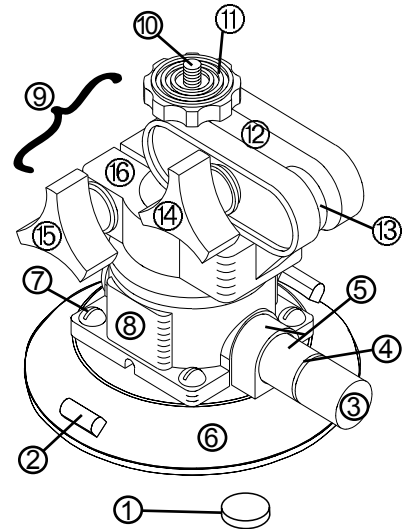


LJ45PHC

Instructions for Use, Maintenance and Care

Rev. 3.2 / 08-09 Instruction Sheet 32605 PHC

1.	60024	Air Filter
2.		Release Tab
3.		Plunger
4.		Red Line
5.	90111	Pump
6.	49345T	Vacuum Pad, 4 1/2" Dia. (LJ45)
7.	10024	Screw, 10-32 x 5/8"
8.	60181	Accessory Mount, Polycarbonate, 1/4-20 Insert
9.	97955	CLEAT Mounting Head
10.		Mounting Stud of Ball Mount
11.		Contact Plate of Ball Mount
12.		Arms
13.		Pivot Post
14.		Ball Mount/Arm Release Knob
15.		Swivel Plate Release Knob
16.		Swivel Plate
	Not Shown	
	29308	Pad Cover, 4 1/2"



SPECIFICATIONS

Product Description

Vacuum cups use vacuum to mount small loads temporarily, as follows: A manual pump removes air from between the rubber pad and the contact surface; a red line on the pump's plunger serves as a vacuum indicator; a check valve allows the user to repump the cup without removing it from the contact surface; and a release mechanism allows the cup to disengage completely.

Maximum Load Capacity*

10 lbs [5 kg]. *Maximum Load Capacity includes a 3:1 safety factor and requires the following: attachment on clean, smooth, nonporous flat surfaces; a minimum vacuum level of 17½" Hg [-59 kPa]; and a friction coefficient of 1. This rating is based on tests of new vacuum cups attached to the upper, horizontal surface of static objects in ideal conditions. Many factors can reduce the capacity, including: mounting loads on vertical or inclined surfaces; dynamic loading (eg, mounting loads on moving vehicles); or attaching loads that apply leverage to the cup. See www.powrgrip.com for more information.

Contact Surface and Environmental Conditions

Use the cup on clean, relatively smooth, nonporous surfaces, at temperatures from 0° to 120° Fahrenheit [-18° to 49° Celsius]. Moisture or contaminants can reduce the slip resistance of the cup. The red-line indicator may not perform reliably at elevations above 5000 feet [1524 meters]; see Service.

OPERATION

To Attach

- 1) Clean the contact surface and, if needed, the face of the vacuum cup (see Cleaning). CAUTION: Test the cup for staining or deformation of surfaces with light colors or soft coatings.
- 2) Position the cup so the red line will be visible if it should appear while the cup is attached.
- 3) Pump the plunger until the cup attaches completely. When the red line is hidden, the cup is ready for use.
- 4) Check the plunger frequently to make sure the cup remains securely attached. If the red line appears, pump the plunger until the red line is hidden again (see WARNINGS).

To Release

- 1) Secure the load.
- 2) Pull a release tab until the cup disengages completely. CAUTION: Remove the cup when not in use. If the cup remains attached to a hot surface (eg, in direct sunlight) for an extended time, the rubber pad could bond with the surface, resulting in damage to the surface or to the pad when it is removed.

MAINTENANCE

Service

Regularly make sure the vacuum cup's air filter is in place. If not, discontinue use until the filter is replaced.

Since aging and wear reduce the capacity of the rubber pad, it should be replaced at least once every 2 years or whenever damage is discovered. If the cup does not function normally, the cup face may be dirty or damaged, or the pump may require service. First clean the cup face according to the directions to follow. If the problem persists, contact an authorized dealer or visit www.powrgrip.com for assistance.

Cleaning

- 1) Remove the air filter from the cup face.
- 2) Use a clean sponge or lint-free cloth to apply soapy water or another mild cleanser to the cup face; see WARNINGS and www.powrgrip.com for more information. CAUTION: To prevent liquid from contaminating the pump, hold the cup face-down or cover the suction hole in the filter recess.
- 3) Wipe all residue from the cup face.
- 4) Allow the cup to dry and reinstall the air filter.

