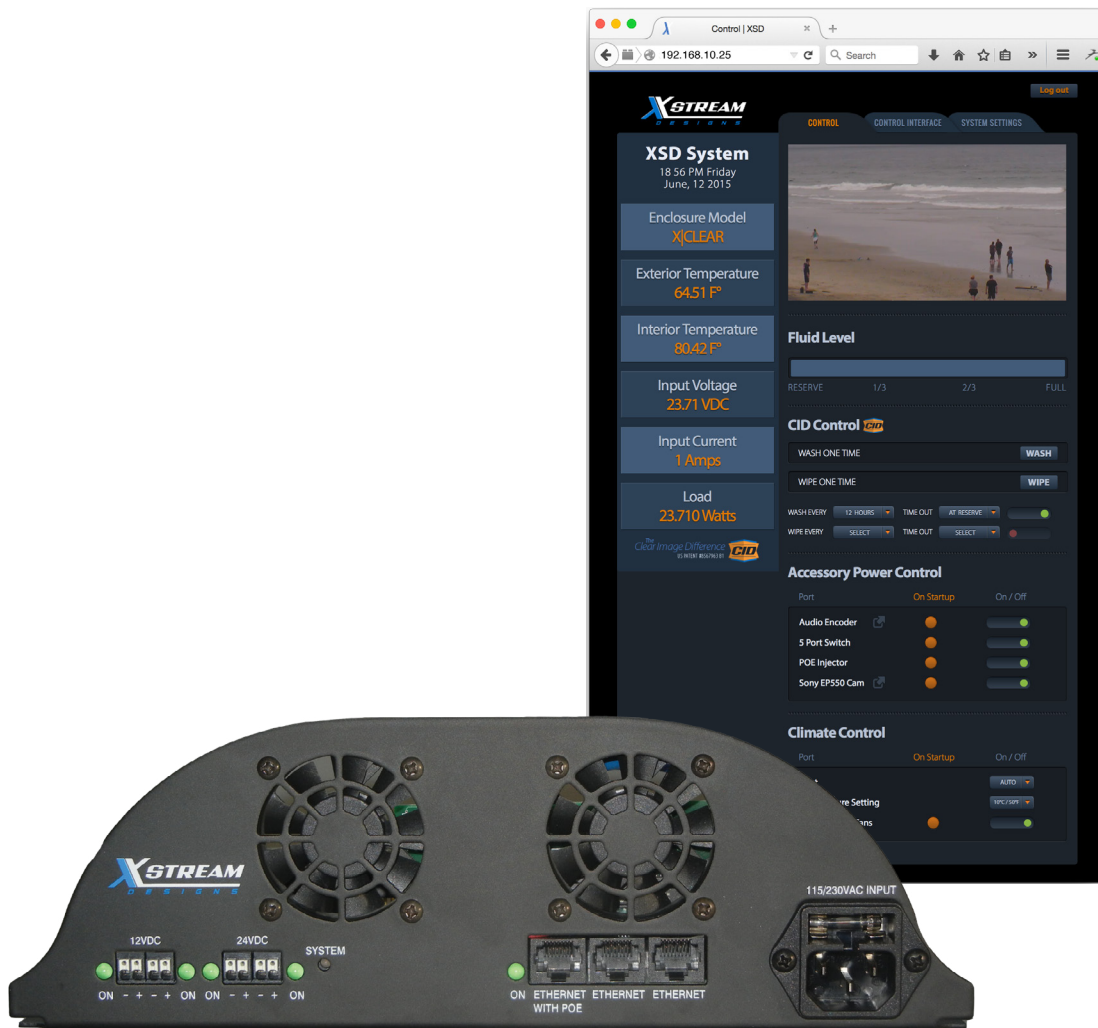# X|Smart™ PSP Users Manual

Revision 1.2

US PATENT #8567963 B1

THE CLEAR IMAGE DIFFERENCE

SELF CLEANING CAMERA DOME

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Copyright Information

LIMITED WARRANTY

X Stream Designs warrants that, during the Warranty Period, the Product will, with normal use and service, be free from faulty parts, manufacture or workmanship.

X Stream Designs extends the following warranty for all X Stream Designs Products unless otherwise stated, to the original owner/purchaser of the Product for a period of 12-months, from date of shipment.

This warranty shall be voided if the article in question is improperly installed, applied, operated or maintained; subjected to overload, misuse, negligence or an accident; or repaired or altered outside of the X Stream Designs warehouse or by anyone other than an authorized X Stream Designs service partner under direction of X Stream Designs. Products manufactured by others, but supplied by X Stream Designs as part of a X Stream Designs Product, are not warranted by X Stream Designs, and Customer's sole recourse if any such product should fail shall be under the warranty, if any, of such other manufacturer.

Customer's sole and exclusive remedy against X Stream Designs and X Stream Designs' only obligation, for breach of warranty, shall be, at X Stream Designs' option, the repair or replacement (with either a refurbished or new Product) of any Product that on X Stream Designs' examination is found to be defective at the time of delivery due to faulty workmanship and/or defective material, but only if the Customer submits a claim in writing to X Stream Designs within the warranty period.

When making a warranty claim, the Customer must request an RMA from X Stream Designs. Upon issuance of the RMA, the Customer will forward the Product to X Stream Designs for evaluation. Freight and insurance will be paid for by the Customer. The Customer is responsible for repackaging Products returned in suitable packing material to prevent damage in transit. If X Stream Designs ascertains that the Product is defective due to faulty workmanship and/or defective material, X Stream Designs shall send the repaired Product or a replacement Product to the Customer. X Stream Designs may choose the method of delivery and will pay freight and insurance and credit the Customer for freight and insurance costs resulting from return shipment from the Customer to X Stream Designs authorized by the RMA. Products or product parts which have been replaced shall be the property of and retained by X Stream Designs. If X Stream Designs' determines that the Product is not defective due to faulty workmanship and/or defective material or that the warranty has been voided, the Product shall be returned to the Customer, if the Customer requests. In such case, freight and insurance shall be paid by the Customer.

MAKING A WARRANTY CLAIM:
1. Customer must inform X Stream Designs as soon as the warranty claim arises by calling 1-858-768-2992 or sending an email to support@xstreamdesigns.com.
2. Customer must provide original proof of purchase and a description of the fault and any other relevant material.
3. If the warranty claim is accepted, X Stream Designs will issue a RMA and give Customer authorization to ship faulty parts/and or the entire Product to X Stream Designs for repair or replacement.
4. X Stream Designs will, at its cost, repair or replace any faulty parts and/or the entire Product and return the Product back to Customer.

If you do not wish to be bound by any of the provisions in this warranty, please return the product(s) immediately to X Stream Designs.

