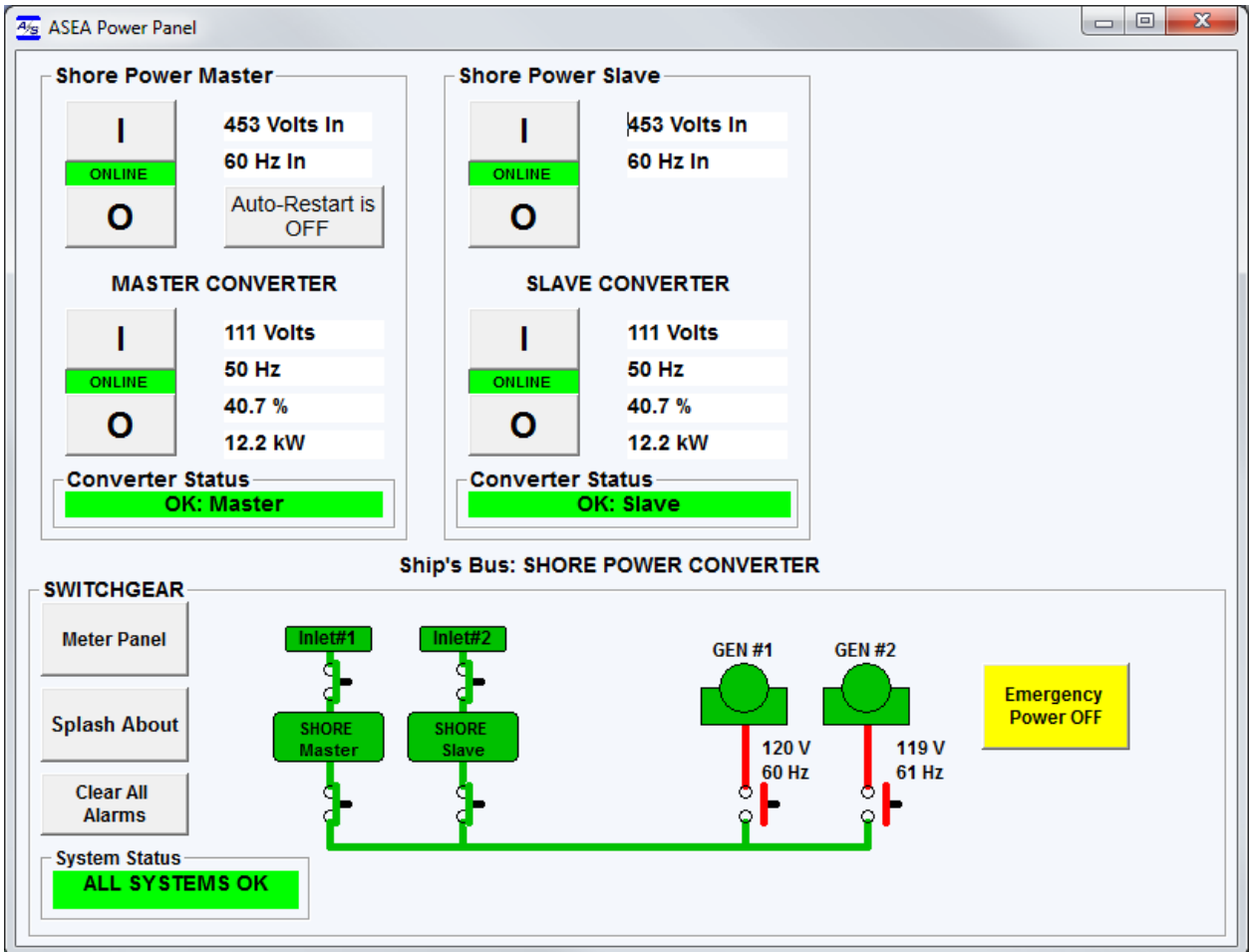


**ASEA POWER PANEL  
(APP)  
Touch-Screen Application  
OPERATION MANUAL**



**P/N 604921-10 Rev. F**  
For use with software Part Number 601200 v4.08, or better

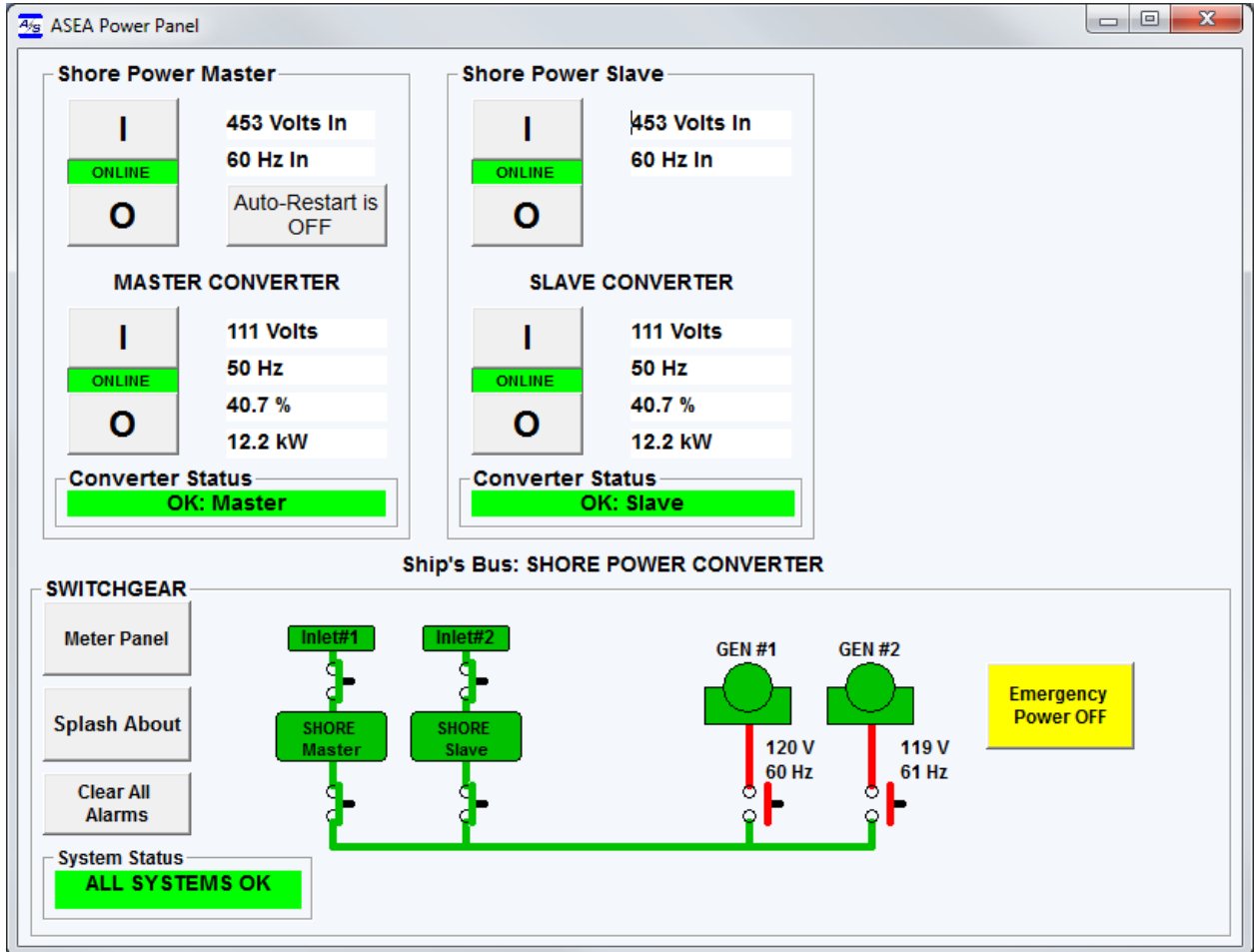
January 7, 2016

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1 ASEA POWER PANEL OVERVIEW

ASEA POWER PANEL CONTROLS & INDICATORS  
FIGURE 1



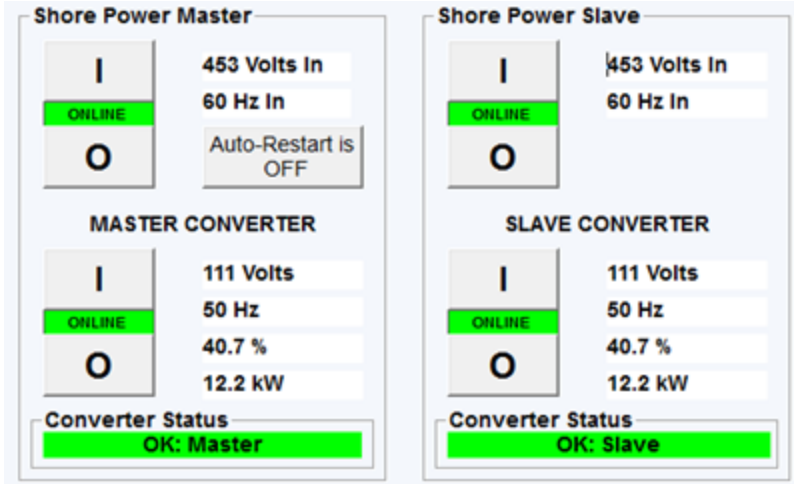
The ASEA Power Panel touch-screen application provides a simple, integrated, high-visibility graphical user interface for yacht power systems consisting of an ASEA Shore Power Converter set (one or two cabinet system) and two gensets.

The main Power Panel display is divided into three frames that group controls and indicators for **MASTER CONVERTER**, **SLAVE CONVERTER**, and **SWITCHGEAR**. The Switchgear frame includes an active mimic panel that graphically displays the ship's power bus in real-time as well as controls to pop-up a **Meter** or **Splash About** panel. Control for each power source is provided in a logical format. This operation manual provides details on each control, indicator and feature provided by the ASEA Power Panel.

