



## PSR-3RK

ETL Listed Outdoor Rainproof kit for indoor PSR Enclosure  
Assembly Instructions Document No. 900-0020-1

The Outdoor Rainproof kit is one of many options for the OutBack PSR enclosure. The PSR-3RK and PSR enclosure have been evaluated by ETL for: stability, compression, rain test, sprinkler test and static load test.

Rain and sprinkler water will not be able to get on any electronics mounted in the top half of the PSR enclosure. It is not recommended to mount electronic components in the lower half of the PSR. Water droplets getting onto lower battery racks does not constitute a problem with the intended use of the enclosure. All metal components of the PSR and PSR-3RK are corrosion proof.

Use the assembly instructions for the basic PSR enclosure up to the point of attaching conduit brackets. The top conduit bracket will not be used in the outdoor configuration.

Figure 1 shows the rear of the enclosure. The plastic used behind the filler bracket is a UL approved polypropylene material meant as a deflector so that any water entering through seams will drip straight down and away from sensitive electronics.

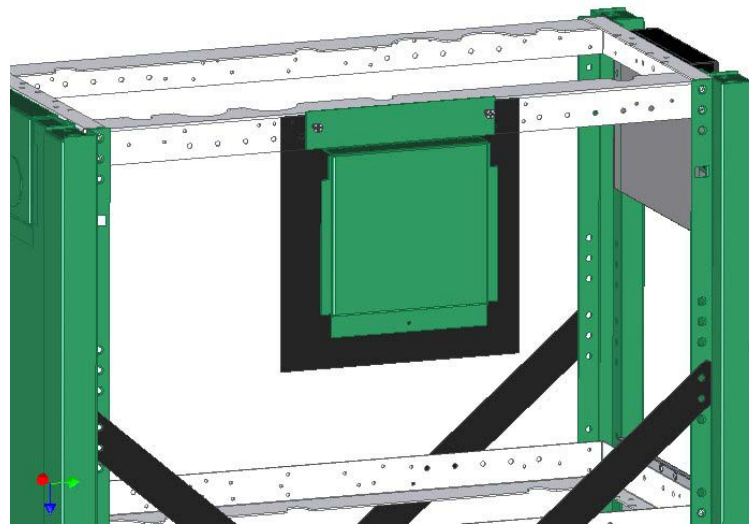


Figure 1

Figure 2 shows the standard side conduit brackets with their polypropylene splash shields in place behind the metal bracket.

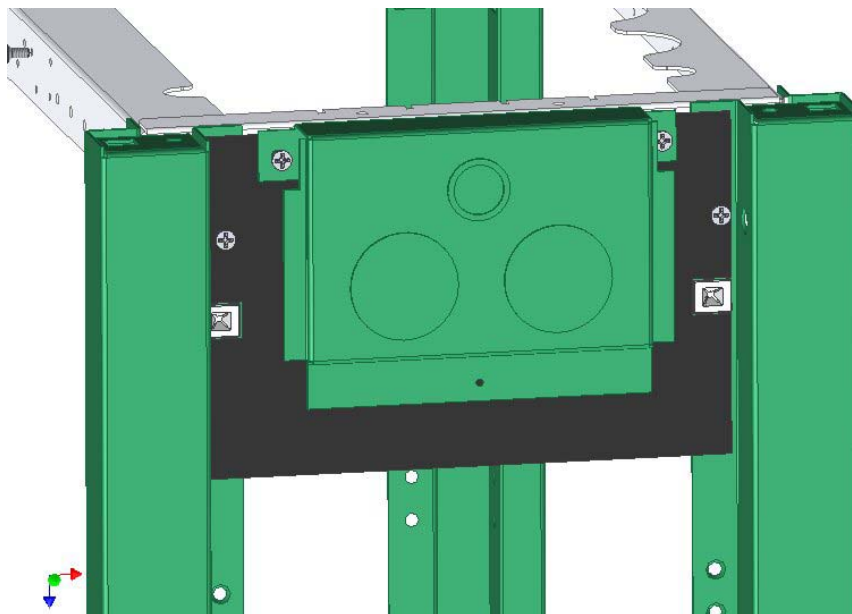


Figure 2

Figure 3 shows the PSR-MMA bracket installed instead of the standard conduit bracket. The same plastic shield is used for this installation. Note that the MMA bracket has additional screws, lock washers and nuts holding it to the vertical frames. The PSR-MMA bracket is used to install an Advanced Energy Inc. Multimode Inverter to the side of the PSR-3R.

