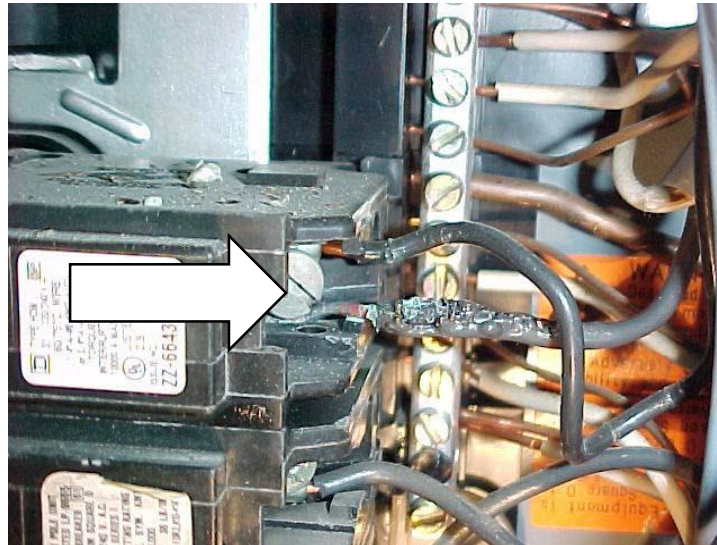

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DOUBLE LUGGED BREAKER

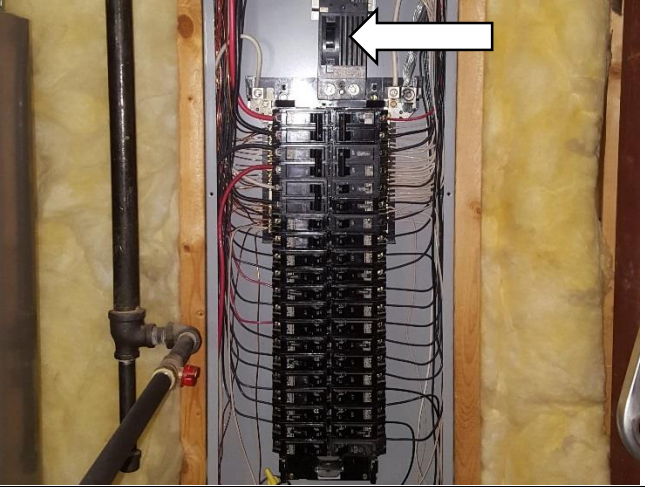



Double lugging is a commonly identified condition observed during inspection of a homes main electric panel. This refers to a connection where two circuit wires terminate under a single lug within the main electrical panel. Problems occur when one of the wires under the lug is not secure or the maximum load is exceeded on a breaker.

When a wire is loose it can arc and cause a spark which may start a fire. If the connection is poor, the flow of electricity may cause excessive heat buildup which can also start a fire. I have observed melted wiring within a main panel attributable to double lugging. Poor connections are responsible for many electrical fires. This is only one source of poor connections, but a common one.

Installing an additional breaker in the main panel is an easy correction to this electrical safety concern. If there is no additional room in the main panel for a new breaker, a tandem breaker can be installed. A tandem breaker is the size of a single breaker but contains two separate half-size breakers (two handles and two lugs). Always hire a licensed electrician to ensure the panel is rated for additional circuits, the existing circuits are within their rated maximum load and any repairs are completed correctly. In some situations double lugging may be acceptable, however this must be verified through inspection and evaluation by a licensed electrician.

Below is a description of the process for correcting a double lugged breaker.

<p>Turn the main breaker off. Generally it is located within the main panel at the top, however it may be located on the exterior of a home or at the service entrance pole.</p> <p>This will shut power off to the entire home, so have ancillary light available.</p>	
<p>Turn off the breaker to be removed.</p> <p>Remove the breaker by pushing from the center of the panel towards the outside of the panel where the breaker pivots on a hinge.</p>	
<p>*Remove the wires from the existing breaker and reinstall one wire in the existing breaker and another in the new breaker.</p>	<p>*Remove the wires from the existing breaker and install one wire into each side of the tandem breaker if there is not room for an additional breaker.</p>
<p>Replace the breaker in the reverse order it was removed; place the outside edge in the hook and pivot the inside edge downward until it snaps into place.</p> <p>This photo shows a tandem breaker, (white arrows).</p> <p>The lower breaker is a double-pole breaker for a 220 volt circuit.</p>	