

INTELLISWITCH II Web Server

DELIVERY PSI OXYGEN	75						
LEFT	255	STATUS			CYLINDER	SELECTION	
PSI OXYGEN	355	READY REPLACE	IN-USE	230 PSI	350 PSI	500 PSI	О Н. Р.
RIGHT [0405	STATUS			CYLINDER	SELECTION	
PSI OXYGEN	2185	READY REPLACE	O IN-USE	0 230 PSI	0 350 PSI	0 500 PSI	H. P.
				L			
SWITCHOVER 135		30 VERSI	ЭΝ <u>3</u> .	02			
HYSTERESIS 10	SWITCH BACK	10 Syste	M I.D.	1			
			EVENT LOG				
	REFRESH	C LEAR					
CONCOA PRECISION GAS CONTROLS	EDIT					₹	PRINT

INSTALLATION AND USER'S GUIDE

Carefully Read These Instructions Before Operating

Controls Corporation of America 1501 Harpers Road • Virginia Beach, VA 23454 Telephone 1-800-225-0473 or 757-422-8330 • Fax 757-422-3125 www.concoa.com

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WHAT YOU NEED

Computer: Pentium 4 or better Monitor: Capable of MINIMUM display resolution 1024 x 768 Operating System: Microsoft Windows XP, XP Professional, Vista Local Area Network Connection Internet Browser: Internet Explorer, Mozilla FireFox

The installation and setup for the IntelliSwitch Web Server (IWS) must be performed by a person with a working knowledge of the internet, local area networks and computers, such as a LAN Administrator.

CONNECTING WEB SERVER

The IWS is designed to communicate via a local area network connection. Power to the IntelliSwitch should be OFF. Connect the IWS to the network via an RJ-45 network cable. The RJ-45 connection on the IntelliSwitch is located on the bottom of the IntelliSwitch. It may be necessary to remove the protective cover to access the RJ-45 connection on the IntelliSwitch. Apply power to the IntelliSwitch and allow a minimum of 30 seconds for the IWS to find the network.

When the IWS is first initialized it will try to acquire an IP address from the DHCP server on your network. For the device to work properly it will be necessary to assign the device a permanent IP address. Ask the systems LAN Administrator to identify and record an IP address that will not be used for any other device. It may be necessary to "reserve" this IP address on your company's DHCP server.

Indentify a PC on the internal company network that you wish to use to configure the IWS. A CD containing software to assign a permanent IP address is included with the documentation. This only needs to be done one time on one PC. Once configured, any other PC on the network may view the IWS. Install the CD provided into the CD drive on this computer. View the contents of the CD and double click on the file named "Device Installer. This will load the Device Installer Application. Once the software is installed it will show up in the Programs list on your computer. It is listed under Programs/Lantronix/DeviceInstaller 4.2/DeviceInstaller. Start the Device Installer software.

When the Device Installer program starts, it will search for any IWS devices that are connected to the network. It should find the IWS that has just been installed.

The first screen you will see is shown in Figure 1.

🖗 Lantronix DeviceInstaller 4.2.0.0						_ 🗆 🗙
File Edit View Device Tools Help						
P 🖨 🔮						
Search Exclude Assign IP						
🖃 🔁 Lantronix Devices - 1 device(s)	Туре	Name	Gro	IP Address	Hardware Addre	Status
Engline Local Area Connection (192.168.0. ⊕. C XPort	XPort AR			192.168.0.176	00-20-4A-94-0E	Online
🏈 Ready						

Figure 1

Using the Mouse, click on the "+" box next to the word Xport to expand the information (Figure 2).

Figure 2

DeviceInstaller 4.2.0.0						_ 🗆 🗙
File Edit View Device Tools Help						
$\mathcal{P} \ominus \mathbf{Q}$						
Search Exclude Assign IP						
🖃 💭 Lantronix Devices - 1 device(s)	Туре	Name	Gro	IP Address	Hardware Addre	Status
E Local Area Connection (192.168.0.	XPort AR			192.168.0.176	00-20-4A-94-0E	Online
Seady						

Next, use the Mouse to click on the "+" box next to the words "Xport AR – firmware...." to expand the tree to see the IP address of the IWS (Figure 3).

Figure 3

l x l

Use the mouse again and double click on the IP address shown in the tree (Figure 4). Wait until you see the screen in Figure 5.



