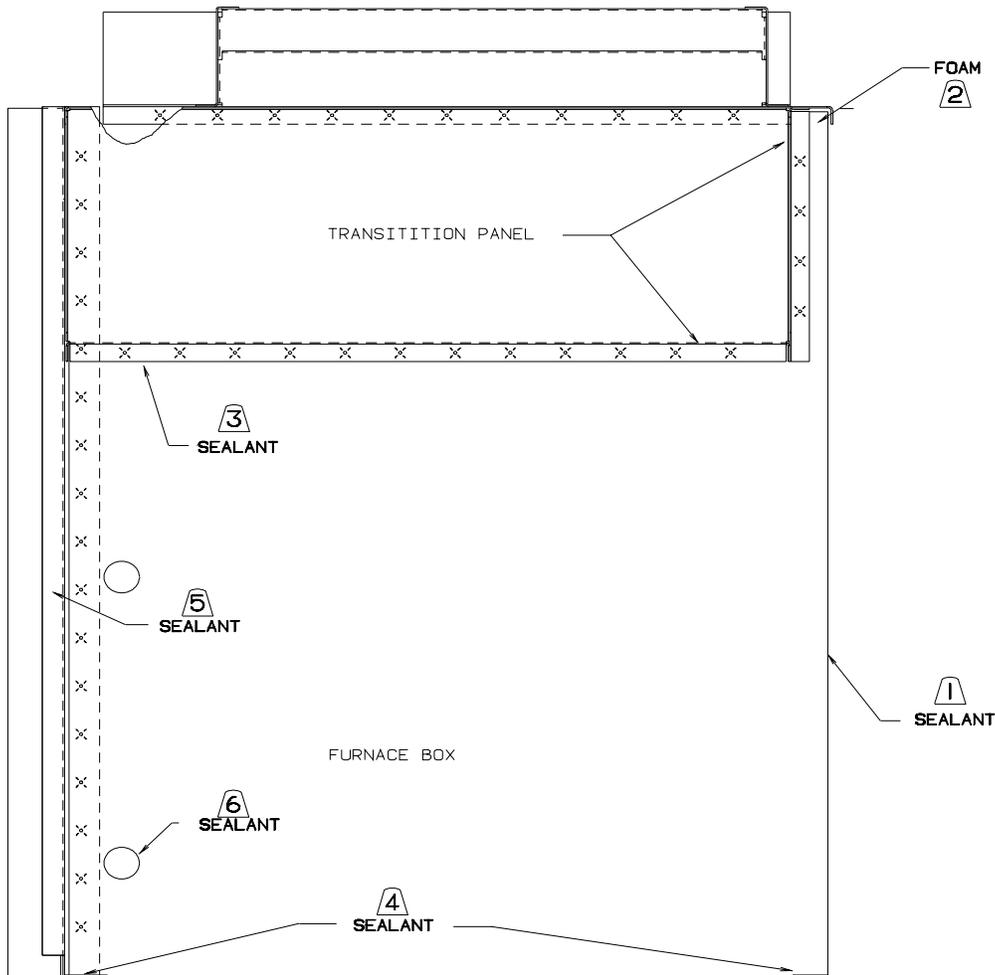


FURNACE BOX SEALING STEEL

Revision Date: 7/21/95

ref-80

1. After welding to the outrigger, apply sealant (102352) to the joint from the seal plane to the frame rail.
2. Apply foam (110744) to the vertical joint along the transition panel.
3. Apply sealant (102352) to all seams formed by the transition panel and furnace box.
4. Apply sealant (102352) to the furnace box to seal plane joint. **NOTE:** Undercoating can be applied to any of the joints in the first four steps but should not be considered the primary sealant.
5. When the floor is installed apply sealant (72889-18 or 19) to top flange from the seal plane to the chassis rail. Inspect this joint after floor installation for any voids. This is especially critical if the joint is exposed to the exterior.
6. Apply sealant (106206) around the hole perimeter, sealing any voids around the LP pipe grommet.

