

Wireless Backup Camera System Operating and Installation Instructions



This manual is for use with

**Furrion® FRC12TAPK-BL
Wireless Backup Camera System**

**Furrion® FRC12TA-BL
Wireless Backup Camera System
With FRCBRKT-BL Mounting Bracket pre-installed.**

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Furrion FRC12TAPK-BL Wireless Backup Camera System

Includes FRCBRKT-BL Mounting Bracket

Furrion FRC12TA-BL Wireless Backup Camera System

For vehicles with FRCBRKT-BL Mounting Bracket pre-installed.

Thank you for purchasing a Furrion Wireless Backup Camera System. Furrion's Wireless Backup Camera system is one of the easiest rear view camera systems to install in your trailer, truck or RV. All that is required is a connection of a single DC power supply to the rear camera from a running light power source.

The Furrion Wireless Backup Camera System uses digital wireless technology giving the major benefit of superior signal transmission with low interference on a single bandwidth channel. This means the Furrion camera unit eliminates the interferences which other analogue signal systems are subject to, meaning the Furrion digital system gives you a clearer picture of what is behind you no matter where you are.

The Furrion Wireless Backup Camera System has the option to add a secondary camera for observation purposes. Adding a second camera turns the Furrion Wireless Backup Camera System into a dual function system; one camera to aid reversing and the second camera to view a chosen area, such as the vehicle door, while the vehicle is stationary.

The Furrion system with integrated camera antenna has been specifically designed for use on trailers, trucks, 5th wheels, caravans and RV's. This camera system is intended for backup use only. Using at high speeds may result in lagging or loss of signal. For high speed observation or larger vehicles, please use the Furrion FOS48TA-BL Wireless Observation System.

Before installation and use, please read all instructions carefully. This will ensure safe use and reduce the risk of injury to persons.

IMPORTANT SAFETY INSTRUCTIONS

READ THESE INSTRUCTIONS CAREFULLY BEFORE INSTALLING OR USING THE SYSTEM

Electrical Safety

- A battery or 12V DC electrical system presents a risk of electrical shock or burn hazard. Ensure all power sources are isolated before installation.
- Insulate unconnected wires with vinyl tape or similar.
- Use insulated tools when working with a power supply.

Caution

- There are no user serviceable parts in the Furrion Wireless Backup Camera System. Do not disassemble or attempt any repairs.
- There are no fuses or disconnects in the Furrion Wireless Backup Camera System. Install external fuses/ breakers as required.

Installation

- Installation & wiring of this product require specialist skill. To ensure proper installation and to ensure safety, please seek a specialist technician.
- Only use supplied or recommended parts.
- Use watertight connectors for the camera power supply cable to power source.
- Connect the rear camera to a 8-30V DC circuit using 18AWG or larger cables.
- Ensure correct polarity of DC power supply to the camera
- To reduce the risk of fire, connect the camera only to a circuit provided with a maximum branch-circuit over current protection device.
- Don't route wiring in areas that may get hot.
- Take necessary precautions when working at elevated levels.

IMPORTANT SAFETY INSTRUCTIONS

Use

- The Furrion Wireless Backup Camera System is designed as a reversing aid. Functionality may be affected if used for any other purpose or if the recommended guidelines are not adhered to.
- The wireless signal may be affected if travelling over 20MPH. For safe and optimum use, stay below 20MPH when maneuvering.
- Electrical appliances and overhead powerlines can affect the wireless signal.
- Do not place the monitor in a location where it might hinder field of vision while driving.
- Consideration should be given to any airbags when installing the monitor. Do not place the monitor where it might hinder the airbag or become hazardous if the airbag is deployed.

Care

- Do not wash the vehicle with an automatic car wash or high pressure water. This may damage the camera.
- Clean the LCD screen with a microfiber cloth, do not use coarse or abrasive materials.
- Do not use alcohol or ammonia based products to clean the LCD screen. Only use specialist screen cleaning products.
- Use a wet cloth to clean the camera lens. A dry cloth may scratch the camera lens.

System Parts

FRC12TAPK-BL Wireless Backup Camera System



LCD Monitor



Monitor Stand



Camera



Monitor Power Cable



Camera Bracket



**Camera Bracket
Gasket**



**Camera Power
Cable**

FRC12TA-BL Wireless Backup Camera System

For vehicles with FRCBRKT-BL Mounting Bracket pre-installed.



