



INSTALLATION MANUAL
MODEL #100603
INVERTER GENERATOR COVER



SAVE THESE INSTRUCTIONS. This manual contains important safety precautions which should be read and understood before operating the product. Failure to do so could result in serious injury. This manual should remain with the product.

Specifications, descriptions and illustrations in this manual are as accurate as known at the time of publication, but are subject to change without notice.

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INTRODUCTION

Congratulations on your purchase of a Champion Power Equipment (CPE) product. CPE designs, builds, and supports all of our products to strict specifications and guidelines. With proper product knowledge, safe use, and regular maintenance, this product should bring years of satisfying service.

Every effort has been made to ensure the accuracy and completeness of the information in this manual at the time of publication, and we reserve the right to change, alter and/or improve the product and this document at any time without prior notice.

CPE highly values how our products are designed, manufactured, operated, and serviced as well as providing safety to the operator and those around the generator. Therefore, it is **IMPORTANT** to review this product manual and other product materials thoroughly and be fully aware and knowledgeable of the assembly, operation, dangers and maintenance of the product before use. Fully familiarize yourself, and make sure others who plan on operating the product fully familiarize themselves too, with the proper safety and operation procedures before each use. Please always exercise common sense and always err on the side of caution when operating the product to ensure no accident, property damage, or injury occurs. We want you to continue to use and be satisfied with your CPE product for years to come.

When contacting CPE about parts and/or service, you will need to supply the complete model and serial numbers of your product. Transcribe the information found on your product's nameplate label to the table.

CPE TECHNICAL SUPPORT TEAM

MODEL NUMBER

100603

SERIAL NUMBER

DATE OF PURCHASE

PURCHASE LOCATION

SAFETY DEFINITIONS

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols, and their explanations, deserve your careful attention and understanding. The safety warnings do not by themselves eliminate any danger. The instructions or warnings they give are not substitutes for proper accident prevention measures.

DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

NOTICE indicates information considered important, but not hazard-related (e.g., messages relating to property damage).

IMPORTANT PRODUCT SAFETY

WARNING

Always shut generator off before any fueling or maintenance procedures.

WARNING

NEVER position the refueling door on the same side of the generator as the exhaust muffler. Spilled gasoline can result in fire.

WARNING

NEVER block or cover the generator exhaust muffler in any way. Storm Shield canopy must be installed above the generator's exhaust muffler. Install Storm Shield electrical aprons so that they CANNOT block exhaust in any way. Keep the Storm Shield canopy at least 6 inches away from direct contact with the exhaust.

WARNING

Never install the Kevlar® strap over, or direct line of, the generator exhaust muffler.

WARNING

Never use the Storm Shield on a generator in a moving vehicle.

CAUTION

Over tightening ratchet buckle should be avoided. The ratchet buckle and strap are capable of tremendous forces that can snap the molded sections and mar the generator case if over tightened.

CAUTION

Always grasp fiberglass rods firmly during installation to avoid the whipping motion that can occur when a bent fiberglass rod is mistakenly released.

CAUTION

Avoid using your portable generator in hurricane force winds above 70mph (112.7 km/h).

NOTICE

Should generator handle cause significant stretching of the elastic straps when extended; it is advisable to release the elastics straps on the handle side of the generator before extending generator handles.

NOTICE

Should Storm Shield cover block pull starter, it is advisable to release the elastic straps on the pull starter side and temporarily move the Storm Shield canopy out of the way.

NOTICE

When using Storm Shield during snow storms, it is recommended to periodically brush away any accumulation that blocks the top vent.

PACKAGE CONTENTS



Storm Shield is suitable for inverter case perimeters up to 112"

Storm Shield 10k sized Canopy (Standard or Extreme Edition) including electrical covering aprons.....	1
40" Fiberglass frame rods.....	4

Associated Hardware Pack Contains:

114" Kevlar® Ratchet Buckle	1
Angle Brace corner sections.....	4
Storm Shield Gator Grommets™	8
Extender Arms.....	12
Central Connector for Frame Rods.....	1

INSTALLATION OVERVIEW

The Storm Shield 100603 installs in three easy steps:

Strap it: Install Ratchet Buckle, Angle Braces, and Extension Arms.

