



MS-450 Setup Guide

VoIP & Streaming Settings

The MS-450 has been designed to work in concert with the SAFE Commander. All pertinent settings have been prepopulated, reducing, if not eliminating, configuration errors during the installation process.

Note: This is not a definitive guide to the MS-450. The purpose of this document is only to help the installer understand the basic settings of the MS-450 as related to the MS-450.

The MS-450 is managed via a web browser. For the best user experience, Audio Enhancement, Inc. recommends the use of the Google Chrome web browser.

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Getting Started

The MS-450 is set to DHCP by default. To aid installation and troubleshooting, SonicIP® has been implemented in the MS-450. SonicIP® provides an audio rendering of the IP address assigned to the device. Audio rendering is on by default but can be turned off if needed.

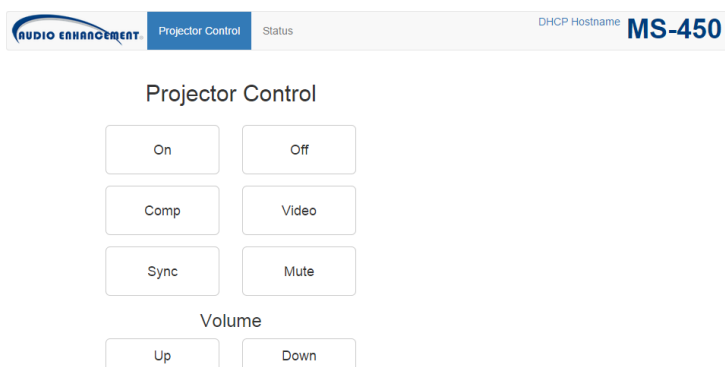
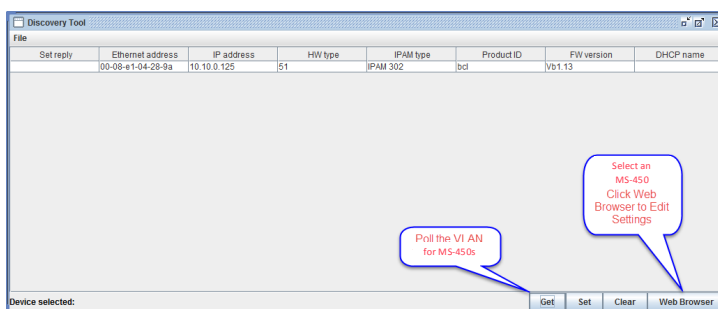
Two methods are available to have the device read the IP address:

1. Boot or reboot the device by connecting or reconnecting the network cable
2. Press the reset button one time

If the IP address is required and the technician is not near the device, the discovery software will locate all the MS-450 devices within the VLAN in which the technician is connected.

Discovery Software

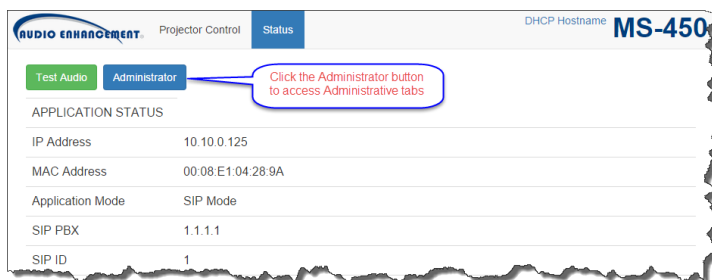
1. Download the Discovery.zip at <http://www.audioenhancement.com/downloads/>
2. Launch the discovery software
3. Press the **Get** button; this action will list all MS-450 devices on the VLAN
4. To open the desired MS-450 in the web browser, simply select the device and press the web browser button
5. The MS-450 web interface will display in the web browser



