

## FOXWELL NT604Elite-b

# FOXWELL NT604 OBD2 Scanner Diagnostic Tool User Manual

Model: NT604Elite-b | Brand: FOXWELL

## 1. INTRODUCTION

The FOXWELL NT604 OBD2 Scanner Diagnostic Tool is designed to provide comprehensive diagnostic capabilities for various vehicle systems. This manual outlines the features, setup procedures, operational guidelines, maintenance tips, and troubleshooting steps to ensure effective use of the device. It is intended for both automotive enthusiasts and professional technicians seeking to diagnose and resolve vehicle issues related to the Engine, Anti-lock Braking System (ABS), Supplemental Restraint System (SRS), and Transmission.



Image: Front view of the FOXWELL NT604 OBD2 Scanner Diagnostic Tool, displaying its screen and control buttons.

## 2. WHAT'S IN THE BOX

Upon unboxing your FOXWELL NT604 Diagnostic Tool, please verify that all the following components are included:

- 1 \* Foxwell NT604E Scan Tool
- 1 \* Diagnostic Cable
- 1 \* USB Cable
- 1 \* User Manual
- 1 \* Quick Guide



Image: All components included in the FOXWELL NT604 product packaging, laid out for inspection.

### 3. PRODUCT OVERVIEW

The NT604Elite-b features a robust design with a 4.3-inch color screen for clear display of diagnostic information. It includes dedicated function buttons (F1, F2, F3) and navigation keys (up, down, left, right, OK) for intuitive operation. The device is designed for durability, offering water, dust, and impact resistance, and comes with a protective case for daily storage.



Image: The FOXWELL NT604 scanner emphasizing its enhanced diagnostic speed, one-click WiFi update capability, and the durable protective case.

## 4. SETUP

The FOXWELL NT604 is designed for plug-and-play operation, requiring no prior registration. It ships pre-registered with the latest software preloaded for immediate use.

### 4.1. Initial Connection

Simply connect the diagnostic cable from the NT604 to your vehicle's OBDII port. The device will power on automatically.

### 4.2. Software Updates via WiFi

The NT604 supports one-click WiFi updates, eliminating the need for subscription fees or manual SD card downloads. Ensure the device is connected to a stable Wi-Fi network to receive the latest software and vehicle data updates.

1. From the main menu, navigate to 'Settings'.
2. Select 'WiFi' and connect to an available network.
3. Once connected, select 'Update' to check for and download available software packages.
4. Confirm the download and installation process.



Image: A visual guide demonstrating the steps to update the FOXWELL NT604E software using a WiFi connection.

## 5. OPERATING INSTRUCTIONS

The NT604 provides comprehensive diagnostic functions for various vehicle systems. Below are the key

operational modes.

### 5.1. AutoVIN Technology

The AutoVIN feature automatically retrieves your vehicle's VIN and other details, streamlining the diagnostic process by eliminating manual entry.



Image: An illustration demonstrating the automatic VIN retrieval capability of the scanner.

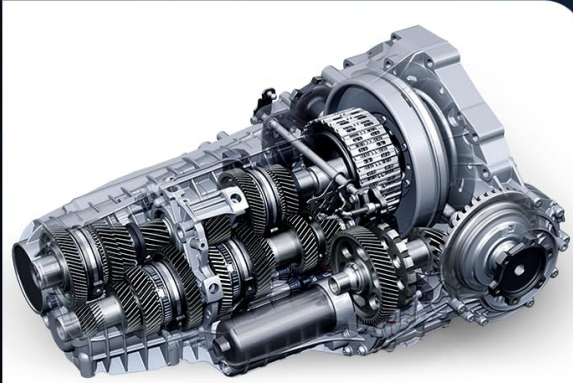
### 5.2. 4-System Diagnostics (Engine, ABS, SRS, Transmission)

The NT604 specializes in diagnosing the four most critical vehicle systems:

- **Engine System:** Reads and clears engine fault codes, monitors real-time data, and identifies issues like spark plug malfunction, fuel filter clogging, and coolant leaks.
- **ABS System:** Diagnoses Anti-lock Braking System faults, including warning light illumination, wheel lockup, reduced braking efficiency, and other common issues related to sensors and pump failures.
- **SRS System:** Checks the Supplemental Restraint System for airbag malfunctions, gas generator issues, airbag clockspring problems, and wiring faults.
- **Transmission System:** Identifies transmission-related problems such as clutch slippage, incomplete clutch disengagement, transmission gear jumping, and abnormal noises.