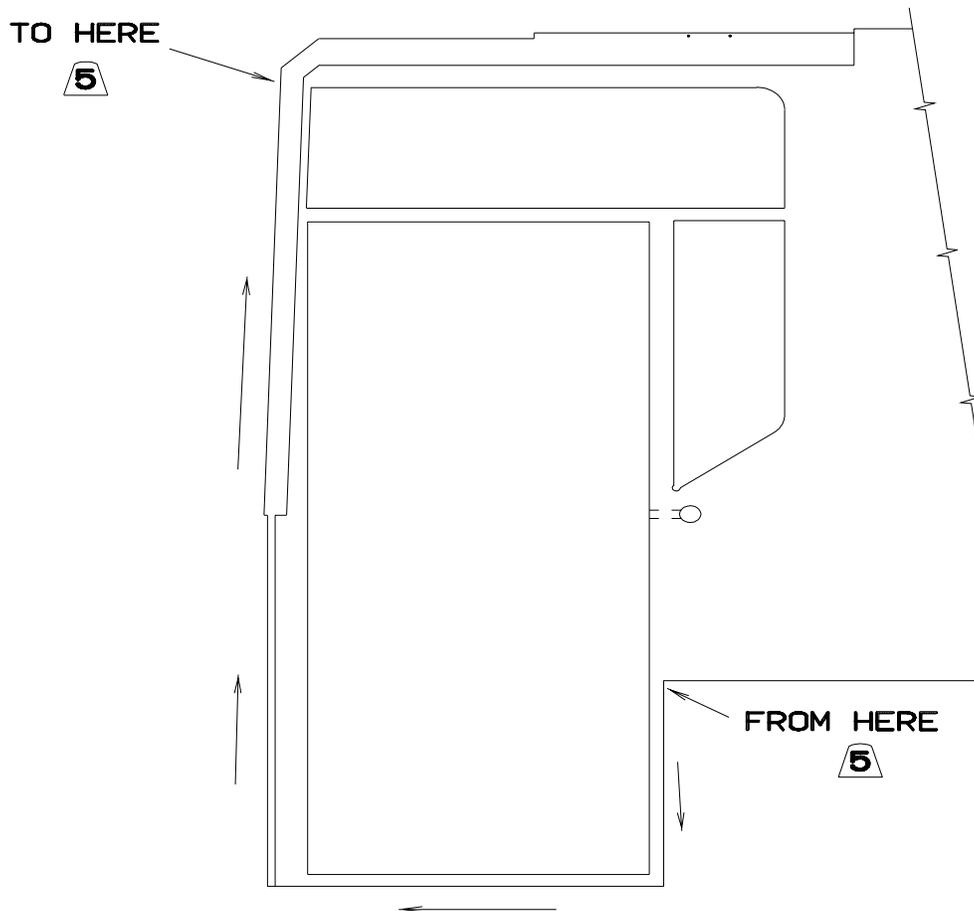


SIDE WALL ANTI-WICKING & SEALANT APPLICATION AREAS

Revision Date: 1/24/02

ref-82

1. Apply anti-wicking (124109) to all full-height sidewalls, to the bottom edge of the sidewall, to the wheel well cutouts and any all edges of cutouts for lower compartments.
2. Apply anti-wicking (124109), on all sidewalls, to the lower horizontal edge of all cutouts including adjacent radiuses and the first 3" of the vertical edges above the radiuses. *(This does not include the refrigerator vent openings. See Refrigerator Comp. Door Sealing page for sealing methods.)*
3. Apply anti-wicking (124109) to the vertical edges and lower horizontal edge (if applicable) of all slide-out openings in the sidewall.
4. Apply foam (110744) inside the vertical tube at the front of the sidewall that matches the chassis A post. The foam should be applied at the top end with enough material to prevent air from traveling up the tube and into the coach.
5. Apply anti-wicking (124109) to the edge of the luan on the P and Q entry door openings as indicated by the drawing.



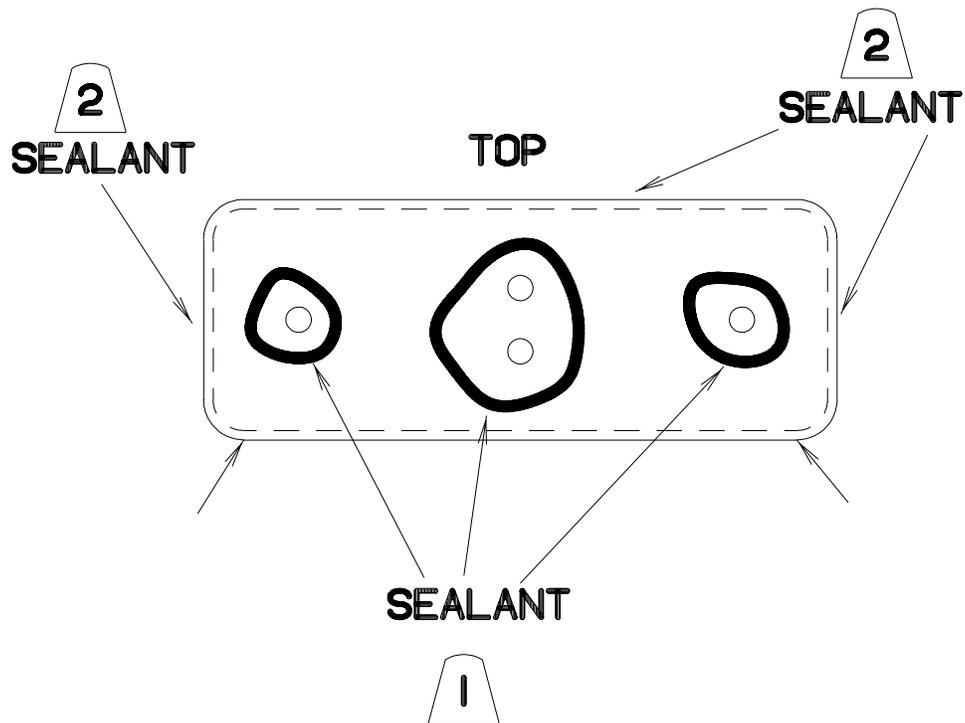
SIDE MARKER LIGHT

Revision Date: 12/20/99

ref-83

1. Apply sealant (72889) to the base of the light around the wires and to the screw holes.
2. Cap seal (72889) the top and the sides of the base to the wall after installation. If the area is to be painted, cap seal (94401-04) after paint.

Note: In area's were water infiltration is not an issue this procedure need not be followed.