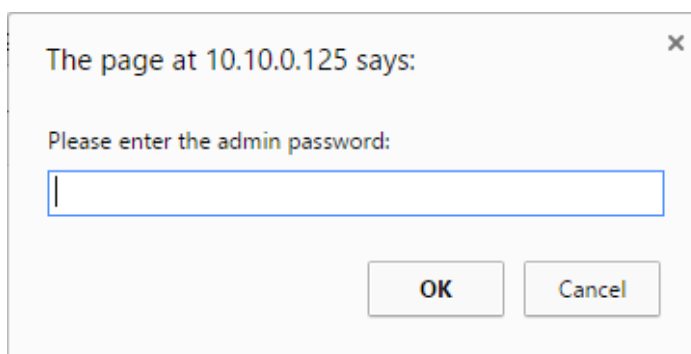
Accessing the Administration Tabs

Keeping the end user experience clean and free from erroneous data is imperative to the effective integration of a new technology. Therefore, all administrative tabs are hidden from the user.

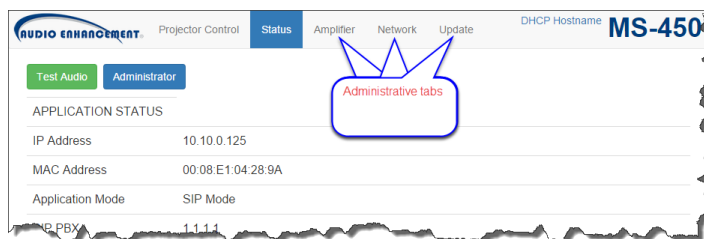
1. Click the **Status** tab
2. Click the **Administrator** button



3. Type the MS-450 password in the field provided
Default password is **123**
4. Click the **OK** button



5. The Amplifier, Network and Update tabs are now available



Amplifier Tab

Each time the Amplifier page is loaded, the MS-450 queries the amplifier board to display the current settings. Technicians must adjust the amplifier settings to fit the needs of the installation location.

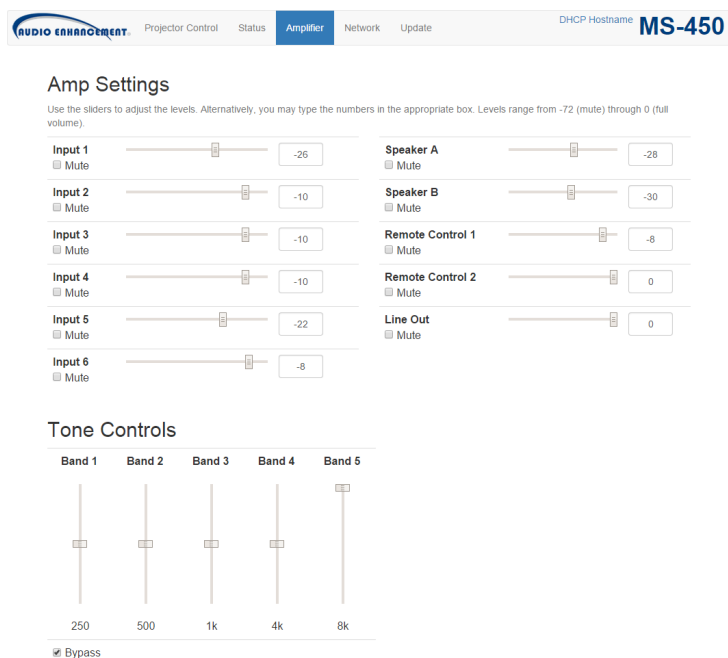
Input, Speaker A, Speaker B, Remote Control 1, Remote Control 2 and Line Out settings may be adjusted in one of two methods.

1. Drag the slider to the left or right.
or
2. Type a value in the corresponding field (don't forget the – sign)

Note: -72 is mute, 0 is full volume

Tone Controls may be turned on or off by placing a check in the **Bypass** box

3. Tones may be adjusted by moving the slider up or down



The screenshot shows the 'Amplifier' tab in the MS-450 web interface. The top navigation bar includes 'Projector Control', 'Status', 'Amplifier' (selected), 'Network', and 'Update'. The DHCP Hostname is 'MS-450'.

Amp Settings

Use the sliders to adjust the levels. Alternatively, you may type the numbers in the appropriate box. Levels range from -72 (mute) through 0 (full volume).

