Protection features of Prolock II

The new Prolock II, provides a wide range of new protections which should prevent the following failures:

- -) Motor Overcurrent protection
- -) Load side short circuit protection
- -) Undervoltage protection
- -) Accustic Undervoltage alarm

New is the enhanced protection on the charger input side, like:

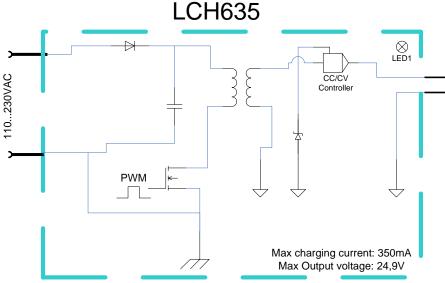
-) Protected against wrong polarity

Testcircuit

-) Protected against short circuit on the charger input

-) Protected against discharging in case of a charger is not connected to the mains supply

-) Protected against overvoltage on the charger input side



Note: LED Function:

LED1 Red : Accupack is in charging-process in constant current mode; 350mA
LED1 Green : Accupack is charged and reached maximum Output voltage 24,9V
LED1 Red blinking: Charger indicates a short circuit at it's output or an overcurrent occured

Prolock II For standby power test Beep ← Beep ЗА 10A PTC Time delay 400mA PTC Handset 5k1 U1=X1>X2 Electronic Fuse DC-Motor 2k2 control (F1) Ref. Source U Lim=25.25V ON/OFF

Function of electronic fuse (F1):

- .) The fuse will shorten any voltage source connected to the charger input which has
- a output voltage higher then 25,25V
- .) In case of an overvoltage, the high current Thyristor TH1 is turned ON (conducting) and pulls down the voltage at P1
- .) D1 prevents that the batteries are discharged in that failure case
- .) In case of an overvoltage detection, the Led on LCH635 will light up (flashing)

Reset of F1:

- .) Disconnect the charger from Powerpack
- .) Wait 5sec and connect again

Note:

Which events can cause to trigger the electronic fuse:

- -) Overvoltage because of using a wrong charger
- -) Spikes caused by a defective contact
- -) Static discharging between user and electrical System