

Panel Installation Instructions

EXTREMELY IMPORTANT INFORMATION PLEASE READ <u>ENTIRE</u> PACKET!

Warranty Is Void If Panels Not Installed According to Instructions

1. **A** WARNINGS & SPECIAL NOTES

- **1.1** Keep panels 24" from Heaters and shield Radiant Tube Heaters
- 1.2 Radiant Floor Heat, requires allowance for panel expansion
- **1.3** 120 Degree Maximum heat exposure
- 1.4 Panel Spacing COLD WEATHER INSTALLATION

Below 40°F Insert a **Nickel**, 65°F to 40°F Inset a **Dime**, Above 65°F allow panel movement. Cut the panel 1/4" to 5/16" short at each end, to allow panel to grow.

2. A GENERAL NOTES - Panel Installation

- **2.1** Follow manufacturer's safety instructions
- 2.2 VAPOR BARRIER Use 3 mil poly sheeting under insulated ceilings or wood truss
- **2.3** Do not use Power Nailing guns
- **2.4** Do not use Staples
- **2.5** Use recommended fasteners (see section 9)

3. CEILING PANEL INSTALLATION - CEILING IS INSTALLED PRIOR TO WALLS

- Use only P1300-12", P3000-12" and P1600-16" wide panels on Ceiling
 - **3.1** MAXIMUM SPAN 24" Maximum span of panel Important Notes & Warnings
 - **3.3** Use 3 mil poly sheeting on insulated ceilings
 - **3.4** Use recommended fasteners (see section 9)

4. WALL PANEL INSTALLATION - CEILING IS INSTALLED PRIOR TO WALLS

- Use P2400- 24" wide panel for WALLS ONLY; NOTE: (There is NO manufactures warranty of the P2400 Panel if used on Ceilings)
- Use Adhesive on P2400 24" panels P1300 -12" and P1600- 16" panels may also be used on walls
- **4.1** Installing the J-Trim
- **4.2** First Panel Installation Cutting & Use of PL400® Construction Adhesive
- **4.3** thru **4.5**, Continuing the Panel Installation (See Trims & Last Panel Installation)
- **4.6** Window and door trim
- **4.7** Installing last panel

Use recommended fasteners (see section 9)

5. HORIZONTAL WALL PANEL INSTALLATION

5.1 Start at the top of the wall with panel installation

6. PANEL CUTTING INSTRUCTIONS

6.1 Read and follow all Safety Instructions for power and hand tools.

7. INSTALLATION IN COLD OR WARM WEATHER

- **7.1** Cold Temperatures Below 40°F (4 C) Warm Panels to a minimum 60°F (16°C) overnight.
- 7.2 Warm Temperatures- above 70°F (21 C) Cool Panels to a minimum 60°F (16°C) overnight.

8. FASTENER INSTALLATION PHOTOS

9. RECOMMENDED FASTENERS & SUPPLIERS

Extrutech Plastics, Inc.

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Panel Installation Instructions

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WARNINGS & SPECIAL INSTALLATION NOTES

1.1 A Radiant Tube Heaters must be shielded and 24" clearance must be maintained between Extrutech products and the shielding of the Radiant Tube Heater. Please do not install ceiling furnaces within 24" of our panels. If you install single unit heaters you must install additional ceiling fans to re-circulate the heat down away from the ceiling.

Extrutech Plastics recommends ceiling fans or blowers be installed with "Tube-Type Radiant Heaters" to move the air throughout your wash for uniform heat distribution.

- **1.2** For Area's of Radiant Floor Heat allow 1/16" space between panels and 1/4" space around openings and ends of the panels, to allow the panels room to expand due to the heated floors.
- **1.3** The P1300-12" Panel, P3000-12", P1600-16" Panel, P2400-24" Panel and (all PVC) have a *heat distortion threshold of 120 degrees Fahrenheit*. Please discuss this with your HVAC contractor prior to installation.

<u>Our warranty does not cover</u> distorted panels because of excessive heat due to improper installation and operation of heaters, radiant floor heat & furnaces in areas using our PVC panels. Please contact EPI if you have any questions about your project. Please read our 15-Year Warranty prior to installing your panels.

1.4 Panel Spacing - When installing in temperatures below 40°F, insert a Nickel (.075") between panels. When installing in temperatures 65°F - 40°F, use a Dime (.050"), temperatures above 65° F do not force tight. Do not over tighten fasteners to panels; allow panels to move in warmer weather. (Also read Section 7) Cut panel 1/4" to 5/16" short at each end, to allow panel to grow.

