BY-J HUD-G12

BY-J HUD-G12 Heads Up Display User Manual

Model: HUD-G12

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your BY-J HUD-G12 Heads Up Display. Designed for universal vehicle compatibility, this digital GPS speedometer offers essential driving data directly in your line of sight, enhancing safety and convenience. Please read this manual thoroughly before use to ensure proper functionality and to maximize your device's potential.

2. Product Features

- **All-in-One Core Driving Data:** Displays real-time speed (MPH/KM/H), direction, altitude, and clock.
- **6 Customizable Display Modes:** Tailor the interface to your preference for clear, adaptable data visibility.
- **Dual-Mode GPS + BDS:** Equipped with advanced dual-chip technology and a 10Hz high refresh rate for fast, accurate positioning and stable real-time speed data. Connects to up to 32 satellites simultaneously.
- **Smart Auto-Brightness & Anti-Glare Display:** Built-in intelligent light sensor adjusts screen brightness dynamically. Features high-contrast large fonts and anti-glare metal blackout technology.
- **Dual Safety Alerts:** Customizable Overspeed Alert and Fatigue Alert (triggers after 4 hours of continuous driving).
- **Multi-Functional Navigation:** Built-in compass provides real-time directional guidance.
- **Universal USB Plug-and-Play:** Compatible with all USB-equipped vehicles (cars, motorcycles, trucks, golf carts). No tools or modifications needed.
- **Comprehensive Mileage Tracking:** Features permanent ODO (total distance) auto-save and trip meter for accurate driving analytics.
- **Automatic Switch:** Automatically turns on and off with vehicle ignition.

3. Package Contents

Upon opening your BY-J HUD-G12 package, please verify that all the following items are included:

- BY-J HUD-G12 Heads Up Display Unit
- USB Power Cable (Type-C interface)
- Rotary Suction Cup Holder
- Non-slip Mat
- Instruction Manual (this document)



Figure 3.1: Package Contents of the BY-J HUD-G12.

4. Product Overview

The BY-J HUD-G12 is designed for clear and intuitive display of critical driving information. Familiarize yourself with its components and display functions.

4.1 Device Components



Figure 4.1: BY-J HUD-G12 Device Components and Dimensions.

- **Multi-function Dial Keys:** Used for navigating menus and adjusting settings.
- **360° Rotating Bracket Slot:** For attaching the suction cup holder.
- **High-speed Type-C Interface:** For power connection.
- **Automatic Sensor:** Detects ambient light for auto-brightness adjustment.