## 1.1 ASEA POWER PANEL DETAILS

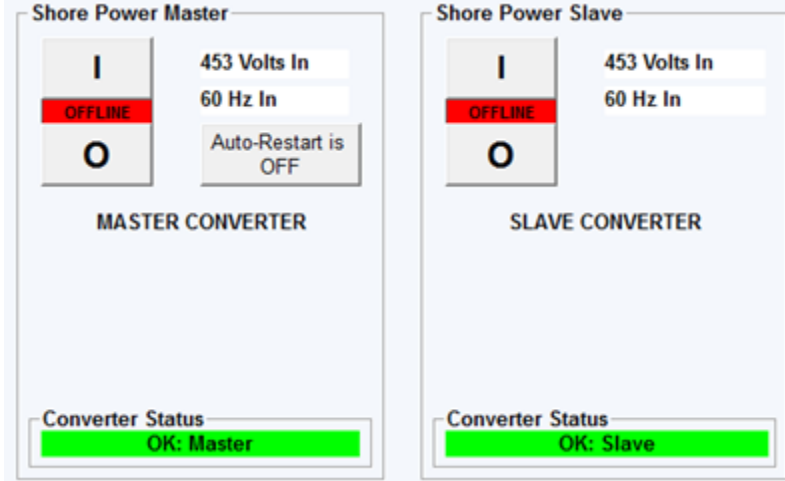
### 1.1.1 SHORE POWER

#### Shore Power Controls and Indicators



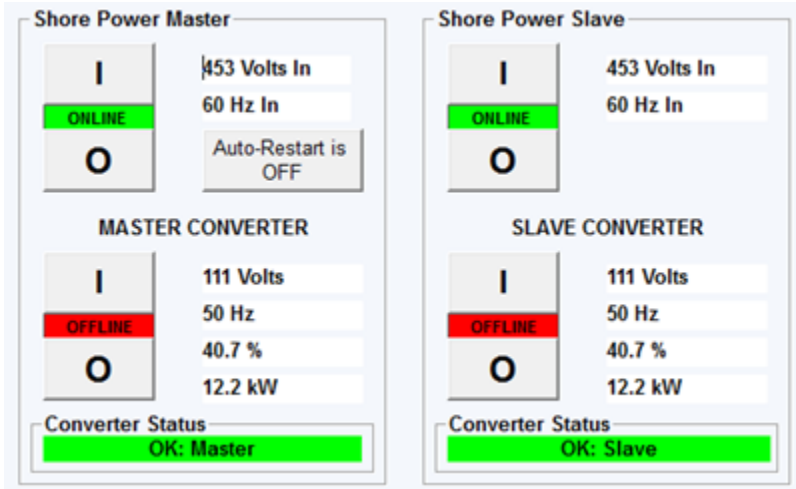
#### Converter Input State

When the converter input is off the output Online/Offline Control set is hidden. Press the ONLINE button to start the converter. A summary meter of dock power is always shown

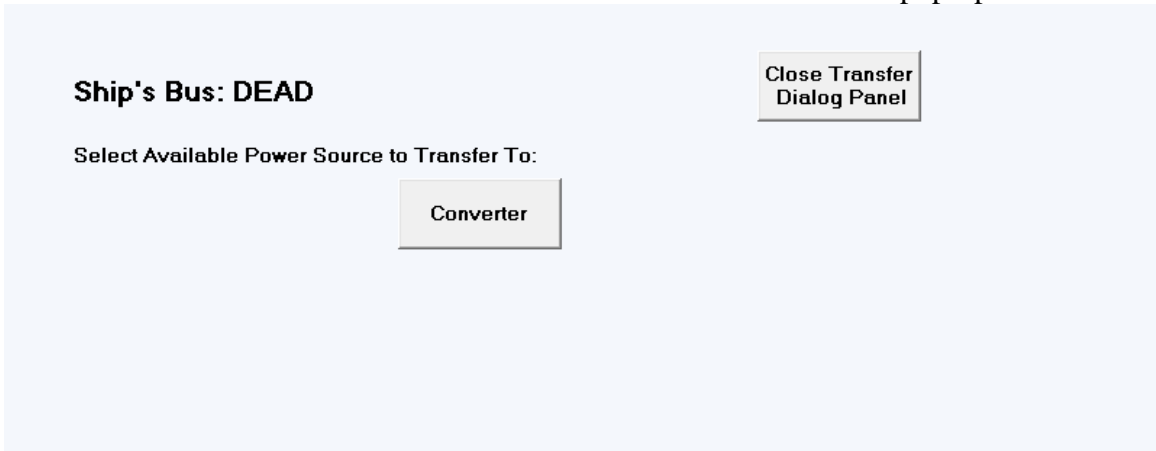


Once the converter input is on the circuit-breaker/transfer control button set appears along with summary metering of converter output.

## Converter Output State



‘I’ ONLINE button will cause the TRANSFER DIALOG PANEL to pop-up.



‘O’ OFFLINE button will immediately take the Converter offline. Circuit-breaker state is indicated as **ONLINE** or **OFFLINE**.

## Metering Summary

### Converter Output Metering Summary

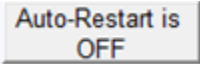
**Nominal Voltage** is shown as True R.M.S. volts.

**Frequency** is indicated in Hertz (cycles-per-second).

**Percent of Rated** indicates worst-case loading as a percentage of capacity.

**Total Power** is the total power presently being supplied by the converter, a sum of all three phases shown in kilo-Watts. If there are two cabinets then this is the sum of both.

**Auto-Restart State**

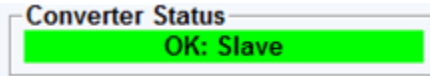
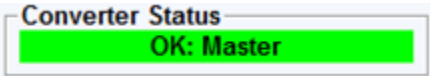


Press when converter output is on to turn on auto-restart feature.

If the converter output is not on then this button will momentarily read:



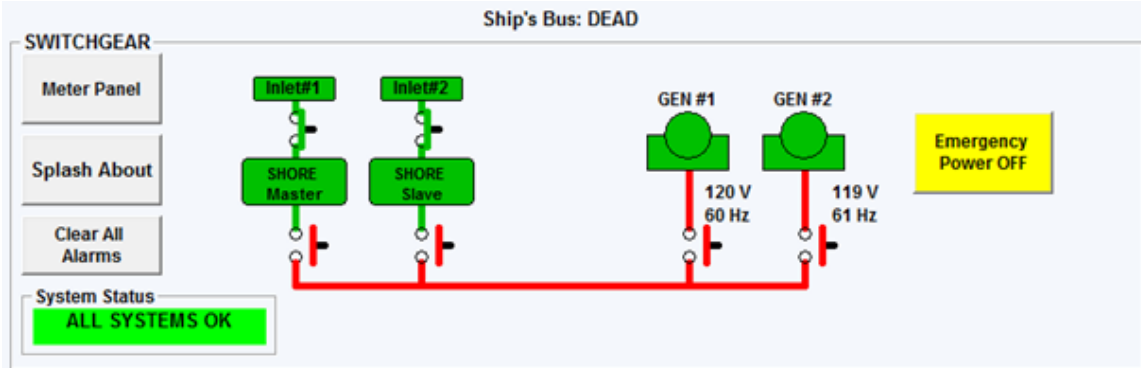
**Converter Status**



The converter status will indicate any failure or out-of-limit condition described in the Converter's Operation Manual. Additionally, communication failure for this device will be identified here.

## 1.1.2 SWITCHGEAR

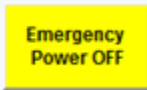
### MIMIC PANEL



The Mimic Panel provides visual indication of:

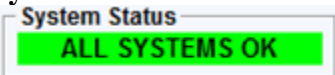
**SHORE Power Converter Input State** (Green or Red) and **Output State**  
**GEN #1 Engine State** (Green or Red) and **Circuit-Breaker State**  
**GEN #2 Engine State** (Green or Red) and **Circuit-Breaker State**  
**TIE-BREAKER** Circuit-Breaker State

#### Emergency Power OFF



Immediately opens the shore power converter's input and output contactors.

#### System Status Indicator



A summary status indicator of all devices and communications.

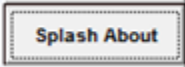
#### Clear All Alarms



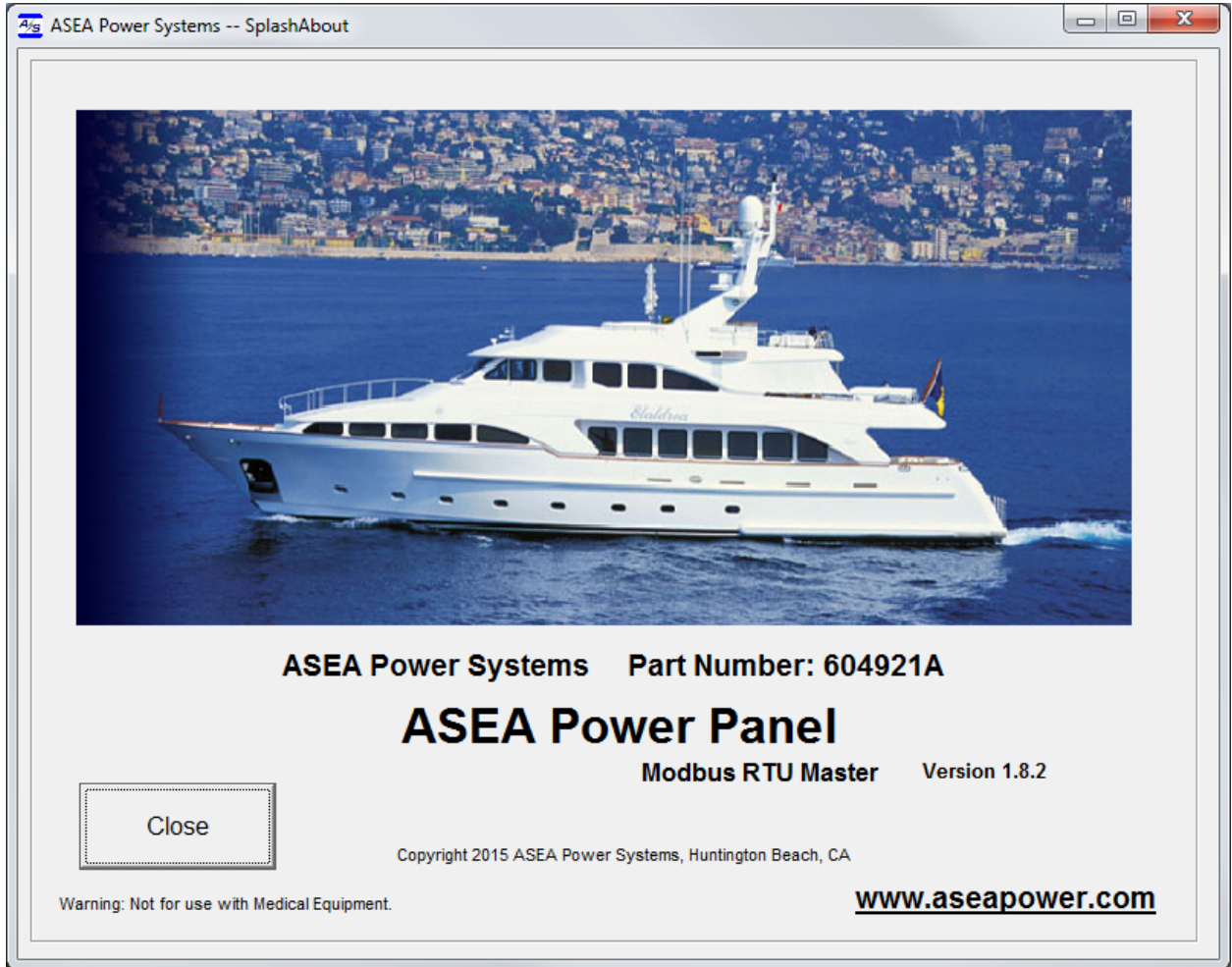
This button may be pressed at any time. If any alarms are present in the Shore Power Converter then they will all be cleared. Additionally, the ASEA Power Panel application will re-initialize its display and communications ports.