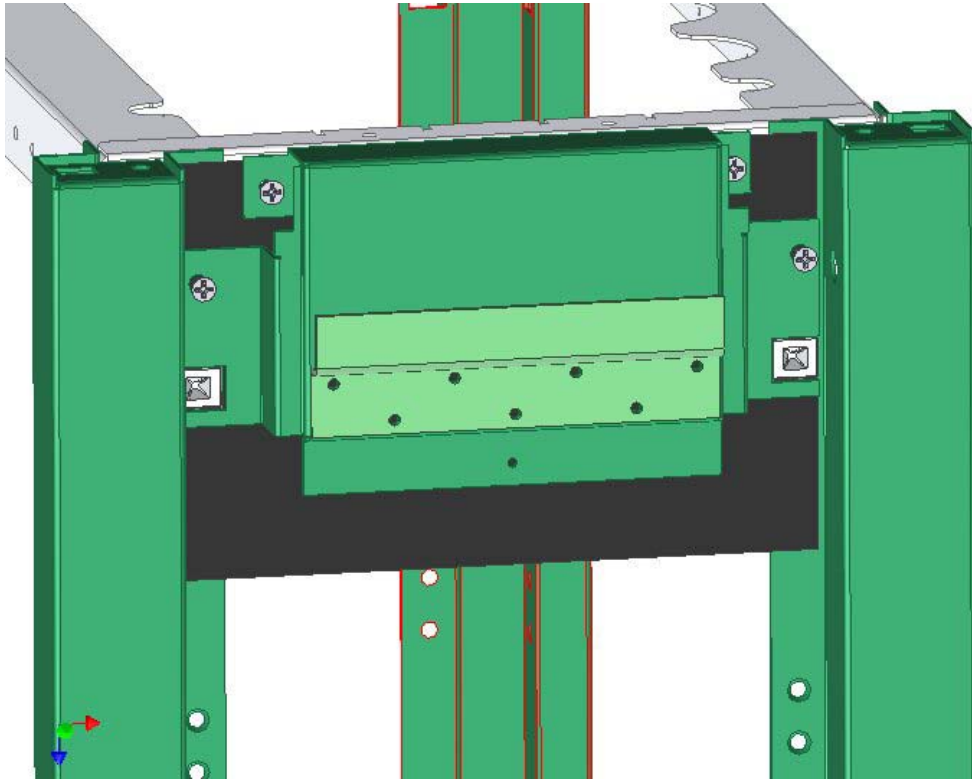


Figure 3

Figure 4, 5 and 6 shows the sequence for installing the front mounted breaker bracket with breakers and clear lockable rainproof cover. To aid in holding the breaker cover gasket in place, get it wet first.

