

# Toguard DW-7016

## DIGITAL WIRELESS REAR VIEW SYSTEM USER MANUAL



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### Function parameter

Screen Size: 5inch (16:9)

Built in digital wireless Video receiver

Resolution: 480(h) x RGB x 272(v)

Visible area: 96\*54mm

TV system: PAL/NTSC auto-switch

Power: DC 11-24V,

Power Consumption: 2-4W

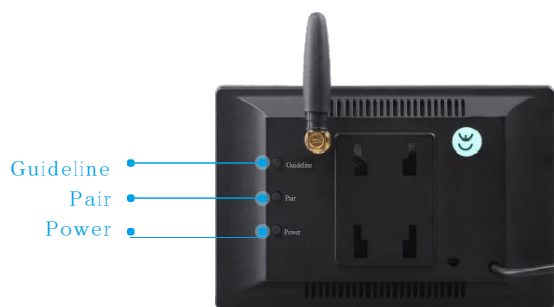
Auto save power function, black screen if no signal input.

Video input: Wireless

Work temp.: -10℃~+40℃

Storage temp.: -25℃~+80℃

External dimensions: 126 W×83H×12D(mm)



### Monitor button function

Guideline: Short press to turn ON/OFF reverse guideline / reversing distance mark.

Pair: Short press to pair the wireless transmitter.

Power: Press to turn ON / OFF the monitor.

#### Notification:

The camera and the monitor has been paired in advanced, you don't need to pair them again.

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## INTRODUCING

Thanks for purchasing Toguard wireless backup camera! With this manual, you will be able to properly install and operate the unit.

Please read this manual thoroughly before operating the unit, And keep it for further reference.

If you have any other questions or problems, Please feel free to contact us at

USA&Canada	<a href="mailto:support@toguard.cc">support@toguard.cc</a>
Europe	<a href="mailto:eu.support@toguard.cc">eu.support@toguard.cc</a>
UK	<a href="mailto:uk.support@toguard.cc">uk.support@toguard.cc</a>
Australia	<a href="mailto:au.support@toguard.cc">au.support@toguard.cc</a>

We have professional team at your service, and your satisfaction is guaranteed.

## MONITOR PARAMETER

### Dimension and Button Function



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## REAR VIEW CAMERA PARAMETER

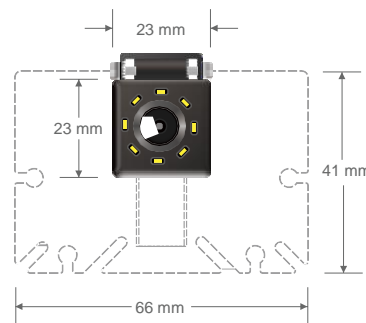


Image Sensors: Color CMOS

TV System: PAL / NTSC

Waterproof rate: IP69

Effective Pixels: P/N 648\*488 pixels

Resolution: 480TV lines

Minimum Illumination: 1.0Lux / F1.2 (0Lux with IR ON)

Pin Lens: f=2.5mm

Lens Angle: 170°

Vertical Sync Frequency: 50Hz / 60Hz

Video Output: 1.0vp-p, 75Ohm

Power Supply: DC 12V~32V

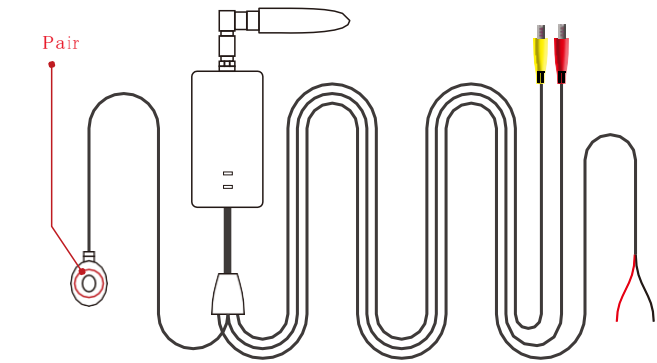
Current Consumption: ≤300mA

Operating Temperature: -20°C~70°C, RH95% MAX

Storage Temperature: -40°C~85°C, RH95% MA

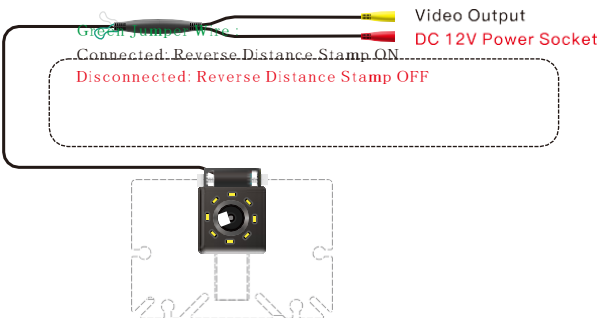
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DIGITAL WIRELESS TRANSMITTER



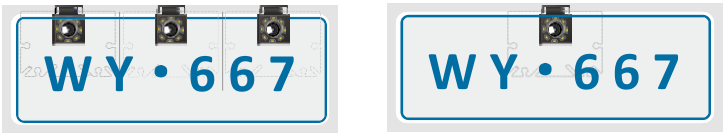
Transmission range: 200M( 660ft) in open area.  
Operation frequency: 2409~ 2476MHz\*  
Frame rate: 30fps max  
Video compression: MJPEG  
RF Bit Rate: 6Mbps Max.  
RF bandwidth: 4.4MHz Max.  
Modulation: GFSK  
Power consumption: 140mA  
Operation temp.: -10~+80 °C  
Power supply: Transmitter DC12~30V, Receiver DC6~30V  
Power output: Transmitter DC12V output for camera