# ASEA POWER PANEL OPERATION MANUAL

## Splash About



This button will display Asea Power Panel software version and part number.

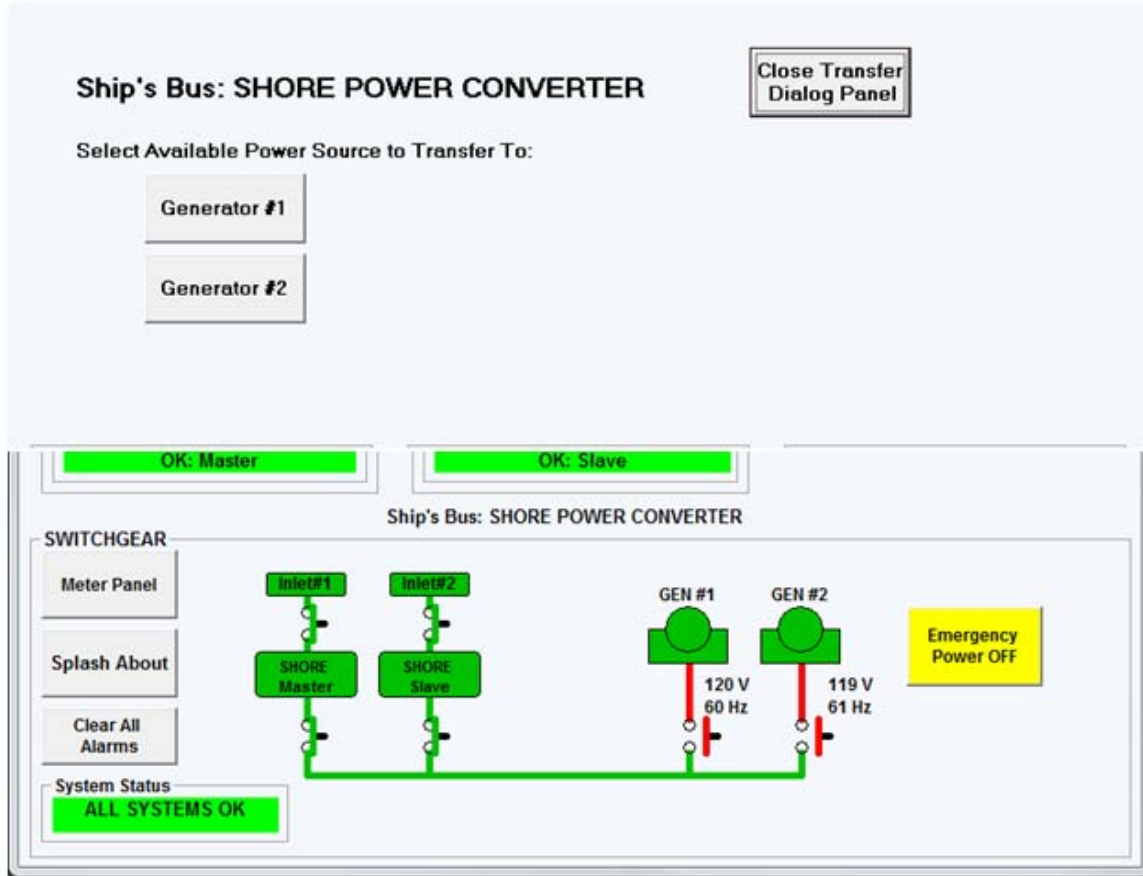




## 2 POWER TRANSFERS

### 2.1 TRANSFER DIALOG PANEL

Pressing any Converter Output 'I' Online button will raise the Transfer Dialog Panel. All available seamless transfer choices from the present state of the ship's bus will be offered. Select any of the available power source options to transfer to by pressing the corresponding virtual button. The power transfer will then be initiated. Just above the Switchgear frame will appear the message: **“TRANSFER IN PROGRESS”** indicating the seamless transfer request is being processed.



The Transfer Dialog Panel may be closed without selecting a power transfer by pressing

the **Close Transfer Dialog Panel** button. Otherwise, once a transfer has been selected the Transfer Dialog Panel will automatically close.

2.2 POWER TRANSFER SELECTIONS

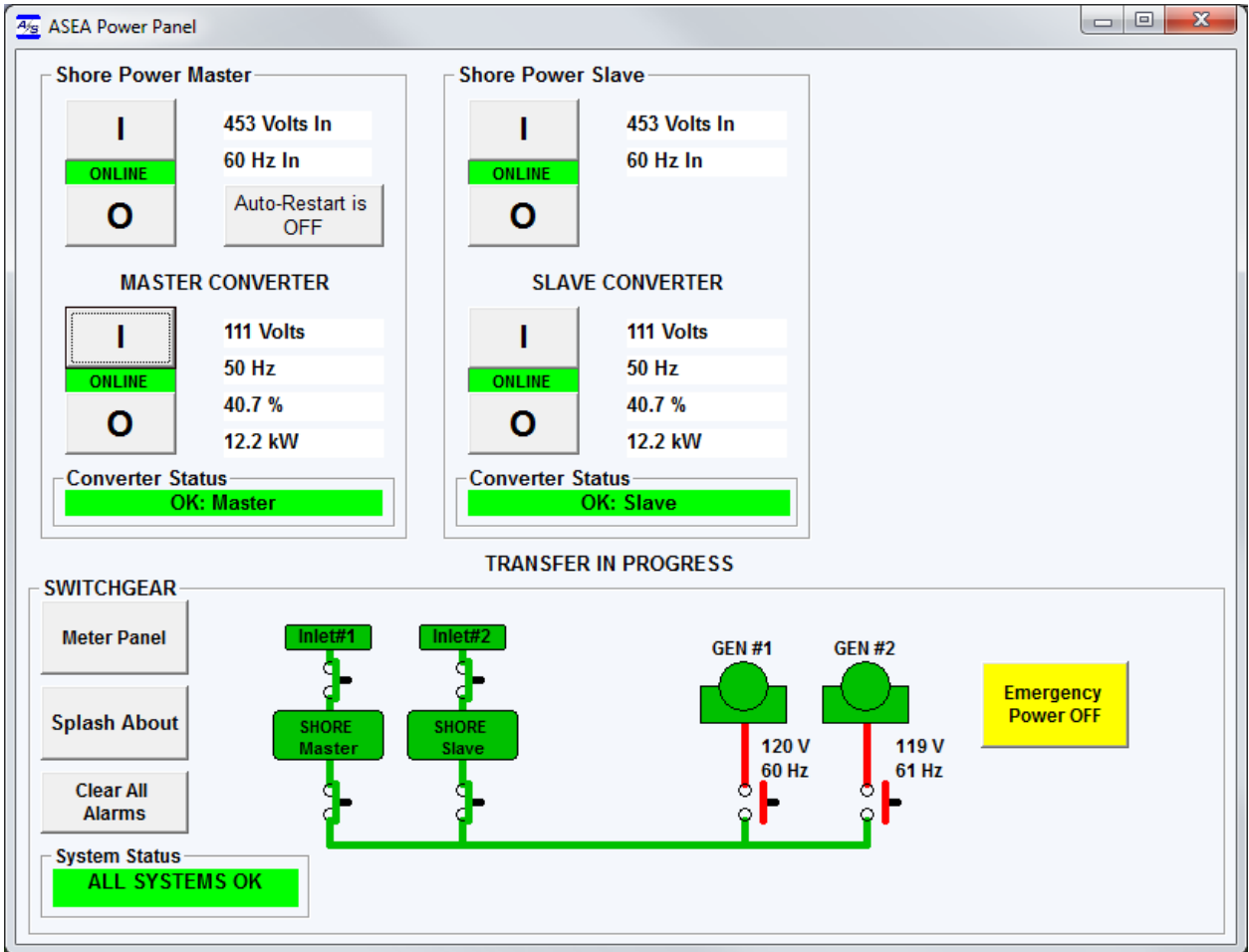


Selects Generator #1 to seamlessly transfer to.



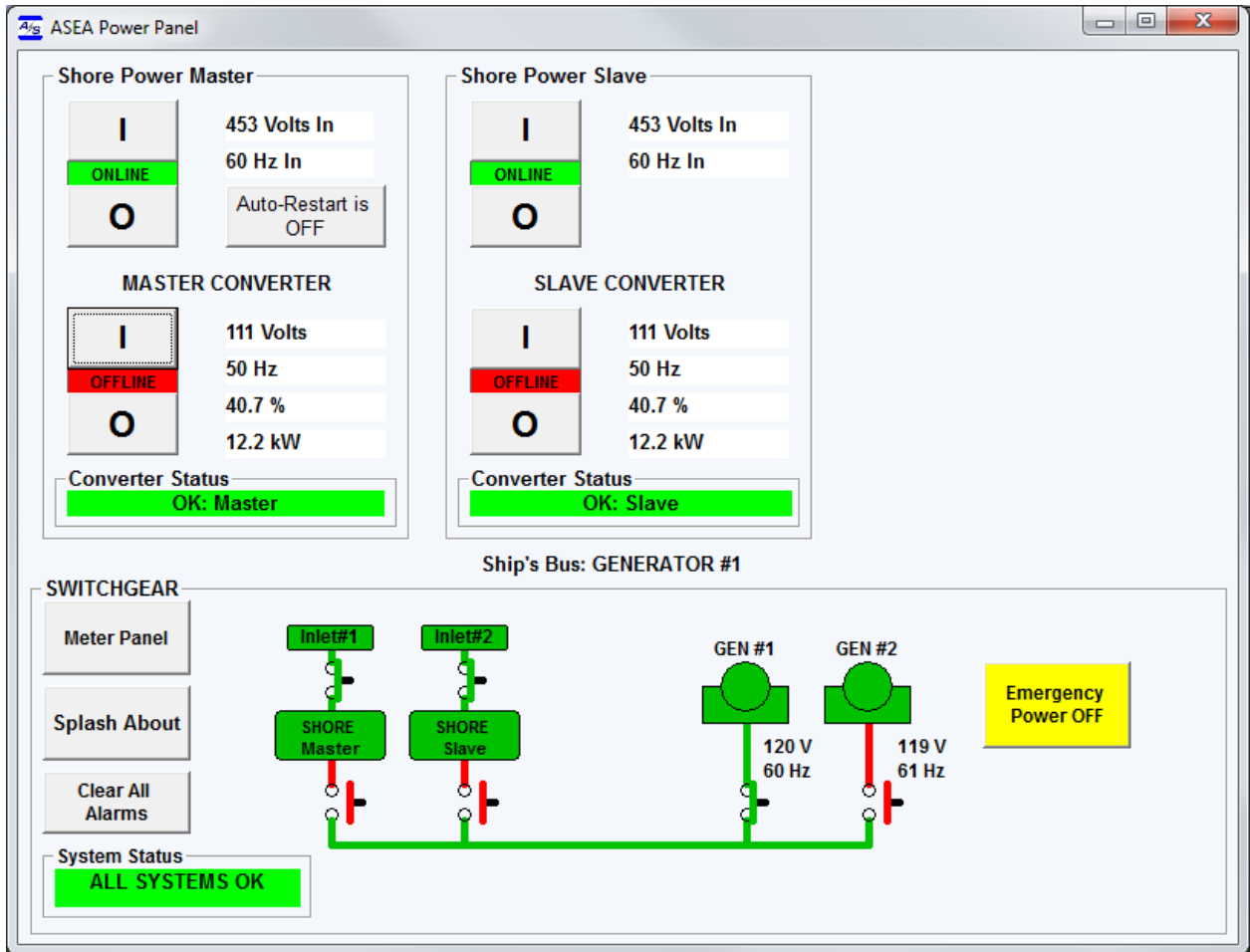
Selects Generator #to seamlessly transfer to.

