



The Smart Tank Installation

Smart Tank is simple for a RV owner or your dealer to install, with no complicated wiring. All components are designed with simple color-coded plug and play wire harnesses. The only wires needed for installation are +12vdc (Black) and -12vdc (Green).

RV manufactures are building RV's with electric waste valve installed. The Smart Tank system has been engineered to operate with both brands of electric RV valves. Therefore, it's an easy addition to RV's with electric valves already installed. The Smart Tank system is plug and play.

The Colored Lights

The system was designed to be user friendly and to protect your investment from tank overflows and flooding:

- A **Green** light appears powered on. System is good.
- A **Blue** Blinking light appears draining and rinsing.
- When running a dual tank configuration a **Red** light identifies the tank is on hold while the Sister tank is dumping. The dumping tank will show **Blue**.
- A **Red** flashing light identifies the drain has developed a blockage. You must remove the blockage and reset by turning the system off than back on.
- A **Red**, **Blue**, and **Green** identifies a failed valve. The tank did not drain. The valve may be faulty.

Thank you for choosing the new Rinse Tech Smart Tank System. Your new system contains the following components. (see Fig 1)

There are five components to this System – the Control Switch, Valve, Controller, Rinse Valve, and the Level Sensor. Please read all sections of the instructions completely before you begin.

- (A) Valve Assembly (Valve, seals, nuts and bolts
6 ft wire harness, Red)
- (B) Black and/or Gray Switch Plate/20ft cat 5 cable
- (C) Controller
- (D) Rinse Valve/6 ft wire harness, Blue
- (E) Level Sensor/6ft wire harness, White

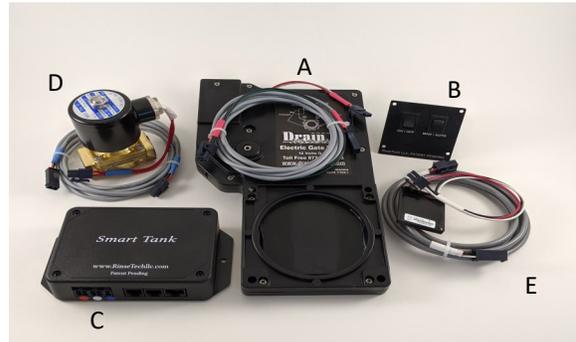


Fig 1

Control Switch Installation

- 1) Choose a location for the electric switch plate that has enough space behind the wall to accommodate the switches and the wiring. The switch plate should not be installed in a location where it will be exposed to the weather.
- 2) Depending on the installation, select either the (A) single valve switch plate or the (B) double valve switch plate. (See Fig 2)
- 3) Using the provided template, drill and cut the switch plate holes indicated for either a single or a double valve installation.
- 4) Feed the Cat 5 cable connected to the control switch through the cut opening in the wall. (See Fig 2a.)
- 5) Position the switch plate over the opening (See Fig 2b.) Secure the switch plate with the provided screws.

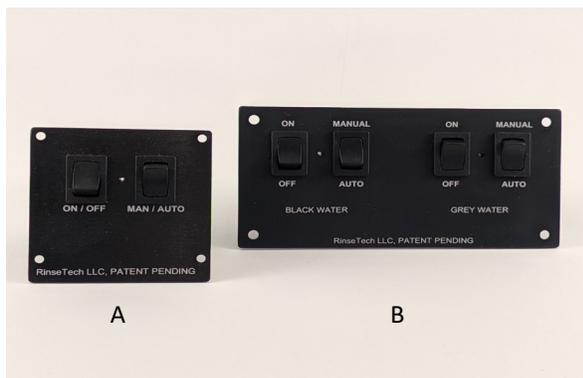


Fig 2



Fig 2a



Fig 2b

Valve Installation

- 1) Wastewater can flow through the Valve in either direction. The valve should be mounted so that there is enough clearance for the mechanism to open completely. **(Follow Valve Manufactures Instructions)**
- 2) Remove the existing nuts/bolts, valve and seals. Place the new seals over the lip of the existing flange fittings. Insert the New Valve being careful not to dislodge the new seals from the flanges. Insert the new bolts and nuts and tighten evenly. Do not over Tighten doing so may cause damage or leaking.
- 3) Using heavy duty cable ties, support the valve assembly-pipe connection by securing the waste tank pipes to the portion of the vehicle's frame that is closest to the assembly.
- 4) Connect the appropriate wire harness. Red
- 5) Secure all excess wire by using tie straps.

