



# Pulse-Eight Neo Matrix

The Most User Friendly Operating System on the Market

neo

CONTROL

Video Routing

System Health

Monitoring

SETUP

Network Settings

Routing Control

Front Panel

Hardware Details

Help & Support



Neo Matrix Products are Made in the UK



## NEO is IP Based and WiFi Enabled

Type into your Browser [gotomymatrix.com](http://gotomymatrix.com)

← → ↻ 192.168.0.100

neo

CONTROL

Video Routing

SUPPORT

Monitoring

VIDEO ROUTING

Inputs	Outputs
HDMI HDCP2.2 Source 1 > Sam Stargate	HDBT Lite Display 1 > SONY TV
HDMI HDCP2.2 Source 2 > Tosh Batman	HDBT Lite Display 2 > Output 2
HDMI HDCP2.2 Source 3 > Input 3	HDBT Lite Display 3 > Output 3
HDMI HDCP2.2 Source 4 > Input 4	HDBT Lite Display 4 > Output 4

Here is an example of the opening screen

These are the attached sources

These are the attached displays

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## With NEO, CEC is Compatible Across All Brands

192.168.0.100

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CONTROL

Video Routing

SUPPORT

Monitoring

VIDEO ROUTING

Inputs	Outputs
HDMI HDCP2.2 Source 1 > Sam Stargate	HDBT Lite Display 1 > SONY TV
HDMI HDCP2.2 Source 2 > Tosh Batman	HDBT Lite Display 2 > Output 2
HDMI HDCP2.2 Source 3 > Input 3	HDBT Lite Display 3 > Output 3
HDMI HDCP2.2 Source 4 > Input 4	HDBT Lite Display 4 > Output 4

Here a Samsung DVD is showing Stargate and a Toshiba DVD is showing Batman

Displayed on a Sony TV

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## Source Changing – Simply Drag and Drop

192.168.0.100

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VIDEO ROUTING

Inputs	Outputs
HDMI HDCP2.2 Source 1 > Sam Stargate	HDBT Lite Display 1 > SONY TV
HDMI HDCP2.2 Source 2 > Tosh Batman	HDBT Lite Display 2 > Output 2
HDMI HDCP2.2 Source 3 > Input 3	HDBT Lite Display 3 > Output 3
HDMI HDCP2.2 Source 4 > Input 4	HDBT Lite Display 4 > Output 4

To change the source all the customer has to do is drag the source ...

And drop it to here

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## Turn Any Smart Phone or Tablet Into a TV Remote

