INSTRUCTIONS FOR INSTALLATION OF CONDUIT AND GROUNDING OF EQUIPMENT IN NON-METALLIC ENCLOSURES

INSTALLATION OF CONDUIT

Hub Size	Hole Size
½" DIA.	⅞" DIA.
¾" DIA.	1 1/16" DIA.
1" DIA.	1⅛" DIA.
1¼" DIA.	1 5/16" DIA.
1½" DIA.	1⅝" DIA.
2" DIA.	2 3/16" DIA.
2½" DIA.	3" DIA.
3" DIA.	3 5/16" DIA.
3½" DIA.	4⅛" DIA.

1. CONDUIT HOLES — Cut holes in enclosure (when required) at the desired location. The use of a Greenlee Cutter is the preferred method, placing the punch of the Greenlee Cutter on the inside of the enclosure and drawing the punch through to the outside.

2. CONDUIT CONNECTIONS (See illustrations below)

   a. Metallic Conduit — First secure the conduit connector (hub) onto the conduit. Then secure conduit connector (hub) into the prepared enclosure hole using the connector locknut. Then attach grounding bushing having the proper size ground wire lug over the connector locknut.

CAUTION:	Bonding between the grounding bushings or between the grounding bushings and the equipment grounding terminal (when provided) must be included as part of the installation procedure in accordance with The Canadian Electrical Code.

   b. Non-metallic Conduit — Secure conduit to the conduit connector (hub) either before or after the conduit connector is secured into the prepared hole using the connector locknut.

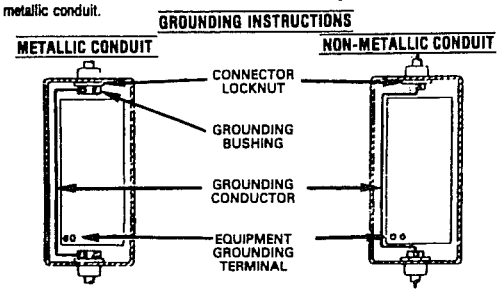
   NOTE: Grounding bushing not required.

CAUTION:	In order to prevent enclosure damage and to attain the enclosure requirements, the conduit should be aligned so as to prevent unnecessary stress on the enclosure walls. In order to obtain maximum corrosion protection, cover (coat) all exposed metal and seal off the conduit openings where the conductors enter the enclosure.

GROUNDING OF EQUIPMENT

Install the grounding conductor in accordance with the requirements of the Canadian Electrical Code. See illustrations below when using either metallic or non-metallic conduit.

