MOTODRAIN™

Electric Motorized Waste Valve System

Product Specification and OEM Installation Instructions

LaSalle Bristol® 601 County Road 17 | Elkhart, IN 46516 | www.lasallebristol.com

Electric Motorized Waste Valve System Instructions

MOTODRAIN CONCEPT

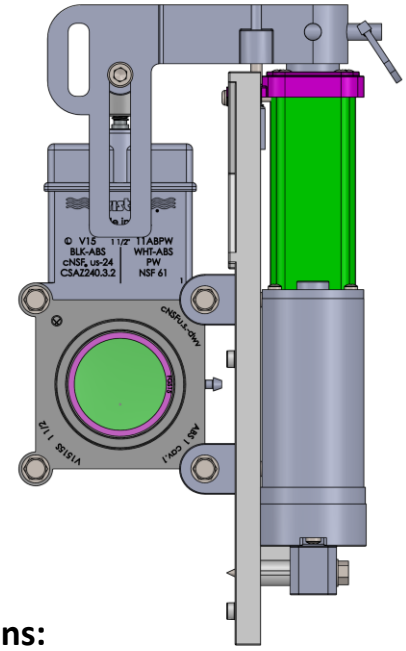
Your new motorized termination valve has been designed for ease of use, dependable service and durability.

The MOTODRAIN ™ motorized termination valve & carton contains:

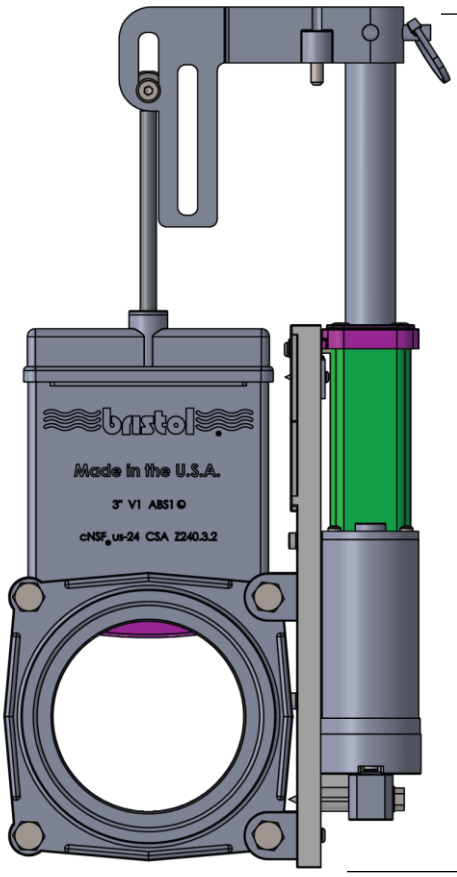
(A) Complete 1 ½" or 3" Bristol Termination Valve assembled with actuator and plug set.
(B) Motorized valve rocker switch with wiring and connecting plug.
(C) Switch Plate with fuse assembly.

NOTE: INSTALLATION OF THE MOTODRAIN ELECTRIC MOTORIZED WASTE VALVE MUST BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND USING THE CERTIFIED COMPONENTS SUPPLIED WITH THE PRODUCT. NOT FOLLOWING THE MANUFACTURER'S INSTALLATION INSTRUCTIONS OR USING COMPONENTS NOT CERTIFIED OR SPECIFIED BY THE MANUFACTURER IN THE INSTALLATION OF THE MOTODRAIN VALVE WILL VOID THE MANUFACTURER'S WARRANTY.