← → ↻

192.168.0.100

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neo

CONTROL

🏠 Video Routing

SUPPORT

📶 Monitoring

PULSEEIGHT

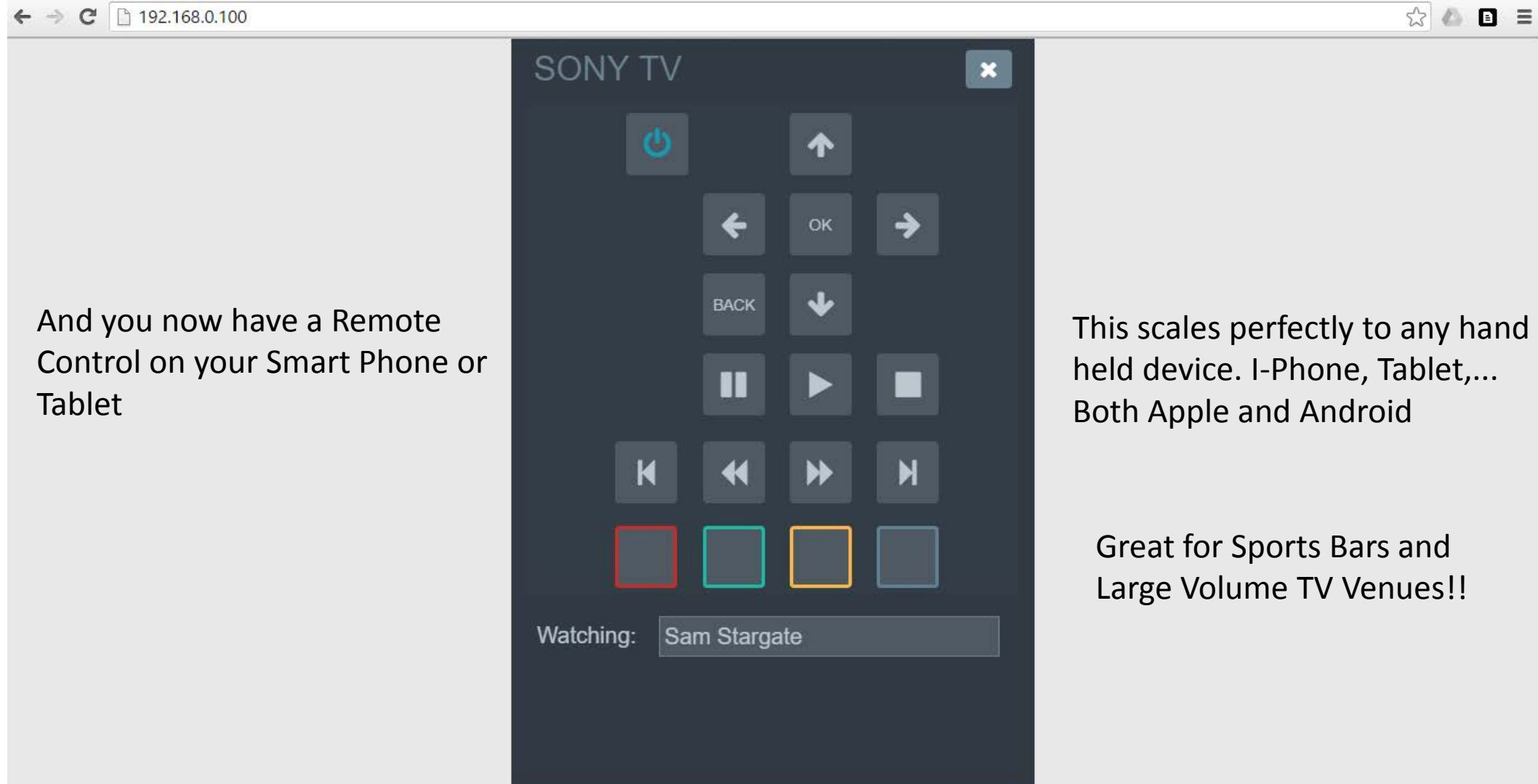
VIDEO ROUTING

Inputs	Outputs
<div>HDMI HDCP2.2</div> <div>Source 1 &gt; Sam Stargate</div>	<div>CHDBT Lite</div> <div>Display 1 &gt; SONY TV</div> <div>⌵</div>
<div>HDMI HDCP2.2</div> <div>Source 2 &gt; Tosh Batman</div>	<div>CHDBT Lite</div> <div>Display 2 &gt; Output 2</div> <div>⌵</div>
<div>HDMI HDCP2.2</div> <div>Source 3 &gt; Input 3</div>	<div>CHDBT Lite</div> <div>Display 3 &gt; Output 3</div> <div>⌵</div>
<div>HDMI HDCP2.2</div> <div>Source 4 &gt; Input 4</div>	<div>CHDBT Lite</div> <div>Display 4 &gt; Output 4</div> <div>⌵</div>

Just Click Display/TV Icon to Open Neo's Remote

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## Here is Your Remote Control for That TV



## Source Image will Switch Immediately – No Delays

192.168.0.100

SONY TV

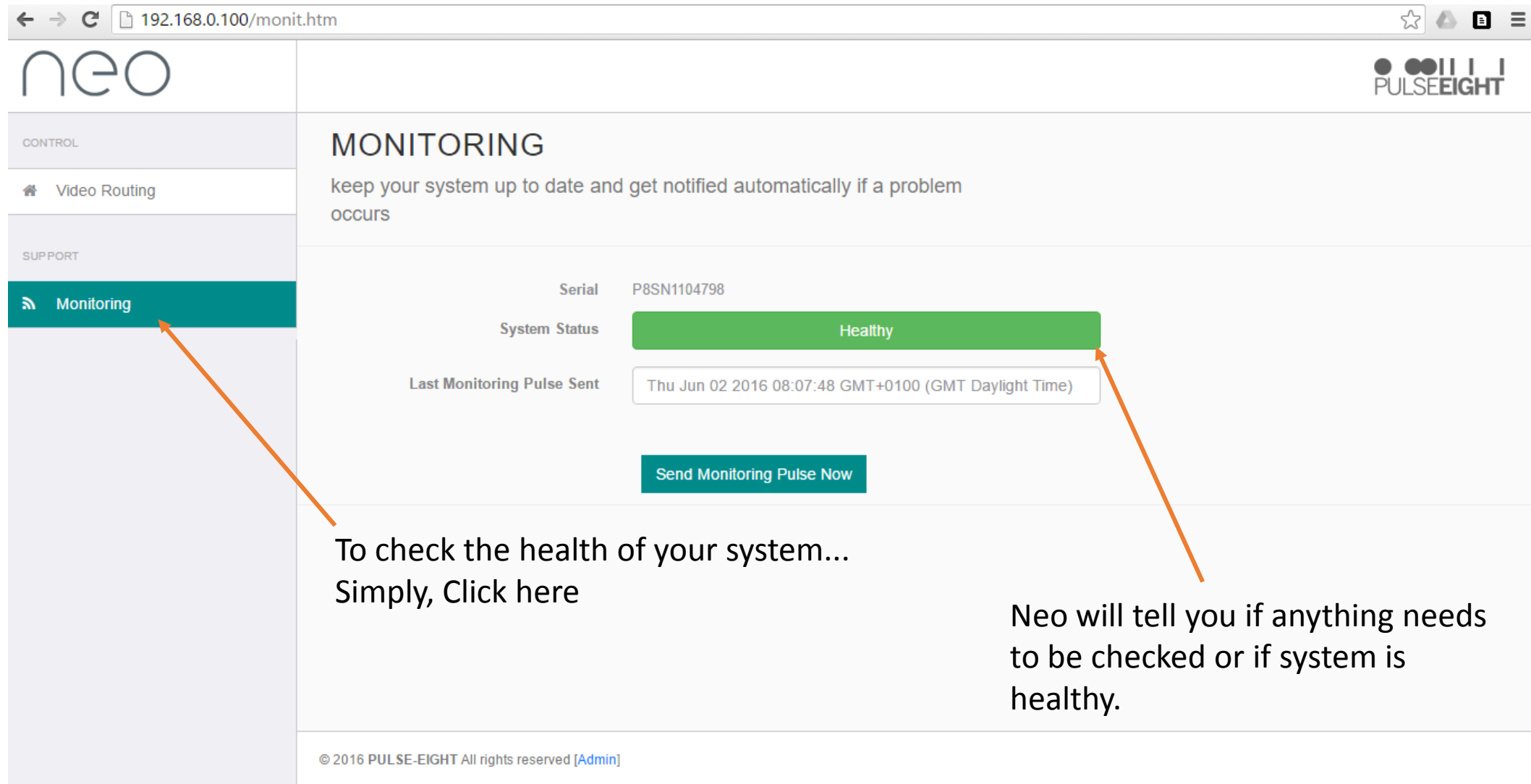
To change the source just click here and select

Source Syncing is Faster than Crestron or any other Competitor Brand

Watching: Sam Stargate

Sam Stargate  
Tosh Batman  
Input 3  
Input 4

## NEO's Remote Monitoring Interface



The screenshot shows a web browser window with the address bar displaying `192.168.0.100/monit.htm`. The page features a sidebar on the left with a teal header containing the 'neo' logo. Below the header, the sidebar is divided into two sections: 'CONTROL' and 'SUPPORT'. The 'SUPPORT' section is expanded, showing a list of items including 'Monitoring', which is highlighted with a teal background and a white radio button icon. An orange arrow points from the 'Monitoring' item to the main content area. The main content area has a light gray background and a top navigation bar with the 'neo' logo on the left and the 'PULSEEIGHT' logo on the right. The main heading is 'MONITORING', followed by a subheading 'keep your system up to date and get notified automatically if a problem occurs'. Below this, there is a table-like structure with three rows: 'Serial' with the value 'P8SN1104798', 'System Status' with a green bar labeled 'Healthy', and 'Last Monitoring Pulse Sent' with the value 'Thu Jun 02 2016 08:07:48 GMT+0100 (GMT Daylight Time)'. An orange arrow points from the 'Healthy' status bar to the text 'Neo will tell you if anything needs to be checked or if system is healthy.' Below the table, there is a teal button labeled 'Send Monitoring Pulse Now'. At the bottom of the page, there is a footer with the text '© 2016 PULSE-EIGHT All rights reserved [Admin]'.

