

Installation and Operation Manual

FD50HMT

Advisory Information Display





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General Information

The FD50HMT is a 5” Cabin Video Display, which provides an excellent opportunity to bring EVS video, Moving Map, or any other Composite source into the cockpit or cabin with a low-profile, stowable display. The display includes a DB15 pigtail with an overall length of 18 inches.

Front View



FD50HMT-R

Additional Information

The FD50HMT features a “face-out” display designed to mount on the side wall. From its deployed position, the FD50HMT can rotate up to 150° toward the viewer for the optimal viewing angle. The FD50HMT features adjustable, tensioning shoulder screws located at the top & bottom of the pivoting mount. The user can adjust the screws to increase or decrease the holding power of the LCD as needed. The pivoting LCD is held in place by compression when in open & stowed positions. The unit is available in left or right side mounting configurations. It is also available in black or tan (00 - Black, 01 - Beige). The button controls are accessed from the front panel.

Specifications

Display Type	5.0487" TFT Color LCD
Display Size	3.97" (W) x 2.96" (H)
Screen Resolution	640x480~1026x786
Brightness	600 cd/m ²
Dimensions Stowed	5.81" (W) x 4.50" (H) x 1.21" (D)
Dimensions Deployed	6.57" (W) x 4.50" (H) x 1.21" (D)
Power	28VDC @ .3 AMPS
Video Inputs Supported	Composite Video, NTSC/PAL
Screen Control	On Screen Display Menu
Weight	1 lb, 10 oz
DO-160E Tested	Section 21 CAT B, M
Vibration & Shock Testing	DO-160E, Sections 7&8

Installation Instructions

All cockpit accessory displays and cabin equipment, such as the FD50HMT, should be installed on a non-essential bus and have a dedicated circuit breaker. It is a requirement that a switch be installed so that the pilot can de-energize the system should it become necessary.

The FD50HMT offers excellent versatility for installation in different aircraft. Two mounting holes are located on the mounting plate of the unit which allow for installation of two #8 x 100 degree flat head screws.

Power

This is a **28VDC** product that requires .3 Amps of power.

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

Power and Ground Wiring

22 AWG wire is recommended for Power and Ground applications.

Power/Video

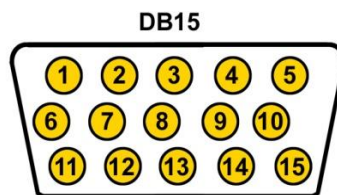
Pin out for High Density DB-15 Receptacle

Part Numbers for DB-15 connectors, manufactured by Positronics.