1 1/2" Assembly



3" Assembly



1 ½" & 3" assembly 14" In open position

Specifications:

1-1/2" & 3" Model voltage – 12 Volts DC
Amperage – 4 A
Open/close cycle time – 2.0 seconds
Open/close cycle tested – 6,000 cycles
Operating Temp. – 30 – 120°F degrees
Flow direction – Either direction

Model numbers	Description
66N11ABMDV	1-1/2" HUB X SPIGOT MOTORIZED TERMINATION VALVE
66N4AAMDV	3" HUB X HUB MOTORIZED TERMINATION VALVE
66N4ABMDV	3" HUB X SPIGOT MOTORIZED TERMINATION VALVE
66N4BBMDV	3" SPIGOT X SPIGOT MOTORIZED TERMINATION VALVE

Other supporting components (interface cables, switch plates, etc.) can be found on www.lasallebristol.com

MOTODRAIN Valve Installation

CAUTION: PLEASE BE SURE TO WEAR PROTECTIVE EYE GEAR BEFORE BEGINNING THE MOTODRAIN INSTALLATION.

Wastewater can flow through the MOTODRAIN in either direction. The Valve should be mounted so that there is sufficient clearance for the mechanism to open completely in the electric mode. When operating, the valve will extend to an overall length of 14" when fully opened. This is 4 ½" longer than the closed overall length of 9 ½". Leave space for manual override pin pull out in case of RV battery or electrical system failure.

Measure valve position and rocker switch position to determine length needed for optional connecting wire harness. Wire harness should be 14-gauge wire, not to exceed 30' length as lengths beyond 30' may adversely affect the performance of the product.

NOTE: WIRE HARNESS NOT INCLUDED. USE 14 GAUGE WIRE WITH 6 PIN MOLEX END CONNECTORS TO MAKE THE CONNECTION BETWEEN THE VALVE AND THE CONTROL SWITCH WIRE PLUG SETS.

NOTE: PLEASE MAKE SURE BLACK AND GRAY HOLDING TANKS ARE EMPTY IF INSTALLING THE MOTODRAIN IN A REPLACEMENT APPLICATION.

1. TERMINATION FITTING INSTALLATION

Termination valve assemblies should be stored in their original cartons to keep them free of dirt and reduce the possibility of damage. Assemblies should be stored inside.

2. PIPE ASSEMBLY FOR ABS-DWV TERMINATION FITTINGS

CAUTION: MAKE SURE TO PREVENT GETTING ABS SOLVENT CEMENT ON MOTODRAIN VALVE SEALS, PADDLE OR ELECTRICAL COMPONENTS AS THIS CAN DAMAGE THE PRODUCT AND PREVENT IT FROM OPERATING PROPERLY.

To insure a properly joined fitting, the following installation procedure must be adhered to:

1. Cut the pipe square. Remove all burrs from the inside and outside of the pipe. Remove any dirt, grease or moisture with a clean dry rag. Check the "dry" fit. The pipe should go easily into the fitting 1/2 to 2/3 of the way.
2. Using a suitable applicator, apply a thin, even coat of cement to the fitting socket, taking care not to allow solvent cement to puddle on valve, seals and paddles. Keep solvent cement away from any of the electrical components. Apply a liberal coat of cement to the pipe, equal to the depth of fitting socket. Cement must be applied in sufficient quantities to fill the joint.
3. Without delay, assemble the pipe and fitting while the cement is still wet. Use enough force to bottom the pipe into the socket. Rotate the pipe ¼ turn while assembling. Hold in place for approximately 30 seconds to make sure the joint does not separate. Wipe any excess cement with a rag.

3. SET TIME

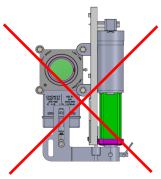
Do not attempt to disturb the pipe and fitting joint until after the solvent cement has set, or damage to the joint and loss of fit may result. Hold in place by supporting the valve while ABS glue is setting up. Allow 15 minutes for the joint to develop good handling strength and the joint will withstand the stresses of normal installation. A badly misaligned installation will cause excessive stresses in the joint, pipe, and fittings and constitutes a plumbing code violation and should be avoided. The recommendation of the solvent cement manufacturer should be followed for best results.