LCD Monitor



Monitor Stand



Camera



Monitor Power Cable

The FRC12TA-BL is for customers who have the FRCBRKT-BL Mounting Bracket already installed on their vehicle. If there is no Mounting Bracket pre-installed on your trailer you will need to acquire the FRCBRKT-BL Mounting Bracket separately in order to properly install the camera system.

Installation

NOTE: It is recommended to pair the camera and monitor before permanently mounting the camera and monitor (See page 18).

Mounting Bracket

(If the FRCBRKT-BL Mounting is pre-installed please go to page 12)

⚠ Caution

- Ensure there are no electrical cables, gas lines, pipes or other important parts behind where the drill holes will be.
- During installation, remove the key from the ignition & isolate the 12v or 24v power source.

Suitable installation position


- For optimum performance, the camera should be mounted where there is minimal obstruction between the camera and monitor.
 - Dense side wall material and electrical appliances can reduce signal strength.
- Where practical, as high as possible at the rear of the vehicle.
- In the horizontal-center of the vehicle or as close as possible.
- Mount camera at least 2" above or below running lights. Close proximity to lights may cause image blooming, blurring and reduced night vision performance.

Suitable installation position.

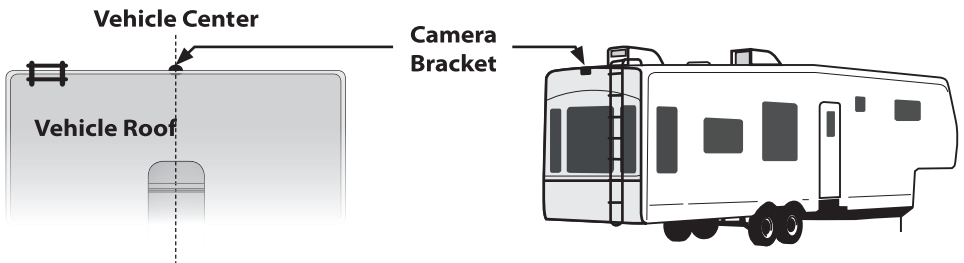
- The area should be flat with enough surface area to accommodate the bracket.
- The surface area should be clean & dry for a watertight installation.
- Ensure that power can be fed to the installation area from within the vehicle.

Testing

Prior to permanently mounting the camera, it is advisable to check if the intended mounting location will achieve adequate signal.

- Temporarily secure the camera in it's intended location or close as possible.
- Check signal icon  on the monitor. Ideally there should be 3-4 bars.
- If the signal is 0-1 bars, reposition the camera and or monitor. The signal can also be improved by decreasing the amount obstructions between the camera and monitor.

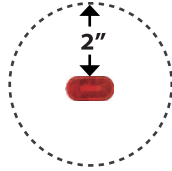
Camera Location



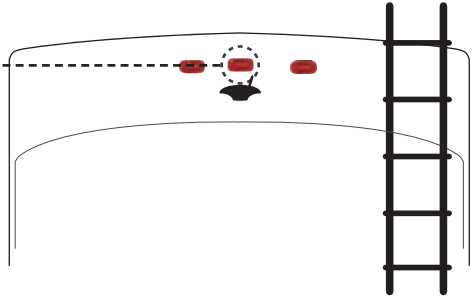
Installation

Mounting Bracket

Proximity To Lights



A minimum 2" clearance any lights



Signal Strength



Good signal transmission



Poor signal.
Improve the signal by repositioning the camera and or monitor.
Move any obstructions between the camera and monitor.

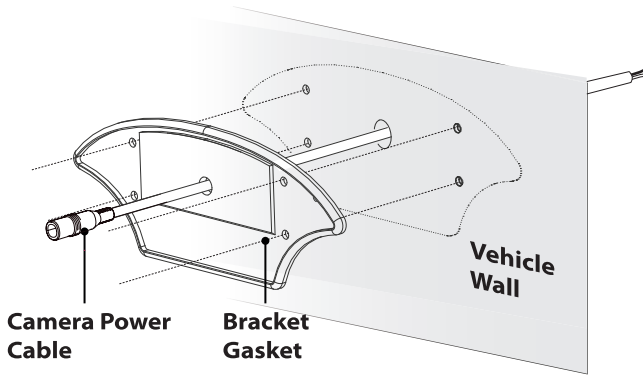
If any poor signal cannot be improved, please consider using the Furrion FOS48TA-BL Wireless Observation System.

