ANCEL V6HD

ANCEL V6HD Heavy Duty Truck Scanner User Manual

Model: V6HD

1. INTRODUCTION

The ANCEL V6HD is a professional heavy-duty truck diagnostic scan tool designed for comprehensive vehicle inspection and maintenance. It offers wide compatibility with U.S. diesel trucks and various heavy-duty equipment, providing advanced diagnostic functions, service resets, and ECU coding capabilities. This manual provides detailed instructions for setting up, operating, maintaining, and troubleshooting your ANCEL V6HD device.

Figure 1.1: ANCEL V6HD Heavy Duty Truck Scanner with its main components.

2. FEATURES OVERVIEW

The ANCEL V6HD offers a robust set of features for professional diagnostics:

- **40+ Service Functions:** Includes Oil Reset, BMS Reset, ABS bleed, Throttle Reset, Air Suspension, Injector Coding, and more.

- **Advanced DPF Functions:** Supports DPF Regeneration for various engines like Cummins, Paccar, Maxxforce, and Detroit.

- **3000+ Active Tests & ECU Coding:** Equipped with bi-directional tests, ECU coding, and programming capabilities to check system components and customize vehicle parameters.

- **OE-Level Auto Scan & AutoVIN:** Provides in-depth OE-level diagnosis across all available vehicle systems and automatic VIN identification.

- **Full OBD/HDOBD Function:** Accesses all available vehicle systems to read/erase error codes, retrieve freeze frame &

ECU info, and view live graphing data streams.

- **Wide Vehicle Compatibility:** Covers over 150 truck and vehicle brands, including 99% of U.S. trucks.

		ANCEL V6 HD	
Cost-effectice Rating	★★	★★★★★	★★★
Budget(USD)	400+	900+	2000+
Release Date	2021	2025	2021
ECU coding	⊗	✓	✓
DPF regen	basic	Advanced	Advanced
Oil Reset	basic or none	Advanced	Advanced
Active Test	⊗	Advanced	Basic
services reset	8+	40+	48+
Bluetooth	None,Wired	5.0	5.0
vehicle coverage	80+	150+	150+
engines supported	2 or 4	10	10
protocol	BASIC	BASIC,Doip,CANFD	BASIC,Doip,CANFD
update	No Update	2 year free upadate	only 1 year free upadate
battery	4000mA/h	8000mA/h	11000mA/h
os	Android 5.0	Android 10.0	Android 4.4
RAM/ROM	1G/8G	2G/32G	2G/64G
All systems	✓	✓	✓
screen size	5 inch	8 inch	9.7 inch
language	only Spanish and english	13+	13+

Figure 2.1: ANCEL V6HD's superior features compared to other diagnostic tools.

Figure 2.2: Extensive vehicle compatibility of the ANCEL V6HD across various truck brands.

3. SETUP

3.1 Unboxing and Kit Contents

Upon opening the protective carrying case, you will find the ANCEL V6HD tablet and a comprehensive set of accessories. Ensure all items listed below are present:

- 1x ANCEL V6 HD Scanner Tablet
- 1x Bluetooth VCI Connector
- 1x DIESEL-9 Connector
- 1x CAT-9 Connector
- 1x OBD-R16 Connector
- 1x BENZ-14 Connector
- 1x Battery Tester Clamps

- 1x ECU OBD Jumper Cables

- 1x ECU Jumper Leads

- 1x USB Cable

- 1x Switching Adaptor (with EU and US adapters)

