DISPLAYS

MULTI-FUNCTION DISPLAYS
A3416: 8 INCH / A3417: 13.3 INCH

The OctoPlex® A3416/A3417, Multi-Function Displays allow for the users to control and monitor the OctoPlex system.

This unit provides interface with two NMEA2000 CAN Buses, one Ethernet, one USB 2.0 port and two power inputs (18 to 32 VDC) for redundancy.

Product Highlights:
- Solid State Hard Drive
- Fanless
- Flush or VESA Mounting
- 8" TFT LCD with LED Backlight:
  - Widescreen 5:3 Aspect Ratio
  - 800 x 480 pixels
  - 600 nits Brightness (Optically Bonded)
- 13.3" TFT LCD with LED Backlight:
  - Widescreen 16:10 Aspect Ratio
  - 1280 x 800 pixels
  - 500 nits Brightness (Optically Bonded)

Configuration

The configuration of the OctoPlex Multi-Function Display is performed by an authorized OctoPlex technician. If you require changes to your Multi-Function Display, contact your vessel's manufacturer or your OctoPlex representative for assistance.

Standard Screen Layouts:

AC Power Distribution Unit

The AC Distribution Power Unit screen shows the AC Breaker Label and the current state of the AC Breakers. State of the breaker options include: ON, OFF, Trip, Group Control (ON or OFF), Load Shedding (ON or OFF) or Locked Status (Locked ON or Locked OFF). The user can also scroll forward or backwards to select a specific AC Distribution Power Unit (Example AC Panel #3). See AC Power Distribution Unit section for additional information.

*Manufacturer reserves the right to change product specification without prior notice. Please refer to our website for the latest details.

DC Power Distribution Unit

The DC Distribution Power Unit screen shows the DC Breaker Label and the current state of the DC Breakers. State of the breaker options include: ON, OFF, Trip, Group Control (ON or OFF), or Locked Status (Locked ON or Locked OFF). The user can also scroll forward or backwards to select a specific DC Distribution Power Unit (Example DC Panel #1). See DC Power Distribution Unit section for additional information.

Network Power Supply

The NPS screen shows Status of the input power, Source of power (AC, DC1 DC2), CAN A and CAN B status, CAN A and CAN B Voltage and Current readings, and the internal box temperature. See Network Power Supply section for additional information.

Battery Monitor

The Battery Monitor screen shows the status (voltage, current, temperature & state of charge) of the battery banks being monitored. Specific configuration and installation of the battery monitor is defined by the boat builder. See Battery Monitor section for additional information.

AC Power Monitor

The AC Power Monitor page shows the status (voltage, current and frequency) of all AC line inputs. Specific configuration and installation of AC monitors are defined by the boat builder. See AC Power Monitor section for additional information.

System Interface Unit Monitor (SIU)

The SIU screen shows the 34 Discrete I/O indicators that are being monitored by the SIU. These indicators cannot be acknowledged by the user; up to Qty. 10 also appear on the bottom of most pages. See System Interface Unit Monitor section for additional information.

NOTE

These pages can vary between installations, as format is determined and/or customizable by the boat builder or owner. The screenshots shown are standard layout pages.

Installation

The Multi-Function Display was designed to be installed in an environmentally protected, non-explosive area of the vessel. Take precautions to mount the display in an area that will be away from direct exposure to the weather and combustible fumes. Multi-Function Displays should be installed such that the back of the unit is accessible. Access to the back and bottom is required for configuration purposes. The included USB Extension cable must be installed to one of the USB Ports on the bottom of the unit and the other end mounted in an easy to access location, such as the front panel. This USB Port will be used for future software and configuration updates. It is also recommended to connect a wireless keyboard & mouse to the second USB Port for use when making changes to the configuration file. If the internet is available on the vessel, it is recommended to connect the screens Ethernet port to the vessel's LAN for remote access.

CAN Connections

Two male Micro-C connectors are provided on the back of the Multi-Function Display (MFD) for connection to the primary and secondary CAN bus via drop cables.

NOTE

Use the shortest drop length possible when connecting the Multi-Function Display to the CAN backbone. NMEA 2000 spec is maximum 6 meters for drop cables.