Selection will invoke a seamless transfer to the selected bus state from the present bus state. Power source must be in the ready state (i.e. converter input must be on to select converter to come online, generator must be running to select that particular generator) for the selection to appear as an “Available Power Source to Transfer To.”



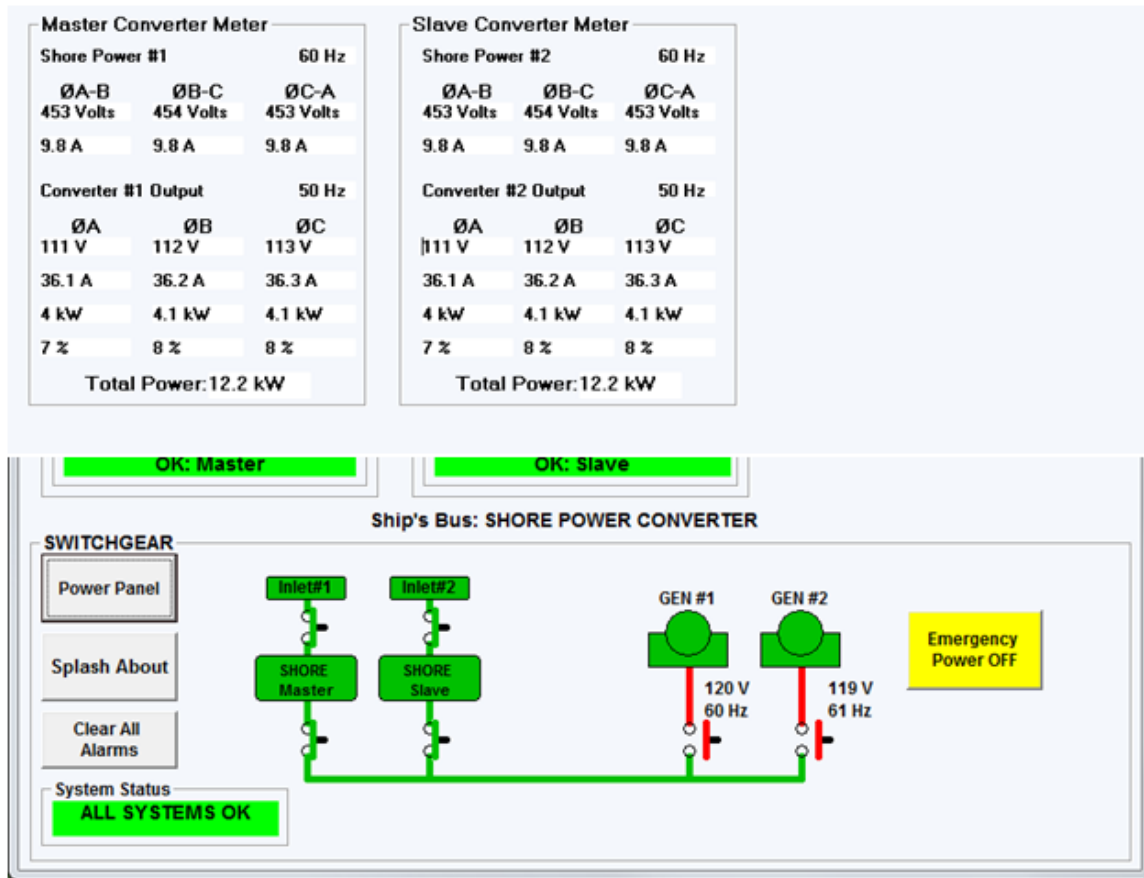
# ASEA POWER PANEL OPERATION MANUAL

When transfer is completed, the MIMIC panel shows power source



LETHAL VOLTAGES WILL BE AUTOMATICALLY ROUTED THROUGHOUT THE VESSEL DURING POWER TRANSFERS AND/OR OUTPUT CIRCUIT-BREAKER DEAD-BUS CLOSURES AS A RESULT OF TOUCH-SCREEN INITIATED CONTROL.

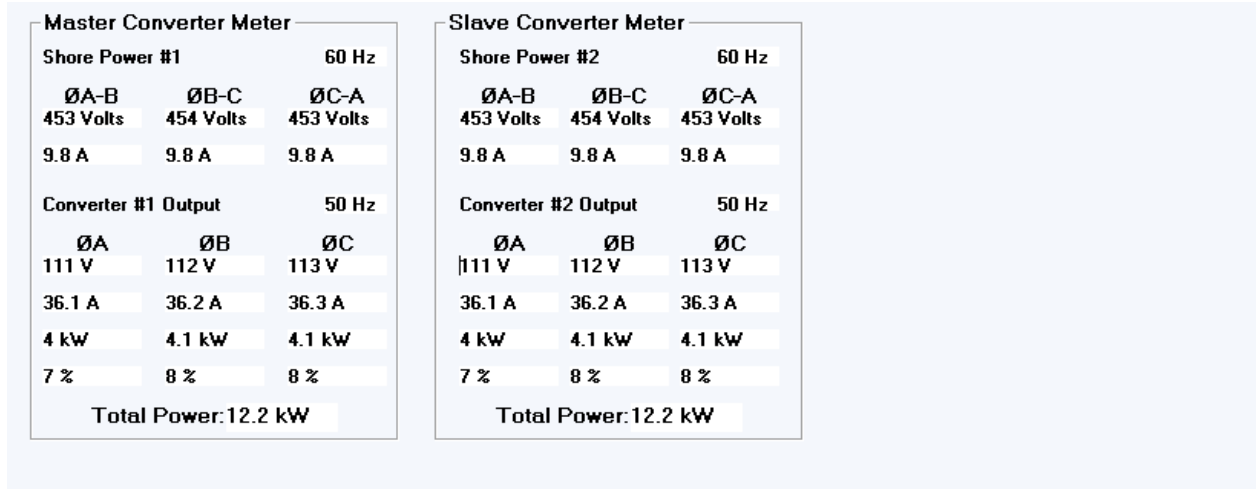
### 3 METER



Display the Meter by pressing the **Meter Panel** button on the SWITCHGEAR frame. This button will toggle to Power Panel while the meter panel is displayed

Return to the Power Panel by pressing the **Power Panel** button, found in the same place the Meter button is on the SWITCHGEAR frame.

### 3.1 SHORE POWER A.C. METER



**Shore Power Metering** is indicated on the top.

**Voltage** for each phase is shown as True R.M.S. line-to-line voltages.

**Current** for each phase is shown as True R.M.S. amps.

**Frequency** indicated in Hertz (cycles-per-second).

**Shore Power Converter Output Metering** is indicated on the lower part of frame.

**Voltage** for each phase is shown as True R.M.S. voltages.

**Current** for each phase is shown as True R.M.S. amps.

**Power** for each phase is shown in kilo-Watts.

**Percent of Rated** indicates loading as a percentage of capacity.

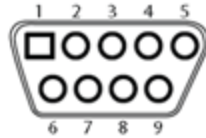
**Frequency** indicated in Hertz (cycles-per-second).

**Total Power** is the total power presently being supplied by the generator, a sum of all three phases shown in kilo-Watts.

## 4 APP REMOTE INTERFACE CONNECTIONS

### 4.1 RS-485

The APP can be controlled remotely through the use of its RS-485 interface. The RS-485 serial port connector on the APP is a DE9S (female, 9-pin D-subminiature connector). The pin out of the connector is standard for an RS-485.



PIN	COM1	COM2	
	RS-232	RS-422	RS-485
1	NDCD	TX-	D-
2	NRX	TX+	D+
3	NTX	RX+	
4	NDTR	RX-	
5	GND	GND	GND
6	NDSR		
7	NRTS		
8	NCTS		
9	NRI		

#### RS-485 Parameters

Baud: 19200

# ASEA POWER PANEL OPERATION MANUAL

## 4.2 RS-232C

The APP can be controlled remotely through the use of its RS-232C interface. The RS-232C serial port connector on the APP is a DE9S (female, 9-pin D-subminiature connector). The pinout of the connector is standard for an RS-232C DCE (Data Communication Device). The figure below details cable requirements for connecting either from a DTE (Data Terminal Device) such as is the ad hoc standard for PC (personal computers) or from another DCE device. The DCE to DTE interface requires a 'straight-through' cable while a DCE to DCE interface requires a 'null-modem' type cable. Use of a shielded, jacketed, four-wire (two twisted pairs), color-coded cable for each APP is required.

The RS-232C serial ports are located on the bottom-back of the APP. Baud rate default is 19200.