Figure 4

Figure 5

File Edit View Device Tools Help		
Search Exclude Assign IP Ubgrade		
		1
E Se Lantronix Devices - 1 device(s)	Device Details Web Confi	guration Telnet Configuration
E ge Local Area Connection (192.168.0.	201	
E-U XPort	5	
⊡ ≪ XPort AR - firmware v3.0 - Bi	Property	Value
······22 192.168.0.176	Name	
	Group	
	Comments	
	Device Family	XPort
	Туре	XPort AR
	ID	A1
	Hardware Address	00-20-4A-94-0E-7E
	Firmware Version	3.0 - Beta 2
	Extended Firmware Versi	3.2.0.1R7
	Online Status	Online
	IP Address	192.168.0.176
	IP Address was Obtained	Dynamically
	Obtain via DHCP	False
	Obtain via BOOTP	False
	Subnet Mask	0.0.0.0
	Gateway	0.0.0.0
	Number of Ports	1
	Supports Configurable Pi	True
	Supports Email Triggers	True
	Telnet Enabled	True
	Telnet Port	23
	Web Enabled	True
	Web Port	80
	Maximum Baud Rate Sup	230400
	Firmware Upgradable	True
	L	

Using the Mouse select the "Assign IP Address" icon at the top of the screen (Figure 6). Figure 7 should appear.

Lantronix DeviceInstaller 4.2.0.0		
File Edit View Device Tools Help		
Search Exclude Assign R Upgrade		
🗉 📒 Lantronix Devices - 1 device(s)	Device Details Web Confid	guration Telnet Configuration
E Local Area Connection (192.168.0.	2	· · · · ·
🖻 🤝 XPort AR - firmware v3.0 - Bi	Property	Value
	Name	
	Group	
	Comments	
	Device Family	XPort
	Type	XPort AR
	ID	A1
	Hardware Address	00-20-4A-94-0E-7E
	Firmware Version	3.0 - Beta 2
	Extended Firmware Versi	3.2.0.1R7
	Online Status	Online
	IP Address	192.168.0.176
	IP Address was Obtained	Dynamically
	Obtain via DHCP	False
	Obtain via BOOTP	False
	Subnet Mask	0.0.0.0
	Gateway	0.0.0.0
	Number of Ports	1
	Supports Configurable Pi	True
	Supports Email Triggers	True
	Telnet Enabled	True
	Telnet Port	23
	Web Enabled	True
	Web Port	80
	Maximum Baud Rate Sup	230400
	Firmware Upgradable	True
	<u>e</u>	

Figure 6

Fig	ure	7
· · · 9	u i u	

	3	
🔩 Assign IP Address		×
	Assignment Method	
	Would you like to specify the IP address or should the unit get its settings from a server out on the network?	
MEAR	O Obtain an IP address automatically	
	Assign a specific IP address	
	TCP/IP Tutorial	
+		
	< Back Next > Cancel Help	

Click on the "Next" box. Figure 8 should appear. Notice that an IP address appears in the IP address window. This is the IP address that the IWS has assigned itself.

Figure 8 × Assign IP Address IP Settings Please fill in the IP address, subnet, and gateway to assign the device. The subnet will be filled in automatically as you type, but please verify it for accuracy. Incorrect values in any of the below fields can make it impossible for your device to communicate, and can cause network disruption. IP address: 192.168.0.176 255.255.255. Subnet mask: 0.0.0.0 Default gateway: < Back Next > Cancel Help

Replace the IP address in the IP Address window with the IP address that the LAN Administrator has reserved for the device. Example shown in Figure 9. MAKE SURE THAT YOU ENTER A VALID IP ADDRESS FROM YOUR LAN. IF THIS IP ADDRESS IS ENTERED INCORRECTLY THE IWS CAN BE CONFIGURED INCORRECTLY AND MAY BECOME INOPERABLE.

Figure 9

S Assign IP Address		×		
	IP Settings			
	Please fill in the IP address, subnet, and gateway to assign the device. The subnet will be filled in automatically as you type, but please verify it for accuracy. Incorrect values in any of the below fields can make it impossible for your device to communicate, and can cause network disruption.			
	IP address: 192.168.0.201			
	Subnet mask: 255.255.255			
	Default gateway: 0.0.0.0			
	< Back Next > Cancel Help	1		

Click "Next" (Figure 10). Figure 11 screen should appear.

Figure 10

🔩 Assign IP Address	×			
	IP Settings			
	Please fill in the IP address, subnet, and gateway to assign the device. The subnet will be filled in automatically as you type, but please verify it for accuracy. Incorrect values in any of the below fields can make it impossible for your device to communicate, and can cause network disruption.			
	IP address: 192.168.0.201			
	Subnet mask: 255.255.25.0			
	Default gateway: 0.0.0.0			
	< Back Next > Cancel Help			

Click "Assign" on the screen. (Figure 11). Watch the progress bar (figure 12) until the message "completed successfully" appears below it. Click "Finish". The screen in Figure 13 should appear and the new IP address will be shown (see arrow in figure).

