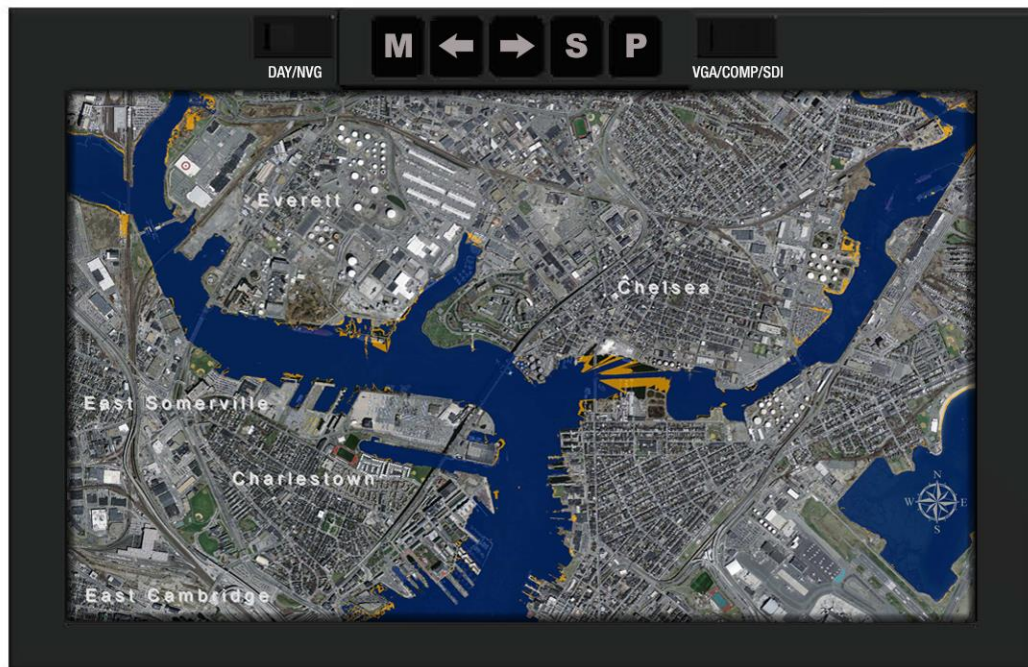


## Installation and Operation Manual

### FD102CV-C-4

#### 10.2” HD Touchscreen LCD





## Table of Contents

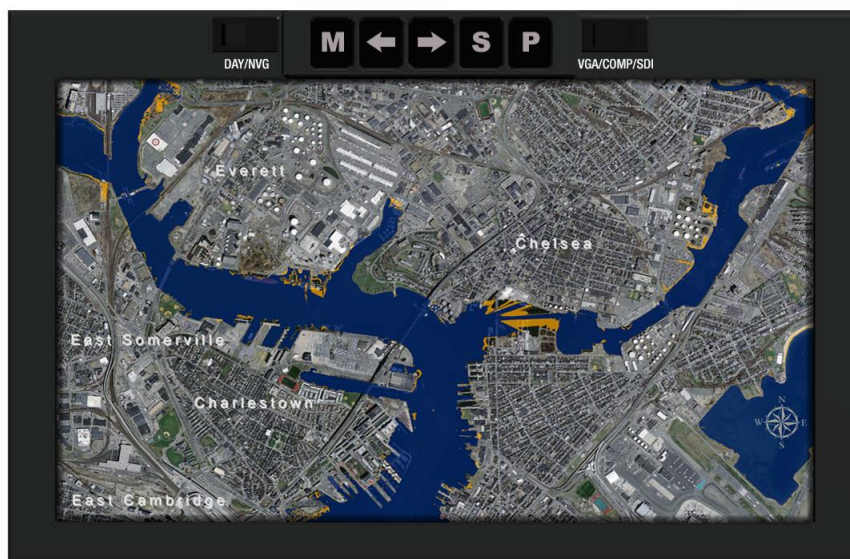
General Information .....	3
Front View .....	3
Additional Information.....	3
Specifications .....	4
Installation Instructions .....	4
Power .....	4
Wiring Instructions .....	5
Power/Video .....	6
HDSDI Input to Display.....	6
Operation Instructions .....	7
Button Control.....	7
Technical Drawing .....	8
Technical Support .....	9
Instructions for Continued Airworthiness.....	9
Warranty .....	10
Log of Revisions .....	11



## General Information

The FD102CV-C-4 is a special mission high resolution 10.2” High-Definition touchscreen LCD. The LCD features a sunlight readable display that provides the ability to bring VGA video or any other HD-SDI or SDI video source regardless of light. This product is designed to work with either the FDCONV-HDSI-S VER SW or FDCONV-HDSI-D VER SW. The converter units enable the FD102CV-C-4 the ability to select HDSDI, Composite or VGA using the right side rocker switch on the front top of the unit. This LCD also features NVG technology which can be switched to Day or Night mode using the rocker switch located on the left side of the front panel.