4. ALIGNMENT AND GRADE

The pipe used must be installed so no stress or misalignment is transferred to the termination valves. Align all piping system components properly without strain. Do not bend or pull pipe into position after being solvent cemented. The grade of horizontal drainage and vent piping shall be as specified in the applicable code.

5. VALVE POSITION

The valve must be installed so the shaft of the handle is horizontal to the ground or pointing upwards. Any upward angle between horizontal and vertical is acceptable. Any downward angle of the shaft is unacceptable. This downward angle causes fluid to accumulate in the paddle area. Trapped fluid in this area will not drain out and freeze damage may occur.



6. **TRANSIT**
Do not ship/drive recreational vehicle with the termination valves in the open position. Any road debris striking the handle or shaft may result in a broken valve or paddle assembly. The termination cap must be locked in place for transit when provided with a particular model.

7. **REPLACEMENT**
Termination valves are removable for repair or replacement.

8. **USE**
Termination valves are adaptable to all standard tanks and liquid waste connection systems.
The valve paddle permits quick opening and is non-fouling.
The sealing paddle withdraws completely from the path of discharge.

Control Switch Installation

Caution:

There should be no 12V supply voltage connected while performing steps 1-5

1) Choose a location in the control compartment for the Motorized valve switch plate that has enough space behind the wall to accommodate the switches and the wiring. The switch plates(s) should not be installed in a location where it will be exposed to the elements. If two valves are to be installed, locations for two switch plates will be required.

2) Select either the "Black" water valve switch plate or the "Gray" water valve switch plate depending on the installation. Install the supplied 4-amp fuse holder with provided fuse into the location marked "Fuse" on selected motorized valve switch plate.

3) Feed the wire harness connected to the three-position control switch through the top opening of the switch plate. With the translucent, large red window at the top, push and lock the toggle switch into place. When installed correctly, the large red window on the switch should be closer to the "OPEN" marking on the switch plate. Connect the Black wire marked 12V + leading from the three-position switch to one of the red wires found on the fuse holder installed during step 2.

4) Position the switch plate over the opening. Using the switch plate as a template, with the use of a pen or marker, transfer the location of the three mounting holes. Drill three 1/16" holes in the marked locations for the switch plate screws. Secure the switch plate with the appropriate screws.

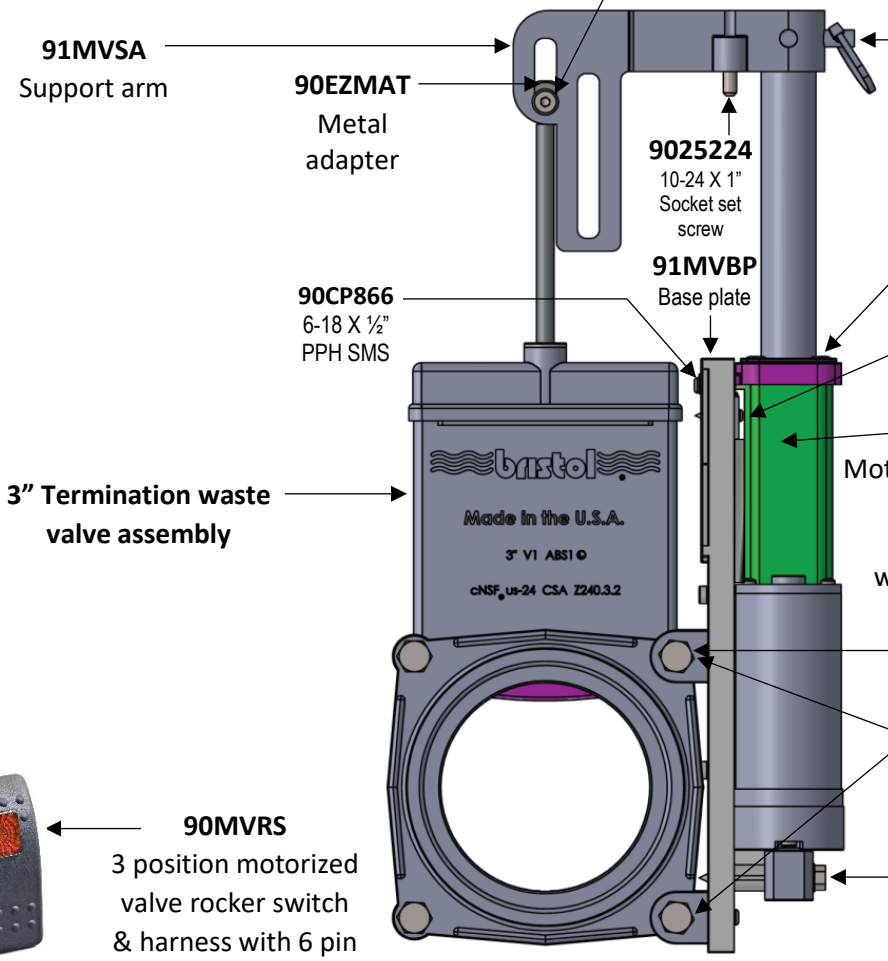
5) If a second valve is to be installed, follow the same installation steps for the second switch plate and switches.

