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# Instruction Manual

## Panther Vacu Rigg



# Foreword

Congratulations to your decision of purchasing or renting the PANTHER VacuRigg. We are pleased that you made your decision in favor of a Camera tripod and Rigg system, which combines state-of-the-art technology and many years of experience in manufacturing camera support equipment.

Selected materials, know-how and a unique system ensure that in practice you have a wide variety of possibilities, which you will appreciate during shooting.

Your PANTHER VacuRigg System is a high-quality tool giving the creative cameraman the means for camera shots, which could so far only be realized with great efforts or not at all.

The PANTHER VacuRigg is a camera support system developed by specialists for specialists in order to meet the expectations of every cameraman or grip.

To ensure that you will love working with your PANTHER VacuRigg and that all requirements during shooting can be fulfilled considering utmost safety and reliability, please carefully read this operation manual.

With our best wishes  
Panther GmbH

A handwritten signature in blue ink, consisting of stylized, cursive letters that appear to be 'A. S.' followed by a flourish.

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# Safety hints

1.

Do not start operating the VacuRigg System until you have read and understood the operating instruction. All safety hints and informations have to be observed.

2.

The Panther VacuRigg may only be operated by competent staff.

PANTHER regularly offers training seminars, in which participants receive a certificate after successfully completing the training. For further information and dates please contact us under +49 89 613 900 01.

3.

**Cleanness and adhesion:** To guarantee a proper adhesion of the suction cup it is most important to make sure that the surfaces of both, the suction cup and the mounting surface are clean. Please mount the device exclusively on smooth, even, gas-proof and suitable surfaces.

4.

**Attention:** Although the holding force of the suction cups are high enough to carry the camera, always use the tension belts (safety straps) as a back up.

Before using the VacuRigg, steadiness and holding force must always be tested before shooting or driving using the maximum forces to be expected.

**Attention:**

With the construction the car is wider/higher as normal. The horizontal and vertical areas must be kept free. Use only on secured roads/areas. Do not use on public roads.

5.

Do not switch on vacuum pump in dusty area. Clean car surface from dirt/dust. The suction cups work like a vacuum cleaner. During air suctioning, particle (e.g. sand) may damage inside parts like the pump.

6.

Repair works should only be executed by the manufacturer or by well-trained staff.

PANTHER is offering training seminars, which can be held according to agreement.

For further information please call +49 89 613 900 30 (Panther Service Department).

7.

When connecting the VacuRigg to the mains supply, the general VDE guidelines have to be observed. The VacuRigg needs to be protected against moisture.

8.

Make sure that unauthorized personnel can not use the VacuRigg

# The Vacu Rigg System



VacuRigg Standard Kit  
*VacuRigg Base Kit*  
 180054

Koffer für VacuRigg Standard Kit  
*Case for VacuRigg Base Kit*  
 180058



bestehend aus:  
 existing of:

- 1x 180061 Camera Suction Plate CS3
- 1x 180065 Vacuum Pump System
- 1x 180066 Wedge/Tilt Plate
- 2x 200391 Hinge
- 1x 180076 Tension Belt/ Hook Kit



VacuRigg Erweiterungs Kit  
*VacuRigg Extension Kit*  
 180056

Koffer für VacuRigg Erweiterungs Kit  
*Case for VacuRigg Extension Kit*  
 180059



bestehend aus:  
 existing of:

- 2x 180064 Rigg Suction Plate RS2
- 1x 180062 Rigg Suction Plate RS3
- 2x 180071 Suction Cup, oval 140/80-HD
- 1x 180070 Suction Cup 80/80-HD
- 2x 200391 Hinge
- 1x 180073 Camera Mount
- 1x 107374 Bowl 150mm
- 3x 180075 Clamp rotating Ø 33-48
- 1x 180076 Tension Belt/ Hook Kit
- 1x 180074 Tube package Ø 33
- 1x 139887 Tube Bag
- 1x Set of tools

## Komponenten / Zubehör: Components / accessories:

	Ersatzteil Kit <i>Spare Parts Kit</i>	180057
	Kamerasauger Platte Cs3 <i>Kamera Suction Plate CS3</i>	180061
	Riggsauger Platte Rs3 <i>Rigg Suctions Plate RS3</i>	180062
	Riggsauger Platte Rs2 <i>Rigg Suction Plate RS2</i>	180064
	Vakuum Pump System <i>Vacuum Pump System</i>	180065
	Keil / Neigeplatte <i>Wedge / Tilt Plate</i>	180066
	Sauger/ suction cup 125/80-HD 180067 Sauger/ suction cup 125/200-HD 180068 Sauger/ suction cup 80/80-HD 180070 Sauger/ suction cup, oval 140/80-HD 180071 Sauger/ suction cup 125/80 180069 Sauger/ suction cup 125/200 200392 Sauger/ suction cup 50/80 200393	
	Sauger <i>Suction Cup</i>	145993