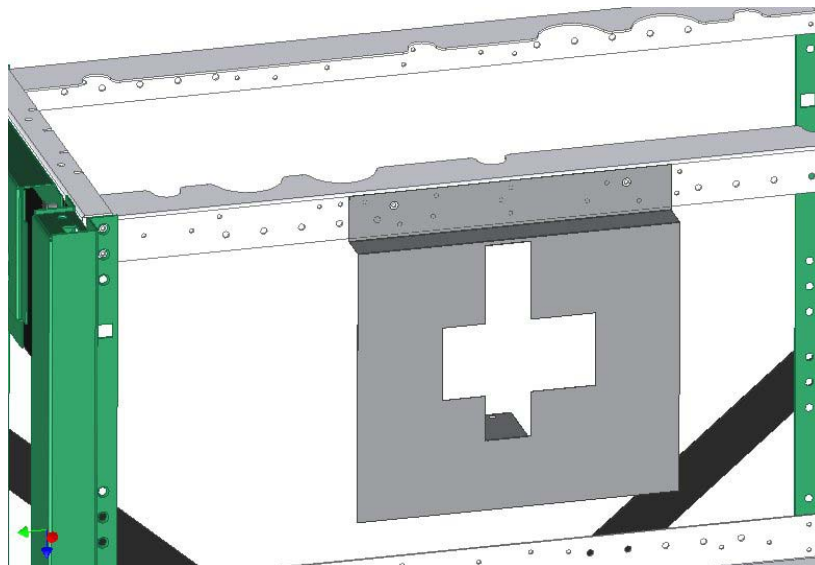


Figure 4

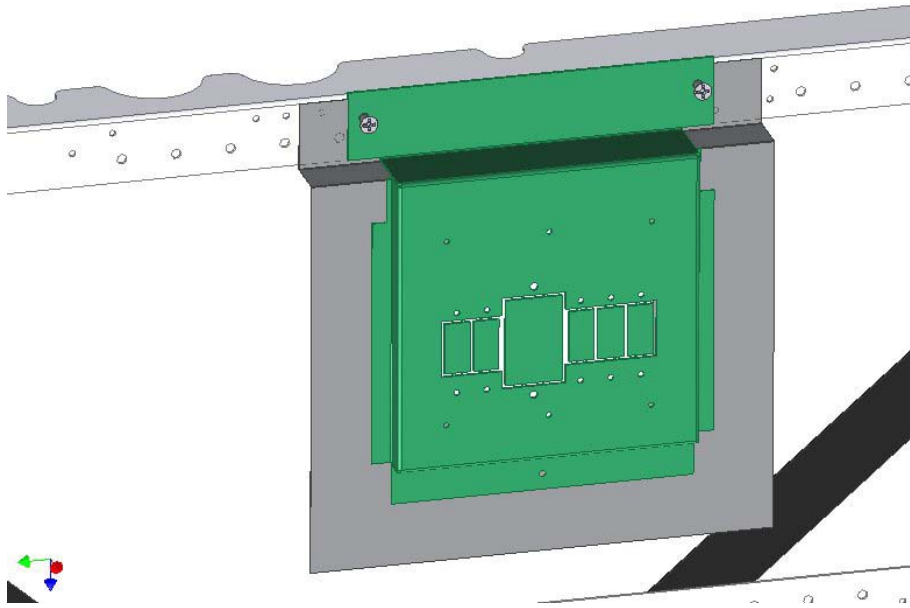


Figure 5

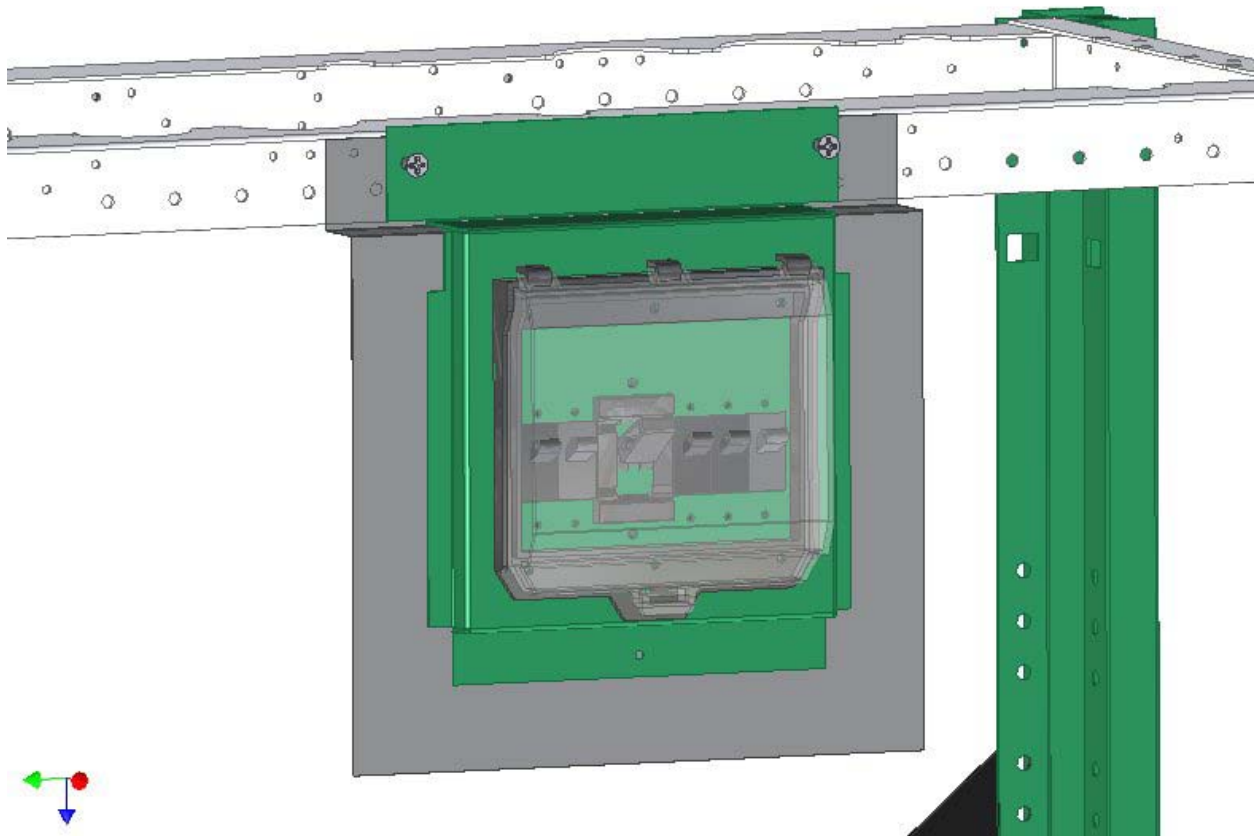


Figure 6

Some installations will not have circuit breakers. The plastic drip shield needs to be formed as shown in Figure 7 to be effective. Put a crease in the top of the plastic to help maintain the 90

degree bend. Install the two 10-32 screws and nuts as shown. This will maintain the crease and result in a better drip shield.