Input	Level	Speaker A	Level	Speaker B	Level	Remote Control 1	Level	Remote Control 2	Level	Line Out	Level
Input 1	-26	Speaker A	-26	Speaker B	-30	Remote Control 1	-8	Remote Control 2	0	Line Out	0
Input 2	-10										
Input 3	-10										
Input 4	-10										
Input 5	-22										
Input 6	-8										

Tone Controls

Band	Frequency	Level
Band 1	250	0
Band 2	500	0
Band 3	1k	0
Band 4	4k	0
Band 5	8k	0

☒ Bypass

Network Tab

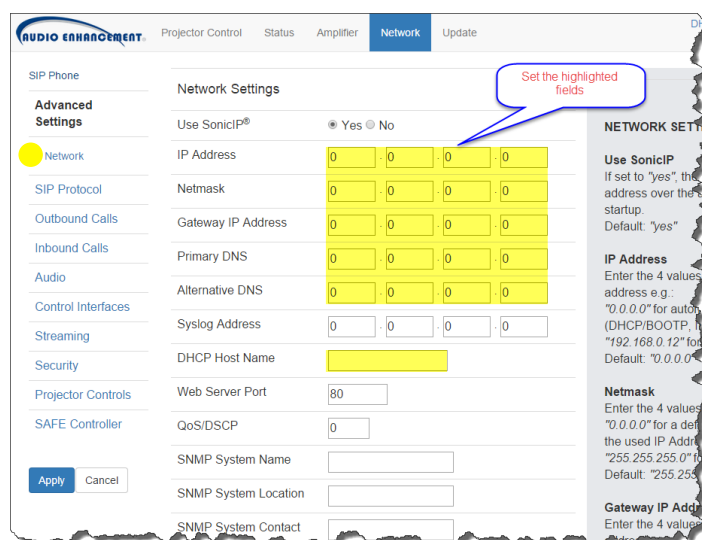
Note: Click the Apply button to save all changes to the Network tab.

Network

Audio Enhancement, Inc. recommends the use of Static IP addresses. If the location owner wishes to use DHCP, the installation team need only set the DHCP Host Name.

The directions below assume a Static IP address will be used.

1. Click the Network tab
2. Click the Network link in the left margin
3. Complete the following fields with appropriate data:
 - a. IP Address
 - b. Netmask
 - c. Gateway IP Address
 - d. Primary DNS
 - e. Alternative DNS
 - f. DHCP Host Name



The screenshot shows the 'Network Settings' page in the Audio Enhancement web interface. The 'Network' tab is selected in the sidebar. The main content area contains the following settings:

- Use SoniciP®:** Radio buttons for Yes (selected) and No.
- IP Address:** Four input fields, each containing '0'.
- Netmask:** Four input fields, each containing '0'.
- Gateway IP Address:** Four input fields, each containing '0'.
- Primary DNS:** Four input fields, each containing '0'.
- Alternative DNS:** Four input fields, each containing '0'.
- Syslog Address:** Four input fields, each containing '0'.
- DHCP Host Name:** A single text input field.
- Web Server Port:** A text input field containing '80'.
- QoS/DSCP:** A text input field containing '0'.
- SNMP System Name:** A text input field.
- SNMP System Location:** A text input field.
- SNMP System Contact:** A text input field.

A callout bubble points to the IP Address, Netmask, Gateway IP Address, Primary DNS, and Alternative DNS fields with the text "Set the highlighted fields".

