INSTALLATION INSTRUCTIONS

sequentia
CORRUGATED ®

PLEASE READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION.

These guidelines are provided in good faith to help prevent installation problems caused by common errors. Kemlite Company, Inc. bears no responsibility for installation actions taken or not taken. There are many nuances of installation that Kemlite Company, Inc. assumes are general construction knowledge to an experienced installer; such nuances are not included in these instructions. Rather, these installation guidelines are strictly recommendations are not intended to serve as a step-by-step, foolproof installation checklist. Selection of an experienced frp installer is the sole responsibility of the project owner and architect.

If you have any questions about installation techniques for your particular project, please call **800-238-6874** or **731-764-2153** and ask for an Office Sales Representative.

WHEN CUTTING OR DRILLING FRP PANELS, ALWAYS WEAR PROTECTIVE GLASSES OR GOGGLES AND A MASK WHICH COVERS THE FACE AND MOUTH.
Skin irritation due to glass fibers may be avoided by applying a barrier cream to exposed skin areas prior to working with corrugated panels.

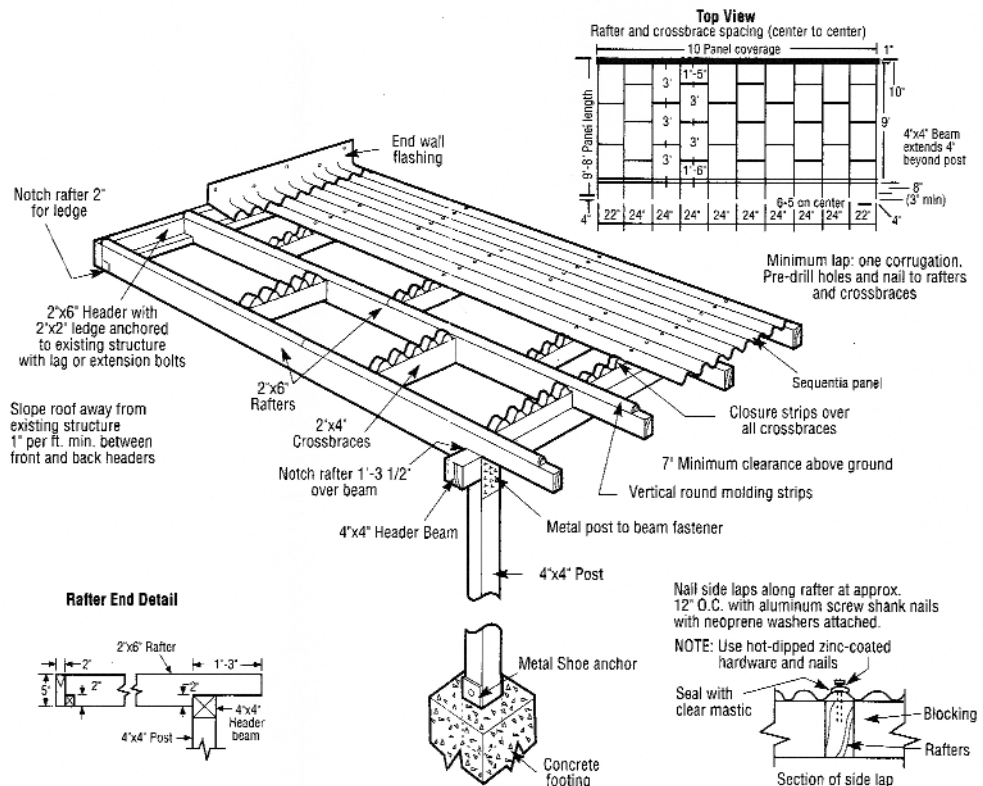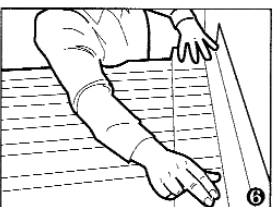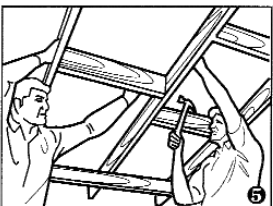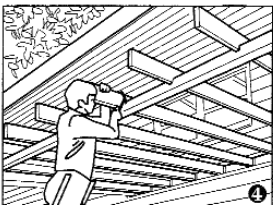## INSTALLATION INSTRUCTIONS CORRUGATED PANELS
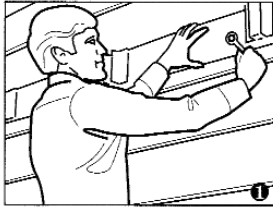
Panels are translucent laminates consisting of a uniform mat of high strength glass fibers imbedded in organic resin. The resin matrix cures under heat to a solid material which is lightweight, strong, and shatter-resistant; with excellent light diffusion characteristics. Colors are compounded into the resin before cure, thus making the colors as integral part of the composite material.