GROUNDING INSTRUCTIONS



STAHLIN

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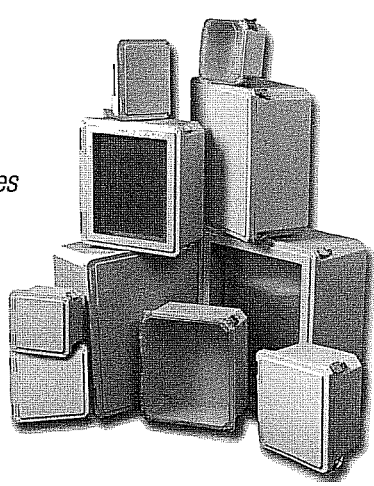
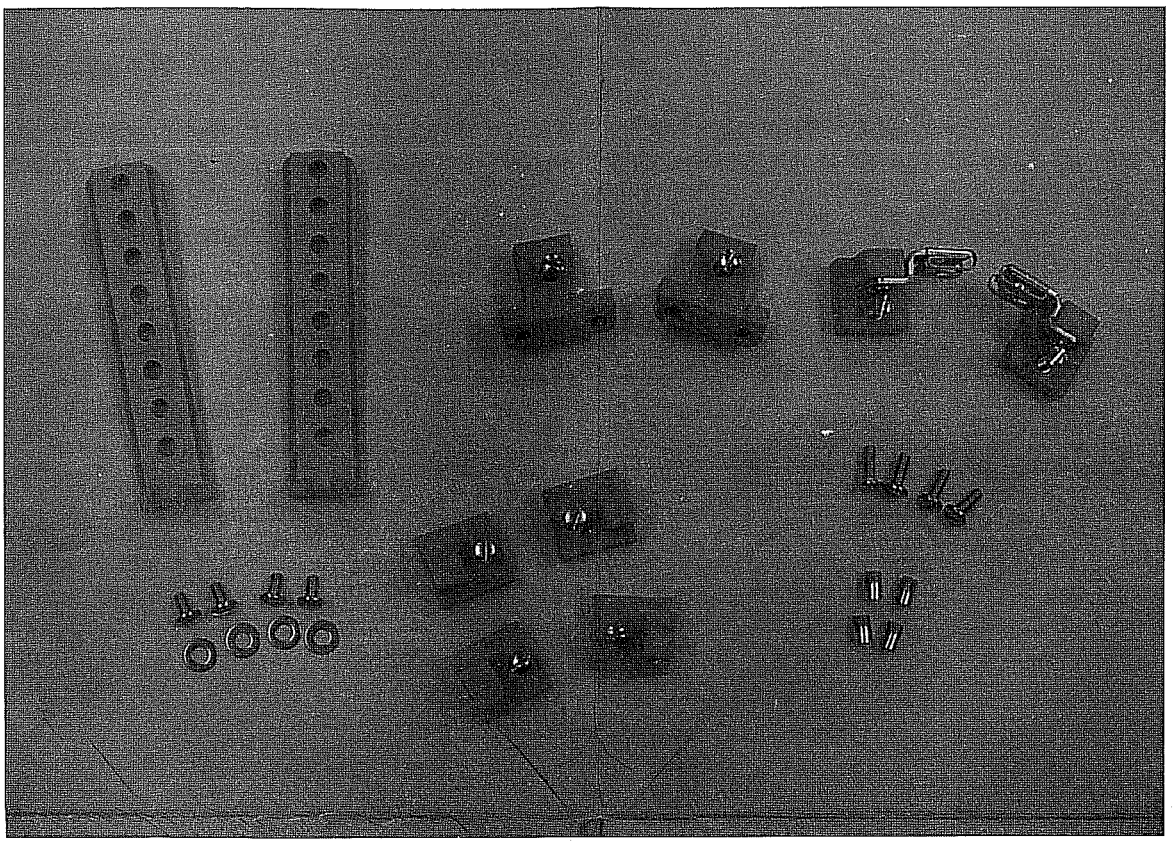


