



**EPOXY SUPPORT KIT / TURNBUCKLE MAINTENANCE
CUTLER-HAMMER WL-35315 AND WL-34999C VACUUM INTERRUPTER V-I ASSEMBLIES
Installation Procedure**

The following instructions outline the installation of Powell-Provided Epoxy Support Kits and inspection and tightening of V-I "Turnbuckle" assemblies within certain PowlVac Circuit Breakers equipped with Cutler-Hammer type WL-35315 And WL-34999C Vacuum Interrupters:

IMPORTANT SAFETY NOTES: All Circuit Breakers must be removed from service prior to any maintenance. Only qualified personnel should attempt performing maintenance on any Circuit Breaker. Do not reach into any part of the breaker mechanism with the operating springs in the "charged" position, or with the breaker in the closed position. The high mechanical forces required to operate the breaker can cause serious injury.

Please carefully review and understand all steps below before initiating this procedure.

Tools and material, (provided by Powell) required to perform this procedure include:

- (1) EPX Epoxy Applicator Gun; ① →
- Multi-tubes of EPX Epoxy Adhesive; ② →
(3 reqd. per breaker, 1 reqd. for each Vacuum Interrupter)
- EPX Epoxy Mixing Nozzles; ③ →
(3 provided for each breaker)
- (1) Pair; small "Slip-lock", or "Channel-lock" Pliers



VACUUM INTERRUPTER EPOXY SUPPORT KIT INSTALLATION PROCEDURE

The photos below show each of the (2) Cutler-Hammer Vacuum Interrupter, (V-I) types that require installation of the epoxy kits.

Cutler-Hammer Type WL35315 Vacuum Interrupter



Cutler-Hammer Type W34999C Vacuum Interrupter



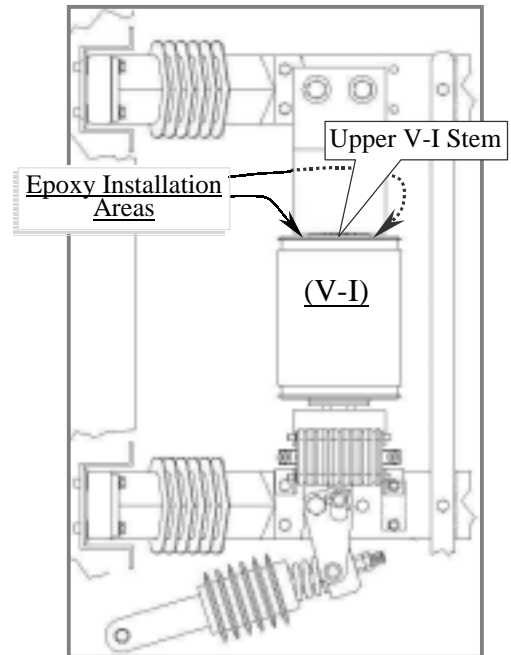


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STEP # 1:

After removing the circuit breaker from service, move the breaker to a well-lighted location that provides adequate working access to the top areas of the breaker.

On the top of each of the vacuum interrupters, (V-I's), locate the grooved area surrounding where the upper center stem attaches to the top of the V-I, (See Photos On Previous Page) and ensure that they are free from visible signs of dirt, grease, etc. No other preparation will be required.



Typical Standard PowlVac Vacuum Interrupter Assembly

STEP # 2:

Insert one of the Multi-tubes of epoxy adhesive into the EXP applicator gun; (A), and install a mixing nozzle on the end of the tube, (B).





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STEP # 3:

After loading a multi-tube of epoxy and a mixing nozzle into the applicator, prepare to insert the epoxy by placing the tip of the Epoxy mixing nozzle on one side of the top of one of the V-I's, inside the grooved area surrounding the upper V-I stem,

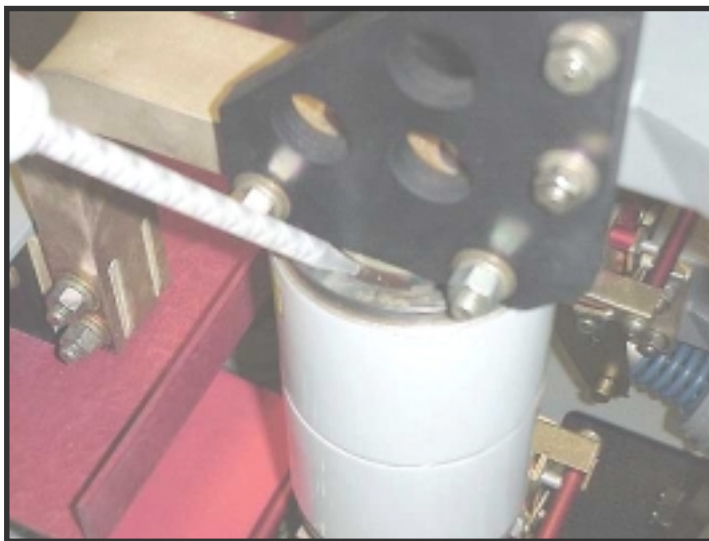
(Shown on photo(s) to the right) →

Begin squeezing the epoxy into the grooved area around top of the upper V-I contact, applying 1/2 tube along one side of the V-I and the remainder of the tube along the opposite side, (1 tube of epoxy is sufficient for (1) V-I only).

The epoxy will automatically flow around and smooth-out along the grooved area at the top of the V-I.

Repeat the procedure around the tops on each of the remaining (2) V-I's.