6) **ELECTRICAL CONNECTION**
Make sure the three-position switch is in the middle position before connecting unit to power source.
Polarity must be observed for the proper operation of your new MOTODDRAIN motorized valve.
With the 6 pin Molex connectors securely joined, connect the un-used red wire leading from the fuse holder assembled during step 2 to the positive side of the 12 VDC constant power source.

- Connect the white wire to the negative side of the 12 VDC constant power source.
- Make sure all electrical connections are properly insulated than secure all wiring with tie straps / zip ties.
- The MOTODRAIN motorized valve is now ready for operational testing.

NOTE: WHEN THE RED LIGHT IS ON AT THE ROCKER SWITCH, THE VALVE IS IN THE OPEN POSITION

Adjustment can be made by turning clockwise the 9025224 set screw 1/8 – 1/4 turn to make sure the light goes off in the closed position on the 3-position rocker switch.
Open & close the valve several times to test the rocker switch making sure the light goes off and on.



9023201
¼ -20 X ½" black oxide alloy socket cap screw

91MVSA
Support arm

90EZMAT
Metal adapter

90MVPIN – Motorized valve pin. Manual override can be performed if necessary by pulling the pin

9025224
10-24 X 1" Socket set screw

91MVTS
Top support

91MVBP
Base plate

90CP866
6-18 X ½" PPH SMS

900138997
#2-32 x ½" PPH SMS

90MVACT
Motorized valve Actuator attached to valve indicator switch w/harness and 6 pin Molex connector

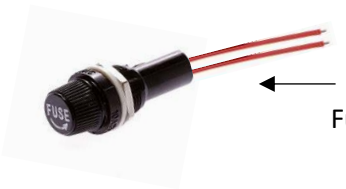
3" Termination waste valve assembly

9013011
¼ - 20 X 2" hex bolt

91MVMT Mounting tabs Secured with **90CP866** PPH SMS 6-18 X ½"

90MVRS
3 position motorized valve rocker switch & harness with 6 pin Molex connector.