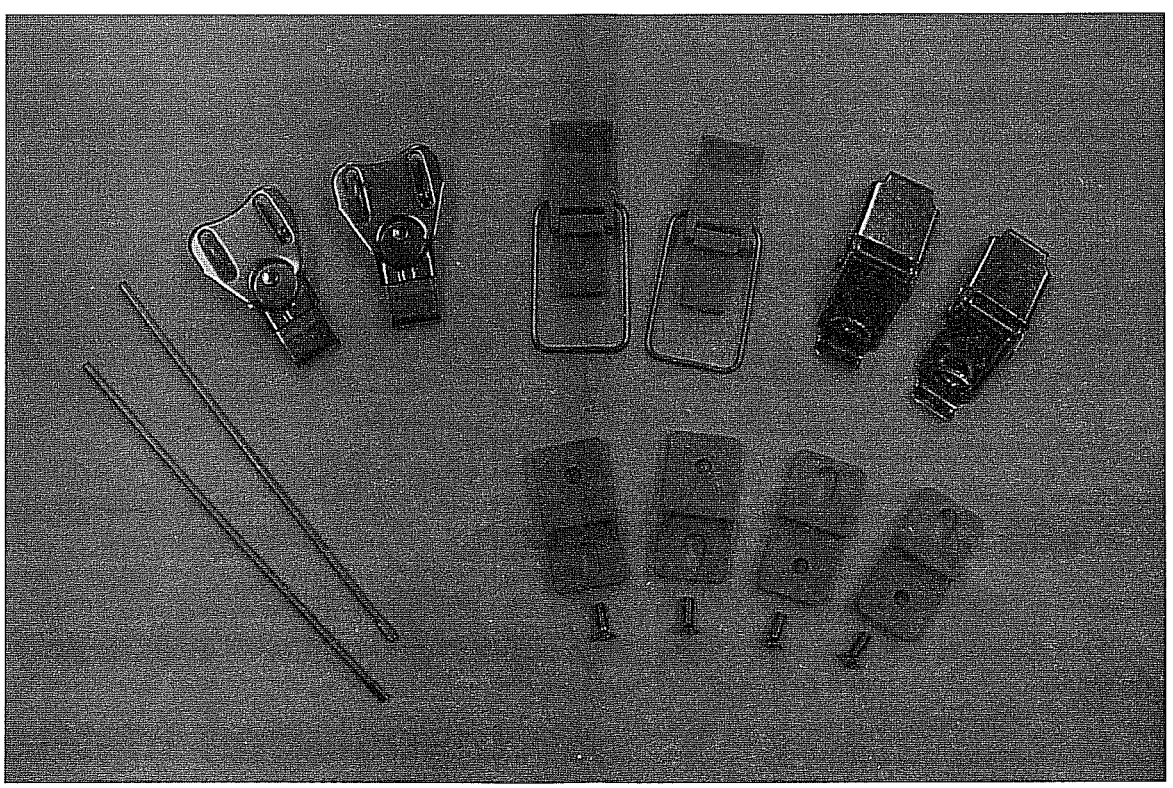
DiamondShield

Installation Instructions

Panel Management Components



Outside Components



Stationary Panel Accessories

1) Place back panel (BP) in enclosure so holes in panel line up with corresponding brass inserts in enclosure base. If not using a back panel then proceed to step 2.

2) Assemble corner post to base by locking the top tab on the corner post with the mating slot in the enclosure base. Press down by hand until the post is completely seated and the mounting-hole is aligned with the back panel hole and tapped hole in the enclosure base.

3) Using a screw driver, assemble the corner post to the enclosure using a #10-32 x 1/2" screw and washer. Torque to approximately 25 in-lb.
Repeat steps 2 and 3 for remaining three corner post.

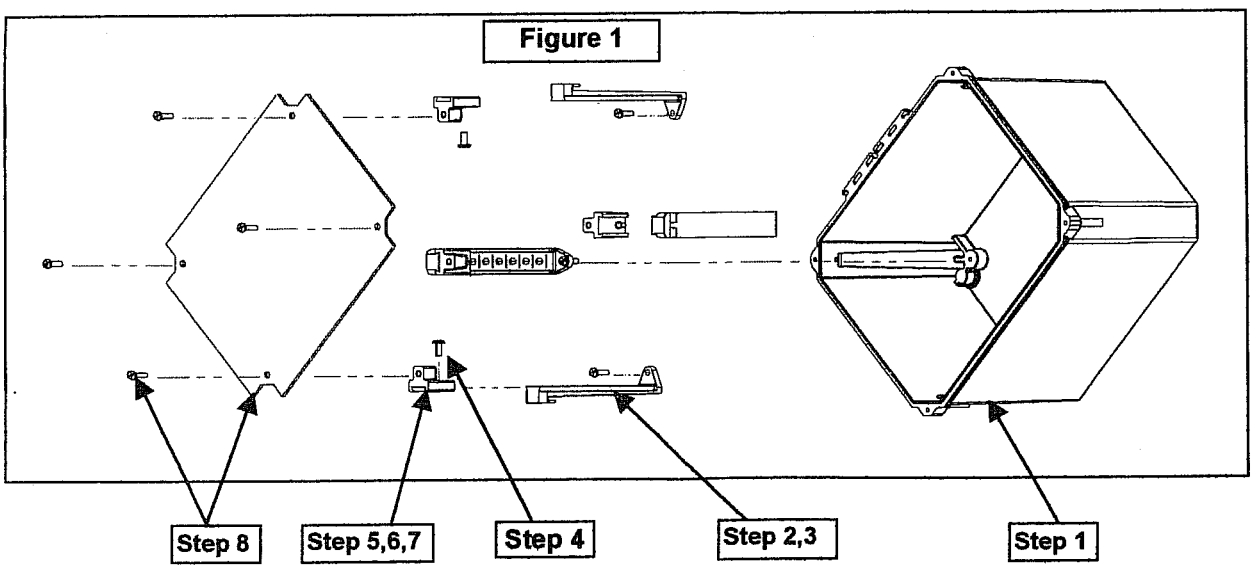
4) Pre-assemble the #10-32 x 1/2" fillister head screw into the stationary panel bracket brass insert as shown for approximately 4 complete revolutions.

