

SYMPTOM / ISSUE:

Premature failure of the onboard battery charger.

Defective charger could cause the machine not working since the electronic battery discharge voltage cut off is controlled by the charger.

CAUSE:

- 1) In particular circumstances the parameters stored in the charger EPROM could be lost so the charger reset his memory.

PRODUCTION CORRECTIVE ACTIONS:

- 1) Update of the firmware.

Additional improvements:

- 2) Onboard charger revision in order to meet new certification requirements - CE, UL, PSE.
- 3) Extended burn-in time at SPE end of line.
- 4) Improvement of the side panel surface in order to avoid premature rust and possibility to lost the IP protection.
- 5) Enhanced auxiliary relais test at SPE end of line.
- 6) Added warning decal to advise that charger is normally getting hot in charging mode.
- 7) Assy line training and enhanced verification of the level of charge of the batteries in stock.



* **Technical Service Bulletin Levels:**

Level 1: These Bulletins contain general information

Level 2: These Bulletins describe continuous quality improvements that are made to products

Level 3: These Bulletins describe a quality problem that has been determined to require a mandatory update to the product. Specific warranty coverage is as noted in Bulletin.

LIST OF THE MACHINES IMPROVED:

Nilfisk SC350/351 – Advance SC350/351
ALTO SCRUBTEC 337/337.2 – Clarke Vantage 14

SOLUTION IMPLEMENTATION DATE and / or SERIAL NUMBER:

First production machine with implemented changes: 3510131906529 (June 2013)

SPARE PARTS:

Replace the existing charger PN 9098188000 with the new

| New Part Nr.: | Descr. |
|----------------------|-------------------------------|
| 9099793000 | BATTERY CHARGER 12V 12A (EU) |
| 9099794000 | BATTERY CHARGER 12V 12A (US) |
| 9099795000 | BATTERY CHARGER 12V 12A (JAP) |

FIELD CORRECTIVE ACTIONS:

Interchangeability guarantee;

The charger is the same SPE- MODEL CBHD2 12V 12A and same POWER SUPPLY universal input 100-240 V $\pm 10\%$, 50-60 Hz but the charger has now different configuration to comply the specific country regulations.