For further Warranty information contact:
X Stream Designs, Inc.
Customer Service Department
2120 Jimmy Durante Blvd., Suite 110
Del Mar CA 92014
U.S.A.
1-858-768-2992

Disclaimer of Warranties
EXCEPT FOR THE WARRANTIES STATED IN SECTION 11, THE PRODUCTS ARE SUPPLIED "AS IS", "WHERE IS" AND "WITH ALL FAULTS". X STREAM DESIGNS DISCLAIMS ALL OTHER WARRANTIES WITH RESPECT TO THE PRODUCTS, EITHER EXPRESS OR IMPLIED, ARISING BY OPERATION OF LAW, COURSE OF DEALING, USAGE OF TRADE OR OTHERWISE, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Indemnification
Customer shall indemnify, defend and hold X Stream Designs harmless from all claims, including but not limited to all claims filed by third parties, for injuries, harms, losses or damages of any kind, (a) caused by or resulting from, (i) the Product after it has been delivered, (ii) the improper use, repair, maintenance or operation of the Product by Customer, (iii) the failure of Customer to adequately train personnel in the operation of the Product, or (iv) the Customer's failure to comply with applicable laws or regulations or (b) to products manufactured by the Customer or to products of which the Customer's products form a part.

The Customer consents to the jurisdiction of any court or arbitral tribunal in which any third party files a claim for injuries, harms, losses or damages allegedly caused by any Product sold to Customer.

Limitation of Liability
IN NO EVENT SHALL X STREAM DESIGNS BE LIABLE FOR ANY SPECIAL, INDIRECT, CONSEQUENTIAL, PUNITIVE OR EXEMPLARY DAMAGES OR LOSSES ARISING OUT OF ANY BREACH OF WARRANTY, FAULTY PRODUCT, DELAY IN THE DELIVERY OF THE PRODUCT, PRODUCT LIABILITY, FAILURE TO WARN, RECALL OR OTHERWISE, IRRESPECTIVE OF THE CAUSE, INCLUDING BUT NOT LIMITED TO, LOSS OF PRODUCTION, LOSS OF PROFIT AND LOSS OF GOODWILL.

Notice of Claims
Claims or complaints as to defects and/or delay in delivery of the Products or other claims shall be submitted in writing by Customer to X Stream Designs without undue delay.

Installation Guidelines
- The X Stream Designs enclosure system should be installed by qualified personnel.
- This unit must not be used for medical, life saving purposes, or for any purpose where its failure could cause serious injury or the loss of life.
- This unit must not be used in any way where its function or failure could cause significant loss or property damage.

Security Notes
The X|Smart™ system employs a Linux operating system and does have the ability to support features such as telnet, FTP and SSH. For this reason, there is a chance that someone can 'break in' to the X|Smart™ system and access other devices on your local network. As with any device installed on a network, appropriate security precautions should be observed.

If the X|Smart™ system is installed on the Internet, it is recommended that the control password be enabled. Passwords should be at least 8 characters in length and use a combination of upper and lower case letters and numbers. For additional security, a firewall may be used to limit access to selected IP addresses. Another option may be to set up a Virtual Private Network (VPN) between the network where X|Smart™ resides and the client machine.

Final Installation Notes
The X|Smart™ product and the integrated 5 port switch (4 available ports) supports 10Mbps ,100Mbps and 1000Mbps network connections. Only one of the ports provides switched 48VDC Power Over Ethernet (POE).

Section 1: Introduction

X|Smart_PSP (Power Spectrum Platform) is a multi-function web-enabled power supply chassis facilitating control and monitoring of the camera enclosure system. The X|Smart_PSP power supply chassis consists of two 12VDC, two 24VDC and one 48VDC POE user accessible accessory power ports.   It can be controlled and/or monitored over any IP network including private networks and the Internet. Using a web browser, users can control the dome wiping and cleaning process, check washing fluid levels, remotely turn on and/or off the accessory power ports, monitor and control temperature setttings and monitor power and temperature in real time as well as over a period of time via the graphing functionality.
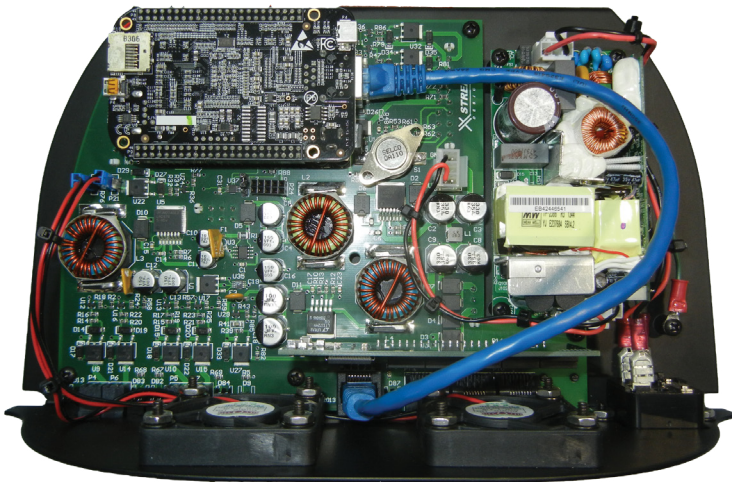

Figure 1.1 - X|Smart_PSP Power Supply Chassis
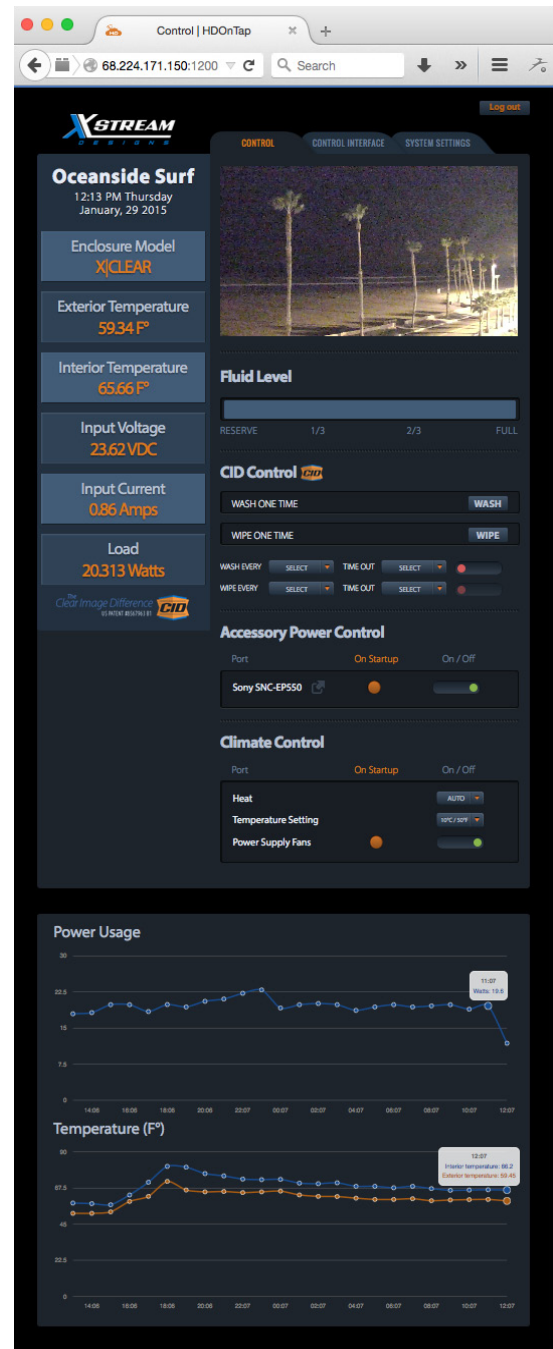

Figure 1.2 - X|Smart_PSP PCBA

Figure 1.3 - X|Smart_PSP Web Interface

1.1 X|Smart_PSP Features

115/230VAC to 24VDC 150 Watt Internal Power Supply
The X|Smart_PSP power supply chassis has an integrated 115/230VAC power supply capable of providing 150 Watts of power at 24VDC to the PCBA and enclosure system.