5) Assemble stationary panel bracket to corner post by sliding bracket onto dovetail post with the flat surface and brass insert facing up.

6) Move the bracket to desired position by aligning the top of the bracket with the horizontal marks on the corner post.

7) Finish by tightening the fillister head screw until snug. Torque to approximately 10 in-lb. Do not over torque. Repeat steps 4 through 7 for remaining brackets.

8) Assemble stationary panel (BP, or P( )STAL) to the stationary panel brackets using a screw driver and (4) #10-32 x 5/16" screw and washers.



For more detailed assembly instructions see our web site at www.Stahlin.com

Swing Panel Accessories

1) Place back panel (BP) in enclosure so holes in panel line up with corresponding brass inserts in enclosure base. If not using a back panel then proceed to step 2.

2) Assemble corner post to base by locking the top tab on the corner post with the mating slot in the enclosure base. Press down by hand until the post is completely seated and the mounting hole is aligned with the back panel hole and tapped hole in the enclosure base.

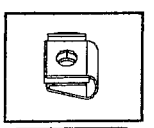
3) Using a screw driver, assemble the corner post to the enclosure using a #10-32 x 1/2" screw and washer. Torque to approximately 25 in-lb. Repeat steps 2 and 3 for remaining three corner post

4) Pre-assemble the #10-32 x 3/4" fillister head screw into the swing panel bracket brass insert as shown for approximately 4 complete revolutions.

5) Assemble swing panel bracket to corner post by sliding bracket onto dovetail portion of the post with the Two hinge pin holes facing inward as shown and on the hinge side of the panel swing.

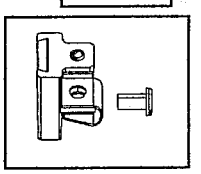
6) Move the bracket to desired position by aligning the top of the bracket with the horizontal marks on the corner post. Finish by tightening the fillister head screw until snug. Torque to approximately 10 in-lb. Do not over torque. Repeat steps 4 through 6 for remaining swing panel bracket.

7) Assemble the receptacle clip to the metal bracket as shown either by hand or by using a screw driver to assist. Be sure to slide the receptacle all the way onto the metal clip until it snaps into place into the 5/16 diameter hole in the metal clip and the holes are aligned.
See View A.



View A

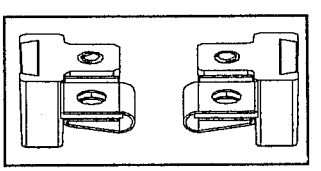
8) Assemble the metal bracket to the plastic adjustable panel bracket as shown using a #10-32 x 5/16" screw and standard screwdriver. Torque to approximately 10 in-lb. Make sure metal clip is flush with top surface of the plastic bracket and orientated as shown.
See View B.



View B

9) Repeat steps 7 and 8 for the second bracket assembly.
Exception: Attach metal clip assembly to the plastic bracket opposite as shown.
See view C.

10) Pre-assemble the #10-32 x 1/2" fillister head screw into brass insert as shown for approximately 4 complete revolutions.

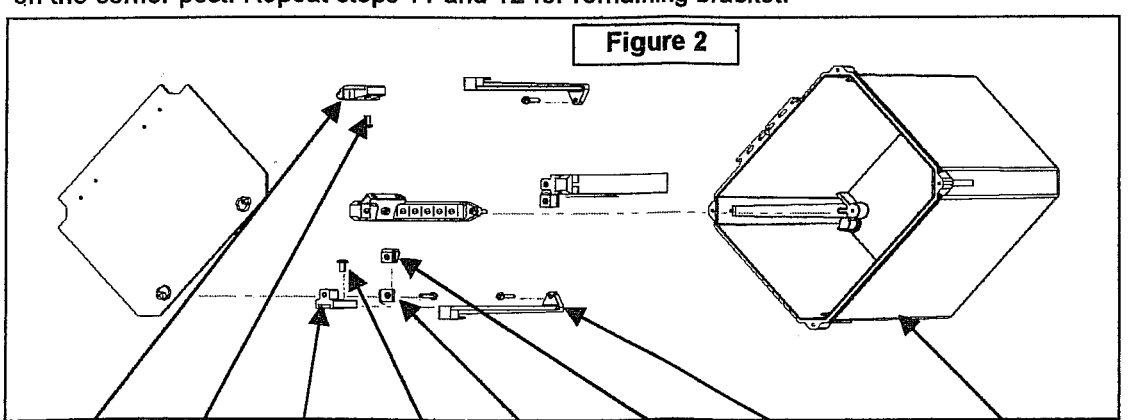


View C

11) Assemble stationary bracket to corner post by sliding bracket onto dovetail post with the flat surface with brass insert facing up.