	Figure 11	
S Assign IP Address		×
	Assignment Click the Assign button to complete the IP address assignment. Assign	
	< Back Finish Cancel Help	

Figure 12

🔩 Assign IP Address	×
Address	Assignment Click the Assign button to complete the IP address assignment.
	Progress of task:
	Finish

	Figure 13	
Lantronix DeviceInstaller 4.2.0.0		
File Edit View Device Tools Help		
Search Exclude Assign IP Upgrade		
Lantronix Devices - 1 device(s)	Device Details Web Confid	guration Telnet Configuration
E VPort AR - firmware V3.U - Bi	Property	Value
	Name	
	Group	
	Comments	
	Device Family	XPort
	Туре	XPort AR
	ID	A1
	Hardware Address	00-20-4A-94-0E-7E
	Firmware Version	3.0 - Beta 2
	Extended Firmware Versi	3.2.0.1R7
	Online Status	Online
	IP Address	192.168.0.201
	IP Address was Obtained	Dynamically
	Obtain via DHCP	False
	Obtain via BOOTP	False
	Subnet Mask	255.255.255.0
	Gateway	0.0.0.0
	Number of Ports	1
	Supports Configurable Pi	True
	Supports Email Triggers	True
	Telnet Enabled	True
	Telnet Port	23
	Web Enabled	True
	Web Port	80
	Maximum Baud Rate Sup	230400
	Firmware Upgradable	True
1		
	P	
Device at 192.168.0.201 was found!		

Close the program by clicking on the \boxtimes in the upper right corner (Figure 14) or by clicking "File/Exit" from the pull down menu. The IWS is now ready for use

	Figure 14		
Lantronix DeviceInstaller 4.2.0.0			
File Edit View Device Tools Help			
Search Exclude Assign IP Upgrade			
 ⇒ Lantronix Devices - 1 device(s) ⇒ ⇔ Local Area Connection (192.168.0. ⇒ ⊕ ⊕ XPort 	Device Details Web Confid	guration Telnet Configuration	
🗄 🐲 XPort AR - firmware v3.0 - Bi	Property	Value	
192.168.0.201	Name	10.00	
	Group		
	Comments		
	Device Family	XPort	
	Type	XPort AB	
		A1	
	Hardware Address	00-20-4A-94-0E-7E	
	Firmware Version	3.0 - Beta 2	
	Extended Firmware Versi	32.0.1B7	
	Online Status	Online	
	IP Address	192.168.0.201	
	IP Address was Obtained	Dynamically	
	Obtain via DHCP	False	
	Obtain via BOOTP	False	
	Subnet Mask	255.255.255.0	
	Gateway	0.0.0.0	
	Number of Ports	1	
	Supports Configurable Pi	True	
	Supports Email Triggers	True	
	Telnet Enabled	True	
	Telnet Port	23	
	Web Enabled	True	
	Web Port	80	
	Maximum Baud Rate Sup	230400	
	Firmware Upgradable	True	
Dovice at 192 168 0 201 was found			
Device at 132.166.0.201 was jound!			

Figure 14

GAINING ACCESS TO THE WEB SERVER

Using either Internet Explorer or Firefox and the newly assigned IP address (xxx.xxx.x.xxx), enter the following in the address box at the top of the screen:

http://xxx.xxx.x.xxx/intelliswitch/status.html.

If connected properly, an image similar to the one in Figure 15 below should appear on your screen.

ADDING IWS TO DESKTOP

For convenience the IWS should be added to your favorites and/or your desk top. To do this, reduce the IWS image using the "Restore Down" icon in the upper right corner of the screen so that it only occupies a portion of your desktop. Next, open up favorites and find your new entry for the IWS and drag it over to the desk top. You may wish to rename the icon so that it has a name that is easily recognized for the device being used. The IWS is now ready to use. Refer to the section "USING THE WEB SERVER" to learn what functions it has and how to use it.



Figure 15

USING THE WEB SERVER

FEATURES:

The IWS has a number of useful features. The STATUS screen is what appears when the IWS is first accessed. This screen provides the ability to monitor a number of parameters as well as providing an "event log" that allows viewing of IntelliSwitch activity. Clicking on the EDIT button will bring the user to the EDIT screen. Here it is possible to change various parameters within the IntelliSwitch. Also on the EDIT screen are two buttons marked EMAIL1 & EMAIL2. Clicking on one of these buttons will bring the user to an EMAIL setup screen. The IWS has the capability of emailing any activity that may occur while the IntelliSwitch is in use. Each screen and its function will be explained in subsequent pages of the manual.

STATUS SCREEN



Table 1 that follows provides a description of each of the parameters on the screen (Figure 16)

Table 1	
---------	--

Bullet	Item	Description
1	Delivery Display	Displays the Delivery Regulator Pressure
2	Left Inlet Pressure	Displays the Left Inlet Pressure
2A	Left Inlet Status	Radio buttons display the current status of the left inlet gas supply. Green Ready indicates that there is enough gas on the left side so it can be used. Green In-Use indicates that the left side is being used. Red Replace indicates that the gas supply on the left side needs to be replaced.
2B	Cylinder Selection	Radio buttons indicate what type of cylinder selection is made for the left inlet. Green indicates which cylinder type is selected
3	Right Inlet Pressure	Displays the Right Inlet Pressure
ЗA	Right Inlet Status	Radio buttons display the current status of the right inlet gas supply. Green Ready indicates that there is enough gas on the right side so it can be used. Green In-Use indicates that the right side is being used. Red Replace indicates that the right side needs to be replaced.
3B	Cylinder Selection	Radio buttons indicate what type of cylinder selection is made for the right inlet. Green indicates which cylinder type is selected

Table 1 (cont.)