Accessory Power Control
Remote control 12VDC, 24VDC and PoE accessory power ports via the web interface.

12VDC Power Ports [2]
Capable of providing up to 53 Watts of power to accessory devices, the two 12VDC ports can be remotely controlled (on/off) via the web interface.

24VDC Power Ports [2]
Capable of providing up to 70 Watts of power to accessory devices, the two 24VDC ports can be remotely controlled (on/off) via the web interface.

48VDC Power Over Ethernet Port (POE) [1]
Capable of providing up to 38 Watts of power to POE devices, the non IEEE-802.3 compliant POE port can be remotely controlled (on/off) via the web interface.

Internal & External Digital Temperature Sensors
Embedded on the X|Smart PCBA, the internal digital temperature sensor allows you to monitor the internal temperature of the enclosure in real-time.   It is also integrated into the climate control system triggering heat on/off when the system is set to AUTO. The External Temperature Sensor is an optional accessory from X Stream Designs allowing you to monitor the outside temperature in real-time.

Integrated 5 Port 10/100Mbps Network Switch
The X|Smart_PSP system employs a 5 Port 10/100Mbps network switch giving the user 3 available ports after populating the up-link port with your network connection.   The 5th port connects to the integrated Linux embedded controller.

Power Supply Fans [2]
Integrated into the power supply chassis are two 2 power supply fans. The fans can be remotely controlled (on/off) via the web interface.

Input Power Monitoring (Voltage & Current)
Monitor the PCBA input voltage and input current (Amps) in real-time via the web interface and detect potential power issues before problems arise.

Load Monitoring (Watts)
The watt is a derived unit of power which can be used to express the rate of energy or transfer of energy with respect to time. Ohm's Law (W = Voltage x Current) allows us to derive the enclosure power load and monitor it in realtime.   A great feature for off-grid and remote applications or the energy concious user.

Climate Control System
Control the interior enlosure temperature setting via the web interface by choosing heat AUTO and setting the temperature or Heat OFF. Integrated on the PCBA is a thermostatic snap switch used to control the air conditioning system in X|Cold model enclosure systems.

Real Time Clock
Manually set the time & date or synchronize via an NTP server.

CID Control
Remotely control & schedule the wiping and wash functions via the web interface of X|Clear and X|Rain model enclosure systems.

Fluid Level Meter
Monitor the washing fluid level in real-time via the web interface.   Level values are FULL, 2/3, 1/3 and RESERVE.

Event Scheduler
Schedule the X|Rain & X|Clear enclosure systems to Clean and/or Wipe at pre-defined intervals via the web interface.

Graphing
Monitor Power Usage & Temperature over a period of time in graph format.

1.2 Applications

The X|Smart_PSP power supply system and web based user interface was designed to meet numerous industry applications. It gives the user much more functionality than just an interface to trigger wiping and cleaning of the enclosure dome. With the integrated relays and power sensors, users can remotely control multiple accesory power ports and monitor power usage in real-time. A great tool for remote camera systems and especially off-grid powered systems.

The X|Smart_PSP system is integrated into our X|Clear and X|Rain enclosure systems and is also available as an option in our X|Mod, X|Cold and X|Heat enclosure systems. The next generation X|Smart_PSP will include an integrated UPS with battery backup power and integrated solar charge controller systems.

Example Applications Include Coastal Monitoring Cameras, Rainy Environments, Off-Grid Powered Camera Locations, Remote Camera Applications and any installation that requires housing additional camera accesorry components.

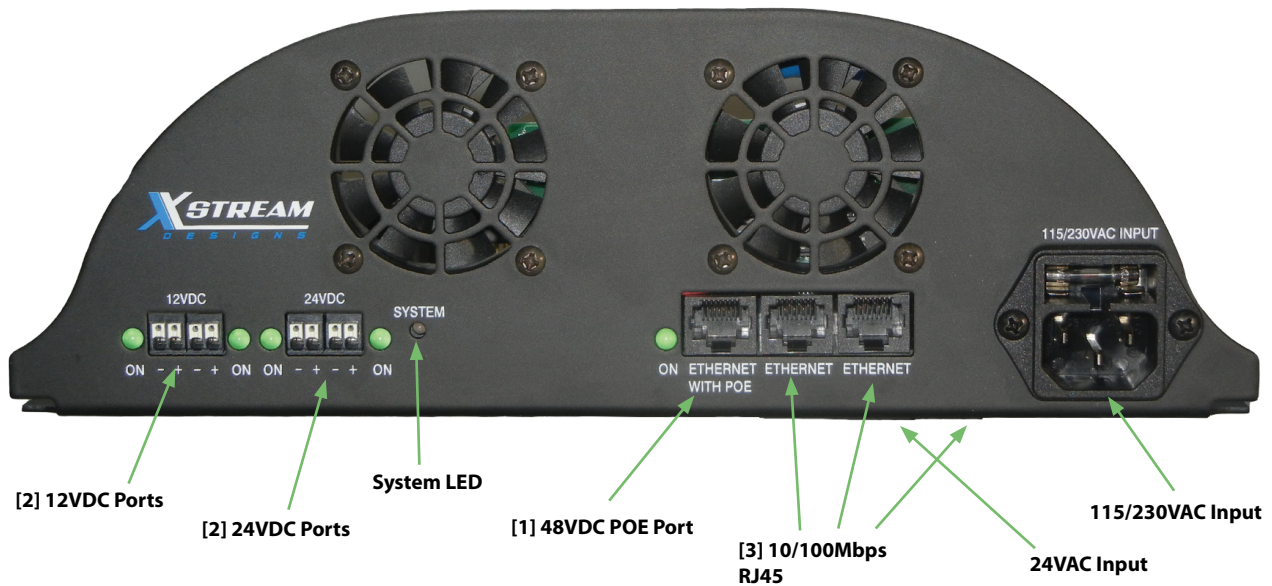## 1.3 Accessory Power Connections & Indicators

Figure 1.4 - X|Smart_PSP Connections & Indicators

[2] 12VDC Accessory Power Ports
The X|Smart system has two 12VDC accessory power ports. Each port is individually controlled (on/off) via the X|Smart web interface. Next to each accessory port is a green indicator LED which illuminates when power is available on the port.