2. GENERAL NOTES - Panel Installation

- **2.1** A Read and follow all safety instructions
- **2.2** The P1300 Panel, P3000 Panel, P1600 Panel, P2400 Panel and (all PVC) have a heat distortion threshold of 120 degrees Fahrenheit. Please discuss this with your HVAC contractor prior to installation.
- **2.3** DO NOT USE a Hilti® type 22 nailing gun. The guns blow the fastener through the nailing fin, cracking it and leaving little or no holding power. Each panel should be screwed every 16"- 24" -NEVER go beyond 24" without a fastener.
- **2.4** DO NOT USE **Staples or Nails** They will not hold this product. See Fastener Section for a list of recommended fasteners!
- **2.5** A Recommended Fasteners for panel installation for: (See Details and Suppliers on section 9)

Masonry Installation – <u>Use</u> with Washers!

3/16" x 1 1/4" Tapcon® with 1/4" Stainless Washers – use with a washer 1/4" x 1" (All Nylon) Fastenal® Nylon Nail-in Anchors w/mushroom head

Wood & Metal Installation – when using truss head screws no washers are required!

Wood – No. 8 x 1 1/4" Truss Phillips Head Screw

Metal – No 10-16 x 1/2" Flat Phillips Head Self Drilling Screw – use with a washer

Keep the screw head above the top of the nailing fin. **Do not recess the screw head** into the nailing fin. The nailing fin should lay flat against the surface; not deformed around the screw head. It takes a little longer to install, but the panel will stay in place. When using a truss head screw no washer is necessary.

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Panel Installation Instructions

3. CEILING PANEL INSTALLATION - 12" and 16" Wide Panels Only!

Ceiling Panel Options: P1300-12"FLAT, P3000-12" BEADED and P1600-16" FLAT Panel

A NOTE: (There is NO manufactures warranty of the P2400 Panel if used on Ceilings)

- **3.1** The ceiling should be installed prior to walls. (However, a ceiling can be installed at a later date.)
 - See Warnings on Radiant Tube Heaters Installation Section 1.1
 - See Special Notes for installation in cold temperatures Section 7
 - See Recommended Fasteners & Supplier Information Section 9
 - **Do not use Staples or Nails** They will not hold this product
- 3.2 A Recommended maximum panel span is 24" between ceiling trusses.
- **3.3 INSULATION** If your building is going to be insulated, you should install 3 Mil. poly sheeting as a vapor barrier on ceilings <u>BEFORE</u> installing our panels.
 - 1. Panels should run 90 degrees to the ceiling trusses or furring strips.
 - 2. You may use either Inside Corner or J-Trim around the perimeter of ceiling. J-Trim can be used if you are only installing the ceiling panels and should be installed around the perimeter of the ceiling prior to ceiling panel installation. J-Trim is installed to the ceiling, with the widest part of the trim attached to the ceiling and opening to the center of the ceiling. (Walls can be installed at a later date using J-Trim at the top of the wall.
 - 3. If Inside Corner is used, it can be installed around the ceiling perimeter (1.) before or (2.) after your ceiling panels are installed. (1.) Installed prior to ceiling installation with the widest part of the trim attached to the ceiling and opening to the center of the ceiling, butting up to existing side walls. (2.) If installing new wall panels, Inside Corners are installed tight to the bottom of the ceiling panels with screws into the side wall and the ½" opening facing down to the floor, creating the top channel for new wall panels.
 - 4. Cut panels 1/2" short of actual measurement to allow for panel movement, installing the panels 1/4" in from each wall.
 - 5. Begin by taking the first panel and placing it at one end of the ceiling with the tongue facing the wall and the nailing fin facing away from the wall. Adjust panel so it is running parallel with the outside wall. Fasten the panel through the nailing fin, at each rafter, every 16"-24", with the recommended fasteners called out in Section 9. For the first panel only, fasten the tongue side of panel along the wall with the same type of screw keeping the screws within 1" of wall so they are covered with the perimeter trim.
 - 6. Now that the first panel is up and fastened, you can install the remaining ceiling panels. Place the tongue of the second panel into the groove of the first panel. Push the panels together and fasten the second panel through the nailing fin at every rafter, just like the first panel. Now, step back and check out how it looks and make sure you are running square with the outside wall, and not at an angle. This could be a problem when you come to the other end of the building.
 - 7. Proceed and install the remaining ceiling panels as in Step 6.
 - 8. When installing the **last ceiling panel** you may have to rip it down to fit. Measure your remaining space, bumping your tape against the wall and reading the distance at the <u>panel edge</u>, not the nailing fin edge. Rip the panel 1/4" narrower than your measurement. Slide the last panel into the wall. Again keep screw within 1" of wall so the trim covers it.