CONTROLLER

The controller uses three Molex plugs to power the Valve, Sensor and Rinse Valve. These are identified as shown in Fig 3.

RED: Identifies +/-12vdc and valve plug. (+12vdc Black wire, -12vdc Green wire)

White: Identifies Level Sensor plug.

Blue: Identifies Rinse Valve plug.

The controller also utilizes a RJ45-Switch, RJ12-communication, and RJ11-S2VT-Drain Master Valve. These plugs are identified in Fig 3a.

Mount the controller out of the weather.

Best to mount as close to tanks as possible.



Fig 3

LEVEL SENSOR

(IMPORTANT) Tank must be clean and drained.

The Level Sensor attaches to exterior of the tank and uses an electrical field effect to detect fluids. Place on side or end of tank at the top to a half inch down from top corner Fig 3.

The sensor attaches to the controller with the wire harness identified as: White

This means Simple:

- NO need to drill or pierce the tank
- NO sealants to leak or thru-wall fittings to weaken the tank.
- NO moving parts
- NO exposure to waste or corrosive liquids
- NO probes to get clogged or coated



Fig 3

The sensor triggers the controller when level rises above the sensor. The sensor adheres to the tank with 3M® 5925 VHB double-sided foam tape and is unaffected by moisture or vibration. It is self-resetting 1.1A dc internal fuse on output. 0.250mA maximum continuous load current. Fuse is UL, CSA, and TUV rated. The sensor draws 0.120mA

unactivated; < 0.5mA activated.

NOTE: PENDING CLEANLINESS OF THE TANK, IT IS RECOMMENDED TO TAPE THE SENSOR IN PLACE WITH TAPE TO TEST BEFORE REMOVING THE 3M BACKING.

RINSE VALVE

The rinse valve is a two-way, semi-direct lift valve with a normally closed operating position. This means that there are two ports in which water flows and the valve will open when energized to allow water to pass through.

Removing the energy from the valve coil will close it and stop the flow. The valve features a heavy duty, solid brass body that's sure to last in the most strenuous service. The port size is 1/2" inch female NPT threaded. The

valve can withstand pressure up to 115 psi and temperatures as low as 15°F and as high as 250°F. The seal material is VITON Rubber. The valve is mountable in any position and features a conveniently positioned arrow on the body to indicate the direction of flow. The Rinse Valve attaches to the controller with the wire harness

identified as: Blue

RINSE VALVE CONTINUED

It is important to verify with the Camper Manufacture that a proper Vacuum Breaker/Check Valve is installed on the existing flush system. If the camper is not equipped with a flush system you may need to install a Vacuum Breaker/Check Valve. There are several flush kits available on the market such as Valterra No Fuss Flush and the Tornado Rotary Tank Rinsers.

(The Vacuum Breaker/Check Valve protects fresh water supply from contamination)

The easiest, most sanitary way to clean the RV holding tank.

