

parkmate®

5.0" WIRELESS MONITOR

With solar powered wireless rear camera transmission



RVK-50SW
USER MANUAL



WARNING



BUTTON
BATTERY



KEEP OUT OF REACH OF CHILDREN THIS PRODUCT CONTAINS A BUTTON BATTERY

If swallowed, a lithium button battery can cause severe or fatal injuries within 2 hours.

If you suspect your child has swallowed or inserted a button battery, call the

Poisons Information Centre immediately on **13 11 26** for 24/7 fast, expert advice.

If your child is having any difficulty breathing, contact **000**.

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1.0 INTRODUCTION

Thank you for purchasing Parkmate's RVK-50SW Solar Powered Wireless Monitor. 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.

DISCLAIMER:

Parkmate's RVK-50SW Solar Powered Wireless Monitor 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 practice remains with the driver at all times. You have purchased this product with the understanding that its use is as an aid only.

IMPORTANT NOTICE:

1. Please read this manual carefully before using the product.
2. This unit is for vehicles with 12/24V DC only.
3. Please perform tests after finishing the installation.
4. Specifications subject to change without prior notice.

2.0 PACKAGING CONTENTS



5.0"
Monitor



Suction
Mount for
Monitor



Rear Cam
with Solar
Panel



Remote
Control



USB Charging
Cable

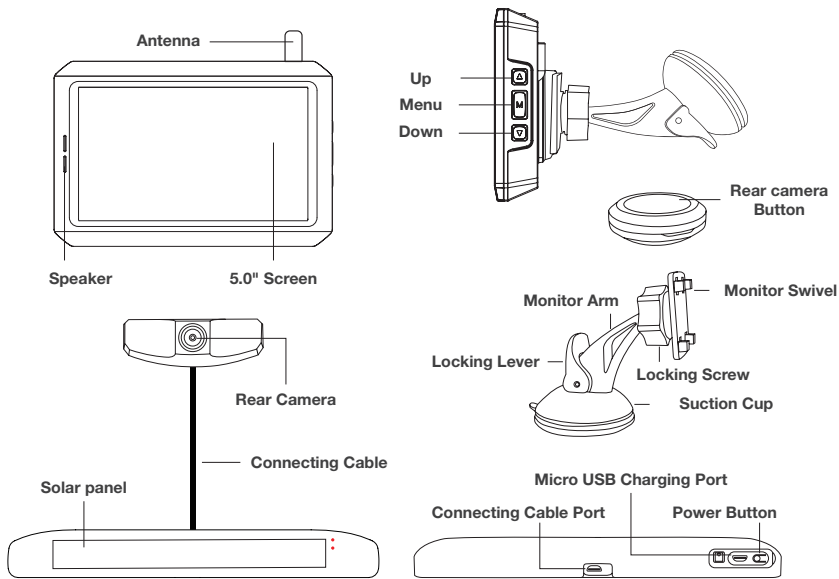


12/24V
Adaptor
Cable



User
Manual

3.0 PRODUCT OVERVIEW

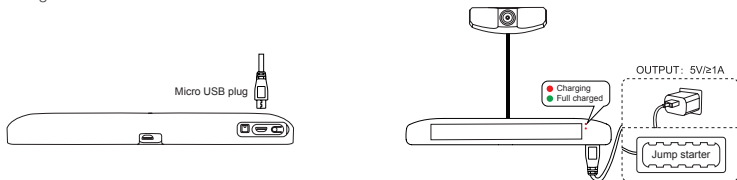


4.0 GETTING STARTED

4.1 CHARGING THE INBUILT BATTERY ON THE REAR CAMERA

The included rear camera and solar panel will need to be charged before being installed onto your vehicle.

1. Connect the included USB cable to the Micro USB port of the solar battery unit.
2. Plug the USB cable into any standard USB charger with an output rating of 1A or higher.
3. Charge for 3 to 4 hours.