Operation

Function

The display is used for control and monitoring of the OctoPlex system and its components. It provides an interface for controlling the state of AC and DC breakers and displaying their status, along with features for monitoring System Input Unit (SIU) signals, Battery Monitor data, and AC Power Monitor data and status. Additional controls are provided to gain access to configuration pages for:

- Switch / Breaker Lockout
- Switch / Breaker Status
- Switch / Breaker Groups
- Switch / Tripped Breaker Alerts
- AC Load Shedding

Standard Pages

Standard display pages are accessed from the HOME Page. The HOME Page is defined as the page that is initially displayed when the system is powered-up.

Home Page

The HOME page is designed as an at-a-glance status of the vessel and selected alerts are indicated on this page. Depending on the configuration of the vessel, alerts may be (but not limited to) Navigation Lights, Bilge & Sump Pumps, Fans, Hatches, etc.

Arranged around the border of the HOME Page are selectable Hot Buttons which will direct the user to other functions such as Electrical Circuits, AC & DC Power Monitoring, Tank Monitors, and Bilge Pump Status, etc. The specific functions may vary depending on the available sensors installed on the vessel.
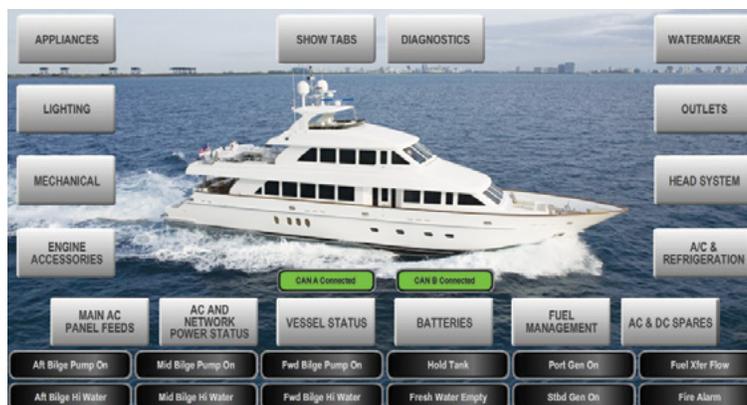
On every page of the display there is a banner along the bottom of the screen which indicates the Operating Mode in the bottom right corner of the system for alerts. When an alert is triggered, a message will appear in the banner in the bottom left corner.

NOTE

The configuration of the Home Page and Sub-pages can vary between installations as the format is determined by the boat builder and selected OctoPlex Options.

Basic Touchscreen Navigation

The display interface is designed to be user intuitive and easy to navigate. Hot buttons are clearly marked to provide the user required control & status. Switches and breakers are defined with rounded sides and traditional breaker graphics with pre-defined color schemes.

Hot Button
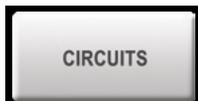
A Hot Button is used for navigating around the OctoPlex® system. Touch the desired Hot Button to navigate through selected functions.

Switch / Breaker Button Indicators

OctoPlex Switch/Breaker Buttons are displayed as indicators with a pre-defined color scheme. Touching a Breaker button will change the state of the load.

Color Code Guide	Breaker Status	Description
Load	Not Active; Unavailable	This is a switch/breaker that is currently not active. The distribution panel is most likely not receiving any power (AC or DC) or the distribution panel's main breaker is in the OFF position. This indication can also be present if communication to the multi-function display is lost.
Load	Active; OFF	This is a switch/breaker that is active, but currently in the OFF position. Pressing the button will turn the breaker ON.
Load	Active; ON	This is a switch/breaker which is active and currently in the ON position. Pressing the button will turn the breaker OFF.
TRIP	Active; TRIPPED	This is a switch/breaker that is active, but has been tripped by an over-current situation. Pressing and holding the button will bring up a sub menu, which allows the user to reset the breaker (turn OFF) and then turn the breaker back ON with an additional press.
Load	Active; Locked OFF	This is a switch/breaker that has been locked in the OFF position. The 'UNLOCK' button can be used to unlock this breaker.
Load	Active; Locked ON	This is a switch/breaker that has been locked in the ON position. The 'UNLOCK' button can be used to unlock this breaker.
Load	Active; Group OFF	This is a switch/breaker that has been setup with Group Control OFF.
Load	Active; Group ON	This is a switch/breaker that has been setup with Group Control ON.
Load	Active; Load Shedding OFF	This is a breaker with Load Shedding OFF **(AC Only)**.
Load	Active; Load Shedding ON	This is a breaker with Load Shedding ON **(AC Only)**.
Load	Active; Local Override OFF	DC Unit switched into Local Mode; Electronic Circuit Breaker (ECB) toggle switch in the OFF Position **(DC Only)**.
Load	Active; Local Override ON	DC Unit switched into Local Mode; Electronic Circuit Breaker (ECB) toggle switch in the ON Position **(DC Only)**.