← → ↻ 192.168.0.100/monit.htm ☆ 🗑️ 📄 ☰

neo

PULSEEIGHT

CONTROL

🏠 Video Routing

SUPPORT

📡 Monitoring

**MONITORING**

keep your system up to date and get notified automatically if a problem occurs

Serial	P8SN1104798
System Status	Healthy
Last Monitoring Pulse Sent	Thu Jun 02 2016 08:07:48 GMT+0100 (GMT Daylight Time)

Send Monitoring Pulse Now

To check the health of your system...  
Simply, Click here

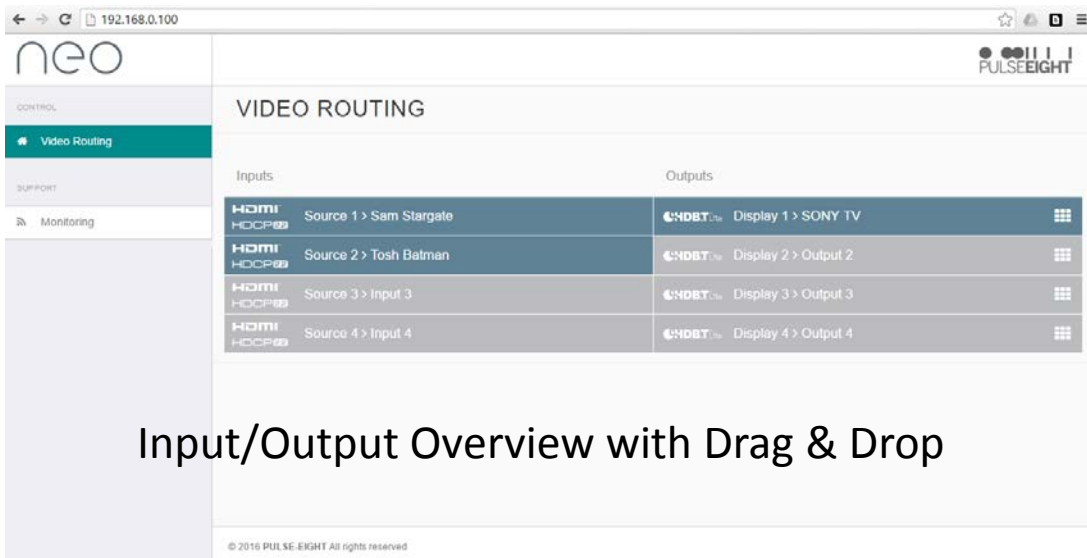
Neo will tell you if anything needs to be checked or if system is healthy.

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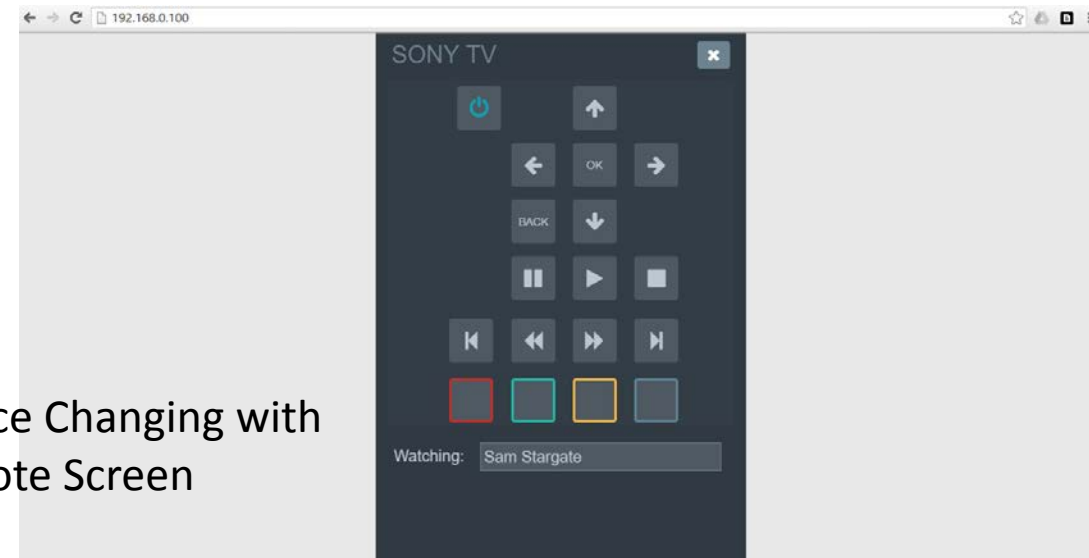