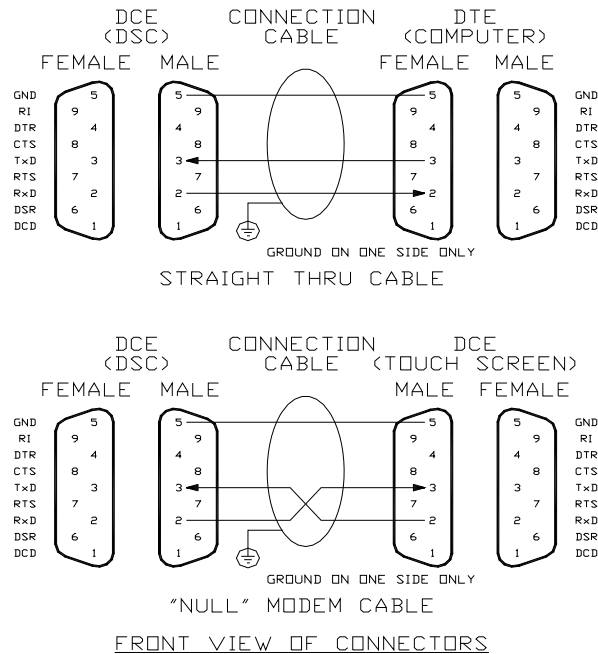
### RS-232 Parameters

Baud: 19200

8-Data bits, 1 Start, 1 Stop

Parity: None

Handshaking: None



### 4.3 Communication Port Assignments

The ASEA Power Panel application is running on an AXIOMTEK Touch-screen Panel PC's use the following port assignments:

For RS-485 communication mode

Single converter:

COM 1: RS-485

or

COM 2: RS-232C

Dual converter:

COM 1: RS-485 multidrop

Or for RS-232C communication mode

COM 1: Shore Power Converter Master Cabinet

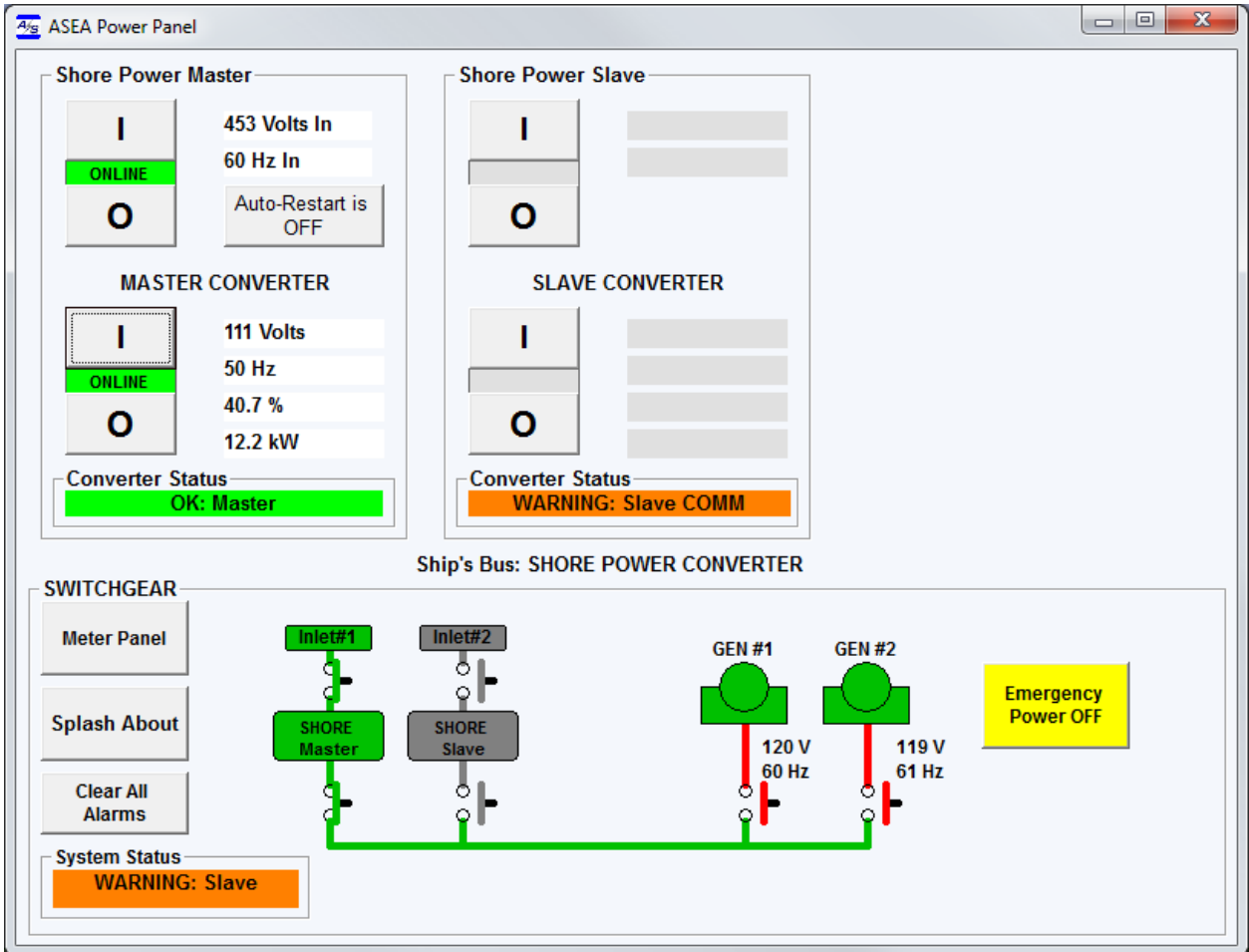
COM 2: Shore Power Converter Slave Cabinet

All serial cables required are the straight-through (1:1) type.

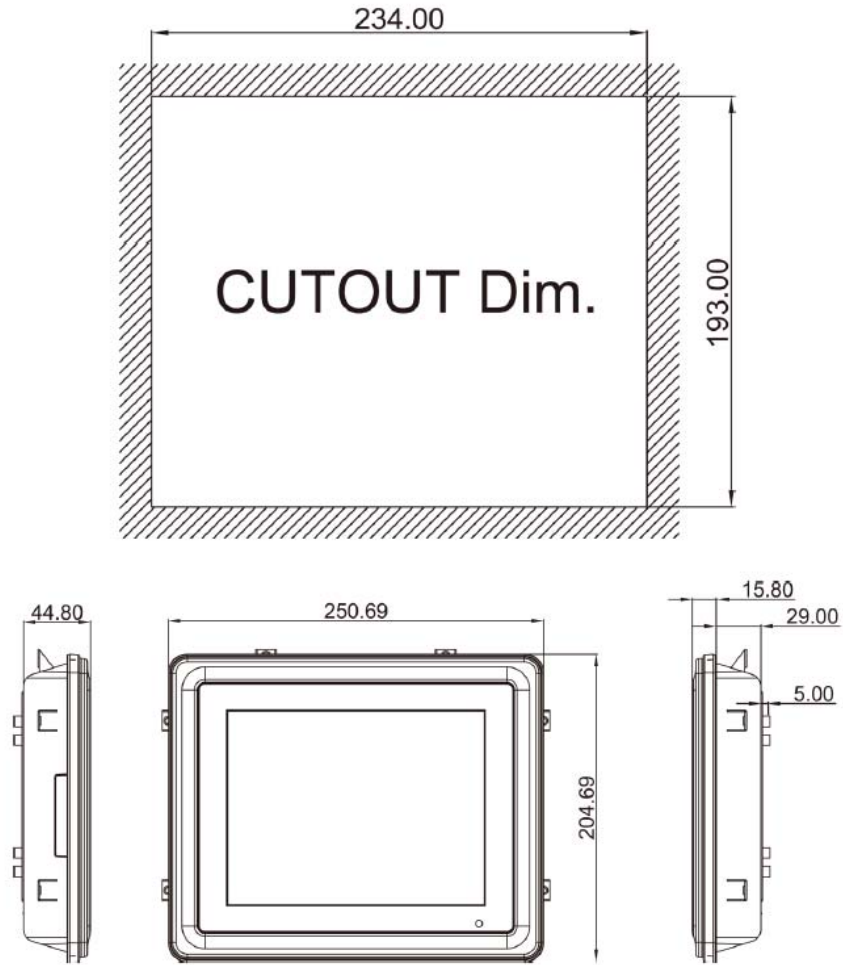


## 5 Failed Device Communications

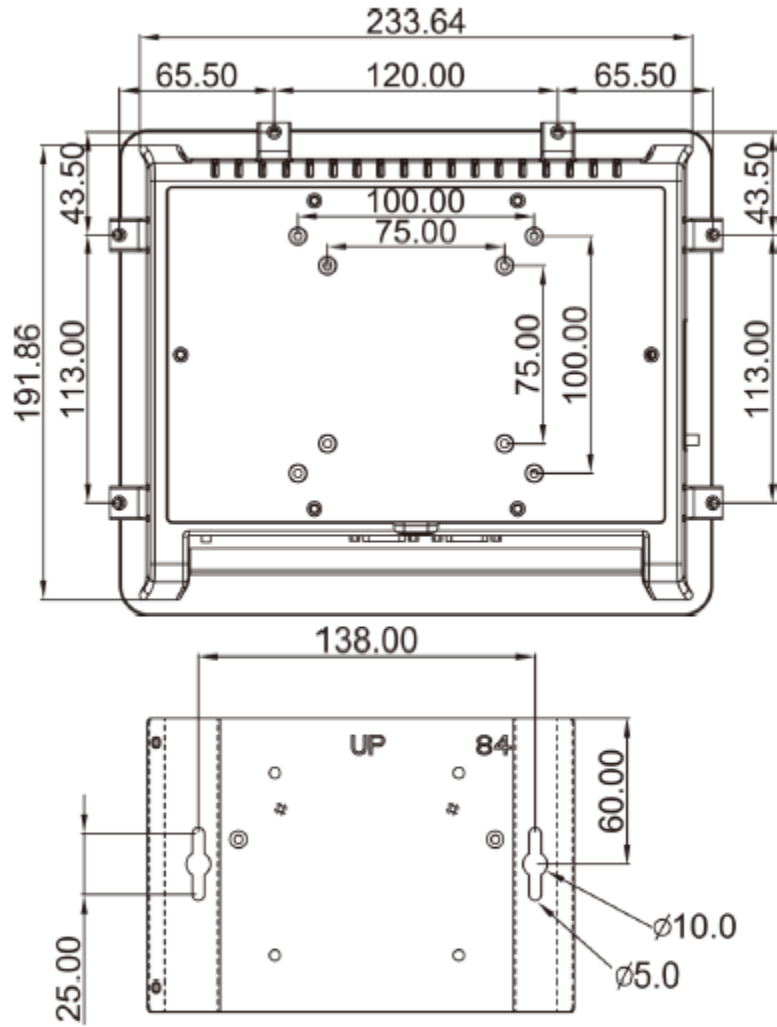
Failed serial communications will be indicated in the System Status indicator and the specific device Status indicator. All data and state indicators will gray and blank.