# 4 System Diagnostic Scanner



**Transmission  
System Diagnostic**



**SRS System Diagnostic**



**ABS Diagnostic**



**Engine System Diagnostic**

Image: A visual representation of the four main diagnostic systems covered by the scanner: Transmission, SRS (airbag), ABS (braking), and Engine.

# READ CODES & CLEAR CODES

Engine / ABS / SRS / Transmission



Image: The FOXWELL NT604 scanner screen showing the options to read and clear diagnostic trouble codes for the Engine, ABS, SRS, and Transmission systems.

## 5.3. Comprehensive OBDII Diagnostics

The NT604 supports all OBDI/OBDII protocol vehicles and offers the following standard OBDII functions:

- **Read Codes:** Retrieves Diagnostic Trouble Codes (DTCs) from the vehicle's computer.
- **Clear Codes:** Erases DTCs from the vehicle's computer and turns off the Malfunction Indicator Lamp (MIL).
- **Live Data:** Displays real-time data stream from various sensors and actuators (e.g., RPM, O2 voltage).
- **Freeze Frame:** Captures a snapshot of vehicle conditions at the moment a fault code is set.
- **DTC Lookup:** Provides definitions for generic and manufacturer-specific codes.
- **I/M Readiness:** Checks the readiness of the emission monitoring systems to determine if the vehicle is ready for a smog test.
- **Component Test:** Allows testing of specific components or systems.
- **Modules Present:** Identifies communication modules present in the vehicle.
- **Retrieve Vehicle Info:** Displays vehicle information such as VIN, calibration IDs, and calibration verification numbers.



- **On-Board Monitor Tests:** Retrieves results for on-board diagnostic monitoring tests of specific components/systems.



Image: The FOXWELL NT604 screen showing the 10 comprehensive OBDII diagnostic modes available for vehicle analysis.

### 5.3.1. Real-Time Live Data

Monitor various sensor and actuator data in real-time to troubleshoot issues effectively. This includes parameters like accelerator pedal position, wheel speed sensor values, short term fuel trim, and battery voltage.



## FAQs for NT604 Elite



### Why this scan tool can not clear fault code for my car?

To clear the fault code successfully, please repair your car and fix the problem first.



### Can I clear the airbag crash data after replacing new airbag?

Airbag crash/collision data can NOT be cleared even you replace the new airbag.



### What's the difference between NT604 Elite and those basic code readers?

Those \$50 code readers are mainly for OBDII diagnosis. If you want to make deeper diagnosis and figure out what's wrong with your abs, srs, transmission or check engine control modules, you will find NT604 Elite is much more helpful than those basic code readers.



### Will NT604 Elite support maintenance reset function like oil reset?

NT604 Elite is tailored for accurate diagnosis. If you need service reset function, our NT614 Elite and NT624 Elite are better choice for you.



### Is this car scanner user-friendly for beginners?

Yes, this NT604 Elite scanner can work out of box, just plug and play to boot it up. The interface is intuitive and you are able to navigate even without reading instructions.



Image: A visual representation of the real-time live data display on the FOXWELL NT604, showing various vehicle parameters for diagnostic purposes.

### 5.3.2. O2 Sensor Test

Perform O2 sensor tests to evaluate engine performance, fuel efficiency, and emission compliance. This helps identify issues indicated by warning lights or exceeding emission standards.



