

PIH-REAC is providing the following information to assist in properly identifying and mitigating electrical hazards that may exist on the property. This information presents common electrical hazards but does not represent a complete listing of electrical hazards that may exist on a property.

There are multiple types of electrical devices that may be found on properties. The three most common are shown below. They are:

Timer



(A)

Disconnect



(B)

Panel



(C)

**The purpose of each device shown above:**

- (A) **Timer** - An electrical device that is used to automatically turn lighting, lawn sprinklers or other equipment on/off at a predetermined time and/or date.
- (B) **Disconnect** – An electrical device designed to interrupt the flow of electricity to a specific piece of equipment or a specific area of a building and/or unit. **While inspecting electrical equipment the inspector will not touch or move the “cut-off” handle.**
- (C) **Panel** - This electrical device contains either multiple breakers or fuses and is used to distribute power to multiple locations within a building and/or unit.

The following photos show different scenarios for the device and the protocol, defect (if applicable), level (if applicable), and the definition/guidance supporting the finding.

# • Timers •



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| <b>Scenario #1:</b> | The timer door is observed to be <b>secured</b> .   |
| <b>Protocol:</b>    | Inspector must ensure that the device, whether it is a lock, zip tie, etc., is properly securing the door. If so, the inspector <b>will not</b> open this device.<br>The Compilation Bulletin defines secured as requiring a tool, key, cutters, etc. to open the cover.<br>(i.e., It cannot be opened with a bare hand.) |
| <b>Defect:</b>      | No defect   |
| <b>Level:</b>       | N/A   |
| <b>Guidance:</b>    | <u>Compilation Bulletin:</u><br>“Electrical System” – Only timers that are unsecured will be opened to inspect for defects.<br><br><b>This disconnect is secured and therefore will not be opened to inspect.</b>   |



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| <b>Scenario #2:</b> | The timer door is observed to be <b>unsecured</b> .   |
| <b>Protocol:</b>    | Inspector <b>will</b> open cover to ensure that the interior cover is in place, secured, and that there are no exposed bare wiring and/or connections.            |
| <b>Defect:</b>      | No defect because the interior cover (shown by the arrow) is in place during the inspection.  |
| <b>Level:</b>       | N/A   |
| <b>Guidance:</b>    | <u>Compilation Bulletin:</u><br>“Electrical System” - Timers that are not secured must be inspected provided that doing so will not interrupt electrical service. |



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| <b>Scenario #3:</b>          | The timer door is observed to be <b>unsecured</b> .   |
| <b>Protocol:</b>             | Inspector <b>will</b> open cover to ensure that the interior cover is in place, secured, and that there are no exposed bare wiring and/or connections.  |
| <b>Defect:</b>               | Missing electrical cover which exposes bare wiring and connections.   |
| <b>Level:</b>                | Level 3 for the missing interior cover and an automatic system generated life threatening health & safety (H&S) deficiency for the exposed electrical wiring and connections.   |
| <b>Guidance/ Definition:</b> | <p><u>Compilation Bulletin:</u><br/>                     "Electrical System" - Timers that are not secured must be inspected provided that doing so will not interrupt electrical service.</p> <p style="text-align: center;"><b>AND</b></p> <p><u>Dictionary of Deficiency Definitions</u> - "Electrical System"<br/> <u>Level 3:</u> A cover is missing, which results in exposed visible electrical connections.</p> |

• Disconnect designed *without* interior cover.



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| <b>Scenario #1:</b> | The disconnect door is observed to be <b>secured</b> .   |
| <b>Protocol:</b>    | Inspector must ensure that the device, whether it is a lock, zip tie, etc., is properly securing the door. If so, the inspector <b>will not</b> open this device. The Compilation Bulletin defines secured as requiring a tool, key, cutters, etc. to open the cover. (i.e., It cannot be opened with a bare hand.)<br><b>While inspecting electrical equipment the inspector will not touch or move the "cut-off" handle.</b> |
| <b>Defect:</b>      | No defect  |
| <b>Level:</b>       | N/A  |
| <b>Guidance:</b>    | <p><u>Compilation Bulletin:</u><br/>                     "Electrical System" - Disconnects that are not secured must be inspected provided that doing so will not interrupt electrical service.</p> <p><b>This disconnect is secured and therefore will not be opened to inspect.</b></p>  |



