



Magnetic Wireless Camera System With 7" Mirror Monitor with DVR



FN-MWCS7-R

User Manual

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WHAT IS INCLUDED

			
1 x Magnetic Wireless Camera	1 x Wireless Camera Antenna	2 x Camera Angle Adjustment Screws	1 x USB-C Camera Charging Cable
			
1 x Mounting Plate + Adhesive	1 x 7" Mirror Monitor	1 x 1.5m Angled USB-A Cable	1 x 0.75m Angled USB-A Cable
			
1 x 32GB SD Storage Card	1 x 12V DC - USB Adapter	1 x Mains to USB Charge Adapter	1 x Protective Carry Case

INTRODUCTION

Congratulations on your purchase of the Falcon Magnetic Wireless Camera and 7" Mirror Monitor with DVR Recording Function



This guide will take you through the process of installation and set up of the Magnetic Wireless Camera System.

Please note it is important for you to retain your receipt for proof of purchase for help and assistance.

For more information on our product range please
Visit <https://falcontechonology.co.uk>

Get in touch with us in the UK

Falcon Technical Ltd
Hill Farm
Northwich Road
Dutton
Cheshire
WA4 4LE
United Kingdom

For product support in the UK please email
cs1@falcontechonology.co.uk

International enquiries

Visit our European Website at:
<https://falcontechonology.eu>

For product support in Europe, please email
support@falcontechonology.eu

CAMERA MOUNTING PLATE INSTALLATION

If using the magnetic mounting plate for the camera, this will need to be bonded to the surface where the camera is to be positioned.

1. Firstly locate the desired position for the camera and carefully mark around the plate with a pencil or washable marker. Then tape around the area for positioning and to ensure no excess adhesive leaks out onto the surrounding area.



2. Apply a generous amount of the supplied adhesive to the rear of the magnetic mounting plate and also to the masked area. Place the metal plate onto the masked surface and apply pressure. Place tape across the plate to and allow the adhesive to bond completely (Ideally 24 hours) and wipe off any excess adhesive from around the plate.



3. Once the plate has completely bonded, remove the tape and apply the charged & paired camera ready for use.

The Camera plate can be mounted either on the rear or on the top of the vehicle.

Note:

When mounting the camera, ensure that the charging port cap is closed to ensure that the port is protected from water ingress or weathering.



CAMERA SETUP

Note.

Before first use, ensure that the camera has been fully charged via the USB-C port on the camera. Use the supplied USB cable to a USB-A port or use the supplied 12v charging adapter or mains adapter.

Connect the supplied wireless antenna to the rear of the camera ensuring not to over tighten.

The Antenna can tilt to the desired angle.



Secondly, apply the two angle adjustment screws to the sides of the camera. Find the desired angle for the camera and tighten. The angle can be re-adjusted at any time.



CAMERA LED DISPLAY PANEL

LED 1 (Blue)

Camera Power

To Power On Press Power for 1 seconds

To Power Off Hold Power for 5 seconds

LED 2 (Blue)

Transmission / Pairing mode

Slow Flash (Transmitting data).

Fast Flash (Pairing Mode) Press the power button 3 times in quick succession to enter pairing mode.

LED 3 (Red)

USB / Mains - Charging Light

If the camera is charging via USB / Mains the red LED is displayed.

LED 3 (Red)

Solar Charging Light

When the camera is charging via Solar, the red LED is displayed.



Once the Camera has completed charging Via USB, Ensure the charging port cap is replaced to prevent ingress / weathering.

MONITOR SETUP

The Mirror Monitor clips to an existing rear view mirror via the spring adjustment clips on the back of the monitor.

Place over the existing mirror and press down gently on the bottom two clips until the monitor fits neatly onto the existing mirror.

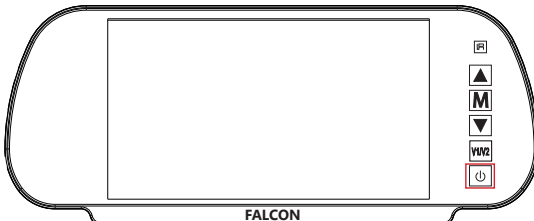


The monitor can be detached from the mirror by applying the reverse action, pulling down on the spring clips and removing the monitor.