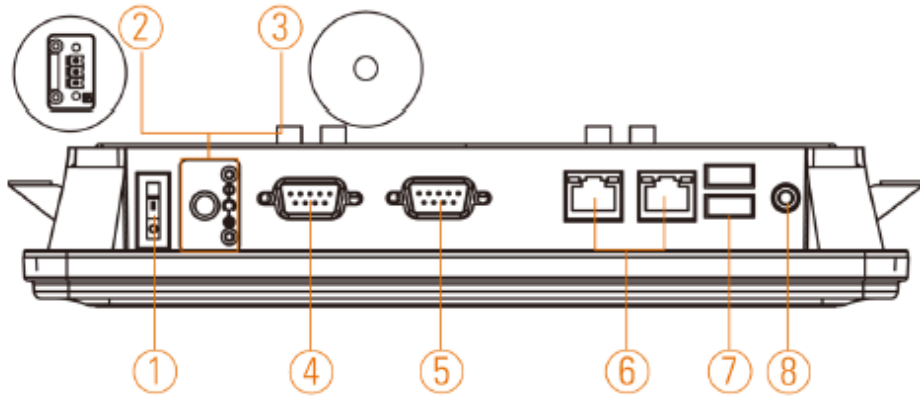
6 Dimensions



# ASEA POWER PANEL OPERATION MANUAL



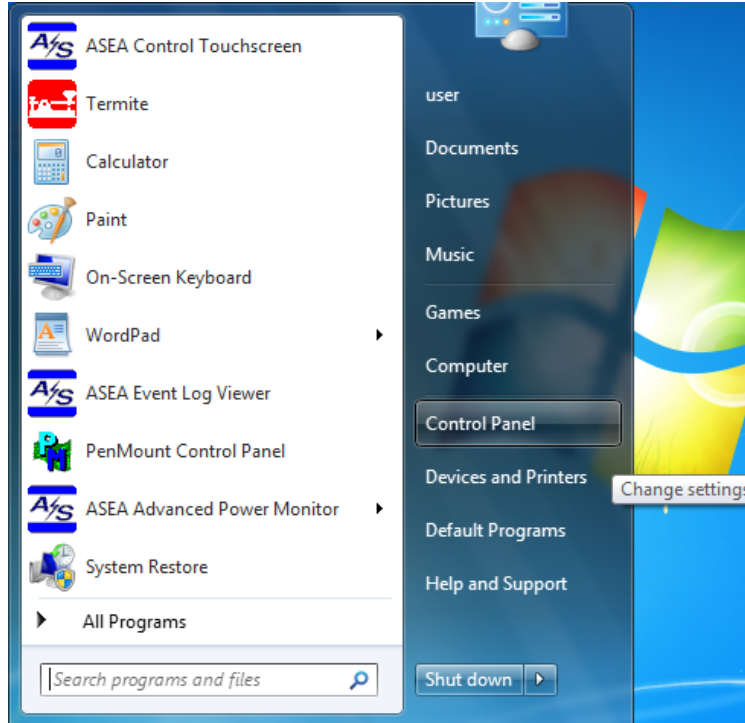
7 I/O Outlets



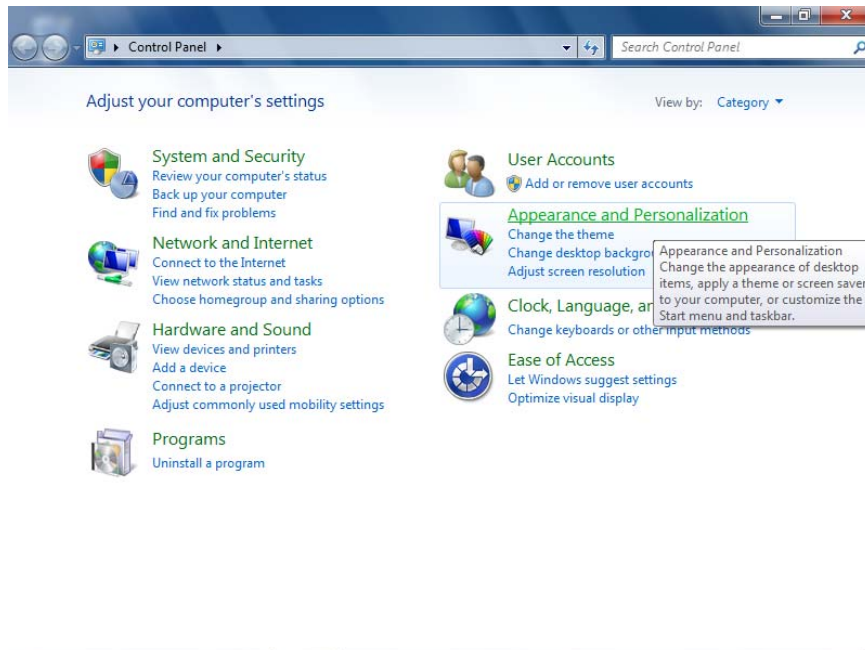
No	Function	No	Function
1	POWER SWITCH (ATX)	5	COM 2 (RS-232)
2	Power Input connector (Phoenix)	6	Ethernet (RJ-45)
3	Power Input connector (Screw)	7	Dual USB 2.0 ports
4	COM 1 (RS-232/422/485)	8	AUDIO (LINE-OUT)

## 8 Procedure to disable screen save and hibernating option

1) Click start button and select Control Panel”

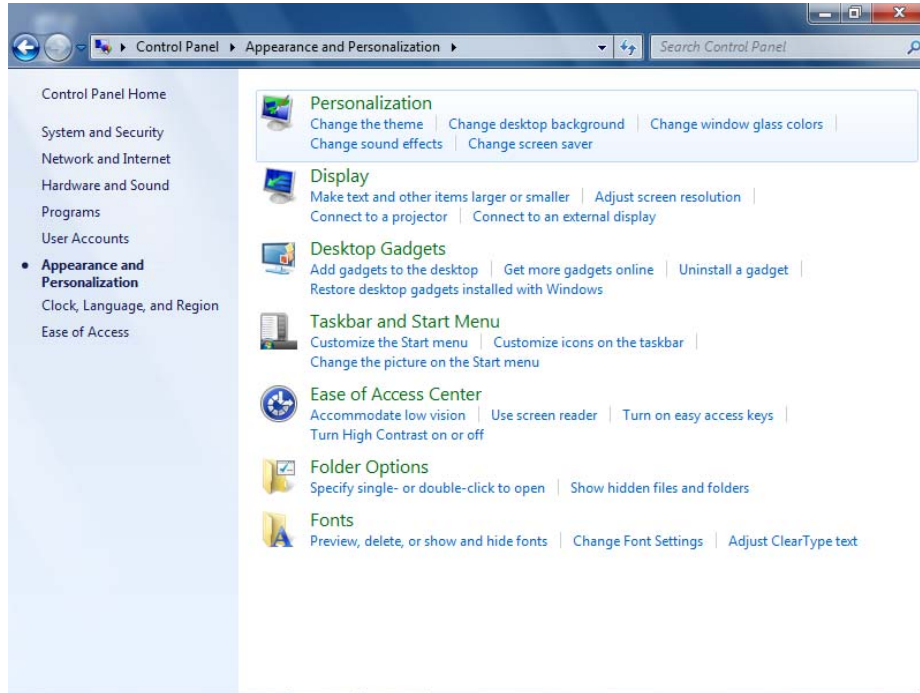


2) Click “Appearance and Personalization”

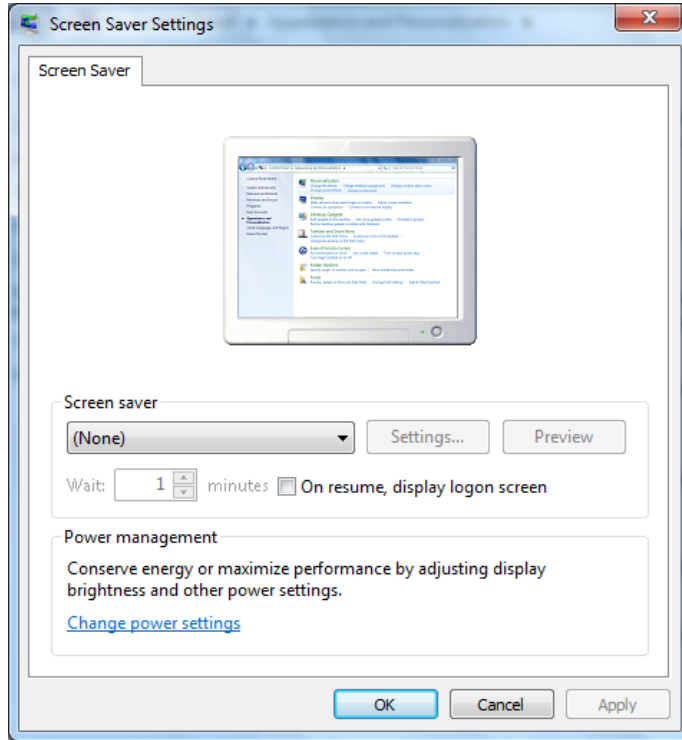


# ASEA POWER PANEL OPERATION MANUAL

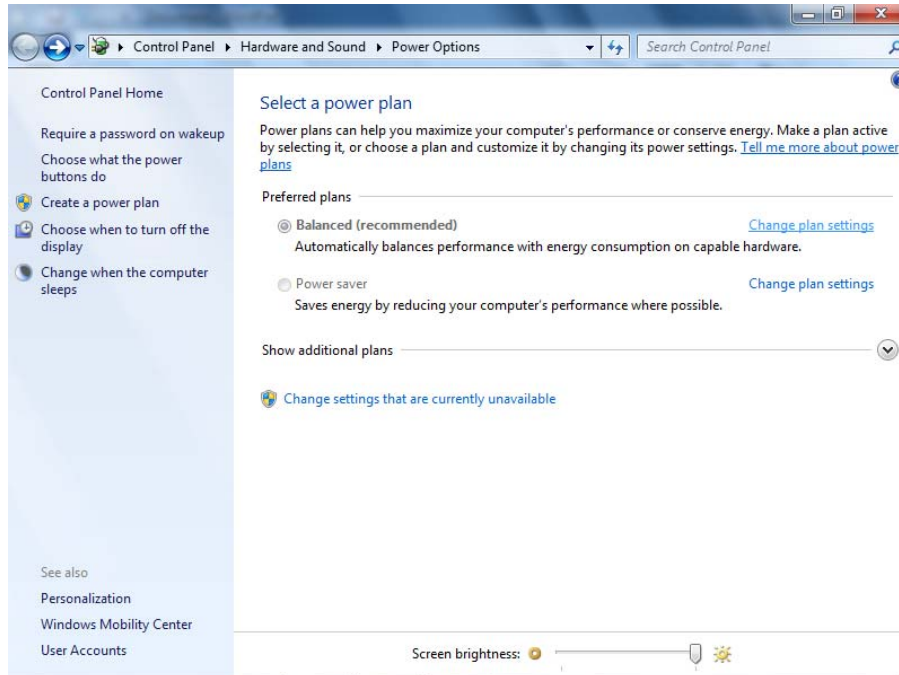
3) Click “Change screen saver” in “Personalization” section