Frame it: Install frame rod to the center connector, then into the correct hole in the Extender Arm, and repeat on all four corners.

Cover it: Slide the Storm Shield canopy over the frame, then secure by sliding the elastic straps under the Extender Arm.

Important Usage Tips:

Storage

The Storm Shield can be left installed for generator storage, or easily removed and stored separately. We recommend releasing the elastic straps when storing away from wind.

Maintenance

The Storm Shield assembly can be removed for maintenance - release the ratchet buckle and carefully lift the entire assembly off the inverter and place aside. Reverse the operation to reinstall.

Transport

For transport remove the Storm Shield Canopy, Shield Frame and the Extender Arms; leave the Angle Brace strap mount in place.

Strap It: Install the Ratchet Strap Mount

NOTICE

The following steps are done for initial installation. Once installed the first time, the entire strapped assembly can be taken off and reinstalled quickly and easily.

Getting Familiar with the Angle Brace and Extender Arms

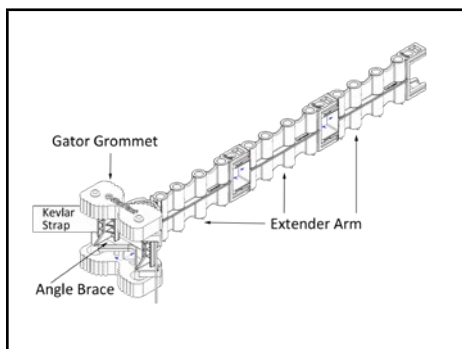


Figure 1: Corner Mount Components

The Angle Brace and Extension arms work together with the Kevlar ratchet buckle system to create a stable and strong mounting point for the Storm Shield on your inverter generator. Please familiarize yourself with these components:

- Kevlar strap – this strap is black and 1" wide. It is installed through the Angle Braces. It is attached to a ratchet buckle for tightening the assembly to your inverter case.

- Angle Brace – this component is held to the four corners of your case, and creates a mounting and adjustment point for the Extender Arms.
- Gator Grommet™ – your package will contain 8 grommets. These grommets are pressed onto the pins of the Angle Brace to create mounting “feet”. The feet grip the case without marring the surface. Two wall thicknesses allow for optimal fit on various cases.
- Extender Arm – this component snaps into place on the Angle Brace as well as into other Extender Arms. A maximum of 3 Extender Arms per corner will be used during setup and operation.

The following diagrams provide a more detailed description of the key features of the Angle Brace and Extender Arm:

Angle Brace Detail Diagram

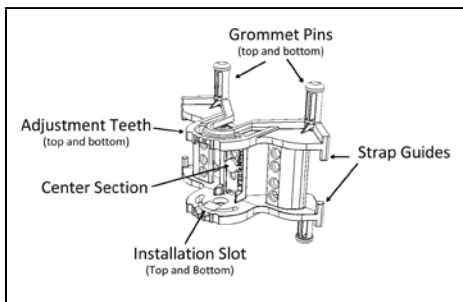


Figure 2: Angle Brace Detail Diagram

Extender Arm Detail Diagram

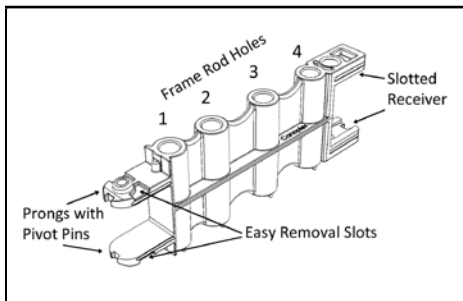


Figure 3: Extender Arm Detail Diagram

STEP 1: DETERMINE THE FIRST ANGLE BRACE LOCATION

To determine the location of the first Angle Brace (whose height is then replicated on the other corners) follow this procedure:

1. Place the Angle Brace on a corner adjacent to the electrical panel. Locate the Angle Brace so that it is slightly under the electrical panel.
2. Translate this height to the location of the exhaust pipe on the inverter. If the Angle Brace is at the same height as the exhaust pipe, lower the Angle Brace so that it is below the exhaust pipe. This is necessary to prevent the Kevlar strap from blocking the exhaust pipe.