[2] 24VDC Accessory Power Ports
The X|Smart system has two 24VDC accessory power ports. Each port is individually controlled (on/off) via the X|Smart web interface. Next to each accesory port is a green indicator LED which illuminates when power is available on the port.

[1] 48VDC Accessory Power Over Ethernet Network Port
The X|Smart system has one 48VDC accessory POE network port which is controlled (on/off) via the X|Smart web interface. Next to the POE port is a green indicator LED which illuminates when 48VDC power is available on the port.

[3] 10/100Mbps RJ45 Network Switch Ports
The X|Smart system has 3 non POE powered 10/100Mbps Network switch ports. Two are accesible on the face of the X|Smart chassis while the third is underneath as indicated in Figure 1.4 above.

115/230VAC & 24VAC Power Inputs
The X|Smart power supply chassis takes either 115/230VAC or 24VAC input power. The 115/230VAC power input is located on the face of the X|Smart power supply chassis as shown in Figure 1.4 above. The 24VAC power input is located underneath the power supply chassis.

System LED
The System LED is a blue LED light which blinks every 5 seconds indicating the system is live and operating normally. Allow approximately 10-15 seconds at power up for the System LED to start blinking.

1.4 Accessing the X|Smart Web Interface

The X|Smart system has a built-in web server that provides the user with a simple web interface for controlling and monitoring the PTZ camera enclosure system.   No special software is required to get started.   Configuring the network parameters is explained in more detail in subsequent sections of this user manual.   By default, the X|Smart system has an IP address of 192.168.10.25.   The default username and password to access the control interface and system settings tabs after accessing the web interface are u: admin / p: xsd

Note: *Depending on the setup of your network, configuring your network router and / or managed switches may be required in order to access the system from outside of your local network.*

1.5 Good Wiring Practices

CAUTION: MAKE SURE THAT POWER IS COMPLETELY OFF BEFORE WIRING.

MIS-WIRING OR MIS-CONFIGURATION COULD CAUSE PERMANENT DAMAGE TO THE X|SMART_PSP PCBA, THE EQUIPMENT TO WHICH IT IS CONNECTED OR BOTH.

Correct Wiring Procedures:
1. Make sure that power is disconnected completely from the X|Smart_PSP Chassis.
2. Strip each power wire approximately 4 to 5 mm.
3. Carefully insert the bare end of the wire into the appropriate (-/+) power port minding the voltage (12VDC or 24VDC).
4. Make sure that no bare wire shows.
5. Give the wire a slight tug to make sure that it is in the power port securely.
6. Re-Apply power to the X|Smart_PSP chassis.

Making clean and proper connections to the accessory power ports on the X|Smart_PSP power supply chassis is important.   See Figures 1.6.1 and 1.6.2 below.

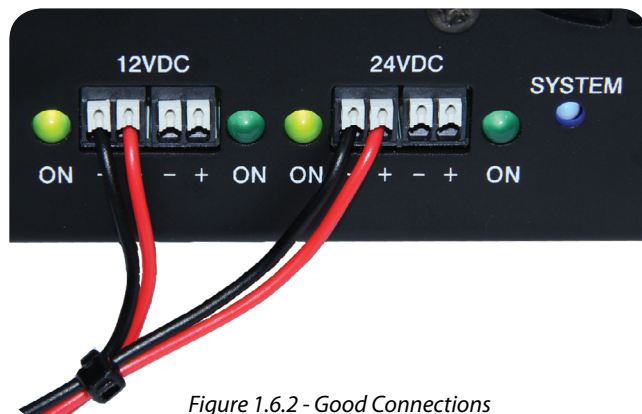*Figure 1.6.1 - Exposed Wire & Poor Connection*

Figure 1.6.2 - Good Connections

2. Network Connection

By default, your X|Smart_PSP system will arrive with the following network settings and credentials:

IP:	192.168.10.25		Username:	admin
Subnet Mask:	255.255.255.0		Password:	xsd
Gateway IP:	192.168.10.1			
DNS1:	8.8.8.8			
DNS2:	192.168.10.1			
HTTP Port:	80			

To access the web interface of the X|Smart_PSP system and configure the settings for your network, power up the enclosure system and step through the following instructions. It is suggested to do the initial connection and configuration of the X|Smart_PSP system prior to mounting the enclosure system at the installation site.

1. Connect an Ethernet Cable between a computer (or laptop) direct to any of the ethernet ports on the face or underneath the power supply chassis. This can be done direct or through a network switch (Figure 2.1.2). It is suggested that no other devices are connected to the network if connecting through a switch to avoid potential IP Address conflicts.
2. Configure your computer to have an IP address within the same 192.168.10.X subnet (EX: 192.168.10.20) and Subnet Mask: 255.255.255.0
3. It is not necessary to input a Gateway IP address or DNS information. If you enter this information, use 192.168.10.1 for the Gateway IP Address, DNS1: 8.8.8.8 and DNS2: 8.8.4.4
4. Apply and/or save those settings on your computer.
5. Open up your favorite web browser. Firefox and Chrome work well.
6. Enter the following into the URL Window; http://192.168.10.25:80 then hit enter.
7. The XSmart web interface will load in the web browser and look similar to Figure 2.1.1 below. You are now connected with the X|Smart web interface.

Figure 2.1.2 - X|Smart Connection - Computer Direct & Through a Networks Switch
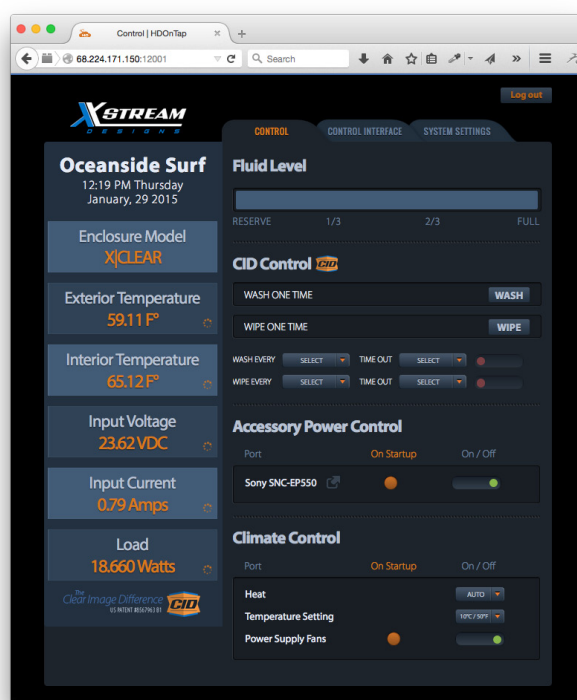