## Recap of Neo's Customer/End User Interface

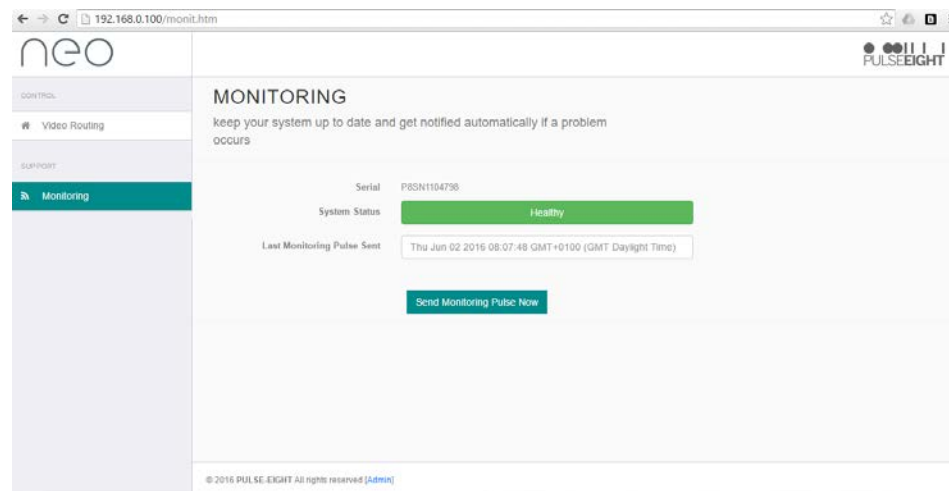
Input/Output Overview with Drag & Drop



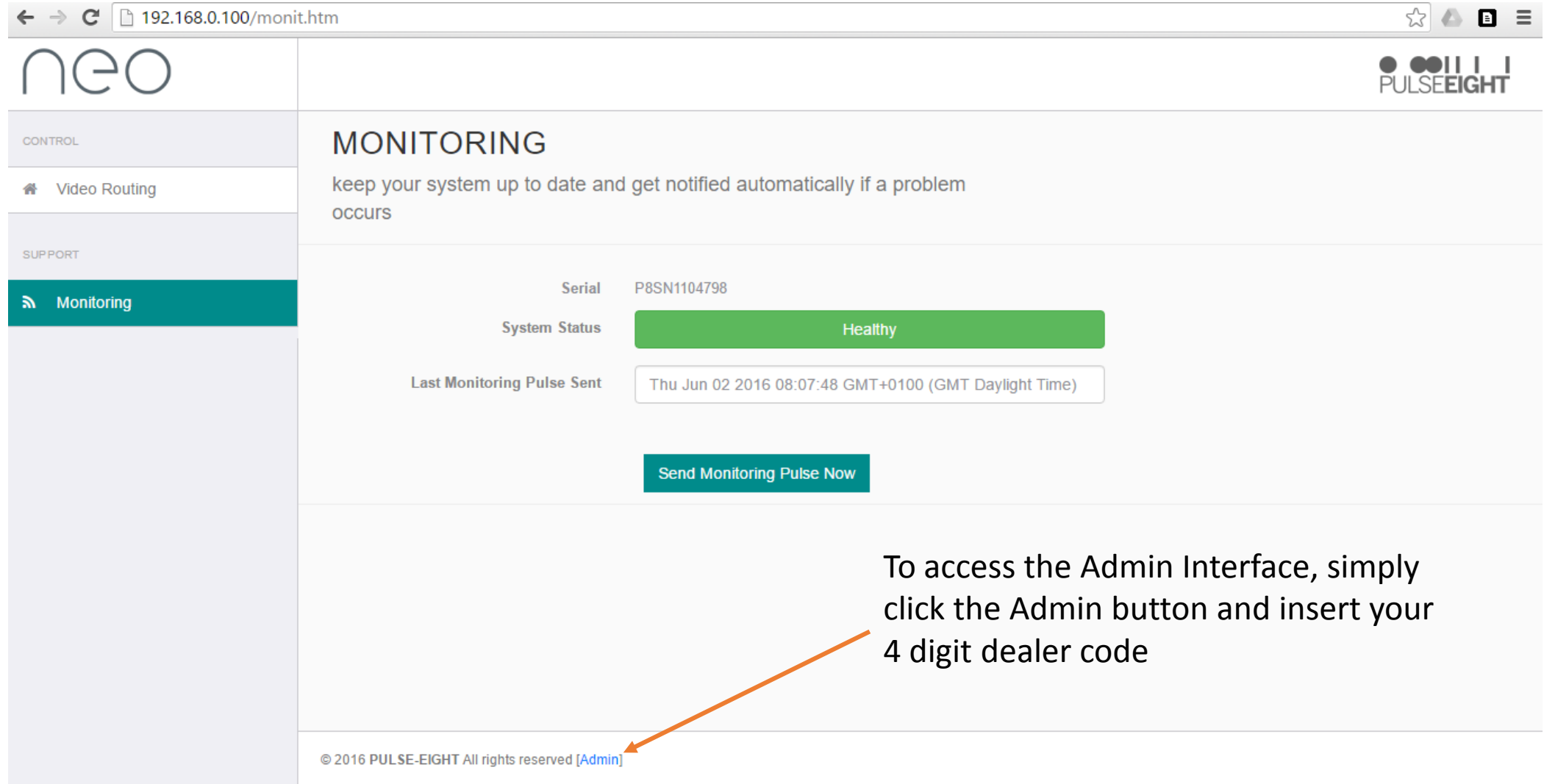
Source Changing with Remote Screen



System Performance Monitoring



## Installer/Integrator “Admin” Interface



The screenshot shows a web browser window with the address bar displaying `192.168.0.100/monit.htm`. The page features a sidebar on the left with the 'neo' logo and navigation links under 'CONTROL' (Video Routing) and 'SUPPORT' (Monitoring). The main content area is titled 'MONITORING' and includes the instruction 'keep your system up to date and get notified automatically if a problem occurs'. It displays system details: Serial number 'P8SN1104798', System Status 'Healthy' (in a green box), and Last Monitoring Pulse Sent 'Thu Jun 02 2016 08:07:48 GMT+0100 (GMT Daylight Time)'. A 'Send Monitoring Pulse Now' button is present. At the bottom, a copyright notice '© 2016 PULSE-EIGHT All rights reserved' is followed by a blue link '[Admin]'. An orange arrow points from the explanatory text to this link.