- 1x Protective Carrying Case

- 1x ISUZU-3 Connector

- 1x ISUZU-20 Connector

- 1x CUMMINS-6 Connector

- 1x VOLVO-8 Connector

- 1x DENSO-12 Connector

- 1x MAN-37 Connector

- 1x Cigarette Lighter Cable

- 1x OBD Extension Cable

- 1x Wipe Cloth

- 1x User Manual

ADVANCED FEATURES
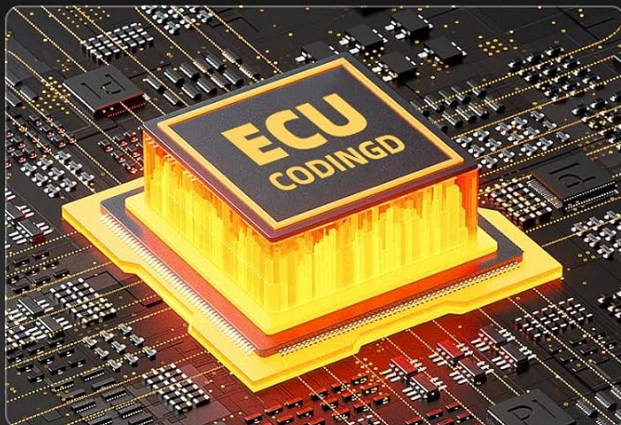
ECU CODING

- Match / code / learn
- Customize hidden features
- Comfort adjustments settings
- Activate additional safety features
- Recode replacement parts to the vehicles
- Adjust parameters to enhance Performance
- Read and clear trouble codes&vehicle diagnostics

BIDIRECTIONAL CONTROL

Send

Receive

Injector Test

EGR Test

And more

Cylinder Test

Engine Speed Test

3.2 Connecting the Bluetooth VCI

The ANCEL V6HD utilizes a Bluetooth Vehicle Communication Interface (VCI) for wireless connectivity to the vehicle's diagnostic port. This allows for greater flexibility during operation.

1. Locate the vehicle's diagnostic port (typically an OBD-II port for light-duty vehicles or a specific heavy-duty connector for trucks).
2. Select the appropriate adapter cable from the kit based on your vehicle's diagnostic port type.
3. Connect the selected adapter cable to the Bluetooth VCI connector.
4. Plug the VCI with the adapter into the vehicle's diagnostic port. Ensure a secure connection.
5. The VCI will power on, indicated by LED lights.

Video 3.2.1: Demonstration of the ANCEL V6HD's physical features and VCI connection.

3.3 Initial Power On and Interface

Once the VCI is connected to the vehicle, power on the ANCEL V6HD tablet. The device runs on an Android 10.0 operating system, providing a user-friendly interface.

1. Press and hold the power button on the tablet until the screen illuminates.
2. The device will boot up and display the ANCEL logo, followed by the main menu interface.
3. Verify the Bluetooth connection status on the tablet's display. A green indicator typically signifies a successful connection to the VCI.

Video 3.3.1: Overview of the ANCEL V6HD's interface and basic operation.

4. OPERATING INSTRUCTIONS

4.1 Navigation

The ANCEL V6HD features an intuitive touchscreen interface. Navigate through menus by tapping icons and swiping. The main screen provides access to key functions such as Diagnosis, Settings, Update, Data Manager, Quick Support, and Feedback.

4.2 Performing a Diagnostic Scan

To begin diagnosing a vehicle:

1. From the main menu, tap the "Diagnosis" icon.
2. Select the appropriate vehicle type (e.g., Heavy Truck, Light Truck, Construction, Agriculture) or engine type.
3. Choose the specific vehicle manufacturer and model from the displayed list.
4. The system will establish communication with the vehicle's ECU. This may take a few moments.
5. Once connected, you can select specific systems (e.g., Engine, Transmission, ABS) for diagnosis.

Video 4.2.1: Detailed demonstration of vehicle selection and diagnostic process.

4.3 Reading and Clearing Fault Codes

After a diagnostic scan, you can view and manage fault codes:

1. From the diagnostic screen, select "Read Fault Code" to view current and historical diagnostic trouble codes (DTCs).
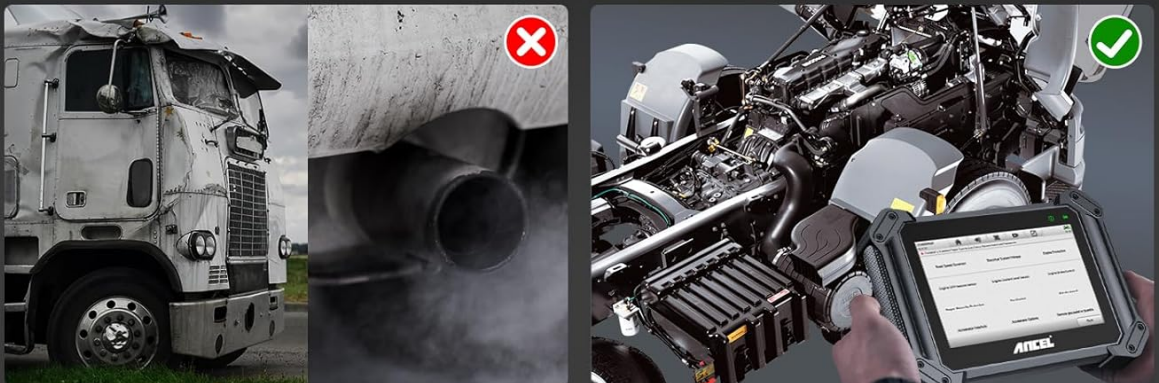
2. Each code will provide a description of the detected issue.

3. To clear codes after repairs, select "Erase Fault Code" and confirm the action. Ensure the underlying issue is resolved before clearing codes to prevent recurrence.

4.4 Special Functions (ECU Coding, Bi-directional Control, DPF Regeneration)

The ANCEL V6HD supports advanced functions for in-depth vehicle service:

- **ECU Coding & Programming:** Allows for matching/learning new components, customizing hidden features, and adjusting parameters for enhanced performance.

- **Bi-directional Control (Active Test):** Enables sending commands to vehicle systems to perform specific tests, such as Injector Test, EGR Test, Cylinder Test, and Engine Speed Test.

- **DPF Regeneration:** Facilitates the DPF regeneration process for compatible diesel engines, crucial for maintaining engine efficiency and longevity.

Figure 4.4.1: Overview of advanced features like ECU Coding and Bi-directional Control.
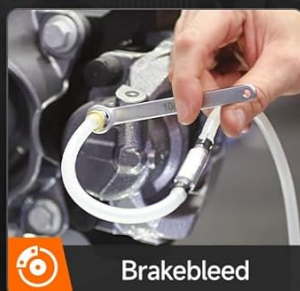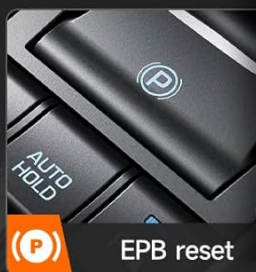
Figure 4.4.2: A selection of the 40+ service functions offered by the ANCEL V6HD.

5. Maintenance

5.1 Software Updates

To ensure optimal performance and access to the latest vehicle models and functions, regularly update the ANCEL V6HD software. The device includes 2 years of free updates.

1. Connect the ANCEL V6HD tablet to a stable Wi-Fi network.

2. From the main menu, tap the "Update" icon.

3. Follow the on-screen prompts to download and install available updates. Ensure the device has sufficient battery charge or is connected to power during the update process.

5.2 Cleaning and Storage

Proper care extends the lifespan of your device:

- Use the provided wipe cloth or a soft, damp cloth to clean the screen and exterior of the tablet. Avoid abrasive cleaners or solvents.
- Store the device and all accessories in the protective carrying case when not in use to prevent damage from dust, moisture, and impacts.
- Store in a cool, dry place, away from direct sunlight and extreme temperatures.

6. TROUBLESHOOTING

If you encounter issues with your ANCEL V6HD, refer to the following common troubleshooting steps:

- **Device Not Powering On:** Ensure the battery is charged. Connect the device to the power adapter and try again.
- **No Communication with Vehicle:** Verify that the VCI is correctly plugged into the vehicle's diagnostic port and that the correct adapter is used. Check the VCI's LED indicators for power and communication status. Ensure the vehicle's ignition is on.
- **Bluetooth Connectivity Issues:** Ensure the VCI is within range of the tablet. Restart both the VCI and the tablet. Check Bluetooth settings on the tablet to ensure it's enabled and paired.
- **Software Freezing/Lagging:** Restart the device. Ensure the software is up to date. Close any unnecessary background applications.
- **Inaccurate Readings/Codes:** Ensure the correct vehicle make, model, and year are selected in the diagnostic software. Verify the vehicle's VIN if using AutoVIN.

