



DSX-IP-HUB COMM MODULE

DSX-IP-HUB PROGRAMMING AND COMMISSIONING

The **DSX-IP-HUB** is a DSX Controller communications router. It allows communication from the Master Controller to be distributed via IP to Sub Controllers using a DSX-LAN-D or a UDS1100. In some applications this Module can take the place of PC Master software with the difference being it requires a Master Controller.

1. The DSX-IP-Hub Module comes with a preset IP Address of **192.168.1.25** and can be programmed with a web browser. Connect the module to your laptop or network switch and connect using a browser. The module requires 5VDC @ 300ma. Power the module from the 5VDC output of the 1040-CDM or 1022 Controller. **Do Not Power from 12V Output of 1040-CDM.**

2. Using the browser enter the default IP Address of **192.168.1.25** with a laptop or PC that has the same IP Schema and subnet. Using a browser enter the IP address and press enter. The DSX-IP-Hub will respond with a Login page where you will enter:

User - master, Password - master. The screen shots below show the default Settings for the module.

3. Once you have logged in, you will be able to program the module. On the Communications Settings Tab - Do Not Change the top 5 items unless instructed to do so. The Serial Port Speed should be 9600, Internet Protocol should be **IPv4**, the Addressing Mode should be **Static (v4 or v6)**.

4. Assign a Static IP Address, Subnet mask, Gateway, and DNS server. Leave VLAN at 0 unless you are placing the module on a VLAN. Perform "IPConfig" from a command prompt to find the data below. Enter the same user defined port number in the **Receive and Transmit Port** fields. This will be the same port number as the **Receive and Transmit Ports** of the LAN modules connected to Sub Controllers or clusters of Sub Controllers regardless of version.

The screenshot shows the DSX IP HUB web interface. At the top left, it displays 'Mac: 00-08-66-11-03' and 'Version: IP-HUB-v7.5'. The main header includes the DSX logo and 'DSX IP HUB' with a 'Logout' button. Below the header are three tabs: 'Communication Settings' (active), 'Device Address Table', and 'Security Settings'. The 'Communication Settings' tab contains the following fields:

Device name for DHCP:	DSX_00-08-66-11-00-03
Serial Port Speed:	9600
Internet Protocol:	IPv4
Addressing Mode:	static(v4 or v6)
Device IP Address:	182.25.16.188
Device Subnet Mask:	255.255.0.0
Device gateway:	182.25.16.26
Device DNS:	182.25.16.3
VLAN ID:	0
Receieve Port:	5000
Transmit Port:	5000

At the bottom of the form are 'Print' and 'Save' buttons.

5. Click on **Save** to keep the settings. Select **Print** to get a copy of the configuration.

LAN-D CONFIGURATION AT SUB CONTROLLERS

Example of *Revised* LAN-D

Mac: 00-08-66-10-00-25
Version: DSX LAN-D v7.6

Communication Settings | Security Settings

Device name for DHCP: DSX_00-08-66-10-00-25

Serial Port Speed: 9600

Internet Protocol: IPv4

Addressing Mode: static(v4 or v6)

Device IP Address: 182.25.16.190

Device Subnet Mask: 255.255.0.0

Device gateway: 182.25.16.26

Device DNS: 182.25.16.3

VLAN ID: 0

Receive Port: 5000

Transmit Port: 5000

Dynamic Send:

Print **Save**

Example of *Original* LAN-D

Communication Settings | **Security Settings**

Device name for DHCP: DSX-00-08-66-10-00-F0

Serial Port Speed: 9600 Serial Port Speed must match DSX Panel Serial Speed

Internet Protocol: IPv4

Addressing mode: Static(v4 or v6)

Link Speed/Duplex: Auto Negotiate

IP Settings | **IP Values**

Device IP address: 182.25.16.136 | MAC Address: 00-08-66-10-00-F0

Device subnet mask: 255.255.0.0

Device gateway: 182.25.16.26

DNS server: 182.25.16.3

VLAN ID: 0 Enter 0 to disable VLAN

UDP Settings

	Receive Port	Transmit Port
	5000	5000

Send to this IP address: IPv4, IPv6 or DNS lookup

Dynamic IP:

Submit New Settings

Device Address/Routing Table:

6. Select the **Device Address Table Tab**. Here you will enter the **IP Address** of the LAN modules that are connected to Sub Controllers or clusters of Sub Controllers and the **Device** numbers connected to each one. In the example below there is an IP Address and then a Device List. Enter the IP Address and then click on **Devices** and enter the Device numbers separated with a comma. The example below shows one of three LAN modules with an IP Address of 182.25.16.189 that is connected to Devices 2,4,6,8. A LAN module can connect to each Sub or a cluster of Sub controllers.

Mac: 00-08-66-11-00-03
Version: IP-HUB v7.5

Communication Settings | **Device Address Table** | **Security Settings**

IP Address	Devices	
182.25.16.189	2,4,6,8	<input type="checkbox"/>
182.25.16.190	10,12,14,16	<input type="checkbox"/>
182.25.16.191	18,20,22,24	<input type="checkbox"/>

Save New Settings **Delete Row()** **Add Row**

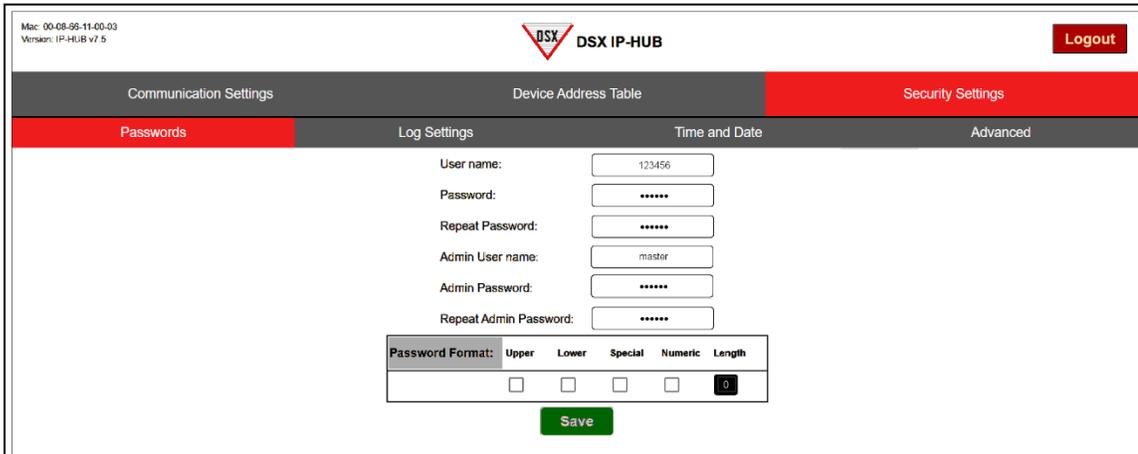
Print

- Enter the IP Address and then the Devices separated by a comma. Then Click on **Add Row** to enter another IP Address and Device List. Enter Even Number Addresses Only.
- ***** *Connect no more than 8 controllers per LAN Device. More than 8 controllers will diminish performance.* *****

7. Click **Save New Settings** when finished.

SECURITY SETTINGS:

8. Passwords - Set the **User** Name and Password and the **Admin** User Name and Password. The User can change Communication Settings and the Admin can change Security and Communications Settings. Use the **Password Format** section at the bottom to set the complexity and length of both passwords. 6 to 19 keyboard characters. Select the attributes that must be part of the password. Be careful not to lock yourself out as the Module will have to ship to DSX to be reset.



