NANOCAM+

User Manual

NCP-SHWK

3-Wire Hardwire Kit
for Constant Power and
24/7 Park Mode Monitoring

Your Safety, Our Priority

Your Safety. Our Priority

CONTENTS

NOTES AND INSTALLATION

IMPORTANT: REFER TO YOUR VEHICLE OWNER'S MANUAL TO DETERMINE:

- Location of the fuse box
- How to access the fuse box
- The type of fuse tap required

It is highly recommended that you thoroughly read the installation instructions in this user manual. If you are not comfortable with the process, please seek further assistance from an authorised technician.

Most vehicles have a fuse box underneath the dashboard on the driver's side which is easily accessible below the steering column (behind a removable panel). However, the location does vary between vehicle make and model.

There are 4 types of fuse tap cables included in this kit. Check to see if these fuses suit your vehicle's fuse box. If none are suitable, you will need to purchase the correct fuse tap to attach the hardwire kit to your vehicle's power source.

Note: You may need to consult your vehicle manufacturer for instructions on how to remove vehicle fittings (for example, the A-pillar panel) for routing the hardwire kit cables inside your vehicle and for where airbags are located so that these are not obstructed by the routed cables in case of deployment.

Working with your vehicle's power systems can be hazardous both to you and the vehicle if you are not familiar with such tasks. If you have any doubts regarding the installation of the NCP-SHWK, it is recommended that you seek a qualified auto technician for assistance.

IMPORTANT: Please refer to your dashcam user manual for installation of the dashcam in your vehicle.

The NCP-SHWK is a smart hardwire kit that provides continuous power to the dashcam from the vehicle battery. If there are any issues with your dashcam, please refer them to your dasham manufacturer.

1. PRODUCT INFORMATION

Get continuous power for your dashcam. The NCP-SHWK 3-Wire Smart Hardwire Kit connects to your vehicle battery through your vehicle's fuse box and provides continuous power to your dashcam when the engine is turned off. It includes several fuse tap options that suit most vehicles* and your dashcam connects to the hardwire kit with either the Mini USB or Type-C connector included. For the latest manual and product updates, please visit nanocamplus.com.au or nanocamplus.co.nz.

*A suitable fuse tap cable will need to be purchased separately if the fuse tap cable options included in this pack are not suitable for your vehicle's fuse box.

1.1 INTRODUCTION

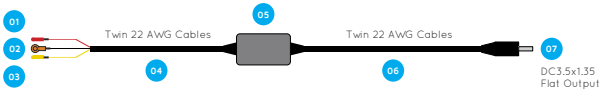
Thank you for purchasing the NCP-SHWK 3-Wire Smart Hardwire Kit.
The NCP-SHWK is a simple plug and play solution to hardwire Nanocom Plus dashcams or any other dashcam with a mini USB or type-C connector power interface to a vehicle. Please read through these instructions carefully before attempting to install or use this product.

1.2 FEATURES

- Universal application for compatible use with Nanocam Plus dashcams and all other dashcams with a mini USB or Type-C connector power interface.
- Suitable for use in cars and trucks with with a 12V or 24V battery.
- Provides continuous power to your dashcam even when your vehicle is turned off.
- Battery Drain Protection safeguards your dashcam from draining your vehicle's battery. Your battery will stop providing power to your dashcam if your battery level gets too low.
- Two sets of four different fuse tap cables are provided to connect the kit to the vehicle fuse box to enable the dashcam to operate with its own power supply.
- Mini USB and Type-C connectors are provided for easy connection to all Nanocam Plus dashcams and other brand dashcams.

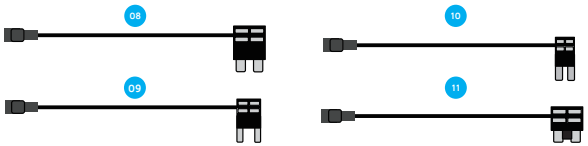
1.3 PACKAGE CONTENTS

HARDWIRE KIT



1. Red Input Connector
2. Black Input Connector
3. Yellow Input Connector
4. Input Cable
5. Control Box with Adhesive Pad
6. Output Cable
7. Output Connector

VEHICLE FUSE OPTIONS (USE ONLY ONE OPTION FOR INSTALLATION)



8. ATS (Standard) Fuse Cable
9. Mini Fuse Cable
10. Micro2 Fuse Cable
11. Micro Fuse Cable

DASHCAM OUTPUT CONNECTOR OPTIONS (USE ONLY ONE OPTION FOR INSTALLATION)

12. Mini USB Cable
13. Type-C Adaptor

ACCESSORIES

1. Cable Ties x 4

2. BATTERY DRAIN PROTECTION

The hardwire kit will protect your dashcam from draining your vehicle's battery. If your vehicle's battery voltage gets too low, the NCP-SHWK will stop powering your camera to save power.