Installation

Mounting Bracket

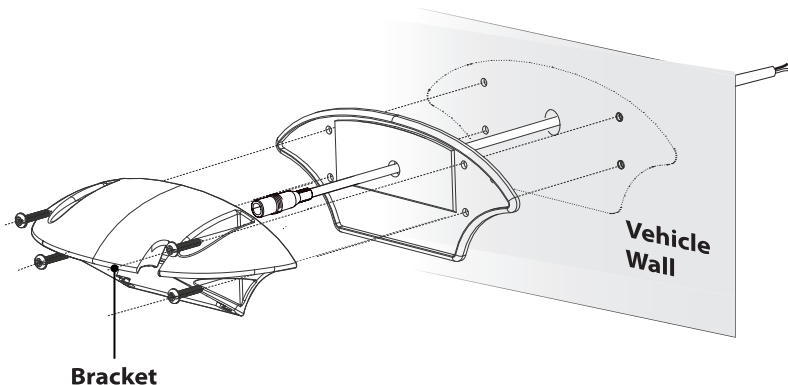
1 Use the Bracket Gasket to mark and outline where the center hole will be drilled then drill a 5/8th hole.

2 Feed the supplied 6ft Camera Power Cable through the gasket. Ensure the bare wire end of the cable goes into the vehicle and the flat side of the gasket faces inward.



3 Fix the Gasket & Bracket to the rear of the vehicle using 4 x #2 head 3/4" self tapping screws. (*other screws can be used depending on side wall material.*) Ensure that the Camera Power Cable does not get caught between the vehicle wall & gasket or the Bracket & Gasket.

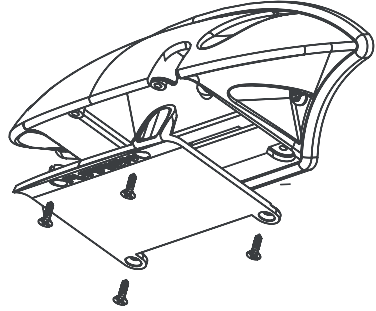
4 Ensure the sealing lip around the edge of the gasket is seated over the edge of the bracket before fully tightening the screws.



Installation

Mounting Bracket

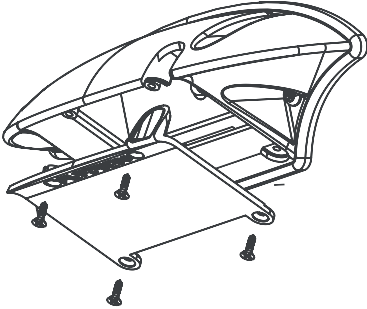
If only installing the FRCBRKT-BL Mounting Bracket, secure the Camera Power Cable inside the mounting and attach the cover.



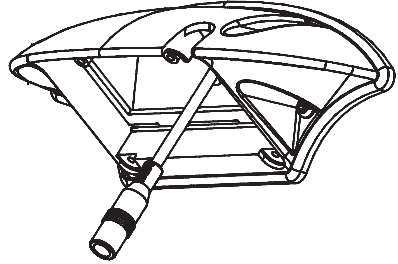
Installation

Camera Installation

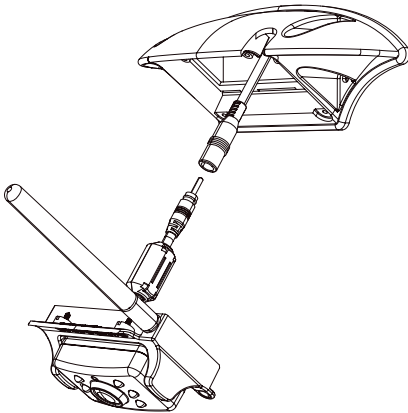
- 1 Remove the Bracket Cover by unscrewing the four screws.



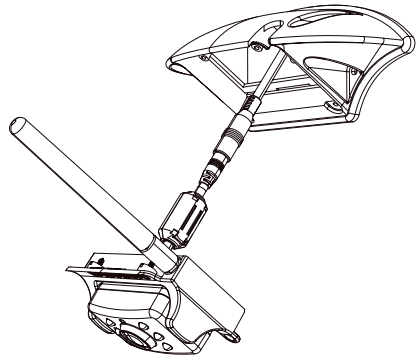
- 2 Pull out the Camera Power Cable, leaving approx 2 inches of slack.



