01 dicodes 2380 / dicodes 2380T

The dicodes 2380 is an electronically controlled MOD to be used with various atomizers of different sizes and diameter. It is prepared to use one or two stacked batteries (18350/18500/18650 batteries). The name 2380 stands for 23mm diameter and up to 80W power. The headpiece has a slightly bigger diameter ring so that any atomizer in the range 20 to 23mm optically fits perfect onto the device. The dicodes 2380 can provide temperature controlled vaping with many different kinds of wire-materials (dicodes-wire, nickel, titan, appr. stainless steel, and others). We recommend the dicodes-wire for optimal performance and unique liquid flavor.

The product is offered in two versions
a) with different length tube pieces to have one 18350 or 18500 or 18650 battery or two stacked batteries of (2x) 18350 or (2x) 18500 (2x 18650 is possible by using a separately offered extension tube)
b) as a telescope version dicodes 2380T with additional tube pieces

02 Features

- 5 to 40W with one Li-lon battery
- 5 to 80W with two Li-lon batteries
- Adjustable battery discharge level (2.5-3V and 6.2-6.8V)
- Up to 12V output voltage (one or two batteries)
- Up to 15A output current
- Temperature controlled vaping mode with various wire-types
- Mechanical MOD mode (protected)
- 10 Power boost modes
- 10 Heater protection modes
- Atomizer resistance range 0.05 to 5 Ohms, total
- Atomizer resistance 0.2-3.5 Ohms (40W), 0.4-1.7 Ohms (80W)
- Reverse battery protection
- Versatile menu structure
- Individual user preferences selection
- spring loaded center pin
- 2Year warranty on electronic
The MOD is equipped with a graphical OLED display which provides all important informations about the status for 4 seconds after each vape.

Temperature controlled mode:
Temperature at the end of vape
Other modes: battery symbol

Battery-voltage at the end of the vape, including voltage drop during vape.

Wattage setting
In Direct-Mode (Bypass) it shows the actual power applied to the coil.

Coil-Resistance at end of vape, including temperature dependent increase.

If temperature controlled vaping is activated:

**Temperature Up**
**Temperature Down**
**Temperature Calibration**
**Coil Resistance**
**Coil Temp.**

(*1) not displayed in Bypass-Mode
(*2) with low (no) current (Ub0) and high current load (UbL)

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04 Menu Overview

03 Display Operation

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Coil-Resistance at end of vape, including temperature dependent increase.

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**Main Menu**

- Power Up (*1)
- Power Down (*1)
- Power Control
- Check Battery (*2)
- Switch Off Device
- Enter Extended Functions Menu
- Errors

**Extended Functions Menu**

- Heater Menu
  - Temp.-Coefficient Up
  - Temp.-Coefficient Down
  - Power Limit
  - Heater Protection Setting
  - Power Boost Setting

- Mod-Menu
  - Battery Discharge Level
  - Display Luminosity
  - Switch Off Time
  - Power On Clicks
  - Menu On Clicks
  - Click Speed
  - Half Wattage
  - Temperature Unit (°C/F)
  - Automatic Calibration on/off
  - Stacking Control
  - Display Orientation
  - Expert Mode
  - (Re)set to Defaults

- Value Menu
  - Number of Puffs
  - Vaping Time
  - Energy (Joule=Ws)
  - Battery Capacitance
  - Reset Counters
  - Total Lifetime Puffs
  - Total Lifetime Vaping
Power Up and Power Down

Power Up increases the power to the Power-Limit value and then rolls over to 5W. Power Down decreases the power down to 5W and then rolls over to the Power-Limit value. The Power-Limit value is adjusted in the Extended Functions Sub-Menu “Heater” and provides a protection feature for atomizers which are not prepared for high wattage or to reduce the power range intentionally.

Temperature Up and Temperature Down

This Menu items are only displayed if temperature controlled vaping is selected (see Heater-Control menu item below). The Temperature Up/Down menu sets the setpoint for the coil temperature during vaping. The temperature setpoint can be selected from 120°C to 280°C (250°F - 540°F) in steps of 5°C (10°F). To have high precision temperature control, a correct reference measurement is mandatory. Refer to manual for further details.

