USAGE INFORMATION

Please read this information carefully before using the product and keep it in a safe place.

1. General information
The sale and use of e-cigarettes is prohibited for persons under 18 years of age.
Technical specifications and the correct handling of your device are to be consulted in the usage information.
(www.smokerstore.de)

2. Handling Lithium-Ion batteries (Li-Ion)
Never short out Li-Lon batteries. If you intend to transport or store individual cells, always use suitable storage containers. Never throw Li-Ion batteries in liquids or fire. Do not expose Li-ion batteries to extreme temperatures. Never use damaged Li-Ion batteries or Li-Ion batteries whose isolation is damaged. Use only suitable chargers. Never charge Li-Ion batteries unattended. Use only cells of the correct type and with sufficient load capacity (min 30A continuous load). Only dispose of Li-Ion batteries at suitable waste disposal.

3. Use and storage instructions
Always keep e-cigarettes and liquids out of reach of children and pets. Use only compatible replenishment systems, connection types and spare parts. Operate your e-cigarette only in the recommended power ranges. Never open a device if this is not explicitly mentioned and explained in the usage information.

4. Counter-indications
There are no studies present that would result in counter-indications with our product. However, in the case of previous severe or moderate illness, in case of chronic ailments, known allergies to ingredients, taking strong medications, we recommend that you consult your doctor before first use.

5. Warnings for vulnerable consumer groups
The use, as well as the delivery of e-cigarettes and liquids to children and adolescents is prohibited. The use of e-cigarettes and liquids by non-smokers is not recommended. The use of e-cigarettes and liquids during pregnancy and lactation is not recommended.

6. Information on possible adverse effects on health
None known. In this respect, please also note our information about counter-indications, the warnings for vulnerable consumer groups and the information on the addictive effect.

7. Information on the addictive effect
As far as you use products containing nicotine-containing liquids, the following warning is affixed to the packaging of the liquids: "This product contains nicotine: a substance that makes a strong dependence."

8. Toxicological data
This device does not contain any harmful substances at the time of delivery. However, if you use nicotine-containing liquid in your atomizer, please also note "7. Information on the addictive effect."

9. Waste disposal
Electrical and electronic equipment (WEEE) must not be disposed of in the household waste. Consumers are required by law to bring these to appropriate waste disposals.

10. Contakt
You need additional information or if you have questions about the products and their application, please contact our local shops or visit our website: www.smokerstore.de.

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Taifun® BOX

1. PRODUCT DESCRIPTION

SCOPE OF DELIVERY

1x Taifun® Box
1x User manual
1x Information card for authenticity certification
1x Giftbox

TECHNICAL DATA

Dimensions:	25x40x82mm	**Weight:**	~180g
Thread:	510	**max. diameter:**	25mm
Material:	stainless steel (AISI 304), anodized aluminium		

2. PRODUCT OVERVIEW

3. MANUFACTURER'S RECOMMENDATIONS

Please use only Sony Konion VTC5A batteries or equivalent or better cells (at least 30A continuous load) in the Taifun® Box. Replace your batteries with new ones in time for signs of fatigue. Charge this only under supervision in a dedicated Li-ion charger or the Dicodes charger (optional accessory for use with the Taifun® Box required).
Clean the threads of the battery cover and the 510 threading regularly with a dry polishing cloth. Always turn off the Taifun® Box completely during transport.
When using the temperature control, we recommend the use of NiFe30 RESISTHERM resistance wire.

4. STORAGE INSTRUCTIONS

Remove the battery and drain mounted atomizer completely if the Taifun® Box is not used for a long time.
Store in a dry and dust-protected place. Store out of the reach of children.

5. DISPOSAL INSTRUCTIONS

- The packaging must be disposed of in an environmentally friendly manner.
- Products marked with the crossed-out waste bin do not belong in the household waste. These products can be provided free of charge in your local trade or at collection points of of the municipalities. To do this, check with your local council.

6. WARRANTY & GUARANTEE

Our product is covered by a 24-month warranty and a 24-month guarantee on the electronics.

