



## *Powell Apparatus Service Division*

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### **SERVICE ADVISORY**

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Powell Electrical MFG. Co. has earned an excellent reputation for reliability over the past 50 years. This notice is intended to help our customers maximize the operating life of the equipment.

**PRODUCT:** Powell Type PIBT "Ultra-Compact" circuit breakers. This will include all replacement breakers utilizing the UC mechanism, UCW retro fill breakers and PV38 breakers.

**DATE RANGE:** PIBT Ultra-Compact breakers manufactured between Feb. 1, 1993 and Feb. 28, 1998

**CONDITION:** We have identified a possible service condition in which the breaker mechanism becomes sluggish. The minimum operating control voltages (close and trip) and overall breaker timing may be affected.

**CAUSE:** The lithium based grease used on the breaker mechanism, may lose its original properties in harsh environments or when combined with other lubricants.

**INSPECTION:** The inspection requirement is classified as a low priority. Conducting normal maintenance tests will indicate if the breaker is operating properly. The presence of this condition should be checked during a routine maintenance period. The recommended service period is found in the Powell instruction bulletin. This period should however, be established by specific application and experience. The general rule however, is once annually or every 2000 operations, whichever occurs first. Smooth, non-binding operation of the close and trip actuators should be verified. A test of the close and trip coils at the minimum voltages, is also a good verification test. The minimum operating voltages are stamped on the breaker nameplate.

**CORRECTIVE ACTION:** If operating parameters are found to be outside of the original design limits, the breaker mechanism should be cleaned and lubricated. Close and trip prop bearings should be cleaned and lubricated with Anderol 456 oil. Lubrication kits are available from Powell. Our Lubrication kit: "POWLUBE-101" is specifically packaged for breaker maintenance applications.

**SAFETY:** The breaker must be removed from service prior to maintenance. Only qualified personnel should attempt performing maintenance on any power circuit breaker. Do not reach into 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.

Sincerely,

DENNIS R. THONSGARD

MANAGER - POWELL APPARATUS SERVICE DIVISION