Storage

Store in a clean, dry location out of direct sunlight. Use the pad cover to protect the cup face from damage.

WARNINGS

Failure to observe WARNINGS could damage the vacuum cup or the load, or cause injury to the user.

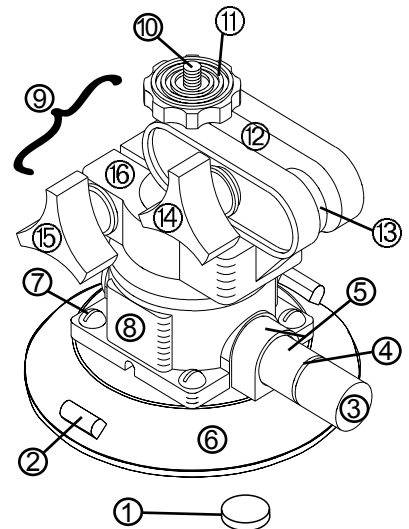
- Do not use the cup to support loads that exceed the Maximum Load Capacity or the effective capacity (see SPECIFICATIONS).
- Do not use the cup to support a person.
- Do not use the cup to support loads which could injure people if the cup disengages unexpectedly.
- Do not place the cup face against surfaces which could damage the sealing edge of the rubber pad.
- Avoid conditions that could cause the cup to slip or to disengage prematurely, such as: contaminants, cuts or scratches in the cup face or contact surface; applying the cup to porous materials; or applying pressure against the cup edge.
- Do not use the cup when the red line is visible. If the red line reappears frequently, discontinue use and see Service.
- Do not allow anything to interfere with free movement of the plunger while the cup is attached.
- Do not touch either release tab while using the cup.
- Do not leave the cup in use and unattended.
- Do not use harsh chemicals (such as solvents or gasoline) or unauthorized rubber cleaners and conditioners to clean the cup.

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MOUNTING OF EQUIPMENT

In order to protect expensive equipment from being scuffed, the "passive" contact plate of this vacuum cup provides a stable buffer between the ball mount and equipment. Securing a camera or scope is accomplished by turning the entire cup on the mounting stud, until the contact plate seats firmly against the base of the equipment, as follows (see Fig. A): Position the arms over the center of the cup, in the lowest notch. With the vacuum pad facing down, adjust the mounting stud (on the ball mount) to point straight up from the cup. With the equipment in one hand and the cup in the other, insert the mounting stud into the female mounting threads on the equipment base. Hold the cup by the vacuum pad, with the thumb placed in the center of the pad to provide a pivot point. Grasp the pad edge with the fingers of the same hand and turn the cup until the contact plate seats firmly against the equipment. Be careful not to over-tighten the stud against equipment.

ADJUSTING THE ORIENTATION OF MOUNTED EQUIPMENT

The adjustment features of this vacuum cup provide almost unlimited positioning of mounted equipment. Two easy-to-use knobs control every adjustment required to level, tilt or pan.

To Swivel the Mounting Head

The mounting head can swivel on its base in 360° of continuous motion, to turn equipment in any direction (see Fig. B). While supporting the equipment with one hand, use the other to loosen the release knob for the swivel plate. Grasp the swivel plate and twist it in the direction you want your equipment to point. Then tighten the knob securely.

To Adjust the Ball Mount

Combining rotation from front to rear and side to side, the ball mount allows almost unlimited equipment angling. Tilting, leveling with the horizon, and even panning can all be accomplished with the ball mount release knob (see Fig. C). While supporting the equipment with one hand, use the other to loosen the knob just enough for the ball to move with slight resistance. Then you can pan or move the equipment to any position desired. Whenever the equipment is not supported by your hands, be sure to tighten the knob securely. (Note: Under excessive stress, the ball mount should slip before the vacuum pad can disengage. This design protects equipment from being damaged if jarred—while driving, for example.)

To Adjust the Arms

The arms can rotate 225° on the pivot post, to situate equipment in a variety of positions out and away from the center of the vacuum cup (see Fig. C). While supporting the equipment with one hand, use the other to loosen the arm release knob enough for the teeth to disengage at the pivot point. Rotate the arms to the desired notch on the pivot post. To keep the arms from slipping when the knob is tightened, make sure the teeth re-engage. Then tighten the knob securely.