Building a Patio Cover

No special tools or skills are needed. Just keep in mind common dimension lumber and standard size panels when laying out your design.

❶ Post foots should be approximately 14" deep and 12" across. Set 8" x 3/8" bolt about 3" deep into poured concrete for post anchors. Wood posts may also be secured with 4" angle brackets. Attach 2" x 6" rafter hangers to header, then attach header to house studs with lag screws.

❷ Drill posts and set on pins. Toenail crossbeam to post. NOTE: allow 7' 4" from floor to bottom of front header for best ventilation.

❸ Pre-notch rafters to compensate for slope. Allow a 1" minimum pitch per foot for adequate drainage.

❹ Attach rafters to header and crossbeam with 1" screws and nails.

❺ For ease of installation and an attractive design, nail crossbraces between rafters using alternate spacing. Nail round and corrugated molding strips to framing, then paint or stain wood before installing panels.

❻ Lay panels on rafters with one corrugation overlap and fasten with aluminum screw nails. Holes should be predrilled. Attach flashing at same time.

Top View
Rafter and crossbrace spacing (center to center)

Notch rafter 2" for ledge

2"x6" Header with 2"x2" ledge anchored to existing structure with lag or extension bolts

Slope roof away from existing structure 1" per ft. min. between front and back headers

End wall flashing

2"x6" Rafters

2"x4" Crossbraces

Notch rafter 1'-3 1/2" over beam

4"x4" Header Beam

Metal post to beam fastener

4"x4" Post

Metal Shoe anchor

Concrete footing

Minimum lap: one corrugation. Pre-drill holes and nail to rafters and crossbraces

Sequentia panel

Closure strips over all crossbraces

7' Minimum clearance above ground

Vertical round molding strips

Nail side laps along rafter at approx. 12" O.C. with aluminum screw shank nails with neoprene washers attached.

NOTE: Use hot-dipped zinc-coated hardware and nails

Seal with clear mastic

Blocking

Rafters

Section of side lap

Rafter End Detail

2"x6" Rafter

4"x4" Header beam

4"x4" Post

Patio Cover Materials List			
	8' x 10'	**10' x 12'**	**12' x 12'**
Corrugated Panels	4-26" x 10'	5-26" x 10'	6-26" x 10'
Wood Filler Strips	5 strips	6 strips	6 strips
Flashing	4 flashing	5 flashing	6 flashing
Nails	2 boxes	2 boxes	3 boxes
Caulk	4 tubes	5 tubes	5 tubes

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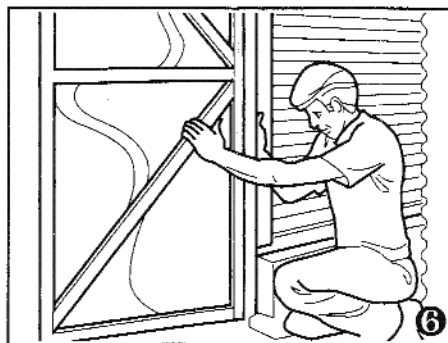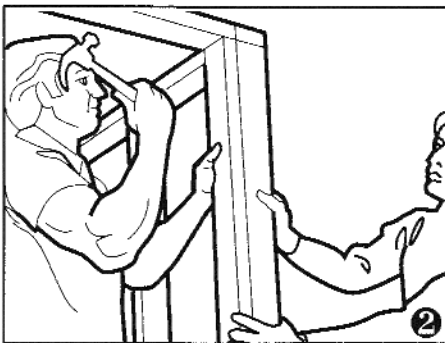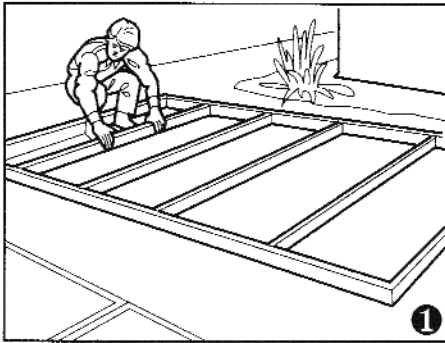# www.sequentia.com

Building a Greenhouse

Find a spot that will give your greenhouse maximum sunshine. Have water handy for sprinkling plants. Plan to install fans if you intend to use the greenhouse year-round. Gas and electrical connections should also be considered.

1 Lay patio block for a portable greenhouse or pour concrete footers for a permanent installation. Cut 2 x 4s to proper lengths and nail studs every 24" on center to form front, back and side framing.

2 Nail back and front framework to side frames.

3 Pre-cut roof rafters to desired pitch and nail into position.

4 Pre-drill holes and fasten side panels. Use aluminum nails with neoprene washers and apply mastic to overlap of one corrugation.