192.168.0.100/monit.htm

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PULSE EIGHT

CONTROL

Video Routing

SUPPORT

Monitoring

### MONITORING

keep your system up to date and get notified automatically if a problem occurs

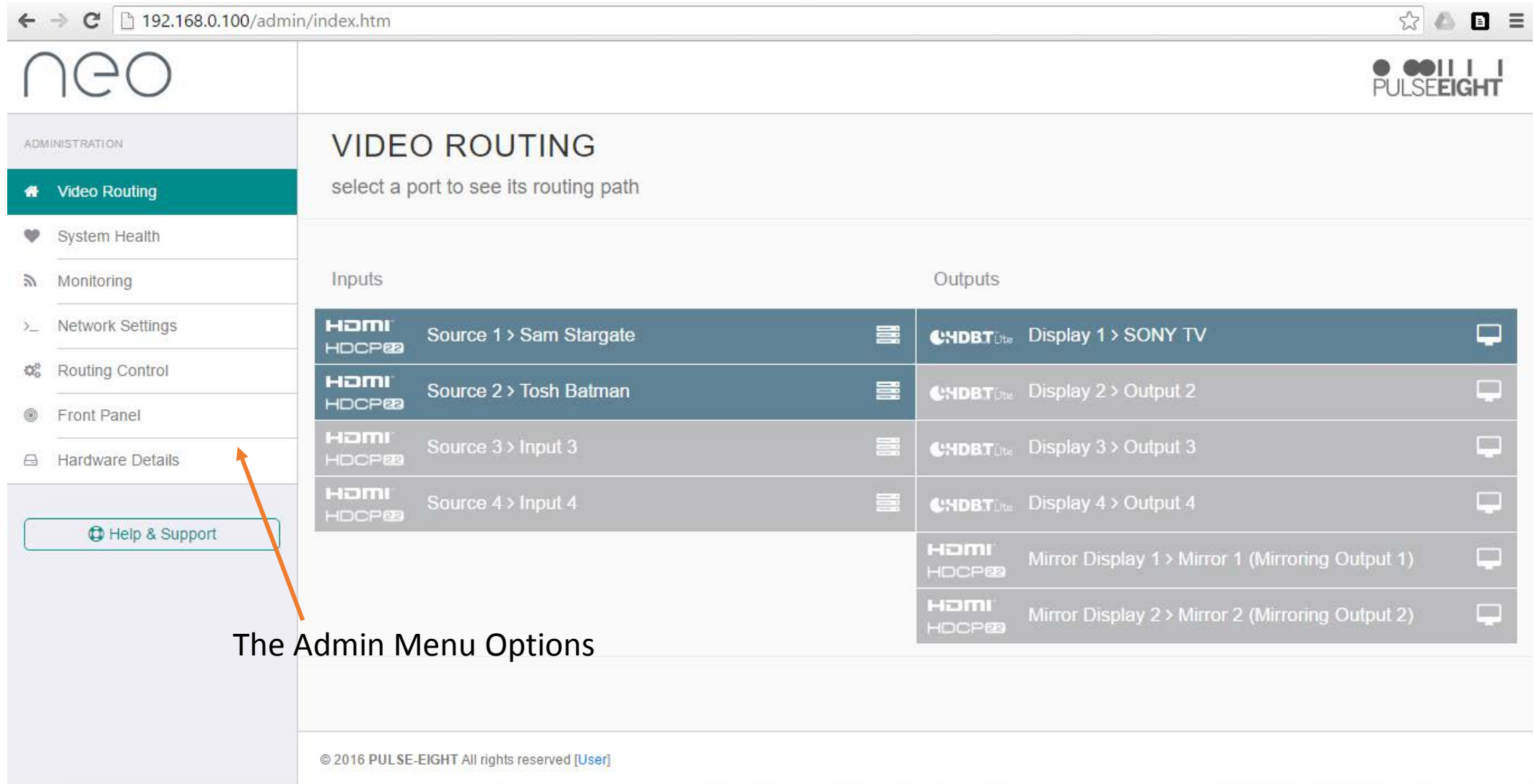
Serial	P8SN1104798
System Status	Healthy
Last Monitoring Pulse Sent	Thu Jun 02 2016 08:07:48 GMT+0100 (GMT Daylight Time)

Send Monitoring Pulse Now

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To access the Admin Interface, simply click the Admin button and insert your 4 digit dealer code

## The Admin Interface Provides In-Depth Analysis



192.168.0.100/admin/index.htm

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PULSE EIGHT

ADMINISTRATION

Video Routing

System Health

Monitoring

Network Settings

Routing Control

Front Panel

Hardware Details

Help & Support

### VIDEO ROUTING

select a port to see its routing path

Inputs			Outputs		
HDMI HDCP2.2	Source 1 > Sam Stargate		HDBT Lite	Display 1 > SONY TV	
HDMI HDCP2.2	Source 2 > Tosh Batman		HDBT Lite	Display 2 > Output 2	
HDMI HDCP2.2	Source 3 > Input 3		HDBT Lite	Display 3 > Output 3	
HDMI HDCP2.2	Source 4 > Input 4		HDBT Lite	Display 4 > Output 4	
HDMI HDCP2.2			HDMI HDCP2.2	Mirror Display 1 > Mirror 1 (Mirroring Output 1)	
HDMI HDCP2.2			HDMI HDCP2.2	Mirror Display 2 > Mirror 2 (Mirroring Output 2)	

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The Admin Menu Options

## You can Change the CEC Device Labels/Names

The screenshot displays the PULSE EIGHT NEO web interface. On the left, a sidebar contains navigation links under 'CONTROL' (Video Routing, System Health, Monitoring) and 'SETUP' (Network Settings, Routing Control, Front Panel, Hardware Details). A 'Help & Support' button is at the bottom of the sidebar. The main area is titled 'VIDEO ROUTING' with the instruction 'select a port to see its details'. Below this, a table lists video sources and their connections to displays. A modal window titled 'Source 1' is open, allowing configuration of the first source. The modal includes fields for 'Name' (set to 'Sam:Stargate'), 'Power Status' (set to 'On'), and 'EDID Profile' (set to 'Default (Lowest Common Denominator) [Recommended]'). There is an 'EDID Details' button next to the name field and 'Close' and 'Save changes' buttons at the bottom right of the modal. The background table shows connections like 'Source 1 > Sony TV', 'Source 2 > Output 2', 'Source 3 > Input 3', 'Source 4 > Input 4', 'Display 3 > Output 3', 'Display 4 > Output 4', 'Mirror Display 1 > SONY AVSYSTEM (Mirroring Output 1)', and 'Mirror Display 2 > Mirror 2 (Mirroring Output 2)'. The footer indicates '© 2015 PULSE EIGHT All rights reserved'.

neo

CONTROL

- Video Routing
- System Health
- Monitoring

SETUP

- Network Settings
- Routing Control
- Front Panel
- Hardware Details

Help & Support

VIDEO ROUTING

select a port to see its details

Inputs

Source 1 > Sony TV	
Source 2 > Output 2	
Source 3 > Input 3	
Source 4 > Input 4	

Outputs

Display 3 > Output 3	
Display 4 > Output 4	
Mirror Display 1 > SONY AVSYSTEM (Mirroring Output 1)	
Mirror Display 2 > Mirror 2 (Mirroring Output 2)	