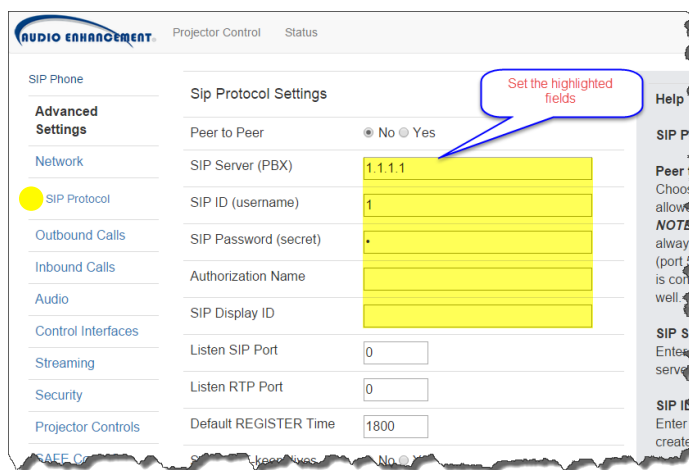
SIP Protocol

If the MS-450 will be integrated with a SIP (VoIP) phone system, this page will require modification. If the MS-450 will not be integrated, make **no** changes to this page.

The directions below assume the MS-450 will be integrated with the local SIP (VoIP) phone system.

1. Click SIP Protocol in the left margin
2. Complete the following fields with appropriate data:
 - a. SIP Server (PBX)
 - b. SIP ID (username)
 - c. SIP Password (secret)
 - d. Authorization Name
 - e. SIP Display ID

Note: Authorization name is not required on all phone systems



Outbound Calls

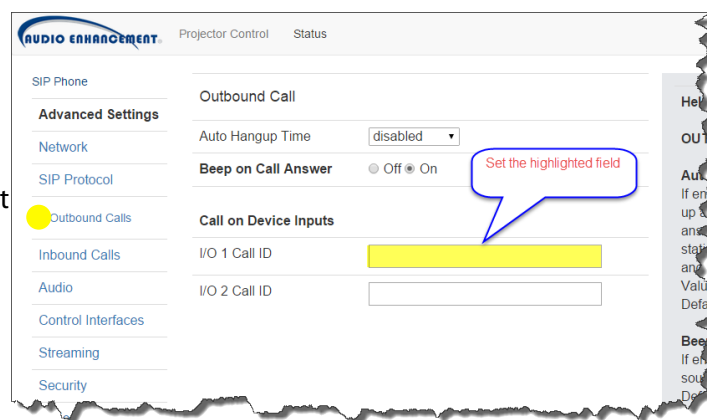
If the call button and microphone have been installed in the location of the MS-450, this page will need to be completed.

The directions below assume the MS-450 was installed with a call button and microphone.

1. Click **Outbound Calls** in the left margin
2. Complete the "I/O 1 Call ID" field with appropriate data

Suggestion: The hunt/ring group should not have an associated voicemail box.

Note: The Call ID is the SIP extension to be dialed when the call button is pressed. This extension will often be a hunt group extension.



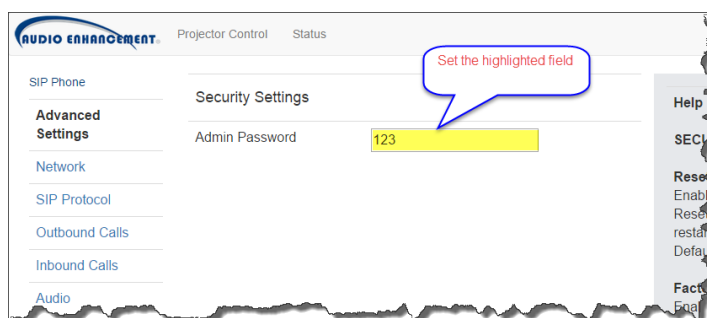
Security

Note: The default security password is 123.

The directions below assume the security password will be changed.

1. Click **Security** in the left margin
2. Complete the "Admin Password" field with appropriate data

Note: If the new password is forgotten, the MS-450 must be factory reset



Projector Controls

The Projector page allows for the customization of the Projector Control page. On this page, RS-232 commands may be added to control the projector to which the MS-450 is connected. Additionally, the names for sources 1-4 may be changed to better fit the needs of the location of the device being installed.