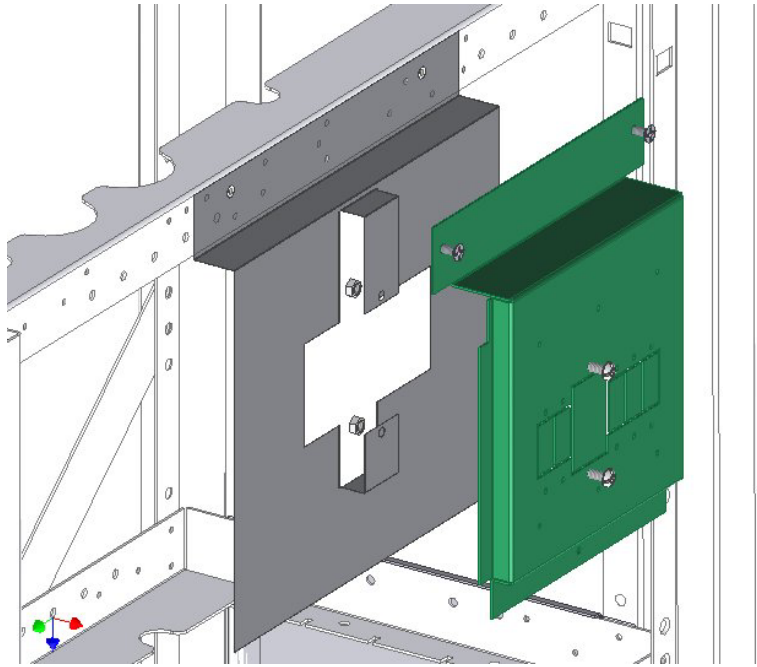


Figure 7

The next assembly step (figure 8) is to attach v groove gasketing to the vertical edges of all four thin panels. Pay attention to the orientation. Backwards installation of the V groove gasket will present quite a challenge when setting the vertical panels in place. The bend of the V groove gasket must be closest to the inside of the enclosure as shown.