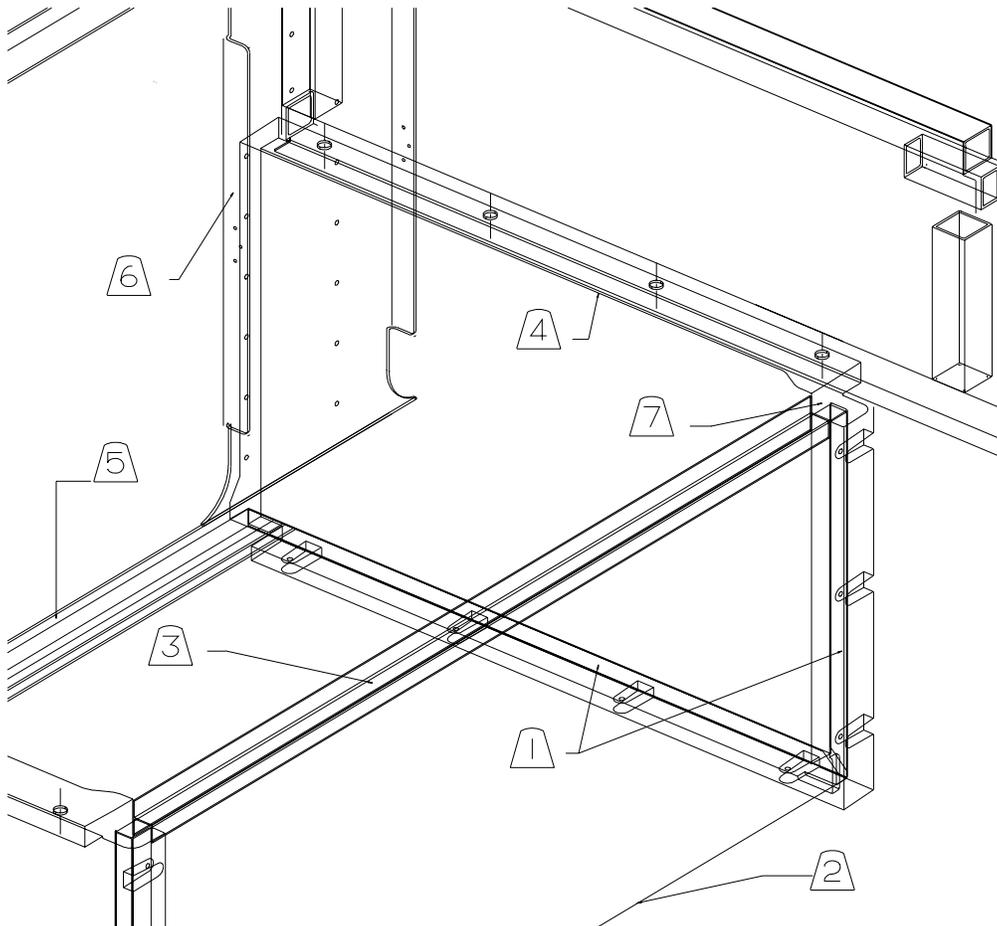


LUGGAGE BOX SEALING (plastic ends)

Revision Date: 04/30/97

ref-84

1. Apply sealant (072889) to the groove in the plastic that the bottom and back of the box will slide into before installing the end panels.
2. Apply sealant (072889) to the entire length of the V groove before folding.
3. Apply sealant (072889) to the entire top edge of the back panel before installing the h channel.
4. Apply foam tape (099069-01) to the riser flange that the plastic end panel is attached to. Align the tape with the outside edge of the riser flange.
5. Apply sealant (072889) to the entire length of the flange the box rests on.
6. Apply butyl tape (69640-03) to the front flange of the plastic end cap. The tape is positioned to seal the end cap to the seal plane and the fasteners through the seal plane. After installation any voids or gaps can be sealed with sealant (072889).
7. Check the rear top corners and apply sealant (072889) to any voids at this joint.

