

## FORENSICS DETECTORS FD FD-VAPE-WALL

# FORENSICS DETECTORS FD-VAPE-WALL Vape Detector Instruction Manual

Model: FD-VAPE-WALL

## 1. INTRODUCTION

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The FORENSICS DETECTORS FD-VAPE-WALL Vape Detector is designed to detect vaping activity in various environments. Utilizing advanced laser scattering sensor technology, this device provides 24-hour real-time detection of vape particles, including those containing nicotine, THC, and CBD. It is engineered for discreet and effective monitoring, making it suitable for schools, bathrooms, locker rooms, hotels, rental properties, businesses, and homes.

The detector connects to your smartphone via WiFi and Bluetooth, sending instant notifications when vaping thresholds are exceeded. This allows for timely intervention without audible alarms or visible indicators on the device itself, ensuring discretion. The unit is powered by a micro-USB connection and is designed for wall or ceiling mounting with tamper-proof features.

# SMART VAPE DETECTOR

for Schools, Homes & Businesses



**Laser  
Sensor**



**Free Phone  
Alerts**



**Always On  
USB Powered**



**Low False  
Alarms**

*Image: The FORENSICS DETECTORS FD-VAPE-WALL Vape Detector, a white circular device with a perforated grille, designed for discreet vape detection.*

This manual provides comprehensive instructions for unboxing, installation, app setup, and operation to ensure optimal performance and reliability of your vape detector.

## 2. INCLUDED PARTS (UNBOXING)

Upon opening the package, you will find the following components:

- FD-VAPE-WALL Vape Detector Unit
- User Manual
- Micro-USB Power Cable
- USB Wall Charger Adapter
- Mounting Bracket

- Screw Kit (screws and anchors)
- Two Small Bolts (for tamper-proofing)

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*Image: The contents of the FORENSICS DETECTORS FD-VAPE-WALL Vape Detector box, including the detector unit, user manual, power cable, charger, mounting bracket, and screw kit.*

The detector unit features a porous top grille and rear vents to facilitate air intake for accurate sensing. A micro-USB input port is located on the side for power connection. The mounting bracket is designed for secure attachment to a wall or ceiling, with specific guides for aligning the detector.

### 3. SETUP & INSTALLATION

Proper installation is crucial for the effective operation and tamper-proofing of your vape detector. Follow these steps carefully:

1. **Select Mounting Location:** Choose a location where vape smoke is likely to accumulate, such as a

bathroom, locker room, or restroom. Avoid placing the detector near windows or strong ventilation that could dilute vape particles. Ensure the location allows for a stable WiFi signal.

2. **Mount the Bracket:** Use the provided screw kit to securely attach the mounting bracket to your chosen surface. Depending on the surface material, you may need to use the included anchors.
3. **Power Connection:** Connect the micro-USB power cable to the detector unit. It is highly recommended to protect the power cable using a conduit (e.g., PVC or metal) to minimize vandalism and tampering. Secure the conduit firmly to the wall or ceiling, ensuring it extends directly to the detector's power input.
4. **Attach Detector to Bracket:** Align the two small bolts on the back of the detector with the larger holes on the mounting bracket. Insert the bolts and twist the detector to secure it onto the bracket. Ensure the power cable is properly routed through the conduit and connected before fully securing the detector.
5. **Verify Power:** Once connected, the blue LED on the detector will flash, indicating it is powered on and ready for app setup.

# DISCREET & EFFECTIVE

FORENSICS  
DETECTORS 



*Image: A FORENSICS DETECTORS FD-VAPE-WALL Vape Detector discreetly mounted on a ceiling in a restroom, demonstrating its unobtrusive design.*

## 4. TUYA APP INSTALLATION

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The FORENSICS DETECTORS FD-VAPE-WALL Vape Detector uses the Tuya Smart app for smartphone connectivity and alerts. Follow these steps to install and configure the app:

1. **Download Tuya Smart App:** Go to your device's app store (Google Play Store for Android or Apple App Store for iOS) and search for "Tuya Smart." Download and install the app.
2. **Register/Log In:** If you are a new user, select "Sign Up" and follow the prompts to create an account. If you already have an account, select "Log In" and enter your credentials. Ensure you use a reliable email address for registration.
3. **Enable Notifications:** After logging in, go to your phone's settings, find the "Apps" section, and locate "Tuya Smart." Ensure that notifications are allowed for the app. This is critical for receiving vape detection alerts.
4. **Enable Nearby Devices/Bluetooth Permission:** Within the Tuya Smart app permissions (in your phone's settings), ensure that "Nearby devices" or Bluetooth access is allowed. This enables the app to discover and connect to your vape detector during the setup process.
5. **Add Device:** Open the Tuya Smart app. On the home screen, tap the "+" icon in the top right corner or the "Add Device" button if no devices are listed.
6. **Discover Device:** The app will automatically start searching for nearby devices. Ensure your phone's Bluetooth and WiFi are enabled. The app should discover the "PM2.5 Detector." Tap "Add."
7. **Connect to WiFi:** Enter the password for your 2.4GHz WiFi network. Ensure the WiFi signal is strong at the detector's location. Tap "Next."
8. **Confirmation:** Once connected, you will see a green tick indicating successful device addition. Tap "Done."
9. **Rename Device:** On the main screen of the vape detector within the app, tap the pencil icon or the device name to rename it. Give it a descriptive name based on its location (e.g., "Bathroom Vape Detector 1") for easy identification, especially if you have multiple units.



# EASY SETUP

**PLUG, CONNECT, AND DETECT**



**SMART APP  
ALERTS**



*Image: A hand holding the Vape Detector near a ceiling mount, with a smartphone displaying the Tuya Smart app interface for easy setup.*

Your browser does not support the video tag.

*Video: An official demonstration of the Vape Detector, covering unboxing, installation, and Tuya Smart app setup. This video provides a visual guide for the initial configuration of the device.*

## 5. VAPE DETECTOR ALARM SETUP & DEMONSTRATION

To receive alerts when vaping is detected, you need to set up an automation scene within the Tuya Smart app. This allows you to define the conditions for an alert and the action to be taken.

1. **Access Scene Tab:** In the Tuya Smart app, navigate to the "Smart" or "Scene" tab at the bottom of the screen.
2. **Create Scene:** Tap "Create Scene" or the "+" icon to add a new automation.

3. **Select Condition:** Choose "When device status changes." Select your Vape Detector from the list.
4. **Set PM2.5 Threshold:** Select "PM2.5." Set the condition to "greater than" a specific microgram per cubic meter ( $\mu\text{g}/\text{m}^3$ ) value. A recommended starting point is  $10 \mu\text{g}/\text{m}^3$ , but this may need adjustment based on your environment's baseline air quality. Tap "Next."
5. **Define Action:** Under the "Then" section, tap "Add Task." Choose "Send notification." Select "Message Center" to receive in-app notifications. Tap "Next."
6. **Save Automation:** Tap "Save" to activate the automation. Confirm to start using it.

#### **Demonstration:**

When the vape detector is exposed to vape smoke, the PM2.5 readings in the app will rapidly increase. If these readings exceed your configured threshold (e.g.,  $10 \mu\text{g}/\text{m}^3$ ), the app will send an instant notification to your smartphone. This notification will appear in your phone's notification bar and within the Tuya Smart app's Message Center, providing a timestamp of the event.

#### **Adjusting Thresholds:**

It is important to monitor the PM2.5 graph within the app over a few days to understand the baseline air quality in your installation area. This will help you set an appropriate threshold that minimizes false alarms while effectively detecting actual vaping events. The graph shows averaged readings over time, while the main screen displays instantaneous values. Adjust your threshold to be above typical background noise (e.g.,  $1\text{-}2 \mu\text{g}/\text{m}^3$ ) but sensitive enough to catch vaping (e.g.,  $5\text{-}15 \mu\text{g}/\text{m}^3$ ).

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*Video: A user demonstrating the vape detector's response to vape smoke, showing the PM2.5 levels rising on the app and triggering an alert. This illustrates the real-time detection and notification capabilities.*

## **6. OPERATING INSTRUCTIONS**

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The FD-VAPE-WALL Vape Detector operates continuously once powered. Its primary function is to monitor PM2.5 levels in the air, which are indicative of vape particles. The device itself does not have audible alarms or visual indicators to maintain discretion.

