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› Head Up Display for Tesla Model 3 2017-2023 Model Y 2019-2024 with Wireless/Wired Carplay Android Auto Bluetooth WiFi USB Navigation Power Speed IPS HD Touchscreen (8.8in-T12)

Tlyard T12 Pro

Tlyard Head Up Display User Manual

Model: T12 Pro

1. PRODUCT OVERVIEW

The Tlyard Head Up Display (HUD) is specifically designed for Tesla Model 3 (2017-2023) and Model Y (2019-2024) vehicles. This advanced display integrates seamlessly into your vehicle's interior, providing essential driving information directly in your line of sight. It enhances driving safety and convenience by synchronizing with the original vehicle's central control screen and offering smart connectivity features.

Key Features:

- **Online OTA Upgrade:** Directly update software from the cloud for continuous improvements and compatibility.
- **Essential Data Synchronization:** Automatically displays critical vehicle information such as power, gear, speed, seat belt reminders, speed limit warnings, and tire pressure alerts.
- **CarPlay & Android Auto Support:** Features an ultra-thin 8.8-inch 2.5D touchscreen that supports wireless Apple CarPlay and both wired and wireless Android Auto.
- **Multi-control Methods:** Control the HUD via touchscreen, mobile phone, steering wheel controls, or voice assistant.
- **Integrated Connectivity:** Built-in Bluetooth and WiFi for seamless connection.
- **Non-destructive Installation:** Designed for easy installation without altering the original car's structure.
- **Video Input Function:** Supports front-view camera display for real-time transmission and enhanced driving safety.



Figure 1: Tlyard Head Up Display (8.8in-T12) installed in a Tesla Model 3/Y, providing essential driving information.

2. PACKAGE CONTENTS

Please verify that all items listed below are included in your package:

- Tlyard Head Up Display Unit (Model T12 Pro)
- Installation Cables (Power Cord, Protocol Cable)
- Installation Tools (Pry tool, Screwdriver)
- User Manual (This document)
- Decorative Panels (if applicable to your model)

Wireless remote upgrade of OTA

Remote OTA Upgrade

Only need to have WIFI network, you can upgrade in seconds.
Quickly solve the problem of incompatibility after OTA upgrade of the original car.



Figure 2: Main components of the Tlyard HUD, including the display unit and its custom housing.

3. SETUP AND INSTALLATION

The Tlyard HUD is designed for non-destructive installation. Follow these steps carefully. It is recommended to watch the official installation video for visual guidance.

Installation Video Guide:

Your browser does not support the video tag.

Video 1: Detailed installation guide for the Tlyard Head Up Display in Tesla Model 3/Y.

Step-by-Step Installation:

1. Prepare the HUD Unit:

Connect the display unit to its housing. Ensure all cables (power, video input if using a camera) are properly routed and secured within the housing. Use the provided screws to secure the display to the housing.

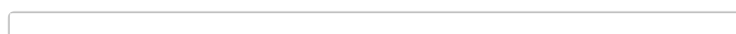


Figure 3: Assembling the Tlyard HUD unit with its protective cover and connecting the necessary cables.

2. Remove Instrument Panels:

Carefully remove both left and right instrument panels from the dashboard using a pry tool. Exercise caution to avoid scratching the interior surfaces.



Figure 4: Gently prying off the left instrument panel to access wiring.

3. Lift Dashboard Trim Panel:

Lift the dashboard trim panel vertically upward from both the left and right sides to expose the wiring area.



Figure 5: Lifting the dashboard trim panel to prepare for cable connections.

4. Remove A-pillar Flap:

Remove the front right seat A-pillar flap to access additional wiring connections.



Figure 6: Accessing the A-pillar wiring by removing the flap.

5. Unplug Original Power Connector:

Locate and unplug the original power connector (labeled 'B' in the video) from the vehicle's wiring harness.



Figure 7: Disconnecting the vehicle's original power connector.

6. Connect Power Cord B1:

Connect the Power Cord B1 connector from the HUD wiring harness to the original power connector 'B'.



Figure 8: Connecting the HUD's power cord (B1) to the vehicle's power harness.

7. Connect Female to B1, Male to B2:

After unplugging the original power connector B, connect the female connector from the HUD harness to B1, and the male connector to B2.



Figure 9: Interconnecting the HUD's power harness with the vehicle's original wiring.

8. Connect Protocol Cable A1:

Plug the blue connector A1 of the protocol cable into the original protocol cable A connector.



