

TYPICAL APPLICATIONS

° POWER BACKUP FOR HOME OR OFFICE

OUTBACK INVERTERS AND INVERTER SYSTEMS ARE BEING USED THROUGHOUT THE WORLD FOR POWER BACKUP WHERE POWER QUALITY IS UNRELIABLE. MANY COUNTRIES HAVE POWER FOR ONLY A PART OF EACH DAY. THE PEOPLE IN THESE COUNTRIES COMMONLY HAVE INVERTER SYSTEMS. IN THESE REGIONS OF THE WORLD, THIS TYPE OF SYSTEM IS AS COMMON AS ANY OTHER APPLIANCE. IT IS THEIR WAY OF LIFE. POWER OUTAGES IN AMERICA ARE BECOMING MORE COMMON TOO.

° OFF-GRID RESIDENTIAL POWER SYSTEM

OFF-GRID APPLICATIONS ARE SIMILAR TO POWER BACKUP, BUT GO A COUPLE STEPS FURTHER. THIS APPLICATION IS CALLED RENEWABLE OR ALTERNATIVE ENERGY. LAND IS USUALLY LESS EXPENSIVE WHERE POWER LINES DON'T EXIST. THESE INSTALLATIONS USE SOLAR ENERGY, HYDRO SYSTEMS, WIND GENERATORS AND GENERATORS TO PUT THE CHARGE INTO THE BATTERY BANK. THE OUTBACK INVERTER/CHARGER FACILITATES CHARGING BATTERIES FROM A GENERATOR. EACH INVERTER HAS A VERY POWERFUL BUILT IN CHARGER. WHEN THE FX OR VFX INVERTER IS NOT CHARGING, IT IS POWERING THE RESIDENCE. THE PS2 SYSTEM ACCOMMODATES UP TO TWO INVERTERS FOR 120/240VAC. OTHER OUTBACK SYSTEMS CAN ACCOMMODATE UP TO TEN OUTBACK INVERTERS FOR A MAXIMUM OF 36,000 WATTS OF CONTINUOUS AC POWER.

° GRID-TIE SYSTEM WITH BATTERY BACKUP

UP UNTIL NOW THERE HASN'T BEEN AN EFFICIENT BATTERY BACKED UP GRID-TIE INVERTER SYSTEM. WE AT OUTBACK ARE VERY FAMILIAR WITH THE OLD TECHNOLOGY SYSTEM THAT HAS BEEN AROUND FOR YEARS. WE SET OUT TO CORRECT EACH AND EVERY SHORTCOMING OF THAT SYSTEM. THE GTFX AND GVFX INVERTER/CHARGERS COUPLED WITH THE PS2 SYSTEM AND OUR PSR BATTERY RACK PROVIDE THE ABSOLUTE BEST PERFORMING BATTERY BACKED UP GRID TIE SYSTEM FOR NORTH AMERICA AND ABROAD.

- NO NIGHTTIME POWER DRAW FROM THE GRID, NONE!
- COORDINATED MPPT CONTROL WITH THE MX60 DURING SELL-BACK
- DISTORTION HAS BEEN REDUCED THUS NOT REQUIRING ANY EXTERNAL FILTER
- BATTERY LIFE SHOULD BE TEN YEARS WITH OUR PROPRIETARY ALGORITHMS
- OUR SYSTEM IS SO NOVEL AND NEW, WE HAVE APPLIED FOR TWO PATENTS
- EFFICIENCY OF THE INVERTER COMPARABLE TO BATTERY-LESS INVERTERS
- EFFICIENCY OF THE OVERALL SYSTEM CLOSE TO BATTERY-LESS INVERTERS

AN UNSOLICITED LETTER FROM AN EXPERIENCED INSTALLER:

Yesterday I installed a system built around the PS2 frame, and i just wanted to pass on my compliments. I've assembled a lot of systems, and I've figured out a lot of ways to work quickly around some of the niggling oddities of various components of different manufactures.

The PS2 was the first time I've ever felt a manufacturer had designed an actual SYSTEM of components constructed to work together efficiently, effectively and affordable. Every thing came out of the box and assembled smoothly and cleanly, although I would like to have a few 1/2" KO options on the right side of the enclosure to make it easier to install small runs for meters and Delta surge suppressors. (They have now been added)

I'm impressed that I was able to assemble the entire board without having to have an electrical supply house stocked on the truck. No additional offsets, bushings and grounding bushings all the small parts that don't show up in the retail box price, but are necessary to complete the installation. Not having to remember to take apart certain components to rearrange and add jumper wires before bolting the box to the wall.