Figure 2.1.1 - X|Smart Initial Web Interface Window

3. Control Window Overview

When first connecting to the web interface of the X|Smart system, the control window will appear. You can also navigate to the control window by clicking on the control tab. It is within the control window that you monitor power and temperatures, control the CID washing and wiping functions and power on and off accessory power ports. The system by default does not require a username or password when first accessing the web interface of the X|Smart system.
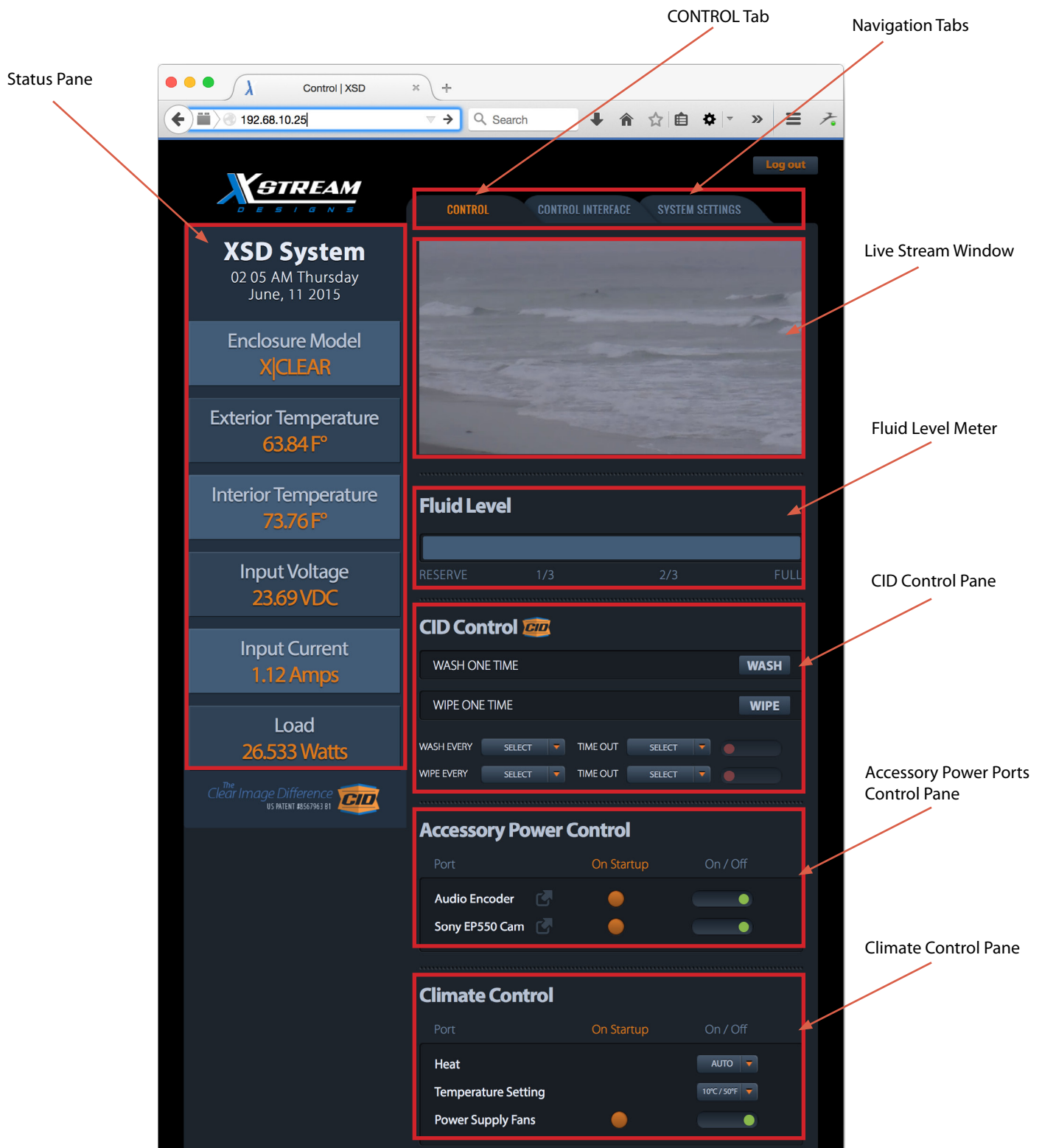

Figure 3 - X|Smart Control Window

3.1 Control Window

The Control Window is comprised of the Status Pane, Navigation Tabs, Live Stream Window, Fluid Level Meter, CID Control Pane, Accessory Power Control Pane, Climate Control Pane and Power and Temperature Graphs.   Each section of the control window and what is displayed can be customized as desired by the user within the CONTROL INTERFACE tab.

Status Pane
This section of the control window displays the System Name, Time/Date, Enclosure Model, Exterior Temperature (If exterior temperature probe is installed), Interior Temperature, Input Voltage, Input Current and Load.   By default, the system displays temperature in both Fahrenheit and Celius.   This can be changed to ºF, ºC or both as well as what is displayed in the status pane within the CONTROL INTERFACE and SYSTEM SETTINGS navigation tabs.

Navigation Tabs
The navigation tabs allow the user to navigate from the Control Window to system setup menus. When first navigating to either the CONTROL INTERFACE tab or the SYSTEM SETTINGS tab, the system will ask for a username and password. The default username is **admin** and the default password **xsd** (password is case sensitive).

Live Stream Window
The Live Stream WIndow streams live RTMP streams.   It can be enabled and disabled from within the Control Interface tab.   RTMP URL setttings are entered in the System Settings tab.   This feature DOES NOT allow you to display live video from typical IP network cameras unless they support RTMP streaming.
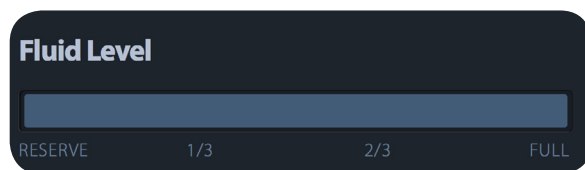
Fluid Level
The Fluid Level meter displays the level of the washing fluid at four levels - FULL, 2/3, 1/3 and RESERVE. When the fluid bottle is filled completely, FULL will be displayed for approximately 15 wash cycles. 2/3 will then be displayed until approxmiately 30 wash cycles are completed. 1/3 will then be displayed until approximately 50 wash cycles are completed.   When no bar is displayed in the meter, the fluid bottle has reached the RESERVE level.   This happens at approximately 70 was cycles with approximately 20 was cycles remaing.