7. SPECIFICATIONS

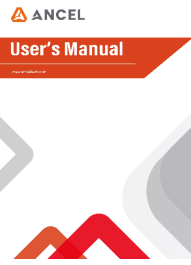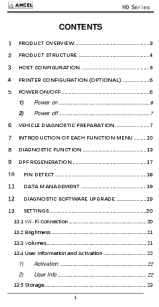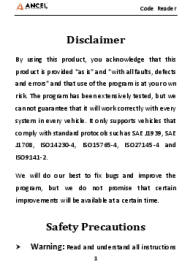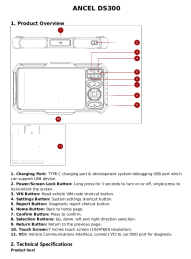| Feature	Specification
Model	V6HD
Operating System	Android 10.0
Display Size	8-inch IPS Touchscreen
Display Resolution	1280x800
CPU	4-core 2.0 GHz
RAM	2GB
ROM	32GB (Expandable)
Battery Capacity	8000mAh Lithium Ion
Connectivity	Bluetooth 5.0, Wi-Fi
Item Weight	10.93 pounds
Package Dimensions	13.11 x 12.87 x 6.26 inches
Country of Origin	China

Figure 7.1: Key hardware specifications and features of the ANCEL V6HD.

8. WARRANTY AND SUPPORT

ANCEL is committed to providing excellent customer support for the V6HD scanner:

- **Warranty:** The ANCEL V6HD comes with a 2-year brand warranty.
- **Free Updates:** Enjoy 2 years of free software updates to keep your device current with the latest vehicle data and functions.
- **Technical Support:** Lifelong technical support is available. Professional remote diagnostic software allows users to get instant support from ANCEL's technical team 24/7/365.
- **Replacement Policy:** A free support and replacement policy is offered.

Related Documents - V6HD

[Ancel V5 HD User Manual: Heavy Duty Diagnostic Tool Guide](#)

Comprehensive user manual for the Ancel V5 HD, an Android-based diagnostic tool for heavy-duty trucks and commercial vehicles. Covers setup, operation, software features, activation, maintenance, and warranty.

[ANCEL HD Series Vehicle Inspection Pilot Expert User Manual](#)

Comprehensive user manual for the ANCEL HD Series vehicle inspection tools, covering product overview, structure, host configuration, printer setup, power operations, vehicle diagnostic preparation, function menus, diagnostic procedures for Diesel OBD and OBD-II, DPF regeneration, pin detection, data management, software upgrades, settings, and troubleshooting FAQs.

[ANCEL HD601 Heavy Duty Truck Code Reader User Manual](#)

Comprehensive user manual for the ANCEL HD601 Heavy Duty Truck Code Reader, covering product overview, operation, software upgrading, and FAQs. Learn how to diagnose commercial vehicles with this advanced diagnostic tool.

[ANCEL DS300 Automotive Diagnostic Tool User Manual](#)

A comprehensive guide to the ANCEL DS300, a professional automotive diagnostic scanner. This manual covers product overview, technical specifications, setup, function descriptions, troubleshooting FAQs, and warranty information.

[ANCEL DS160, DS100, DS200 User Manual - Automotive Diagnostic Tools](#)

User manual for ANCEL DS160, DS100, and DS200 automotive diagnostic tools. Covers features, parameters, usage, functions, FAQ, and warranty for these OBD2 scanners.

[Ancel AD8000: Comprehensive Automotive Diagnostic System User Manual](#)

This manual provides detailed instructions for the Ancel AD8000 automotive diagnostic system, covering setup, operation, and advanced functions for heavy-duty and passenger vehicles. Learn about VCI box connection, diagnosis procedures, data management, and system settings.