Status Indicators

Status Indicators are indicators that appear on the bottom of the screen or on selected pages. These are NOT buttons that the user can acknowledge; they are status indications from the System Interface Unit Monitor (SIU) that are transmitted on the OctoPlex ® system.

Color Code Guide	Breaker Status	Description
Status Indicator	Inactive	This is a system status indication that is currently inactive.
Status Indicator	Active; OFF	This is a system status indication that is currently active, but is not ON or in an alert condition.
Status Indicator	Active; ON	This is a system status indication that is currently active, and is ON.
Status Indicator	Active; ALERT	This is a system status indication that is currently active, and is in an alert condition.
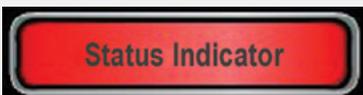
These Status Indicators below are commonly found at the bottom of each page in the Touchscreen. In this situation, all the indicators are active and 'OFF'.

Status Indicator	Status Indicator	Status Indicator	Status Indicator	Status Indicator	Status Indicator
Status Indicator	Status Indicator	Status Indicator	Status Indicator	Status Indicator	Status Indicator

Banner Alerts appear at the bottom of the screen to alert the user of an active alert. It allows the user to acknowledge the alert and depending on how the parameters are set. The Alert Table Editor will determine how to address the alarm/alert.

Status Indicator	Status Indicator	Status Indicator	Status Indicator

Commands & Settings

A variety of user options are available for customization directly from the touch screen. To access the Commands and Settings, press the "SHOW TABS" Hot Button on the Home Page. A tab will then appear from the right side of the screen labeled 'Commands & Settings'. Press the Commands & Settings tab to display the menu. Format is determined by the boat builder.

Commands & Settings

About	Alerts Setup	BNWAS
Cameras Setup	Clean Screen	Configuration
Night Mode	Power Management	Screens Setup
Set Password	Shutdown	Units Setup
Enter Full Screen		

Close

Accessible areas within the Commands & Settings menu include:
- About
- Clean Screen
- Night Mode
- Power Management: Switch / Breaker Status
- Shutdown

Commands & Settings (continued)

Other areas within the Commands & Settings menu require a password and can only be accessed by an OctoPlex Authorized technician. For more information on advanced configurable commands and settings, contact your OctoPlex representative.

About

The About dialog contains Software and Hardware version information as well as copyright and other legal information. The user can also access basic diagnostic information and view a list of devices connected to the CAN bus network from the "About" dialog.

Clean Screen

The Clean screen dialog provides a way to temporarily disable all touch functionality from the screen so that it may be cleaned without triggering any undesired actions. Pressing the Clean Screen Hot Button from within the Clean Screen dialog will disable touch functionality for 20 seconds.

Night Mode

The Night Mode screen places a red filter over the screen for optimal viewing at night. To enable Night Mode, touch the Night Mode Hot Button from the Commands & Settings menu. When selected, the Night Mode Hot Button changes to Day Mode. To exit Night Mode and remove the red filter, return to the Commands & Settings menu and touch the Day Mode Hot Button.
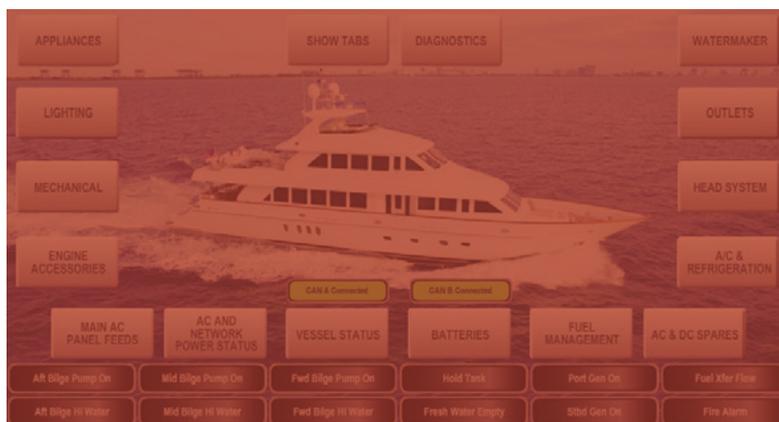
Power Management: Switch / Breaker Status

Switch / Breaker Status can be accessed via the Power Management sub-menu and will display information about a selected switch / breaker to be used in a troubleshooting process. To view a Switch / Breaker Status, touch Power Management from the Command & Settings menu then touch Switch / Breaker Status from the sub-menu.