⚠ WARNING

Never mount the Kevlar strap so that it blocks, or is in direct line of, the exhaust. The Kevlar will withstand the heat, however, blocking the exhaust can damage the inverter generator.

3. Measure this height from the ground up to the bottom of the Angle Brace. This provides the initial location of the Angle Braces on all four corners.

🗨 NOTICE

Some Inverters position the exhaust above the height of the electrical panel. In this case, it is ok to have the Angle Braces at different heights on the exhaust side as compared to the electrical panel side. The result will be a sloped Storm Shield canopy, but performance is not affected.

STEP 2: INSTALL THE GATOR GROMMETS

The Gator Grommets level the mount assembly on the inverter generator and provide grip against the case. Observe the slope of the case where the Angle Braces will be installed. It will be vertical, positive or negative. (see diagram below):

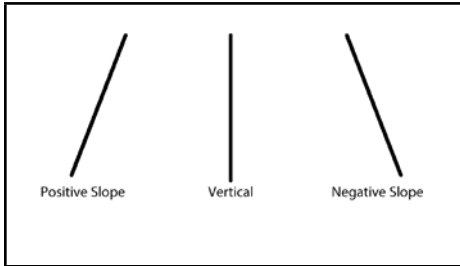


Figure 4: Inverter Case Corner Slope Orientation

The Gator Grommet™ has two wall thicknesses. These enable leveling the angle brace against different case slopes as shown below:



If the case corners have a **positive slope**, install top grommet with thin side and bottom grommet with thick side facing the case:

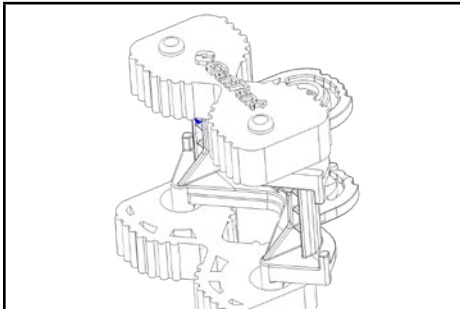


Figure 5: Angle Brace Grommets - Positive Case Slope

If the case corners are **vertical**, install the thin side facing the case on top and bottom:

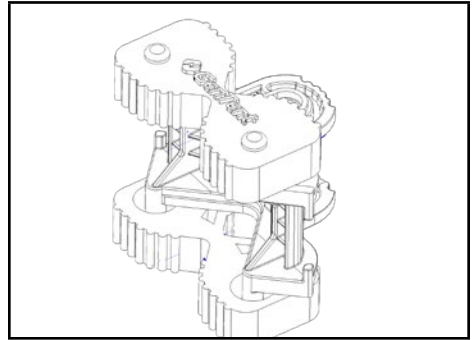
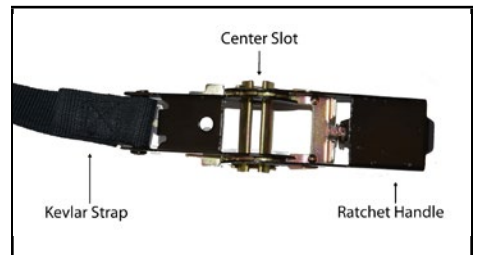


Figure 5: Angle Brace Grommets - Positive Case Slope

STEP 3: THREAD THE KEVLAR STRAP

The ratchet buckle has a ratcheting handle that is used to tighten the strap that is fed through the center slot. The following picture shows the ratchet buckle fully open.



- Orient the ratchet buckle on a long side of the case.
- Lay the Buckle on its side parallel to the inverter case.
- Orient the strap for thread by sliding your fingers from the strap sewn to the ratchet across the top to the end without twisting the strap.
- Slide strap through the Angle Braces without twisting the strap and being sure the grommets are oriented toward the case.

