

Rechargeable battery discharge device for discharging rechargeable batteries, and method for discharging a plurality of rechargeable batteries

Abstract

5 The invention relates to a rechargeable battery discharge device (10) for discharging rechargeable batteries (20) with (a) a first rechargeable battery connection (12.1) for connecting a first rechargeable battery (20.1), (b) a second rechargeable battery connection (12.2) for connecting a second rechargeable battery (20.2), (c) at least a
10 third rechargeable battery connection (12.3) for connecting a third rechargeable battery (20.3) and (d) a load connection (14) for a load (16) for dissipating an electric output during discharging of the rechargeable batteries (20). The invention provides for (e) a discharge circuit (18) comprising (i) a first short circuit switch (24.1), (ii) a first voltmeter (22.1) that is arranged to measure a first rechargeable battery voltage
15 ($U_{20.1}$) dropped across the first rechargeable battery connection (12.1), (iii) a second short circuit switch (24.2), (iv) a second voltmeter (22.2) that is arranged to measure a second rechargeable battery voltage ($U_{20.2}$) dropped across the second rechargeable battery connection (12.2), (v) a third short circuit switch (24.3), (vi) a third voltmeter (22.3) that is arranged to measure a third rechargeable battery voltage
20 ($U_{20.3}$) dropped across the third rechargeable battery connection (12.3), and (vii) a control unit (27), the control unit (27) being designed to automatically carry out a method comprising the steps: (i) for all voltmeters (22.i), detecting the respective rechargeable battery voltage ($U_{20.i}$), (ii) when the respective rechargeable battery voltage ($U_{20.i}$) exceeds a predetermined minimum voltage (U_{min}), connecting the
25 corresponding rechargeable battery (20.i) into a series circuit with at least one other rechargeable battery and (iii) when the respective rechargeable battery voltage ($U_{20.i}$) does not exceed a minimum voltage (U_{min}), removing the corresponding rechargeable battery (20.i) from the series circuit by means of the corresponding short circuit switch.

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Figure 1