NOTE:

- In normal use, the camera pack will remain charged while exposed to sunlight. When the backup camera is working, a battery status indicator will appear on the monitor. If the vehicle is parked in the garage for more than a month, or the camera is not regularly exposed to the sun, you may need to charge it through the micro USB charging port before using.

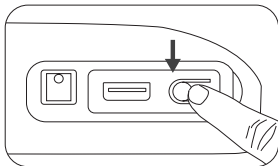
ATTENTION:

1. If the vehicle is parked for more than 2 months, turn off the solar battery unit switch to disable the camera and prevent the battery from discharging. (Refer to image on next page).
2. If you use a power bank or a jump starter to charge the device, make sure that its battery capacity is no less than 4000mAH.

4.2 TEST THE SYSTEM

To ensure that all components are working properly, please test the system before connecting the components to the vehicle.

1. When the monitor is powered ON, the indicator light will light to indicate that the monitor is on and ready to work.
2. Turn ON the solar battery unit switch of the rear camera. The working indicator light flashes once and then lights up for about 5 seconds and goes out, which indicates that the backup camera is turned on and ready to work.
3. Press the Remote Button Control once, the indicator light of the monitor flashes twice and then the monitor displays image. If not, please refer to the troubleshooting Section at the end of this manual.

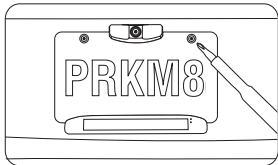


NOTE:

- By default, the monitor will stop displaying images and enter into standby mode after 60 seconds. Display time can be changed by referring to section "Monitor Operation" on page 9.

5.0 INSTALLATION

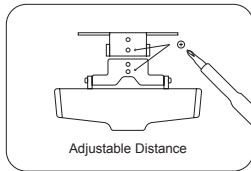
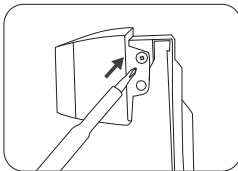
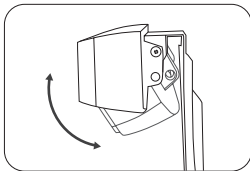
1. Remove the license plate from the vehicle. Please do not throw away the original screws as they are required to mount the bracket for this wireless backup camera.
2. Please remove the 3M adhesive stickers from the camera bracket.
3. Depending on the vehicle's license plate mounting bracket either mount the wireless rear camera and solar panel onto the vehicle or the underside of the license plate. Once aligned and attached wait at least 20 minutes for the adhesive to set.
4. Reattach the license plate to the vehicle together with original screws and tighten.



5.1 ADJUST CAMERA ANGLE & MOUNTING DEPTH

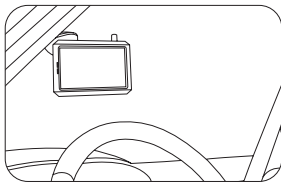
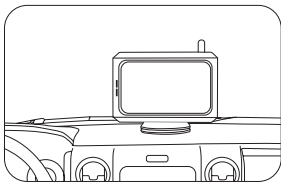
Adjust the angle and depth of the camera as needed:

- Tilt the camera to the correct angle. The camera should be adjusted to a horizontal position relative to the ground in order to provide the best view of the objects behind the vehicle.
- The depth of the camera can also be adjusted to allow for extra clearance for license plates if necessary.
- Carefully tighten the screws to prevent the camera angle from deviating due to vibration during driving.



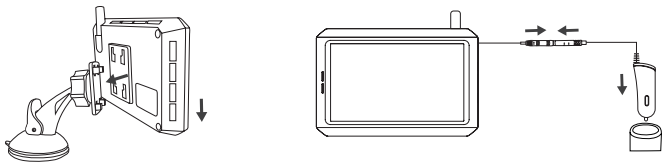
5.2 MOUNT THE MONITOR

Find a mounting surface where the monitor can be easily seen inside the car, and does not obstruct your vision when driving.