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| <b>Scenario #2:</b> | The disconnect door is observed to be <b>unsecured</b> .   |
| <b>Protocol:</b>    | Inspector <b>will</b> open disconnect to inspect for any bare electrical wiring and/or connections that may be exposed.<br><b>While inspecting electrical equipment the inspector will not touch or move the “cut-off” handle.</b>                                     |
| <b>Defect:</b>      | There is no defect for being unsecured unless doing so causes bare wiring and/or connections to be exposed. Because some disconnects are designed with an interior cover and some are not, the defect, if any, can only be assessed after opening cover of disconnect. |
| <b>Level:</b>       | N/A  |
| <b>Guidance:</b>    | <u>Compilation Bulletin</u> : “Electrical System” Disconnects that are not secured must be inspected provided that doing so will not interrupt electrical service.   |



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| <b>Scenario #3:</b> | The disconnect door is observed to be <b>unsecured</b> .  |
| <b>Protocol:</b>    | Inspector <b>will</b> open disconnect to inspect for any bare electrical wiring and/or connections that may be exposed. This disconnect is not designed with an interior cover, but because the device is unsecured and the bare wiring and connections are exposed it is a defect. |
| <b>Defect:</b>      | Life threatening H&S deficiency caused by it being unsecured exposing bare connections.   |
| <b>Level:</b>       | Level 3 - Life threatening H&S deficiency for the exposed bare connections.   |
| <b>Guidance:</b>    | <u>Compilation Bulletin</u> :<br>Regardless of the design, if the disconnect is found to be unsecured at the time of inspection and the bare wiring and/or connections are exposed it will recorded as life threatening H&S.  |

# •Disconnect designed with interior cover•



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| <b>Scenario #1:</b> | The disconnect door is observed to be <b>secured</b> with the plastic zip tie.  |
| <b>Protocol:</b>    | Inspector must ensure that the device, whether it is a lock, zip tie, etc., is properly securing the door. If so, the inspector <b>will not</b> open this device. The Compilation Bulletin defines secured as requiring a tool, key, cutters, etc. to open the cover. (i.e., It cannot be opened with a bare hand.) |
| <b>Defect:</b>      | No defect   |
| <b>Level:</b>       | N/A   |
| <b>Guidance:</b>    | <u>Compilation Bulletin:</u><br>"Electrical System" - Disconnects that are not secured must be inspected provided that doing so will not interrupt electrical service.<br><br><b>This disconnect is secured and therefore will not be opened to inspect.</b>  |



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| <b>Scenario #2:</b> | The disconnect door is observed to be <b>unsecured</b> .  |
| <b>Protocol:</b>    | Inspector <b>will</b> open the disconnect door to inspect for any bare electrical wiring and/or connections that may be exposed.  |
| <b>Defect:</b>      | There is no defect for being unsecured unless doing so causes bare wiring and/or connections to be exposed. Because some disconnects are designed with an interior cover and some are not, the defect, if any, can only be assessed after opening the exterior cover of the disconnect box. |
| <b>Level:</b>       | N/A   |
| <b>Guidance:</b>    | <u>Compilation Bulletin:</u><br>"Electrical System" - Disconnects that are not secured must be inspected provided that doing so will not interrupt electrical service.  |



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| <b>Scenario #3:</b> | <b>Unsecured</b> cover – when opened this disconnect is designed with an interior cover and it is in place and secured during the inspection.   |
| <b>Protocol:</b>    | Inspector <b>will</b> open the disconnect cover to ensure that the interior cover is in place, secured, and that there are no exposed bare wiring and/or connections.   |
| <b>Defect:</b>      | No Defect   |
| <b>Level:</b>       | N/A   |
| <b>Guidance:</b>    | <p><u>Compilation Bulletin:</u><br/>                     “Electrical System” - Disconnects that are not secured must be inspected provided that doing so will not interrupt electrical service.</p> <p><b>This disconnect is unsecured but when opened all the electrical wiring and connections are covered by the interior cover.</b></p> |



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| <b>Scenario #4:</b>          | <b>Unsecured</b> cover – when opened this disconnect is designed to have an interior cover and it is <b>not</b> in place which causes bare wiring and connections to be exposed.   |
| <b>Protocol:</b>             | Inspector <b>will</b> open disconnect to inspect for any bare wiring and /or bare electrical connections.  |
| <b>Defect:</b>               | Missing interior cover exposing bare electrical wiring and connections.  |
| <b>Level:</b>                | Level 3 for the missing interior cover and an automatic system generated life threatening H&S deficiency for the exposed bare wiring and connections.  |
| <b>Guidance/ Definition:</b> | <p><u>Compilation Bulletin:</u><br/>                     “Electrical System” – Only disconnects that are unsecured will be opened to inspect for defects.</p> <p style="text-align: center;"><b>AND</b></p> <p><u>Dictionary of Deficiency Definitions –</u><br/>                     “Electrical System”-<br/> <u>Level 3:</u> A cover is missing, which results in exposed visible electrical connections.</p> |