Manual Coil Temperature Calibration (*1)

This Menu item is only displayed if temperature controlled vaping is selected (see Heater-Control menu item below). The Temperature calibration measures the cold (20°C) coil resistance as the reference for temperature controlled vaping. The calibration must be confirmed in a second step to avoid accidental activation.

Coil Resistance and Coil Temperature

This is a display only menu item. The coil resistance is displayed in a range from 0.0 to 9.90 Ohms. If temperature controlled vaping is selected, the current measured coil temperature is also displayed.

Battery Status

The Check Battery item shows the battery voltage with little current drained (Ub0) and the battery voltage under load at the end of the last puff (UbL). The difference is the voltage drop of the battery. A high drop indicates a poor battery or contact problems.

Heater Control

The mod can be used in up to 5 operation modes. The default operation is either standard (0, power setting) or temperature controlled vaping (1). With the “Expert Mode” (Extended Functions Menu) enabled, additional operation modes are Heater Protection (2), Power Boost (3), and Bypass (4, mechanical mod). With Expert Mode disabled, the menu options 2..4 are masked out.

Switch Off Device

Beside the Auto-Power-Off feature, the user can actively switch off the device. It is recommended to switch the device off, before the battery is replaced, because then the statistic counters are saved. Otherwise the changes since the last power up are lost.

Extended Functions Menu

The Extended Functions Menu provides three logically grouped sub-menues:

- Heater Menu ➔ Settings related to the heater or coil
- Mod Menu ➔ Settings related to the individual usage and appearance
- Value Menu ➔ Provides several statistics of vaping

Error Messages

If an error occurs, the mod directly jumps to the error menu and displays the error number and a mnemonic (short-term) description. Important Errors are (for further information, please refer to manual):

1. ChkAtom: No atomizer detected or open coil.
2. TempRef: A problem during the temperature reference measurement occurred.
3. OverCur: Short on coil or coil breakdown (open).

(*1) This measurement is important for temperature controlled vaping. Make sure, that the coil has cooled down before performing the reference measurement. Otherwise the temperature display and control will have an offset. E.g.: If done at 40°C coil temperature the actual temperature will be 240°C instead of selected 220°C).
### 06 Extended Functions Menu