12) Move the bracket to desired position by aligning the top of the bracket with the horizontal marks on the corner post. Repeat steps 11 and 12 for remaining bracket.

Figure 2



Step 5,6 | **Step 4** | **Step11,12** | **Step 10** | **Step 8,9** | **Step 7** | **Step 2,3** | **Step 1**

For more detailed assembly instructions see our web site at www.Stahlin.com

13) Place/seat the desired panel using the hinge pins first then securing with the quarter turn latch/screw.

Installing and Removing Covers

To remove cover:

1) Open the enclosure completely and provide adequate support to keep the cover from being damaged during disassembly.

2) Using a hammer and screw driver, gently tap on the end of the hinge pin nearest the middle of the enclosure (closed end) so that the pin becomes unseated at the other end (approx. 1/4")

3) Using pliers, grasp the opposite end (flattened) of the hinge pin and pull completely out. Repeat steps 1 through 3 to remove the second hinge pin.

To install new cover:

4) Assemble hinge pins to the cover by inserting the round end of the pin into the hinge core in the cover. You may need to use a hammer to gently tap the pin into place. Repeat this step for the second hinge pin.

5) Align the cover with the base in the open position.

6) Using a small hammer, gently tap the hinge pin into the corresponding hole in the base until the end of the pin is fully seated and flush with the cover surface. Repeat this step for the second hinge pin.

Changing out latches

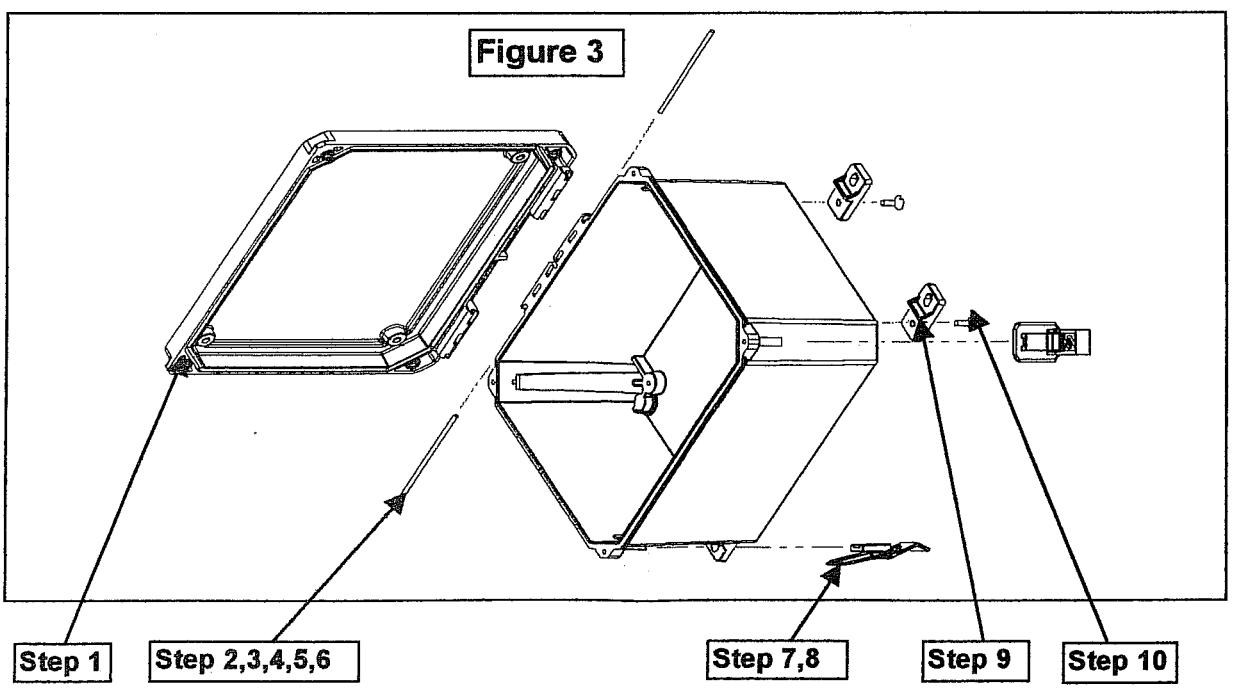
7) Remove existing latch by gently tapping the latch off the dovetail on the side of the enclosure.