7. FEATURES

The SmokerStore Taifun® Box is an electronically controlled box mod for rebuilding and coil atomizer with up to 25mm diameter. It is operated with a single 18650 Li-Ion battery and reaches an output power up to 80W. It has a battery internal resistance monitor to warn against battery congestion (see 8.4.1 for explanations). Via the side-mounted 0.91 "OLED display, the most important parameters are displayed during and after vaping. The menu settings are configured by using the three buttons. The device has 5 different operating modes: Power (VW), Power Boost, TC mode, Pulse and Bypass (switched off control electronics).

The Taifun® Box always shows the actual power. If the set power is not possible, you will be informed about this via the OLED display.

- Features Power Range 5-80W with a Li-ion battery (high drain 18650)
- Battery discharge voltage 2.5V
- Immediately ready to vape after automatic shutdown
- No power consumption after automatic/active shutdown
- Up to 11V output voltage
- Up to 22A output current
- Spring-loaded positive pin of copper-beryllium
- Temperature controlled vaping with all common wire types
- Resistance range (80W) 0.17 - 1.5 ohm
- Resistance range total 0.1 - 3 ohm
- Battery Internal Resistance Measurement
- Menu Wizard for a user-friendly operation
- 5 Operating modes: Power, Boost, Temp, Pulse and Bypass
- Reverse pole protection
- Spring-loaded battery-positive pole with 4 contacts for optimal current consumption
- Battery charging contact on the bottom suitable for dicodes charger
- Buttons and side plates exchangeable (optional accessories separately Available)
- High-quality housing materials: stainless steel and anodized aluminium

8. MENU MANAGEMENT

The Taifun® Box has a user-friendly, easy-to-use menu structure that assists the user in the settings of the respective operating mode (Menu Wizard).

1. Switching on and off, auto-power-off
If the device has been switched off completely by 5 short actuation of the fire switch, it will be switched on again in the same way by pressing the fire button 5 times:

Taifun® | Bye..

An active switch-off during the transport of the device is recommended in pockets and the like to avoid accidental firing. In normal operation, on the other hand, the unit switches itself off after about 5 minutes (0mA current consumption) and is immediately ready to vape when the fire switch is pressed.

2. Function of the button
Fire button: The fire button is normally used to activate the power output to the heating winding. If the device is in menu input mode, a fire is not possible. In this case, the fire button will always act as an input confirmation.

Plus/minus key: In operation, power, boost and pulse modes are used to directly change performance by pressing plus or minus. It is not necessary to activate a menu. In the temp mode (temperature controlled vaping), the temperature setting is adjusted via plus/minus. There is no further setting option in bypass mode.

Fire button + Plus key: The operation mode selection menu is activated by simultaneously pressing the fire and the plus bar. The navigation then takes place via plus/minus and the selection via the fire button. In the operating mode menu, the user is guided through a simple wizard by entering all relevant parameters.

Fire button + Minus key: If these two buttons are pressed simultaneously, the extended menu is activated, in which customer-specific settings can be made and various statistical values displayed. The extended menu has 3 sub-menus, which are described in more detail later. In the extended menu, the menu itself and the sub-menus -in contrast to the operating mode menu- are exited via an exit function. With the plus/minus button the desired selection is made in the extended menu.

Plus + minus key: The simultaneous actuation of plus and minus blocks (key lock) the further input or releases it again (key unlock). This prevents accidental shifting, for example, of performance during operation.

Key Lock | Key UnLock

3. Operating Modes
The Taifun® Box has a total of 5 operating modes: Power, Boost, Temp, Pulse and Bypass.

The Temp, Pulse and Bypass modes are only selectable if the parameter ExpertMode "on" has been selected in the Extended/ModConfig menu.

To change the operating mode, press the fire and plus button at the same time: the current operating mode is displayed. The plus/minus buttons are used to display the different modes one after the other and, if necessary, select them by pressing the fire button (input) briefly. Depending on the mode, the parameters that are important for the mode are displayed for editing (menu wizard) and are applied with the fire button. During and approximately 5 seconds after vaping, the operating mode-dependent operation screen is displayed. It provides information about all the parameters that are important for vaping.

