

REVCAMUK

Reversing cameras UK Ltd

Instructions for our wireless systems using a wireless receiver box (60M) and either a sender box or integrated aerial camera



Safety and Installation Precautions

If you are not using a cigarette lighter to connect to the electrics then we recommend disconnecting the negative terminal of your vehicles battery when making connections. Be aware this may reset your clocks/computer/radio code.

The TFT panel of the monitor is delicate and pressing the front can cause the thin glass sheet inside to crack. If this happens a black area will form around the line of the crack. Be careful not to apply pressure to the front of the monitor.

Modern vehicles now have very complex electrical systems. In order to reduce fuel consumption many vehicles use smart battery charging. This can mean the voltage applied to the battery terminals can rapidly fluctuate and go beyond the normal voltage ranges you would expect. **UNDER NO CIRCUMSTANCE TAKE YOUR POWER DIRECTLY FROM A VEHICLE BATTERY.**

Introduction

We'd like to thank you for your purchase of one of our digital wireless kits, we hope it provides you many years of safe, stress free motoring. In order to protect, and get the most from your kit, we recommend reading the instructions fully before you start your installation. Please check the system for any in-transit damage, or missing parts and inform us within 7 working days.

Contents

- Monitor
- Monitor wiring harness (in monitor box)
- Lighter plug
- Wireless Receiver Box
- Wireless Sender Box and camera **OR** camera with built in aerial/sender
- Extension cable (if selected at checkout)

First things first!

We always recommend trying the system out first before permanently fixing to the vehicle to ensure that you are happy with the location/view of the camera. The monitor comes with a lighter plug power supply which will assist in this testing, as well as being suitable for using full time instead of hard wiring.

Powering the Monitor (wiring Layout)

Your monitor will have a wiring harness in its box, this will be anywhere from 1.5M to 3M long depending on the model. One end of this harness will be a connector that plugs in to the monitor, please take care to line up the arrows to avoid bending any pins. The other end will terminate in 2-3 channel inputs, a red cable (+12V/24V), a black cable (- earth), and 1-3 coloured wires, these are trigger wires and don't need to be attached.

See photo (page 3) of most commonly selected monitor (mirror monitor) and it's wiring harness layout. This is fundamentally the same on our various models, even on our dash monitors.



If using the lighter plug option then simply connect this to the socket (attached to the red/black wires) and insert in to your lighter socket on the vehicle.

If hardwiring then you can either cut the socket for lighter plug off and use the red/black wire to attach directly to power/earth, or use a DC plug to red/black wire adaptor to do the same.

The red wire is best attached to an ignition based power supply to avoid discharging vehicle battery when not in use.

Fixing the monitor

Mirror Monitor Option

Pull the two lower spring loaded clips down on the rear of the monitor, place over the interior mirror, then let go so that the clips clamp against the interior mirror.

Dash Monitor Option

If you have ordered the dash mount option, the base of the bracket will have a protective film over an adhesive foam pad. Before mounting this on your dashboard it is important to thoroughly clean the area you plan to mount bracket. Years of dashboard polishes can add an oily layer which will prevent a good adhesion, cleaning with a suitable cleaner to remove this will give you the best end result.

Powering the camera

You will either have a camera with an integrated sender/aerial, or a camera with a separate sender/aerial sender box. As mentioned earlier, we recommend powering the camera up before fixing the camera permanently to ensure you are happy with position etc.

You will want to locate a non-canbus controlled power source 12V/24V. Wireless kits are most commonly used on caravans, and trailers, and on these the favourite power sources are running lights/side lights (turning lights on when you wish to view), reverse light, and the fridge power supply.

Integrated aerial camera option wiring

The integrated aerial/sender camera will have a power lead that initially becomes a 2.1mm/5.5mm DC socket, this then has a DC plug which splits to red and black wires. Red = 12V/24V, Black = Earth (see picture below).

If required, a DC extension lead can be used to extend the power cable further from the camera location.



Sender box plus camera option wiring

The sender box plus camera option will have a lead that breaks out in to a red fused wire (+12V/24V), a black wire (earth), and a 4 pin lead to connect to the camera (See picture below). If required you can use one of our 4 pin extension cables to

extend the sender box further away from the camera, a lot of our customers like to move this box to a convenient cupboard further from the camera.



Pairing the camera and monitor

1. Press the pair button on the sender box or the camera for 3 seconds (MUST BE SENDER SIDE FIRST OTHERWISE PAIRING WILL FAIL).
2. Press the pair button on the receiver box within 50 seconds of step 1.
3. The pairing will be saved until the next time the pair button is pressed for 3 seconds.

When both monitor and sender/camera have power and are paired you will see a signal strength meter in the corner of the screen indicating how strong the signal is, you will also see a picture from the camera connected.

Please kindly note that we always pair the parts for you when testing prior to dispatch, so only follow these instructions if you ever delete the pairing in the future.

