

Charger VRV 6 W User's manual



The charger VRV 6W is a professional charger for quick charge of up to 6 NiCd or NiMH batteries simultaneously, for handheld radios, such as HP 105, HP 106, HP 405, HP 406, MK 16+, HP 160 H, HP 446 and other compatible types.

During charging procedure, the charger controls the peak voltage $-dU$ as well as the temperature $\Delta T/\Delta t$. In case of charging batteries without temperature sensor, it automatically changes to $-dU$ peak voltage monitoring. Several security measures allow quick charge, whilst going easy on both batteries and radios. A security timer aborts the charging procedure after a maximum of 2 hours, in the case that all other security measures fail.

Charging procedure is effected in 3 stages:

Before insertion of either the radio or the batteries, a green LED shows that the charger is ready for use and in standby mode.

- After insertion of either batteries or radio in one of the empty charging compartments, first of all the charger will check the batteries. Afterwards the **quick charge** will be started with full charge current. **The red LED is on.** On achievement of the desired voltage and/or maximal temperature, the quick charge is automatically cut off. In general at this stage the batteries are charged for 90-95 %.
- During the subsequent **top-off period**, the remaining 5 - 10 % battery capacity is charged with minimized power. This stage will take approx. 1 hour. During this period you will see **the red LED flashing**. In the case that the charging procedure has been cut off before due to temperature control, quick charge might continue after the top-off period.
- **The last stage of the charging procedure consists in standby trickle charge**, which avoids self-discharge of the batteries, even if you leave them inside the charger for a long time.

It is recommended to turn off the radios during charging procedure. Not only because an active radio might cause acoustic or RF disturbances, but also because the security power control might have problems to monitor the correct charging termination.

The charger works with 230V/50Hz and disposes of an integrated safety control. The metal housing of the charger works as PE protection ground. It is intended for use in normal environment conditions, such as home, office or industrial environment. Inside the charger are no adjustment possibilities, therefore it should only be opened by a specialized technician for reparation duties, after having cut off the power connection.

Technical specifications:

Power supply:	230 V \pm 10% @ 50 Hz
Power consumption:	100 VA max.
Operation temperature:	-20 to 40°C
Bucket type:	available specifically for the type of device to be charged (in this case for ALAN)
Battery types:	NiCd or NiMH 7,2V
Quick charge power:	0,9A
Charge termination:	-dU(-0.25%) or dT/dt (if thermo sensor available in the Battery compartment)
Top-off mode power	115mA
Backup trickle mode	pulsating charge about 50 mA (avoiding self-discharge)
Voltage monitoring:	1.8V to 11.7V
Temperature monitoring:	10°C to 50°C
Time-out security control:	120 min
LED indication:	
Charger turned on	green LED on
Quick charge	red LED on
Backup trickle mode, battery fully charged	red LED off
Top-off period or charging procedure has been cut off due to safety control	red LED flashing

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