JA5115-00
(http://www.atseries.net/PDFs/JA5115-00.pdf)

Installation and Operating Instructions
TRAILER CONNECTION PANEL (EJ5276-##)

DESCRIPTION

- The Trailer Connection Panel (TCP) allows for a safe and secure connection between the *HindlePower* **Mobile DC System** and substation dc bus, for battery maintenance or emergency use.
- The TCP standard design creates uniformity throughout utilities. It includes NEMA Type-4X twist-lock connectors, test points, power indicators, and a handy 120 Vac GFI outlet (SO4).
- There are no adjustments or calibration of the TCP.

OPTIONS

DUAL (SECONDARY) DC CONNECTION TERMINALS

- p/n EJ5276-01/11 - The TCP can be equipped with a ***second*** set of dc connection terminals for connecting ancillary user equipment (e.g. second battery, dc load bank, etc.).

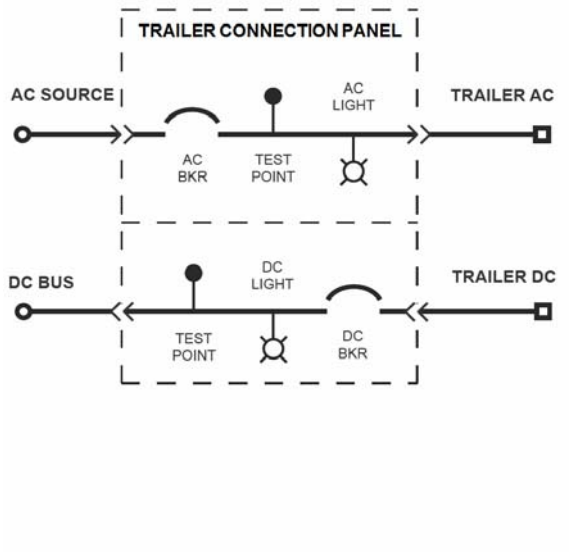
CIRCUIT BREAKERS

- p/n EJ5276-10/11 The TCP can be equipped with ac input (CB1) and dc output (CB2/CB3) circuit breakers as I/O protection.

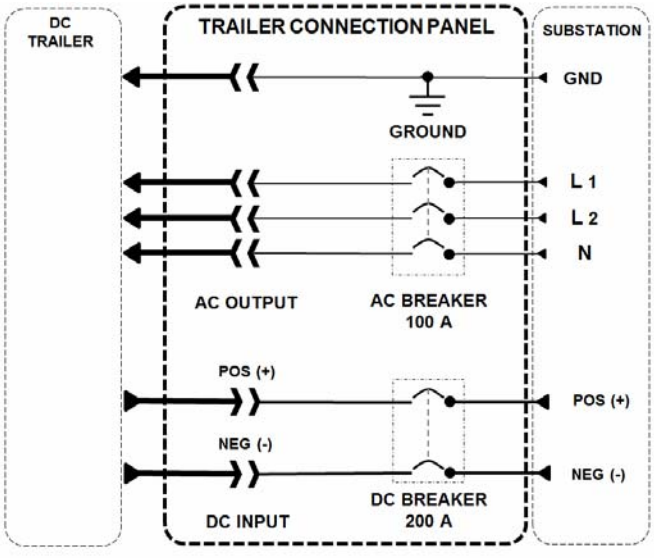
MOLDED-CASE SWITCHES

- In lieu of *automatic* circuit breakers, the TCP can be equipped with ac input (SW1) and dc output (SW2/SW3) molded-case manual disconnect switches.

GRAPHICS



SCHEMATIC
(shown with optional circuit breakers)



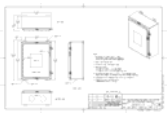
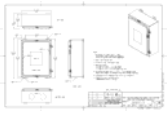
CONNECTION DIAGRAM
(shown with optional circuit breakers)

INSTALLATION

⚠ CAUTION **There may be dangerous voltages inside the Trailer Connection Panel (TCP). When performing tasks inside the enclosure, make sure to disconnect all ac and dc power sources and lock out breakers and/or safety switches. Safety goggles and gloves should be worn while performing this procedure.**

Wall Mounting:

- Locate a dry, solid wall surface near the ac feed, or near the dc bus for easiest cable connection.
- Use 1/4" or 5/16" hardware to wall-mount the enclosure, using the exterior mounting brackets.
- The TCP does not feature standard pre-fab conduit knockouts. The top or upper rear of the cabinet should be modified by the installer to allow cable entry.
- Refer to online standard drawings for enclosure external dimensions:

 p/n EJ5276-00/10	**JE5227-10** TCP Outline NEMA Type-4 Enclosure - **Single** Output (PN5028-01) [http://www.atseries.net/PDFs/JE5277-10.pdf]
 p/n EJ5276-01/11	**JE5227-20** TCP Outline NEMA Type-4 Enclosure - **Dual** Output (PN5028-02) [http://www.atseries.net/PDFs/JE5277-20.pdf]

Electrical:

- ***NOTICE*** This section covers initial ***installation*** wiring of the TCP to the site equipment, not normal recurring external (trailer) user connections to the panel.
- Site ac power, dc power, and ground wiring to user terminals plugs (or optional circuit breakers / molded-case switches) in the TCP must be rated for the ***full*** ac load requirements of the trailer, and the ***full*** dc load requirements of the bus.
- Unbolt and remove the inner panel to access the bare terminals located on the back side of the TCP.
- Connect site ground cable to the TCP ground stud, using the provided 1/4-20 ZPS stud hardware.
- Connect site ac feed cables to the terminals plugs (or optional ac breaker / molded-case switch).
- Connect site positive (+) dc bus to the pos (+) terminal of the TCP plug (or optional primary dc circuit breaker / molded-case switch).
- Connect site negative (-) dc bus to the neg (-) terminal of the TCP plug (or optional primary dc circuit breaker / molded-case switch).
- If provided, connect the site positive (+) dc bus the pos (+) terminal of the TCP ***secondary*** plug (or optional primary dc circuit breaker / molded-case switch).
- If provided, connect the site negative (-) dc bus the neg (-) terminal of the TCP ***secondary*** plug (or optional primary dc circuit breaker / molded-case switch).
- Connect site ac feed wires to the utility terminals of the 120Vac GFI outlet (SO4).
- Check all connections for tightness.
- Reinstall inner panel while being careful not to pinch any wiring.
- Initial ***installation*** wiring is now complete.

OPERATION

⚠ CAUTION **There may be dangerous voltages inside the TCP enclosure. Before using, please read all instructions and cautionary markings on: A) this equipment, B) the connecting trailer, and C) any other equipment to be used in conjunction with the Trailer Connection Panel. Safety goggles and gloves should be worn while performing this procedure.**

User TRAILER Connections:

1) Follow your trailer instructions for proper parking procedures.
2) Follow your trailer instructions for proper ac input and dc output configuration.
3) If required, plug equipment (e.g. hand tools, mobile lighting, etc.) into the standard 120Vac GFI utility outlet (SO4).
4) Connect the trailer ground cable to the TCP ground terminal. Rotate the connector a quarter-turn ***clockwise*** to ensure the connection is locked.

   NOTICE Please follow all grounding requirements, according to local and site practices.
5) Connect the trailer ac cables from the trailer to the TCP ac terminals. Rotate the connectors a quarter-turn ***clockwise*** to unsure the connections are locked.
6) Connect the trailer dc cables from the trailer to the TCP dc terminals. Rotate the connectors a quarter-turn ***clockwise*** to unsure the connections are locked.
7) If supplied, close the optional AC Circuit Breaker (CB1) in the TCP.
8) Power your trailer according to trailer instructions.
9) If supplied, close the optional DC Circuit Breaker (CB2) in the TCP.
10) This will parallel the trailer's on-board battery with the site battery.
11) If the TCP is equipped with ***secondary*** dc terminals, connect the necessary equipment (e.g. dc load bank). Rotate the connectors a quarter-turn ***clockwise*** to unsure the connections are locked.
12) If supplied, close the optional Secondary DC Circuit Breaker (CB3) when ready.
13) User external ***trailer*** connections are now complete.

SUPPLEMENTAL DOCUMENTATION

Parts Data Package Report:

- All Trailer Connection Panels (TCP) ship with a job-specific, itemized Parts Data Package Report listing major components (excluding sheet metal and hardware). Refer to this printout for a Bill of Material (BOM) for ordering replacement and/or spare parts.

Enclosure Outline Drawings:

- **JE5227-10** - NEMA Type-4 Enclosure - **Single** Output (PN5028-01) p/n EJ5276-00/10
  [http://www.atseries.net/PDFs/JE5277-10.pdf]
- **JE5227-20** - NEMA Type-4 Enclosure - **Dual** Output (PN5028-02) p/n EJ5276-01/11
  [http://www.atseries.net/PDFs/JE5277-20.pdf]

Internal Component Layout Drawings:

- **JE5228-11** - **Single** Output / Standard p/n EJ5276-00
  [http://www.atseries.net/PDFs/JE5278-11.pdf]
- **JE5228-12** - **Single** Output / Breakers/Switches p/n EJ5276-10
  [http://www.atseries.net/PDFs/JE5278-12.pdf]
- **JE5228-21** - **Dual** Output / Standard p/n EJ5276-01
  [http://www.atseries.net/PDFs/JE5278-21.pdf]
- **JE5228-22** - **Dual** Output / Breakers/Switches p/n EJ5276-11
  [http://www.atseries.net/PDFs/JE5278-22.pdf]

Sample Schematic (Site / TCP / MDCS)**:**

- **JE5228-11** - **Single** Output / Standard p/n EJ5276-00
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- **JE5228-12** - **Single** Output / Breakers/Switches p/n EJ5276-10
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- **JE5228-21** - **Dual** Output / Standard p/n EJ5276-01
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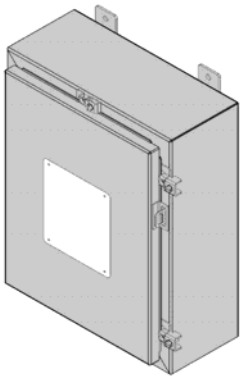

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