Now, the ceiling is complete.

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Panel Installation Instructions

▲ NOTE: (There is NO manufactures warranty of the P2400 Panel if used on Ceilings)

Panel Options: 12",16" & 24"Wide Flat Panel (P1300,P1600 & P2400) & 12"W Beaded Panel (P3000)

- See Recommended Fasteners & Supplier Information Section 9
- If the ceiling is installed and the Inside Corner is already installed you won't need to use J-Trim to cap the top of the panels.
- **4.1** Start in one corner and install the first piece of J-Trim at the floor, with the open end up so it can receive the wall panel. Run a thin bead of clear silicone caulk along the top back long side of the J-Trim to provide a waterproof seal, and then fasten with screws every 16" or 24" along the top and bottom of the wall. You can screw through the nailing fin of the panel and the J-Trim, attaching both to the wall with the one fastener as you install the panels.
- **4.2** Take the first wall panel and cut 1/2" shorter than the actual wall height.

When installing the 24" Wide Panel (P2400) on concrete or block wall only, it is necessary to apply an average amount of PL400® construction adhesive to the back center of the panel in a serpentine motion from the top to bottom near the center of the panel. Remember to apply pressure to the panel to set the adhesive. If there is a vapor barrier do not use PL400®.

- **4.3** Place panel in the corner, tongue first and raise up into ceiling trim Inside Corner or J-Trim (if no ceiling installed) and then bend slightly in the middle so you can get the panel into the J-Trim at the floor. Push panel in with even pressure to set adhesive (when installing the 24" wide P2400 Panel).
- **4.4** Level the first panel, again raise slightly off floor, about 1/4" and fasten the panel to the wall through the nailing fin. Fasten every 16" 24" along the nailing fin. You then must fasten the tongue side near the corner with screws. Keep fasteners within 1" of the corner, so the corner trim covers them.
- **4.5** Once the first panel is in place and level you may proceed to install the remaining wall panels by repeating the same process you used to install the first panel. Remember to add J-Trim along the floor and ceiling trim as you go around the room. To aid in installing the panels you may use a 1' long 2X4 against the nailing fin to help slide the panels together.
- **4.6** At door and window openings install J-Trim or Outside Corner prior to installing the wall panels. This makes a nice clean border around your windows and doors.

Install, Inside Corner Trim at each corner once you have the adjacent wall covered with our panel. You may want to put a small bead of clear silicone caulk on the back side of the Corner Trim before you install it, to make a water-tight corner.

4.7 When installing the last panel to the wall you may have to rip it down to fit. Measure the remaining space, bumping your tape against the wall or back inside edge of the installed trim and reading the distance at the panel edge, not the nailing fin edge. Rip the panel ½ narrower than your measurement. See "Cutting Panels". Along the grooved edge of the installed panel, apply a small bead of clear silicone caulk. It helps lock the last panel in place. Also apply a bead of PL400® to the concrete wall about 2"-3" from the corner. Slide the last panel into the corner or trim; then back into the installed panel. Apply pressure to the panel to set the adhesive. You may also fasten with a screw along the cut edge within 1" of the corner; but only if the trim will cover it later, such as an Inside Corner trim.

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5. HORIZONTAL WALL PANEL INSTALLATION – 4 - All Panel Widths! Review Panel Installation Instructions above prior to installing panels horizontally.

After the trim is installed start hanging the wall panels from the top down to the floor. So, start at the ceiling with the first panel and install with the nailing fin pointing to the floor, groove down. This way, no water will lay in the groove.

Proceed to install the remaining panels as directed.

