# PROTOVAPOR

#### XPV/XPV MINI



Thank you for purchasing the **Protovapor XPV/XPV Mini** personal vaporizer. We hope this device will provide many years of enjoyment!

# INCLUDED IN PACKAGE

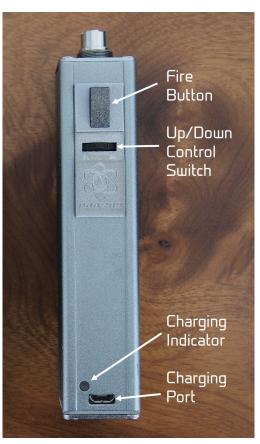
- Protovapor XPV or XPV Mini Personal Vaporizer
- ▶ Body-color Ego rings/plinths for slim atomizers/cartomizers, narrow tanks/atomizers and wide tanks/atomizers (optional chrome rings)
- ▶ USB-to-Micro USB charging cable

# OPERATING INSTRUCTIONS

# Charging

Never charge device unattended!

1. Connect micro-USB cable from a USB charging source (500mA minimum) to the XPV/XPV Mini device via the port near the bottom. The indicator next to the port lights red when charging and green when charging is complete.



- 2. The device can be used while charging. If the battery gauge reads very low, it may need to be charged for at least 10 minutes before use, especially at high wattage settings.
- 3. Normal charge times from empty are 4-5 hours for the XPV (standard battery) and about 1 hour for the XPV Mini
- 4. The XPV/XPV Mini should be almost fully charged upon delivery from Protovapor. It can be used immediately.

## General operation

- 1. Attach atomizer device containing e-juice to the connector at the top of the unit. Use Ego rings/plinths to cover the Ego threading if the atomizer device uses only the 510 connection. Rings/plinths can be used as additional support for heavy tanks.
- 2. Adjust waltage of device using up/down control switch under the fire button. Start low if you do not know the waltage at which your atomizer works best.
- 3. Depress firing button and hold while drawing on the atomizer device.

# DNA 20D INFORMATION

Your XPV/XPV Mini is powered by the DNA 20D board by Evolv Vapor.

# Display information



**Watt setting (W):** The power level currently set on the DNA 20D.

**Battery indicator (Icon):** The current state of charge of the battery.

**Volts display (V):** The current or most recent output voltage being supplied to the atomizer.

**Ohms display:** ( $\Omega$ ) The resistance of the atomizer attached to the device. This is measured only when the unit is supplying power to the atomizer. At other times, it shows the most recent measurement.

#### Other modes

**Locked mode:** Pressing the fire button five times with less than .7 seconds between presses will cause the device to enter Locked mode. In Locked mode, the device will not fire and the output power will not adjust accidentally. While in Locked mode, the screen will be off, except that pressing a button will show "Locked, Click 5X". To exit Locked mode, press the fire button 5 times.

Stealth mode: While locked, pressing the fire and down control simultaneously for five seconds will switch to stealth mode. In this mode the display is off. It will still show error messages and the "Locked, Click 5X" advisory. To switch back to normal display mode, from locked mode press the fire and down control simultaneously for 5 seconds. This setting is stored to internal flash memory, and remains if power is removed.

Right Mode and Left Mode: While locked, holding the fire and up control simultaneously for 5 seconds flips the display. This allows for maximum flexibility, as well as accommodating left handed vapers. This setting is stored to internal flash memory, and remains if power is removed.

## Error Messages

The DNA 20D will indicate a variety of error states. **Note:** It is normal for the DNA 20D to display one or two error messages upon wake-up from sleep. These can be ignored.

**Check Atomizer:** The DNA 20D does not detect an atomizer, or the atomizer has shorted out.

**Check Battery:** The battery is below 3.1 volts. It probably needs to be charged.

**Weak Battery:** The battery sags excessively when firing. This typically means the user is not using a high rate battery, or the battery is old and degraded. It can also mean the battery is not making good contact.

**Too Hot:** The DNA 20D has onboard temperature sensing. It will shut down and display this message if the internal board temperature becomes excessive.

**Too low power setting:** The DNA 20D puts out a minimum of about 3.0-3.4 volts. With low power

settings (7 to 8 watts) and low resistance atomizers (below 2 ohms) the DNA will sometimes be unable to provide a low enough voltage output to be power regulating. If this is the case, the Ohms display will be flashing. The device will still operate.

#### Auto power down

The screen will be at full brightness while firing. After 15 seconds with no button presses, the screen will dim. Four (4) minutes after the last button press, the screen will fade out and the device will go to sleep mode. Pressing any button will turn the device and display back on.

## ADDITIONAL INFORMATION

## Adjusting atomizer connector pin

The XPV/XPV Mini has an adjustable atomizer connector pin. If the atomizer device does not contact the connector pin correctly, the XPV/XPV Mini will give a "Check Atomizer" error.

- 1. First check to make sure the connector is clean. The XPV/XPV Mini connector is sealed and no e-liquid should be able to leak through and into the device. However liquid can collect on and around the pin. Wipe the pin clean and absorb any collected liquid with a tissue or paper towel.
- 2. To adjust the pin, use a medium-blade screw-driver to turn the center portion of the pin (see right), counterclockwise to extend and clockwise to retract. Use the minimum adjustment needed to get a reliable connection. Be



careful not to strip the slot in the pin.

3. After several adjustments, it is advisable to occasionally "reset" the pin height by screwing the pin in until it lightly bottoms. This will ensure the internal half of the pin is properly seated in the connector. Follow this procedure also if the top and bottom halves of the pin should ever become unscrewed and separate.

#### Maintenance

The XPV/XPV Mini requires no regular mainte-

nance. The device should operate trouble-free through the life of the battery. Please take care not to allow e-liquid, water or other foreign substances to enter the device through the controls, USB port, etc. Casing can be cleaned with a dry or damp cloth if needed. Do not use abrasive or caustic cleaning products. Case screws can occasionally be checked for tightness.

#### Replacing battery

The battery of the XPV/XPV Mini is connected with a push connector. It can be replaced without special tools. This is intended to only be done when the battery reaches the end of its life. New batteries with appropriate connectors are available from Protovapor. Protovapor will install new batteries purchased from us free of charge (customer pays shipping).

## LIMITED WARRANTY

The XPV/XPV Mini is covered for a period of 90 days from purchase against defects in workmanship and materials. Internal components including the DNA 20D board are covered for a period of 1 year from purchase.

# Repairs

Repairs on all components of the XPV/XPV Mini are available from Protovapor.

#### **SPECIFICATIONS**

Output wattage: 7-20 watts
Output voltage: 3.0\* to 8.3 volts
Output current: 6 amps max

**Atomizer resistance**: 0.6\*\* to 3.3 ohms

Efficiency: 93%

#### Battery:

XPV standard - 2900mah Panasonic high-drain 18650

XPV optional - 1600mah AW IMR 18650 XPV optional - 2000mah AW IMR 18650 XPV Mini standard - 700mah AW IMR 18350

- \* Approximate, and varies with battery charge state. Approx. 3.4v when fully charged.
- \*\* Approximate