The screenshot shows the DSX IP-HUB interface. At the top left, it displays 'Mac: 00-08-95-11-00-03' and 'Version: IP-HUB v7.5'. The main header includes 'DSX IP-HUB' and a 'Logout' button. The navigation bar has 'Communication Settings', 'Device Address Table', and 'Security Settings'. Under 'Security Settings', the 'Passwords' tab is selected. The form contains the following fields:

- User name: 123456
- Password: *****
- Repeat Password: *****
- Admin User name: master
- Admin Password: *****
- Repeat Admin Password: *****

Below these fields is the 'Password Format' section with a table of checkboxes:

Upper	Lower	Special	Numeric	Length
<input type="checkbox"/>				

A 'Save' button is located at the bottom of the form.

8a. The User Password allows the changing of the Network Settings only.

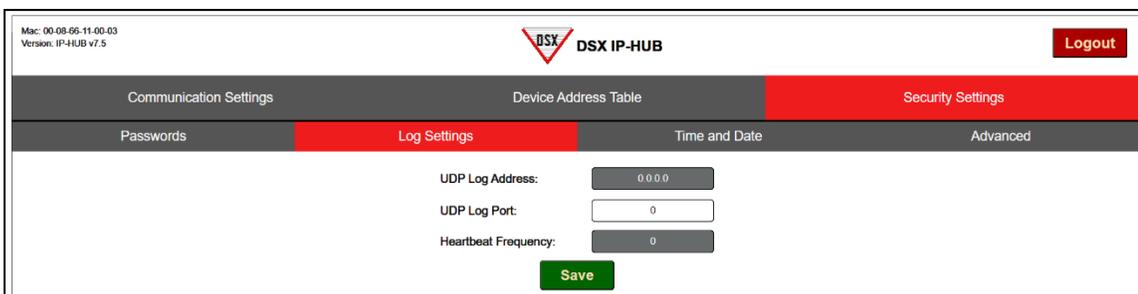
Default is > User - 123456 Default Password - 123456

8b. The Admin Password allows the changing of the Security Settings and Network Settings.

Default is > Admin User - master Default Password - master

9a. The **Log Settings** allow for an optional IP Address and Port to be defined. Once defined The Module will send all Login attempts and notification of changes made to that Log address. Enter the IP Address and IP Port number to send the information. This is not the Comm Server Address.

9b. Heartbeat-Enter the number of seconds that the Module will send a supervisory message to the Security Log IP Address. This continual heartbeat supervises the communication path.



The screenshot shows the DSX IP-HUB interface with the 'Log Settings' tab selected. The form contains the following fields:

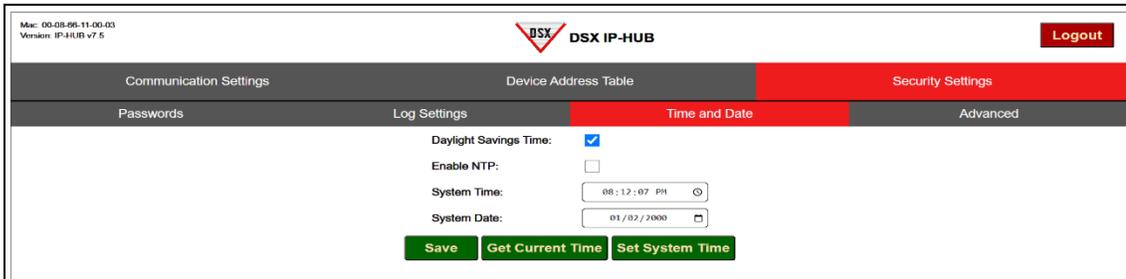
- UDP Log Address: 0.0.0.0
- UDP Log Port: 0
- Heartbeat Frequency: 0

A 'Save' button is located at the bottom of the form.

10a. Enter the Time and Date if a Time Server is not available. Once you have entered the date and time click on **Set System Time** at the bottom. Once the time has been set manually do not power the Module down and up.

10b. To use a Time Service Select Enable NTP and Set the UTC Time Zone.