Shutdown

To shut down (turn off) the OctoPlex Multi-Function Display, turn off the DC breaker supplying power to the unit, if the Multi-Function Display is connected to an ECB.

Alternately, you can hold the power button on the bottom of the Multi-Function Display.

Vessel Status / Monitoring

When a System Interface Unit Monitor (SIU) is included in the installation, indicators may be incorporated into the touch screen configuration to display status of the inputs being monitored. Generally, a red indicator will indicate an "off" or "inactive" state and green will indicate an "on" or "active" state.

NOTE — This page can vary between installations, as format is determined and/or customizable by the boat builder or owner.

Bilge Monitoring / Control

This page displays the current status of the bilge as well as control of the bilge pumps. Standard layouts include indications, which will show if a bilge pump is activated, a float switch is receiving power or a high water alarm is activated.

Builders may choose to control the bilge pumps outside of the OctoPlex System. In this case, the monitoring functions may still connect to the System Interface Unit Monitor, but the control functions would not be available.
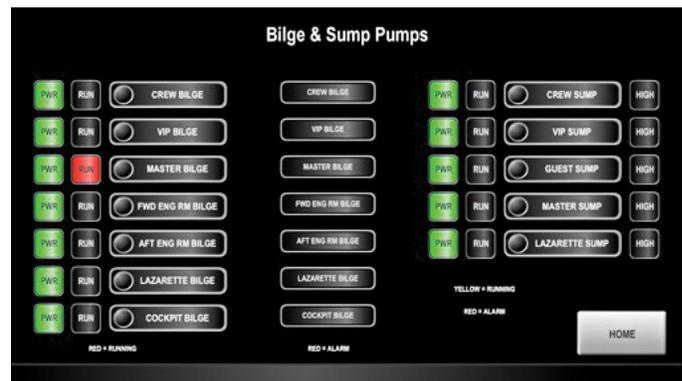
Tank Level Monitoring

When Tank Level Adapters / Monitors are included in the installation this page will show their status/levels.

NOTE — The OctoPlex system has the capability to only display the data which is transmitted from the installers NMEA 2000 certified tank level adapter. Please consult with either the boat or component manufacturer should any issues present themselves with regards to tank level monitoring.
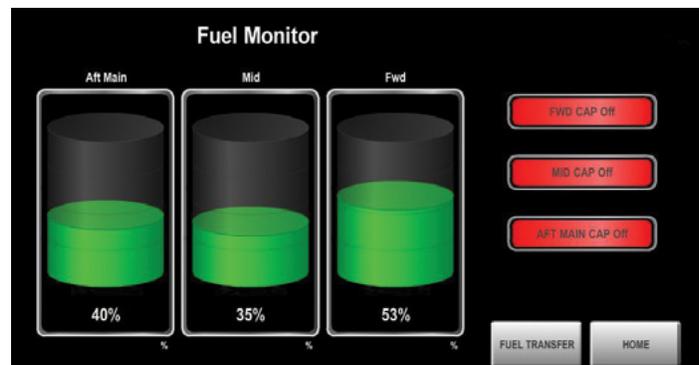
Alerts

Alerts can be configured to respond to a variety of conditions such as but not limited to:

- Tripped breakers
- Battery values out of tolerance
- Configured SIU inputs

When an Alert has been activated, touching the indicator in the bottom left corner of the Multi-Function Display will silence it. Cancellation of the alarm will depend on parameters set within the Alert Table Editor. Consult your authorized OctoPlex technician about modifying alert parameters.

Maintenance

The Multi-Function Display requires no maintenance. If the touch screen requires cleaning, use a soft damp cloth and wipe the display gently while utilizing the Clean Button under the Commands & Settings menu. Do not rub aggressively as this may scratch the touch screen area. Any service or repair issues should be handled by a factory authorized technician.

CAUTION!