Source 1

Name: Sam:Stargate

Power Status: On

EDID Profile: Default (Lowest Common Denominator) [Recommended]

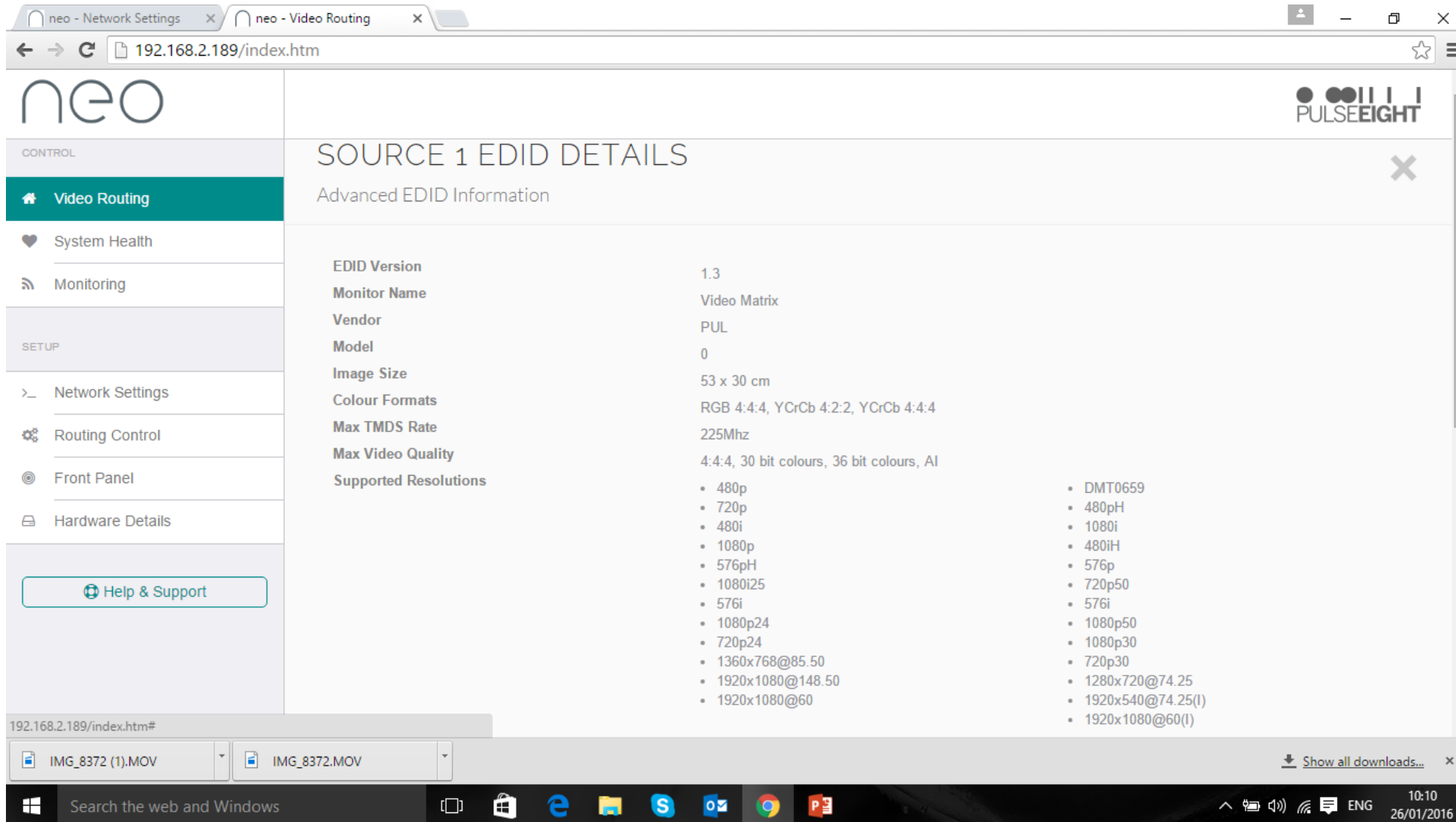
EDID Details

Close Save changes

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# NEO Makes it Easy for Control System Programming