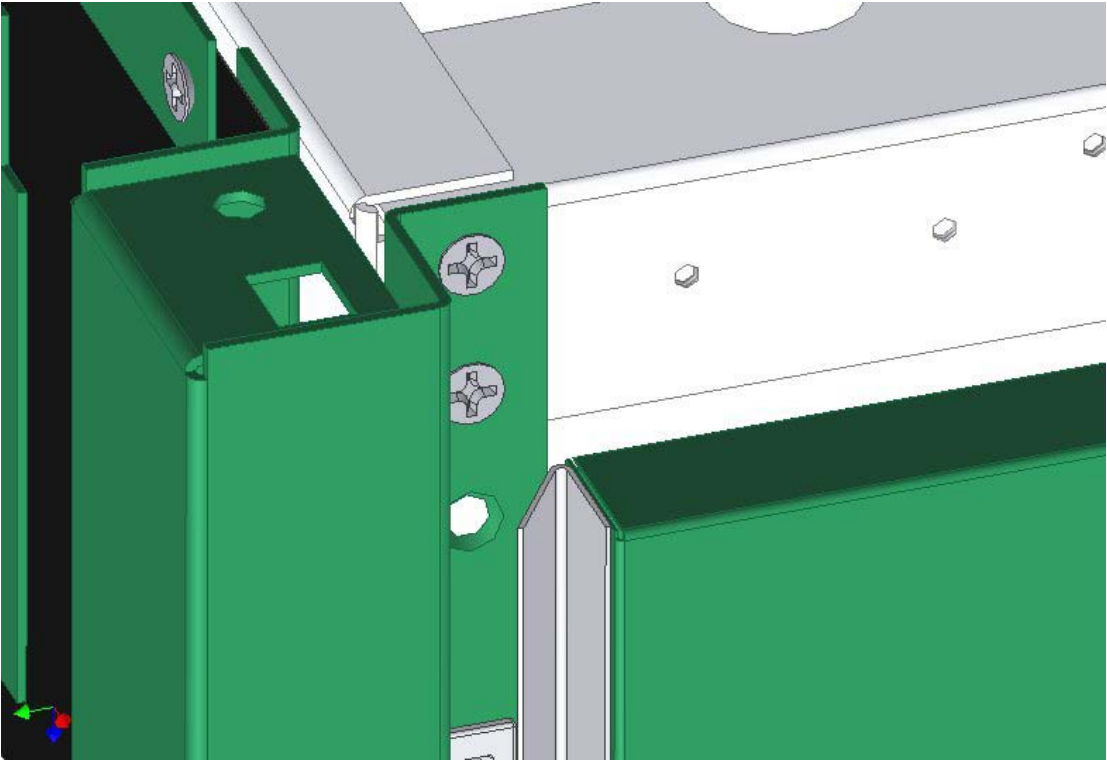


Figure 8

Install the rear panel and secure with the black #12 truss head screw from the PSR parts box. The PSR should now be positioned in its final location. If the Seismic mounting feet are to be used, now would be the time to install them.

All battery and or electronics installation should now happen. The sides must go on before the top, so installing and wiring of all internal components must be done now.

After wiring is complete, install both end panels and the front panel. Secure with more of the black truss head screws from the PSR parts box.

Figure 8 shows installation of the top cover. Prior Tapping should be done to facilitate installation of the 6mm x 40 mm top cover screws. Using a #3 phillips bit, thread the screws into their respective holes prior to installing top cover. Slip the 6mm x 40mm screws over the plastic screw caps and down through the top into the tapped holes. Tighten securely to seat the plastic to the aluminum top.

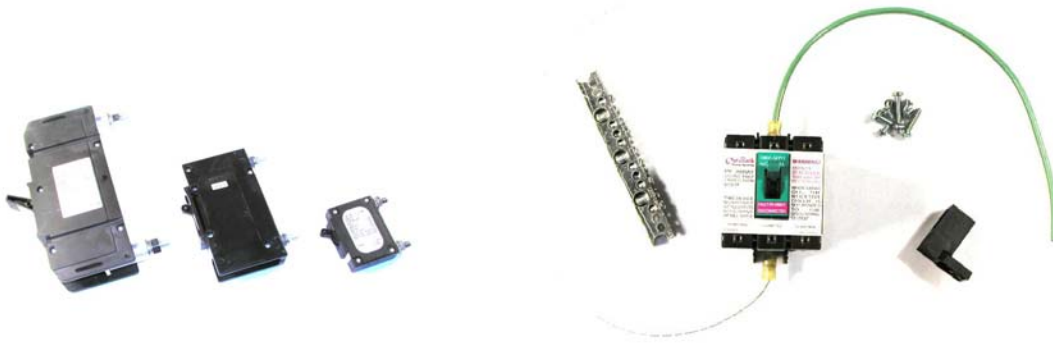
**Assembly is now complete.**

### **Field installed options for the PSR and PSR-3RK:**

- PSR-MMA** Adapter plate for the AEI Multi Mode Inverter
- PSR-SK** Shelf Kit allows for a third row of sealed batteries such as group 31.
- PSR-SZ4** Seismic Zone 4 kit. Includes two mounting feet and 12 battery hold down straps.
- PSR-HDT** Heavy Duty Top. Allows mounting of an SW with conduit box and RV power products charge controllers to mount on top of the PSR. (Indoor only)
- PSR-SCT** Spill Containment Tray. Holds 4 group 31, T105 or L16 batteries. Fits on one PSR shelf. Molded polyethylene.
- PSR-MP** Mounting plate for PSR. Attaches to the inside back of the PSR to allow mounting of electrical components.

**DC Overcurrent Protection:** The PSR breaker bracket will accommodate up to 5 of the ¾” wide breakers or one DC-GFP/2 and two PV disconnect breakers and one large 175 or 250 amp inverter / battery disconnect breaker.

- OBDC-250** DC breaker 250 amp 125VDC with 3/8” stud terminals
- OBDC-175** DC breaker 175 amp 125VDC with 3/8” stud terminals
- OBDC-GFP/2** DC Ground Fault Protection kit. For one or two PV arrays. Dual 60 amp PV circuits 125 VDC max Voc. Uses three small breaker spaces. ¼” stud terminals
- OBDC-60** DC breaker 60 amp 125 VDC with ¼” stud terminals (small ¾” width)
- OBDC-30** DC breaker 30 amp 125 VDC with ¼” stud terminals (small ¾” width)
- OBDC-15** DC breaker 15 amp 125 VDC with ¼” stud terminals (small ¾” width)



Breakers

OBDC-GFP/2



PSR-3R with Multi Mode inverter

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