Bullet	Item	Description
4	Units of Measure	Choices are PSI, BAR and MPA. Pressures will be displayed in the units shown in this area.
5	GAS Type	Displays the gas type the IntelliSwitch is controlling. This is set by the user from the EDIT screen.
6	Switchover Pressure	This is a preset pressure in the IntelliSwitch used to determine when an inlet can no longer provide enough gas pressure to the delivery regulator. This value can be changed in the EDIT screen.
7	Hysteresis	This is a preset pressure value that is used to prevent the IntelliSwitch from "dithering" at the switchover point.
8	Look Back	This is a preset time in minutes used for liquid cylinders to determine when to look back at an inlet pressure to determine if pressure has been restored above the switchover point. The IntelliSwitch will look back at an inlet after the look back time has expired to see if its pressure has built back up above the switchover point. If it has, then the IntelliSwitch will switch back to that side to try to use more of the gas.
9	Switch back	A preset time in minutes used for liquid cylinders in conjunction with the look back time. If the look back feature is invoked and after time out has determine that it can switch back to a side whose pressure has built back, a switch back timer will start. If the inlet pressure on the same side drops again before the switchback time has expired the IntelliSwitch determines that that side is truly empty and will alarm and switch to the other inlet.
10	Version	this is the software version of the IntelliSwitch software on your system
11	System ID	This is a number that can be assigned by the user to identify the IntelliSwitch.
12	REFRESH button	Clicking on this button will force an immediate display update. Normally the IWS updates the display approximately every 4-5 minutes unless an "event" occurs. An "event" is defined as an alarm or any activity such as pressing a button that causes switching or a change in cylinder selection
13	EVENT LOG	This is a location used to list any events that may occur
14	CLEAR LOG button	This button clears the contents of the event log
15	PRINT LOG button	This button allows the printing of the contents of the event log to a users computer
16	EDIT button	Clicking this button will bring the user to the EDIT screen where changes to parameters can be made. The EDIT screen is password protected
17	ALARM CLEAR button	Normally alarms that occur when using cryogenic cylinders must be manually reset by pressing the "REET" button on the front panel of the system. Clicking this button allows the reset to be performed remotely.

EVENT LOG

The Event Log provides a record of any events that may occur while the IntelliSwitch is running. This can be an alarm condition or a key press. Essentially, any "event" that may occur either as a result of a response to a change in conditions or operator intervention. A list of "events" that could be displayed in the event log is shown below.

Inlet Value Status – "description" Error – "description" Left Side O/P – "value" (O/P = over pressure) Right Side O/P – "value" Left Side U/P – "value" (U/P = under pressure) Right Side U/P – "value" Keypad Lock "description" Cylinder Selection Changed – "description" Alarm Clear U/P Left Side – "value" Alarm Clear O/P Left Side – "value" Alarm Clear U/P Right Side – "value" Alarm Clear O/P Right Side – "value"

The word "value" is replaced by a pressure in psi. The word "description" is replaced with and explanation of what happened.

The Event Log can store up to 50 events. Once the quantity of events reaches 50 it will continue to list the events but push events off the list starting with the first one. The list will be maintained until it is cleared. To clear the Event Log, click on the "CLEAR" button.

The Event Log can also be printed if a permanent record is needed. The PRINT function can use whatever printer the user's computer is connected to. To print the event log, click on the PRINT button. A normal windows print screen will appear.

ALARM CLEAR

Alarms that occur when using cryogenic cylinders must be manually reset. This is usually done from the front panel of the IntelliSwitch when empty cylinders are replaced. If the reset button is not pressed the IntelliSwitch will not switch to the side with fresh cylinders because it still thinks it is in alarm. If for any reason this Reset button on the front panel is not pressed when cylinders are replaced it is possible to reset the alarm remotely using this feature. Clicking this button will cause the pop-up screen shown in Figure 17 to be displayed. Click on "Yes" to reset of "No" to cancel the operation.



EDIT SCREEN

The EDIT screen allows the user access to the IntelliSwitch operating parameters as well as EMAIL options. This screen is password protected. The password is fixed and cannot be changed. To enter the EDIT screen, click on the EDIT button at the bottom of the STATUS screen. The Password pop-up, Figure 18, will appear. Click in the blank text box and type: **19490321**. Now either click on "OK" or press ENTER on the keyboard. The EDIT screen will appear (Figure 19).