- 3 Connect the Camera Power Cable to the Camera Cable



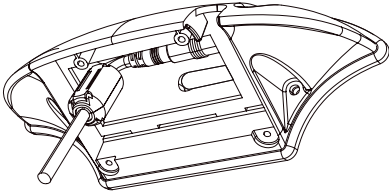
- 4 Place the attached cables and connections into the Bracket Housing by first placing the cable to the right.



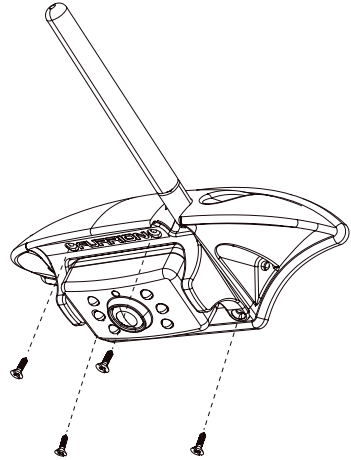
Installation

Camera Installation

5 Now place the Camera Cable Filter in the left of the Bracket Housing.



6 Making sure that the connections are secure and the camera antenna is secured tight, gently place the Camera in to the Bracket. Secure the camera to the Bracket using the 4 screws.



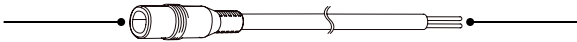
Installation

Wiring the Camera

Electrical Power

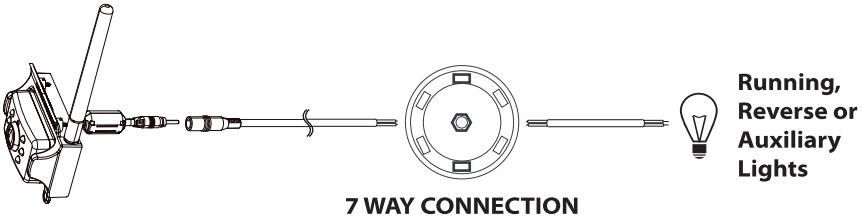
- The Furrion Wireless Backup Camera System can be connected to an electrical power source via a 7 Way Connector.
- Wiring to running lights: the camera will activate when the running lights are switched on.
- Wiring to reverse lights: the camera will activate when the vehicle engages reverse gear.
- ⚠ When connecting wires, ensure the circuit is isolated by disconnecting the - negative terminal on the battery.
- Ensure correct polarity when wiring the cables. **RED + BLACK -**
- Use 18AWG cables or higher
- Wire connections & terminals must be sealed & waterproof.

Connects to
Camera

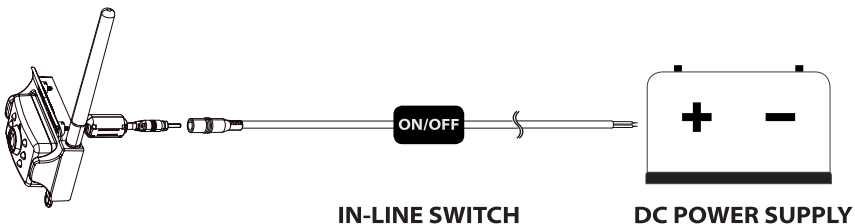


Connects to
12V/ 24V
Power Supply

Consult the vehicle's service manual for specific wiring color code.



When adding an optional second camera, wire this camera directly to a 12V battery or converter in your RV, use an in-line switch on the power cable to power on or off your camera. This will enable this camera to be used when parked without a tow vehicle connected.

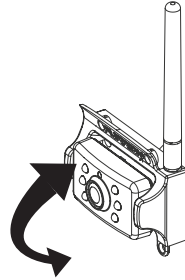


Installation

Camera Positioning

Positioning the Camera

- Adjust the camera up or down then check the view via the monitor.
- When using the camera as a parking camera, part of the vehicle, such as the bumper, should be visible on the monitor.

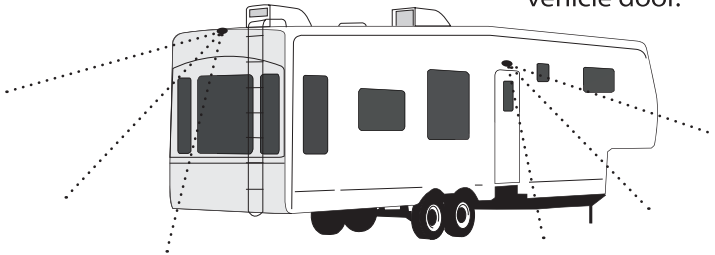


Reverse Camera

The camera can be tilted up & down to obtain the best viewing angle.