	Gelenk <i>Hinge</i>	200391
	Multi Mount Universalklemme <i>Multi Mount universal clamp</i>	150553
	Rohr/ Rod, 15cm/0,5' Rohr/ Rod, 30cm/1' Rohr/ Rod, 46cm/1'6'' Rohr/ Rod, 60cm/2'	180072 145996 145997 157196
	Kameraaufnahme <i>Camera Mount</i>	180073
	Schale/ bowl 75mm Schale/ bowl 100mm Schale/bowl 150mm Mitchell Nivellierplatte/ levelling plate	173534 100383 107374 177841
	Kugelschalenadapter <i>Bowl Adapter</i>	171147
	Rohrpaket Ø 33mm <i>Tube Package Ø 33mm</i>	180074
	bestehend aus/ existing of: 2x Rohr/tube 30cm/1' 2x Rohr/tube 50cm/1'8'' 2x Rohr/tube 80cm/2'8'' 2x Rohr/tube 100cm/3'3'' 2x Rohr/tube 140cm/4'7''	139887
	Rohrtasche 150cm <i>Tube bag 150cm</i>	139887
	Schelle Ø 33/42/48, drehbar <i>Clamp Ø 33/42/48, rotating</i>	180075
	Spanngurt / Haken Satz <i>Tension Belt / Hook Kit</i>	180076

# Principles of the VacuRigg

It is useful to understand the VacuRigg principles, in order to avoid misusing the system. This is why we are noting the most important characteristics in this operation manual.

The VacuRigg System is ideal for mounting cameras, lights or other accessories on all smooth surfaces like glass, cars, walls. Anytime, anywhere.

Depending on how it is used, the three suction cups can carry a maximum payload of up to 100 kg | 220 lbs.

The mounting plate is designed in such a way that it can accept the camera directly or mounted with a wedge/tilt plate using 3/8" screws.

The special about the VacuRigg is the electrical pump system which keeps the vacuum automatically due to the integrated batteries. Long lasting support is guaranteed.

Your creative way of rigging knows no limit with the extension kit with its 33mm tubes.

# Initial Operation

1.  
Connect the Vacuum pump system with the charger to mains power supply in order to charge the battery inside the case. Battery is fully charged if green light at case illuminates.



**Switch at charger to 12V!**

**Note: Only operate the VacuRigg with fully charged batteries.**

Although the VacuRigg left our warehouse with fully charged batteries, it is possible that a long transit time/low temperatures caused the batteries to empty. Please check this before operation.

2.  
Check all connections, especially **vacuum hose connections**. If necessary, push the hose into the connection. You can feel a distinct resistance during this process.

If there is a leak, the VacuRigg system will not hold or the vacuum pump will always pump.



3.  
Check that the suction cups and the mounting **surface are clean**.

To guarantee a proper adhesion of the suction cup it is most important to make sure that the surfaces of both, the suction cup and the mounting surface are **clean, dry and dust free**.

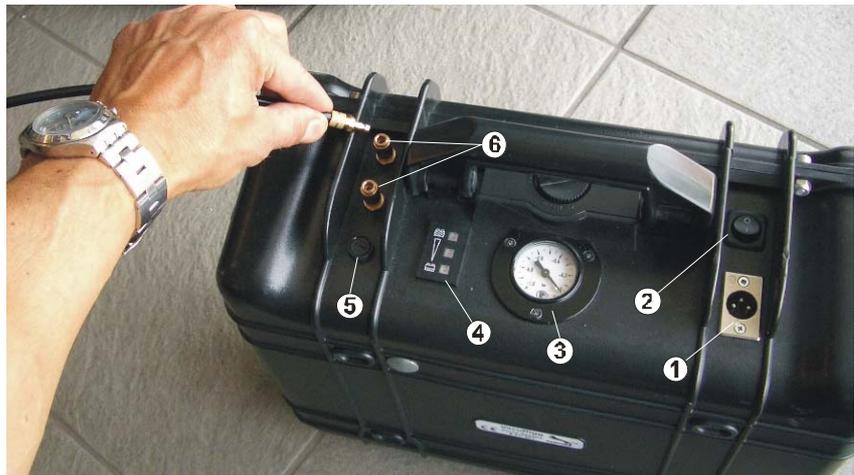


4.  
Check the stability of the mounting surface. Hoods, doors of modern cars are of often weak. Place the suction cups near edges, beadings, seams etc. Keep in mind to find suitable mounting spots for safety/tension belts.

5.  
Connect the vacuum pump system with the VacuRigg Suction plate after opening the ball joint of the camera suction plate CS3/ Rigg suction plate 2/3.

