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|  <p>Flight Display<br/>Systems<br/><i>Enhancing the Flight Experience</i></p> | <p>Document Number:</p> <p><b>MAN – FDFILT-28</b></p> | <p>Rev:</p> <p><b>E</b></p> | <p>Revision Date:<br/>10/14/2011</p> <p>Page 1 of 10</p> |
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**FDFILT-28**  
**Installation and Operation Manual**  
28V Filter



**TECHNICAL SUPPORT**  
678-867-6717, or  
[www.FlightDisplay.com](http://www.FlightDisplay.com)

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FDFILT-28  
28V FILTER

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**Flight Display Systems**  
1765 Grassland Parkway  
Alpharetta, GA 30004  
678-867-6717 Phone  
678-867-6742 Fax  
[sales@flightdisplay.com](mailto:sales@flightdisplay.com)  
[www.flightdisplay.com](http://www.flightdisplay.com)

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## General Information

The FDFILT-28 is a LC Circuit consisting of an inductor and a capacitor. The circuit functions as low-pass filter blocking any frequencies higher than DC from reaching the equipment that is connected at the filter's output. The FDFILT-28 can be connected right at the monitor's power input insuring a clean DC power is entering, thus reducing visual noise that is typically generated on the screen due to "dirty" power source.

The FDFILT-28 also includes a 20 Amp ATC fuse and a protection diode to prevent the connected equipment from damage by short circuit or over-current.

### Front View



|   |   |                             |   |
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## Specifications

|                              |                                   |
|------------------------------|-----------------------------------|
| <b>Power</b>                 | 28VDC                             |
| <b>Maximum Amperage</b>      | 15 AMPS                           |
| <b>Dimensions</b>            | 2.62" (W) x 2.54" (H) x 1.43" (D) |
| <b>Weight</b>                | 4.6 oz                            |
| <b>Connector</b>             | DB-9                              |
| <b>Operating Temperature</b> | 0-50° C (32-122° F)               |

## Installation Instructions

All cabin entertainment equipment, such as the FDFILT-28, should be installed on a non-essential bus and have a dedicated circuit breaker. It is necessary that a switch be installed in the cockpit so that the pilot can de-energize the entertainment system should it become necessary.

### Power

This is a **28VDC** filter that can handle up to 15 Amps of power. (15 Amps is the recommended maximum, as nearing 20 Amps may cause the fuse to blow.)

The rated current of the equipment should be taken into consideration when selecting wire gauge. For large current draws use thicker wires. The thicker the wire, the less voltage is lost across the length of the wire. Some connector pins are only compatible with the smaller gauge wires. If multiple power pins are available then all pins should be used. To minimize internal voltage spikes, use short, thick gauge wire for ground connections.

It is the installer's responsibility to understand the product's requirements and to install the product in compliance with industry standards and safety.

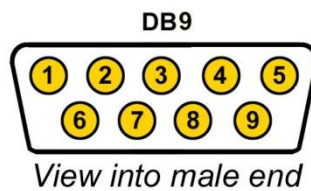
## Power/Video

### Pin out for DB-9

Part numbers for DB-9 connectors, manufactured by Amp:

