



AVDU-2640-xx-OPS
SHEET 1 of 6
Issue No.. B
OPS

Operators Manual



AVDU-2640-xx-OPS

10.4" XGA Multi-function LCD Display

General Description

This manual applies to the 260mm (10.4") Colour TFT-LCD Display AVDU-2640-xx and its variants. The display supports the XGA (1027(H) x 768(V)) screen format and 16.7M colours (RGB 8/6-bits data) at high response speeds optimised for high-speed motion video typical in airborne surveillance applications.

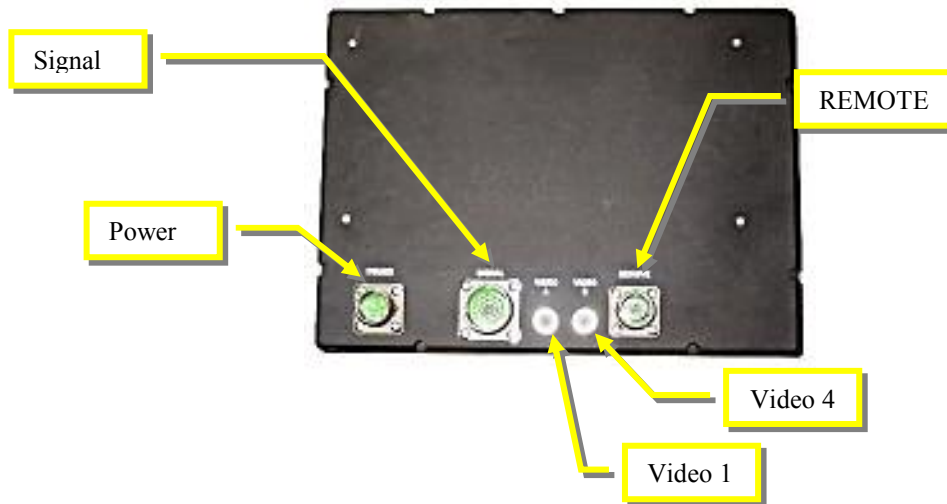
This manual relates to an upgrade to the base operation man machine interface version. Upgrades to the man machine interface are indicated in a firmware upgrade identification plate at the rear of the unit and on the On screen Display (OSD)

This manual relates to the following man machine interface versions:

Control system	Version 1.2 (Baseline Enhanced configuration)
On Screen display	Version 1.3 (Version displayed in the OSD)

Operators Manual

Equipment connections



The unit must be connected to a Remote control panel to operate through the Remote connector.

Control Key Functions and legend

The unit has no user controls. Control and adjustment is performed in the unit from an external RCMP series control panel.

This manual describes the basic operation of the display. For functional information see the associated Remote control panel manual.



AVDU-2640-xx-OPS
SHEET 3 of 6
Issue No.. B
OPS

Operators Manual

Operator controls

The equipment configuration is controlled from an external RCMP series controller having a series of rotary controls and push buttons.

It is possible for the external remote control panel to select from the following functions.

Power – This control is usually a latching control and when pushed in will turn the display on. By default the display powers up in a Graphics input mode.

BRT – This control adjusts the illumination level of the display.

Graphic – selects the Graphics input on the rear panel signal connector

Composite Video – Selects the Video input on the rear panel BNC or signal connector

Y/C Component Video – Selects the Y/C Video input on the rear panel signal connector

RGB Component Video - Selects the RGB Video input on the rear panel signal connector

PIP – Displays the Graphics with an overlaid video (Composite , Y/C of RGB Picture in Picture (PIP) window

PIP Position – Positions the PIP anywhere in the Graphic screen area.

PIP Size – Adjusts the size of the PIP

Zoom –

Freeze -

Contrast - controls the contrast of the displayed image. The Video settings are stored separately from the Graphics settings.

Menu – A Menu function call invokes the On Screen Menu Display (OSD) and selects the menu. To select the menu press and hold the Menu Key for more than three seconds. To exit the menu, press and hold the key for more than three seconds.

The four direction keys have four modes depending on the current display mode.

MODE	MAP	VIDEO	PIP	MENU/OSD
Down	Button illumination Down	Freeze then Zoom out	PIP Window Down	DOWN
UP	Button illumination UP	Freeze then Zoom in	PIP Window Up	UP
LEFT	MAP Contrast -	Video Contrast -	PIP window Left	LEFT
RIGHT	MAP Contrast +	Video Contrast +	PIP window Right	RIGHT



AVDU-2640-xx-OPS
SHEET 4 of 6
Issue No.. B
OPS

Operators Manual

TROUBLESHOOTING

General

A general guide to troubleshooting the flat panel display system it is worth considering the system as separate elements, such as:

- External Equipment; PC settings, video format
- Display Panel (Menu setup, cabling, connection, panel, PC settings)
- Backlight (inverter, cabling, backlight tubes)
- Computer system (display settings, operating system)

Through step-by-step cross checking with instruction manuals and a process of elimination to isolate the problem it is usually possible to clearly identify the problem area.

Removing power from the system (Turning the Power switch on the front panel to OFF) may clear a system lockup or return the settings to their default condition.

No image:

- If the panel backlight is not working it may still be possible to just see some image on the display.
- A lack of image is most likely to be caused by incorrect connection, lack of power, failure to provide a correctly formatted signal or incorrect graphic card settings.

Image position:

If it is impossible to position the image correctly, i.e. the image adjustment controls will not move the image far enough, then test using another graphics card. This situation can occur with a custom graphics card that is not close to standard timings or if something is in the graphics line that may be affecting the signal such as a signal splitter (please note that normally a signal splitter will not have any adverse effect).

Image appearance:

- A faulty panel can have blank lines, failed sections, flickering or flashing display
- Incorrect graphics card refresh rate, resolution or interlaced mode will probably cause the image to be the wrong size, to scroll, flicker badly or possibly even no image.
- Internal jumper settings are set at the factory. Incorrect internal jumper settings on the internal controller card may cause everything from total failure to incorrect image.

Continued failure:

If unit after unit keeps failing consider and investigate whether you are short circuiting the equipment or doing something else seriously wrong.

Generally after common sense issues have been resolved we recommend step-by-step substitution of known working parts to isolate the problem.



AVDU-2640-xx-OPS
SHEET 5 of 6
Issue No.. B
OPS

Operators Manual

Handling Precautions

Handling of the Display should be in compliance with Real-Time Vision's handling principles.

- 1) Since front window is an optical assembly and is easily damaged, observe precautions in order not to scratch it.
- 2) Be sure to turn off power supply when inserting or disconnecting the input connectors.
- 3) Wipe off water or fluid droplets immediately. Long contact with water or other fluids may cause discoloration or spots.
- 4) When the front window surface is soiled, wipe it with absorbent cotton or other soft cloth.
- 5) Since the panel is made of polycarbonate or glass, it may break or crack if dropped or bumped on hard surface.
- 6) Since CMOS LSI is used in this module, take adequate static electricity precautions and ensure correct human earth bonding when handling.
- 7) Do not open nor modify the Assembly.
- 8) Do not press the front window sheet in any direction.
- 9) At the insertion or removal of the Power and Signal Interface Connector, ensure that the sockets are free from debris and be sure not to damage the Interface pins
- 10) After installation of the Display into a mounted position, do not twist nor bend the Display even momentary. When designing a suitable mounting, it should be taken into consideration that no bending/twisting forces are applied to the Display from outside. Otherwise the TFT -LCD module or backlight may be damaged.

OPERATOR MANUAL

