

FD932DVD-4B

Installation and Operation Manual

DVD/CD/MP3 Player



TECHNICAL SUPPORT
678-867-6717, or
www.FlightDisplay.com

Flight Display Systems
Enhancing the Flight Experience

FD932DVD-4B

DVD/CD/MP3 Player

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General Information

Features

- Compatible with DVD/CD/SVCD/VCD/MP3
- Back-lit front buttons
- Front/Rear AV inputs
- VFD Digital Display
- Composite or S-Video Output
- Digital Coaxial (Audio) Output Available
- Optional External IR Sensor
- Full Function Remote Control

Front View



Cautions

In order to prevent damage to the FD932DVD-4B, please follow the following precautions:

- The FD932DVD-4B operates on **12VDC-28VDC**.
- Do not open and/or disassemble the FD932DVD-4B.
- Do not attempt to insert a 3" disc (Mini-CD/Mini-DVD)
- The unit may be mounted horizontally or vertically with the left, right, or front facing upwards. ***It will not work upside down.***

Specifications

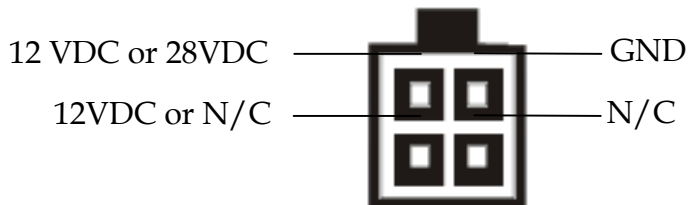
S/N	90 dBA
Cross talk	75 dBA
Distortion	60 dB
Audio Output	2V +/- 0.2V
Video Output	1V p_p +/- 0.2V
Video Output Resolution	>500 lines
Video Signal	NTSC or PAL
Supported Disc Formats	DVD, SVCD, VCD, CD, MP3 DVD-R, DVD+R, DVD-RW, DVD+RW
Frequency Response	DVD: 10Hz-20KHz +/- 1 dB
Output	2x RCA High-resolution (S-Video) Coaxial digital output + Subwoofer
Input	2x RCA (front & back) 3.5mm audio (front)
Tone Control	Bass +7dB (100Hz) Treble +7dB (10KHz)
Power Requirement	12VDC@0.62Amps 28VDC@0.33Amps
Dimensions	7.1" (W) x 1.99" (H) x 6.7" (D)
Weight	2.65 lbs (1.2 kg)
Remote	1/16" jack for wired remote sensor Remote Control included

Installation Instructions

All cabin entertainment equipment, such as the FD932DVD-4B, should be installed on a non-essential bus and have a dedicated circuit breaker. It is a requirement that a switch be installed in the cockpit so that the pilot can de-energize the entertainment system should it become necessary.

Power

The FD932DVD-4B requires 28VDC rated at a minimum of 0.33 Amps to function. *The FD932DVD-4B (12V) requires 12VDC rated at a minimum of 0.62 Amps.* On the FD932DVD-4B, the yellow wire should be connected to A/C power, and the black wire should be connected to A/C ground. *On the FD932DVD-4B (12V), the red and yellow wires should be connected to A/C power, and the black wire should be connected to A/C ground; the blue wire, if applicable, is not connected. A four-pin molex connector is provided for this connection on both units.*



External Input

In order to use the external input, **the FD932DVD must be wired for Composite Video.**

Video Wiring Suggestions

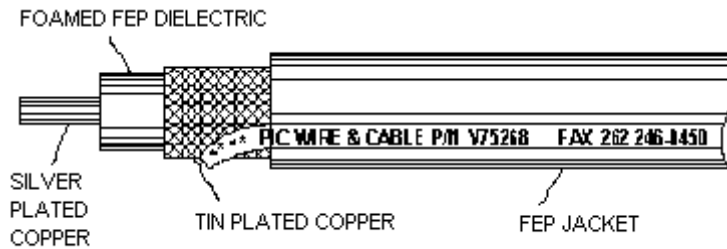
All shields should be grounded to the connector at the source, and floating at the display.

Avoid routing video wiring parallel to:

- AC wiring
- Strobe wiring
- DC motor supply cables
- Inverter cabling
- Or any other potential noise source.

S-Video/Composite and Audio Wiring

Recommended cable for s-video/composite and audio purposes is PIC 75 Ohm Coax, P/N V75268. This is a lightweight, flexible, and low signal loss cable which meets FAA flammability requirements of FAR 23.1359(d), FAR 25.853(a) and FAR 25.869(a)(4).



Similar aviation coaxial cable can be used from other vendors, as well.

Some aircraft are prone to AC noise - we recommend adding to the composite source a 75Ohm video isolation transformer such as Deerfield Laboratory, Inc. Part No. 162-1 (www.deerfieldlab.com, (650) 632-4090). In most cases this should be added to the video output of the source.