The upper portion of the EDIT screen (Items 1 - 16) displays the parameters that can be modified individually and directly. The lower portion of the screen contains various buttons that invoke various functions. The SET button (Item 15) is used to transfer the parameters on the EDIT screen to the

IntelliSwitch. This gives the user an opportunity to review and/or modify any value before the parameters are permanently changed. The other buttons will be explained further along in this manual.

Pop-up messages are used throughout this screen to aid in setting parameters. Items 1-10 and buttons "ZERO SET", and "RESTORE DEFAULTS" have associated pop-up messages that will appear when the mouse pointer is over them. The "SET" button and "UNDO" buttons will show pop-up messages after they have been selected. Use these messages as guides to correctly set values on this screen.

Figure 18 and Table 2 describe the various parameters on the screen.

Bullet	Item	Description
		This is a preset pressure in the IntelliSwitch used to determine
1	Switchover Pressure	when an inlet can no longer provide enough gas pressure to the
		delivery regulator. Data range: 50-500psi
		This is a preset time in minutes used for liquid cylinders to
		determine when to look back at an inlet pressure to determine if
		pressure has been restored above the switchover point. The
2	Look Back	IntelliSwitch will look back at an inlet after the look back time has
		expired to see if its pressure has built back up above the
		switchover point. If it has, then the IntelliSwitch will switch back to
		that side to try to use more of the gas. Data range: 10-60 min.
		A preset time in minutes used for liquid cylinders in conjunction
		with the look back time. If the look back feature is invoked and
		after time out has determine that it can switch back to a side
3	Switch back	whose pressure has built back, a switch back timer will start. If the
		injet pressure on the same side drops again before the switchback
		time has expired the intellis witch determines that that side is truly
		empty and will alarm and switch to the other miet. Data range. To-
		OUTININ. This is a present presence value that is used to prevent the
1	Hystorosis	IntelliSwitch from "dithering" at the switchover point. Data range:
4	Hysteresis	10-50 nsi
	Left Offset	This is a value that can be used to adjust the pressure transducer
		reading for the left inlet. This value should only be changed if it is
_		necessary to recalibrate the transducer. Changing this value will
5		change the left inlet pressure reading. A (+) or (-) value may be
		entered here. Refer to "Calibrating Transducers" section of the
		IntelliSwitch user's manual. Data range: +/- 200 psi.
		This is a value that can be used to adjust the pressure transducer
	Right Offset	reading for the right inlet. This value should only be changed if it
6		is necessary to recalibrate the transducer. Changing this value
Ŭ		will change the right inlet pressure reading. A (+) or (-) value may
		be entered here. Refer to "Calibrating Transducers" section of the
		IntelliSwitch users manual. Data range: +/- 200 psi.
7	System ID	I his is a number that can be assigned by the user to identify the
		IntelliSwitch. Data range: 1-254.
		Displays the gas type the IntelliSwitch is controlling. The pop-up
		message will snow the choices. The choices for gas type are
8	GAS Type	The name of the gas will appear on the status across point to units
		The name of the gas will appear on the status screen next to units
		or measure Data range: 1-99 (refer to pop-up message for details)

Table 2

Table 2 (cont.)		
Bullet	Item	Description
9	Left Cylinder	Radio buttons indicate what type of cylinder selection is made for the left inlet.
10	Units of Measure	Choices are PSI, BAR and MPA. Pressures will be displayed on the STATUS screen in the units selected.
11	Gas Source	This allows the user to change which inlet, left or right the IntelliSwitch is sourcing from.
12	Right Cylinder	Radio buttons indicate what type of cylinder selection is made for the right inlet.
13	Keypad	The IntelliSwitch has a keypad lockout feature that will prevent accidental or improper keypad activation. This lock out feature can be enabled or disabled from this screen.
14	UNDO Button	This button will appear after a parameter on the screen has been changed. Clicking this button will restore <u>all</u> changed parameters to their original values. It will not work once the SET button has been used.
15	SET Button	This button is used to send the changed parameters to the IntelliSwitch. A pop-up message will appear when this button is selected asking the user to verify their intention to change the parameters.
16	ZERO SET Button	This button will zero the pressure displays. It serves as a type of calibration feature. If a pressure display reads a value other than 0 psi when there is no pressure applied to the inlets clicking this button will force the displays to zero psi. THIS BUTTON SHOULD ONLY BE USED IN CIRCUMSTANCES WHERE AN INLET TRANSDUCER HAS DRIFTED FROM 0 PSI.
17	RESTORE DEFAULTS button	The setup parameters that are set at the factory for the IntelliSwitch can be restored using this button. This is useful in cases where a user is unsure that the IntelliSwitch parameters are correct or have been modified in the field using the EDIT screen.
18	EMAIL1 button	Clicking this button will bring the user to the setup screen for EMAIL1. EMAIL1 is used to email in the case of an alarm condition. Refer to the section for EMAILING in this manual for more information.
19	EMAIL2 button	Clicking this button will bring the user to the setup screen for EMAIL2. EMAIL2 is used to email in the case of any event occurring including an alarm condition. Refer to the section for EMAILING in this manual for more information.
20	CANCEL button	This button is used to cancel any operation while in the EDIT screen. If any parameters in the EDIT screen have been modified and the "SET" button has not been selected "CANCEL" will abort any modifications before bringing the user back to the STATUS screen. Clicking on this button after using "SET" will bring the user back to the STATUS screen with the changes made.