3.1 Operating modes in detail

Power: When the power mode is selected, the power is then changed using the plus/minus keys. This is the default mode and is preset.

Mode Power
Main Menu

Power *Operation Screen*:

61.0W
Power 0.27Ω V3.98/4.17

Boost: The menu wizard guides you through the settings for boost performance and boost time. You make your selection with plus/minus and confirm with the fire button.

Mode Boost (Main Menu) | BoostPwr 36W (Boost Menu) | BoostTime 0.4S (Boost Menu)

Boost *Operation Screen*:

21.0W 0.27Ω
Boost 36W 0.6s V3.98/4.17

In boost mode, for the duration of the boost time (BoostTime), the coil is applied with an increased power (BoostPower) and then switched to the set power. The boost time can be selected in 0.2 seconds increments from 0.2 to 1 second. The boost power value can also be set to less than the selected power. This corresponds to a power start-up called "soft" for other mods. The boost mode is especially useful for coils with a large thermal mass. Thanks to the boost, the coil is quickly heated up and kept at a temperature for further operation with lower power. This saves energy compared to permanent operation with high performance.

Please note that the power limit (PowerLim) set in the *Extended/AtomConfig* menu cannot be exceeded by any operating mode and is always the maximum value!

Temp: In temperature-controlled mode, the menu wizard is used to select the maximum power (PowerLim) and the wire to use. The selection is made using the plus/minus keys. The confirmation of the selection in the Menu wizard is done via the fire button. After selecting the wire, the mod is calibrated at room temperature. To do this, initiate the initialization with the plus or minus key in Init and confirm with the fire button. The calibration is complete (wait for processing) and, if calibrated correctly, the temperature displayed is 20 °C [or 68 °F].

Mode Temp (Main Menu) | PowerLim 21.0W (Temp Menu) | Wire NiFe (Temp Menu Coef: 320) | Calibr. Init (Temp Menu) | Calibr. Confirm (Temp Menu) | Calibration Wait for Processing | Temp0 20c (Temp Menu 0.27Ω)

Temp *Operation Screen*:

220c 21.0W
NiFe 0.27Ω V3.73/4.17

The temperature controlled vaping offers the optimum in terms of safety and battery life. There is always just as much power given to the coil that the set temperature is kept. At the beginning the power set is first released on the coil. This is used to heat the coil to the target temperature as quickly as possible. With the Power (PowLim), the response to the temperature is set. It should be noted that the power is set high enough so that the controller can also reach the target temperature. Otherwise, the controller will try in vain all the time with the set power to get the coil to the target temperature.

The usual wires are pre-set. You can configure your own wires using the extended menu, AtomConfig, and CoeffOther. The temperature coefficient in question must be set there. The selection is then made in the selection wizard (Wire) with the wire „other". We recommend the use of NiFe30 dicodes wire (RESISTHERM). Here it is guaranteed that the wire always has the same temperature coefficient, because it has been specially developed for temperature control vaping. The control accuracy is also highest here.

Please note that the power limit (PowerLim) set in the *Extended/AtomConfig* menu cannot be exceeded by any operating mode and is always the maximum value!

Pulse: In pulse mode, the power output to the atomizer is interrupted at regular intervals for a short period of time. The regular shutdown allows the atomizer a short time, so that liquid can flow and thus counteracts a further rise in temperature. After the fire button has been confirmed, make your selection with the plus/minus buttons between 10 different switching times.