8) Assemble the new latch by sliding the latch base onto the corresponding dovetail on the enclosure base **UNTIL COMPLETELY SEATED**. Repeat steps 1 and 2 for the other latches.

Adding Mounting Feet

9) Place mounting foot on back side of enclosure so that the countersink hole is directly over the brass insert.

10) Using a screwdriver and the #10-32 x 7/16" flat head screw, tighten the mounting foot to the enclosure. Torque to approximately 25 in-lb. Repeat steps 1 and 2 for the remaining mounting feet.



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Cover Panel Installation

1) Place brass insert split side (knurled end) first into hole in cover

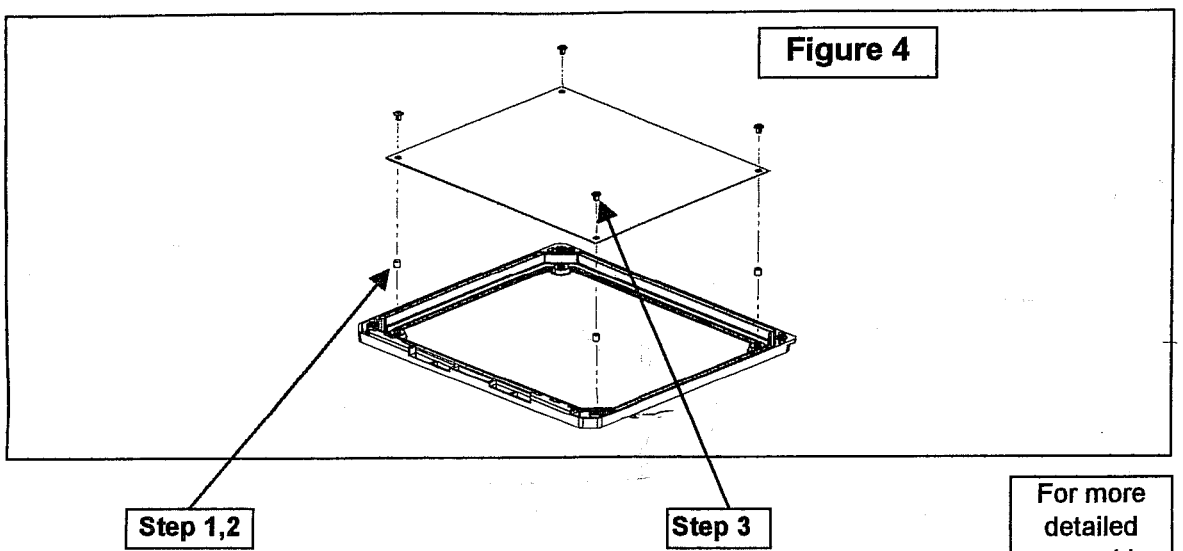
2) Using a hammer and .156 dia. punch or screw driver, drive the center plug in the brass insert all the way to the bottom until firmly seated.
Repeat steps 1 and 2 for the three remaining brass inserts.

3) Using a screwdriver, assemble the cover panel to the Fiberglass cover using the #10-32 x 5/16" screws and flat washers. Torque to approximately 25 in-lb.

Mounting Enclosure to Wall

4) Drill 1/4" dia. through holes in mounting surface at matching locations of the enclosure you are working with.

5) Using a screwdriver and a #10-32 machine screw at the wall thickness plus 5/16", tighten the screw in the four locations provided. Torque to approximately 25 in-lb.



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DiamondShield panel loading weight restrictions:

Panel Type	Max Weight Limit
Back Panel	75 lbs (34.0 kg)
Cover Panel	15 lbs (6.8 kg)
Dead Front Swing Panel	30 lbs (13.6 kg)
Variable Height Swing Panel	30 lbs (13.6 kg)
Variable Height Stationary Panel	75 lbs (34.0 kg)