6.  
Switch on the vacuum pumps system.

# Vacuum Pump System



## 1. Power socket

Socket for charger or 12V car connector.

## 2. On/Off switch:

The vacuum pump system is switched on and off at the main switch. If it is on, the LED is lit on the battery status indicator. It beeps for a short moment when switching on.

## 3. Vacuum indicator:

The Vacuum goes up to approx. -0,6 bar. The vacuum can be adjusted if requested.

## 4. Battery status indicator:

Green  $\geq 11,6V$       yellow 11,6V – 11V      red  $\leq 11V$

A peep sound as safety hint will go on, if voltage is too low to operate the system.

## 5. Fuse

5 x 20mm      3,15 – 4,00 A

## 6. Vacuum hose connection plug

Two vacuum hoses can be connected.



Always use a **filter** between vacuum hose and vacuum pump system.

Push plug connector to connect. Push plug socket to disconnect. Always keep the connection dry and clean.

# Assembling

1.



Make sure all components are available and in working order.

To guarantee a proper adhesion of the suction cup it is most important to make sure that the surfaces of both, the suction cup and the mounting surface are clean. Please mount the device exclusively on smooth, even, gas-proof and suitable surfaces.

2.

**Clean** car surface and suction cups. The suction cups work like a vacuum cleaner. During air suctioning, particle (e.g. sand) may damage inside parts like the pump.

Note:

**Clean, dry, dust free**



3.



Place Camera suction plate CS3 where you want to shoot.

Make sure all suction cups are placed on gas-proof area.

Open ball joints to level suction cups to surface, firmly press them down.

4.



Connect camera suction plate with Vacuum pump system with the vacuum hose and switch on the system.  
Don't forget the filter!  
The vacuum pump starts working for approx. 20-30 sec.



5.



Adjust/ level the camera plate to your requirements. Close ball joints after all suction cups got vacuum.

6.



Mount camera direct to camera plate CS3 or on wedge/tilt plate using 3/8" screws.

Adjust wedge/tilt plate to your requirements and fix it with both levers.



7.

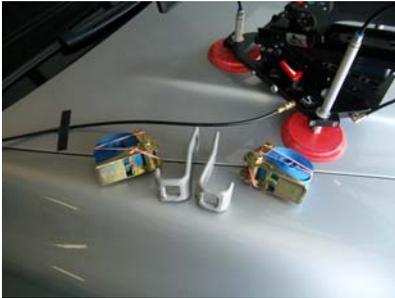


Place vacuum pump system e.g. inside the car and secure it properly.



Fix vacuum hose with e.g. adhesive tape.

8.



**Safety:**

Although the VacuRigg's holding force is adequate for regular driving shots, tension belts must be used for additional safety.

In any case, especially if mounted on cars or overhead, the object attached to the VacuRigg (e.g. camera) has to be secured additionally with a safety cable or a tensioning strap.



Use pads to avoid dents and scratches on carpaint.  
Tighten tension belts carefully to avoid damages on the car.

**Note:** Tension belts give additional safety and avoid vibrations, especially on thin metal sheets.



# Vertical assembling



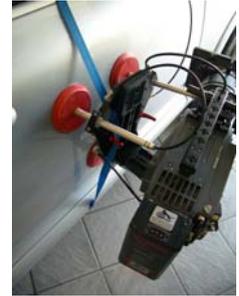
High Mode

If you mount the VacuRigg e.g. on the side of a car you have to keep in mind same points as described above.

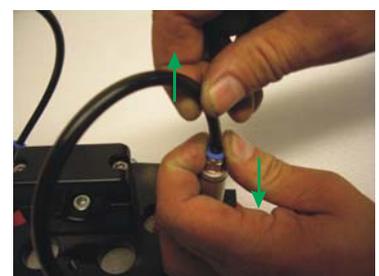
However, keep in mind that the VacuRigg will not hold on the door without the vacuum. Therefore, **switch on the vacuum pump system before you place it.** You start with one suction cup and place it where you want. Place the other suction cups as soon as the first suction cup got vacuum. This makes the handling easier when mounting vertically.



Low Mode



The height of camera can be adjusted not only by placing the VacuRigg but also by mounting the wedge/tilt plate in an upper or lower position.



Combination mode mounting (vertical/horizontal) is possible with the **hinge**. Disconnect the vacuum hose by pushing down blue ring of connection while pulling the hose. Replace suction cup with hinge at ball joint.

# Assembling with Extension Kit

Use the Extension Kit if you want to place the camera from more distance. You have to keep in mind same points as described above when mounting the VacuRigg with Extension Kit.



Individually place the Rigg Suction plates to your requirements and connect them with the vacuum pumps system. You can supply vacuum hoses parallel and/or serial.