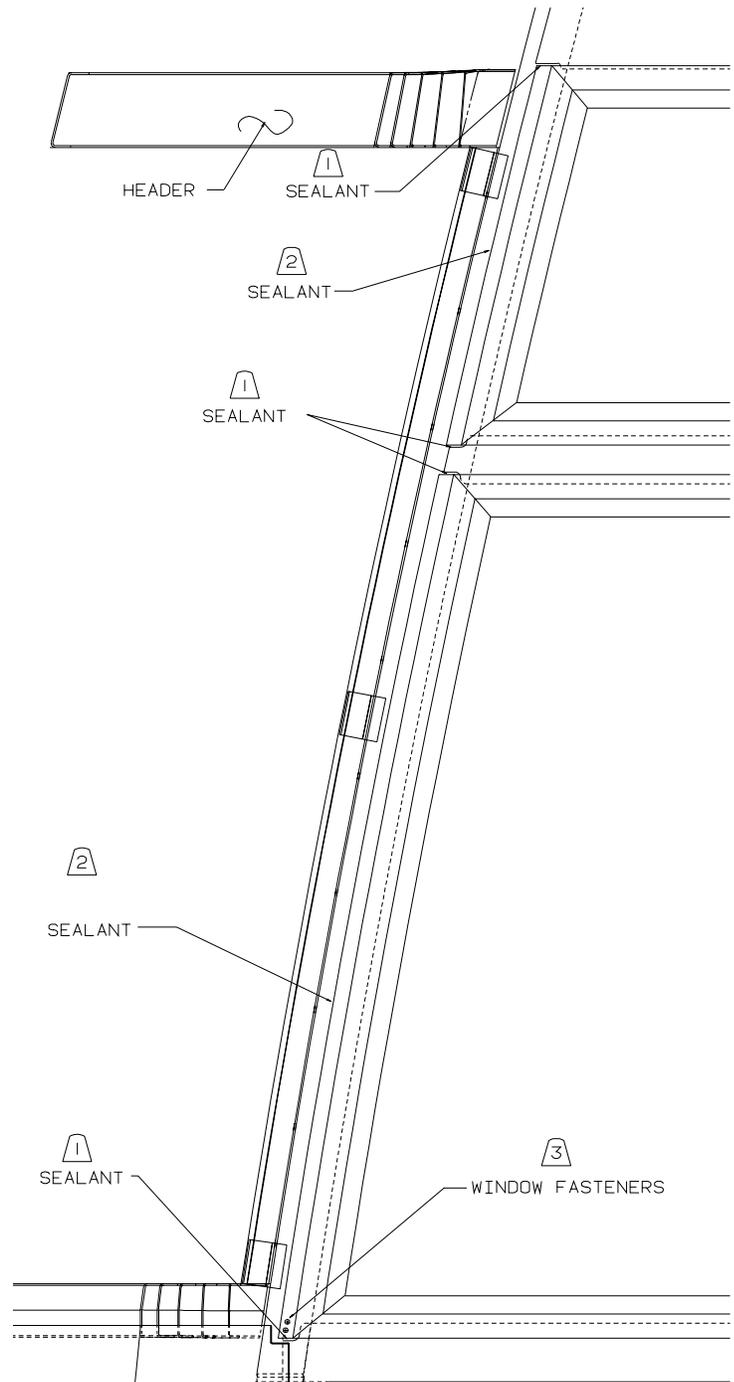


UPPER A POST SEALING

Revision Date: 12/11/97

ref-85

1. Apply sealant (72889) to all side wall clearance notches that allow the windows to set on the A post. Trim black out tape to allow direct access to this joint. The sealant should also cover the exposed luan on the sidewall between the vista window and the driver side slant window.
2. Check the front edge of the window for voids in the butyl tape. If voids are found apply sealant (72889) to the front edge of the window to A-post joint. Finger trowel the material to insure sealant is pushed into the void.
3. Install fasteners in the lower corners of the left and right side, slant windows. The fastener should go through the butyl tape on the window.

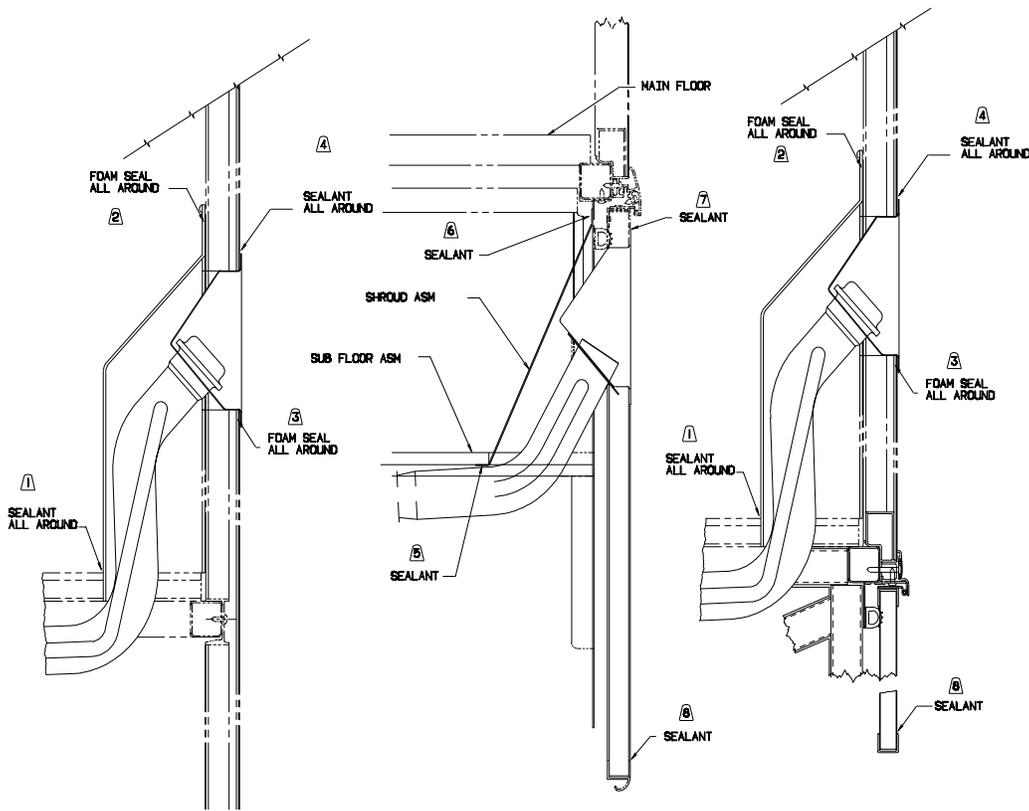


FUEL FILL SEALING - ABS PLASTIC & STEEL SHROUD

Revision Date: 3/5/01

ref-86

1. Apply sealant (131264-01) to the floor cut out before installing the fuel shroud. After the shroud is attached to the floor Insure there are no gaps between the shroud and floor cutout.
2. Apply foam tape (104692-01) to the shroud flange. Insure that the tape will provide a continual seal between the shroud flange and the sidewall.
3. To openings with luan behind the fiberglass skin, apply foam tape (099069-01) to the inside of the gas fill flange. The splice should be at the bottom with a 3-mm tolerance for the gap.
4. Cap seal the fuel neck shroud or the fuel door with sealant (72889).
5. Apply sealant (131264-01 or 72889) to the bottom flange sealing between the flange and the sub floor.
6. Apply sealant (131264-01 or 72889) around the remaining perimeter of the shroud sealing all voids.
7. Apply sealant (72889) to the shroud to panel joint. Tool to aesthetic requirements. If the shroud is in a plastic wheel lip with no water or fuel issues, it is not cap sealed.
8. Apply sealant (72889) all around the frame to panel joint. Any luggage door or framed panel must have the frame to panel joint sealed (72889 or 102352-02) if it falls directly below or is within 6 inches of the side of the fuel fill. Tool to aesthetic requirements.

