

# Residential Purge Valve and Controller for SandMaster

## RPV-75-PDV



Maximum working pressure: 100 psi (6.8 bar)  
Maximum ambient operating temperature: 130°F (54.5°C)

## Easy, economical purge automation for SandMaster Separators

Featuring a straight-through flow path and a simple controller with daily purging options, the LAKOS Residential Purge Valve (RPV) for SandMaster Separators is a low-cost solution for the periodic purging needs of a LAKOS SandMaster Separator when installed in a residential water well system. The controller is battery-operated and programming the unit is very simple, requiring only two settings using the dials on the controller:

- Purge Frequency
- Purge Duration

### Materials of Construction:

The purge valve is constructed with a glass reinforced plastic body and diaphragm flapper valve. Valve size is 3/4-inch size, female NPT pipe threads.

### Batteries Required:

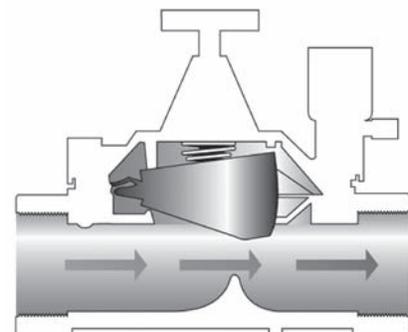
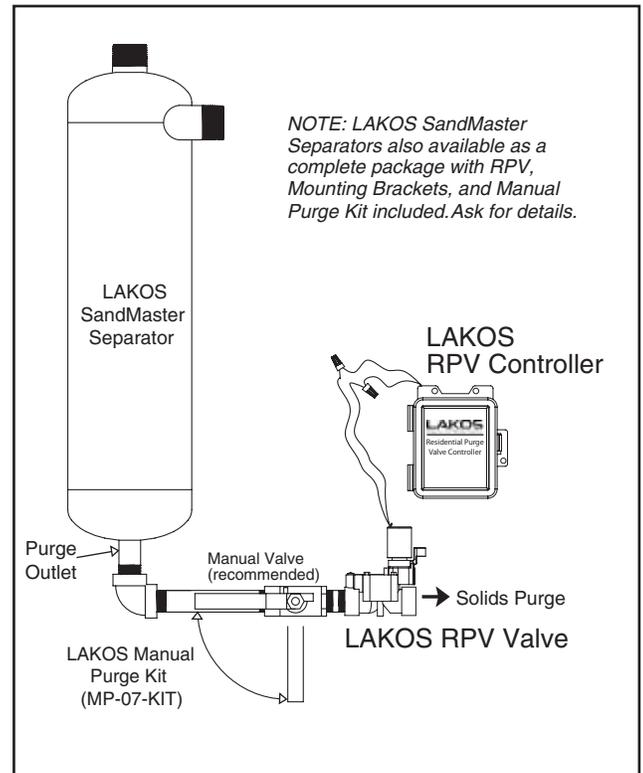
The purge controller requires two 9-volt alkaline batteries (not included with system). Replace at least once per year.

## Installation Instructions

**Mounting The Controller:** Do not mount the controller in an area where it may become submerged, directly sprayed by sprinklers or deluged with rain runoff. Using the screws provided, mount the controller to a vertical surface such as a post or the side of a building so that the LAKOS name is oriented as shown in the diagram above.

**Valve Plumbing:** Use only 3/4-inch piping and fittings; do not reduce pipe size. Smaller pipe may risk sand-clogging. LAKOS recommends that the RPV Valve be installed in a horizontal position after a pipe elbow on the purge outlet of the separator (see diagram above). Allow 15-18 inches (38-46 cm) of pipe after the elbow to help keep sand from packing against the RPV Valve. Be sure to install the RPV Valve in the proper direction, noting that the arrow on the valve body must be pointing away from the separator's purge outlet. A manual valve is recommended between the separator and the RPV Valve, providing the option of servicing or replacing the RPV Valve without interrupting separator flow and water service. Consider the LAKOS 3/4" Manual Purge Kit (MP-07-KIT), which includes the proper valve, piping, and elbow as described above.

