



TECH BULLETIN

TECH BULLETIN NUMBER	0123
PCR	Oct 24-06 MS4024 SW2.3
SUBJECT	MS Control Board Change
MODELS AFFECTED	MS4024
REPAIR PROCEDURE	N/A
WARRANTY	Non-warranty Item

Was: v2.1	Is: v2.3	Implication:
Charger tended to oscillate with Temp and other chargers on the same battery bank	PID Charger that can change charger Voltage and Current independently.	The charger is more stable and doesn't oscillate even with other sources.
	Soft-start was improved	Better performance starting motors, but was not changed in a stacked pair of inverters.
FET Overload in charger mode caused the relay to disengage	FET Overload in charge mode now leaves the inverter in charger mode	The inverter will stay connected to the source
Maximum timer before reporting a Backfeed = .8 Sec	Maximum timer before reporting a Backfeed = 10 Sec	Inverter doesn't report false Backfeed Faults
Backfeed Voltage $\geq 75\text{VAC}$	Backfeed Voltage $\geq 90\text{VAC}$	Inverter doesn't report false Backfeed Faults
if the inverter was in search when the it started charging the inverter would go back into search mode when finished	If the inverter was in search mode when it started to charge it will go into inverter mode before going into search	This makes for a more stable state of the inverter. Before it would display stack errors, unnecessarily produce arcs between the relay contacts or cause interruptions in power
Charger LED on the remote would blink at the same rate for all faults/warnings	Charger LED on the remote blinks: <ul style="list-style-type: none"> • High Temps – Faster than once per Second • Low VAC – once every two Seconds • Overcurrent – Once every fourth Second 	Easier to determine what problem, if any, the charger is facing.
Charge Rate reduced below 90VAC	Charge rate reduced $<90\text{VAC}$ or (VDropout +5V)	