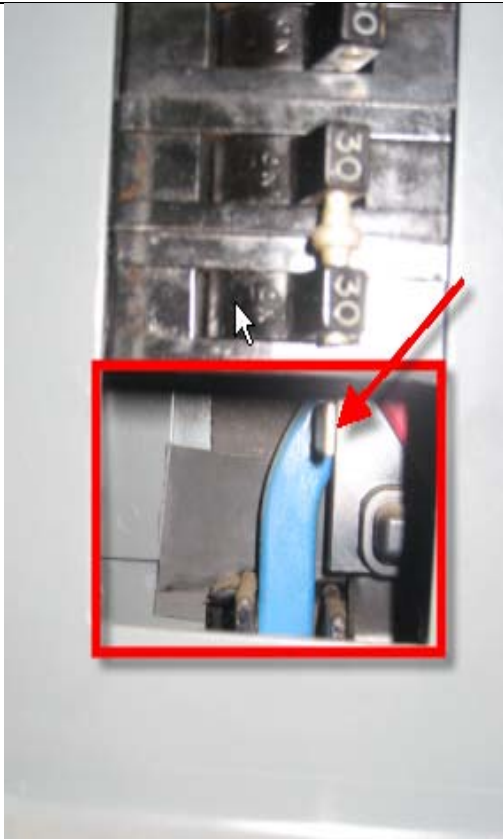
# • Panels •



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| <b>Scenario #1:</b> | The electrical panel is observed to be <b>secured</b> at time of inspection.  |
| <b>Protocol:</b>    | Inspector must inspect all electrical panel boxes observed during the inspection.   |
| <b>Defect:</b>      | No defect if property staff can readily provide inspector access to electrical panel.   |
| <b>Level:</b>       | N/A   |
| <b>Guidance:</b>    | <p><u>Compilation Bulletin:</u><br/>                     Electrical panels (breaker/fuse boxes) that are secured at the time of inspection must be made accessible to the inspector for inspection. Any electrical panel (breaker/fuse box) that is not made accessible will be recorded as "<u>Blocked Access/Improper Storage</u>".</p> <p><b>Unlike the timer boxes and disconnects, all the electrical panels must be accessible during the inspection.</b></p> |



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| <b>Scenario #2:</b> | Panel is observed to be <b>unsecured</b> and when inspected two of the breakers have been removed, but the spaces are covered by "blanks", which are designed to prevent access to the electrical wiring and connections.  |
| <b>Protocol:</b>    | Inspector must ensure that there is no exposed bare wiring and/or connections.   |
| <b>Defect:</b>      | No defect  |
| <b>Level:</b>       | N/A  |
| <b>Definition:</b>  | <p><u>Dictionary of Deficiency Definitions :</u><br/>                     Missing Breakers/Fuses (Electrical System)</p> <p>Deficiency: In a panel board, main panel board, or other electrical box containing circuit breakers, you see an open circuit breaker position that is not appropriately blanked off.</p> <p><b>Electrical tape and/or duct tape are not appropriate materials to blank off open breaker ports.</b></p> |



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| <b>Scenario #3:</b> | Panel is observed to be <b>unsecured</b> and when inspected two of the breakers have been removed and the spaces are found open.  |
| <b>Protocol:</b>    | Inspector must ensure that there is no exposed bare wiring and/or connections.  |
| <b>Defect:</b>      | Open breaker ports which expose bare connections.   |
| <b>Level:</b>       | Level 3 deficiency for the open breaker ports and an automatic system generated life threatening H&S for the exposed bare connections.  |
| <b>Guidance:</b>    | <p><u>Dictionary of Deficiency Definitions</u> :<br/>Missing Breakers/Fuses (Electrical System)</p> <p>Deficiency: In a panel board, main panel board, or other electrical box containing circuit breakers, you see an open circuit breaker position that is not appropriately blanked off.</p> <p><b>Electrical tape and/or duct tape are not appropriate materials to blank off open breaker ports.</b></p> |

