

Liiyuan P22

Liiyuan Head up Display P22 Instruction Manual

Model: P22

1. INTRODUCTION

The Liiyuan P22 Head up Display (HUD) is designed to project essential vehicle data directly into the driver's line of sight, enhancing safety by minimizing the need to look away from the road. This device integrates advanced technology to provide real-time information such as speed, fuel consumption, and various alarms, ensuring a focused driving experience. It features a clear display and an adjustable stand for flexible placement within your vehicle.

Key features include:

- Dual mode operation: Supports both OBD and GPS data acquisition.
- Comprehensive data display: Shows vehicle speed, water temperature, voltage, fuel consumption, RPM, driving time, distance, and more.
- Safety alarms: Includes overspeed, water temperature, voltage, and tilt alarms.
- Integrated clinometer: Measures roll and pitch angles for off-road driving.
- Multiple display interfaces: Offers various themes for personalized data presentation.

2D Display interface | P22

A new generation of OBD LCD instrument

OBD+GPS+In clinometer+Ambient Light+Detector



Figure 1.1: Liiyuan P22 HUD in operation, displaying vehicle speed and other essential information.

2. WHAT'S IN THE BOX

Before proceeding with installation, please ensure all components are present:

- P22 HUD Unit
- Non-slip Mat
- Rotary Suction Cup Holder
- OBD Cable
- English Manual

Product accessories



【P22 machine】



【Rotary Suction Cup Holder】



【English manual】



【OBD cable】



【Non-slip double-sided tape】

Figure 2.1: Package Contents. This image displays the Liiyuan P22 HUD unit, a rotary suction cup holder, an OBD cable, a non-slip mat, and the English instruction manual.

3. SETUP AND INSTALLATION

The Liiyuan P22 HUD offers flexible installation options. Choose the method that best suits your vehicle and driving preference.

3.1 Device Placement

1. **Choose a Location:** Select a position on your dashboard or windshield that provides a clear view without obstructing your line of sight to the road. The device is designed to be easily visible.
2. **Secure the Device:**
 - **Using the Non-slip Mat:** Place the non-slip mat on your dashboard and position the P22 HUD unit on top of it.
 - **Using the Rotary Suction Cup Holder:** Attach the suction cup holder to a clean, smooth surface (e.g., windshield or dashboard). Secure the P22 HUD unit to the holder and adjust the angle for optimal viewing.



Figure 3.1: Installation Examples. This image illustrates the P22 HUD unit installed in different vehicles and lighting conditions, demonstrating its adaptability and visibility.

3.2 Power Connection

The P22 HUD connects to your vehicle via the provided OBD cable.

1. **Locate the OBD-II Port:** The OBD-II port is typically located under the dashboard on the driver's side, often near the steering column. Refer to your vehicle's manual if you cannot locate it.
2. **Connect the OBD Cable:** Plug one end of the provided OBD cable into the P22 HUD unit and the other end into your vehicle's OBD-II port.
3. **Route the Cable:** Carefully route the cable to avoid interference with driving controls and to maintain a tidy appearance.

4. OPERATING INSTRUCTIONS

The P22 HUD operates in two primary modes: OBD and GPS. Upon powering on, you will need to select your preferred

language and operating mode.

4.1 Mode Selection

1. **Power On:** Start your vehicle. The P22 HUD will power on automatically.
2. **Language Selection:** Follow the on-screen prompts to select your desired language.
3. **Choose Operating Mode:** You can switch between OBD and GPS modes.
 - **OBD Mode:** Reads data directly from your vehicle's onboard diagnostics system. This mode is generally applicable to most gasoline cars manufactured after 2008.
 - **GPS Mode:** Acquires data via satellite signals. This mode is compatible with any car and is recommended if your vehicle does not support the OBD protocol or if you encounter issues in OBD mode.

Important Note: If your car does not meet the OBD protocol requirements, switch to GPS mode within 5 seconds of powering on the device to ensure proper functionality.

4.2 Displayed Information

The P22 HUD can display a wide range of vehicle parameters depending on the selected mode.

4.2.1 OBD Display Parameters

- Vehicle Speed
- Water Temperature
- Voltage
- Fuel Consumption
- RPM (Revolutions Per Minute)
- Clock
- Single Driving Time
- Driving Distance
- Intake Pressure
- Oil Temperature
- Air Fuel Ratio
- Throttle Position
- Intake Temperature
- Transmission Temperature
- Engine Load
- Tilt Angle
- Acceleration Test Results
- Brake Test Results

4.2.2 GPS Display Parameters

- Vehicle Speed
- Voltage
- Satellite Time
- Altitude
- Number of Satellites
- Driving Direction
- Single Mileage

- Driving Time
- Uphill and Downhill Angle
- Left and Right Tilt Angle
- Acceleration Test Results
- Braking Test Results



Figure 4.1: Comprehensive Data Display. This image illustrates the various data points the P22 HUD can monitor and display, including speed, RPM, voltage, and fuel consumption.

