Installation and Operation Manual

FDPWU28-2
Dual USB Charger
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General Information

The FDPWRU28-2 is used to convert 28V power from the aircraft to 5.2V power which can be used to power and/or charge small auxiliary items. Each unit has 4 Amps of total charging capacity. There are two output connectors rated 5.2V @ 2 Amps continuous each. Two devices may be charged with full 2 Amps of charging current at the same time or one device may be charged with up to 4 Amps continuous current. The charger provides 5.2V DC for full charging capability to carry on devices such as media players, smart phones, tablets, as well as, other personal electronics carried onto the aircraft. The dual USB charger is compatible with the latest Apple® media products and similar devices.

The dual ports may be used to charge many other devices that have USB style charging connectors, but not all devices have been tested for compatibility and operation cannot be guaranteed. The FDPWRU28-2 must be connected to a source of 28 V DC power. The FDPWRU28-2 does not provide communication to any device; its sole purpose is to charge a device through a USB interface cable.

Front View

![Front View of FDPWRU28-2](image)
Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>3.4 oz.</td>
</tr>
<tr>
<td>Power Input</td>
<td>28V DC @ 1A</td>
</tr>
<tr>
<td>Power Output</td>
<td>5.2V DC @ 4A</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-50°C – 120°C</td>
</tr>
<tr>
<td>Compatibility</td>
<td>Latest apple media products / small devices</td>
</tr>
<tr>
<td>Dimensions</td>
<td>2.10” (W) x 1.40” (H) x 1.92” (D)</td>
</tr>
<tr>
<td>Connector</td>
<td>2-Pin Molex Connector</td>
</tr>
<tr>
<td>Materials</td>
<td>Aluminum</td>
</tr>
<tr>
<td>Testing</td>
<td>DO160 Section 21 Category M</td>
</tr>
<tr>
<td>Certifications</td>
<td>PMA</td>
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</tbody>
</table>

PINOUT FOR FDPWRU28-2

Connector: Molex P/N 43645-0200
Crimp Contacts: Molex P/N 43030-0007

<table>
<thead>
<tr>
<th>IN</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>28VDC INPUT</td>
</tr>
<tr>
<td>2</td>
<td>28VDC GROUND</td>
</tr>
</tbody>
</table>
Mechanical Installation

The unit may be mounted horizontally or vertically.

The installation process for the FDPWRU28-2 is accomplished with minimal hardware, including these installation steps:

1. Cut a mounting hole the appropriate size for the unit in the mounting surface. See “FDPWRU28-2 Drawing”

   * FDS highly recommends receiving the product first to ensure the best possible fit during installation.

2. Attach the Molex 2-pin female connection and place the FDPWRU28-2 into the mounting hole.

3. Secure the unit with 6-32 machine screws. Maximum screw protrusion into the unit is .50 inch.
Technical Support

Should you have any questions concerning this product or other FDS Avionics Corp. products, please contact our Product Support representatives at (470) 239-7421.

FDS Avionics Corp.
6435 Shiloh Road
Alpharetta, GA 30005
Phone: +1 (470) 239-7400
Fax: +1 (470) 239-7439
Email: sales@FDSAvionics.com

For further product information, technical data and sample wiring diagrams, please click on the Dealers section of our web site at www.FDSAvionics.com

Instructions for Continued Airworthiness

The FDPWRU28-2 is designed not to require regular general maintenance.
Limited Warranty

All FDS Avionics Corp. products are warranted to be free from material or manufacturing defects for a period of 24 months from the date of shipment for General Aviation customers or 12 months from the date of shipment for Government/Special Mission customers. Any material or repair workmanship for in warranty repair service will be specifically warranted for 90 days or the remainder of the original warranty period, whichever is longer. If the original warranty period has expired, the 90 day repair warranty is limited to the material and workmanship specific to the repair activity completed.

The following conditions are exclusions to warranty coverage:

1. Labor costs associated with installation, removal or reinstallation of any product.
2. Damage to or malfunction caused by any unauthorized alteration made to the product.
3. Resolving signal quality issues caused by externally generated noise introduced by aircraft electrical systems or other components connected to any FDS product.
4. Any malfunction caused by improper installation or connection to aircraft wiring, industry standard cabin management/inflight entertainment systems, or third party commercial equipment not specifically identified as compatible with FDS products.
5. Any malfunction caused by installation that does not conform to precautions associated with operating environments listed in the operating manual or consistent with industry best practices such as high temperature, adequate ventilation, high humidity, high dust, or power surges.
6. Cosmetic damage or damage to internal components caused by installation or removal, failure to follow installation or operating instructions, or any neglect or misuse of the product.
7. Any product that is returned for service with a broken tamper evident seal, indicating tampering or improper handling of the product by an unauthorized person. Violation of product tamper evident seals or modification of factory installed serial and PMA labels voids any warranty, either expressed or implied.

The FDS Technical Support team is available to provide distance troubleshooting support during business hours (8:00am to 5:00pm EST) Monday through Friday at (470) 239-7421.

Many repair requests can be resolved through distance support and may not require return of merchandise to the factory. If a product must be returned to the factory for repair, an RMA number will be issued as directed by the Technical Support team and communicated by the Repair Coordinator.

Upon request by the customer, FDS may send a Service Technician onsite to repair any non-PMA products. The travel expenses incurred to include transportation, lodging and meals along with the technician’s hourly rate shall be payable by the customer in accordance with FDS’ applicable rates and procedures.

FDS Avionics Corp. will, upon receipt of returned merchandise, remanufacture or replace the unit at our discretion and return the product by Ground Return Shipping. Express return shipment will be the responsibility of the sender.

This warranty is not transferable.

Any implied warranties expire at the express limited warranty expiration date. FDS shall not be held liable for any indirect, special, punitive, incidental or consequential damages.

Some states do not allow limitation on the length of an implied warranty. In such states, the exclusions or limitations of this limited warranty may not apply.
## Revisions Log

<table>
<thead>
<tr>
<th>Rev</th>
<th>Date</th>
<th>Page</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>01/10/2014</td>
<td></td>
<td>Original Issue</td>
</tr>
<tr>
<td>B</td>
<td>02/17/2014</td>
<td>5</td>
<td>Additional Drawing to include the identification of Pin 1 of the Molex connector</td>
</tr>
<tr>
<td>C</td>
<td>8/27/2014</td>
<td>Cover</td>
<td>Removed reference of NON-PMA</td>
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<tr>
<td>D</td>
<td>5/03/2017</td>
<td>All</td>
<td>Replaced Warranty, Changed Corporate name throughout, updated addresses and phone numbers.</td>
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