- **Continuous Monitoring:** The detector continuously samples the air for PM2.5 particles.
- **Real-time Data:** Access real-time PM2.5 readings, temperature, and humidity through the Tuya Smart app.
- **Historical Data:** The app stores historical data, allowing you to review PM2.5 levels over days, months, or years. This helps identify patterns and confirm vaping incidents.
- **Notifications:** Configured automation scenes will send push notifications to your smartphone when the PM2.5 threshold is exceeded.
- **No Local Alarms:** The device operates silently and discreetly, sending alerts only to your connected smartphone.

## **7. MAINTENANCE**

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To ensure the longevity and accuracy of your vape detector, follow these maintenance guidelines:

- **Cleaning:** Periodically wipe the exterior of the detector with a soft, dry cloth to remove dust. Do not use harsh chemicals or abrasive cleaners. Ensure the porous grille and vents remain clear of obstructions.
- **Power Supply:** Ensure a stable power supply. Avoid frequent power interruptions, as this may affect the device's continuous monitoring.
- **Firmware Updates:** Check the Tuya Smart app regularly for any available firmware updates for your device. Keeping the firmware updated ensures optimal performance and access to new features.
- **Sensor Calibration:** The laser scattering sensor is designed for long-term stability. Routine user calibration is not required. If you suspect a sensor issue, contact customer support.

## 8. TROUBLESHOOTING

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If you encounter issues with your FD-VAPE-WALL Vape Detector, refer to the following common troubleshooting steps:

- **Device Not Powering On:**

- Check if the micro-USB cable is securely connected to both the detector and the power adapter.
- Ensure the USB wall charger is plugged into a working power outlet.
- Try using a different USB cable or power adapter to rule out faulty accessories.

- **Cannot Connect to Tuya Smart App:**

- Ensure your phone's Bluetooth and WiFi are enabled.
- Verify that your WiFi network is 2.4GHz (5GHz networks are not supported).
- Check the WiFi signal strength at the detector's location. Move the detector closer to the router if necessary.
- Restart the detector by unplugging and re-plugging the power cable.
- Reset the detector by pressing and holding the central button until the blue LED flashes rapidly, then attempt to add it again in the app.
- Ensure the Tuya Smart app has permissions for "Nearby devices" and notifications in your phone's settings.

- **Not Receiving Notifications:**

- Verify that notifications are enabled for the Tuya Smart app in your phone's settings.
- Check your automation scene settings in the Tuya Smart app to ensure the PM2.5 threshold and notification action are correctly configured.
- Review the historical data graph in the app to confirm if PM2.5 levels are actually exceeding your set threshold.
- Ensure the detector has a stable WiFi connection.

- **False Alarms:**

- The PM2.5 sensor can react to other airborne particles like dust, cooking fumes, or strong aerosols.
- Adjust your PM2.5 threshold in the automation scene to a higher value after observing the typical background PM2.5 levels in your environment.

- Ensure the detector is not placed in an area with high dust, smoke from cooking, or direct exposure to sprays.

## 9. SPECIFICATIONS

Feature	Detail
Brand	FORENSICS DETECTORS FD
Model Number	FD-VAPE-WALL
Sensor Type	Laser Scattering (PM2.5)
Connectivity	WiFi (2.4GHz), Bluetooth
Power Source	Corded Electric (Micro-USB)
Product Dimensions	1.5"D x 5.5"W x 5.5"H
Item Weight	11.2 ounces
Alarm Type	Visual (via app notifications)
Operating Humidity	100 percent
Compatible Devices	iPhone and Android (Tuya Smart App)
Smart Home Compatibility	Smart Home Compatible
Coverage Area	Recommended one unit per 200-300 sqft

## 10. WARRANTY & SUPPORT

**Warranty:** The FORENSICS DETECTORS FD-VAPE-WALL Vape Detector comes with a 1-year limited warranty. This warranty covers defects in materials and workmanship under normal use. Please retain your proof of purchase for warranty claims.

**Money-Back Guarantee:** A 30-day money-back guarantee is offered for this product.

**Customer Support:** For technical assistance, troubleshooting, or warranty inquiries, please contact FORENSICS DETECTORS FD customer support through their official website or the contact information provided in your purchase documentation. You can also refer to the FAQ section within the Tuya Smart app for common questions.