## • Additional Electrical Defects •

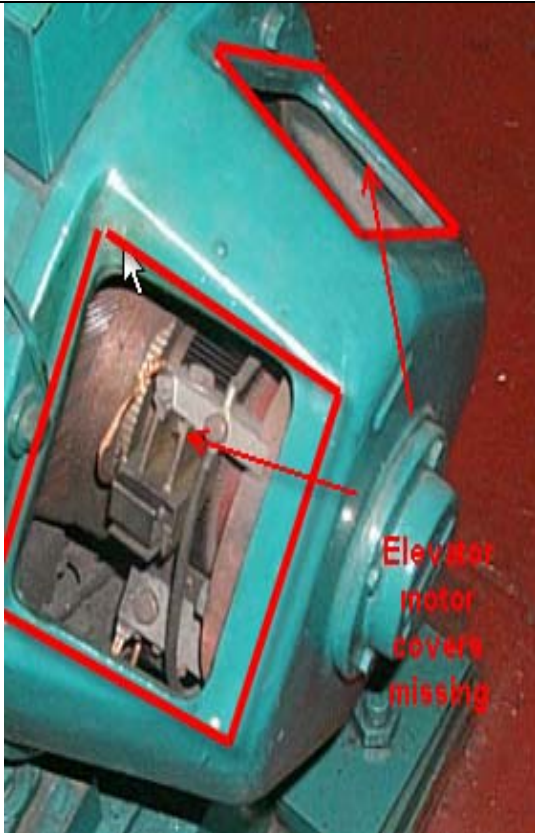


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| <b>Scenario:</b>   | Missing switch plate exposing bare wiring and connections.   |
| <b>Protocol:</b>   | Inspector <b>will</b> inspect for missing/damaged switch plates in all inspectable areas during the inspection.  |
| <b>Defect:</b>     | Missing switch plate.  |
| <b>Level:</b>      | Level 3 deficiency for the missing switch plate and an automatic system generated life threatening H&S for the exposed bare wiring and connections.                                |
| <b>Definition:</b> | <p><u>Dictionary of Deficiency Definitions</u>:<br/>Missing/Broken Cover Plates (Outlets/Switches)</p> <p>Level 3: A cover plate is missing, which causes wires to be exposed.</p> |





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| <b>Scenario:</b>   | Missing outlet plate exposing bare wiring and connections.   |
| <b>Protocol:</b>   | Inspector <b>will</b> inspect for missing/damaged outlet plates in all inspectable areas during the inspection.  |
| <b>Defect:</b>     | Missing outlet plate.  |
| <b>Level:</b>      | Level 3 deficiency for the missing outlet plate and an automatic system generated life threatening H&S deficiency for the exposed bare wiring and connections.             |
| <b>Definition:</b> | <u>Dictionary of Deficiency Definitions:</u><br>Missing/Broken Cover Plates (Outlets/Switches)<br><br>Level 3: A cover plate is missing, which causes wires to be exposed. |



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| <b>Scenario:</b>   | Upon entering the elevator mechanical room you observe the elevator motor covers have been removed exposing the bare wiring and connections.   |
| <b>Protocol:</b>   | Inspector <b>will</b> inspect this common area and if the inspector can determine that the motor was designed with exterior motor covers, a deficiency will be recorded for the missing cover(s) which expose the bare wiring and connections. |
| <b>Defect:</b>     | Systems – Electrical System: Missing cover exposes bare wiring and connections.  |
| <b>Level:</b>      | Level 3 deficiency for the missing covers and an automatic system generated life threatening H&S deficiency for the exposed bare electrical connections.   |
| <b>Definition:</b> | <u>Dictionary of deficiencies:</u> Missing Covers (Electrical System)<br><br>Level 3: A cover is missing, which results in exposed visible electrical connections.   |



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| <b>Scenario:</b>   | While inspecting the mechanical room you observe the “knock-out” missing from the side of this electrical panel.  |
| <b>Protocol:</b>   | Inspector <b>will</b> inspect this area to verify whether or not the missing “knock-out” exposes any bare wiring and connections. If so, it will be recorded as a defect.   |
| <b>Defect:</b>     | The “knock-out” is missing exposing the bare electrical wiring and connections.   |
| <b>Level:</b>      | Level 3 - Life threatening H&S deficiency for exposed bare wiring and connections.  |
| <b>Definition:</b> | <u>Dictionary of Deficiency Definitions:</u> Exposed Wires/Open Panels (Electrical Hazards)<br><br>Deficiency: You see exposed bare wires or openings in electrical panels. |



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| <b>Scenario:</b>   | Upon entering an inspectable area you observe this electrical box contains wiring that has bare ends that pose an electrical hazard.  |
| <b>Protocol:</b>   | When this is observed by the inspector it <b>will</b> be recorded as an electrical hazard.  |
| <b>Defect:</b>     | This will be recorded as a life threatening H&S for the exposed bare wiring.  |
| <b>Level:</b>      | Level 3 - Life threatening H&S deficiency for the exposed bare wiring.  |
| <b>Definition:</b> | <u>Dictionary of Deficiency Definitions:</u> Exposed Wires/Open Panels (Electrical Hazards)<br><br>Deficiency: You see exposed bare wires or openings in electrical panels. |