IMPORTANT: Thread the end of the strap through the Angle Brace so that the strap goes behind the center section of the Angle Brace and lays flat against the corner guides as shown below.

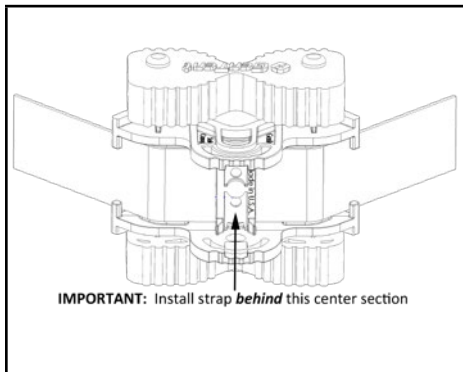


Figure 8: Kevlar Strap Correctly Installed through Angle Brace

STEP 4: STRAP THE ASSEMBLY TO THE INVERTER CASE

How To Install And Tighten The Ratchet Buckle

Ratchet Tie Down Buckle Tightening Instructions

4. From bottom, thread Kevlar strap through the slot in the center spool of closed ratchet (figures A and B below).
5. Pull strap through, removing the slack (figure C below).
6. Tighten the strap by ratcheting (opening and closing the handle) (figure D below).



Figure A



Figure B

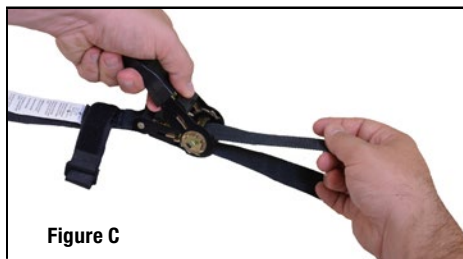


Figure C

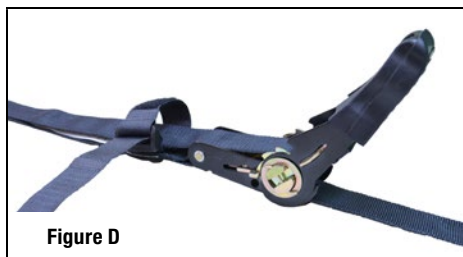


Figure D

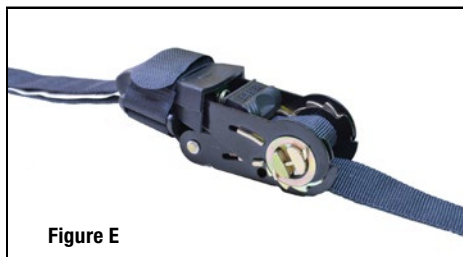


Figure E

How To Loosen The Ratchet Buckle

- You may find that the assembly needs to be adjusted but that the strap is too tight. The ratchet buckle can be loosened easily.
- The Ratchet Buckle has a brass colored, spring loaded release on the ratcheting arm. Pull the release and fully open the ratchet arm.
- Let go of the release and close the ratchet arm about halfway. The strap will loosen by one tooth. Repeat as necessary so that adjustments can be made.

IMPORTANT: Be sure that the back of the ratchet buckle is facing the Inverter case and that the Kevlar strap is flat and untwisted before tightening!

Referencing the basic instructions above, pull the Kevlar strap through until there is little slack left in the strap.



While holding the strap taut, slide the Angle Braces onto the Inverter Case.



While continuing to hold the end strap taut, crank the ratchet a few times until the assembly is tight enough that it stays on the case. The Angle Braces can now be adjusted.



Make the final adjustment by putting the Angle Braces in their predetermined location.

Make sure that the Kelvar strap is properly in the Angle Brace. The strap must lay flat behind the guide pins as shown below.