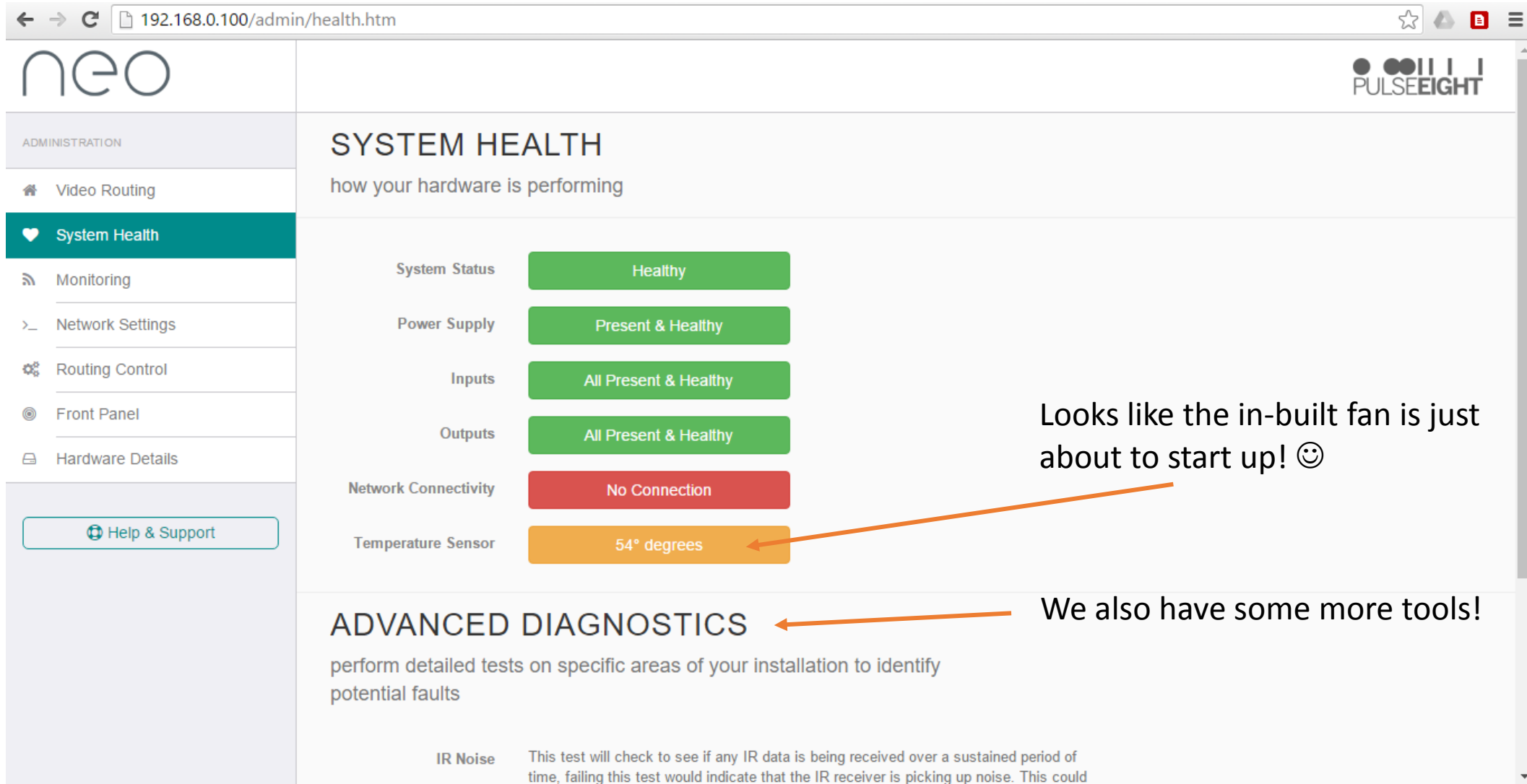


The screenshot displays the NEO web interface in a browser window. The address bar shows the URL `192.168.2.189/index.htm`. The interface has a sidebar on the left with a 'CONTROL' section containing 'Video Routing' (selected), 'System Health', and 'Monitoring'. Below this is a 'SETUP' section with 'Network Settings', 'Routing Control', 'Front Panel', and 'Hardware Details'. A 'Help & Support' button is at the bottom of the sidebar. The main content area is titled 'SOURCE 1 EDID DETAILS' with a close button. It shows 'Advanced EDID Information' for a monitor. The details include:

- EDID Version: 1.3
- Monitor Name: Video Matrix
- Vendor: PUL
- Model: 0
- Image Size: 53 x 30 cm
- Colour Formats: RGB 4:4:4, YCrCb 4:2:2, YCrCb 4:4:4
- Max TMDS Rate: 225Mhz
- Max Video Quality: 4:4:4, 30 bit colours, 36 bit colours, AI
- Supported Resolutions:
  - 480p
  - 720p
  - 480i
  - 1080p
  - 576pH
  - 1080i25
  - 576i
  - 1080p24
  - 720p24
  - 1360x768@85.50
  - 1920x1080@148.50
  - 1920x1080@60
  - DMT0659
  - 480pH
  - 1080i
  - 480iH
  - 576p
  - 720p50
  - 576i
  - 1080p50
  - 1080p30
  - 720p30
  - 1280x720@74.25
  - 1920x540@74.25(l)
  - 1920x1080@60(l)

The bottom of the browser window shows a taskbar with various application icons and a system tray with the time 10:10 and date 26/01/2016.

## NEO Provides Detailed Real-Time Monitoring of the System



The screenshot shows the NEO System Health web interface. The browser address bar displays `192.168.0.100/admin/health.htm`. The interface includes a sidebar with navigation options: ADMINISTRATION, Video Routing, System Health (selected), Monitoring, Network Settings, Routing Control, Front Panel, and Hardware Details. A 'Help & Support' button is located at the bottom of the sidebar. The main content area is titled 'SYSTEM HEALTH' with the subtitle 'how your hardware is performing'. It displays a list of system components and their status:

Component	Status
System Status	Healthy
Power Supply	Present & Healthy
Inputs	All Present & Healthy
Outputs	All Present & Healthy
Network Connectivity	No Connection
Temperature Sensor	54° degrees

Below the system health section is the 'ADVANCED DIAGNOSTICS' section, which includes a description: 'perform detailed tests on specific areas of your installation to identify potential faults'. The first diagnostic listed is 'IR Noise', with a description: 'This test will check to see if any IR data is being received over a sustained period of time, failing this test would indicate that the IR receiver is picking up noise. This could'.

Annotations on the image:

- An orange arrow points from the text 'Looks like the in-built fan is just about to start up! 😊' to the '54° degrees' status of the Temperature Sensor.
- An orange arrow points from the text 'We also have some more tools!' to the 'ADVANCED DIAGNOSTICS' section header.

## Advanced Diagnostics

← → ↻ 192.168.0.100/admin/health.htm

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neo

Front Panel

Hardware Details

Help & Support

All Present & Healthy

Outputs

All Present & Healthy

Network Connectivity

No Connection

Temperature Sensor

54° degrees

ADVANCED DIAGNOSTICS

perform detailed tests on specific areas of your installation to identify potential faults

IR Noise

This test will check to see if any IR data is being received over a sustained period of time, failing this test would indicate that the IR receiver is picking up noise. This could be from a Plasma TV or a faulty light fitting

Start Test

HDBaseT™ Link Quality

This test will check to see the HDBaseT link is stable over a sustained period of time.