2.1 SETTING THE CUT-OFF VOLTAGE SWITCH

Set the cut-off voltage to the preferred voltage limits before the hardwire kit cuts off the output.

There are four protection bands set within the hardwire kit for your selection.

For 12V Batteries

The protection voltages are 11.8V / 12.0V / 12.2V / 12.4V.
The 12.2V setting is recommended for general driving conditions.

For 24V Batteries

The protection voltages are 23.6V / 24.0V / 24.4V / 24.8V.
The 2.4V setting is recommended for most users in general driving conditions.

The hardwire kit will identify the lead acid battery type automatically (12V or 24V) and protect your battery from draining accordingly.

Setting the Parking Monitor Switch

Default (High) is automatically selected to comply with all Nanocam dash camera models. For other brands of dashcams, consult the manufacturer to ensure your dash camera is compatible with a 3-wire hardwire kit, and what the appropriate Parking Monitor setting is (High or Low).

Note: Not all Nanocam models support the Parking Monitor function.
Please check individual model specifications. Models without a Parking Mode function will have continuous recording irrespective of the accessories being on or off.

2.2 VEHICLE BATTERY LEAD ACID STATE AND CAPACITY

Use the table below to help determine the desired voltage cut-off level for battery drain protection.

For example if the temperature is 38°C and you want to keep a 75% lead acid state capacity remaining in your battery when the hardwire kit cuts off output (meaning the battery voltage is approximately 12.4V) the cut-off voltage should be set at the 12.4V band. This means that there will be a 25% capacity in your vehicle battery to be used for your dashcam while your vehicle is parked.

As an example, for a 50Wh lead acid battery, the 25% consumption level will enable approximately 50 hours of dashcam operation.

Temperature	Lead Acid State and Voltage (Volt)				
°C	100%	75%	50%	25%	0
-7	12.794	12.594	12.384	12.204	12.034
-1	12.77	12.57	12.36	12.18	12.01
4	12.746	12.546	12.336	12.156	11.986
10	12.722	12.522	12.312	12.132	11.962
16	12.698	12.498	12.288	12.108	11.938
21	12.674	12.474	12.264	12.084	11.914
27	12.65	12.45	12.24	12.06	11.89
32	12.626	12.462	12.216	12.036	11.866
38	12.602	12.406	12.192	12.012	11.842
43	12.578	12.378	12.168	11.988	11.818
49	12.554	12.354	12.144	11.964	11.794

NOTE: Please be advised that the above table is to be used as a reference guide only in order to determine an appropriate voltage selection dependent on the battery age and condition.

3. INSTALLATION

The location of the vehicle's fuse box varies by vehicle make and model. Locations may include underneath the driver's side dashboard, behind the glove box and underneath the central console. When in doubt, always refer to your vehicle owner's manual to determine the location of the fuse box in your vehicle.

NOTE: The images in this installation were taken for a vehicle where the fuse box is located under the driver's side dashboard (Fig. 1, 2) and should be used as a guide only for a DIY installation. To ensure proper installation, it recommended to seek a qualified auto technician to install the NCP-SHWK.

FIG. 1

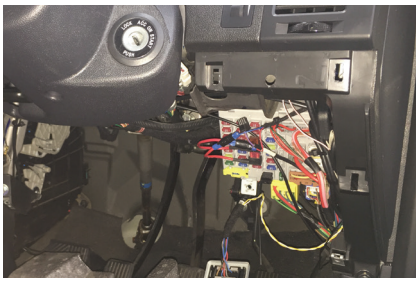


FIG. 2

There are two main stages in the hardwire kit installation

- Connecting the output cable to your dashcam
- Connecting the input cables to your fuse box and grounding

NOTE: Determine the location of your vehicle's fuse box before commencing the installation of the hardwire kit. When in doubt, refer to the vehicle owner's manual.

3.1 CONNECTING HARDWIRE KIT TO YOUR DASHCAM

IMPORTANT: Refer to your dashcam owner's manual for initial installation of your dashcam in your vehicle.

3.1.1 ATTACHING THE USB CABLE TO THE DASHCAM

1. Determine the connection interface type on your dashcam and then select the appropriate mini USB cable or Type-C option (Fig. 3).
2. Insert the USB cable into your dashcam (Fig. 4).