High density, D-sub, 15 contact receptacle (female) P/N ODD15F10JVLO

HD15F pins

P/N M39029/57-354



View into male end

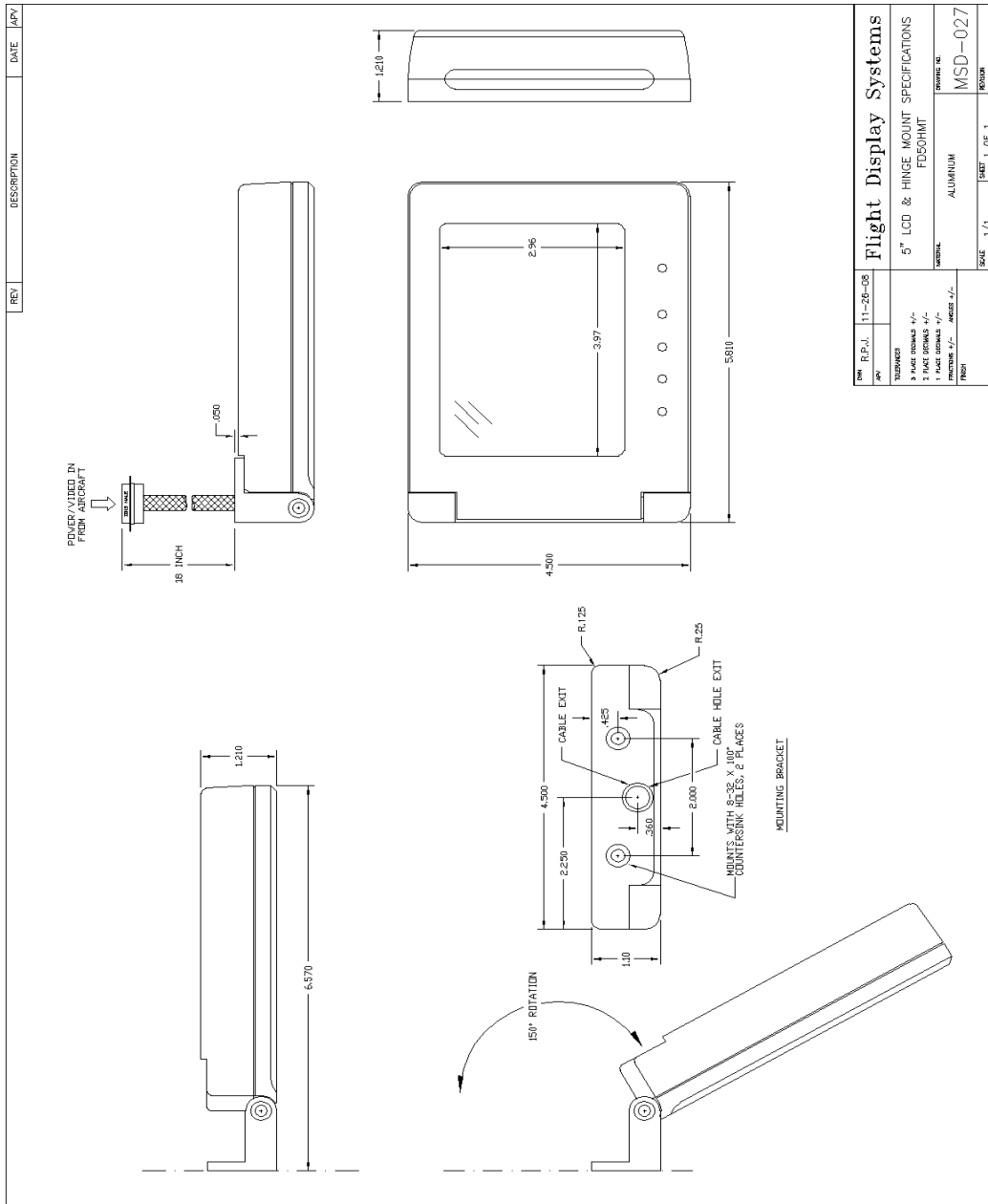
Pin Number	Description
1	28V DC Power
2	28V DC Ground
3	Dimmer Wiper
4	Composite Video 1 HI
5	Composite Video 1 LO
6	Dimmer A
7	N/C*
8	N/C*
9	N/C*
10	N/C*
11	N/C*
12	N/C*
13	Dimmer B
14	N/C*
15	N/C*

*Other input options are available for an additional cost, please contact FDS Avionics Corp. for more information.

This unit features remote dimming which requires a 10k linear taper potentiometer. Wiring for remote dimming must be twisted and must be in its own three wire bundle.

Part number 590SXIN56S103SP for 10k linear POT, manufactured by Clarostat or equivalent.