Start Test

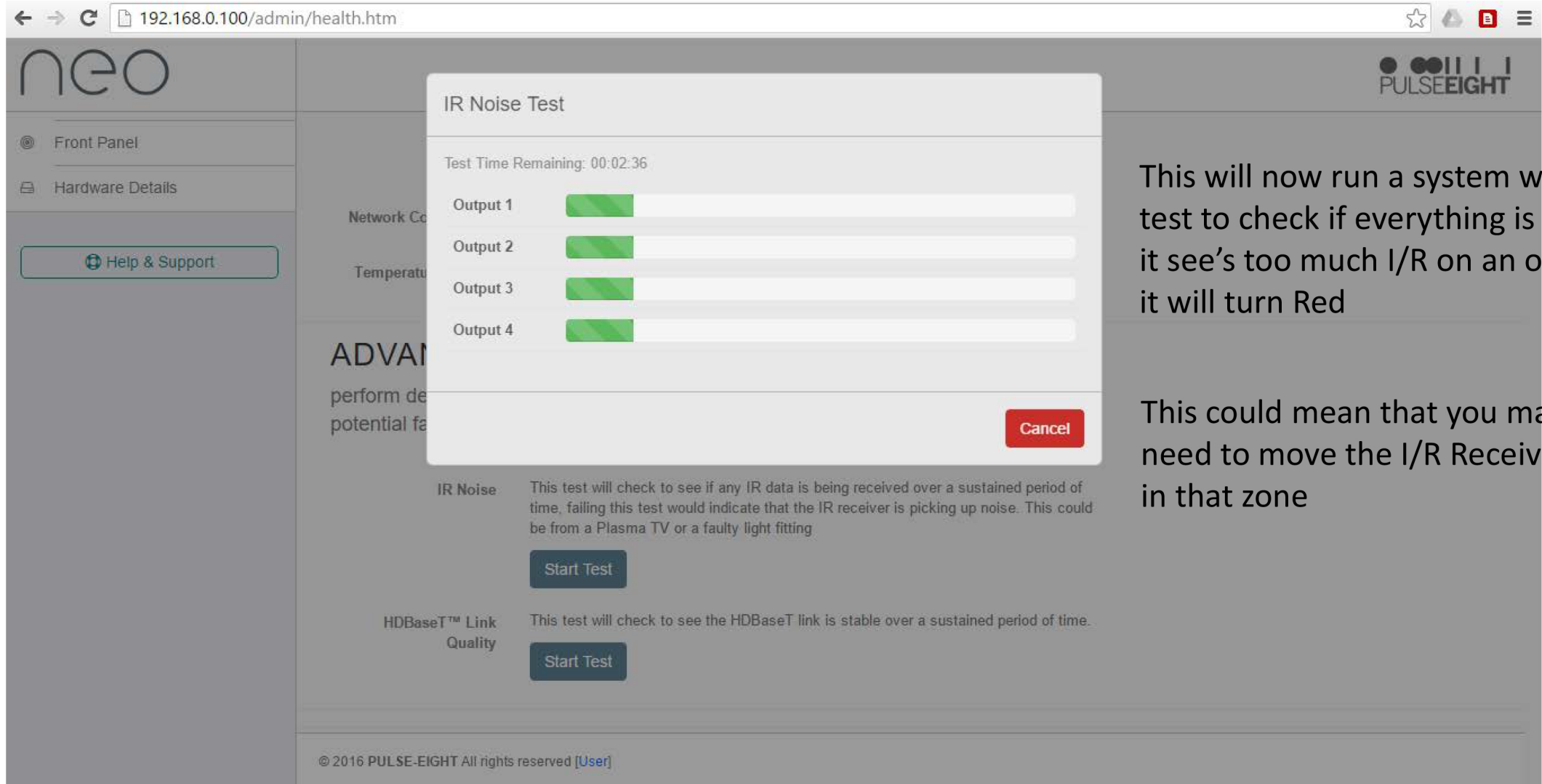
Have you ever had an installation lock out due to too much I/R noise in the System? Here we can check that.

Click Start Test

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## Advanced Diagnostics


### IR Test in Progress





The screenshot shows a web browser window at the address 192.168.0.100/admin/health.htm. The interface features a sidebar with 'Front Panel', 'Hardware Details', and 'Help & Support'. The main content area is titled 'ADVANCED DIAGNOSTICS' and lists several tests: 'IR Noise', 'HDBaseT™ Link Quality', and others. An 'IR Noise Test' modal window is open, displaying a progress bar for four outputs (Output 1 to Output 4), all of which are green, indicating a successful test. The modal also shows a 'Test Time Remaining: 00:02:36' and a 'Cancel' button. Below the modal, the 'IR Noise' test description is visible, explaining that the test checks for sustained IR data reception over time. The footer of the page indicates '© 2016 PULSE-EIGHT All rights reserved [User]'.


IR Noise Test

Test Time Remaining: 00:02:36

Output 1 

Output 2 

Output 3 

Output 4 

Cancel

IR Noise This test will check to see if any IR data is being received over a sustained period of time, failing this test would indicate that the IR receiver is picking up noise. This could be from a Plasma TV or a faulty light fitting

Start Test

HDBaseT™ Link Quality This test will check to see the HDBaseT link is stable over a sustained period of time.

Start Test

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This will now run a system wide test to check if everything is ok. If it see's too much I/R on an output it will turn Red

This could mean that you may need to move the I/R Receiver in that zone

# Advanced Diagnostics

## HDBaseT Link Quality Test

← → ↻ 192.168.0.100/admin/health.htm

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neo

Front Panel

Hardware Details

Help & Support

Outputs

All Present & Healthy

Network Connectivity

No Connection

Temperature Sensor

54° degrees

ADVANCED DIAGNOSTICS

perform detailed tests on specific areas of your installation to identify potential faults

IR Noise

This test will check to see if any IR data is being received over a sustained period of time, failing this test would indicate that the IR receiver is picking up noise. This could be from a Plasma TV or a faulty light fitting

Start Test

HDBaseT™ Link Quality

This test will check to see the HDBaseT link is stable over a sustained period of time.

Start Test

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Would you like to check the status of your HDBaseT link over a period of time? Maybe the customer has reported an intermittent fault?

If so click here

## HDBaseT Link Quality Test

This will now run a signal to noise ratio test of the HDBaseT link over a sustained period of time. If there's a sudden power spike then you should see it.





## NEO Drivers For Control Systems

Neo has open API which can be found on the Cloud Monitoring Website: [monitoring.pulse-eight.com](https://monitoring.pulse-eight.com)

NEO Matrix's Can Be Controlled By I/R, RS232 and IP  
You Can Download Our Free Drivers For The Following Brands



For Additional Drivers Just Contact Our Support Team

## NEO's WARRANTY

*All our Matrix Products Come with a 3 Year Warranty.*



*Should Something Go Wrong in This Time Then Just Return It To Your Point Of Purchase For Repair*

Pulse-Eight Provides Live Tech Support from USA and UK