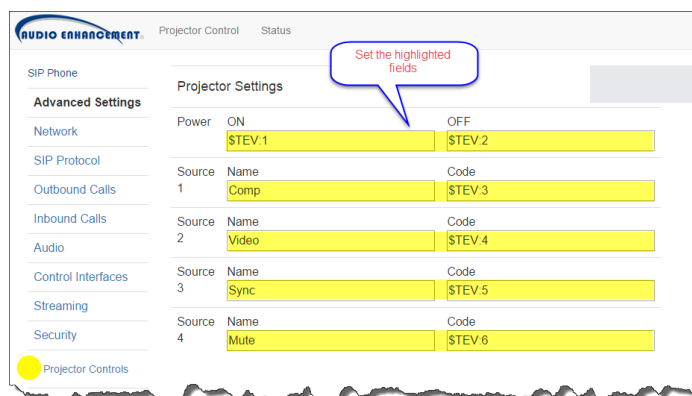
1. Click Projector Controls in the left margin

Power

2. Set the appropriate RS-232 commands for both the On and Off buttons

Source(s)

3. Set the appropriate Names and RS-232 commands for Sources 1 – 4



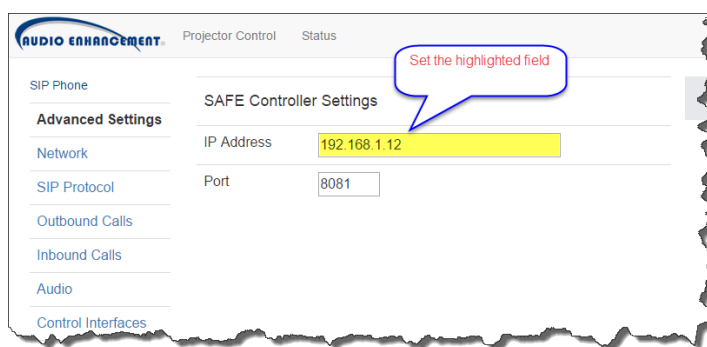
SAFE Controller

If the SAFE Controller has been installed in conjunction with the MS-450 this page will need to be modified.

The directions below assume the MS-450 was installed in conjunction with the SAFE Controller.

1. Click SAFE Controller in the left margin
2. Complete the "IP Address" field with appropriate data

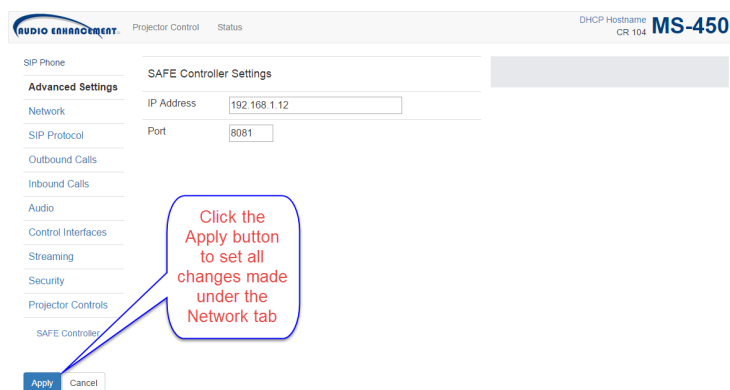
Note: The IP address will be the IP address of the SAFE Controller at the location the MS-450 is being installed



The screenshot shows the 'SAFE Controller Settings' page. The 'IP Address' field is highlighted in yellow. A callout bubble with the text 'Set the highlighted field' points to this field. The 'Port' field is set to '8081'. The left sidebar shows a list of settings: SIP Phone, Advanced Settings, Network, SIP Protocol, Outbound Calls, Inbound Calls, Audio, and Control Interfaces.