FIG. 3

FIG. 4

3.2 ROUTING OUTPUT CABLE FROM THE DASHCAM TO FUSE BOX

NOTE: You may need to consult your vehicle manufacturer for instructions on how to remove vehicle fittings (for example, the A-pillar panel) for routing the hardwire kit cables inside your vehicle and for where airbags are located so that these are not obstructed by the routed cables in case of deployment.

3.2.1 INSTALLING THE OUTPUT CABLES IN VEHICLE

1. Use the mini USB or Type-C (using the included Type-C adaptor) cable to connect the hardwire kit to your dashcam (Fig. 5).
2. The hardwire kit output cable will then need to be recessed into the roof lining where it meets the edge of the windscreen to conceal the cable (Fig. 6).
3. At the farthest end of the roof lining the output cable needs to be routed along the A-pillar that is closest to the fuse box of the vehicle. You will need to remove the door seal (Fig. 7) and A-pillar panel (Fig. 8) to route the cable (Fig 9a, 9b). Route the cable all the way down to the end of the A-pillar where it meets the dashboard.
4. Use the provided cable ties to attach the output cable to any existing cable(s) that may be housed in the A-pillar (Fig. 10a, 10b).

NOTE: The A-pillar that is used to route the cable may not be at the driver's side as shown. Please refer to your vehicle owner's manual to determine the location of the fuse box in the vehicle. The output cable needs to be routed in the A-pillar closest to the fuse box.

FIG. 5

FIG. 6

FIG. 7

FIG. 8

FIG. 9a

FIG. 9b

FIG. 10a

3.2.1 INSTALLING THE OUTPUT CABLES IN VEHICLE CONT'D

FIG. 10b

3.2.2 HOUSING THE OUTPUT CABLE

1. Where the output cable from the A pillar meets the side of the dashboard, the output cable will then need to be routed towards the direction of the fuse box by concealing the cable along the side of the vehicle dash (Fig. 11a, 11b).
2. Any excess output cable length can be wrapped and held together with a cable tie when it reaches the fuse box (Fig. 12).
3. Tuck away any excess output cable behind the fuse box (Fig. 13).
4. If required, peel off the adhesive tape on the control box to attach it to your vehicle close by to the fuse box.

FIG. 11a

3.2.2 HOUSING THE OUTPUT CABLE CONT'D

FIG. 11b

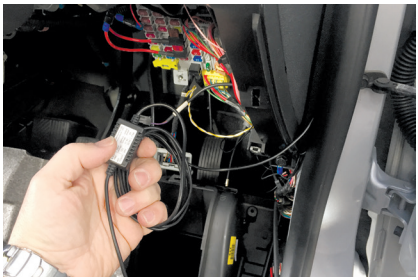


FIG. 12

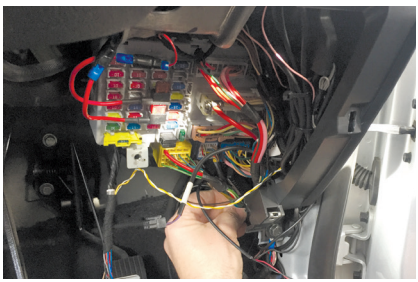


FIG. 13

3.2.3 CONNECTING TO THE FUSE BOX

NOTE: Refer to your vehicle's fuse layout panel to determine the permanent power fuse for constant and accessories power feed. The fuse cable needs to be connected to the 12V/24V battery feed.

1. Determine the fuse tap cable required for connection to your fuse box. When in doubt, refer to the vehicle owner's manual.
2. Place the vehicle fuse in the fuse tap cable. Note the correct positions location for both the vehicle fuse and the hardwire kit fuse in the fuse tap cable (Fig. 14).

ACCESSORIES Power Fuse Connection - Red Cable

1. Connect the red input connector to the fuse tap cable (Fig. 15a, 15b). Ensure the connection is secured.
2. Insert the fuse tap into the fuse box (Fig. 16a, 16b).
3. Tuck away any excess input cable behind the fuse box.