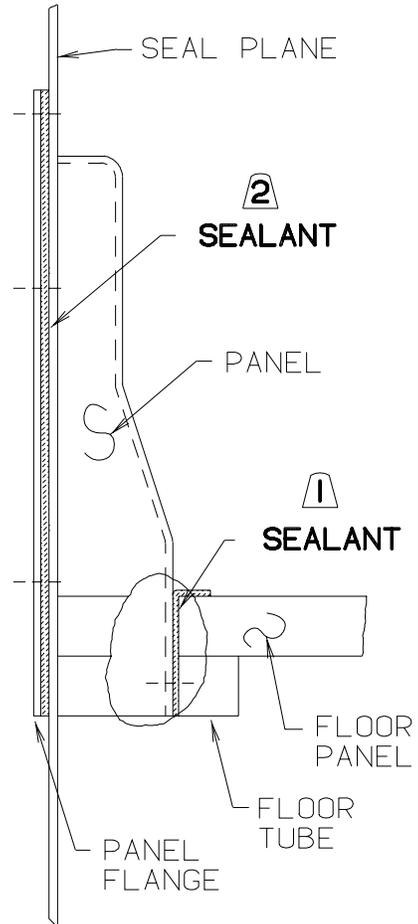


COMPARTMENT CLOSE OUT PANEL

Revision Date: 12/30/97

ref-87

1. Apply butyl tape (69640-13) to the edge of the tube and floor to be sealed by the panel. Be sure the tape fits properly in the corners and the panel seats properly. Install enough fasteners to prevent significant bulging of the plastic panel between fasteners.
2. Apply butyl tape (69640-03) to the sealing flange of the plastic panel. Be sure the fasteners will be driven through the butyl tape.

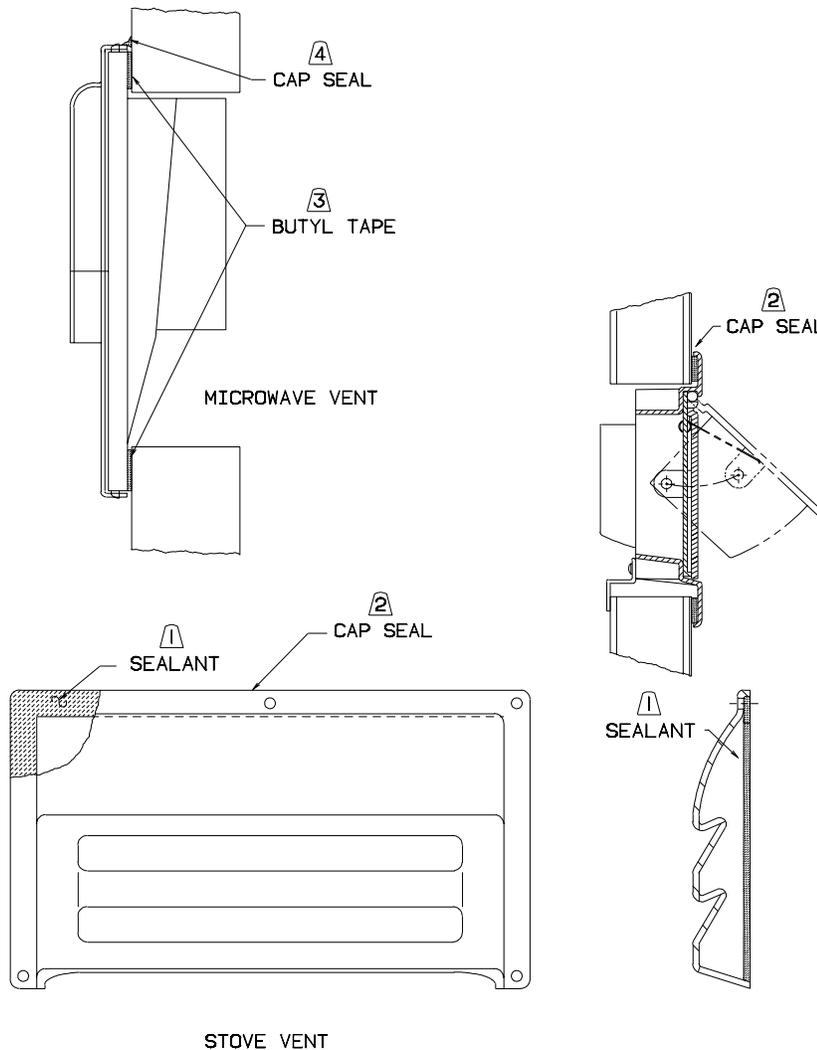


STOVE AND MICROWAVE VENT

Revision Date: 12/16/02

ref-88

1. Apply butyl tape (69640-18 or 69640-02 when located in painted areas) to the inside surface of the perimeter of the stove vent. The only purpose of the tape is to seal the screw fasteners.
2. Apply cap seal (72889 or 09440 if sealed after painting) to the outside perimeter of the vent after it is installed. This seals the vent to the sidewall.
3. Apply butyl tape (69640-19 or 69640-03 when located in painted areas) around the inside perimeter of the vent-seating flange. Be sure the splice is at the bottom of the vent.
4. Attach the microwave vent cover, and cap seal (072889-20) the top edge and corners of the microwave vent cover.