Figure 10: Connecting the protocol cable (A1) to ensure data communication with the vehicle.

9. Adjust Steering Wheel:

Adjust the steering wheel's telescoping direction to create space for the HUD unit.



Figure 11: Adjusting the steering wheel's position for optimal HUD placement.

10. Remove Steering Wheel Cover:

Remove the steering wheel cover to facilitate the installation of the HUD unit.



Figure 12: Removing the steering wheel cover to access the mounting area.

11. Install T12 Pro Cover:

Install the T12 Pro cover, ensuring all cables are properly connected and tucked away. The yellow plug is a reserved video input signal cable, used when installing an optional camera.



Figure 13: Installing the T12 Pro cover, ensuring proper cable management.

12. Secure Power Cord:

Secure the power cord within the dashboard using the provided tools or clips to prevent interference and ensure a clean installation.



Figure 14: Securing the power cord to prevent loose wires and ensure safety.

13. Install Decorative Panels:

Reinstall the decorative panels on the dashboard, ensuring they snap securely into place.



Figure 15: Reattaching the decorative panels to complete the installation.

14. Install A-pillar Flap:

Reinstall the front right seat A-pillar flap, ensuring it is securely in place.



Figure 16: Reinstalling the A-pillar flap, ensuring a secure fit.

Once all steps are completed, the installation is finished. Power on your Tesla and the HUD should activate automatically.



Figure 17: The Tlyard HUD fully installed and operational in the vehicle.

4. OPERATING INSTRUCTIONS

The Tlyard HUD is designed for intuitive operation. Here are key functions and how to use them:

4.1. Display Settings and OTA Updates

Access the 'General' settings on the touchscreen to adjust language, time format, tire pressure unit, and time zone. The 'Software' section allows for Online OTA (Over-The-Air) updates, ensuring your device always has the latest features and bug fixes.

One-way Data Reading, Better Safeguard System Security

Only one-way data can be read, and no commands can be sent, Do not affect the intelligent security of the original car.



Figure 18: General settings and OTA update interface on the Tlyard HUD.

4.2. Data Synchronization and Security

The HUD automatically synchronizes essential data from your original vehicle's central control screen. This includes real-time information such as power, gear, speed, seat belt reminders, speed limit warnings, and tire pressure alerts. The system is designed for one-way data reading, which means it only receives information and does not send commands, ensuring the intelligent security of your original car is not compromised.



Figure 19: One-way data reading ensures vehicle system security.

4.3. CarPlay and Android Auto

The 8.8-inch 2.5D touchscreen supports both wireless Apple CarPlay and wired/wireless Android Auto. This allows you to seamlessly integrate your smartphone for navigation, music, calls, and other applications. The display's UI is fully upgraded to echo the style of the original car, and its brightness automatically synchronizes with the original screen, or can be adjusted manually.

The UI is fully upgraded and echoes the style of the original car.

The brightness of the instrument screen automatically synchronizes with the brightness of the original screen, or you can adjust the brightness manually.

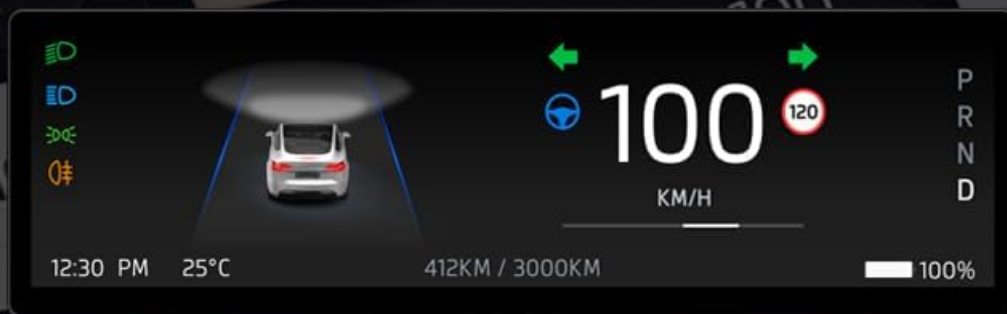


Figure 20: Apple CarPlay interface on the Tiyard HUD, supporting voice commands.