Image: An illustration depicting the results and implications of an O2 sensor test, including engine performance degradation and emission issues.

### 5.3.3. Freeze Frame Data

Access freeze frame data to understand the conditions under which a Diagnostic Trouble Code (DTC) was set. This helps in accurately locating problems and improving diagnostic efficiency.



Image: An illustration showing the concept of Freeze Frame data, which records vehicle performance at the time a fault occurs.

### 5.3.4. Battery Voltage Display

The NT604 can display your vehicle's battery voltage in a graph, providing quick and accurate assessment of battery health. This helps determine if the battery is too low, normal, slightly low, or too high, indicating

potential issues.



Image: A graph illustrating various battery voltage levels and their corresponding interpretations (e.g., too low, normal, too high).

#### 5.4. Vehicle Compatibility

The NT604 diagnoses over 10,000 models across more than 60 car brands, covering virtually all OBDII-compliant vehicles globally, including Asian, European, and American passenger cars, SUVs, minivans, and light-duty trucks produced between 1996-2025.



Image: A comprehensive list of car brands from USA, European, and Asian markets that are compatible with the FOXWELL NT604 diagnostic tool.

### 6. MAINTENANCE

To ensure the longevity and optimal performance of your FOXWELL NT604, follow these maintenance guidelines:

- **Storage:** Always store the scanner in its included protective case when not in use. The case provides resistance against water, dust, and impacts.
- **Cleaning:** Use a soft, dry cloth to clean the device. Avoid using abrasive cleaners or solvents.
- **Software Updates:** Regularly connect the device to Wi-Fi and perform one-click software updates to ensure you have the latest vehicle data and diagnostic capabilities. These updates are free for life.
- **Cable Care:** Handle the diagnostic and USB cables with care. Avoid sharp bends or excessive pulling that could damage the connectors or wiring.

### 7. TROUBLESHOOTING

This section addresses common questions and issues you might encounter with your NT604 scanner.

- **Why can't this scan tool clear fault codes for my car?**  
To successfully clear fault codes, you must first repair the underlying problem in the vehicle. The scanner

can only clear codes once the issue is resolved.

- **Can I clear airbag crash data after replacing a new airbag?**

Airbag crash/collision data cannot be cleared by the NT604, even after replacing the airbag. This requires specialized tools.

- **Will NT604 support maintenance reset functions like ABS bleeding, transmission maintenance, oil light reset, or EPB service?**

No, the NT604 is tailored for accurate diagnosis and does not support maintenance reset functions. For such functions, consider other FOXWELL models like the NT614 Elite or NT624 Elite.

- **Is this car scanner user-friendly for beginners?**

Yes, the NT604 Elite scanner is designed for ease of use. It is plug-and-play, and its intuitive interface allows for navigation even without extensive prior experience.

- **Automatic VIN function takes too long or fails.**

While 99% of cars have an automatic VIN function, if it takes too long to obtain the VIN code automatically, please stop the process and manually enter the VIN.

