



TECH BULLETIN

TECH BULLETIN NUMBER      TB0148

PCR                                      04082008

SUBJECT                                MS2812 Software Version  
3.7

MODELS AFFECTED                MS2812

WARRANTY                             Not Applicable

Software / Other Description	
WAS:	IS:
Inverter Software	Inverter Software
version 3.4	version 3.7
Charger regulation	
Charger overshoots. i.e. The charge rate is set from 0 to 10%, charge amps increases up to 100% output before it normalizes.	Lower charger overshoot. i.e. When charge rate is set from 0 to 10%, charge amps increases to about 50% output before it normalizes.

<b>Inverter voltage regulation</b>	
Decreased the recovery time and improved the voltage regulation during large load changes.	
Output voltage recovery time from 10% to 80% load change is over one second.	Output voltage recovery time from 10% to 80% load change is about 0.4 second.
With 10% to 80% load change, inverter output voltage drops to about 60VAC.	With 10% to 80% load change, inverter output voltage drops to about 90VAC.
<b>Dead battery boot</b>	
In the dead battery boot, AC voltage is not qualified before closing the relay, so the charger can connect to high AC voltage.	AC voltage is qualified before closing the relay to make sure AC voltage is within high (about 145 VAC) and low (VAC Dropout) setting limits.
<b>Search watts sensitivity</b>	
Unit takes a long time to come out of search with a high SEARCH WATTS setting like 30 or 50 Watts (about 0.5 seconds at 50 Watts).	Search mode will sense the loads faster on each setting ( $\leq 0.2$ Seconds at 50W).
5W search setting is different with remote than without the remote.	5W search setting same with or without the remote.

<b>Battery size</b>	
Absorption time is not defined for battery sizes larger than 1600 Ahrs.	Absorption time is defined for battery sizes up to 5000 Ahrs.
<b>INTERNAL FAULT -1 (BRIDGE FAULT)</b>	
Fault counter for "INTERNAL FAULT" never resets. It can accumulate over a long time and present a fault when it accumulates to the 50 <sup>th</sup> event.	"INTERNAL FAULT" error counter decreases the number of events when conditions are normal.
<b>Charger response to ambient temperature</b>	
Charger dials back to 50% when ambient temperature is above 45°C	Charger dials back to 50% when ambient temperature is above 45°C <u>and</u> FET's are hotter than 75°C.
<b>Shore amp setting</b>	
With SHORE setting at 30 Amp or higher, unit will regulate to 25 Amp setting.	The unit correctly regulates to the SHORE amps setting.
<b>Random inverter shutdowns</b>	
Communication bytes from remote are not validated before being executed.	Inverter validates the packet length (16 bits) before information is executed.

<b>Custom voltage</b>	
Inverter does not execute the custom EQ voltage request from the remote.	Inverter can accept and execute EQ voltage requests from the remote.
Maximum custom absorption voltage is 15.9 volts, above this it defaults to 14.5V	Maximum custom absorption voltage is 16.0 VDC
<b>Inverter/Charger ammeter readings</b>	
DC ammeter is sometimes unreasonably inaccurate.	Recalibrated inverter/charger ammeter for better accuracy.
<b>Backfeed fault</b>	
Backfeed fault allowed.	Removed backfeed fault.  A legitimate backfeed would present as an AC OVERLOAD.