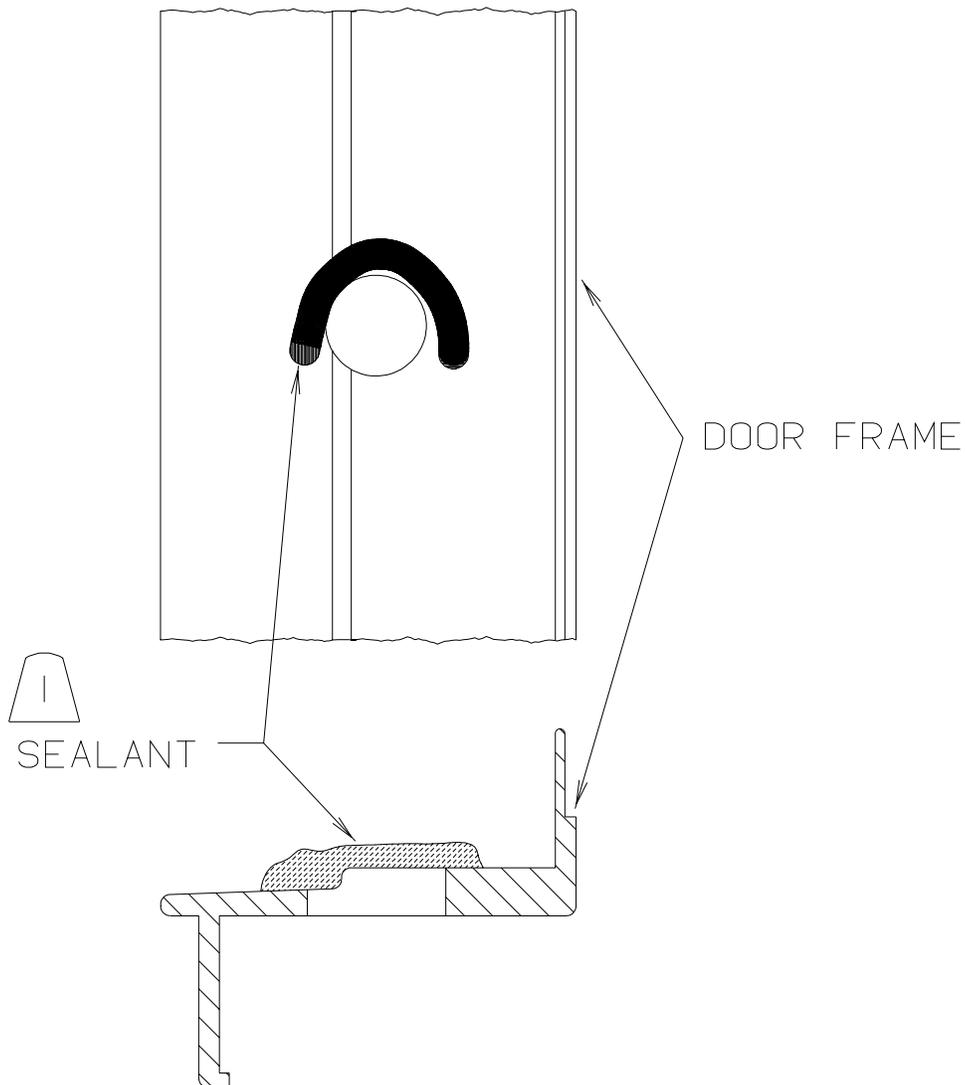


DRIVER DOOR LIGHT SWITCH WIRE HOLE

Revision Date: 6/23/98

ref-91

1. Apply sealant (131264-01) to the doorjamb on the top and the sides of the wire hole for the light switch. The sealant must fill the offset in the doorjamb behind the switch plate so water cannot run between the switch plate and the doorjamb.

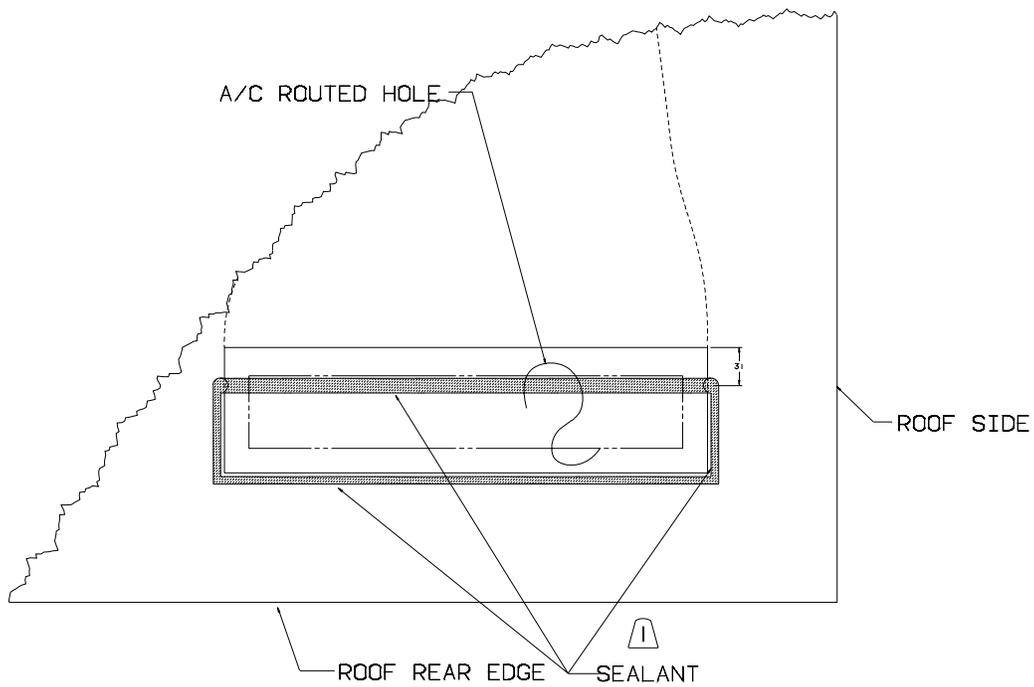


ROOF PANEL SEALANT PROCEDURES

Revision Date: 9/15/99

ref-93

1. Apply sealant (72889 or 131264-01) to the routed A/C hole in the roof for the central air. The sealant should seal the joint formed by the plastic deflector and the roof. At the bottom of the opening the sealant lays on the foam about 31 mm from the front edge of the cutout. Be sure the sealant is placed where the high surface of the deflector will contact the sealant. The sealant follows down the edges of the cutout to the luan and around the remaining rear part of the cutout on the luan surface. This seals the deflector flange to the luan. The purpose is to prevent any air from blowing out the back of the roof.