Optional 2nd Camera

The 2nd camera can be installed to view areas such as the above the vehicle door.



Second Camera

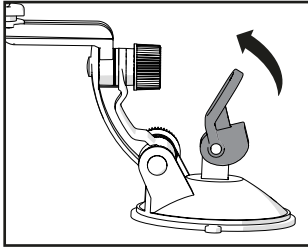
The Furrion Wireless Backup Camera System has the option to add a secondary camera for observation purposes when a tow vehicle is not connected to the trailer. Adding a second camera turns the Furrion Wireless Backup Camera System into a dual function system; the rear camera to aid reversing and the second security camera mounted above a door provides a day or night vision of what is outside when parked in a park or in open country.

Installation

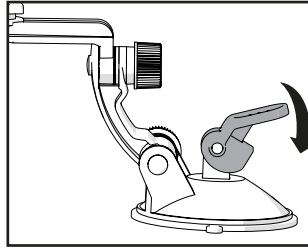
Monitor Installation

Positioning the Monitor

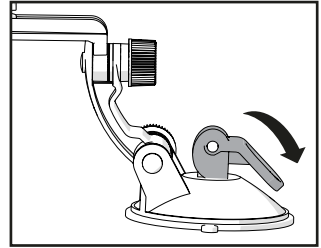
- Ensure the Monitor is placed so that it does not obstruct vision when driving.
- Do not place in an area where it might interfere with driving.
- The surface area should be clean, smooth & flat.



With the lock open position the mount.



Press the mount down against the surface.



Push the mount lock down.

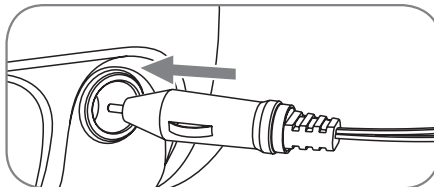
Adjusting the View Angle

- Swivel & Tilt the mount to set the optimum viewing angle.
- Lock the position by tightening the locking screws. ①



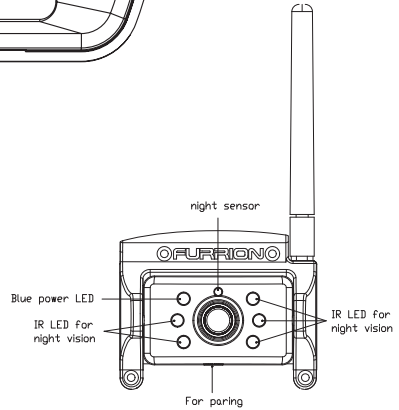
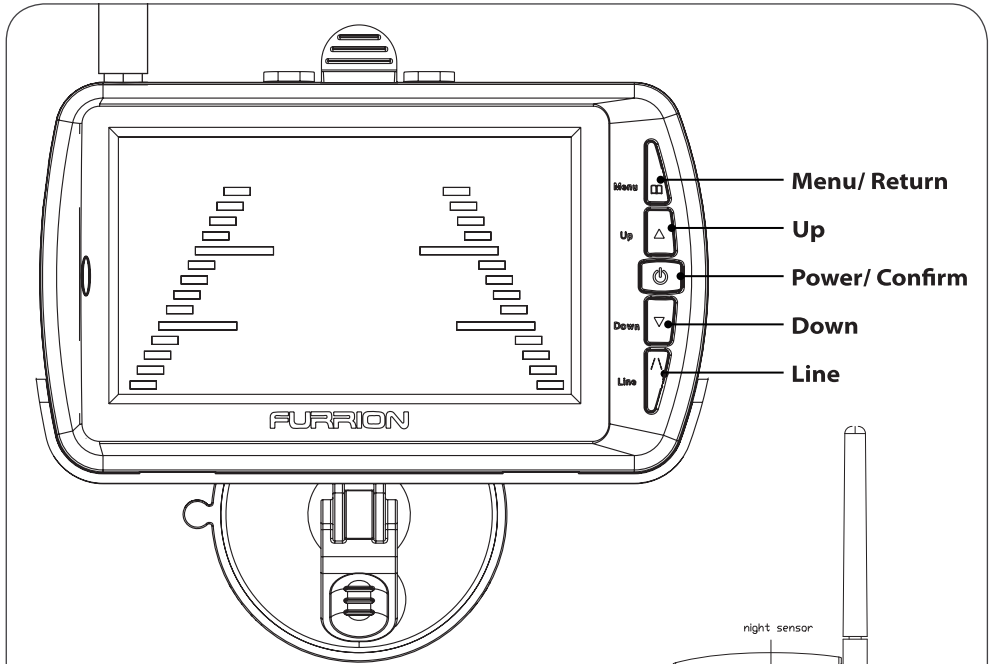
Connecting the Monitor