<table>
<thead>
<tr>
<th><strong>Extend. Funct.</strong> (*)4</th>
<th><strong>Heater Menu</strong></th>
<th><strong>Mod Menu</strong></th>
<th><strong>Value Menu</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Temp. Coff+320</strong></td>
<td>Increase wire temperature coefficient (<em>1)</em>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Temp. Coff+320</strong></td>
<td>Decrease wire temperature coefficient (<em>1)</em>*</td>
<td></td>
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<tr>
<td><strong>Power Lim 80W</strong></td>
<td>Set Power Limit (40Wmax single 80Wmax dual Bat.)</td>
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<tr>
<td><strong>Heater Prot 2</strong></td>
<td>Select heater protection mode (1..10)**</td>
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<tr>
<td><strong>Power Boost 1</strong></td>
<td>Select power boost mode (1..10)**</td>
<td></td>
<td></td>
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<tr>
<td><strong>UbatMin 2.6V</strong></td>
<td>Set the minimum bat discharge level (2.5..3V single 6.2..6.8V dual battery)**</td>
<td></td>
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</tr>
<tr>
<td><strong>Lumen 4</strong></td>
<td>Set display luminosity (1 low to 4 high brightness)**</td>
<td></td>
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<tr>
<td><strong>SwOff Time 30</strong></td>
<td>Select auto power off time (1-2-5-10-15-20-30-60 minutes)**</td>
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</tr>
<tr>
<td><strong>On Click 0</strong></td>
<td>Select number of clicks to switch on mod (0..5): 0 =&gt; immediate vape</td>
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<tr>
<td><strong>MenuOn Click 1</strong></td>
<td>Select number of clicks to get into the menu (1..5)**</td>
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</tr>
<tr>
<td><strong>Click Speed 3</strong></td>
<td>Speed for button usage (1 fast..5 slow)** (<em>2)</em>*</td>
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</tr>
<tr>
<td><strong>Half Watt 1</strong></td>
<td>Select wattage steps 1W/0.5W (&lt;20W) and 2W/1W (20-40W) 5W/2.5W (&gt;40W)**</td>
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<td></td>
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<tr>
<td><strong>Temp. Unit °C</strong></td>
<td>Selects temperature unit either °Celsius or °Fahrenheit**</td>
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<tr>
<td><strong>Auto Cal 1</strong></td>
<td>Enables automatic temperature calibration when set to 1. (<em>3)</em>*</td>
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</tr>
<tr>
<td><strong>Stack Ctrl 0</strong></td>
<td>Select number of batteries: 0 automatic, 1 single, 2 dual battery</td>
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<tr>
<td><strong>Display Dir R</strong></td>
<td>Select display orientation between Left and Right (handed)**</td>
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<tr>
<td><strong>Expert Mode 1</strong></td>
<td>Select Expert mode to enable power boost, heater protection and bypass mode.</td>
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<tr>
<td><strong>SetDef Init</strong></td>
<td>Switch back all settings to factory defaults (refer to manual)**</td>
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<tr>
<td><strong>Cycles 5432</strong></td>
<td>Counts the number of puffs since last counter reset**</td>
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<tr>
<td><strong>Time 1:23:34</strong></td>
<td>Displays pure vaping time in H:MM:SS since last counter reset**</td>
<td></td>
<td></td>
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<tr>
<td><strong>Energy 7435J</strong></td>
<td>Energy taken from battery during vaping since last counter reset**</td>
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<tr>
<td><strong>BatCap 1796Ah</strong></td>
<td>Displays battery capacitance since last counter reset (can show battery quality)**</td>
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<tr>
<td><strong>Reset Cntr 0</strong></td>
<td>Reset the counters above**</td>
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<tr>
<td><strong>TotCycl 25626</strong></td>
<td>Total lifetime puffs of mod. Not resettable**</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TotTime 27:54</strong></td>
<td>Total lifetime vaping time of mod in HHHH:MM Not resettable**</td>
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</tbody>
</table>

(*1) The temperature coefficient selects the type of wire material, range 100 to 650: 320=dicodes-wire, 620=Ni**le, about 105=Stainless Steel, 520=Titanium, 480=Tungsten (Wolfram) (Value= Literature-value*10E5 K)

(*2) Setting 1 (fastest) as 2 but without animation (visual shift effect), setting 5 (slowest) as 4, but without auto-repeat.

(*3) Autocalibration is performed, when MOD is switched on, or when atomizer was removed and new atomizer is applied (when MOD is already on).

(*4) For more detailed information about the menu, setting options and working principles of different modes, please refer to the manual.
07 Remarks and Notes

Battery
Always use batteries with high drain current or very high current capability (even with lower capacitance, except power is below 20W). Avoid to use no-name products. Insert the battery with the plus terminal in the direction towards the atomizer and in angular position.

Electronic cigarettes
Electronic cigarettes are NOT healthy. But so far all studies indicate, that they are less harmful compared to tobacco-cigarettes. Electronic cigarettes are an alternative to tobacco-products, but should not be regarded as an dehabituation to smoking. Electronic cigarettes are not suited for children and youngster below 18 years of age, non-smokers, pregnant women, persons with allergies against Nicotine, Propylene Glycol and persons with cardiovascular disease. Selling to persons below 18 years of age prohibited!

Battery Disposal
You bought a rechargable battery powered product. The rechargable battery lasts long, but wears out nevertheless. Li-Ion batteries may not be disposed in household waste. Customers are obligated by law to dispose wear out batteries to apporiate gathering points.

Mod Disposal
The symbol below indicates that this product should not be treated as household waste, but according to WEEE (waste electrical/electronical equipment) should be reused or recycled.

dicodes GmbH
Friedrich der Große 70
DE-44628 Herne
Germany
Phone: +49 2323 1463635
Email: info@dicodes.de

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