4.3 Alarm Functions

The P22 HUD includes several alarm functions to alert the driver to critical vehicle conditions:

- **Overspeed Alarm:** Alerts when the vehicle exceeds a preset speed limit.
- **Speed Alarm:** General speed warning.
- **Water Temperature Alarm:** Warns if the engine coolant temperature becomes too high.
- **Voltage Alarm:** Notifies of abnormal vehicle battery voltage.

- **Tilt Alarm:** Alerts if the vehicle's tilt angle exceeds a safe limit (relevant for off-road use).
- **RPM Alarm:** Warns if engine RPM exceeds a preset limit.
- **Engine Alarm:** Indicates general engine issues detected via OBD.



Figure 4.2: Alarm Functions. This image highlights the various safety alarms provided by the P22 HUD, including overspeed, voltage, water temperature, RPM, and engine alerts.

4.4 Display Interfaces and Clinometer

The P22 HUD offers multiple display interfaces and a built-in clinometer for specialized measurements.

4.4.1 Display Interfaces

The device features 11 major display interfaces, allowing users to customize the visual presentation of data. These include various themes such as Cool, Mechanical, Speed, Digital, Future, Turbo Pressure, Electronic Slope Meter, and PID data displays, along with acceleration and brake test screens.

11 major interfaces switch what you like

New interface design, larger fonts, clearer and smoother picture

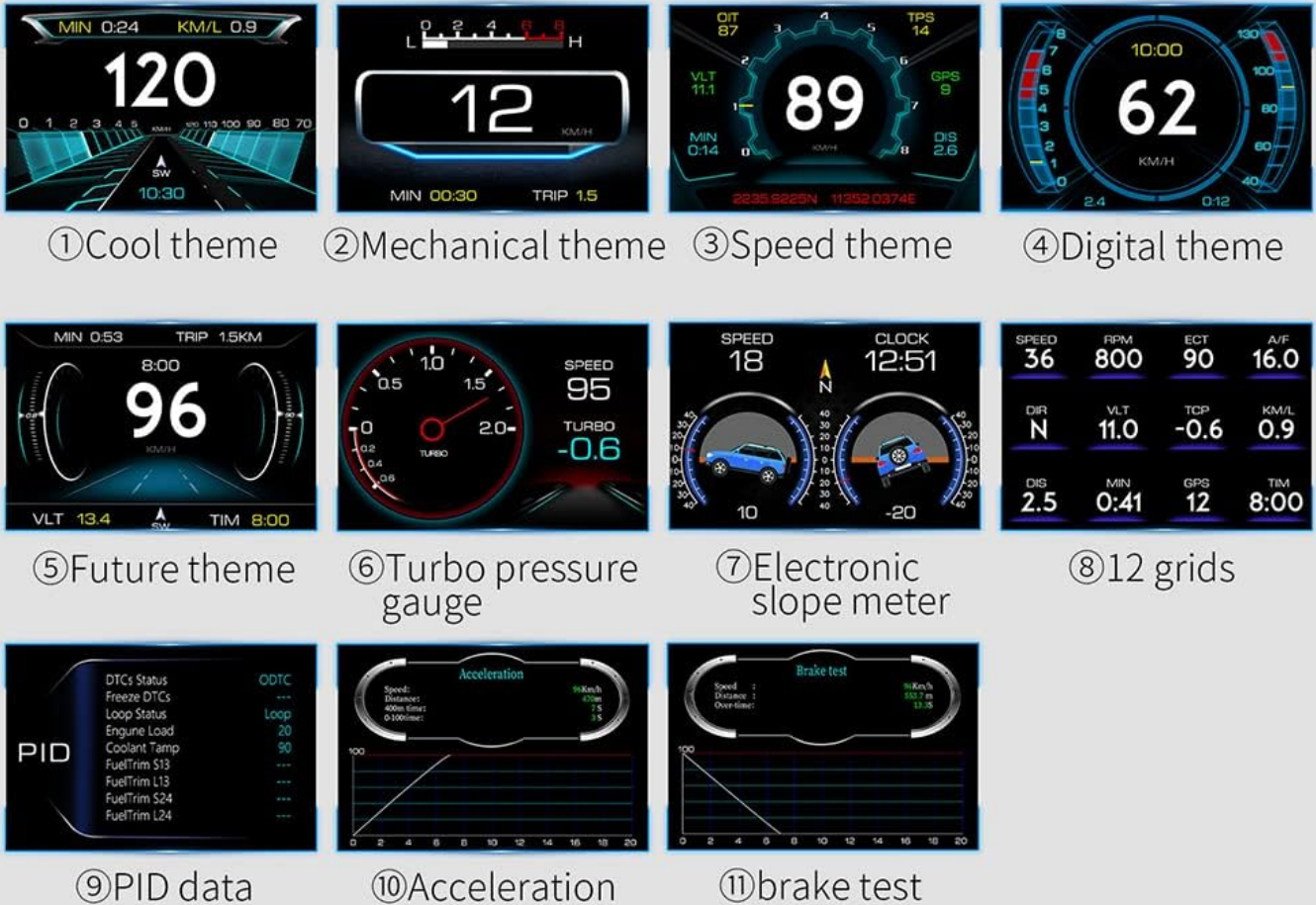


Figure 4.3: Multiple Display Interfaces. This image showcases the 11 distinct display interfaces available on the P22 HUD, offering various visual styles and data layouts.