To power the monitor, use one of the two supplied angled USB-A cables which connects the USB port on the left hand side of the monitor and can either be powered via a USB port if available or can also be powered by a 12V DC supply using the supplied USB to 12V DC adapter.



Once the monitor has power from USB or 12V DC adapter, the monitor can be powered on. The monitor power button is the bottom button on the right hand side of the display marked .



FIRST TIME USE

Before mounting the camera for the first time, check that the Camera and Monitor are paired. To ensure this, make sure the antenna is attached to the camera and that the camera is fully charged.

1. Place the Camera & Monitor in close proximity of each other (within 5ft). (Once the camera is paired with the monitor, the camera can be placed up to 100m away (open distance).



2. Ensure that the Monitor power cable is connected to a USB port or 12V cigarette lighter style socket using the USB to 12V adapter supplied.



3. Once the monitor is powered on, Turn the camera on via the power button on the side of the unit. Press for 1 Second.



4. The Camera and Monitor should automatically pair with each other. If they do not pair automatically, they can be paired manually. See Page 10 of this manual for details on how to pair via the Monitor Menu.

5. Once the camera is paired with the monitor and the image from the camera is displayed on the monitor, the camera is ready for mounting to the plate for use.



6. The solar panel on the top of the camera provides a trickle charge into the battery to assist with charging whilst on the move. **Note: if using through Winter periods with shorter daylight hours or duller weather conditions, the charge rate may be affected. If the battery runs too low, the camera may need to be removed and charged manually via the USB port.**

FIRST TIME USE

7. The wireless monitor can accept up to 4 wireless cameras. Primarily the selection for the camera in the purchased system will be **CAM1**.



An additional 3 wireless cameras can be used with the monitor simultaneously and can be viewed on the monitor individually or in a Split-screen or Quad display.

As this kit is only supplied with one Magnetic Camera, primarily **CAM 1** will be the main display though the Camera can be paired to any channel.

8. On first time use, ensure that the correct **Date** and **Time** are set by navigating to the **SYSTEM** option on the display Menu.

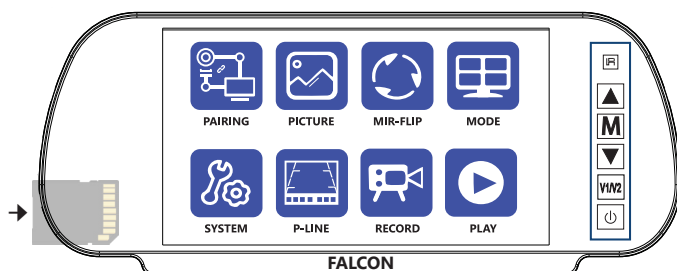
This will allow for the correct date and time to be displayed on the monitor but will also allow for the correct date and time to be used for any recordings.

9. The camera system is now ready for use. Please read the subsequent pages with regards to Monitor Operation and menu features which provide other options to be set up and also general features of the camera system.



If additional support is required, please see the troubleshooting page of this manual or contact the support email addresses noted within this manual.

MONITOR OPERATION



-  MENU SCROLL NAVIGATION / PARKING-LINE ADJUSTMENT
-  MENU BUTTON
-  MENU SCROLL NAVIGATION / PARKING-LINE ADJUSTMENT
-  MENU SELECT BUTTON / CAMERA VIEW SELECTION
-  MONITOR POWER BUTTON
-  SD STORAGE CARD SLOT - (INSERT WITH CONTACTS FACING SCREEN)

SWITCHING BETWEEN CAMERA VIEWS

The mirror monitor will allow connection of up to 4 x Wireless Cameras. The monitor is able to display the camera views individually and simultaneously. To select a different camera channel press the  button. The Channel number is noted on the top of the screen as **CH1 - CH4**. Keep pressing the  to show all channels in a multi window display. The multi camera layout can be adjusted in the **MODE** section of the Monitor Menu.