MODIFYING A PARAMETER

A. EDIT SCREEN NUMERIC VALUES (Items 1-10 Figure 19)

Position the mouse pointer over the parameter to be changed. In the example below, it is positioned over the SWITCHOVER PRESSURE. Notice that the pop-up message for this parameter is displayed (Figure 20). Next, click the mouse while over the text box. Notice that the outline that was around the text box has changed (Figure 21). This is an indication that this text box has been selected to accept data. Enter the new value for the SWITCHOVER PRESSURE. When the first number is entered, the data currently in the text box will be cleared (Figure 22). Complete the value (Figure 23).

The <Backspace> key may be used to correct a bad entry. This key will step back through the number entered one digit at a time. The <ESC> key can be used to cancel the entry. Either of these keys may be used for the current entry until the user clicks the mouse on another parameter or in the open space on the screen.

The method for changing all text boxes is the same. Use the pop-up message as a guide to entering the correct range of values.

Click on the "SET" button to transfer the new parameters to the IntelliSwitch. In doing so the pop-up message in Figure 24 will be displayed. Confirm changing the parameters by clicking on the "YES" box. If it is necessary to abort the changes click on the "NO" box and the IWS will return to the normal EDIT screen. All the changes that were made will still be on the screen. More modifications can be made or all the changes can be voided and the original values restored to the screen by clicking on the "UNDO" button.

Clicking the "CANCEL" button before setting the new parameters will void any changes made and return the user to the STATUS screen. Clicking the "CANCEL" button after setting the new parameters will return the user to the STATUS screen with the new parameters set in the IntelliSwitch.

Figui	re 20
INTELLISWITCH EDIT - Windows Internet Explore	er
🗲 🗸 🖉 http://192.168.0.176/intelliswitch/edit.htm	1
File Edit View Favorites Tools Help	
CINTELLISWITCH EDIT	
SWITCHOVER	LEFT OFFSET
	ENTER VALUE BETWEEN 50-500 PSI
SWITCH BACK	SYSTEM I.D.
Figur	re 21
INTELLISWITCH EDIT - Windo	ws Internet Explorer
→ Image: Provide the second secon	6/intelliswitch/edit.html
File Edit View Favorites Tools	Help
💡 🚓 🛛 🝘 INTELLISWITCH EDIT	
SWITCHOVER PRESSURE	135
LOOK BACK	30
SWITCH BACK	



Figure 22





B. EDIT SCREEN RADIO BUTTONS(Items 11-16 Figure 19)

The example that follows uses the Left Cylinder selection. Observe that, for this example, it is initially set to "HP" or high pressure (Figure 25). Using the Mouse, click on the radio button that represents the selection to be made. The radio button representing "HP" will change from green to clear and the one selected will change from clear to green (Figure 26). All parameters that are selected using radio buttons will be changed in the same manner.

Click on the "SET" button to transfer the new parameters to the IntelliSwitch. In doing so the pop-up message in Figure 27 will be displayed. Confirm changing the parameters by clicking on the "YES" box. If it is necessary to abort the changes click on the "NO" box and the IWS will return to the normal EDIT screen. All the changes that were made will still be on the screen but will not have been transferred to the IntelliSwitch. More modifications can be made or all the changes can be voided and the original values restored to the screen by clicking on the "UNDO" button or clicking on the "CANCEL" button to return to the STATUS screen.

Clicking the "CANCEL" button before setting the new parameters will void any changes made and return the user to the STATUS screen. Clicking the "CANCEL" button after setting the new parameters will return the user to the STATUS screen with the new parameters set in the IntelliSwitch.









EMAILING

The IWS has an advanced feature that allows emailing in the event of an alarm or an event. The IWS is only capable of sending email. It cannot receive email. PROPER SETUP OF THE EMAIL FUNCTION FOR THE IWS REQUIRES A KNOWLEDGEABLE LAN ADMINISTRATOR.

EMAIL1

EMAIL1 is used to report "alarm" conditions <u>only</u>. Reported alarm conditions are:

 $\begin{array}{l} \mbox{Error} - "description" \\ \mbox{Left Side O/P} - "value" (O/P = over pressure) \\ \mbox{Right Side O/P} - "value" \\ \mbox{Left Side U/P} - "value" (U/P = under pressure) \\ \mbox{Right Side U/P} - "value" \\ \mbox{Alarm Clear U/P Left Side} - "value" \\ \mbox{Alarm Clear O/P Left Side} - "value" \\ \mbox{Alarm Clear U/P Right Side} - "value" \\ \mbox{Alarm Clear O/P Right Side} -$

The word "value" is replaced by a pressure in psi, and the word "description" is replaced with an explanation of what happened when an email is sent.

