

BOYO VISION VTL17IRTJ

BOYO VTL17IRTJ Concealed License Plate Backup Camera User Manual

Model: VTL17IRTJ

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your BOYO VTL17IRTJ Concealed License Plate Backup Camera. This device is designed to enhance vehicle safety by providing a clear rear view with night vision capabilities and active parking assistance. Please read this manual thoroughly before installation and use to ensure proper function and longevity of the product.

2. SAFETY INFORMATION

Always prioritize safety during installation and operation. Improper installation can lead to vehicle damage or personal injury. This product is intended as an aid and should not replace careful driving and direct observation.

- **Proposition 65 Warning:** This product may contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.
- Ensure all wiring is correctly connected and insulated to prevent short circuits.
- Do not obstruct the driver's view or interfere with vehicle controls during installation.
- Consult a professional if you are unsure about any installation steps.

3. PACKAGE CONTENTS

Verify that all items are present in the package before beginning installation:

- BOYO VTL17IRTJ Backup Camera
- Wiring Harness (Power and Video Cables)
- Instruction Manual

4. PRODUCT FEATURES

- **Concealed License Plate Mount Design:** Mounts discreetly behind the license plate, with only the camera visible.

- Integrated Bracket: Can be removed for universal mounting options.
- CMOS Image Sensor: Provides clear video with 600 TV Lines (720 x 480 resolution).
- Wide Viewing Angle: 170° diagonal view for comprehensive coverage.
- IP67 Waterproof Rating: Ensures durability and performance in various weather conditions.
- Active Park Assist Lines: Dynamic guidelines that curve with your steering input to assist with parking maneuvers.
- Camera Angle Adjustment: Allows for vertical adjustment (up or down) to optimize the viewing angle.
- Selectable Parking Lines and Reverse Image: Options to enable or disable parking lines and reverse image orientation.
- Night Vision: Equipped with infrared sensors for improved visibility in low-light conditions.

5. SETUP AND INSTALLATION

The BOYO VTL17IRTJ camera is designed for concealed mounting behind your vehicle's license plate. The integrated bracket can also be removed for alternative mounting solutions.

1. Mounting the Camera:

- Remove your vehicle's rear license plate.
- Position the camera bracket behind the license plate, aligning the mounting holes.
- Secure the license plate and camera bracket using the original license plate screws. Ensure the camera lens is unobstructed and facing outwards.
- Adjust the camera angle vertically as needed for optimal view.

2. Wiring Connections:

- **Power Connection:** Connect the camera's power wire (typically red) to the vehicle's reverse light power wire. This ensures the camera activates when the vehicle is in reverse. Alternatively, for continuous operation, connect to a switched 12V power source.
- **Ground Connection:** Connect the camera's ground wire (typically black) to a suitable chassis ground point on the vehicle.
- **Video Connection:** Connect the camera's RCA video output cable to the video input of your vehicle's display unit (e.g., aftermarket head unit, dedicated monitor).
- **Reverse Trigger Wire (if applicable):** If your display unit requires a reverse trigger, connect the trigger wire from the video cable to the same reverse light power source as the camera's power wire.

3. Cable Routing:

- Carefully route all cables from the camera to the display unit, avoiding moving parts, sharp edges, and heat sources.
- Use cable ties or clips to secure the wiring and prevent damage.
- Ensure all connections are secure and waterproofed where necessary.

4. Testing:

- With the vehicle in reverse (engine off, parking brake engaged), check the display unit for the camera feed.
- Verify that the active parking lines appear and respond to steering input.
- Adjust the camera angle if the view is not optimal.



Image: The BOYO VTL17IRTJ backup camera mounted on its license plate bracket. The camera unit is a small, black, rectangular device with a central lens and infrared sensors, attached to a curved black metal bracket designed to fit behind a standard vehicle license plate. This image illustrates the compact and discreet design of the camera system.

6. OPERATING INSTRUCTIONS

- **Automatic Activation:** The camera system is designed to automatically activate and display the rear view on your connected monitor when the vehicle is shifted into reverse gear.
- **Active Parking Lines:** Observe the dynamic parking lines on your display. These lines will adjust their trajectory based on your steering wheel position, providing a visual guide for safe parking.
- **Night Vision:** The integrated infrared sensors automatically enhance visibility in low-light conditions, providing a clearer image during nighttime or in dark environments.
- **Image Customization:** Depending on your display unit, you may have options to toggle parking lines on/off or adjust the image orientation (mirror/normal view) if these features are not controlled directly by the camera's wiring.

7. MAINTENANCE

- **Cleaning the Lens:** Periodically clean the camera lens with a soft, damp cloth to remove dirt, dust, or water spots. Avoid abrasive cleaners that could scratch the lens.
- **Wiring Inspection:** Occasionally check the wiring connections for any signs of wear, corrosion, or looseness. Ensure all connections remain secure and insulated.
- **Water Resistance:** The camera has an IP67 waterproof rating, but avoid directing high-pressure water jets directly at the camera for extended periods.
- **General Care:** Do not attempt to disassemble the camera unit. Refer to qualified service personnel for any repairs.

8. TROUBLESHOOTING

- **No Image on Display:**
 - Check all power and video cable connections. Ensure they are securely plugged in.
 - Verify that the camera is receiving 12V power when the vehicle is in reverse.
 - Confirm that your display unit is set to the correct video input.
- **Poor Image Quality:**
 - Clean the camera lens.
 - Check for any obstructions in the camera's field of view.
 - Ensure proper lighting conditions for optimal night vision performance.
- **Parking Lines Not Appearing/Incorrect:**
 - Verify that the camera's parking line feature is enabled (if selectable).
 - Ensure the camera is properly aligned and adjusted.
- **Interference/Flickering Image:**

- Check for loose or damaged video cables.
- Ensure power and video cables are not routed too close to high-voltage wires or other sources of electrical interference.

If troubleshooting steps do not resolve the issue, contact customer support for further assistance.

9. SPECIFICATIONS

Feature	Specification
Model Number	VTL17IRTJ
Image Sensor	CMOS
Resolution	600 TV Lines (720 x 480)
Viewing Angle	170 Degrees (Diagonal)
Waterproof Rating	IP67
Voltage	12 Volts
Installation Type	Concealed Mount
Connector Type	RCA
Product Dimensions	1.9"L x 8.5"W x 3.5"H
Item Weight	11.2 ounces
Special Features	Night Vision, Active Park Assist Lines

10. WARRANTY AND SUPPORT

This product is manufactured by Vision Tech America. For warranty information, technical support, or service inquiries, please refer to the official BOYO VISION website or contact your authorized dealer. Keep your purchase receipt as proof of purchase for warranty claims.

Visit the official BOYO VISION Store for more information:[BOYO VISION Store](#)

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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

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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