MONITOR MENU

To enter the monitor menu, press the  button. The monitor menu provides various options and adjustments which are noted on the next series of pages.

MENU OPERATION - PAIRING



PAIRING

The Camera & Monitor should automatically pair when powered on. If the camera does not automatically pair the first time, the Camera & Monitor can be paired manually.

To enter the PAIRING Menu, press the **[M]** button on the monitor and then use the **[▲]** or **[▼]** buttons to navigate to **PAIRING** and then press the **[V1/V2]** button to select the option.

PAIRING START
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1. Install and tighten antenna on the camera.
2. Place the camera close to monitor (within 5ft).
3. Power on the monitor first, and press the **[▲]** or **[▼]** button to switch to the channel that you want to pair with the camera.
4. On the Monitor, Press the **[M]** button once to move to "PAIRING" icon, and press the **[V1/V2]** button to select **PAIRING**.
5. The Monitor will count down for **30 Seconds**.
6. Power the Camera on by pressing the power button on the side of the camera once (Ensure the camera has been charged before attempting to pair to the monitor)

It is also possible to un-pair/re-pair a camera also by pressing the power button 3 times in quick succession when the camera is powered on. The 2nd Blue light on the camera will flash when in pairing mode

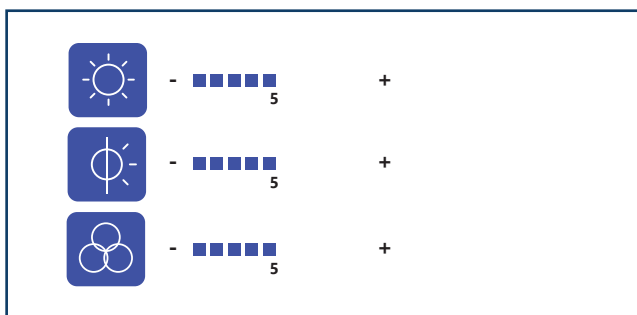
MENU OPERATION - PICTURE



PICTURE

The Picture menu on the monitor can be used to change the Brightness, Contrast & Hue of the picture.

To enter the PICTURE Menu press the **[M]** button on the monitor and then use the **[▲]** or **[▼]** buttons to navigate to **PICTURE** and then press the **[V1/V2]** button to select the option.



The monitor is set to the default settings for first time use. It is recommended to adjust these settings to the desired colour settings. These can be adjusted at any time by selecting **PICTURE** in the menu.

To adjust the Brightness, Contrast or Gamma settings. Use the **[▲]** or **[▼]** buttons to highlight the required setting and then press the **[V1/V2]** button to select the option. This will highlight in red.

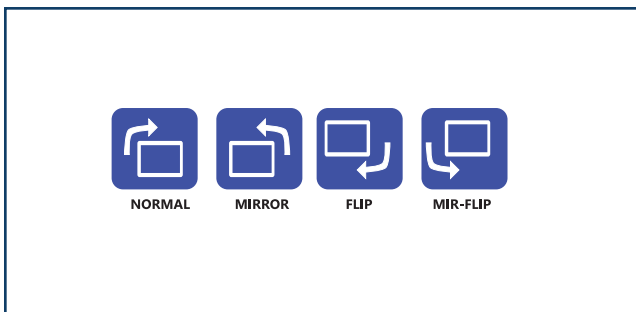
Then use the **[▲]** and **[▼]** buttons to adjust the setting. To exit back to adjust another setting press the **[M]** button or press twice to return to the main display menu.

MENU OPERATION - MIR-FLIP



MIR-FLIP OPTION

The MIR-FLIP option allows the image on the screen to be flipped horizontally or vertically for different viewing scenarios.