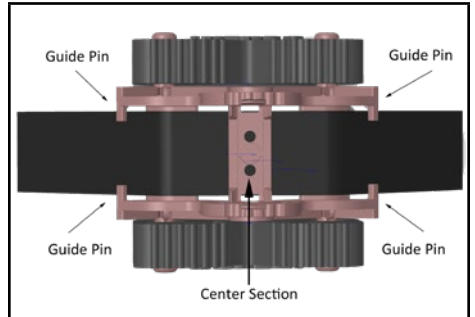


Figure 9: Kevlar Correctly Installed Behind Center Section and Guide Pins

While tightening the strap, watch the Angle Brace sections to be sure they are not pulled out of position. If any begin to move then slide it back into position before tightening further. The assembly is tight when the strap is taut and firm and the grommets are pressed firmly against the case.

STEP 5: CONNECT THE EXTENDER ARMS

Properly installed Extender Arms will make a rectangle around the inverter viewed from above the Inverter generator. See Figure 14.

The first Extender Arm for each corner snaps into the Angle Brace. Additional Extender Arms can then be snapped in place as needed to get the full-length extender arm required. Installation begins at the Angle Braces connected to the exhaust side. Once these are set in place and adjusted to ensure exhaust gases will be dispelled and not collected inside the canopy, simple measurements can take place to set the remaining Extender Arms.

How To Connect An Extender To An Angle Brace

IMPORTANT: Hold the Extender so that the Rod Holes are pointing upward.

- Refer to Figure 2 and Figure 3.
- Align the Extender Arm prongs into the installation slots at the top and bottom of the Angle Brace.
- Push the Extender Arm straight into the Angle Brace until the pivot pins snap into place.

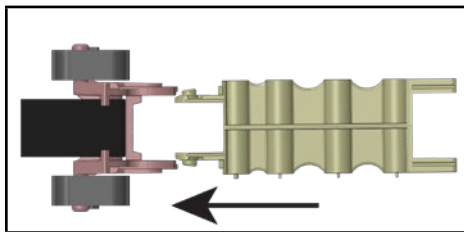


Figure 10: Connect Extender to Angle Brace

How To Connect An Extender To An Installed Extender

IMPORTANT: Hold the Extender so that the Rod Holes are pointing upward.

- Refer to Figure 3.
- Align the Extender Arm prongs with the receiver slot in the installed Extender.

- Push the Extender Arm straight into the already installed Extender Arm until the pivot pins snap into place.

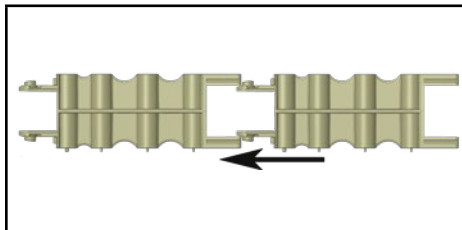


Figure 11: Connect Extender to Extender

Install Extenders Onto Exhaust Side Of The Inverter Generator

IMPORTANT: Refer to Figure 14

- Move to the exhaust side of the Inverter Generator. The objective is to find a span of 23" to 25" between the rod holes of the two corners.
- Install the first Extender arm into the Angle Brace.
- Adjust the Extenders across the Angle Brace Adjustment Teeth to their furthest positions away from the inverter case (position -2 and +2 in the diagrams below).

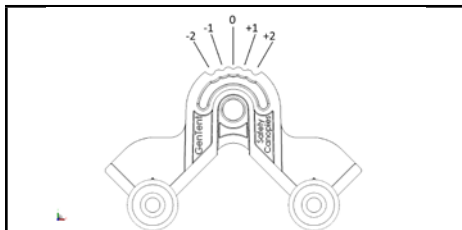


Figure 12: Angle Brace Tooth Numbering

- To find the correct frame rod holes, determine which of the holes (1 – 4) on the extender are closest to between 23" and 25" apart. Important: Measure between the same holes (1 -4) on the Angle Braces.