NOTE:

- Before permanently mounting the monitor, test the reception of the camera signal in several selected locations within easy reach as one may have better reception than another. Finally, choose the best location with the best signal reception.
1. Clean and dry the mounting surface before fixing the suction cup bracket.
 2. Press the suction cup bracket against the mounting surface and push the suction cup lock lever down to lock the suction cup.
 3. Slide the monitor into the bracket. The angle of the monitor can be adjusted by loosening or tightening the rotary knob.
 4. Insert the monitor car charger into the 12/24V DC power supply.

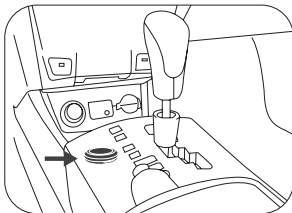
**NOTE:**

1. For a decent and neat installation, you can hide the charging cable into the decorative seam around the edge of the dashboard, and if necessary, bundle the additional wires with a cable tie.
2. If the 12/24V DC power port on your vehicle is always running, be sure to unplug the car charger before leaving the vehicle in case the car battery drains out.

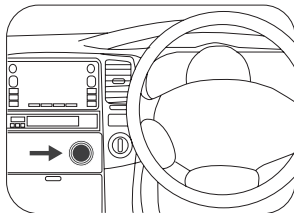
5.3 INSTALLING THE REMOTE BUTTON

This solar wireless digital reversing camera system comes with a wireless Remote Button, which is used to activate the rear view camera.

Remove the 3M adhesive film on the back of the Remote Button and fix it in the chosen place: For example,



Console Mount



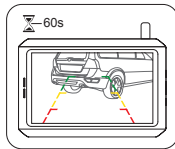
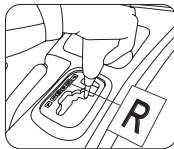
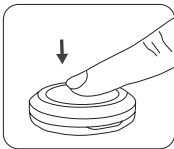
Dashboard Mount

6.0 OPERATION

6.1 ACTIVATE THE CAMERA

Please make sure the solar battery unit is fully charged before your first use. Information about charging, please refer to the part of "Getting Started" and "Charge the Battery".

Tip: Pressing any button on the side of the monitor also activates the camera.



6.2 MONITOR OPERATION

The indicator light turns red after the monitor is powered ON, which indicates the monitor is ON and on standby. Pressing any button on the side of the monitor you will see rear view image.

M: Menu/Return/Confirm

▲ : Forward/Increase button

▼ : Back/Decrease button

- Press the **M** button to access menu mode. The display will show the menu settings for approx 3-5 seconds.
- Use the buttons “▲”and “▼” to increase, decrease or advance the following menu items.

6.2.1 MENU ITEMS

Pair: Pair the monitor with a new backup camera.

B/C Control: Adjust the monitor brightness and contrast.

Mirror/Normal: Switch between the mirror image and the normal image.

Reversing Time: Set the duration of reversing display time.

Guide Line: Activate or deactivate the guide lines.

Reset: Return to factory settings.

Tip: Monitor and the Remote Button are paired during the production. The “Pair” button will only be effective when you need to replace the camera . For more information, please refer to the part of “Troubleshooting”.

6.3 CHOOSE THE SIZE OF GUIDELINE





1. Press **M** button for about 4 seconds until the guideline flicks.
2. Press“▲”button or “▼” button to choose from 6 different sizes of guidelines .
3. The setting will be saved in 3 seconds when the guideline stops flicking.

7.0 INDICATION OF BATTERY POWER

The battery icon is located in the upper right corner of the display, representing the relative power of the built-in lithium battery.

The battery icon in the chart shows the current battery power, and the estimated usage duration of the battery without receiving sunlight.

Your rechargeable solar power unit can continue to power the device for up to several months after full charging with NO SUNLIGHT (the average usage is defined as 4-6 times per day).