Note: *There is no indicator as to when the fluid bottle is completely empty. Damage to the system components can occur if the system runs out of fluid and continued attempts are made to clean the dome.*
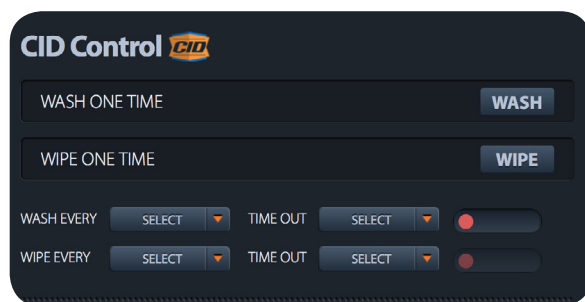

Figure 3.1 - Fluid Level Meter

Figure 3.2 - CID Control

CID Control Pane
It is within this section of the Control Window that the user controls the dome washing function and the dome wiping function of X|Rain and X|Clear model enclosures.   In the X|Clear model enclosure, the CID Control Pane will display both Wash and Wipe functions.   In the X|Rain model enclosure, the CID Control Pane will only display the Wipe function.   If the X|Smart_PSP system is installed in the X|Heat, X|Cold or X|Mod enclosures as an option, the CID Control Pane will not be displayed.
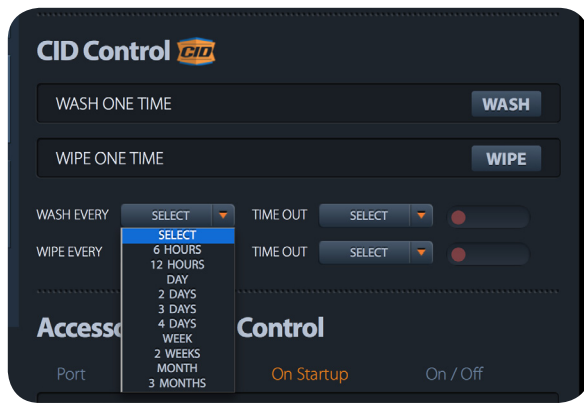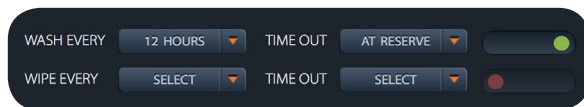
Figure 3.3 - Interval Selection

Figure 3.3.1 - Enabling Scheduled Intervals

The wash and wipe functions can be activated in one of two ways.

1.) One Time Wash or Wipe - When desired, simply depress the WASH or WIPE button to the right of WASH ONE TIME or WIPE ONE TIME (Figure 3.2 & 3.3).

2.) Scheduled Intervals - User selectable intervals are enabled by selecting an interval, a time out value and mouse clicking on the the red ball once it brightens. With your mouse, click on the SELECT pull down box to the right of WASH EVERY and WIPE EVERY and select an interval value.   (Figure 3.2 and 3.3). Next, select a Time Out value by mouse clicking on the SELECT pull down menu to the right of TIME OUT (Figure 3.3). When an interval value and time out value is selected, the red ball to the right of the time out value will brighten. Clicking on it will turn the ball green and move it to the right position indicating that the scheduled interval is enabled. (Figure 3.3.1)

Notes:
If both an interval value and time-out value are not selected, the scheduled function cannot be enabled.

When the fluid level has reached the RESERVE level, the WASH EVERY function cannot be enabled.

It is suggested to choose appropriate Time Out values so that the fluid bottle is not emptied pre-maturely and the Wipe Every function is not wiping a dry dome which can lead to surface scratches on the dome lens.

Figure 3.4 - Accessory Power Control

Accessory Power Control
This section of the Control Window allows the user to monitor and control the accessory power ports including the PoE powered ethernet port.   By default, the system displays the 12VDC and 24VDC accessory ports as 12VDC_1, 12VDC_2, 24VDC_1 and 24VDC_2 where "_1" is the port on the left and "_2" is the port on the right for both the 12VDC and the 24VDC ports.   The Power Over Ethernet port is displayed as POE by default.   The user can customize the naming of these accessory power ports within the CONTROL INTERFACE tab.

Examples: 12VDC_1 to NVR or POE to Sony PTZ Camera (Figure 3.4).
Enabling and disabling power to the accessory power ports is achieved by clicking the mouse in the appropriate toggle slider to the right.   The indicator is either green when enabled or red when disabled.

Each of the accessory power ports can be enabled to automatically turn on at system startup. This is enabled under the CONTROL INTERFACE tab. If the power port is enabled to be "on" at system startup, an orange ball will appear under "On Startup".
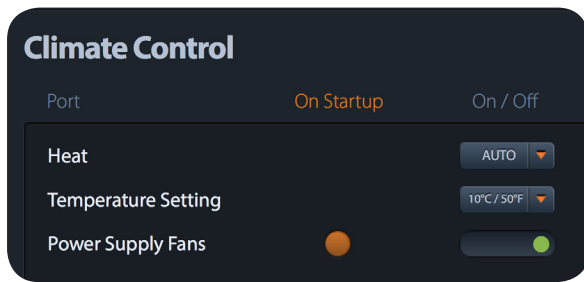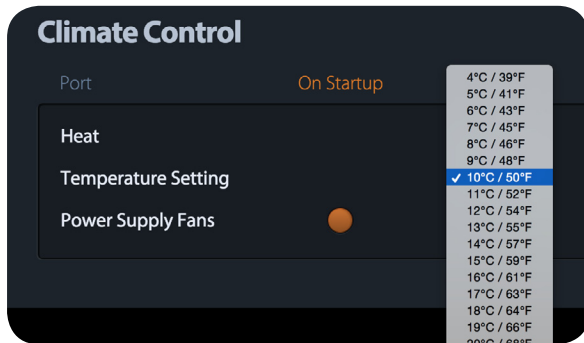
Figure 3.5 - Climate Control

Figure 3.6 - Internal Heat Selection Drop Down Menu

Climate Control
The enclosure heating system is set to AUTO and 10ºC/50ºF by default. The selectable options are OFF or AUTO. If OFF is selected, the Internal Heater Lower Limit value is not selectable. If Heat is set to AUTO, the user is able to select a Temperature Setting value via a drop down menu (Figure 3.6). Regardless of the Temperature Setting value, the enclosure heating system turns off at 21ºC / 70ºF. The enclosure heating system will again turn on automatically if the internal temperature drops to Temperature Setting value.

The Power Supply Fans can be turned on or off via the power toggle slider. If the slider is red and in the left position, the fans are off. If the slider is green and in the right position, the fans are on. The Power Supply Fans are enabled to come on at system startup by default. The default startup state (on or off) of the fans can be changed under the CONTROL INTERFACE tab.