## Typical Installation



## RPV straight-through flow path

**Electrical Connections:** Connect the red wire of the controller to the red wire of the solenoid/valve and the black wire of the controller to the black wire of the solenoid/valve using the wire nuts provided. Additional wire and wire nuts will be required (not included) if the controller is more than 2 feet (61 cm) away from the valve. Do not install controller with more than 20 feet (6.1 m) of wire to valve.

## Important Installation Tips

- Keep pipe length less than 5 feet (1.5 m) beyond the purge valve
- Avoid purging uphill
- Don't use more than one elbow in the purge piping
- Use pipe at least 3/4 inches diameter
- Since the LAKOS RPV requires pressure to open and close correctly, the Separator and RPV must be installed between the check valve and the pressure tank of the system.
- For "tankless" systems, please consult the LAKOS factory

## Programming Instructions

The proper Purge Frequency and Duration are dependent upon the amount of sand in the water. Heavier sand loads will require more frequent purging. Be sure to close the controller door and latch tightly after programming to keep rain and other weather from entering.

### Frequency:

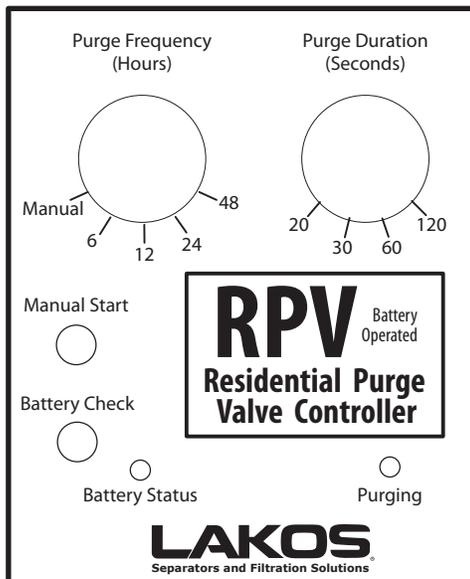
This is the time interval between purges. To turn this feature OFF, select the Manual option.

### Duration:

This is the total time of each purge cycle.

### Manual Start:

Press button and purge will run for the duration as programmed.



### Indicator Lights:

The Battery Status light indicates the condition of the batteries.  
Green = Good  
Red = Replace Immediately.

The Purging light is active and lit during a purge cycle.

## Liquid Loss

The amount of water loss to be expected when purging is based on the water flow, water pressure and purge duration (as set by the Purge Duration on the controller). Typically, a 20-second Purge Duration will flush approximately 5-10 US gallons (19-38 liters) of water and sand.

## Annual Battery Replacement

The RPV Controller requires two 9-volt alkaline batteries (not included with system). Battery life is dependent on the number of purge cycles programmed and overall weather conditions, with extreme heat and cold also contributing to loss of battery life. Annual battery replacement is recommended. To check the batteries, press the "Battery Status" button and observe the "Battery Status" light. Green = Good. Red = Replace the batteries immediately.

## Limited Warranty

All products manufactured and marketed by LAKOS are warranted to be free of defects in material or workmanship for a period of one year from date of delivery.

If a fault develops, notify us, giving a complete description of the alleged malfunction. Include the model number(s), date of delivery and operating conditions of subject product(s). LAKOS will subsequently review the submitted information and, at our option, supply the user with either servicing data or shipping instructions and returned goods authorization. Upon prepaid receipt of subject products(s) at the instructed designation, LAKOS will either replace such product(s) at our option and, if determined to be a warranted defect, LAKOS will perform such necessary product repairs or replace such product(s) at LAKOS' expense.

This limited warranty does not cover any products, damages or injuries resulting from misuse, neglect, accident, normal expected wear, improper installation or operation contrary to factory recommendations. Nor does it cover equipment that has been modified, tampered with or altered without factory authorization.

No other extended liabilities are stated or implied and this warranty in no event covers incidental or consequential damages, injuries, or costs resulting from any such defective product(s).

Lakos Separators are manufactured and sold under one or more of the following U.S. Patents: 5,320,747; 5,338,341; 5,368,735; 5,425,876; 5,571,416; 5,578,203; 5,622,545; 5,653,874; 5,894,995; 6,090,276; 6,143,175; 6,167,960; 6,202,543; 7,000,782; 7,032,760 and corresponding foreign patents, other U.S. and foreign patents pending.

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