- Route the power cable to the vehicle's cigarette lighter socket 12/24V power outlet. *The cable must not interfere with the safe operation of the vehicle.*
- Insert the small 12/24 Volt DC plug of the power cable into the right side of the monitor.
- Plug the 12/24 Volt cigarette lighter plug into the vehicle's cigarette lighter socket.



Operation

Monitor Controls



Menu/ Return

Use this button to switch between the Viewing screen and the Menu screen.



Power/ Confirm

Use this button to turn the monitor On & Off and to confirm menu selections.



Up Down

Use this button to navigate menu selections and to adjust settings.



Line

Use this button to turn the on-screen Guidelines On & Off.

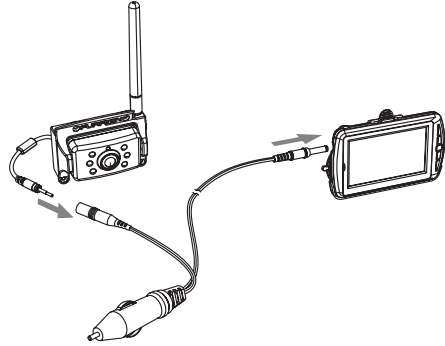
Operation

Pairing

After installation, the camera & monitor need to be paired in order to work.

Pairing procedure

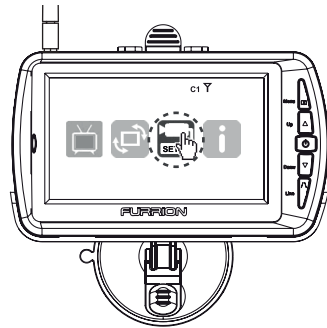
1 Ensure both the Camera & Monitor have power supplied.
(The vehicle may need to be running)



2 Press the **POWER/ CONFIRM** button to turn on the monitor.

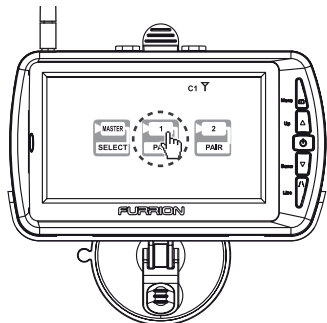
3 Press the **MENU** button to bring up the Menu.

4 Use the **UP & DOWN** buttons to scroll across to the **SETUP** icon. Press **POWER/ CONFIRM** to enter the set up screen.

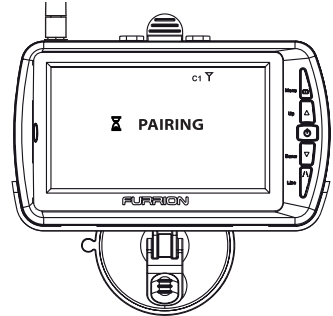


5 Use the **UP & DOWN** buttons to scroll across to the **PAIR1** icon.

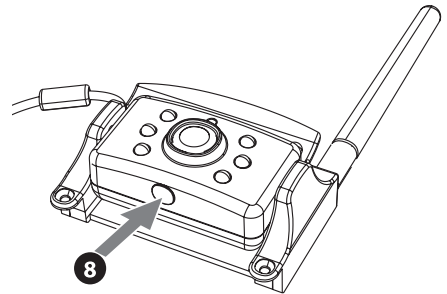
6 Press the **POWER/ CONFIRM** button to confirm.



7 Once you press the **POWER/CONFIRM** button the screen will display **PAIRING**



8 When **PAIRING** is displayed, press the small button on the underside of the camera for 2 seconds.

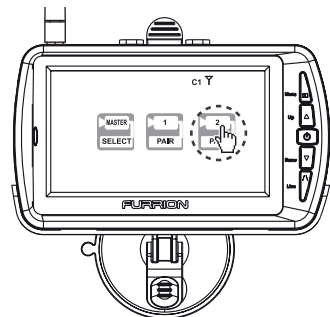


The Furrion Wireless Backup Camera System can support 2 cameras. Please follow these steps to pair a second camera.