5 Overlap roof panels one corrugation (away from prevailing wind) and nail to rafters, starting from one end. Fasten aluminum ridge roll flashing to each panel as you proceed.

6 Adjust door construction to desired size.

7 Install vent as close to roof peak as possible.

8 Apply front and back panels similarly to side walls. Cut to fit pitch of roof and around vent.

9 Nail trim lumber to all corners and to front and back where panels meet roof.
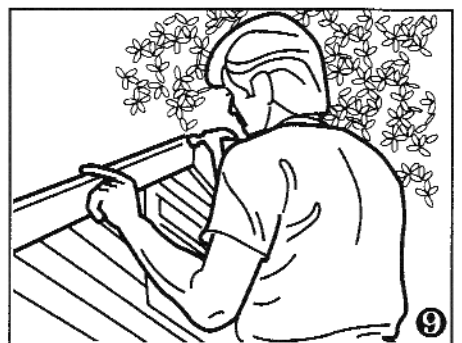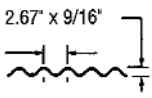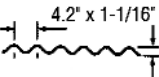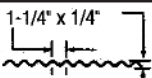
Panels install easily with ordinary tools and may be drilled, sawed, punched, or nailed without damage. The material is durable, rot-proof, waterproof, and is not harmed by ordinary cleaning solutions. Sequentia Corrugated panels that are reinforced with gloss fibers (frp, fiberglass reinforced panels) will expand and contract up to three times <u>less</u> than PVC and polycarbonate panels which provides for a more stable product in both hot and cold conditions. Panels install much like corrugated metal and provide the added benefit of light transmission.

POLYCARBONATE (POLY 300) PANELS:
Polycarbonate panels contain a translucent UV resistant film on only one side of each panel. Each polycarbonate panel is imprinted with the following: "THIS SIDE OUT". The side of the panel with this information should be installed toward the sun or exterior of the structure it is being used on. The other side of the panel has little UV resistance and will be damaged by the harmful rays of the sun. Polycarbonate panels are not recommended as exterior privacy walls (which are installed vertically vs. horizontally) because both sides of the panel can receive direct exposure to the sun hence, damaging the panel.

MAXIMUM RECOMMENDED SPANS:
The following date is based upon uniform loading of corrugated panels fastened as recommended and with a safety factor of 2.5.

In heavy snow areas, 500 Series (or greater) panels are recommended and closer spacing of purlins should be considered. While panels may not fail under heavy snow loads, strain at fastening points can cause slight cracking.

| CORRUGATED PROFILE	SERIES	MAXIMUM RECOMMENDED ROOF SPANS			
		10 psf	20 psf	30 psf	40 psf
2.67" x 9/16"	410	32"	25"	22"	20"
	450	36"	28"	24"	22"
	480	34"	29"	25"	23"
	500	37"	29"	25"	23"
	550	38"	31"	27"	24"
	600	38"	32"	30"	24"
	800	47"	37"	32"	29"
	PVC	30"	24"	20"	18"
4.2" x 1-1/16"	POLY	24"	24"	24"	16"
	800	42"	57"	50"	45"
1-1/4" x 1/4"	475	30"	24"	20"	18"
	550	36"	28"	24"	22"

NOTES:
1. Table is based on section properties or actual load tests (available upon request).
2. Design loads are governed by local building codes. Consult code authorities for specific loads and stresses.
3. Information is provided as preliminary data for designers. It should be checked and verified for use with a duly license engineer or architect.

UNDER NO CIRCUMSTANCES should panels be allowed to support undistributed loads such as the weight of a human body. Use only approved roof ladders and planking.

RECOMMENDED OVERLAP: (2.67" x 9/16") Overlaps shown will provide best protection against leakage and air infiltration. Vinyl lap seal and/or mastic must also be used to achieve effective seal on side-laps and end-laps.
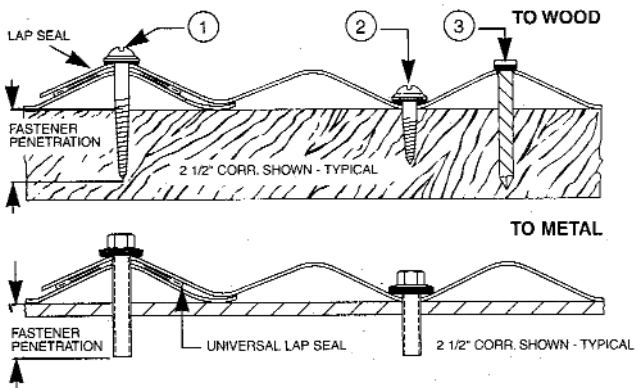
Prevailing wind

52-5/8" Width

26", 50-1/2" Width

51-1/3" Width
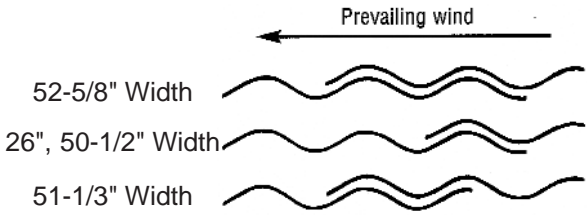
MINIMUM BEND RADIUS: (2.67" x 9/16") Flexing the panel to the point of buckling can cause fracture and rapid deterioration at the fracture point. Install at ambient temperatures not below 60°F.