BATTERY	RELATIVE POWER	ESTIMATED DURATION	NOTE
	≈ 100%	≈ 60 days	N/A
	≈ 70%	≈ 45 days	N/A
	≈ 40%	≈ 24 days	N/A
	≤ 20%	≈ 12 days	Need to charge

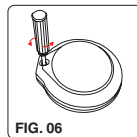
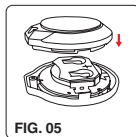
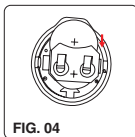
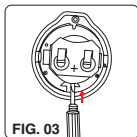
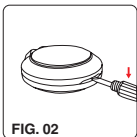
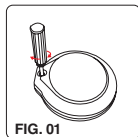
NOTE:

- Low temperature may drastically decrease the performance of the built-in lithium battery. This product can work at ambient temperatures as low as -20 °C.

8.0 BATTERY REPLACEMENT OF THE REMOTE BUTTON CONTROL

In normal use, the battery life of the Remote Button Control is about 1 year. The Remote Button Control uses a CR2032 button cell.

1. Insert small flathead screwdriver into the opening to engage the screw head and rotate the screwdriver counterclockwise to loosen the screw [as shown in **FIG 1**] (**Screwdriver not provided*)
2. Using the screwdriver, insert the blade into the slot [as shown in **FIG 2**] (**Screwdriver not provided*) and slightly turn the screwdriver to separate the top case from the base completely.
3. To remove the button cell battery, use the screwdriver to push the battery out of the case [as shown in **FIG 3**].
4. Insert a new button cell battery and ensure the positive (+) is facing up when inserting [as shown in **FIG 4**]
5. Place the top case back onto the base [as shown in **FIG 5**].
6. Using the screwdriver rotate the screw clockwise to tighten [as shown in **FIG 6**].

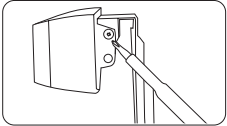



WARNING CHOKING HAZARD

Please keep the button battery out of sight and out of reach of small children. Button batteries pose a serious hazard to children and if swallowed present a choking hazard and risk of possible serious injury or death. If you suspect a child has swallowed a button battery, contact the **Poisons Information Centre** on **13 11 26** and you will be directed to the nearest hospital or emergency service that can manage the injury.

ISSUES	POSSIBLE CAUSES	SOLUTIONS / REPAIR
<p>The monitor does not display images within a few seconds after pressing the button on the remote control.</p>	<p>The monitor is not in stand by status.</p>	<p>Please make sure that the monitor is powered. The indicator light on monitor is always red when powered, which indicates the monitor is in standby status.</p>
<p>The monitor does not display images within a few seconds after pressing the button on the remote control.</p>	<p>The signal connection between remote control and monitor is interrupted.</p>	<p>If the indicator light on the monitor does not flicker after pressing the remote control (normally it will flicker twice), but the monitor can be activated and displays images when you press any button on the monitor. In this case the signal connection between the remote control and the monitor may be interrupted. Please try the following steps to rebuild the connection.</p> <p>A. Replace the remote battery</p> <p>If the problem is caused by a low level battery, replacing a new battery can fix the problem.</p> <p>B. Reconnect the remote control to the monitor</p> <p>If a replaced battery doesn't help, please try the following steps to reconnect the remote control to the monitor:</p> <ol style="list-style-type: none"> 1. Press and hold the “▼” for about 3s to enter the matching menu after the monitor is powered. 2. Press the “▲” or “▼” button to choose a matching channel (C1 or C2). Press M button to confirm and the icon flickers. 3. Press the remote control, when you see the “NO” turns to “YES” on the screen, it means that the pairing of remote control is successfully done. 4. Waiting for 3s and the device exits the matching menu automatically. The pairing is done.