- 6. PANEL CUTTING INSTRUCTIONS Flat and Beaded panels can be cut by using these methods:
 - 6.1 A Read and follow all Safety Instructions for power and hand tools.
 - Wear safety glasses!
 - Cut through product slowly, don't rush.
 - · Powered miter saw with fine tooth blade.
 - Table saw with fine tooth plywood blade or 80 tooth carbide blade.
 - Fixed blade utility knife and a straight edge to guide knife. Score area 4-6 times with sharp knife to cut through product.
 - Sometimes you may find that panels cut nicely when you put your saw blade in backwards. Try on a piece of scrap panel first to see the result of that cut.
 - Temperature is a factor when working with vinyl. Warm weather is no problem but cold temperatures can create some issues.

7. RECOMMENDATIONS INSTALLATION FOR COLD OR WARM WEATHER

Extrutech Plastics, Inc. IS NOT responsible for expansion problems. The warranty on this product is null and void if not installed according to Extrutech installation methods.

7.1 Cold Temperatures - Below 40°F (4°C) Warm Panels to a minimum 60°F (16°C) overnight. Bring panels inside and warm to 60°F (16°C) degrees or warmer, if possible, overnight before installing them in a warm bay.

Don't install panels tight when cold! When it warms up your panels will grow. Allow a little play; Panel Spacing - When installing in temperatures Below 40°F, insert a Nickel (.075") between panels. When installing in temperatures <u>65°F - 40°F</u>, Inset a **Dime** (.050"), temperatures <u>Above 65° F</u>, do not force tight. Do not over tighten fasteners to panels; allow panels to move in warmer weather.

Cut the panel 1/4" to 5/16" short at each end, to allow panel to grow.

- **7.2** Warm Temperatures- above 70°F (21 C) Cool Panels to a minimum 60°F (16°C) overnight.
 - **8. FASTENER INSTALLATION SAMPLES** see Section 9 for detailed description Masonry wall application (P2400 Panel)

(Tapcon® - with washer)



CORRECT



INCORRECT



(Nylon Nail-in Anchor)

CORRECT

Extrutech Plastics, Inc.



Panel Installation Instructions

9. RECOMMENDED FASTENERS AND SUPPLIERS:

Note: Fasteners can be provided with panels if requested during the quoting process or purchased locally. For your convenience we have listed recommended Fastenal part numbers.

FASTENERS:

Supplier: FASTENAL www.fastenal.com

Applications: - Please read and follow fastener's preparation and installation instructions.

Part No. Description

Masonry applications (Option 1)

50841 1/4" x 1"(All Nylon) Fastenal® **Nylon Nail-in Anchors** w/mushroom head

Masonry applications (Option 2)

51550 Tapcon® 3/16" Dia. x 1 1/4" Long Phillips Flat Head Screw.

(Use with Stainless Washer Item# 1171013)

Metal applications:

No. 10-16 x 1/2" Truss Head Phillips Self Drilling Screw

(Use with Stainless Washer Item# 1171013)

1/4" Stainless Steel Flat Washer, 265 ID.x .500 OD.x.032 thick.

Use with **Wood** applications:

71795 No. 8 x 1 1/4" **Truss Head** Phillips Sheet Metal Screw 8-18 Stainless Steel

SEALANTS - Silicone Caulk

Supplier: DAP www.dap.com Silicone Rubber Sealant, Caulk

Purchase through local Building Supply Center

Description:

Clear 100% Silicone Rubber Sealant, Caulk

ADHESIVE - PL400® or Liquid Nails®

Supplier: OSI SEALANTS INC. www.stickwithpl.com

Purchase through local Building Supply Center

Part No. Description

PL400® Heavy Duty Construction Adhesive, Caulk. Use As Panel & trim Adhesive

LIQUID NAILS® Adhesives

Purchase through local Building Supply Center or FASTENAL

Supplier: FASTENAL www.fastenal.com

Part No. Description

63902 10.5 oz. LN602-Liquid Nails® for Subfloors and Decks 63903 29 oz. LN602-Liquid Nails® for Subfloors and Decks

Use as Panel & Trim Adhesive

SPACERS – SUPPLIERS (Hanger and Bracket support)

Supplier: EXTRUTECH PLASTICS INC. www.epiplastics.com

Part No. Description

13RS100054 1" O.D. x 3/8"I.D. Nylon Spacer 25R50ZR7N 3/4" O.D. x 1/4" I.D. Nylon Spacer











Nail-in Anchors (All Nylon)

Tapcon® screw (with a 1/4" washer)

Truss Head Screw

1" Nylon Spacer 3/4" Nylon Spacer