4.2 Display Functions

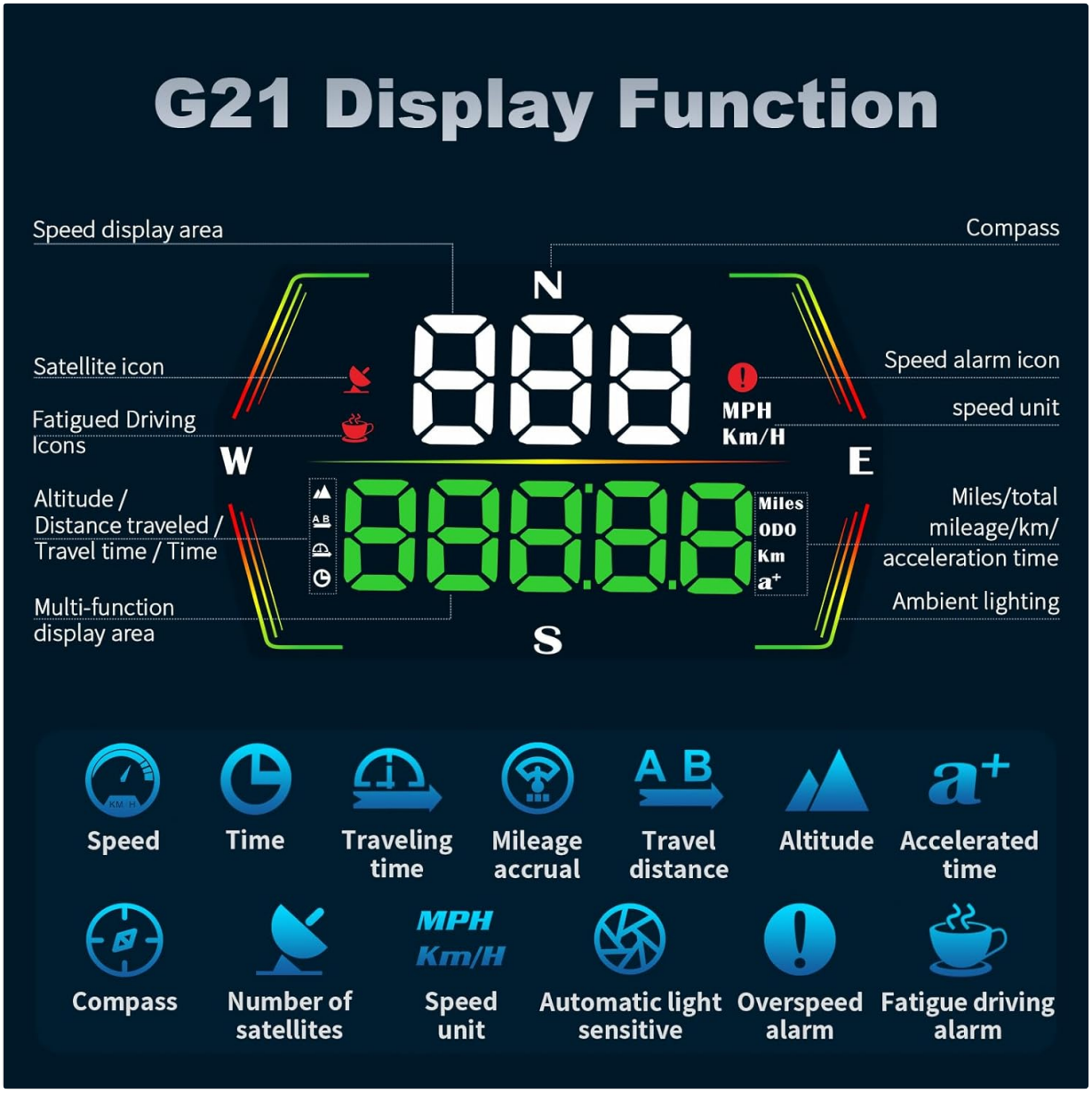


Figure 4.2: G21 Display Function Overview.

The display provides various data points and indicators:

- **Speed Display Area:** Shows current vehicle speed.
- **Compass:** Indicates driving direction (N, S, E, W).
- **Speed Alarm Icon:** Illuminates when overspeed alert is active.
- **Speed Unit:** Displays MPH or KM/H.
- **Satellite Icon:** Indicates GPS signal status.
- **Fatigued Driving Icons:** Alerts for prolonged driving.
- **Multi-function Display Area:** Can show altitude, distance traveled, travel time, total mileage, or acceleration time.
- **Ambient Lighting:** Decorative lighting that changes with speed.

5. Setup and Installation

The BY-J HUD-G12 is designed for easy plug-and-play installation in any vehicle with a USB port.

5.1 Power Connection

1. Locate an available USB port in your vehicle. This can be a dedicated USB charging port or a USB port connected to your car's infotainment system.
2. Connect the provided USB power cable to the Type-C interface on the back of the HUD-G12 unit.
3. Plug the other end of the USB cable into your vehicle's USB port.
4. The device will automatically power on when the vehicle's ignition is turned on.

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Video 5.1: Demonstration of connecting the HUD-G12 to a vehicle's USB port.