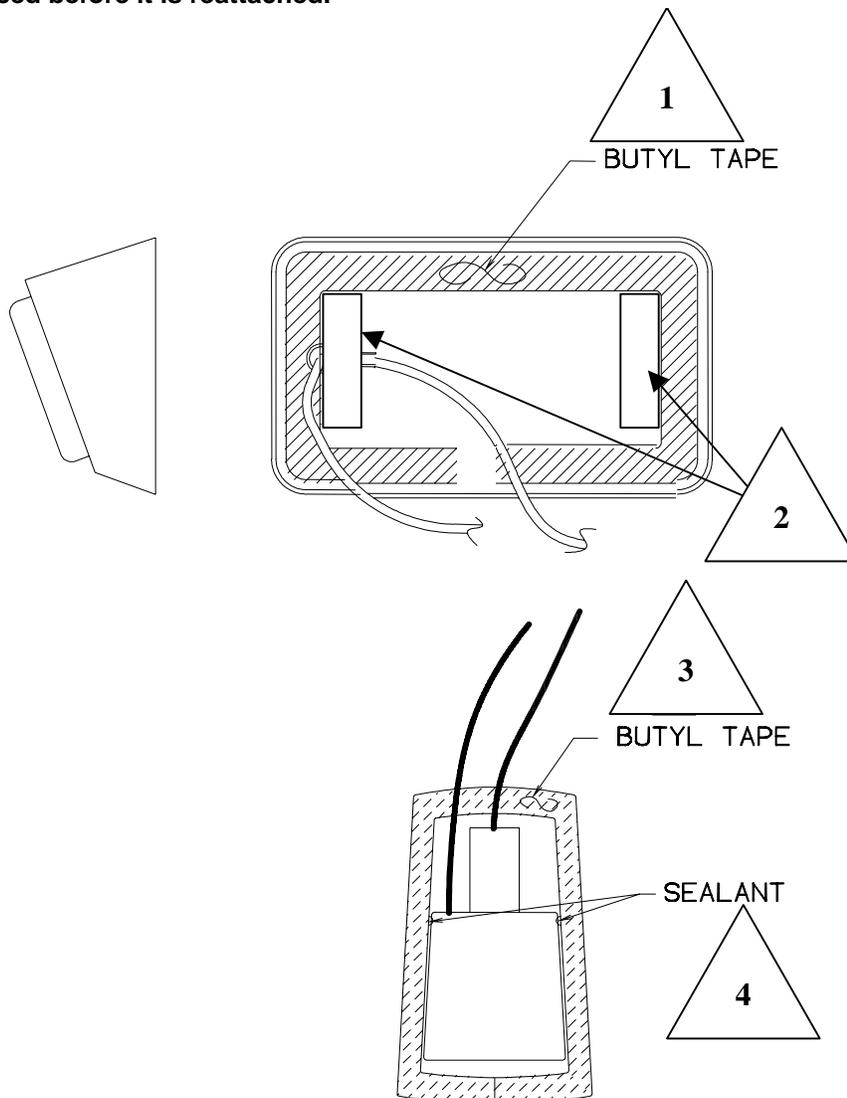
PORCH LIGHT SEAL

Revision Date: 09/23/02

ref-95

1. Apply butyl tape (69640-02) around the perimeter of the light base. Be sure there is a 1/2" gap the bottom of the light for drainage. Push the tape out away from the center of the base so that it touches the plastic light cover.
2. Apply butyl tape (69640-02) over the screw holes.
3. Apply butyl tape (69640-15) around the perimeter of the light base. Be sure the splice is at the bottom of the light.
4. Apply small dab of sealant (131264-01) over the lens retaining tab holes on the inside of the recessed porch light. Ensure holes are plugged.

NOTE: if the light is removed for any reason, the butyl tape must be removed and replaced before it is reattached.