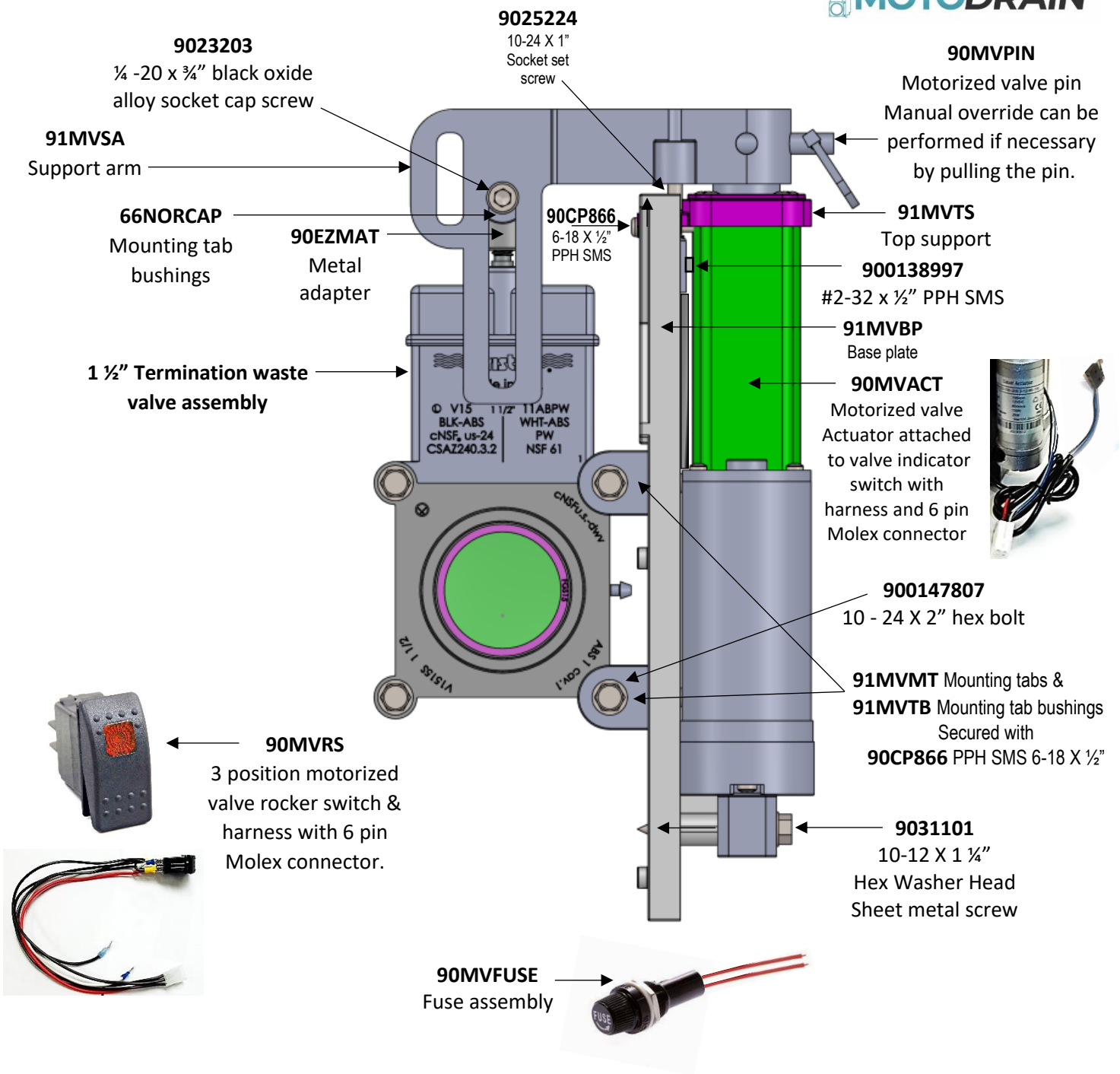
9031101
10-12 X 1 ¼"
Hex Washer Head
Sheet metal screw



90MVFUSE
Fuse assembly

Other supporting components (wire harness extensions, switch plates, etc.) can be found on www.lasallebristol.com

91MVSPB
91MVSPG
Motorized valve Switch Plate
Available in Black for black water and Gray for gray water.



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91MVSPB
91MVSPG
Motorized valve
Switch Plate
Available in Black for
black water and Gray
for gray water

MANUAL OVERRIDE

Your new MOTODRAIN motorized valve is equipped with a manual override feature. In the event it is deemed necessary please follow the steps below.

- Pull out the motorized valve pin from the horizontal actuator support arm.
- Grasping the support arm, the valve may be pulled open or pushed closed manually.

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