Note:
The Power Supply Fans are instrumental in circulating air within the enclosure system eliminating hot spots created by integrated components such as the camera and thermal heating to the external housing. Unless power consumption (Approximately 3.5 Watts) or noise is a concern, it is recommended that the power supply fans are left on at all times.
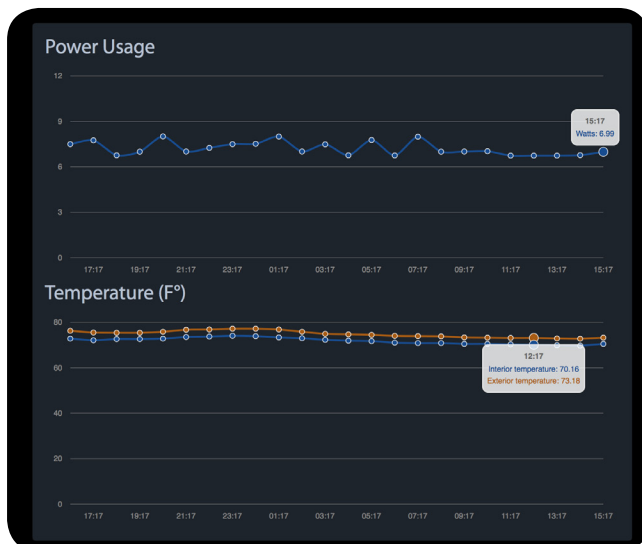

Figure 3.7 - Power & Temperature Graphs

Temperature & Power Graphs
In addition to the power and temperature values displayed in the status pane, the X|Smart web interface displays power usage and temperature in a graphical format over a 24 hour period. Power is displayed in watts while temperature is displayed in either Celsius or Fahrenheit. If the optional external temperature probe is installed, both internal and external temperatures are graphed.

Each hour, the system determines the watts used and graphs the value in the Power Usage graph. The specific time and value at that point in time can be displayed by mousing over the circle points in the line graph.

The Temperature Graph displays the temperature in either Fahrenheit or Celsius each hour. Within the CONTROL INTERFACE tab, the user can select either Fahrenheit or Celsius and enable or disable displaying the power and temperature graphs all together.

System Setup Windows

Accessing the system setup windows is achieved by clicking on the CONTROL INTERFACE and/or SYSTEM SETTINGS tabs. When clicking on either of these tabs for the first time, you will be asked for a username and password (Figure 4.1). The username is always **admin** and the default password is **xsd** . Both are case sensitive.
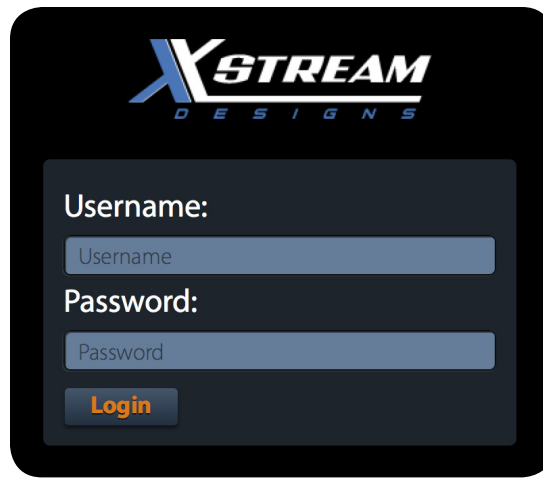

Figure 4.1 - Login Window

4.1 CONTROL INTERFACE Tab

Under the CONTROL INTERFACE tab, you will find the System Name, Time and Date, Accessory Power Ports, Climate Control and Display configuration panes. Each section and the configuration options are explained below in detail.
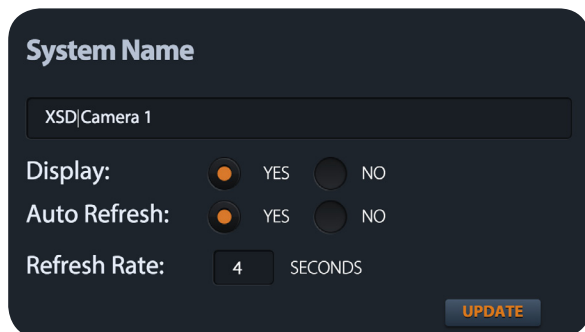

Figure 4.2 - System Name

System Name
The System Name pane allows you to enter text or a name which will appear above the time and date in the Status Pane. Simply enter the desired text into the text input box and mouse click the update button. The user has the option to display or not display the System Name field in the status pane by selecting either Yes or No to the right of Display under the System Name text input box. This section also allows you to select Auto Refresh - yes or no and the Refresh Rate. It is suggested to set Auto Refresh to yes with a refresh rate of 10 seconds or less. The refresh rate determines how often the X|Smart user interface polls the X|Smart_PSP system for updated status information.

Figure 4.3 - Time and Date

Time and Date
Both the Time and Date are displayed under the System Name within the status pane section of the UI. Within the Time and Date pane of the CONTROL INTERFACE tab, the user is able enable or disable displaying this data. Choose either yes or no and mouse click the Update button to change the display status.

Figure 4.4 - Accessory Power Ports
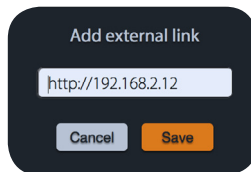

Figure 4.4.1 Hyperlink Icon

Figure 4.4.2 External LInk Window

Figure 4.5 Climate Control

Accessory Power Ports
The Accessory Power Ports configuration pane allows the user to customize the name of each accessory power port, enter HTTP URL quick link data, select whether the port should be displayed in the the CONTROL window and enable or disable the power port state at system startup. To display a power accessory port in the Accessory Power Ports pane of the CONTROL window, mouse click the respective box under the Display header. A check mark will appear indicating that displaying of the port in the CONTROL window is enabled.

Instead of displaying the default names of each power port (Ex. 12VDC_1), the user can enter an appropriate name in the text input box (Ex: Sony PTZ Cam) then mouse click on the update button to display the custom port name.

To enable a power port on startup, mouse click in the box under On Startup. The red ball will move to the right and turn green indicating that the power port will be "ON" when the system starts up.

To enter a hyperlink URL for quick web access to accessory power port devices, click on hyperlink icon to the left of the Custom Name text input box (Figure 4.4.1). A window will appear (Figure 4.4.2) allowing you to enter the full URL of the device including http://. When a URL is entered, a similar hyperlink icon will appear next to the respective device in the Accessory Power Ports section of the CONTROL window. Mouse clicking on the hyperlink icon within the CONTROL window will open the entered URL in a new web browser tab.

Climate Control
The Climate Control configuration pane allows the user to enable or disable displaying of the respective control item in the Climate Control section of the CONTROL window. It also allows the user to set the default state of the Power Supply Fans at system startup - On or Off. To display the respective item in the Climate Control pane of the CONTROL window, mouse click the respective box under the Display header. A check mark will appear in the box indicating the item will be displayed in the CONTROL window.

Figure 4.6 - Display

Display
The Display Status configuration section allows the user to enable or disable Status Pane status readings, enable or disable displaying the Power Usage and Temperature Graphs and choose the display units for temperature - Fahrenheit or Celsius.

To disable displaying of a status parameter, mouse click on the check mark under the Display header.   To Enable displaying a status parameter, mouse click in the empty box and a check mark will appear indicating that displaying of the parameter is enabled. After enabling or disabling a status display parameter, mouse click the update button.