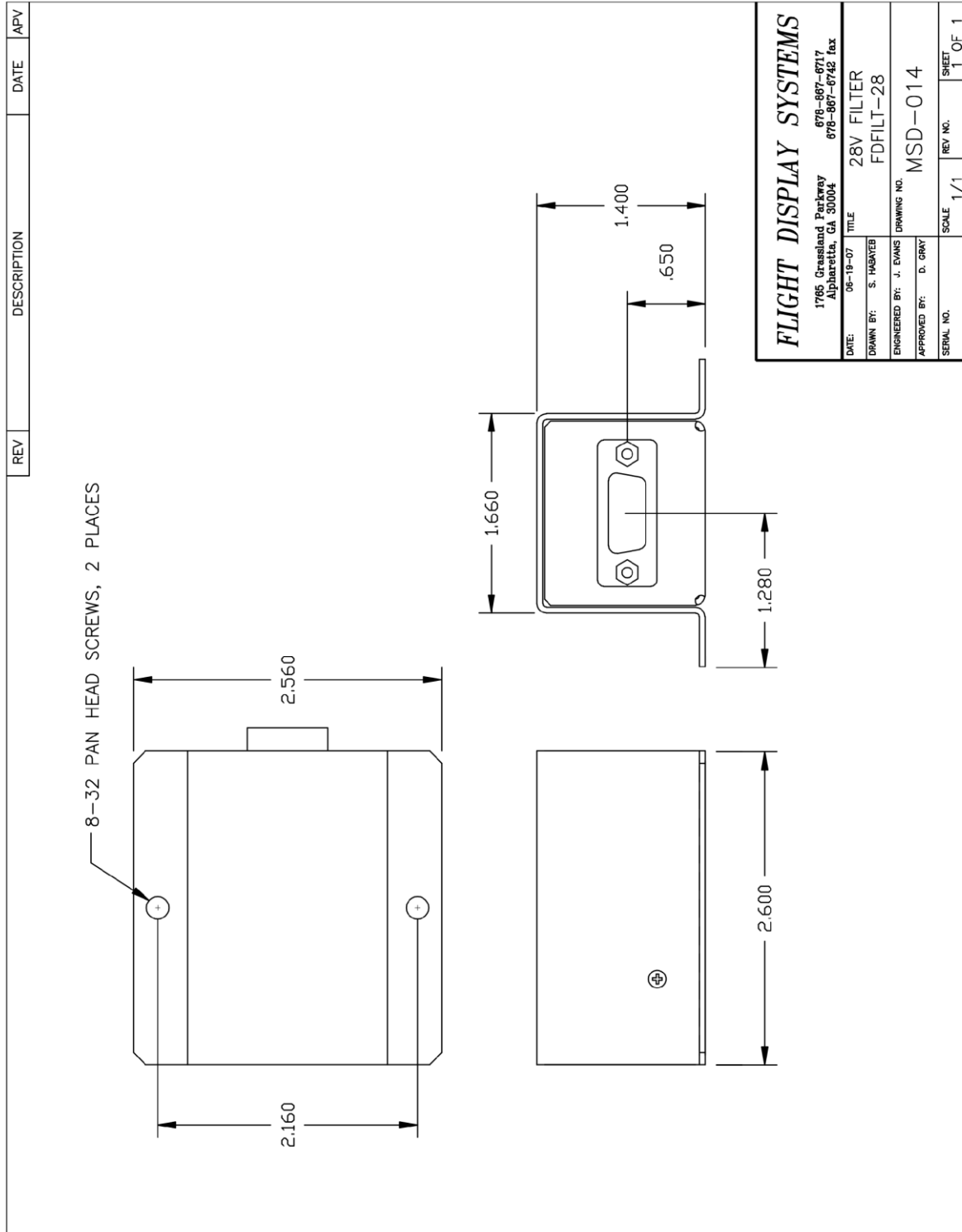
D-sub, 9 contact receptacle (female)  
9F pins

P/N 747905-2  
P/N 205439-1



| Pin Number | Description         |
|------------|---------------------|
| 1          | 28VDC Power Input   |
| 2          | 28VDC Ground Input  |
| 3          | N/C                 |
| 4          | 28VDC Power Output  |
| 5          | 28VDC Ground Output |
| 6          | 28VDC Power Input   |
| 7          | 28VDC Ground Input  |
| 8          | 28VDC Power Output  |
| 9          | 28VDC Ground Output |

# Technical Drawing



|   |   |                             |   |
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## Technical Support

Should you have any questions concerning this product or other Flight Display Systems products, please contact our Product Support representatives at (678) 867-6717.

### **Flight Display Systems**

1765 Grassland Parkway

Alpharetta, GA 30004

Phone: 678-867-6717

Fax: 678-867-6742

Email: [sales@flightdisplay.com](mailto:sales@flightdisplay.com)

For further product information, technical data and sample wiring diagrams, please click on the **Dealers** section of our web site at [www.flightdisplay.com](http://www.flightdisplay.com)

## Instructions for Continued Airworthiness

The FDFILT-28 is designed not to require regular general maintenance.

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## Warranty Information

Flight Display Systems warrants the FDFILT-28 against material or manufacturing defects for a two-year period. Warranty begins on date of installation. \*The warranty registration card must be returned upon installation in order to validate the two-year warranty. Any warranty registration not returned during this time period will default to the date of purchase as the warranty start date.

If product support is required, please call our Technical Support team at 678-867-6717 to obtain assistance. If the return of the unit to the factory is required, an RMA number will be issued at that time. Flight Display Systems will, upon receipt of the failed hardware, remanufacture or replace the unit at our discretion.

Flight Display Systems will pay Ground Shipping charges for warranted items. Charges for express shipment will be the responsibility of the sender.

This warranty is not transferable. Any implied warranties expire at the expiration date of this warranty. We shall not be liable for incidental or consequential damages.

This warranty does not cover a defect or failure that has resulted from improper or unreasonable installation, use or maintenance, as determined by Flight Display Systems. This warranty is void if there is any attempt to disassemble or open this product without factory authorization.

Any labor charges associated with the removal of product or related troubleshooting by a firm other than Flight Display Systems or its designee will not be covered.

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## Log of Revisions

| Rev | Date       | Page | Description  |
|-----|------------|------|--|
| A   | 06/27/2007 |      | Initial Release  |
| B   | 10/17/2008 | 2,4  | Updated power information, wiring diagram and assembly drawing |
| C   | 04/14/2009 | 1,3  | Updated specifications, warranty info                          |
| D   | 07/21/2010 |      | Revised Title on front cover, Format Change                    |
| E   | 10/14/2011 | 5    | Added Operating Temperature                                    |