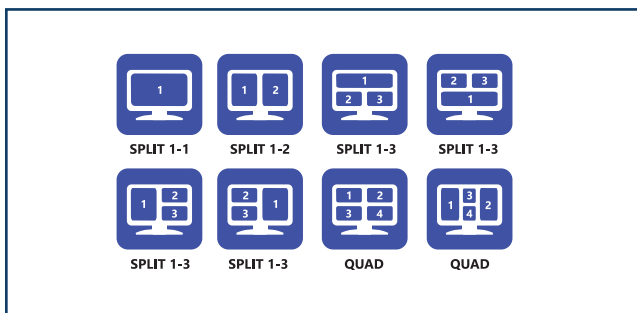
1. To Mirror or Flip the Image view from the camera on the monitor, Press the **[M]** button to enter the Menu, then use the **[▲]** and **[▼]** buttons to navigate to the MIR-FLIP option and press the **[VIN2]** button to enter the option.
2. There are 4 options in the Menu.
 - **NORMAL** - Standard View from Camera
 - **MIRROR** - Mirrored View Horizontally
 - **FLIP** - Image Vertically Flipped
 - **MIR-FLIP** - Image Vertically Flipped and Mirrored
3. Use **[▲]** and **[▼]** buttons to highlight the option required.
4. Press the **[VIN2]** button to select the option.
5. Press the **[M]** button to exit out of the menu.

MENU OPERATION - MODE



MODE OPTION

The MODE option allows for multiple layouts of views on screen.



To access the MODE menu, Press the **[M]** button to enter the Menu, then use the **[▲]** and **[▼]** buttons to navigate to the MODE option and press **[VIN2]** button to enter the option.

The Camera Views can be configured in a number of ways so that if the system is using multiple cameras, they can be viewed on the screen simultaneously. The options are shown above and can be configured to show split screens or quad screens in different orientations.

To Select the desired multi-camera option for the display, use the **[▲]** and **[▼]** buttons to navigate to the option and press **[VIN2]** button to select the display mode and press the **[M]** button to return to the previous menu.

The camera display mode can then be viewed by pressing the **[VIN2]** button several times until the desired camera view is displayed.

MENU OPERATION - SYSTEM



SYSTEM

The System menu allows the on-screen language setting to be changed and also the date and time to be set.



To adjust the on screen language and also the date and time on the display, press the **[M]** button to enter the Menu, then use the **[▲]** and **[▼]** buttons to navigate to the **SYSTEM** option and press the **[VIN2]** button to enter the sub menu.

To adjust the on screen language or date and time, press the **[▲]** and **[▼]** buttons to highlight an option and press the **[VIN2]** button to select the option.

This will highlight in red to notify the option has been selected. Then use the **[▲]** and **[▼]** buttons again to scroll through the available options. Select the language by pressing the **[VIN2]** button and then the **[M]** button to exit.

When adjusting the Date / Time, each time the **[VIN2]** button is pressed, the display will move to the next entry option and highlight in yellow. Once completed, press the **[M]** button to exit to the main menu.

MENU OPERATION - PARKING GUIDELINES



P-LINE

The P-LINE option allows selection and adjustment of the Parking Line feature on the monitor.

Parking Assist guidelines are available on all camera channels and can be set for each channel.

To enable the Parking Assist Guidelines from the menu, press the **M** button and use the **▲** or **▼** button to navigate to **P-LINE**, then press the **V1/V2** button to select the option. Then in the P-LINE menu screen press **V1/V2** and use the **▲** or **▼** buttons to toggle **ON / OFF**. Once selected press **M** twice to return to the main display.

There is a simpler way to enable the Parking Lines on the Camera View by pressing the **▲** button whilst on the Camera view. The Parking lines can be adjusted by pressing the **▼** button on the monitor when the parking guidelines are visible. Their position can be adjusted to suit the camera angle. When pressing the down button you will notice a either a **W**, **H**, or **M** at the bottom of the display.

To adjust each of these settings press the **▲** button until it has the desired position and width. These can be adjusted separately for each Camera Channel.