Fixing and adjusting the Camera

We have various different types of camera in our kits, so depending on the type of camera you chose, this will determine how you fix the camera up. Remember to ensure you try the kit out before permanently fixing.

Bracket Cameras

Most people nowadays use a sealant adhesive like Sikaflex 512 to fix the bracket in to place. If using this method you will need to remove the camera from the bracket to reduce the weight until it cures/sets. You would add the adhesive to the base of the bracket, then press in to place (sometimes you may need to add place some tape to stop it slipping down whilst drying). Ensure you follow adhesive instructions.

Number Plate Cameras

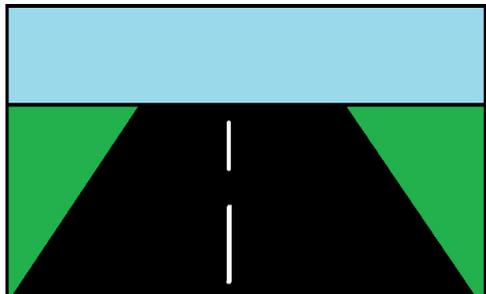
We stock some cameras that mount behind the numberplate, some that bolt above, and some number plate frame cameras that use the original screw holes of the number plate to the vehicle.

Bumper cameras

These require you to drill a hole (holesaw provided) and then insert the camera in to the hole and use the locking ring to screw against the body from the rear.

Adjusting the camera tilt to get the best performance!

Reversing cameras perform best when focused on the area you wish to view. If you have too much sky in the picture, then during a bright day the camera will make adjustments to tone down the whole picture, this would then make the following vehicles look washed out/dull. To get the best picture, keep the horizon as close to the top of the screen as possible (see illustration). Even slight adjustments can have substantial impacts. We recommend having a play around with the angle the camera tilts, in order to get the best performance. Obviously the bumper cameras have a very limited adjustment on them, unlike the bracket and numberplate cameras.



Trouble shooting

Here are a few notes to help diagnose any problems you experience either during fitting, or during the lifetime of the product.

First, a quick mention about lights on the WB60 boxes. These are not as simple as sender and receiver boxes light up when power is present. The receiver and sender do different things depending on if paired or not. When paired and transmitting, you will notice the sender will flash faintly - this is normal. The state of system is best seen on the monitor, see below for more details.

I see a black screen with a red circle in the top left of the screen with the words "no signal" in yellow text

This is a video signal coming from the receiver box to the monitor and basically means that the receiver box isn't connected to a sender box. Check power supply to the sender box, if this doesn't cure it then try pairing again (remember sender side first).

I see a black screen with a yellow signal strength indicator in the top left of the screen and no picture

This is a video signal coming from the receiver box. The signal indicator means that the sender box is talking to the receiver box, but that there isn't a picture being supplied to the sender to send. Sometimes you may even see a band of colour at the bottom of the screen covering approx 20% of the screen. This could either be a fault with the camera, or a power supply issue - as the sender works to a lower voltage than the camera. I would check the power supply first before trying another camera - as power supply is very often the cause (such as a bad crimp contact).

I see no picture, signal bars, or red circle, but I do see the words "no signal" on the screen

This is something that is displayed by the monitor when it isn't detecting a signal on the selected input. First, check the receiver box is plugged in to the same channel as selected on the monitor - change channels to see if it's on another channel. Try moving the receiver box to another channel and ensure this is selected. Check power/earth to the monitor - a bad crimp/resistance could cause the monitor to work but not allow the receiver to load up. Failing this, the issue could be the receiver box failure (very rare).

Guarantee Details

The product is guaranteed for 24 months from the date of purchase provided it is not damaged by accident or in fitting, it has not been adapted or disassembled and that the serial numbers remain on the product.

The guarantee is limited to the product and accessories supplied only and doesn't extend to any third party losses or damages, neither does it cover cosmetic appearance of the camera or monitor. The guarantee does not cover labour costs associated with the products installation or removal for guarantee service. The guarantee is transferable should you sell the vehicle and provide the new keeper with proof of purchase.

We are usually able to repair the monitor if it fails after the guarantee period. It is usually a low cost repair providing the LCD panel has not been damaged.

Care of the camera

DO NOT ALLOW A PRESSURE WASH JET TO HIT IT. 1000-3000lb per square inch is beyond the IP rating of all reversing cameras!

Keep the front glass clean using a damp cloth.

If possible wax the camera body on a regular basis. In winter rinse off salt as soon as possible. The combination of salt, steel and alloy can cause corrosion. If you look after the camera it will last for years.

Avoid pointing the camera directly at the sun. The lens of the camera will act like a magnifying glass and can burn the camera sensor. If your vehicle is likely to be regularly parked on a hill which will result in the camera pointing at the summer sun then consider tilting the camera down more.

Do not wax the front glass of the camera. This can lead to poor night vision with IR light being reflected back off the wax.

Touch up any paint chips as soon as possible.

We hope you enjoy your kit for many years to come, if you do require any support then do not hesitate to contact us on the website, by phone 0800 612 6816, or by email support@revcam.uk