FIG. 14

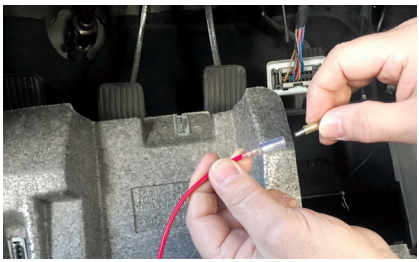


FIG. 15a

3.2.3 CONNECTING TO THE FUSE BOX CONT'D

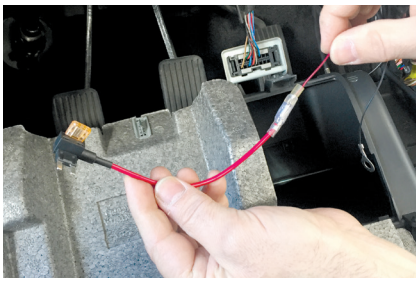


FIG. 15b

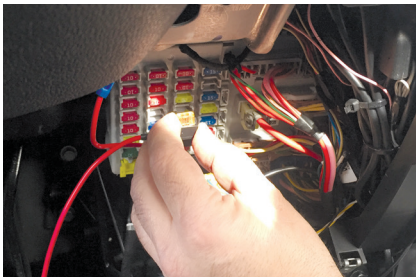


FIG. 16a

FIG. 16b

CONSTANT POWER Fuse Connection - Yellow Cable

Please follow the steps outlined above (Fig. 14 to Fig. 16) to connect the CONSTANT POWER fuse connection using the yellow input connector.

NOTE: To determine constant power feed fuse, use a voltage meter.

3.2.4 CONNECTING TO GROUND

1. Locate an earth terminal/bolt or any vehicle bolt that is mounted on the chassis of the vehicle that is nearest to the fuse box (Fig. 17).
2. Loosen the bolt and attach the black input cable eyelet to the bolt. Fasten the bolt.
3. Tuck away any excess input cable behind the fuse box.

NOTE: The black earth cable needs to be connected to the vehicle chassis otherwise it will not earth out.

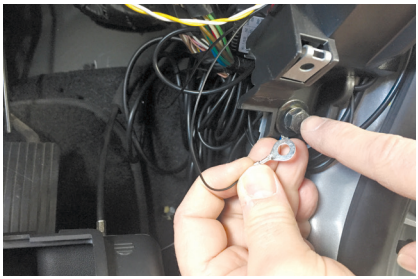


FIG. 17

4. SPECIFICATIONS

HARDWIRE KIT: CABLES	
RED INPUT CONNECTOR	BULLET PLUG OD4MM
BLACK INPUT CONNECTOR	ROUND RING TERMINAL, NICKEL PLATED, OD10MM ID6MM L20MM
INPUT CABLE	THREE CABLES (RED: 12/24V ACCESSORY, YELLOW: 12/24V POWER, BLACK: GROUND), 2X22AWG, CONDUCTOR, SR-PVC INSULATION, PVC JACKET, UL1015/2586, 1M, 150MM CLEARANCE
OUTPUT CABLE	THREE CABLES, 2X22AWG CONDUCTOR; SR-PVC INSULATION, PVC JACKET; UL/1007/2464, 3M
OUTPUT CONNECTOR	DC3.5X1.35 MINI USB RECEPTOR
HARDWIRE KIT: CONTROL BOX	
FLAME RETARDANT ABS 94V0, CONTAINS DC-DC CONVERTER	
INPUT VOLTAGE MIN	10V
INPUT VOLTAGE MAX	32V
OUTPUT VOLTAGE	NO LOAD: 5.1V 0.5A LOAD: 5.1V 1A LOAD: 5.1V 2A LOAD: 5.1V
OUTPUT POWER	DC5V 2.5A MAX
BATTERY DRAIN PROTECTION BANDS	11.8V/23.6V 12.0V/24.0V 12.2V/24.4V 12.4V/24.8V
OTHER PROTECTION	REVERSE POLARITY; SHORT CIRCUIT; OVER TEMPERATURE; OVER VOLTAGE; OVER LOAD
WORKING TEMP	-20°C TO 65°C
FUSE CABLES	
ATS (STANDARD) FUSE CABLE	CABLE WITH 5A ATS (STANDARD) FUSE, L125MM
MINI FUSE CABLE	CABLE WITH 5A MINI FUSE, L125MM
MICRO2 FUSE CABLE	CABLE WITH 5A MICRO2 FUSE, L125MM
MICRO FUSE CABLE	CABLE WITH 5A MICRO FUSE, L125MM
ACCESSORIES	
TYPE-C	TYPE-C ADAPTOR
CABLE TIES	QUICK FIX CABLE TIE, BLACK PA66, UL94V2, -20°C TO 105°C, 8KGs, W2.5MM L80MM

5. 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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