-6 for Central Time, -5 for Eastern Time, -7 for Mountain Time, and -8 for Pacific Time



Mac: 00-08-06-11-00-03
Version: IP-HUB v7.5

DSX IP-HUB

Logout

Communication Settings Device Address Table Security Settings

Passwords Log Settings Time and Date Advanced

Daylight Savings Time:

Enable NTP:

System Time: 08:12:07 PM

System Date: 01/02/2000

Save Get Current Time Set System Time

Enter the NTP
Server IP Address.

Click on **Set System Time**

Example: Security Log Supervision Message.

2023-05-12 20:00:00 ; DEVICE:DSX_00-08-66-11-00-0A Heartbeat Frequency changed

2023-05-12 19:00:30 : DEVICE:DSX_00-08-66-11-00-0A NTP IPAddress changed

2023-05-12 08:32:38 : DEVICE:DSX_00-08-66-11-00-0A Admin logged in.

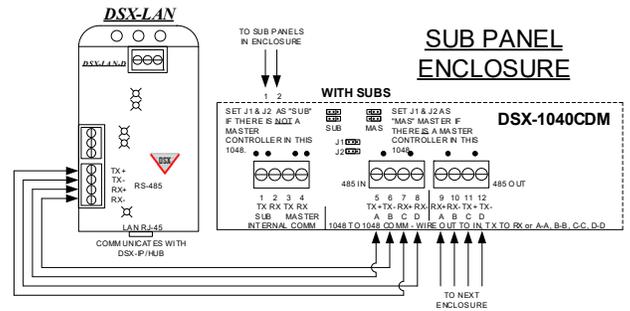
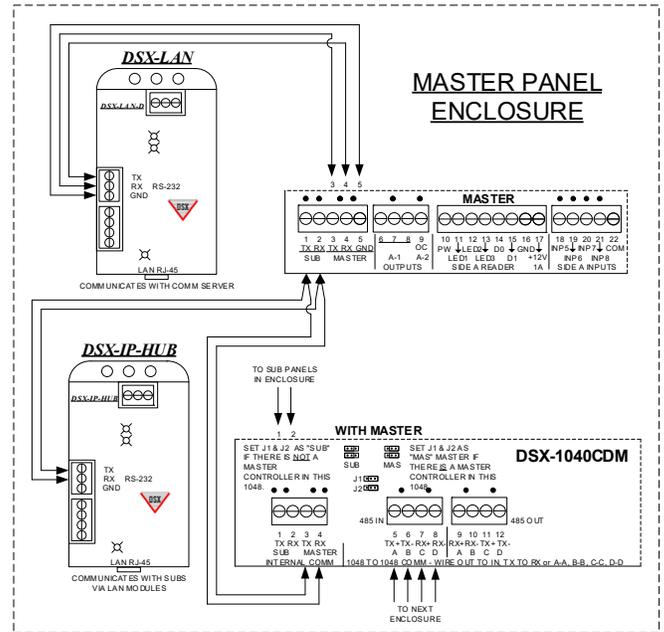
2023-05-12 08:32:41 : DEVICE:DSX_00-08-66-11-00-0A HB

2023-05-12 08:34:09 : DEVICE:DSX_00-08-66-11-00-0A HB

DSX-IP-HUB WIRING

DSX-IP-HUB to a 1040 Master Controller

The DSX-IP-HUB will use the RS-232 port to connect to a 1040 system. It is wired to the Sub output of the Master Controller in parallel with the DSX-1040-CDM. This drawing depicts a standard LAN Module connected to the Master Controller and the DSX-IP-HUB connected to the CDM for Sub Communication using UDP over the network. The upper box is the wiring inside the Master Enclosure and the bottom drawing is of a standard LAN module connected to a Sub Enclosure.



DSX-IP-HUB TO A 1022 MASTER CONTROLLER

This drawing shows a Master 1022 Controller that has no Sub Controllers wired directly to it. The DSX-IP-HUB can be connected directly to the 485 IN port as in the drawing.