4) Click “Change power settings”

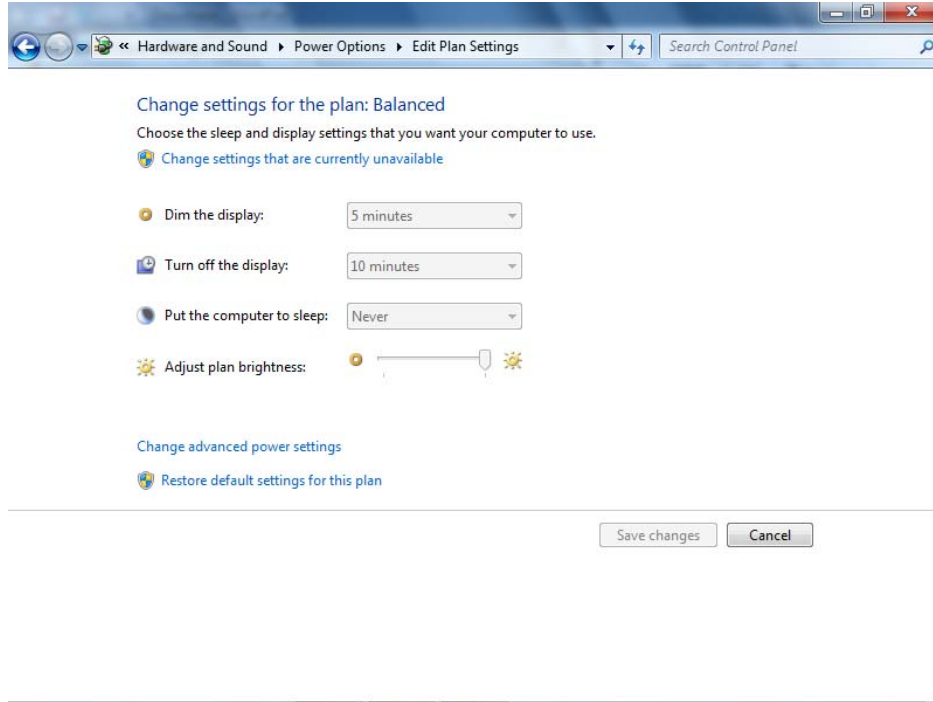


5) Click “Change plan settings” in “Balanced (recommended)” option

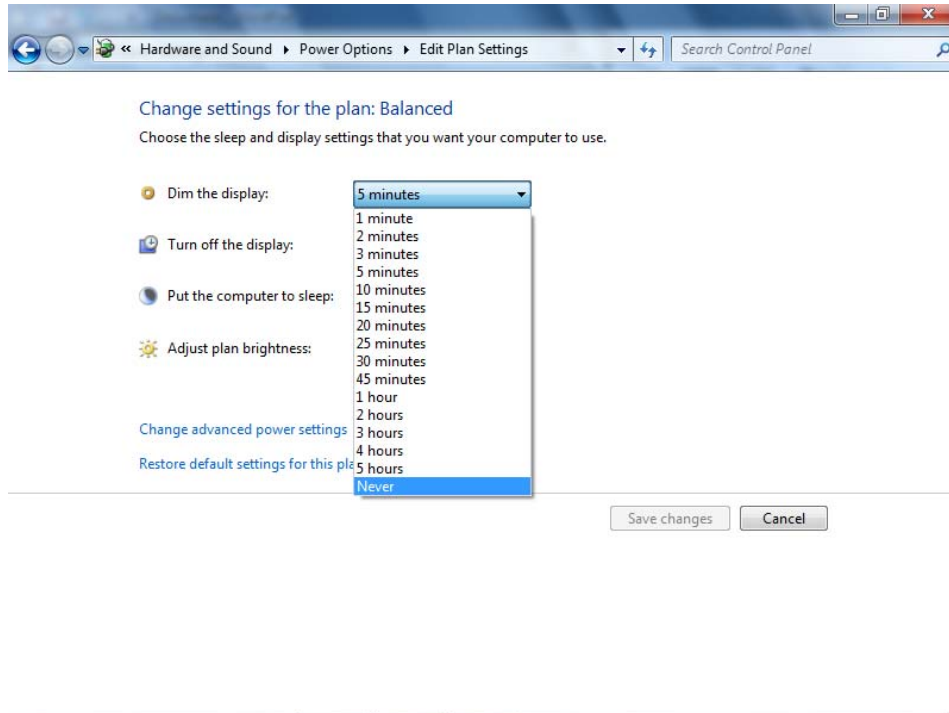


# ASEA POWER PANEL OPERATION MANUAL

6) Click “Change settings that are currently unavailable”



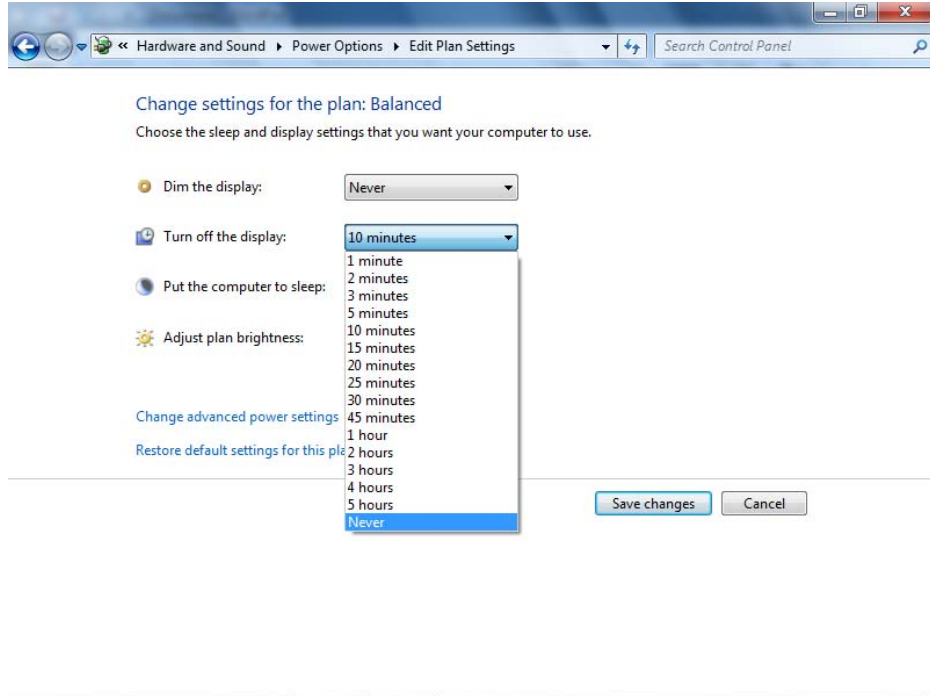
7) Click the box of “Dim the display:” and select “Never”



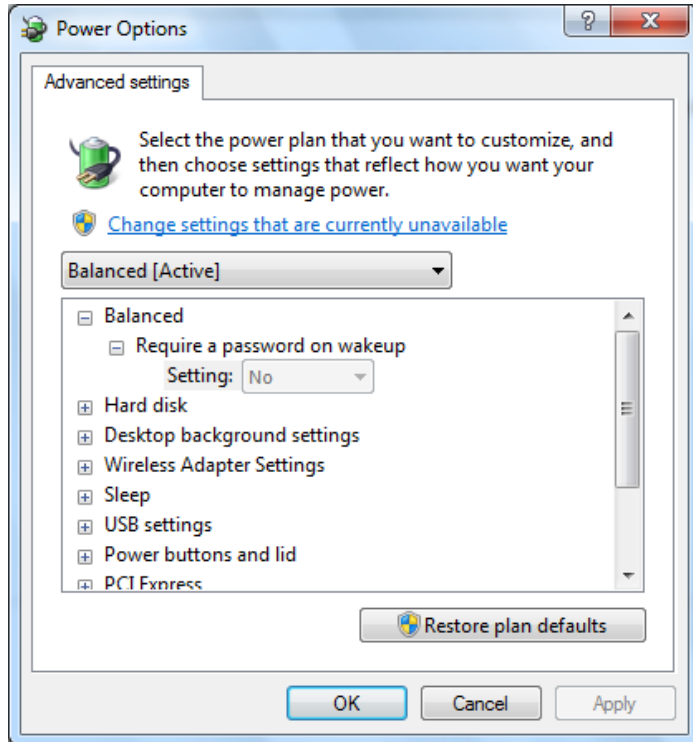


# ASEA POWER PANEL OPERATION MANUAL

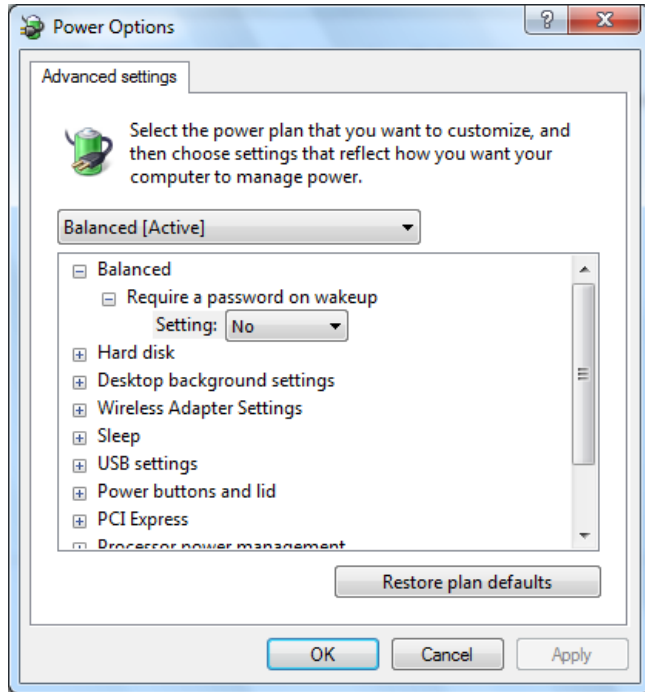
8) Click the box of “Turn off the display:” and select “Never”