In short, I'm really impressed. Nice work guys.

Phil Undercuffer
Positive Energy

HAVE IT YOUR WAY

° ASSEMBLE IT YOURSELF

For those do-it-yourselfers that feel confident, instructions are provided that will assist in the task. Installation instructions for the PS2AC and DC are available on the web for downloading at www.outbackpower.com. Call or E-mail for a CD slide show of an actual installation showing step by step assembly.

° HAVE YOUR INSTALLER ASSEMBLE IT

OutBack supports the professional Renewable Energy Installers around the world. These systems can become quite complicated. These professionals can supply you with the parts and labor to insure a successful renewable energy system. They also are there to answer questions as they arise.

° PURCHASE IT FULLY ASSEMBLED

This is our favorite choice. The OutBack Integrating Partners are fully qualified to customize your OutBack system, large or small. Check the OutBack website for a list of ETL listed Integrating Partners. Then have it installed by a professional.

Postage

OutBack
Power Systems

OutBack
Power Systems

PS2 System and Components



www.outbackpower.com

Typical 4.00kw-7.2kw, 120/240VAC, 60Hz PS2 Power System

- The PS2 saves time, money and space by combining the disconnects, overcurrent protection devices, grounding and control components into these easy to install enclosures.

- A very powerful system in a small space.

- Redundancy in the two inverter design.

- Series and Parallel at the same time
Get the power of both inverters at 120VAC or at 240VAC as the loads demand - an OutBack exclusive

- No extra conduit fittings to clutter your wall

- PS2DC has the following features:
Room for 2 battery breakers (1 included)
Room for 8 DC breakers (1-70 amp)
500 amp 50mV shunt standard
Knockouts located where they are needed
Battery negative/ground bus bar standard
Battery positive bus bar standard
Mounting brackets for MX60 and MATE
Mounting for a 120mm square fan(DC12-Fan)
Grommets included for MATE and MX60

- PS2AC has the following features
Dual 50 amp input/output bypass assembly
Dual 50 amp breaker for inverter AC input
One 20 amp AC breaker
One 15 amp AC breaker
Room for 8 additional AC load breakers
Ground terminal bus bar bonded to cabinet
One insulated white neutral bus bar
Two insulated black Leg 1 AC bus bars
Two insulated red Leg 2 AC bus bars
Provisions for mounting the X-240 xfmr

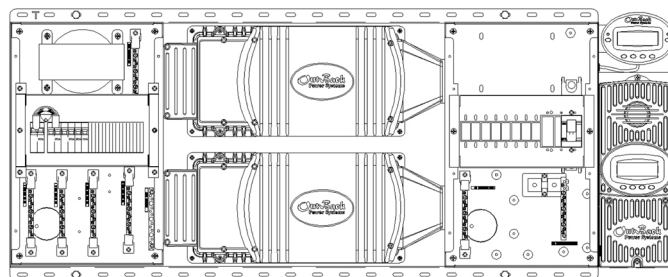
- Mounting for a HUB4 or HUB10

- PS2MP mounting plate pre punched for mounting all components shown and comes with all hardware to mount them

- Battery conduit knockouts line up with the OutBack PSR battery rack for a clean install

- The complete PS2 system guarantees a WOW from the in-laws and neighbors

OUTBACK HALF RACK BILL OF MATERIALS



THE FOLLOWING ARE MINIMUM REQUIREMENTS. ADDITIONAL OUTBACK EQUIPMENT MAY BE NEEDED TO FINISH ANY PARTICULAR SYSTEM

48VDC - 120/240VAC, 7.2KW, GRID-TIE OR OFF-GRID SYSTEM

QTY 1 PS2MP MOUNTING PLATE WITH HARDWARE TO MOUNT INVERTERS AND BREAKER BOXES
QTY 1 PS2DC-175 DC BREAKER BOX WITH 175 AMP CIRCUIT BREAKER
QTY 1 OBDC-175 FOR SECOND GVFX3648 (INVERTER BATTERY BREAKER)
QTY 1 PS2AC50D AC BREAKER BOX
QTY 2 GVFX3648 GRID INTERTIE BATTERY BACKED UP INVERTER / CHARGER
QTY 2 FXA KITS - KIT INCLUDES 1 DCC, 1 DCA AND 1 ACA ADAPTERS AND COVERS
QTY 1 X-240 AUTOFORMER FOR PARALLELING 2 INVERTERS WHILE ALSO STACKED IN SERIES
QTY 1 MX60 MPPT SOLAR CHARGE CONTROLLER (70 AMP MAX DC OUTPUT/140VDC MAX INPUT)
QTY 1 MATE SYSTEM CONTROLLER AND PROGRAMMER
QTY 1 HUB4 COMMUNICATIONS NETWORK HUB
QTY 1 RTS (REMOTE TEMP SENSOR) FOR THE ENTIRE SYSTEM