Automotive grade product design

Non-destructive Installation and Connection

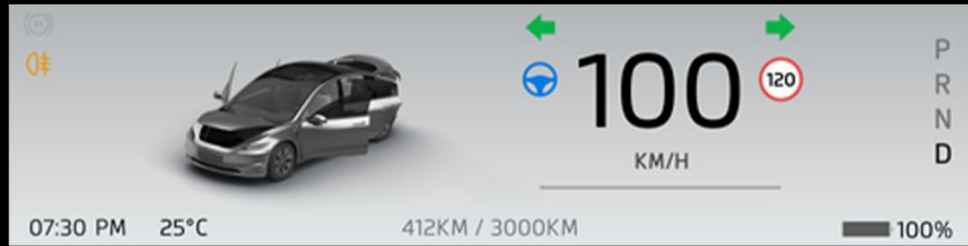
No need to destroy the original car route, inserted at the steering wheel position install the fixed, no damage to the original car structure.



Figure 21: The HUD's UI synchronizes with the original car's display, including brightness and mode.

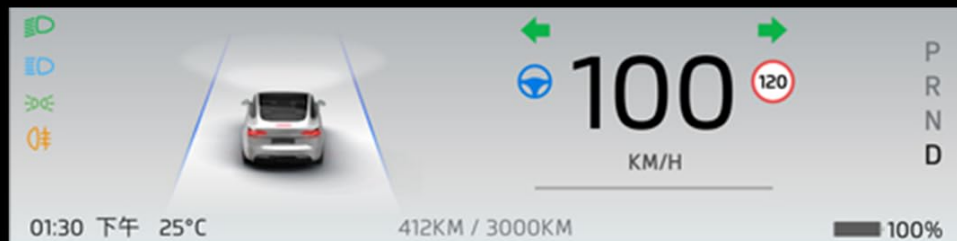
4.4. Control Methods and Audio Output

The Tlyard HUD offers versatile control options including direct touchscreen interaction, control via your mobile phone, and integration with your vehicle's steering wheel controls and voice assistant. Audio can be emitted through the HUD's built-in speaker or connected to the central control screen to utilize the original car's speaker system.

B**Door status
display**

Display the switch status of the four doors and the front box and tail box.

Figure 22: The HUD displays various vehicle states, including normal driving data and door open/close status.

A**Driving State**

This state is a normal driving state, which can synchronize the front and rear lights of the vehicle the model, etc.

Figure 23: The HUD supports video input, allowing for real-time front-view camera display.

5. MAINTENANCE

To ensure the longevity and optimal performance of your Tlyard Head Up Display, follow these maintenance guidelines:

- **Cleaning:** Use a soft, lint-free cloth to gently wipe the screen. For stubborn smudges, slightly dampen the cloth with water or a screen-safe cleaner. Avoid abrasive materials or harsh chemicals.
- **Temperature:** Do not expose the device to extreme temperatures (hot or cold) for extended periods, as this can affect its electronic components and screen.
- **Moisture:** Keep the device dry. Avoid contact with liquids.
- **Software Updates:** Regularly check for and install OTA software updates to ensure the device operates with the latest features and bug fixes.

6. TROUBLESHOOTING

If you encounter issues with your Tlyard Head Up Display, please refer to the following common troubleshooting steps:

Problem	Possible Cause	Solution
Display does not power on.	Loose power connection, vehicle not powered on.	Check all power cable connections. Ensure the vehicle is powered on.
No data displayed.	Protocol cable not properly connected.	Verify the protocol cable (A1) is securely connected to the vehicle's original protocol cable (A).
CarPlay/Android Auto not connecting.	Bluetooth/WiFi issues, phone settings.	Ensure Bluetooth and WiFi are enabled on your phone. Check the HUD's wireless settings. Try restarting both the phone and the HUD.
Screen flickering or distorted image.	Loose video cable, software glitch.	Check the video input cable connection. Perform a software update if available.

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

7. SPECIFICATIONS

Feature	Detail
Model Name	HUD (T12 Pro)
Screen Size	8.8 inches (2.5D curved screen)
Resolution	1280*320
Operating System	Linux
Connectivity Technology	Bluetooth, WiFi
Control Method	Touchscreen, Mobile Phone, Steering Wheel Control, Voice Assistant
Compatibility	Tesla Model 3 (2017-2023), Tesla Model Y (2019-2024)
Item Weight	3.21 pounds
Product Dimensions	8.8 x 8.8 x 8.8 inches
Country of Origin	China

8. WARRANTY AND SUPPORT

Tlyard offers a **three-year guarantee period** for this Head Up Display. For any product-related inquiries, technical support, or warranty claims, please contact Tlyard customer service. Our after-sales team aims to respond within 24 hours to ensure a high-quality shopping experience.

For the most up-to-date support information, please refer to the official Tlyard website or your purchase platform's support section.