5.2 Mounting the Device

You have two primary options for mounting the HUD-G12:

1. **Dashboard Placement (using Non-slip Mat):**
   Place the non-slip mat on a flat, stable surface of your dashboard. Position the HUD-G12 unit on the mat. Ensure it does not obstruct your view of the road.
2. **Windshield Mounting (using Suction Cup Holder):**
   Attach the rotary suction cup holder to the slot on the back of the HUD-G12 unit. Clean a suitable area on your windshield, ensuring it is free from dust and grease. Press the suction cup firmly against the windshield and engage the locking mechanism. Adjust the angle of the HUD-G12 for optimal viewing. The holder allows for 360-degree rotation.



Figure 5.2: 360-degree rotation of the suction cup holder.

Important: Ensure the device is securely mounted and does not interfere with airbags or your driving visibility.

6. Operating Instructions

The HUD-G12 offers various display modes and settings to customize your driving experience.

6.1 Power On/Off

The device automatically powers on when connected to a powered USB port and the vehicle's ignition is on. It will power off automatically when the ignition is turned off.



Figure 6.1: Automatic power on/off with vehicle ignition.

6.2 Changing Display Modes

Use the multi-function dial keys on the device to cycle through the available display modes. The HUD-G12 features 6 customizable modes, including:

- Speed only
- Time only
- Speed + Travel time
- Speed + Distance traveled + Ambient lighting
- Speed + Total Mileage + Compass + Ambient Lighting
- Speed + Altitude + Compass + Ambient Lighting

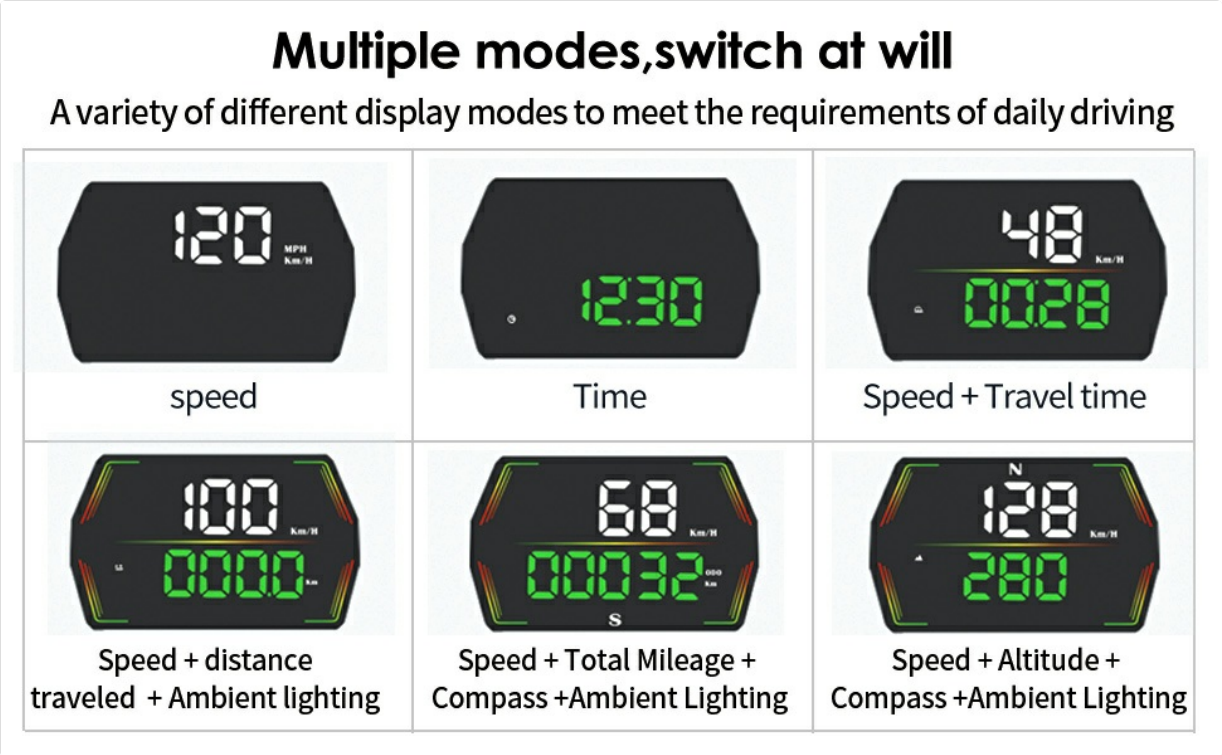


Figure 6.2: Multiple display modes available on the HUD-G12.