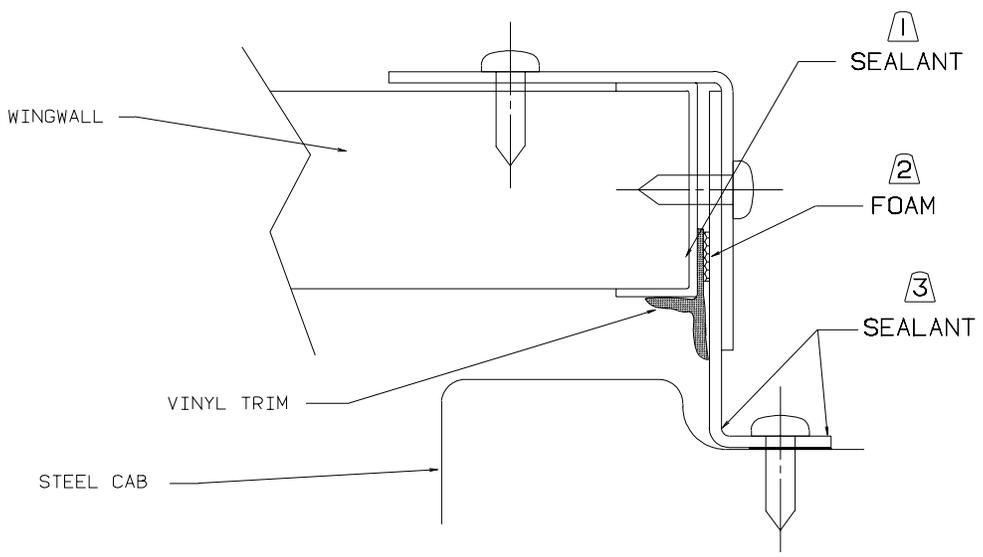
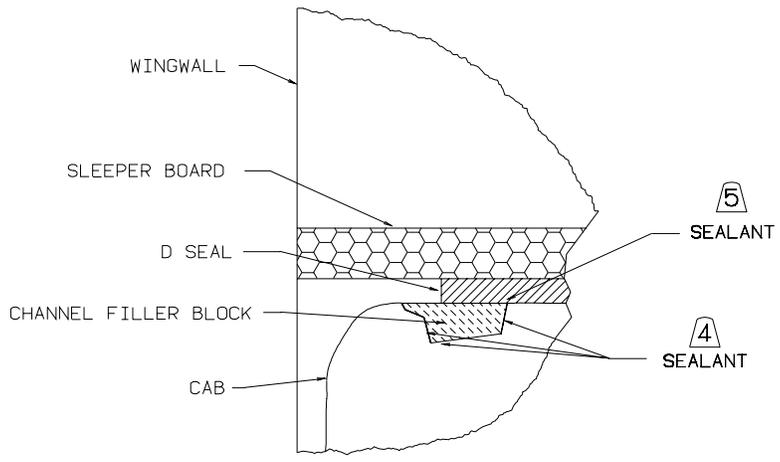


VOLKSWAGON C-BODY CAB TO SLEEPERDECK AND WINGWALL SEALING

Revision Date: 08/03/01

ref-96

1. Apply sealant (072889-20) to the edge of the wingwall along the inboard side. Fit C-channel over the edge and snap into place.
2. After plastic trim is stapled into place along the edge of the wingwall, apply foam seal over the strip, covering the staples. Apply the steel framework over plastic strip and foam.
3. Apply sealant (072889-20) to cab along rain channel where wingwall assembly will attach to the cab. After wingwall is attached, fill voids and unsealed holes with sealant.
4. At top of unit, apply sealant (072889-20) to $\frac{3}{4}$ of the length of the channel filler block, from the back toward the front. The sealant should be applied along the inside edge, bottom and lower half of the outside edge of the block. Set the block in place, and wipe away any excess.
5. Place the D-seal around the cab opening at the top of the cab. When the d-seal reaches the rain channel filler block, the d-seal should cross onto the block. Make sure the block is entirely sealed under the seal crossover. The seal should then turn and run down the length of the block and over the steel bracket behind it.
6. Apply sealant (072889-20) in the rain channel, to the seam between the cab and the steel pieces attaching the wingwalls to the cab. The sealant should start at the top of the cab structure (immediately behind the rain channel filler block) to the rear of the cab structure (as far as can be reached with a finger. Trowel excess sealant to make it aesthetically pleasing.
7. After the cab-over panel is in place, apply sealant (072889-20) to all voids behind the rain channel filler block and on the inboard side of the plate behind the rain channel filler block. Make sure to minimize the use of sealant, using only what is needed to seal any voids or gaps.
8. Fill any gaps along seam of the d-seal and rain channel filler block, making sure to apply the sealant (072889-20) toward the inside of the unit.

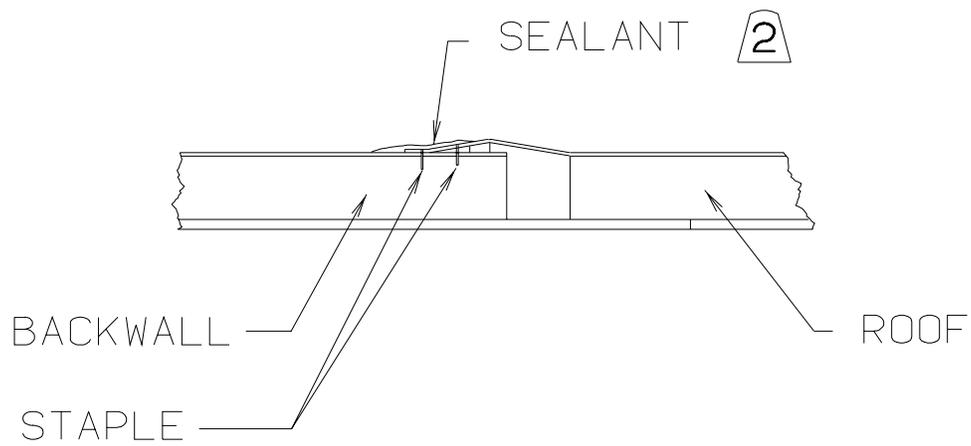


VOLKSWAGON C BODY ROOF

Revision Date: 12/10/01

Ref-97

1. Staple the roof metal to the backwall.
2. Apply sealant (131264-03) to the front edge of the staples. Apply enough material so that it levels over the staples and the metal roof edge.



VOLKSWAGON C BODY TAIL LIGHTS

Revision Date: 12/10/01

1. Apply sealant (112864-01) into the slot around the perimeter of the base of the light, located on the rear side of the light. Apply the sealant around all four corners, leaving a drainage gap of at least 1 inch at the bottom of the light.
2. Ensure that the entire length of the sealant makes contact with the sidewall and compresses after the light is attached.