The epoxy installation is now complete. Please proceed to the operating yoke turnbuckle inspection and securing section on the next page.





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V-I Operating Yoke, ("Turnbuckle")
Inspection / Adjustment Procedure

Note: The procedure below is applicable for "Low Duty Cycle" breakers only. The Powell factory, (P.A.S.D.) should be contacted for provision of upgraded turnbuckle assemblies on breakers showing greater than 500 operations per year, or breakers showing a total breaker operations count of 1000 operations or greater.

STEP # 1: ->

Using the diagram(s) at the right, locate and inspect the Operating Yoke, (or "Turnbuckle") assembly below the moving contact block of one of the V-I assemblies.

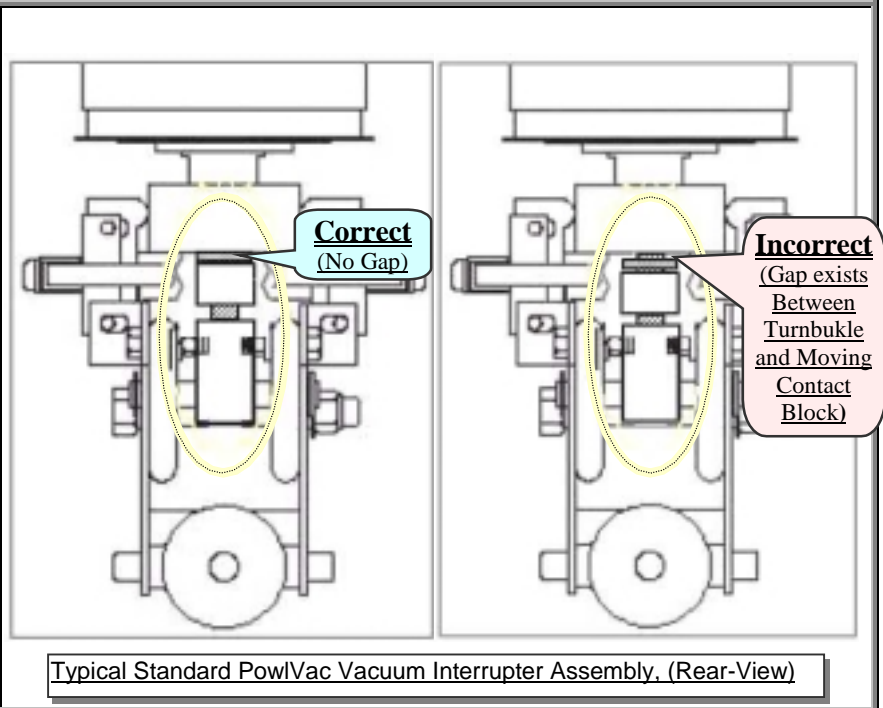
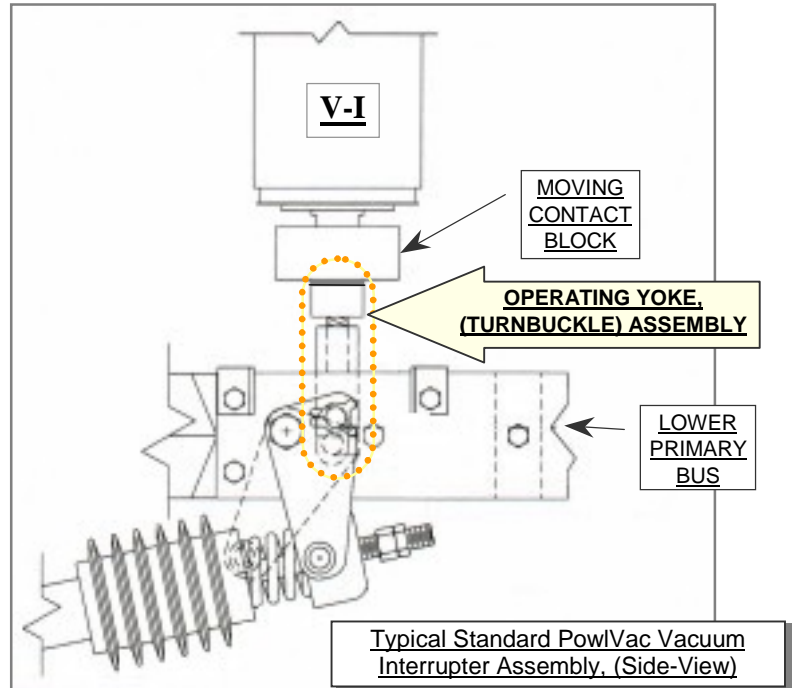
Compare the tightness of the connection between the top of the turnbuckle assembly and the bottom of the moving contact block with the (2) diagrams on the lower right.

If the connection is found to be loose (within 1/2 of a turn, or less), use a small pair of "slip" or "channel-lock" pliers to gently re-tightens the top of the turnbuckle until snug against the bottom of the moving contact at no more than 5 ft. lbs. (maximum.).

For connections found to have loosened beyond 1/2 turn, notify the Powell factory, (P.A.S.D.), (replacement turnbuckle assemblies may be required, depending on the number of breaker operations).

Important: Checking the tightness of the above turnbuckle connection(s) should be included as a part of normal breaker maintenance intervals to ensure continued adequate tightness of these assemblies.

The epoxy installation and operating yoke turnbuckle securing procedures are now complete & the breaker can be returned to service immediately.



END OF PROCEDURE