9) Click “Change advanced power settings”

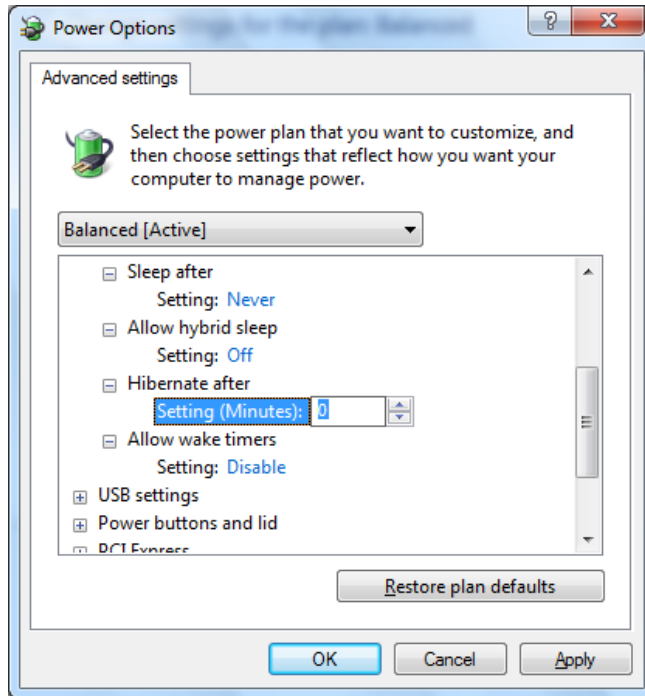


10) Click “Change settings that are currently unavailable”



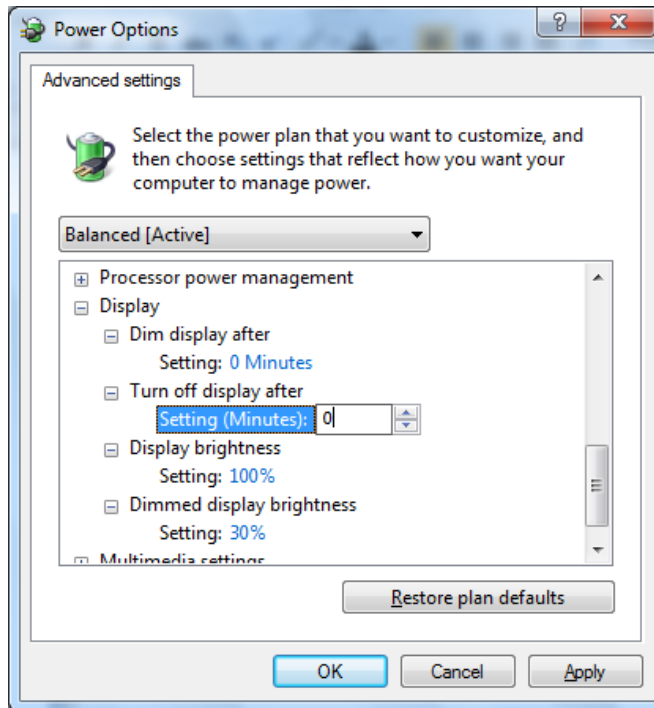
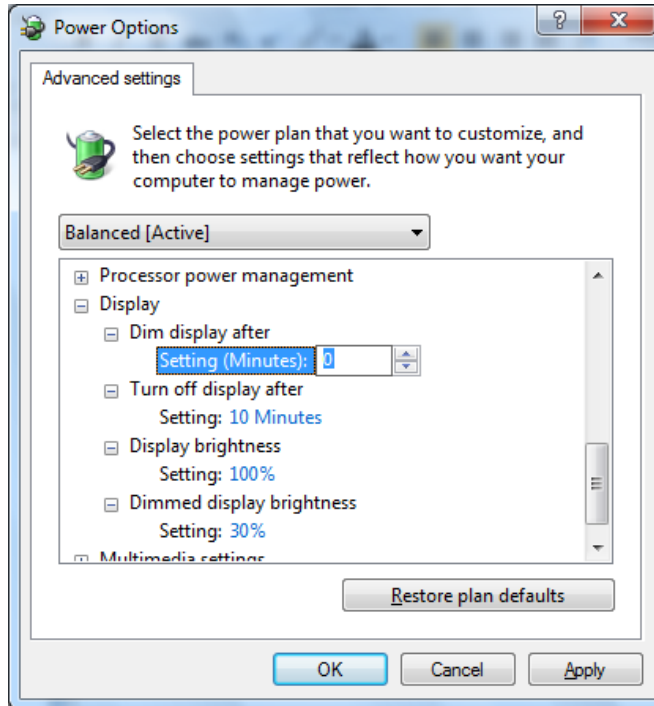
## ASEA POWER PANEL OPERATION MANUAL

- 11) Click “Sleep”, then click “sleep after” and check if it set to “Never”. Click “Allow hybrid sleep” and check if it is set to “Off”. Click “Hibernate after” and check if it is to “Never” if not change the value to “0” and click “Allow wake timers”, then the value for the “Hibernate after should have changed to “Never”. Check if the “Allow wake timers” is set to “Disable”



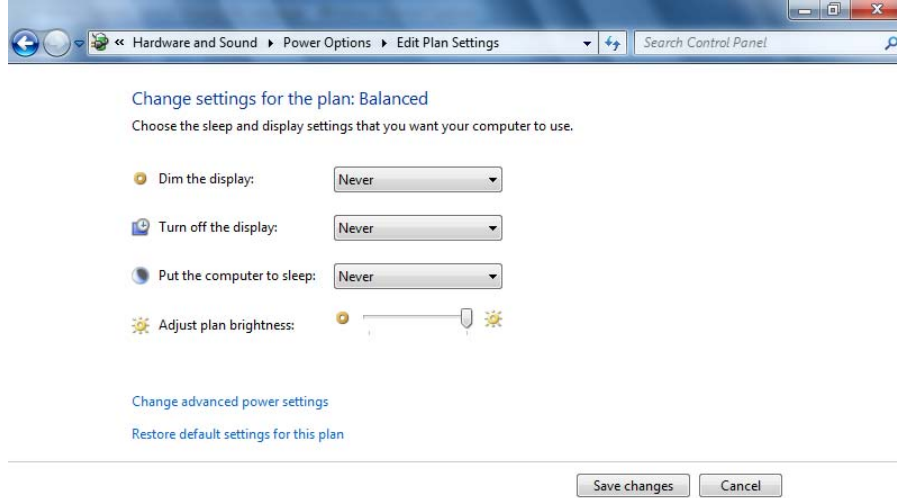
## ASEA POWER PANEL OPERATION MANUAL

- 12) Scroll down and click “Display” and click “Dim display after” and change its value to “0”, change the value of “Turn off display after” to “0”.

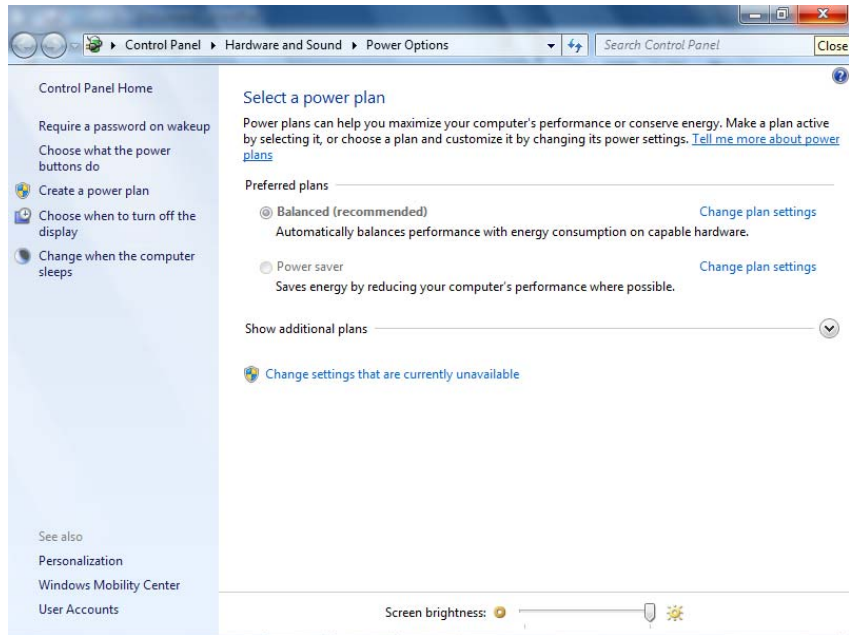


- 13) Click “Apply” button to apply all the changes, and then click “OK” button.

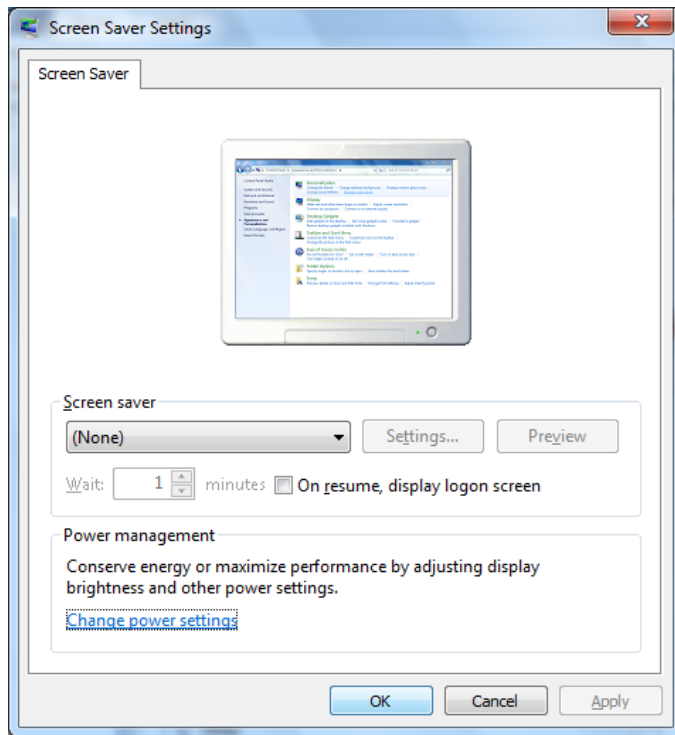
14) Click “Save changes” button



15) Click “X” to close the “Control Panel”



16) Click “OK” to close “Screen Saver Settings” window





LETHAL VOLTAGES WILL BE AUTOMATICALLY ROUTED THROUGHOUT THE VESSEL UNDER CONTROL OF THIS SOFTWARE, BY DESIGN. PLEASE USE CARE.

—END OF APP OPERATION MANUAL—