> Do not spray any cleaning solvents directly onto the display area.

General Specifications

Electrical

Operating Voltage	18-32 Volts DC, Dual Inputs
Load Equivalence Number (LEN)	1

Mechanical

Dimensions	8": 9.29" x 6.54" x 2.01" (236 mm x 166 mm x 51 mm)
	13.3": 13.98" x 9.78" x 2.28" (355 mm x 248.5 mm x 58 mm)
CAN Bus connectors	Two (2) Micro-C Male
Mounting	4 x M4 VESA Mounting 75mm x 75mm
IP Rating	IP66 Front; IP22 Rear

Environmental

Operating Temperature	-15°C to +55°C (Humidity up to 95%)
Storage Temperature	-20°C to +60°C (Humidity up to 95%)
Humidity	Up to 95%
Weight	8": 4.2 lbs (1.9 kg) 13.3": 9.7 lbs (4.4kg)

Certifications

NMEA 2000	Category B
CE	**IEC 60945** Maritime Navigation and Radio Communication Equipment and Systems

Dimensional Specifications: in. [mm]

8 Inch - Multi-Function Display
A3416

9.29 [236.00]

6.54 [166.00]

0.118 [3.00] PANEL

1.65 [42.00]

0.24 [6.00]
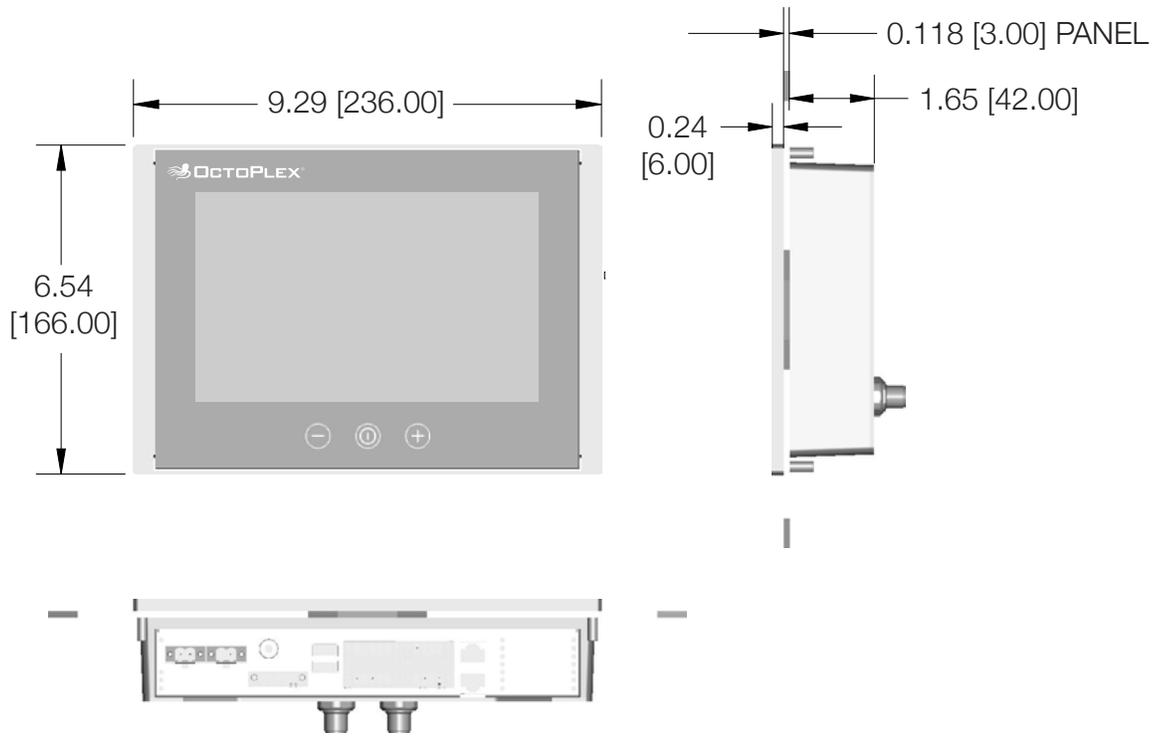
Dimensional Specifications: in. [mm]

13.3 Inch - Multi-Function Display
A3417

0.118 [3.00]
PANEL

1.93 [49.00]

0.24
[6.00]

13.98 [355.00]

9.78
[248.50]