Power and Ground Wiring

22 AWG wire is recommended for Power and Ground applications.

Remote Eye

The FD932DVD-4B has an available remote IR sensor (“remote eye”) that can be used to accept remote signals in addition to the main unit. For instance, the remote eye can be mounted by a monitor, to allow both the monitor and the DVD player to be controlled by pointing the remote at the same spot.

The remote eye measures 1.25” (35mm) x 0.75” (19mm) x 0.625” (16mm), and can be extended 10 feet from the FD932DVD-4B.



Operation Instructions

To power the unit up, press the power button. The unit will light up and display a ***Flight Display Systems*** logo on the display(s). Insert a CD or DVD into the slot, with label side up (away from the controls, if mounted vertically). The CD or DVD will load and automatically begin to play. Use the volume buttons, located on the left side of the unit, to adjust the volume to your preferred level. The FD932DVD-4B will remember its volume setting when powered down.

Note: CDs and DVDs are recorded at different levels, so it is normal for DVDs to be quieter than CDs at the same volume setting.

External Inputs

In order to use the inputs on the front of the unit, use the **Mode** button on the front panel or remote to select [Line] on the display. The external input will only output to composite, not S-Video.

Sleep Mode





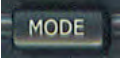







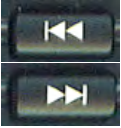


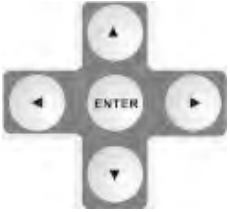
By default, the FD932DVD-4B is programmed to go into a Screen Saver mode after a period of inactivity. If the unit is left inactive for 30 minutes, the FD932DVD-4B will go into "Sleep Mode" which can be identified by a lack of LED display (the buttons will still be lit). To exit Sleep Mode, simply power down and re-apply power to the unit.

Note: During Sleep Mode, discs cannot be inserted.

To disable the Screen Saver and Sleep Mode:

1. On the remote, press **SETUP**.
2. On the **General Setup Page**, press the **DOWN ARROW** to highlight **Screen Saver**.
3. Press the **RIGHT ARROW** to highlight **On** and then use the **DOWN ARROW** to switch to **Off**.
4. Press **ENTER** to save the selection, and then **SETUP** to exit the menu.

Button Controls

BUTTON	REMOTE	FUNCTION	DESCRIPTION
		Power	Turns on/off the unit.
		Eject	Ejects a CD or DVD when present.
		Mode	Alternates the display between the CD/DVD player and the external inputs.
		Menu	Displays the DVD's root menu.
		Play/ Pause	Pauses or resumes play of a CD or DVD.
		Stop	Pressing stop button once will stop movie; pressing play will resume from current location. Pressing stop twice will stop the movie; pressing play will restart movie from beginning.
		Previous/ Next	Skips forward or backward through tracks (CD), files (MP3), or chapters (DVD).
		Directional Controls	Used to navigate through menus.

(See Next Page)

Remote Control



Troubleshooting

Video Noise

Check for an incorrect ground in the installation wiring. See specific examples of video noise below, or visit <http://flightdisplay.com/Grounding.pdf>

Snow or Sweeping Lines

Lines that slowly sweep up and down are a result of AC noise. This AC noise can be generated by a power cart on the aircraft. Take the power cart off of the aircraft. Be careful of inverter wiring, which can also cause noise. Stand off the wires, if necessary.

If snow or sweeping lines persist, it is possible that the ground is at an incorrect point in the aircraft. Try moving the ground to another location.

Remote Control Inoperable

- Confirm that the infrared eye on the unit, or the external IR sensor (if applicable), is visible.
- Replace battery in remote control.

Will Not Physically Accept Discs

The FD932DVD-4B may be in Sleep Mode, which prevents discs from being inserted. This is normal behaviour and can be disabled, if desired. See page 5 for more information on Sleep Mode.

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.

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

Instructions for Continued Airworthiness

The FD932DVD-4B is designed not to require regular general maintenance.

Warranty Information

Flight Display Systems warrants the FD932DVD-4B against material or manufacturing defects for a two-year period (effective 1/1/2009 on all equipment shipped with 2009 pricing). Warranty begins on date of installation.

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	01/29/2007	---	---
B	03/07/2007	1,2	Added notes about FD932DVD-4B (12V).
C	04/05/2007	2	Clarified differences between 12VDC and 28VDC installations, condensed stats table.
D	04/12/2007	2	Added sentence stating connector is provided.
E	05/10/2007	1 2 5	Removed reference to Front Earphone Output. Added weight to specifications. Updated buttons and pictures.
F	05/21/2007	4	Added Remote Eye information.
G	05/31/2007	7	Updated image of remote.
H	02/06/2008	1 4 5	Added position information. Clarified Digital Coax for Audio. Corrected statement about Remote Eye. Reiterated external input only functions with Composite.
I	03/10/2008	5,8	Added information in regards to Sleep Mode.
J	04/15/2008	11	Updated DWG
K	01/26/2009	1, 2	Updated power info
L	04/14/2009	2,10	Updated specifications, warranty info
M	04/21/2009	2,11	Revised power info, assembly drawing