

AHT - 1 and T - 12 CIRCUIT BREAKER OPERATION and ADJUSTMENT

Preliminary factory adjustment of the breakers is expected to give signal light contact continuity under the following four conditions:

1. When the cocking lever is moved beyond the open position.
2. When the cocking lever is moved beyond the closed position.
3. When the trip bar is moved, but before the breaker contacts are tripped.
4. When the breaker has tripped completely.

To achieve these conditions, the position of the two signal light contacts and the calibrating screw are factory preset. To obtain light indication from the reset position, the cocking lever must be moved toward the light tower when the contacts are open. To obtain light indication from the closed position, the cocking lever must be moved toward the contacts when the contacts are closed. This allows the light switch operation to be checked outside the tank.

Following this preliminary adjustment, the breakers are calibrated and packaged.

To obtain the same conditions when the breaker is installed in a transformer requires the correct amount of free travel at each end of the operating handle motion.

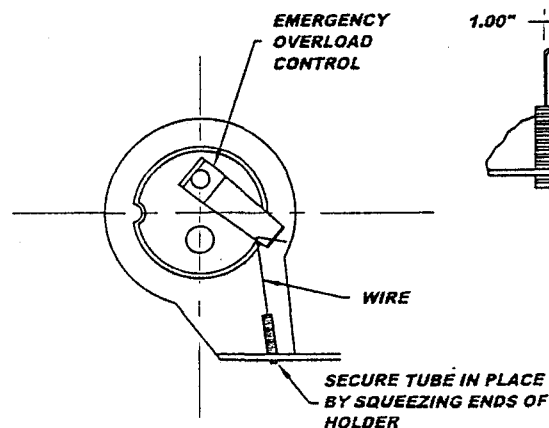
Obtaining the correct free travel is often a cut-and-try procedure due to variation in the handle location, breaker location and tank dimensions. To facilitate this adjustment the following steps may prove useful.

1. Bolt breaker to support, tighten screws firmly and back off the screw under the trip bar 1/2 turn. The breaker must rest on a pressboard oil deflection barrier.
2. Install the operating handle assembly in the tank and tighten the clamping nut until a slight bulge appears in the cut edge of the gasket. Further tightening is undesirable.
3. Position the operating handle to align the yellow arrow with the "R" on the bearing, allowing about 1/4" clearance between the handle stop and the bearing stop. Position breaker in the cocked position with the contacts open.
4. Screw the connecting rod (link arm) in to the cocking lever until the holes in the rod and operating arm mate. Insert a cotter pin in the holes, hold cotter pin in place and move the operating handle to check for the following operations:
 - a. Close and open the breaker.
 - b. Close breaker, trip light contact manually (avoid tripping main breaker contacts). Reset light by moving operating handle to the "L" position.
 - c. Trip breaker contacts and try resetting the breaker. A properly adjusted breaker will have approximately 1/4" of travel left between the handle and bearing stops.

If breaker fails to operate properly, adjust connecting rod until the above operating conditions are obtained.

5. Install cotter pin permanently; avoid binding between rod and lever.
6. Install signal light in tank wall; tighten clamping nut only enough to compress the gasket. Avoid over-tightening.
7. Position calibration control mechanism (overload lever) on the breaker at the "normal" position. Insert the preformed end control wire into the breaker overload lever and thread the control cable (sheath) into the support on the breaker and lock the connection by pinching the support around the cable sheath.
8. Position the calibration control mechanism (overload lever) on the breaker in the "normal" position. Hold the control assembly lever on the operating handle bearing in the "normal" position. Thread the control cable through the hole in the cable support and lock the connection by pinching the support around the cable sheath. Twist the control wire into and around the emergency overload control lever as shown below.
9. Connect signal light winding to terminal on the breaker.
10. Connect signal light winding to the signal light.
11. For breakers without emergency overload and signal light, the following procedure is recommended to make the breaker assembly adjustment in the transformer tank:
 - a. Place breaker in the cocked position with the contacts open.
 - b. Adjust threaded connecting rod (link arm) so that the yellow arrow on the operating handle is aligned with the "O" on the bearing.
 - c. Check breaker for proper reset and close operations. Adjust connecting rod (link arm) to achieve proper operation, if required.

EXTENSION SPRING SUPPORT



PRIMARY BENDING OF WIRE

