# **USER MANUAL**

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4.3" Mirror Monitor With Wireless Reverse Camera Kit

Your Safety. Our Priority.

NCP-MIR43W

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Thank you for purchasing the Nanocam Plus 4.3" Mirror Monitor With Wireless Reverse Camera Kit. We are certain that our product will give you trouble-free operation while providing you with a safety feature that enhances your driving experience. Our products, like most after-market safety enhanced devices, are designed to assist and aid the driver, not to replace the manual function of the person operating the vehicle.

For the latest manual and product updates, please visit our website at www.nanocamplus.com.au or www.nanocamplus.co.nz

#### DISCLAIMER

The Nanocam Plus 4.3" Mirror Monitor With Wireless Reverse Camera Kit is designed as a driver assistance device. Although this is a visual aid and will allow you to view what is behind the vehicle, it does not remove the responsibility of driving the vehicle from the driver. The legal responsibility and safe driving practise remains with the driver at all times. You have purchased this product with the understanding that its use is as an aid only. We highly recommend that you have this product professionally installed to ensure that it will provide the functions it is set out to perform.

# 1.0 PACKAGE CONTENTS

- 4.3" Clip-On Mirror Monitor x1
- Rear Camera x1
- Licence Plate Mount x1
- Standalone Mount x1
- 12V/24V Adaptor Cable x1
- User Manual x1

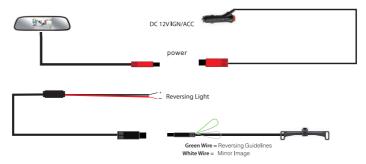
#### **IMPORTANT NOTICE**

- 1. Please read this manual carefully before using the product.
- 2. This product is for use with vehicles with a 12V/24V DC input.
- 3. The Mirror Monitor power supply is through the vehicle's 12V/24V port while the Rear Camera power supply is derived from the reversing light circuit.
- 4. The connection between the Mirror Monitor and the Rear Camera is wireless.
- 5. Please install this product properly and professionally.
- 6. Please perform tests after finishing the installation.
- 7. Specifications subject to change without prior notice.

# 2.0 SPECIFICATIONS

MIRROR MONITOR		REAR CAMERA	
Screen Size	4.3" HD screen	Resolution	480 TV lines
	(16:9 aspect ratio)		
Clip-on original mirror	Yes	Effective pixels	648(H) x 520(V)
Power supply	9-24V DC	Power supply	9-24V DC
Wireless connection	2.4GHz frequency	Operating temperature	-20°C to 70°C
Screen resolution	480(W) x RGB 272(H)	Viewing angle	140°
Power	<3W	Minimum illumination	0.2 Lux
Video format	PAL/NTSC compatible	Waterproof rating	IP68
Wireless range	Up to 60m	Mirror image switching	Yes
		Reversing guidelines	Yes

#### 3.0 WIRING DIAGRAM



#### **FRONT VIEW OPTION:**

The NCP-MIR43W also supports front view application. For front view application, you can cut the thin **WHITE** wire near the camera lead and restart power to see the non-mirror image.

#### **REVERSING GUIDELINES OPTION:**

The NCP-MIR43W comes with reversing guidelines. To remove the reversing guidelines, you can cut the thin **GREEN** wire near the camera lead and restart power to show the screen without the reversing guidelines.

# 3.1 WIRING INSTALLATION

- Connect the RED wire of the Camera Power Harness to the wire that supplies power to the reversing light globe (when the car is put into reverse). Use a suitable splicing/crimp connector (scotch lock type) or strip connector. This connection can also be soldered, making sure to insulate the joint with electrical insulation when done.
- 2. After you have insulated the joint, you can connect the power harness to the camera.

# NOTES:

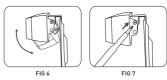
- For CANBUS vehicles, a CANBUS filter should be used to filter noise and flicker on the screen. (Not supplied)
- Please check the specifications of your vehicle to confirm whether it has a CANBUS system.
- 3. Some cars that run LED or computer controlled lighting systems may not deliver enough voltage to run the camera. If the voltage at the reversing wire light is less than +12 volts it may be necessary to use a relay to supply power to the transmitter harness from the wiring in the front of the car. In this case the reversing light only needs to trigger the relay. Make sure that you do not drill holes in panels that have an opposite face visible from outside the car, such as guard panels.

4. Connect the black wire to a ground earth wire or to the body of the car using the steel of the car body behind the kick trim as an earth. In this case, drill a small hole and connect the wire using a suitable ring terminal. Scrape off paint around the hole to ensure good earth.