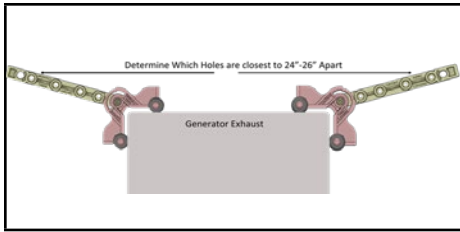


Figure 13: Find the Correct Exhaust Side Frame Rod Holes

- If the distance of the fourth hole is less than 23", then add an Extender Arm to each side and re-measure.

Install Remaining Extenders Onto The Inverter Generator

IMPORTANT: Refer to Figure 14 on the next page.

- Move to the remaining two Angle Braces. The objective is to find a span of 34" to 36" length wise, between the rod holes on the exhaust side and the opposite side, that also span 24" to 26" width wise.
- Install Two Extenders onto each Angle Brace.
- Position the Extender Arms at position 0 of the Angle Brace.
- Measure the distance from one of the exhaust side rod holes to the adjacent Extender Arm just installed. Find the hole between 34" and 36".
 - If needed, add another Extender to both dual Extender Arm and repeat this measurement.

Make Final Extender Arm Adjustments

Now measure the distance between the rod holes on the two dual (or triple) Extender Arms.

- If the distance is between 23" and 25", then you have identified the rod holes.
- If the distance is less than needed, adjust each dual (or triple) extender arm outward on the Angle Brace by one position and repeat this measurement.

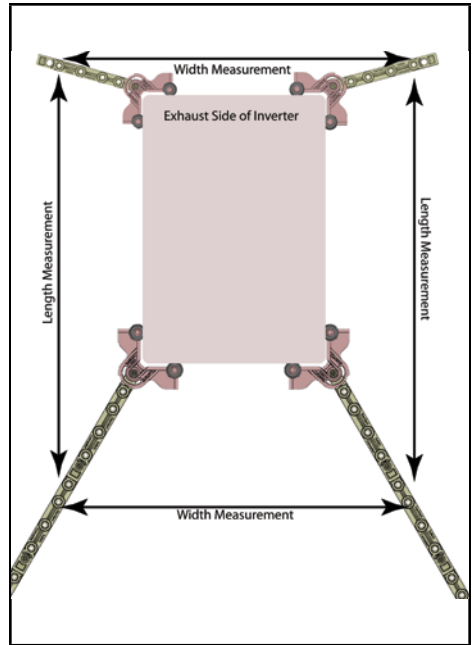


Figure 14: Locate Remaining Extender Rod Holes

DISASSEMBLING THE STRAP MOUNTING PARTS

Removing Extender Arms

- Extender Arms are easily removed for disassembly. This procedure requires a small flat blade screwdriver or similar.
- Put the flat blade in the removal slot on the top or bottom prong of the Extender Arm that is to be removed.
- Twist the blade toward the tip of the prong (toward the Extender Arm or Angle Brace from which this part is being removed).
 - This twisting motion disengages one pivot pin.
- While twisting the blade, either push down on the Extender Arm (if the blade is in the top prong), or lift on the Extender Arm (if the blade is in the lower prong).
 - The Extender Arm will slide out and free.

Removing Strap Mounting Assembly From The Inverter Generator

- The Ratchet Buckle has a brass colored, spring loaded release on the ratcheting arm. Pull and hold this release and open the ratchet arm to its fully open and flat.
- To loosen the strap and adjust:
 - Let go of the release and close the ratchet arm about halfway. The strap should loosen slightly. Repeat as necessary so that adjustments can be made.
- To completely remove the strap:
 - The fixed side of the Ratchet Buckle also has a spring-loaded release. Pull and hold this release and the Kevlar strap can be pulled all the way out.

FRAME IT: INSTALL STORM SHIELD FRAME ON THE ARMS

IMPORTANT NOTE: Position Central Connector with central pin facing upward (Figure 15).

- Orient Central Connector so that short sides align with the side of the Extender rod holes that are the shortest apart, and the long sides align with the Extender rod holes that are the longest apart, respectively.

NOTICE

Each frame rod goes into the Central Connector hole first and then into the corresponding Extender Arm rod hole.