4.4.2 Clinometer Function

The integrated clinometer provides real-time measurement of your vehicle's roll and pitch angles, which is particularly useful for off-road driving.

- **Roll Angle:** Measures the left and right tilt of the vehicle, ranging from -40° to 40° . Exceeding 40° can be dangerous.
- **Top View Angle (Pitch Angle):** Measures the uphill and downhill angle, also ranging from -40° to 40° . A warning prompt appears if the slope exceeds 30° .

Roll angle: $-40^{\circ} \sim 40^{\circ}$

It can locate the left or right or right wave angle in detail, and the left and right oblique driving cannot exceed 40 degrees, otherwise it will be dangerous, and the balancer will give you an accurate identification.



right tilt



Lean to the left



Top view angle: $-40^{\circ} \sim 40^{\circ}$

It can accurately display the accuracy of downhill and uphill. There are slope scale prompts for both uphill and downhill, and if it exceeds 30 degrees, it is a warning slope.



climb



downhill



Figure 4.4: Clinometer Display. This image demonstrates the P22 HUD's ability to display real-time roll and pitch angles, crucial for monitoring vehicle stability in challenging terrains.

5. MAINTENANCE

To ensure the longevity and optimal performance of your Liiyuan P22 HUD, follow these maintenance guidelines:

- **Cleaning:** Use a soft, dry cloth to clean the display screen and the device body. Avoid abrasive cleaners or solvents that could damage the surface.
- **Cable Inspection:** Periodically check the OBD cable for any signs of wear, fraying, or damage. Replace if necessary.
- **Temperature Exposure:** Avoid exposing the device to extreme temperatures (very hot or very cold) for extended periods, as this can affect its electronic components.
- **Secure Mounting:** Ensure the device remains securely mounted to prevent it from falling or becoming dislodged.

during driving.

6. TROUBLESHOOTING

If you encounter issues with your Liiyuan P22 HUD, refer to the following troubleshooting tips:

6.1 Device Does Not Power On

- **Check OBD Connection:** Ensure the OBD cable is securely plugged into both the HUD unit and the vehicle's OBD-II port.
- **Vehicle Ignition:** Confirm that your vehicle's ignition is on or the engine is running, as the OBD port typically receives power only when the vehicle is active.
- **Cable Integrity:** Inspect the OBD cable for any visible damage.

6.2 No Data Displayed in OBD Mode

- **Vehicle Compatibility:** OBD mode is primarily compatible with gasoline cars manufactured after 2008. If your vehicle is older or a different type, it may not support the OBD protocol.
- **Switch to GPS Mode:** If OBD data is not displayed, switch the device to GPS mode within 5 seconds of powering on. GPS mode is universally compatible.
- **Check OBD-II Port:** Ensure the vehicle's OBD-II port is functional. You can test it with another OBD-II scanner if available.

6.3 No Data Displayed in GPS Mode

- **Satellite Signal:** GPS mode requires a clear view of the sky to acquire satellite signals. Ensure the device is not obstructed by metal objects or parked indoors.
- **Initial Acquisition Time:** It may take a few minutes for the device to acquire sufficient satellite signals upon first use or after being in an area with poor reception.

6.4 Inaccurate Speed Reading

- **Calibration:** The device may require calibration for speed accuracy. Refer to the device's internal settings menu for speed calibration options.
- **GPS vs. OBD:** Compare readings between GPS and OBD modes if possible. GPS speed is typically more accurate than vehicle speedometer readings, which can have a slight offset.

7. SPECIFICATIONS

Feature	Detail
Model Number	P22
Product Dimensions	3.96 x 1.08 x 2.76 inches
Item Weight	2.88 ounces (0.18 Pounds)
Connectivity Technology	OBD, GPS
Manufacturer	Liiyuan
First Available Date	December 24, 2024

8. WARRANTY AND SUPPORT

Liiyuan products undergo thorough quality inspection before leaving the factory. We offer comprehensive after-sales support for our customers.

- **Warranty Period:** All products are covered by a one-year warranty from the date of purchase.
- **Contact Support:** For any unresolved issues or warranty claims, please contact our customer service via email. Refer to the contact information provided in the product packaging or on the official Liiyuan website.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question