24VDC - 120VAC, 2.5KW, GRID-TIE OR OFF-GRID SYSTEM

QTY 1 PS2MP MOUNTING PLATE WITH HARDWARE TO MOUNT INVERTERS AND BREAKER BOXES
QTY 1 PS2DC-175 DC BREAKER BOX WITH 175 AMP CIRCUIT BREAKER
QTY 1 OBDC-175 FOR SECOND GVFX3648 (INVERTER BATTERY BREAKER)
QTY 1 PS2AC50D AC BREAKER BOX
QTY 1 GTFX2524 GRID INTERTIE BATTERY BACKED UP INVERTER / CHARGER
QTY 1 FX-ACA AC ADAPTER
QTY 1 FX-DCA AC ADAPTER
QTY 1 MX60 MPPT SOLAR CHARGE CONTROLLER (70 AMP MAX DC OUTPUT/140VDC MAX INPUT)
QTY 1 MATE SYSTEM CONTROLLER AND PROGRAMMER
QTY 1 HUB4 COMMUNICATIONS NETWORK HUB
QTY 1 RTS (REMOTE TEMP SENSOR) FOR THE ENTIRE SYSTEM

GRID-TIE SYSTEM WITH MODEST AMOUNT OF BATTERY BACKUP

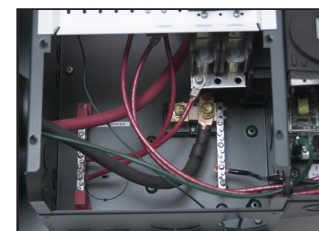
PSR SHOWN BELOW THE HALF RACK HOLDS A VARIETY OF BATTERY TYPES

MOUNTING FEET AND BATTERY HOLD DOWN STRAPS ARE AVAILABLE

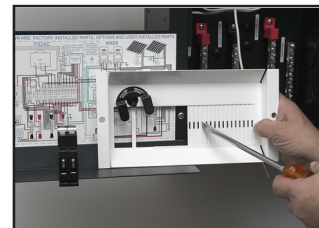
PSR CABINETS CAN BE STACKED END TO END



SYSTEM COMPONENTS SHOWN IN VARIOUS STAGES OF COMPLETION - STEP BY STEP INSTRUCTIONS INCLUDED WITH EACH PRODUCT



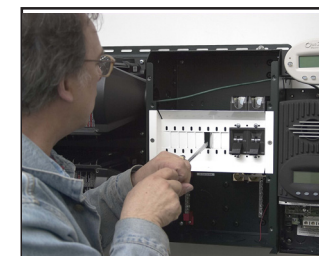
PS2DC175 WIRING



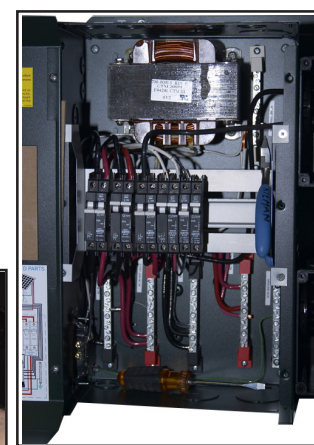
PS2AC50D BREAKER KNOCKOUTS



CUTTING OUT THE FX-ACA



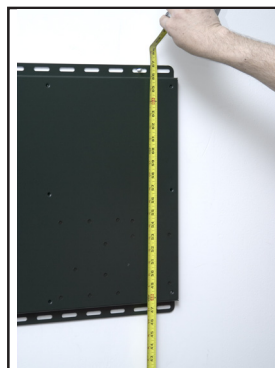
PS2DC175 BREAKER KNOCKOUTS



PS2AC50D WITH X-240



BUSHINGS ARE INCLUDED



MEASURING FOR PS2MP



GVFX INVERTER



GTFX SEALED INVERTER TURBO INCLUDED