# 4.0 LICENCE PLATE MOUNTING



- 1. Remove the rear licence plate from the vehicle **(FIG 1 and 2)** by undoing the bolts/screws.
- 2. With the licence plate off, check if there is a preexisting hole through which the cables from the camera can be passed through to the boot of the vehicle (**FIG 3**). If there are no pre-existing holes,



carefully drill a hole of sufficient diameter to allow the cables to be passed into the interior of the vehicle (through a rubber grommet) and seal the hole with silicone to avoid water leakage.

- 3. Carefully align the bracket arms so that the top edge of the arms align to the top edge of where the licence plate would sit and hold it in place making sure that the two holes in the mounting bracket align with the mounting holes of the licence plate (FIG 4).
- 4. Refit the licence plate over the camera bracket using the original bolts/screw (FIG 5).
- 5. You can adjust the angle of the camera by moving the camera up and down, and loosen and tighten the screws to fix the desired angle **(FIG 6 and 7)**.

#### 5.0 STANDALONE MOUNT

- 1. Remove the camera from the licence plate mount using a screw driver (not provided).
- 2. Attach the removed camera to the standalone mount using the screws removed from the licence plate mount.
- 3. Select a flat and centred location near the licence plate lamp at the rear of the vehicle to mount the camera.





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#### IMPORTANT

When selecting the location, it is highly recommended that the image transmitted by the camera show the rear bumper and area behind the vehicle.



- 1. Attach tape to the bracket of the camera, and drill a small hole for the first screw (FIG 1).
- 2. Use a screw driver to fix the first screw, but do not tighten it yet (FIG 2).
- 3. Insert camera wire through newly drilled hole and mount securely in place (FIG 3).
- 4. Mark the position suitable for the second screw and drill a small hole for it (FIG 4).
- 5. Fix the second screw and tighten both screws (FIG 5).

# 6.0 INSTALLING THE MIRROR MONITOR

- 1. Place the cable over the front of the mirror monitor so that it does not get caught between the mirror monitor and your vehicle's rear view mirror during installation.
- 2. Place the clips at the top of the mirror monitor over the top of the existing rear view mirror.
- 3. Place your thumbs on the front of the mirror monitor to hold the unit in place, and use your index fingers to push the bottom clips down over the bottom of the mirror monitor.
- 4. Push the mirror monitor into place ensuring that the mirror monitor is secured.
- 7.0 INSTALLATION DIAGRAM



# 7.1 ACTIVATING THE CAMERA

- 1. Apply the parking brakes.
- 2. Turn on the ignition.
- 3. Shift into reverse gear.
- 4. Image should appear on the mirror monitor.

#### 8.0 TROUBLESHOOTING

PROBLEM	SOLUTION
"No Signal" appears while	1. Check video input connections
reversing	2. Check rear camera power connections
Video image is not sharp	Check camera lens for debris

#### 9.0 MAINTENANCE

Always keep the rear camera free of dirt and mud. Clean the rear camera with a soft, moist cloth.

#### **10.0 WARRANTY TERMS AND CONDITIONS**

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

This warranty is provided in addition to your rights under the Australian Consumer Law. Directed Electronics Australia Pty Ltd (Directed Electronics) warrants that this product is free from defects in material and workmanship for a period of 12 months from the date of purchase or for the period stated on the packaging. This warranty is only valid where you have used the product in accordance with any recommendations or instructions provided by Directed Electronics.

This warranty excludes defects resulting from alterations of the product, accident, misuse, abuse or neglect. In order to claim the warranty, you must return the product to the retailer from which it was purchased or if that retailer is part of a national network, a store within that chain, along with satisfactory proof of purchase. The retailer will then return the goods to Directed Electronics.

Directed Electronics will repair, replace or refurbish the product at its discretion. The retailer will contact you when the product is ready for collection. All costs involved in claiming this warranty, including the cost of the retailer sending the product to Directed Electronics, will be borne by you.

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#### WARRANTY AND WARRANTY DISCLAIMER

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This warranty and warranty disclaimer give you specific legal rights, and you may have other rights that vary by state, province or country. Other than as permitted by law, Nanocam Plus does not exclude, limit or suspend other rights you have, including those that may arise from the non-conformity of a sales contract. For a full understanding of your rights, you should consult the laws of your state, province, or country. For our Australian customers: please note that this warranty is in addition to any statutory rights in Australia in relation to your goods which, pursuant to the Australian Consumer Law, cannot be excluded.

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11.0 NOTES

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