



Technical Bulletin

Date: July 16, 2020

Product Line: Bambi

Product: Bambi MAX Bucket (BBX)

Model(s): 4453, 5566, 6578, 7590, HL4000, HL5000, HL7600, HL9800
4453PF, 5566PF, 6578PF, 7590PF, HL4000PF, HL5000PF, HL7600PF, HL9800PF

Subject: IVC Voltage Clamp Addition

Action: Mandatory

Revision

Date	Revision Summary
06-Aug-2020	<ul style="list-style-type: none">Added Serial Number implementation note – Figure 3.Added Voltage Clamp requirement for installation of new IVC Assemblies.

Background

The Bambi MAX 25" and 28" valves can experience a condition in which the force of the water acting upon the valve can cause the valve to close very quickly. As a result, the valve motor begins to act as a generator, increasing the voltage within the system. This increase in voltage can cause damage, rendering the valve inoperable.

To prevent this damage from occurring, a voltage clamp device has been added to the back of the motor housing. This device will clamp the voltage to a safe level. All new buckets and valve assemblies will have this device installed.

Recommendations

All 25" and 28" valves with an IVC 2 (PN 015278) should have the Voltage Clamp installed. A distinction between an IVC 1 and IVC 2 can be seen on the following page (see Figure 1). IVC 1 will have the indicator light as shown on the right, and the IVC 2 will have the indicator light as shown on the left. IVC 1 does not require this installation.



Figure 1: IVC 2 and IVC 1

A Voltage Clamp is not required on IVC 2s that have the letter “K” marked on the back of the motor as shown below (see Figure 2).



Figure 2: Motor Marked with the Letter "K"



A Voltage Clamp is also not required for MAX valves that have a Serial Number (located below the caution label) above and including S/N 34267-5 (see Figure 3).



Figure 3: Serial Number Location

A Voltage Clamp must be installed if a new IVC assembly (P/N 015277 or 015278) is installed on a MAX valve that does not meet one of the above criteria.

If your product is applicable, a Voltage Clamp is required. Contact SEI sales for more information on how to receive the kit below:

Part #	Description	Description 2
016502	VCLAMP, EMF, MOTOR, KIT	4453MX-HL9800MX

Refer to **016502 Voltage Clamp: Installation Procedure** for more information.

Contact SEI Bambi Engineering if it is unclear how your IVC is configured or if this applies to your product.



This Technical Bulletin is available on the SEI website:

<https://www.sei-ind.com/category/bambi-safety-bulletins/>

For further details, please contact the following SEI representative(s).

Contact

SEI Bambi Engineering

604-946-3131

bambieng@sei-ind.com

016502 Voltage Clamp: Installation Procedure

Application:

Bambi MAX Bucket Model
4453, 5566, 6578, 7590, HL4000, HL5000, HL7600, HL9800

Parts Required:

To perform this installation, the kit below is required:

Part Number	Description
016502	VCLAMP, EMF, MOTOR, KIT

The contents of this kit are:

Part Number	Description	Quantity
016495	VCLAMP, EMF, MOTOR, ASSY, RETROFIT	1
000414	SCREW, 6-32x7/8, SC, SS	4

Tools Required:

- 7/64" Hex Key
- Nose Tip Pliers

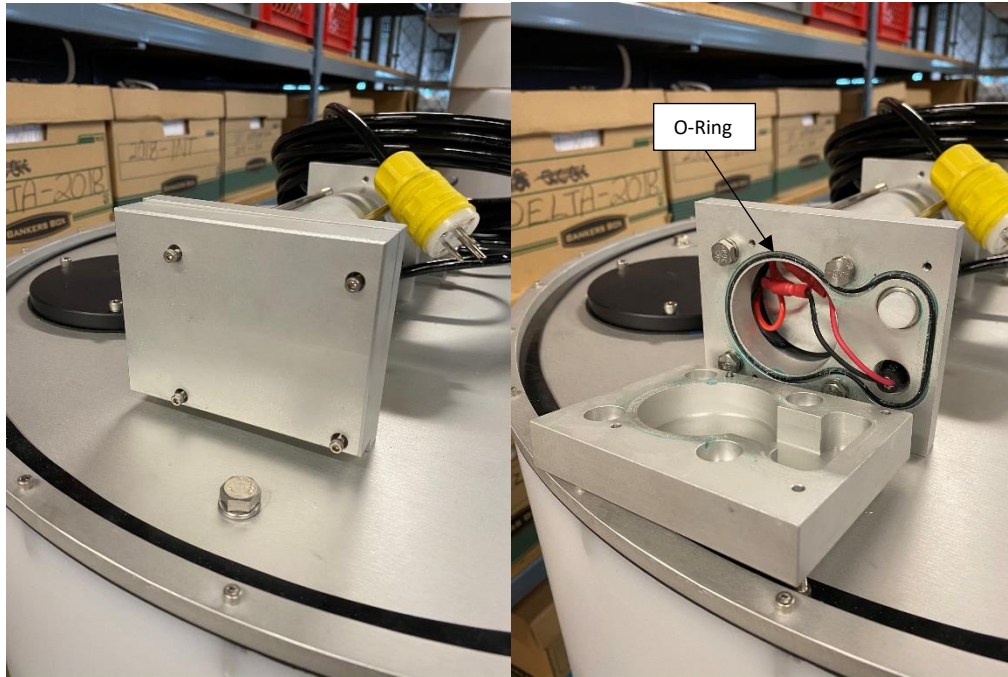
Procedure:

1. Rotate the bucket so that the motor is positioned vertically, with the back of the motor facing up and the black box is at the bottom. Place two objects long enough to hold the shell of the bucket open at the top of the shell. Crawl inside the bucket to access the valve.



016502 Voltage Clamp: Installation Procedure

2. Remove the motor's rear cover by removing the 4 screws using a 7/64" hex key. Be careful not to remove the O-ring from its groove.

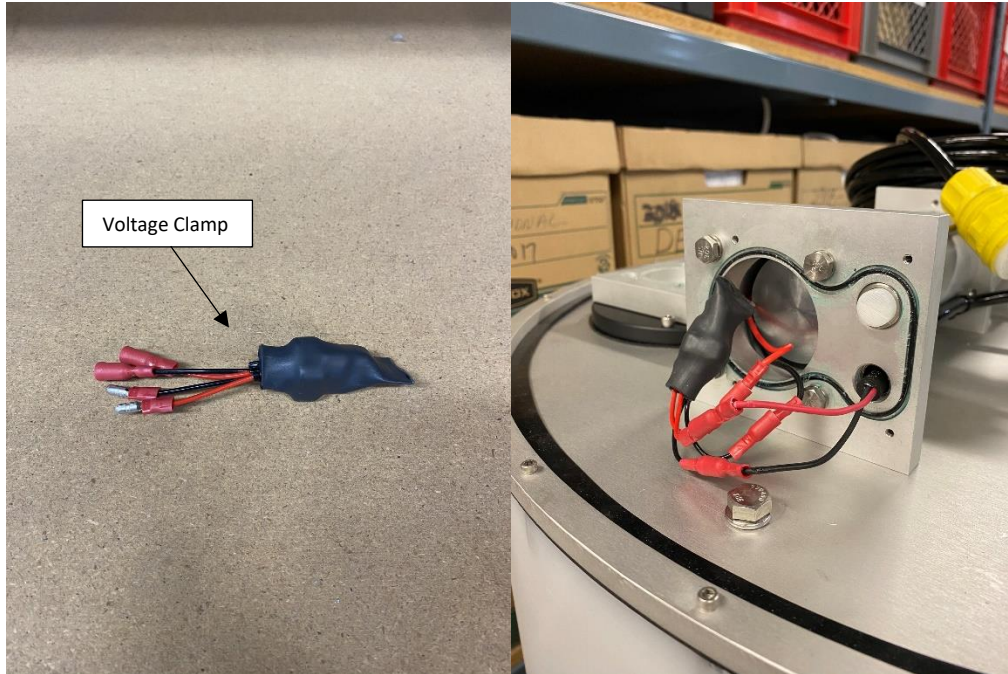


3. Disconnect motor leads by hand or using the nose tip pliers.



016502 Voltage Clamp: Installation Procedure

4. Install Voltage Clamp by connecting it to the motor wires, ensuring that the colour of the wires match.



5. Place Voltage Clamp into cavity. Ensure that the Voltage Clamp and bullet connectors do not protrude out of the cavity. This ensures that the cover can be replaced properly.



016502 Voltage Clamp: Installation Procedure

6. Replace the motor's rear cover ensuring the O-ring has not moved from its groove. If the O-ring had been displaced or fell out of its groove, simply replace it inside the groove. When replacing the rear cover, insert all screws by hand before fully tightening to 20 in-lbs. Extra screws have been supplied if a screw is misplaced. If possible, mark a letter 'K' on the top of the motor.