- Insert a fiberglass frame rod into Central Connector hole until it stops (figure. 13).
- Insert other end of the fiberglass rod fully into the correct Extender Arm rod hole of the corresponding arm.
- Insert second fiberglass rod fully into the diagonally opposite hole in the Central Connector so that the two rods and central connector make a straight line.

- Grasping the end of this fiberglass rod, bend toward the opposite side Extender Arm rod hole and insert fully into the correct hole.

CAUTION

Hold rod with two hands; Fiberglass rod will be under tension, do not release!

- Repeat for final two fiberglass rods.
- Recheck the mounting assembly. The Angle Braces should remain firmly in place and the Extender Arms may exhibit a slight upward lean.
- The Extender Arm assemblies at each corner should be in a straight line. If any are exhibiting an arc, move the Extender Arm one position in the direction of the arc on the Angle brace, or alternatively move the entire Angle Brace in the direction of the arc until the Extender Arms straighten out.

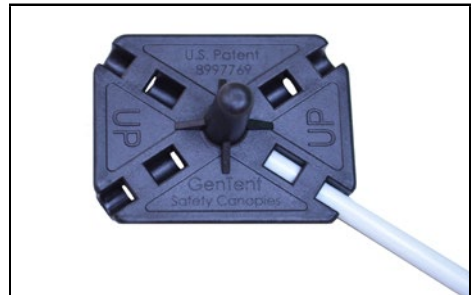


Figure 15: Center Connector with Center Pin Facing Upward

COVER IT: SECURE STORM SHIELD CANOPY OVER FRAME



Position Storm Shield canopy over the frame. Be certain that the fueling door is not on the same side as the generator exhaust

Slide Storm Shield canopy over the frame so that all four corners are generally equal and level.

Center Storm Shield canopy such that Vent Rod is centered under the top cap.

NOTICE

Be certain that the fuel door opening does not catch behind the fiberglass rods. The rods should always be tucked into the seams. This can be checked by opening the door after installation.

Slide one corner elastic over the corresponding Extender Arm, under the Extender Arm, in a scallop behind a set of retention pins.

Repeat on opposite corner, then on the remaining two corners. Recheck and adjust canopy if necessary.



SELECT AND INSTALL ELECTRICAL APRON

- If your electrical outlets are on the short side of the generator, select the short electrical apron; otherwise select the long electrical apron. Only use one apron!
- Flip the canopy over flap up from corner to corner on the side that is over the electrical outlets (figure 16).
- The left and right sides of the electrical apron are angled upward slightly as compared to the main body of the apron. The angle starts about 6 inches from either side and this corresponds to the respective corner of the Storm Shield. Press either corner on first (Figure 16), then wrap the 6-inch section onto the adjacent side of the electrical panel and press firmly. Now press the main apron body over the electrical panel to the other corner, and then wrap that edge around the adjacent side and press firmly in place.
- Flip the over flap down and over the electrical apron (figure 16).



Figure 16: Canopy Over Flap Exposed and then Closed

 **NOTICE**

The intent of the electrical apron is to cover the electrical outlets in the front and about 6" around the adjacent sides. Do not cover other parts of your generator with the electrical aprons, especially the exhaust area!

IMPORTANT STORM SHIELD USAGE TIPS

Proper Door Sealing Tip

- The Storm Shield door wraps around the adjacent sides of the Storm Shield. Each time you close the door, it must be pressed firmly back in place. If this is not done, holes may exist between the pieces of touch fasteners which can allow water to seep in:
 - Align the door properly so that the side Velcro and lower Velcro are aligned as closely as possible and are touching.
 - Then starting at the top corner of the door pinch canopy around the frame rods and slide your hand to the bottom while pinching.
 - Repeat on the other side.
 - Check the door sides to see if you can see any gaps in the touch fasteners sealing. Should there be any gaps, repeat the pinching procedure.

 **NOTICE**

Pull the door down and connect the bottom touch fasteners first, then use the pinch & slide technique above to secure the sides. The bottom edge should cover the under-flap stitching!