To access the EMAIL1 screen, mouse click on the "EMAIL1" button on the EDIT screen. An image similar to Figure 28 should appear on your screen.

Table 3 provides an explanation of the contents of the EMAIL1 screen

Figure 28



Table 3

Bullet	Item	Description
1	Email Enable	The radio buttons are use to enable or disable the EMAIL1 function. Clicking on the radio button works the same as in other radio buttons in the EDIT screen
2	То:	This is the location to enter the email address of any recipients the user wishes to receive notification of an "alarm". If the user wishes to send to more than one recipient separate the email addresses by a semicolon.
3	CC:	This location holds the email address for anyone the user wishes to copy in the case of an "alarm". If the user wishes to send to more than one recipient separate the email addresses by a semicolon.
4	From:	This location holds the email address of the person or system* sending the email.
5	SET button	Clicking this button will save the parameters that have been entered.
6	TEST button	This button allows the user to test the email function. Clicking this button should send out an email message to the name(s) entered in the "To:" and "cc:" boxes
7	CANCEL button	Clicking this button will return the IWS to the EDIT screen. If there is information entered that has been saved by clicking the "SET" button those values will show in the boxes the next time the EMAIL1 screen is opened. If the "CANCEL" key is used before the "SET" button is used, nothing will be saved.
8	CONFIG button	This button brings the user to the system configuration screen. The system configuration screen is used to configure the IntelliSwitch so that it can operate its email function.

* - The LAN Administrator may choose to create an email address for the IntelliSwitch so that the recipient of an email will know which IntelliSwitch is reporting. Example: laser_room@company.com.

In order to properly operate the IWS email, the Primary and Secondary DNS Servers, Default Gateway, Overriding Domain, and Server Port must be identified and entered. These values are set in the System Configuration screen which is accessed by clicking on the "CONFIG" button. This information should be identified by the user's LAN Administrator.

Once the Primary and Secondary DNS Servers, Default Gateway, Overriding Domain, and Server Port values are for SET for either EMAIL1 or EMAIL2, the values will automatically appear in both EMAIL setup screens.

EMAIL2

EMAIL2 is used to report "events" An event is defined as any change that may occur to the IntelliSwitch. Reported events include:

Inlet Value Status – "description" Error – "description" Left Side O/P – "value" (O/P = over pressure) Right Side O/P – "value" (U/P = under pressure) Right Side U/P – "value" (U/P = under pressure) Right Side U/P – "value" Keypad Lock "description" Cylinder Selection Changed – "description" Alarm Clear U/P Left Side – "value" Alarm Clear O/P Left Side – "value" Alarm Clear U/P Right Side – "value" Alarm Clear O/P Right Side – "value"

The word "value" is replaced by a pressure in psi. The word "description" is replaced with and explanation of what happened. Events are processed through EMAIL2.

To access the EMAIL2 screen mouse click on the "EMAIL2" button on the EDIT screen. An image similar to Figure 29 should appear on your screen.

Table 4 provides an explanation of the contents of the EMAIL2 screen

Figure 29



Table 4

Bullet	Item	Description
1	Email Enable	The radio buttons are use to enable or disable the EMAIL2 function. Clicking on the radio button works the same as in other radio buttons in the EDIT screen
2	То:	This is the location to enter the email address of any recipients the user wishes to receive notification of an "alarm". If the user wishes to send to more than one recipient separate the email addresses by a semicolon.
3	CC:	This location holds the email address for anyone the user wishes to copy in the case of an "alarm". If the user wishes to send to more than one recipient separate the email addresses by a semicolon.
4	From:	This location holds the email address of the person or system* sending the email.
5	SET button	Clicking this button will save the parameters that have been entered.
6	TEST button	This button allows the user to test the email function. Clicking this button should send out a email message to the name entered in the "To:" and "cc:" boxes
7	CANCEL button	Clicking this button will return the IWS to the EDIT screen. If there is information entered that has been saved by clicking the "SET" button those values will show in the boxes the next time the EMAIL1 screen is opened. If the "CANCEL" key is used before the "SET" button is used, nothing will be saved.
8	CONFIG button	This button brings the user to the system configuration screen. The system configuration screen is used to configure the IntelliSwitch so that it can operate its email function.

* - The LAN Administrator may choose to create a unique email address for the IntelliSwitch so that the recipient of an email will know which IntelliSwitch is reporting. Example: laser_room@company.com.

In order to properly operate the IWS email, certain parameters such as the Primary and Secondary DNS Servers, Default Gateway, Overriding Domain, and Server Port may need to be identified and entered. These values are set in the System Configuration screen which is accessed by clicking on the "CONFIG" button. This information should be identified by the user's LAN Administrator.