ISSUES	POSSIBLE CAUSES	SOLUTIONS / REPAIR
<p>The monitor does not display images within a few seconds after pressing the button on the remote control.</p>	<p>The signal connection between the monitor to the camera is interrupted.</p>	<p>If the indicator light does flicker twice within a few seconds after pressing the remote control but there are still no images displayed even when you press any button on the monitor. In this case the connection between the monitor and camera may be interrupted. Please try the following steps:</p> <p>A. Turn on the switch for solar battery unit</p> <p>If the solar battery unit is switched off, please press the switch once and when the indicator light flickers once it means the battery unit is on.</p> <p>B. Charge your solar battery unit</p> <p>The camera battery may be drained out and please have a try after charging.</p> <p>C. Reconnect the monitor to the camera</p> <p>Please try to pair the monitor with the camera as following steps:</p> <ol style="list-style-type: none"> 1. Power the monitor and press M button to enter the menu. 2. Choose "Pair" and press M button to confirm. The monitor is pairing and the monitor indicator light flickers. 3. Press the camera battery switch for 5s. The camera is pairing and the camera indicator light flickers. 4. The monitor indicator lights off and the monitor displays reversing image. The pairing is done.

ISSUES	POSSIBLE CAUSES	SOLUTIONS / REPAIR
The monitor does not display images within a few seconds after pressing the button on the remote control.	Other reason	The signal strength may be weak between the monitor and camera. In this case, please try to mount the monitor to another position.
The image shakes when the vehicle is moving.	The screws that fix the camera angle are loose.	<p>Check the screws which fix the camera angle and distance, tighten these screws if necessary.</p> 
	The screws connecting the camera and the vehicle are loose.	<p>Check the screws that attach the camera to vehicle, tighten these screws if necessary.</p> 

10.0 CARE AND MAINTENANCE

Please do not use solvents or chemicals to clean or wipe the camera. If necessary, use a soft cloth dipped in neutral detergent to clean the dirt or stains.

DISPOSAL

The system is designed to provide years of service and should be recycled or safely disposed of at a local recycling center.

11.0 SPECIFICATIONS

CAMERA			
Operational Current (when transmitting)		<420mA	
Pixels	480 x 272	View Angle	110°
Image Sensor	1/3" CMOS VGA	Minimal Illumination	0.1Lux
Image Quality	Max 25 fps	Water-proof Standard	IP68
RF Transmission Distance		Up to 100M (unobstructed)	
Operation Temperature		-4°to 149°F (-20°to 65°C)	
Storage Temperature		-4°to 149°F (-20°to 65°C)	

MONITOR			
LCD Display Screen Size		5 inch	
Operational Current	<250mA	Operating Voltage	DC12V
Standby Current	90mA	Effective Pixels	480 x 272
Operation Temperature		-4°to 149°F (-20°to 65°C)	
Storage Temperature		-4°to 149°F (-20°to 65°C)	

12.0 WARRANTY TERMS AND CONDITIONS

Our goods come with guarantees that cannot be excluded under the Australian & New Zealand 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 & New Zealand 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.

Directed Electronics Address: 115-119 Link Road Melbourne Airport, 3045 Victoria. Australia

Ph: +61 03 8331 4800 Email: service@parkmate.com.au

To view the complete Parkmate range or for details on how to contact us, please visit our website at

www.parkmate.com.au | www.parkmatehd.co.nz

13.0 INDEMNITY

You agree to defend, indemnify and hold harmless Parkmate and its subsidiaries and affiliates from and against any and all claims, proceedings, injuries, liabilities, losses, costs and expenses (including reasonable legal fees), including but not limited to, claims alleging negligence, invasion of privacy, copyright infringement and/or trademark infringement against Parkmate and its subsidiaries and affiliates or the Parkmate services, relating to or arising out of your breach of any provision of these terms, your misuse of the Parkmate or Parkmate services, or your unauthorised modification or alteration of products or software.