Second Camera Pairing procedure

1 Follow the same procedure for pairing a camera as outlined on page 18.

2 At Step 5, instead of selecting **PAIR1**, select **PAIR2** instead.



Unpairing

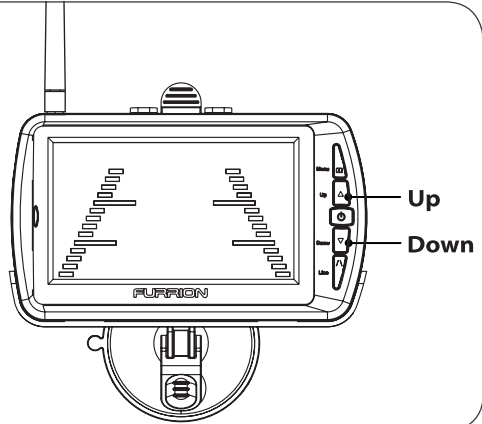
To unpair a camera from the monitor, exit the menu, press & hold **Down** for 5 seconds.

Operation

Settings

Switching Between 2 Cameras

To select which camera the monitor displays, simply press the ▼▲ **UP & DOWN** buttons.



Picture Control

For optimum viewing, the monitor's picture settings can be adjusted

Picture Settings

1 Press the  **MENU** to bring up the Menu.

2 Select the  **PICTURE SETTINGS** icon.

Press the  **POWER/ CONFIRM** button to confirm.

3 Select  **BRIGHTNESS**

or  **CONTRAST**


or  **COLOR**

Press the  **POWER/ CONFIRM** button to confirm.

4 Use the ▲▼ **UP & DOWN** buttons to adjust the picture.

Press the  **POWER/ CONFIRM** button to confirm.

Troubleshooting

Problem	Solution / Issue
Monitor won't turn on (no flashing Blue LED)	Check that power cable is connected
	Check the cigarette lighter has 8-30DV Output
	Check the fuse in the cigarette socket adaptor
Camera & Monitor won't pair	Check if the camera is receiving power
	Make sure to hold the camera pairing button for 2 seconds.
Intermittent/ Weak signal icon appears 	Check if the camera antenna is fitted & secured correctly - it should be vertical.
	Distance between camera & monitor is too great. Reduce distance between Camera and Monitor
	Large dense objects could be obscuring the signal. If possible, move the objects.
	Interference from electrical appliances may be affecting the wireless signal. - Turn off the appliances when using the system.
	Interference from overhead power lines may be affecting the signal.
	Speed is above 20MPH during maneuvering. Decrease speed.
	Try unpairing and pairing.
Night vision is poor or does not function	The light sensor on the camera may be dirty.
	Ensure the camera unit is installed at least 2" away from rear lights
	Light sensor maybe be dirty or obstructed.
Monitors Blue LED flashes with no picture	The camera has no power connected.
	Ensure the tow vehicle is running
	Ensure the 7 way connector is connected.
	Ensure that the circuit the camera is connected to has power and is running.

Specifications

Specifications		
	Camera	Monitor
Voltage	DC8-30V	DC8-30V
Current	≤ 260mA	≤ 180mA
Standby Current		≤ 5mA
Wireless Range	≤ 100ft (Open area)	≤ 100ft (Open area)
Wireless Frequency	2.4Ghz	2.4Ghz
Image Sensor	1/4" Color CMOS VGA	
LCD Display		4.3" 480*272
Camera	Max 25frames/sec QVGA f1.7mm, F2.0	
IR	850nm filter	
	View Distance ≥ 1.5m	
	Brightness ≤ 2Lux	
Receiver Sensitivity		-78 ± 3dBm
Working Temperature	-10/+50	-10/+50



Product: Digital Wireless Backup Camera System
Model Name: FRC12TA-BL

Product: Digital Wireless Camera
Model Name: FCA48TA-BL
FCC ID: 2ABH3FRC12TA-BLC

Product: Digital Wireless Monitor
Model Name: FCS43TA-BL
FCC ID: 2ABH3FRC12TA-BLM



This product is backed by Furrions 12 month product warranty
See warranty card for terms & conditions.

FURRION

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