6.3 Unit Selection (MPH/KM/H)

Refer to the detailed instructions provided in the included paper manual for specific steps on how to switch between MPH and KM/H units using the multi-function dial keys.

6.4 GPS and BDS Dual-Mode Chip

The device utilizes a 10Hz high refresh rate GPS and Beidou dual-mode chip for accurate and stable data acquisition. This ensures reliable speed and positioning information even in challenging environments.



Figure 6.3: GPS+Beidou dual-mode chip for enhanced accuracy.

7. Safety Alerts

The HUD-G12 includes features to promote safer driving habits.

7.1 Overspeed Alert

The device can be configured to alert you when your vehicle exceeds a preset speed limit. The default overspeed alert is set to 120 km/h. You can adjust this threshold using the multi-function dial keys. When the alert is triggered, a visual indicator will appear on the display.

7.2 Fatigue Driving Alert

To prevent driver fatigue, the HUD-G12 will issue an alert after 4 hours of continuous driving. This serves as a reminder to take a break and rest.



Figure 7.1: Overspeed and Fatigue Driving Alerts.

8. Maintenance

To ensure the longevity and optimal performance of your BY-J HUD-G12, follow these maintenance guidelines:

- **Cleaning:** Use a soft, dry cloth to clean the display screen and the device body. Avoid using abrasive cleaners, solvents, or chemical sprays, as these can damage the unit.
- **Temperature:** Do not expose the device to extreme temperatures, either hot or cold, for extended periods.
- **Moisture:** Keep the device dry. Avoid contact with water or other liquids.
- **Storage:** When not in use for an extended period, store the device in a cool, dry place away from direct sunlight.

9. Troubleshooting

If you encounter issues with your BY-J HUD-G12, please refer to the following common troubleshooting steps:

- **Device Not Powering On:**
  Ensure the USB cable is securely connected to both the HUD-G12 and a functional USB port in your vehicle. Verify that the vehicle's ignition is on. Try a different USB port or cable if available.
- **No Speed Display/Inaccurate Speed:**
  Ensure the device has a clear view of the sky to receive GPS signals. It may take a few moments for the device to acquire satellite signals upon startup. Drive in an open area away from tall buildings or tunnels.
- **Display Too Dim/Bright:**
  The device features an automatic light sensor. Ensure the sensor is not obstructed. If manual adjustment is desired, refer to the detailed settings in the included paper manual.
- **Overspeed/Fatigue Alert Not Working:**
  Check the settings for these alerts using the multi-function dial keys to ensure they are enabled and configured to your preferences.
- **Device Freezes or Malfunctions:**
  Disconnect the USB power cable, wait for a few seconds, and then reconnect it to perform a soft reset.

If the issue persists after attempting these steps, please contact customer support for further assistance.

10. Specifications

Feature	Specification
Brand	BY-J
Model Number	G12-HUD
Product Dimensions (L x W x H)	3.27 x 0.72 x 2.19 inches
Item Weight	2 Pounds
Material	Acrylonitrile Butadiene Styrene (ABS)
Display Type	LED Digital Display
Positioning System	GPS + BDS Dual-Mode
Refresh Rate	10Hz

Power Source	USB (Plug and Play)

11. Warranty and Support

Your BY-J HUD-G12 Heads Up Display is covered by a manufacturer's warranty against defects in materials and workmanship. For specific warranty terms, duration, and conditions, please refer to the warranty card included with your product or contact BY-J customer support.
For technical support, troubleshooting assistance, or any inquiries regarding your product, please visit the official BY-J website or contact their customer service department through the contact information provided in your product packaging or on the brand's official channels.