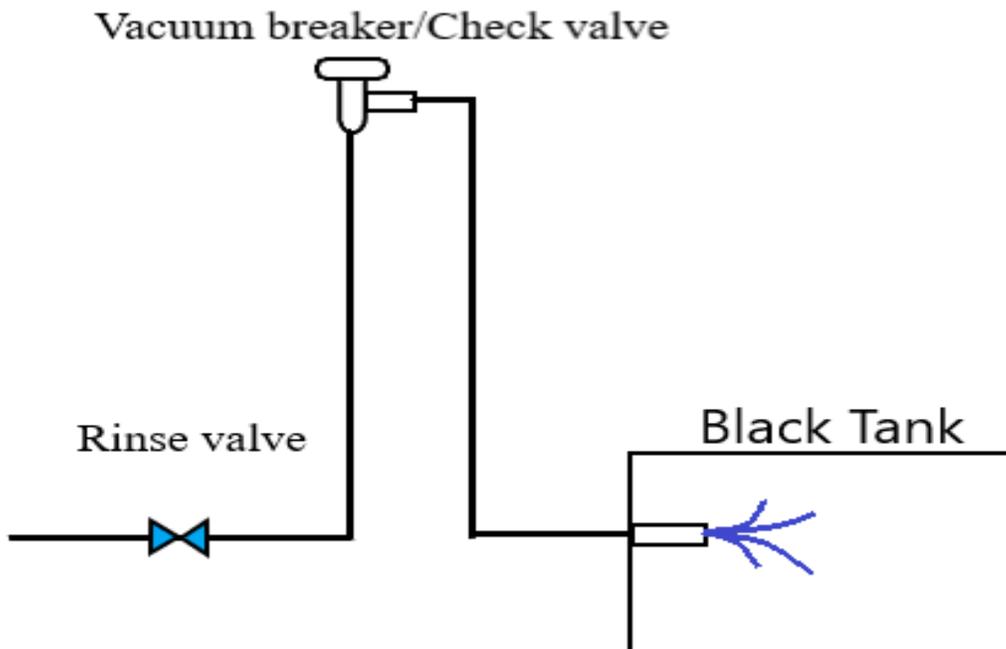
Dislodge and flush stubborn waste deposits and odor-causing particles left after holding tank is emptied.

Fig 4 shows a Rinse Valve installed on a 2017 DRV Mobile Suites.

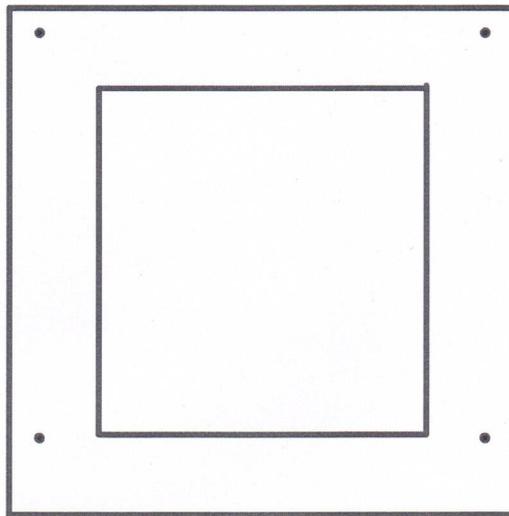
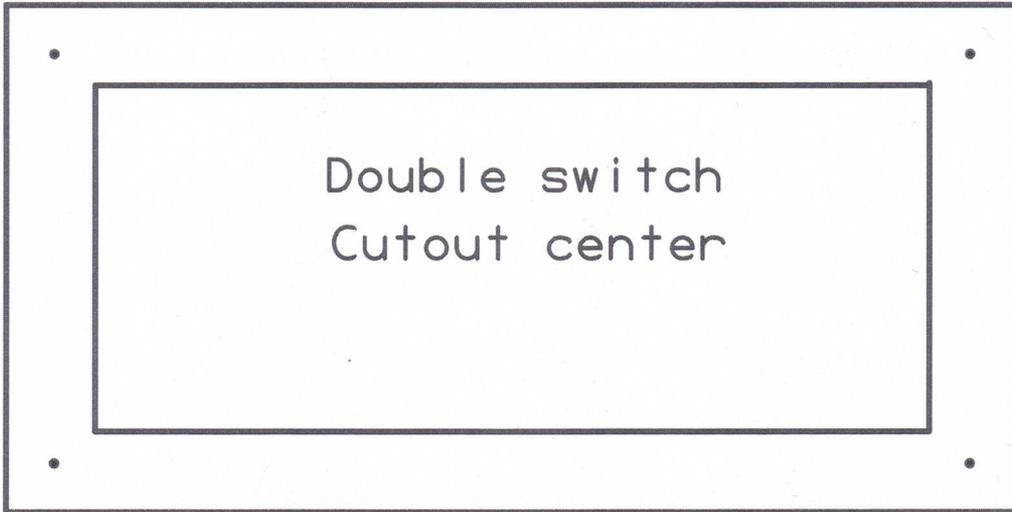
Fig 4



Typical rinse valve and vacuum breaker/check valve installation.



Switch Templates



Single switch
Cutout center