Technical Drawing



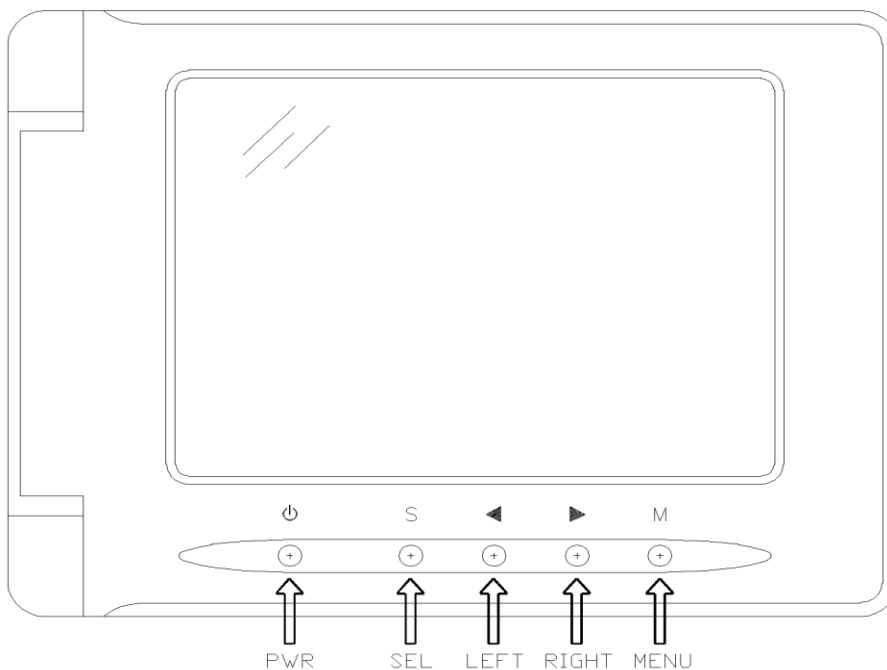
Operation Instructions

When the FD50HMT is powered up, it will search for a video input on the last known source. If no video input is found, the display will go into standby mode. The FD50HMT is a single source video display.

Button Controls

Located on the face of the display, are the following buttons, from left edge to right:

BUTTON	DESCRIPTION
PWR	Turn monitor ON/OFF
SEL	Selection (Available Option: Source)
LEFT	Decreases the adjustment of the selected function
RIGHT	Increases the adjustment of the selected function
MENU	Opens the monitor setup menu. Enter sub-list. Return to main list



Frequently Asked Questions

My video was working fine, but now I don't have any display.

If the pilot lowers the backlight all the way down to the lowest setting (No illumination), the unit will remember this setting and appear to be inoperative. Simply raise the level of backlighting to view the display.

Is there a locking mechanism to keep the FD50HMT open?

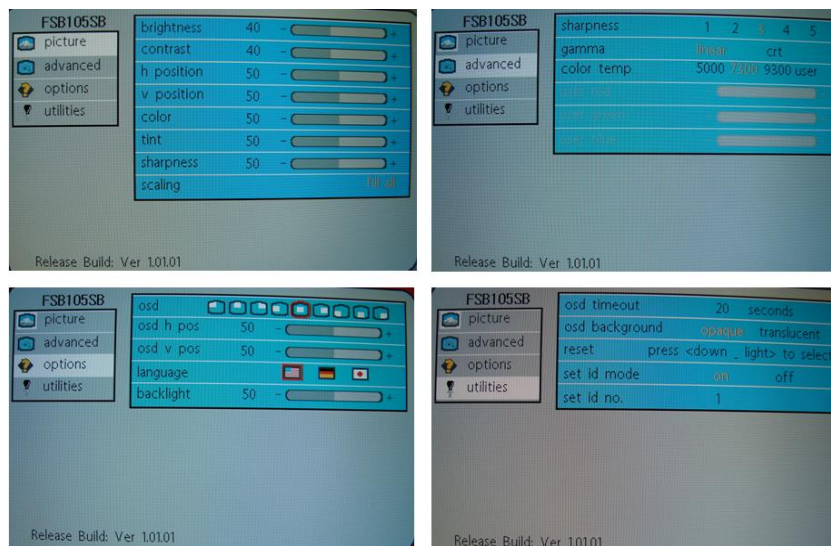
No, however the tension can be adjusted by tightening the two shoulder screws (one on top, one on bottom). **CAUTION:** If screws are loosened, the user must remove screws one at a time and apply Loctite 680 retaining compound, and re-attach screws.

Top screw shown here



How do I navigate through the menus?

Use the Menu button to open the menu. Use the Select button to choose the applicable menu page, and press Up to enter the selected menu page. Use the Select button to scroll through the options, and then use the Up and Down buttons to increase or decrease the options' values.





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.

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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.FDSAvionics.com

Instructions for Continued Airworthiness

The FD50HMT is designed not to require regular general maintenance.



Limited Warranty

All FDS Avionics Corp. (FDS) 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.



Log of Revisions

Rev	Date	Page	Description
A	11/26/2008	---	Initial Release
B	06/22/2009	3	Power update
C	08/17/2009	2, 3, 6	Photo update, Update Testing Info, Button Control update, Corrected left/right button info, Corrected testing info
D	11/14/2012		New format, non-PMA info, warranty revision
E	06/30/2017	All	New Company, New format, New Branding