Click the **Apply** button to set all changes made under the Network tab

Note: The device will reboot at this time



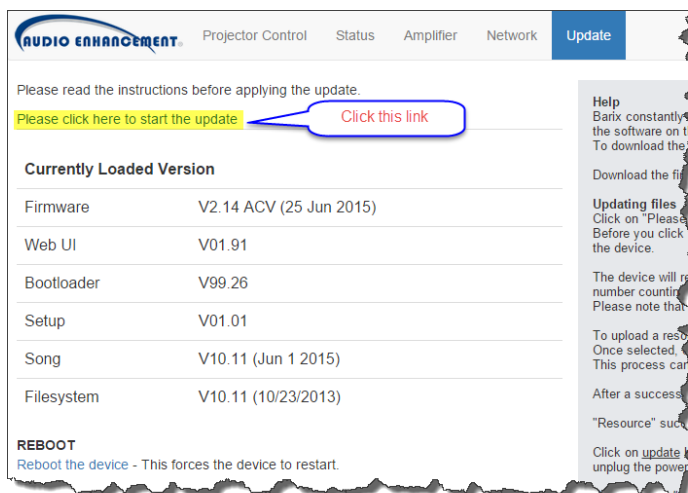
The screenshot shows the 'SAFE Controller Settings' page. The 'IP Address' field is set to '192.168.1.12' and the 'Port' field is set to '8081'. A callout bubble with the text 'Click the Apply button to set all changes made under the Network tab' points to the 'Apply' button at the bottom left. The top right corner of the page shows 'DHCP Hostname CR 104 MS-450'. The left sidebar shows a list of settings: SIP Phone, Advanced Settings, Network, SIP Protocol, Outbound Calls, Inbound Calls, Audio, Control Interfaces, Streaming, Security, Projector Controls, and SAFE Controller.

Update Tab

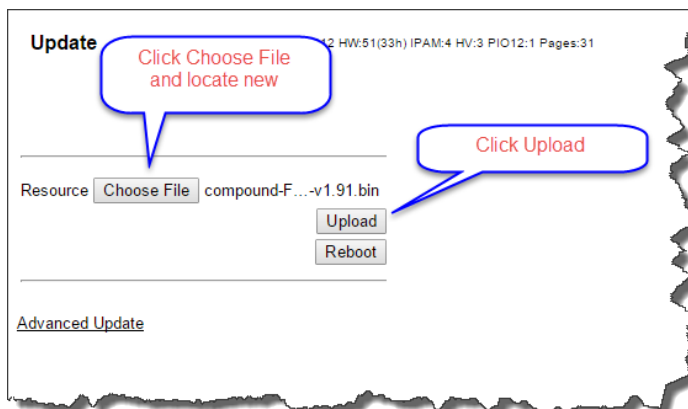
A best practice when installing any IP device is to verify the device has the newest firmware loaded.

The directions below assume the MS-450 requires a firmware update.

1. Click the **Update** tab
2. Click the link that reads "Please click here to start the update"
Note: The device will reboot



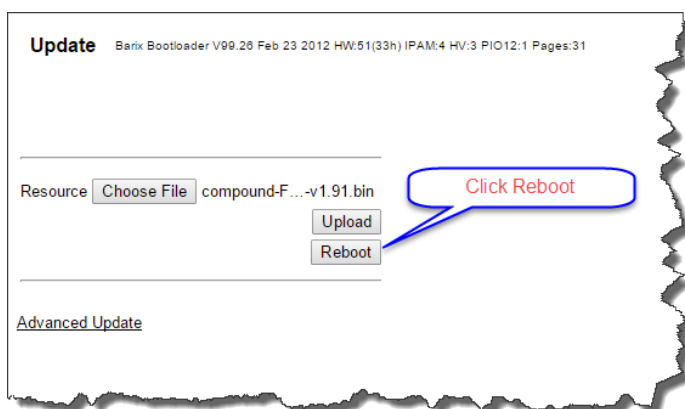
3. Click the **Choose** button and locate the updated firmware
4. Click the **Upload** button



5. Click the “update” link



6. Click the **Reboot** button
7. Upon reboot the device will be updated to the new firmware



Resources

Check the downloads page on Audio Enhancement’s website for the discovery tool and the latest firmware.

- www.AudioEnhancement.com/downloads

Factory Resetting

At the device

Press and hold the reset button for 10 seconds

Via the web browser

<http://ip address/rc.cgi?L=uirreboot.html&c=94>

Example: <http://10.10.0.12/rc.cgi?L=uirreboot.html&c=94>

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