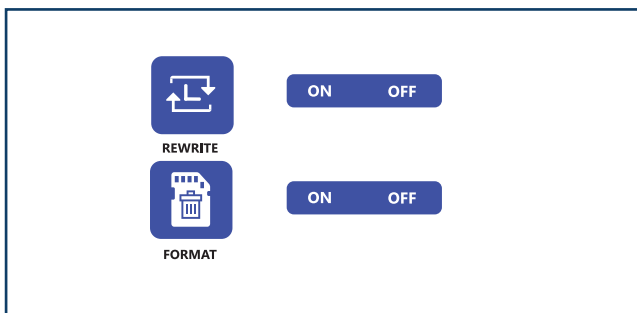
- **W - (Width)** The width of the guidelines can be adjusted to be wider or narrower depending on preference.
- **H - (Height)** The height (vertical position) of the parking guidelines on screen can be adjusted depending on preference.
- **M - (Manual)** The Horizontal position of the parking guidelines on screen can be adjusted and offset if required.

MENU OPERATION - RECORD



RECORD

The RECORD menu provides options regarding the DVR (Digital Video Recording) function of the monitor.



To adjust the on screen language and also the date and time on the display, press the **[M]** button to enter the Menu, then use the **[▲]** and **[▼]** buttons to navigate to the **RECORD** option and press the **[VIN2]** button to enter the sub menu.

There are two options available for the DVR Recording system:

- **REWRITE** - By enabling REWRITE, the monitor will record until the storage card is full and then cycle to rewrite over the recorded data. This option is helpful when not wanting to swap cards over when full. * Note. The REWRITE function does erase pre-recorded data and so potentially may overwrite video recordings that may be required. In the unfortunate event of an incident, remove the storage card to ensure the recording is kept safe and replace with a separate card to continue recording.
- **FORMAT** - This function formats the SD storage card and erases any current data on the card to make it ready for use.

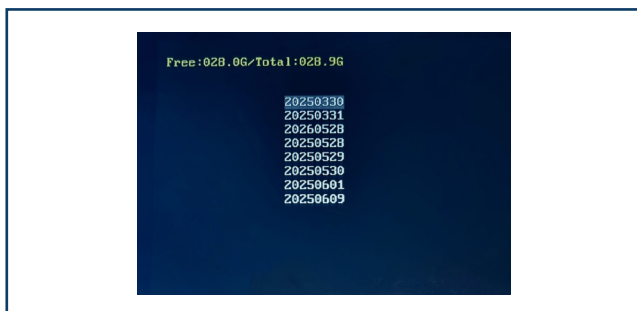
* Note, The monitor only records the display being viewed on the screen and does not record all channels in the background.

MENU OPERATION - PLAY



PLAY

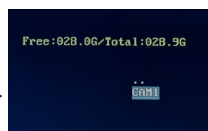
The PLAY option allows the playback of files written to the SD storage card by the DVR (Digital Video Recording) function.



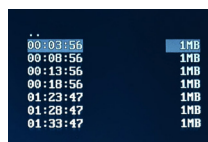
To view the files. Press the **M** button and navigate to **PLAY**.

The files are written in 5 minute segments per file and are stored by date order. Use the **▲** and **▼** buttons to navigate to the required date and press the **V1/V2** button to select.

The files are then in folders by CAM number.
If only 1 cam, there will only be a folder for CAM1.



Then select the file for playback using the **▲** and **▼** buttons press the **V1/V2** button to select.



Note: When a file is playing, the **▲** and **▼** buttons can be used to scroll through the videos in that folder without having to select each file. Files are recorded in AVI format and can be also viewed on a PC by removing the Storage card and using with a SD card reader.

TROUBLESHOOTING

No Display on Monitor

- Check if the monitor is powered on . If you are sure the monitor has power and it does not respond, disconnect it from the power and try reconnecting.
- Check that there is power at the USB socket If there is no power, check the any fuses.

Monitor is powered but showing no signal

- Check if the camera is charged and powered up.
- Check that the Camera is paired with the monitor. If not, try pairing the camera to the monitor via the instructions on Page 10.

Camera Image is blurry or foggy

- Check the external lenses and clean and wipe any dirt or residue.
- If there is moisture inside the camera's lenses due to extreme changes between high and low temperature, wait a few hours and it should return to normal.