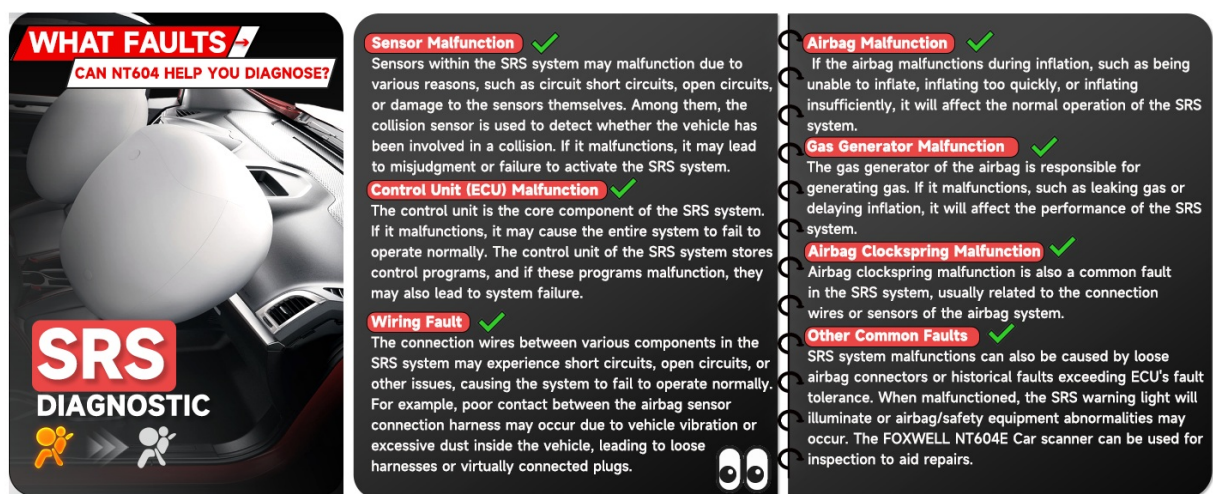


Image: A visual representation of common Frequently Asked Questions (FAQs) regarding the FOXWELL NT604 Elite scanner and their answers.

## 8. SPECIFICATIONS

Model	NT604Elite-b
Item Weight	2.03 pounds
Product Dimensions	7.68 x 3.54 x 1.18 inches
Display Resolution	480x272
Operating System	Easy to Use
Automotive Fit Type	Universal Fit
Date First Available	June 18, 2021

## 9. WARRANTY AND SUPPORT


FOXWELL is committed to providing reliable products and excellent customer service. Your NT604 comes with a one-year after-sales service for orders beyond the initial 30-day Amazon return period. For any usage or



quality issues within one year, please contact FOXWELL directly through your Amazon order interface. You will benefit from a detailed user manual, dependable after-sales support, and remote guidance from our engineers. Our software is continuously updated to keep pace with the latest vehicles, ensuring your tool remains effective and relevant.

WHAT FAULTS

CAN NT604 HELP YOU DIAGNOSE?



TRANSMISSION

DIAGNOSTIC



Clutch Slippage

Difficulty in starting the vehicle, weak acceleration, and sluggish performance, with black smoke emitted in severe cases, are typically caused by improper clutch pedal free play, contaminated or worn clutch disc, spring issues, or loose fixing screws.

Incomplete Clutch Disengagement

Difficulty in shifting gears, with the vehicle continuing to move or the engine stalling after engaging a gear, is usually due to excessive clutch pedal free play, deformed clutch disc, damaged friction lining, improper assembly of new lining, misadjusted intermediate pressure plate, or hydraulic system leaks or air ingress.

Transmission Gear Jumping

Automatic jumping or shifting to neutral while engaging a gear is often caused by worn gears, worn spline teeth and grooves, worn bearings, loose retaining clips or nuts, and worn shift fork shafts and forks.

Overheated Transmission

Excessively high transmission temperatures are mostly due to prolonged high-load operation, failed cooling systems, or aged internal seals.



Transmission Abnormal Noise

Vibration and impacting sounds during startup, with noise intensifying during gear shifts, are typically caused by worn universal joint shafts and needle rollers, worn transmission shaft spline teeth and grooves, worn output shaft spline teeth, or loose connecting component screws.

Transmission Oil Issues

Leakage, abnormal oil level, or degraded transmission oil are usually caused by damaged oil seals, faulty oil level sensors, or prolonged oil replacement intervals.

Drivetrain Abnormal Noise

Abnormal noises emanating from the drivetrain, in addition to the transmission, may also indicate wear or looseness in components such as universal drive assemblies and drive axles.

Abnormal ECU Program

Failure or abnormal control of the drivetrain system is often caused by improper operation of the ECU program.

(Note: NT604E does not support ECU programming.)

Image: An overview of FOXWELL's customer support offerings, including lifetime updates, warranty, and technical assistance.

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