4.2 SYSTEM SETTINGS Tab

Under the SYSTEM SETTINGS tab, you will find System, Network Settings, User Password, Authentication, Time/Date Settings, Enclosure Reporting and Live Stream Player configuration sections. Each section and the configuration options are explained below in detail.
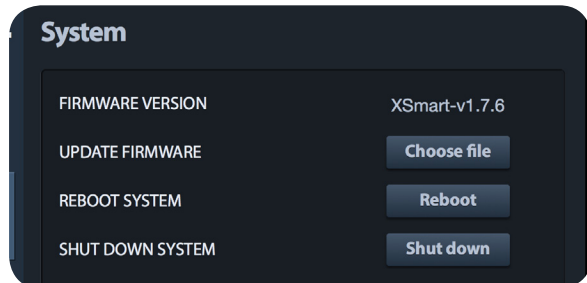

Figure 4.7 - System

System
The System section of the SYSTEM SETTINGS displays the current Firmware Version and allows the user to update the firmware, reboot the X|Smart system and Shutdown the enclosure system.

To update the system firmware, mouse click on the Choose file button, browse your computer files for the firmware update file and select OK. The system uploads the update firmware file and automatically updates the system firmware.   Contact X Stream Designs support for updated firmware.

To Reboot the system, click on the Reboot button and confirm your reboot intensions when the confirmation window appears.

To properly shutdown the X|Smart system, click on the Shutdown button and confirm your shutdown intensions when the confirmation window appears.

Note:
The X|Smart system is based on a linux operating system. As such, to power down the enclosure system, it is highly recommended to properly shutdown the system by using the Shutdown button. Failure to do so has been known to result in lost configuration settings.

Figure 4.8 - Network Settings

Network Settings

The Network Settings section of the SYSTEM SETTINGS tab allows the user to change the network settings of the X|Smart_PSP system. It is suggested to contact the administrator of your network for these settings prior to changing these settings and connecting to your network.

Selecting DHCP "yes" and mouse clicking the Update button will configure the X|Smart system to get its network settings automatically via the DHCP server on your network.   Selecting DHCP "No" allows the user to assign static IP Address network settings into the X|Smart system.   Enter the IP Address, Subnet Mask, Gateway (Router), DNS1/DNS2 information and mouse click on the Update button. When doing so, you will temporarily lose connectivity to the X|Smart system.   If the new IP Address information entered is part of a different network subnet (Example: 10.0.0.25), you might have to change the network settings on your computer to allow access to that subnet in order to access the system UI at the new IP Address settings.

The HTTP port by default is port 80. This can be changed as desired. If the HTTP port is changed to 8000 for example, the new URL to access the X|Smart system will be http://<IP_Address>:8000 When changing the HTTP port, mouse click on the Update button. You will then have to use the new URL format above in order to access the X|Smart system.

Figure 4.9 - User Password

User Password

The User Password section of the SYSTEM SETTINGS tab allows the user to change the default admin password `xsd` . Enter the new password into both the New Password and Re-Enter New Password text fields and mouse click on the update button. The system will immediately require the user to enter the new login in credentials. Enter admin and your new password, then click Login.

Figure 4.10 - Authentication

Authentication

The Authentication section of the SYSTEM SETTINGS tab allows the user to require or not require a password in order to control any of the funtions found within the CONTROL tab.   To require or not require a password for CONTROL tab functions, click in the appropriate field (Yes or No) then mouse click the Update button.

Note: Login credentials are always required to change any of the settings parameters found in the CONTROL INTERFACE and SYSTEM SETTINGS tabs.

Time / Date Settings

Figure 4.11 - Time / Date Settings

Time / Date Settings
The Time/Date Settings section of the SYSTEM SETTINGS tab allows the user adjust time and date settings of the X|Smart system.

Currently, the only method to setting the time and date is via NTP (Network Time Protocol).   You can either leave the default NTP server or enter an NTP server hostname of your choice.

Configuration options once the NTP server is entered are as follows.

- SYNC ON POWER UP - yes or no
- UTC OFFSET (Example: PST = -08:00)
- SYNC INTERVAL - select DAILY, WEEKLY or MONTHLY

Once the desired settings are made, mouse click on the Update button to apply the settings.

Note: The time is in 24 Hour Format only.

Enclosure Reporting
Disable Reporting & Alerts

Figure 4.12 - Enclosure Reporting

Enclosure Reporting
The Enclosure Reporting section of the SYSTEM SETTINGS tab is reserved for future software releases and X Stream Designs XSD Central portal system for accessing and controlling multiple enclosure systems from a single web interface. At this time, setting Disable Reporting & Alerts to either Yes or No does nothing.

Live Stream Player

Figure 4.13 - Live Stream Player

Live Stream Player
The Live Stream Player section of the SYSTEM SETTINGS tab allows the user to enter RTMP Live Stream URI parameters.   Enter the following parameters then mouse click the Update button to save the settings.

- HOST/IP - Hostname or IP Address of the RTMP server.
- PORT - The RTMP streaming port.   This is typically 1935 but may vary depending on the individual settings of the RTMP server.
- APPLICATION - The application name from which are you pulling the RTMP stream.
- STREAM NAME - The name of the live stream.
- AUTO PLAY ON PAGE LOAD - Select "YES" to have the live stream auto start when the CONTROL window loads.   Selecting "NO" will require the user to mouse click in the player window to start the live stream playing.
- MUTE AUDIO - Select "YES" to mute audio associated with the live stream. Selecting "NO" will allow audio if any to be audible when viewing the live stream.

Note:
The Live Stream Player feature does not allow you to display typical IP Network camera video (RTSP). It is only intended to be used to display live stream video which is served by an RTMP server. The feature exists for customers using the X|Smart enclosure systems for live streaming purposes.

To display the live stream player within the CONTROL window, you must enable the player within the Display section of the CONTROL INTERFACE tab.

Optional Accessories

The following optional accessories are available for purchase from X Stream Designs.   Please contact an X Stream Designs representative via phone, our website at http://xstreamdesigns.com or email sales@xstreamdesigns.com.

Accessory	Description	Part Number
External Temperature Sensor	1 Wire Stainless Steel External Temperature Senor Probe	XSD-EXTTEMP-P
Accesory Shelf - Short	Black Powder Coated Perforated Aluminum Accessory Shelf Mount	XSD-SHELF-S
Accessory Shelf - Full	Black Powder Coated Perforated Aluminum Accessory Shelf Mount	XSD-SHELF-F
Replacement Rotating Dome Lens	Replacement Rotating Dome Lens	XSD-RDL
Replacement Fixed Dome Lens	Replacement Fixed Dome Lens	XSD-FDL
XSD Camera Mounting Plate	XSD Camera Mounting Plate	XSD-CMP
XSD _L - Extended Camera Mounting Tray	Convert your X|Model short enclosure system to a long version with the XSD Extended Camera Mounting Tray	XSD-ECMT
XSD _S - Short Camera Mounting Tray	Convert your X|Model long enclosure system to a short version with the XSD Short Camera Mounting Tray	XSD-SCMT