GENERAL SAFETY INSTALLATION GUIDE



WARNING: PLEASE READ THIS BEFORE INSTALLING ANY INVERTER. IMPROPER USE OR INSTALLATION OF INVERTER THAT RESULTS IN DAMAGE WILL NOT BE COVERED UNDER PRODUCT WARRANTY.

- 1. Before using the unit, be sure to read all instructions and cautionary markings on the unit as well as all appropriate sections of the product user manual.
- 2. CAUTION Only perform installation of inverter by a qualified or experienced personnel.
- 3. CAUTION: per default design, deep-cycle lead acid type rechargeable batteries are recommended on all MPP Solar inverters. Lithium types or other Lithium-variants are acceptable only if support to such batteries are specifically stated in the product user manual, or their charging parameters have been verified to be compatible with inverter's program range. Users should refrain from using any other types of batteries, especially those that are DIY or custom-made, as use of incompatible batteries could burst, causing personal injury and damage. Any risk or damage resulting from attempts to use MPP Solar inverters with incompatible batteries will be assumed by the user.
- 3. Do not disassemble the unit. Any disassembly must be authorized by MPP Solar in advance and proper procedures must be followed in accordance to SOP procedure supplied. If unable to perform disassembly then the product should be taken to a qualified service center. Incorrect re-assembly may result in a risk of electric shock or fire.
- 4. To reduce risk of electric shock, disconnect all wirings before attempting any maintenance or cleaning. Turning off the unit will not reduce this risk.
- 5. NEVER charge a frozen battery.
- 6. For optimum operation of this inverter/charger, please follow required spec to select appropriate cable/wire and OCPD (overcurrent protective devices) sizes. Improper selection of these system components may lead to system hazard and personal injury!
- 7. Be very cautious when working with metal tools on or around batteries. A potential risk exists when a dropped tool on battery can lead to sparks, fire, or explosion.
- 8. Strictly follow proper installation procedure when you want to disconnect AC or DC terminals. Please refer to INSTALLATION section of this manual for the details.



- 9. CAUTION when shutting down unit completely, be sure to first switch off the inverter's ON/OFF output switch first, <u>BEFORE</u> disconnecting utility, battery, or PV input supply.
- 10. On select models, a spare battery fuse is provided as over-current protection for the battery supply. Regardless, users must verify correct polarity when when installing batteries.
- 11. GROUNDING INSTRUCTIONS -This inverter/charger should be connected to a permanent grounded wiring system. Compliance with local safety laws and regulation when install this inverter is crucial.
- 12. NEVER short circuit AC and DC input and output together. Do NOT connect to the mains when there is a short circuit at the DC input terminal.
- 13. WARNING: Only qualified service persons are allowed to service this device. If errors still persist after following troubleshooting guide, it is advisable to send the inverter/charger back to local dealer or original service center for maintenance.
- 14. WARNING: for HIGH PV input design inverters, input terminals are non-isolated and only three types of PV modules are acceptable: single crystalline, poly crystalline with class A-rated and CIGS modules. To avoid any malfunction, do NOT connect any grounding-required PV modules (positively grounded or negatively grounded) as they will cause leakage current and this creates a risk of electrocution. Most solar panels do not require grounding from either polarity. Grounding from PV panel frame is acceptable.
- 15. CAUTION: It's required to use PV junction box with surge protection. Otherwise, it will cause damage on inverter when lightning strikes PV modules
- 16. WARNING: when operating non-isolated, high PV input design inverters it is important to ensure that the unit is completely shut down when connecting any power sources to the inverter (utility, battery, and PV). Failure to do so may result in damage and will not be covered under product warranty!