Mode Pulse (Main Menu) | PulseSelect 6 (Pulse Menu)

Pulse-Modus *Operation Screen*:

40.0W 0.27Ω
Pulse 6 V3.23/3.77

The pulse mode is parameterized by a number as shown in the table below:

Value Pulse Mode	Switch-on Time [ms]	Switch-off Time [ms]	Powerfactor
1	400	100	0.80
2	600	100	0.86
3	800	110	0.88
4	1000	120	0.89
5	1350	150	0.90
6	2000	200	0.91
7	2000	180	0.92
8	2000	150	0.93
9	2000	100	0.95
10	2000	80	0.96

Bypass: The bypass mode acts like a protected mechanical mod, which means that the battery voltage is directly connected to the coil. If the electrical resistance of the coil is so low that the output current would exceed 22A, a display message *Error:LowR* appears. In addition to the battery voltage and the coil resistance, the output defined by these two values is displayed in the bypass operation screen.

Mode Bypass
Main Menu

Bypass Modus *Operation Screen*:

3.04V 0.27Ω
Bypass 31.5W V3.04/3.38

4. The Extended menu

By simultaneously pressing the fire and minus buttons, you can access the extended menu, which is divided into three other logically grouped submenus: atomizer configuration (AtomConfig), mod configuration (ModConfig) and statistics. The extended menu as well as the sub-menus can be exited via the menu item exit. In the info line you can see in which menu/ submenu you are located.

To change a parameter in an extended submenu, press the fire button and the value is inverted (black on white). Then the value can be adjusted via plus/minus and the input is transferred using the fire button. In the statistics submenu, the values cannot be changed by nature, but the counter readings for cycles, time, energy and BatCap can be reset using the menu item reset.

When you select *TimeOut Static* in the *ModConfig* menu, the menu turns off only after one minute. This offers the advantage to perform all desired settings in the extended menu in one operation. A change within the menus is always done via the Exit function, which takes you back to the menu above.

Note for experienced users of the Dicodes electronics:

Some of the parameters you know about the extended menu of Dicodes own products are superfluous and dropped off due to the restructuring of the menu management and the implementation of the menu wizard in the Taifun® Box. Other parameters are predefined, e.g. UBatMin to 2.5V UbL. The Taifun® Box thus has the full range of functions of the Dicodes electronics and at the same time reduced menu complexity.

4.1 The parameter RBat

RBat deserves a further explanation: RBat stands for the battery internal resistance. In addition to the battery itself, there are also transition resistances on the thread of the battery cover and from the positive pole to the electronics supply connection. For safe operation of the battery carrier it is important not to overload the battery. Many battery manufacturers provide maximum permissible discharge currents. However, this information is only suitable for the assessment of the quality of a battery, as the information is based on a good heat dissipation and the permissible temperature range from the operation of the battery. When the battery is unloaded, heat is generated in the battery and at the designated contact points. The main part is omitted from the battery itself. The higher the internal resistance of the battery, the greater the heat generation. Common 18650 Li-Ion batteries have internal resistors between about 18-70 mOhm (0.018-0.07 ohm). In case of a high power or power draw, two things have to be taken into account: on the one hand, a heat output of I^2 * RBat (current to square times internal resistance) is generated in the battery, and secondly, the battery voltage available to the electronics is about the value I * RBat (Current times internal resistance), which leads to an additional increase in the power requirement to provide the power. To inform the user about leaving the recommended power range depending on the battery internal resistance, the Taifun® Box has a determination of the internal resistance beyond 10W output power. Should then from a selected power of > 60w the internal resistance of the battery has exceeded the value of 35MOHM, a warning message is issued in the display: In this case we recommend to reduce the performance. An increased resistance indicates an inappropriate or aged battery or to high transition resistances in the contacting (see 3. Recommendations of the manufacturer).

62.0W Rbat!
Power 0.26Ω V3.39/4.07

An example:

The desired power is 75W, the battery is fully charged with 4V (open circuit voltage Ub0), but has (together with the contacts) an internal resistance of RBat = 42mOhm. What power is charged to the battery at 75W? The first assumption would probably be 75W/4.0V = 19A. This assumption is far too favorable due to the lack of consideration of the internal resistance. At 19A, the voltage loss would already be 19A * 0.042 ohm = 0.8V. Taking into account the internal resistance of the battery, it is even higher and is at an input current (!) of 25.7 A and a voltage drop of 1.08 v. In this case, the possibility of vaping at 75W is not very long anyway.