## Front View



## Additional Information

The manuals for the interface boxes listed above can be found on the FDS Avionics Corp. website.

The LCD is protected with a .060” Lexan lens to prevent scratching of the LCD.

## Specifications

<b>Display Type</b>	10.2" Widescreen TFT Color LCD
<b>Pixel Pitch</b>	0.072 mm X 0.220 mm
<b>Screen Resolution</b>	1024x600
<b>Supported Resolution</b>	Up to 1600x1200
<b>Brightness</b>	300 cd/ m <sup>2</sup>
<b>Contrast</b>	500 : 1
<b>Display Dimension</b>	9.80"(W) x 6.32" (H) x 1.23" (D)
<b>Weight</b>	2 lbs. 7oz
<b>Power</b>	28VDC @ 0.5 Amp
<b>Operating Temperature</b>	-20°C/60°C
<b>Storage Temperature</b>	-30°C/70°C
<b>Screen Control</b>	Touchscreen - On Screen Display Menu
<b>Materials</b>	Aluminum
<b>Aspect Ratio</b>	16:9

## Installation Instructions

All cabin entertainment equipment, such as the FD102CV-C-4, 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.

It is recommended that you leave approximately ¼ inch of space above and below the display to have circulating air.

### Power

This is a **28V DC** monitor that requires .5 Amps of power to operate. The unit turns on automatically upon power application.

## Wiring Suggestions

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

Avoid routing video wiring parallel to:

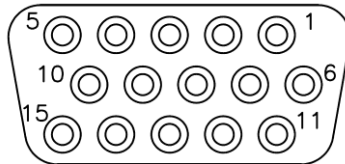
- AC wiring
- Strobe wiring
- DC motor supply cables
- Inverter cabling
- Or any other potential noise source.

## Power/Video

### Pin out for High Density HD-15 Receptacle (supplied)

Connector  
Crimp Contacts

P/N: M24308/2-286 or Equivalent  
P/N: M39029/57-354 or Equivalent



### MATING FACE

Pin Number	Description
1	28VDC Power
2	28VDC Ground
3	N/C
4	*Source Select (Converted/Loop Out) CH1
5	*CH1 Source Select VGA
6	N/C
7	N/C
8	N/C
9	N/C
10	N/C
11	N/C
12	N/C
13	RS-232 GND
14	RS-232 TxD
15	RS-232 RxD

**\*These signals control the FD CONV-HDS DI-S VER SW or FD CONV-HDS DI-D VER SW. Refer to product manual for interface drawings.**

## HDS DI Input to Display

Standard 75Ω BNC Plug (RG179 connector supplied)

Pin	Description
Center	Signal
Shell	Shield

## Operation Instructions

The FD102CV-C-4 is continuously on but can be de-energized by removing power from the entertainment system.

### Monitor Control Buttons



Button	Function	Description
DAY/NVG	Night Vision Switch	User can toggle back and forth between Night Vision or Daylight
M	Menu	Activates the OSD menu or goes to previous menu. This button acts as a toggle switch. Press once to open menu options, press again to close.
←	Left	Decreases the adjustment of the selected function.
→	Right	Increases the adjustment of the selected function.
S	Source	Scroll through video sources. In the menu selects between options and menu pages.
P	Power	Turns unit on and off
VGA/COMP/SDI	Rocker Switch	This rocker switch allows the user to select their choice of viewing pleasure toggle through VGA, COMP and SDI









## 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: 470-239-7400  
Fax: 470-239-7439  
Email: [sales@FDSAvionics.com](mailto: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](http://www.FDSAvionics.com)

## Instructions for Continued Airworthiness

The FD102CV-C-4 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.





## Revisions Log

Rev	Date	Page	Description
A	03/07/2014	ALL	Initial Release
B	4/27/2017	All	Company name change and formatting. No revision change necessary.