Connection or Lag issue between the monitor and camera

- Check for any interference / obstacles that may cause interference.
- Check the battery level of the camera to ensure sufficient charge.

Recorded Storage is not showing in PLAY menu

- Check that the SD card is inserted correctly and is formatted
- Ensure that the Memory card icon is showing on the top right of the display. If not correctly formatted on the monitor, the files may not write correctly.
- Before formatting the card, insert the SD storage card into a PC and check if files are present.

For further product support in the UK please email
cs1@falcontechology.co.uk
or
support@falcontechology.eu

TECHNICAL SPECIFICATIONS

CAMERA

Imaging chip type:	1/4 inch color CMOS
Effective pixels:	AHD 1080P
Transmission power:	23dBm
Available low light:	0.1Lux
Viewing angle:	125°
Shockproof level:	10G
Waterproof grade:	IP67
Shockproof level	10G
Charging interval:	6H
Average usage per charge:	12H
Working voltage:	DC12V-24V 400mA
Battery capacity:	9,900 mAh
Charging power supply:	Type-C 5V / 2A
Operating temperature:	-20°C ~ +70°C
Storage temperature:	-30°C ~ +70°C
Dimensions:	120 * 95 * 70mm (W, H, D)

MONITOR

TFT Screen Size:	7"
Contrast:	350:1
Brightness:	300 cd/m2
Power consumption:	6W
Resolution:	1024(W) x RGB x 600(H)
Recording format:	AVI
Wide Viewing Angle	(left/right) 85 (up/down) 85
Operating voltage:	DC 5V
Storage temperature:	-20° to +85°C
Operating temperature:	-15° to +50°C
Dimensions:	249.5 * 108 * 39 mm (W, H, D)

ADDITIONAL LANGUAGES



If the user manual is required in other languages, a digital copy can be accessed and downloaded using the below QR Codes.



Wenn das Benutzerhandbuch in anderen Sprachen benötigt wird, kann mithilfe der folgenden QR-Codes auf eine digitale Kopie zugegriffen und diese heruntergeladen werden.



Si le manuel d'utilisation est requis dans d'autres langues, une copie numérique peut être consultée et téléchargée à l'aide des codes QR ci-dessous.



Si se requiere el manual del usuario en otros idiomas, se puede acceder y descargar una copia digital utilizando los siguientes códigos QR.



Se il manuale utente è richiesto in altre lingue, è possibile accedere e scaricare una copia digitale utilizzando i codici QR riportati di seguito.



ADDITIONAL WIRELESS CAMERAS

The Magnetic Camera System Monitor can allow up to 4 wireless cameras to be paired at a time.

Additional Magnetic Cameras can be purchased Separately.

Click on the link for more Information and links to purchase.



OTHER FALCON PRODUCTS - TV



FALCON WEBOS MULTI-VOLTAGE
SMART CAMPING TV RANGE



FALCON 30W IMMERSIVE
SOUND BAR



FALCON TV PROTECTIVE
CARRY CASES



OTHER FALCON PRODUCTS - INTERNET

FALCON EVO FLEX - ROOF MOUNTED
& PORTABLE MOBILE INTERNET



FALCON EVO 5G MOBILE DELUXE
PORTABLE MOBILE INTERNET SYSTEM



FALCON 4G COMBO DELUXE
ALL IN ONE ANTENNA & ROUTER



OTHER FALCON PRODUCTS - OFF GRID POWER

FALCON PPS1200 - 1200W
PORTABLE POWER STATION



FALCON LIGHTWEIGHT
SOLAR PANELS FOR PPS1200



FALCON LIFEPO4 LITHIUM
LEISURE BATTERIES



United Kingdom Enquiries:

UK Website: <https://falcontechonology.co.uk>

Sales: sales@falcontechonology.co.uk

Support : cs1@falcontechonology.co.uk

EU-Website: <https://falcontechonology.eu>

Email: support@falcontechonology.eu

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