Connect the Rigg Suction Plates with the Aluminium tubes and screw them tight. Always use at least three mounting spots to get adequate stability. The more mounting spots/Rigg Suction Plates (additional accessories) you use the better stability you get.



There are different possibilities to assemble the cameramount (bowl/Mitchell) in order to get different distances between two tubes.



Use Bowl Adapter to level the camera. The camera can be attached directly to Bowl Adapter or to a camera wedge plate using 3/8" screws.



**Safety:**

Although the VacuRigg's holding force is adequate for regular driving shots, tension belts must be used for additional safety.

In any case, especially if mounted on cars or overhead, the object attached to the VacuRigg (e.g. camera) has to be secured additionally with a safety cable or a tensioning strap.

Use pads to avoid dents and scratches on carpaint.  
Tighten tension belts carefully to avoid damages on the car.

**Note:** Tension belts give additional safety and avoid vibrations, especially on thin metal sheets.



In any case steadiness and holding force must always be tested before shooting or driving using the maximum forces to be expected.

**Attention:**

With the construction the car is wider/higher as normal. The horizontal and vertical areas must be kept free. Use only on secured roads/areas. Do not use on public roads.

# Notes

A.

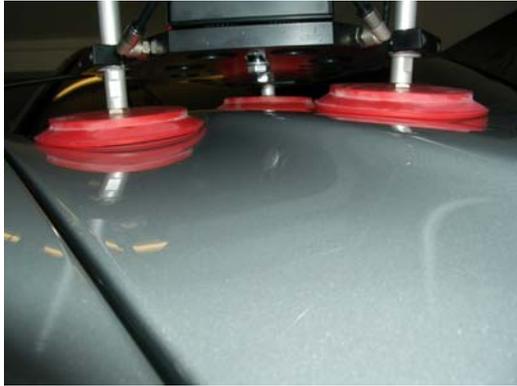
**You lose vacuum immediately** if you disconnect the vacuum hose at the pumps system!



**The system holds vacuum for a while** if you disconnect at the Camera Suction Plate/ Rigg Suction Plate.



B.



The Suction cups are designed in such a way that they still get vacuum on certain convex and concave surfaces.

However, use a suction cup with a different size or form, if the surface is too much curved.

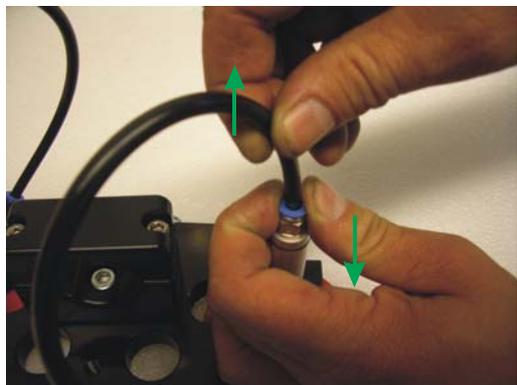


This suction cup is too large to stick to this curved surface.



The small, oval suction cup is able to stick to this curved surface.

C.



**Disconnect vacuum hose** e.g. in order to mount the hinge:

1. Press down blue ring of connection.
2. Pull hose at same time.

**Connect vacuum hose:**

1. Push hose into the connection. You can feel a distinct resistance during this process.

If there is a leak, the VacuRigg will not hold or the vacuum pump will always pump.

**D.**



Clean surface after use to remove possible prints.

Normally, the suction cup is attached tightly and goes off easily. Nevertheless, the suction cup should be regularly removed after 12-24 hours at the latest. Please clean and maintain the device regularly using a special rubber-care product. This measure extends the life of the suction cup and prevents it from sticking to the surface.

**E.**



The rotating clamp is designed in such a way to hold all tube diameters from 33mm to 48mm.

Panther recommends tubes with a size of 33mm (weight!).

**F.**



Cut vacuum hose right after the bend if the hose is cracked. You can repeat this procedure approx. 1 to 4 times before replacing the vacuum hose.

# Technical Data

## Measurements:

### Standard Kit in case

Length: 67 cm / 26''  
Width: 49 cm / 19''  
Height: 34 cm / 13''

### Extension Kit in case

Length: 67 cm / 26''  
Width: 49 cm / 19''  
Height: 34 cm / 13''

### Tubes in bag

Length: 142 cm / 56''  
Width x height: approx. 15cm x 15cm / 6x6''

## Weights:

max. payload Depending on how it is used up to 100 kg /220 lbs.

Standard Kit in case 25 kg / 55 lbs  
Extension Kit in case 20 kg / 44 lbs  
Tube Kit in bag 8 kg / 18 lbs

## Electrical Data:

Battery: 4 AH

Battery charging time: ~ 3 hrs

Operating time: depending on usage 1 - 20 hrs

allowed temperature range: -20°C to +50°C