White Jumper Wire :  
Connected: Rear View Image Display as Mirror Image  
Disconnected: Rear View Image Display as Original Image



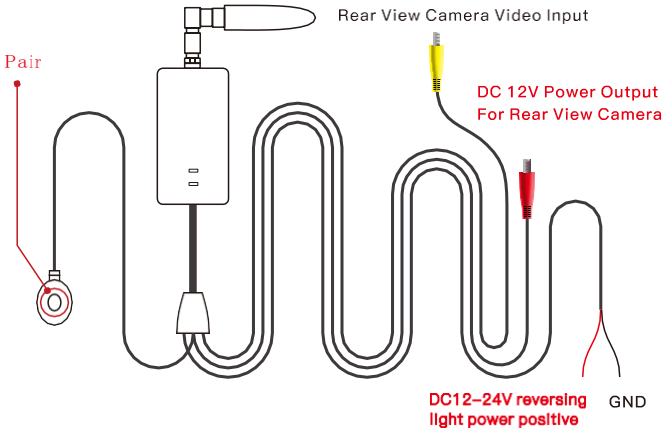
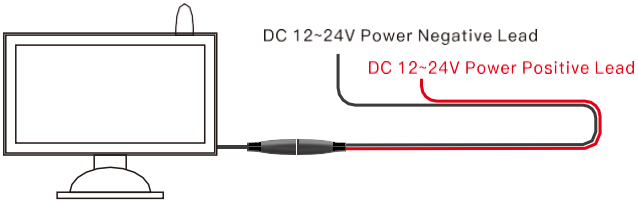
HOW TO INSTALL:

1. Before installation, do a benchmark test to make sure all units are working fine.
2. Mount the rear view camera behind the number plate, fix it with screws or double-sided adhesive. There are 2 ways to mount the camera:
  - a. Install the camera mount behind the number plate, you can install it in between the number plate and the car panel with the double-sided adhesive.

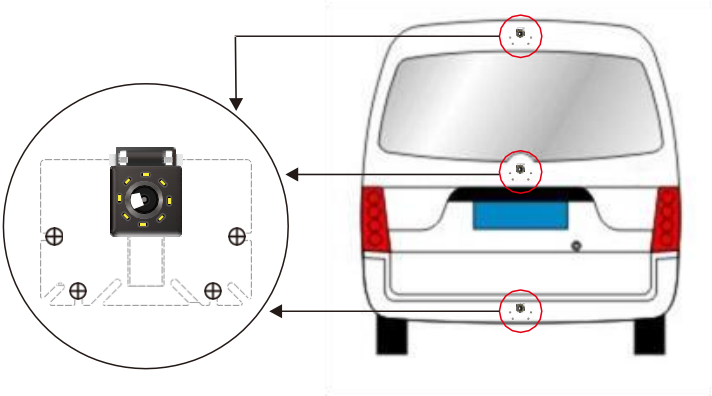


Never Cover Any Information on the License Plate

+ Positive  
- Negative



b. Mount it directly on the car panel, if you are driving a truck or a van, the number plate position is too low, you can mount the camera directly on the car panel with double-sided adhesive and screws, like an ordinary rear view camera.



3. Route the camera video & Power cable inside the cab, and connect the AV connector and power connector to the wireless Transmitter.
4. Connect the Transmitter power cable to car power:  
RED lead connects to DC12~24V reversing light power positive.  
BLACK lead connects to GND (Ground).  
You can use the extension cord if the cable is not long enough.
5. Power the monitor with the included power cable, RED lead connects to DC12~24V positive, BLACK lead connects to GND (Ground).  
Or you can power the monitor with the included cigarette lighter power adapter. (DC 12~24V)
6. Now when you put your car in Reverse Gear, the camera will automatically turn on and display the rear view image.

## NOTICE:

1. For better transmission quality, Please do not cover the transmitter with metal.
2. For better transmission quality, please keep the antenna vertical to the transmitter.
3. The camera and the monitor has been paired in advanced, you don't need to pair them again.
4. In case of connection lost, you can pair the transmitter and the monitor manually.

## How to Pair:

- a. Make sure the transmitter and the monitor are well powered, short press the pair button on the transmitter end. (Short press, no need to hold)
- b. Then press the pair button on the monitor, when the monitor shows "Pair OK", the transmitter and the monitor are paired.
- c. After successfully paired, the monitor will automatically reboot, after rebooting, the monitor will display live view from the camera.

## TROUBLE SHOOTING

- 1, When the distance reaches the limit and the surrounding environment is disturbed, the signal strength might change at any time. This is normal, there's no need to pair it.
- 2, Signal might weaken or signal disappeared sometimes, there might be strong interference source nearby, there's no need to pair it.
- 3, Pressed the pairing button on the monitor by mistake will caused the connection loss, you can repair them quickly, press the button on the transmitter till you see "pairing ok" on screen.
- 4, Pressed the pairing button on the transmitter by mistake will caused the connection loss, you can repair them quickly, press the button on the monitor till you see "pairing ok" on screen.
- 5, This wireless kit is designed for reversing, it should not keep working as recording DVR for long time on 24V vehicles.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: 1) this device may not cause harmful interference, and 2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

--Reorient or relocate the receiving antenna.

--Increase the separation between the equipment and receiver.

--Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

--Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

### FCC Radiation Exposure Statement

This device complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.