Once the Primary and Secondary DNS Servers, Default Gateway, Overriding Domain, and Server Port values are for SET for either EMAIL1 or EMAIL2, the values will automatically appear in both EMAIL setup screens.

EMAIL CONFIGURATION

In order for the web server to properly communicate with email servers there are certain parameters that need to be identified and configured. A "System Configuration" screen is available to enter these parameters. The "System Configuration" screen is accessed through either the EMAIL1 or EMAIL2 screens by clicking on the "CONFIG" button.

It is important that a knowledgeable LAN administrator identify and enter these parameters. Entering incorrect values can cause the web server to stop functioning.



Table 5

Bullet	Item	Description	
1	IP Address	This identifies the IP Address at which the Web Server can be accessed. It is only shown for reference and cannot be changed on this screen. To change the IP address (only if needed) it is necessary to use the Device Installer software that was included in your documentation package. (xxx.xxx.xxxx)	
2	Primary DNS Server	Domain Name System (DNS) servers help route your computer to appropriate locations. The Primary DNS server should be automatically detected when the web server is initialized. If it has been detected the IP address for the Primary DNS Server will appear in the box. If it does not appear it can be typed in. (xxx.xxx.x.xxx)	
3	Secondary DNS Server	Domain Name System (DNS) servers help route your computer to appropriate locations. The Secondary DNS server should be automatically detected when the web server is initialized. If it has been detected the IP address for the Secondary DNS Server will appear in the box. If it does not appear it can be typed in. (xxx.xxx.xxx)	
4	Default Gateway	This is generally the IP address for a firewall. Many Networks place a firewall between the network and the outside world. If the web server is behind a firewall it will be necessary to place the IP address for the firewall here. (xxx.xxx.xxx)	

Table 5 (cont.)						
Bullet	Item	Description				
5	Overriding Domain	The Overriding Domain is used to forge the sender Domain Name in the outgoing Email message. This might be necessary, for example, if this device is located behind a firewall whose IP Address resolves to a different Domain Name than this device. For SPAM protection, many SMTP servers perform reverse lookups on the sender IP Address to ensure the Email message is really from who it says it's from.				
6	Server Port	Every service on an Internet server listens on a particular port number on that server. Most services have a standard port (25). This port is used in conjunction with the "Overriding Domain"				
7	SET button	Clicking this button will save any new values entered into the screen fields. If a value entered in one of the fields is an invalid number a poop up will be displayed directing that the value be corrected.				
8	CANCEL button	This button brings the user back to the email screen.				

ACCESSING WEB SERVER FROM EXTERNAL SOURCES

The web server is capable of emailing to any location that has a valid email address. However, if there is a need to view or configure the web server from outside the Local Area Network the network will have to be configured to allow this to happen. Most networks are protected through a firewall to prevent unauthorized access. Gaining access from external sources will require setting up a Port. A port can be configured with or without the need for a password. Setting up remote access requires the knowledge of a competent LAN Administrator.

TROUBLESHOOTING

GENERAL GUIDELINES.

The web server will refresh itself automatically every 4-5 minutes. If the IntelliSwitch captures an "event" it will send this information to the web server immediately. However, there is some latency between what might be observed on the IntelliSwitch front panel and the web server screen. This is normal and is not a problem with the product.

Symptom	Possible Cause	Possible Solution
The web server extends beyond the top & bottom of the screen.	 Incorrect display resolution setting 	 Check the display resolution of the Computer. Minimum display resolution should be 1024 x 768 Try F11. This will remove the header & footer sections of your web browser. F11 toggles full screen ON and OFF. Press again to return to normal screen.
Web server is not loading on the screen.	No power to the IntelliSwitch	Check power to IntelliSwitch
	 Ethernet Cable not connected or bad cable Incorrect IP address may be selected for the device. 	 Cycle power to IntelliSwitch on and off Check that RJ-45 connection is made. If so, replace cable if defective. Check that correct IP address is entered in your web browser.
Web server will not email	 Incorrect email address entered The Primary and Secondary DNS Servers, Default Gateway, Overriding Domain, or Server Port may be incorrect. 	 Verify that the email address entered is valid. Verify with LAN Administrator that the Primary Server, Overriding domain and Port values are correct

Table 5

CONFIGURATION DATA

Enter information for the IntelliSwitch below for future reference

Internal IP Address:		
External IP Address*:		
Primary DNS Server:		
Secondary DNS Server:		
Default Gateway:		
Overriding Domain:		
Server Port:		

* - This is the address that would need to be entered to gain access to the device from outside the local network.

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Controls Corporation of America 1501 Harpers Road Virginia Beach, VA 23454 Telephone 1-800-225-0473 or 757-422-8330 • Fax 757-422-3125 www.concoa.com