Radius

Radius

Radius

Bend Radii: 400 Series Panels - 97"; 500 Series Panels - 80"
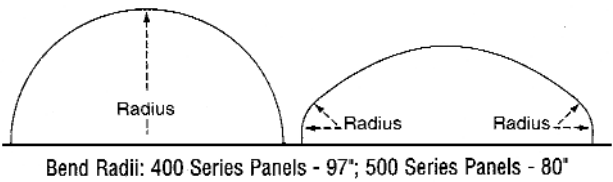
TYPICAL FASTENERS include weatherproof nails or wood screws with Neoprene washers, self-tapping screws and grommet type fasteners. Fastener selection is dependent upon type of corrugation and understructure material. Panels should be pre-drilled a minimum of 1/16" larger than fastener diameter.

WOOD PURLINS & GIRTS:
1. #10 x 1-3/4" Aluminum round head wood screw with armored Neoprene washer.
2. #10 x 1" Aluminum round head wood screw with 1/2" armored Neoprene washer.
3. 1-3/4" x .145" Aluminum roof helix nail with Neoprene washer.

LAP SEAL ① ② ③ TO WOOD
FASTENER PENETRATION
2 1/2" CORR. SHOWN - TYPICAL

TO METAL
FASTENER PENETRATION
UNIVERSAL LAP SEAL
2 1/2" CORR. SHOWN - TYPICAL

GENERAL INFORMATION: These instructions are intended as guidelines for proper installation procedures. In the use of tools, fasteners, sealants, and adhesives, follow manufacturer's recommended procedures.

USE APPROPRIATE SAFETY EQUIPMENT such as safety glasses and filter masks when cutting or drilling. DO NOT WALK ON PANELS. Observe simple fire precautions. Similar to wood of equal thickness, fiberglass panels can be flash-ignited at approximately 700°F.

STORE PANELS PROPERLY: While a single panel easily withstands exposure to sunlight and the elements, a stack of fiberglass panels will trap heat and moisture causing clouding to the panels. To avoid this irreversible effect, panels should be stored in a dry, shaded, well-ventilated area. Store panels on edge or on end. Skids should be elevated at one end with wood spacers.

FRAMING: Provide purlin member at recommended maximum intervals required for corrugation selected. See LOAD/SPAN CHART on first column.

CUTTING: Cut fiberglass, PVC, and Polycarbonate panels using hand or power saws. Saw blade should be fine-toothed carbide tipped, or safety fabric reinforced abrasive disc. Face shields and appropriate safety equipment should be worn.

DRILLING: All panels should be pre-drilled not less than 1-1/2" from panel ends and holes drilled a minimum of 1/16" larger for fiberglass panels and 1/8" larger for PVC and Polycarbonate panels than the fastener diameter. Panels may be drilled singly or several at a time.

INSTALLING: For best protection against prevailing winds and weather, install panels beginning at leeward end of run and work to windward. See RECOMMENDED OVERLAP drawing at bottom of first column.
1. Provide a minimum of one corrugation overlap at sides.
2. Provide 8" end-lap for roof with pitch of less than 4" in 12"; 6" end-laps for pitches or more than 4" in 12".
3. Fasten panels through crowns at every second corrugation. Fasteners with armored Neoprene washers are recommended. Space fasteners 6" to 8" on center at panel ends: 12" to 16" on center for intermediate purlins and siding applications.

CONSTRUCTION NOTES:
1. To avoid deflection of panels, tighten screws until washers will not rotate, then tighten one more turn.
2. Avoid excess burrs on drilled or punched holes to protect Neoprene sealing face.
3. Drill for and fasten extreme bolts, with full support below all valleys, then drill for and fasten in-between points.

CLEANING INSTRUCTIONS: Panels may we washed either mild detergent-type cleaners or by steam and high pressure spray systems. Apply cleaners with sponge or soft brush and rinse thoroughly in cold water to eliminate cleaning agent film build-up. Always follow cleaning agent manufacturer's instructions. Test small area before applying over entire surface. Hard water deposits may be removed with a 10% solution of acetic acid in COLD water. Rinse thoroughly.

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