14.0 WARRANTY AND WARRANTY DISCLAIMER

Parkmate has a limited warranty whereby Parkmate warrants to you and only to you that the Parkmate products will be free from defects in materials and workmanship for one (1) year from the date of your purchase of the Parkmate product (unless a longer warranty period is required by law). The specifics of this Parkmate limited warranty are at <https://www.parkmate.com.au/warranty>

To the extent possible under governing law, other than the above product warranty for the Parkmate product, you understand and agree that the Parkmate services are provided on an “as is” and “as available” basis. Parkmate makes no warranty that the Parkmate services will meet your requirements or that use of the Parkmate services will be uninterrupted, timely, secure or error-free nor does Parkmate make any warranty as to the accuracy or reliability of any information obtained through the Parkmate services (including third party content), that any defects in the Parkmate services will be corrected or that the Parkmate products or Parkmate services will be compatible with any other specific hardware or service. Further, Parkmate does not warrant that the Parkmate services or the Parkmate servers that provide you with data and content are free of viruses or other harmful components. Parkmate also assumes no responsibility for and shall not be liable for any damages caused by viruses that may infect your Parkmate product.

You agree that Parkmate is not an insurer and that Parkmate is not providing you with insurance of any type. Any amounts that you pay Parkmate for the Parkmate service are not insurance premiums and are not related to the value of your vehicle or property, anyone else’s property located in your vehicle or premises, or any risk of loss in your vehicle or at your premises. If you want insurance to protect against any risk of loss at your vehicle or premises, you will purchase it. In the event of any loss, damage or injury, you will not look to Parkmate to compensate you or anyone else. You release and waive for yourself and your insurer all subrogation and other rights to recover against Parkmate arising as a result of the payment of any claim for loss, damage or injury.

Parkmate’s equipment and services do not cause and cannot eliminate occurrences of certain events, including, but not limited to, vehicle accidents, property damage, lost property, theft of vehicle , theft of property. Parkmate makes no guarantee or warranty, including any implied warranty of merchantability or fitness for a particular purpose, that the Parkmate equipment and services provided will detect or avert such incidents or their consequences. Parkmate does not undertake any risk that you or your vehicle or property, or the person or property of others, may be subject to injury or loss if such an event occurs. The allocation of such risk remains with you, not Parkmate.

Other than the above product warranty for Parkmate products, Parkmate and its suppliers disclaim all warranties of any kind, whether express, implied, or statutory, regarding the Parkmate equipment and any associated app/service. Including any implied warranty of title, merchantability, fitness for a particular purpose, or non infringement of third party rights. Because some jurisdictions do not permit the exclusion of implied warranties, the last sentence of this section may not apply to you. Parkmate hereby further expressly disclaims all liability for any claims for service failures that are due to normal product wear, product misuse, abuse, product modification, improper product selection or your non-compliance with any and all applicable federal, state or local laws. 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, Parkmate does not exclude, limit or suspend other rights you have, including those that may arise from the nonconformity 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.

15.0 LIMITATIONS OF PARKMATE LIABILITY

Under no circumstances will Parkmate be liable in any way for any content, including, but not limited to, the loss of content, any errors or omissions in any content, or any loss or damage of any kind incurred in connection with use of or exposure to any content posted, emailed, accessed, transmitted, or otherwise made available via the Parkmate app.

Parkmate liability for damages, especially for breach of duty or obligation, delay in performance, non-performance, or malperformance shall be precluded, except when these are due to negligent breaches of any significant contractual duty or obligation on the part of Parkmate. Any liability for negligence is limited to direct losses usually and typically foreseeable in such case. Should the claim for damages be based on willful or grossly negligent breach of contractual duty or obligation on the part of Parkmate, the preclusion and limitation of liability mentioned in the preceding sentences will not apply. The preceding preclusion and limitation of liability will also not apply to claims for damages arising out of loss of life, bodily injury or health impacts for which Parkmate may be liable, or for non-contractual liability.

Some states and countries do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Additionally, this provision is not intended to limit Parkmate's liability in the event of Parkmate's willful or intentional misconduct.

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YOUR SAFETY COMES FIRST[™]



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AUSTRALIA & NZ

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