Touch Control Panel 5 inch, PoE

User Manual

500817/500817-WH

Table of Contents

1. Safety Precautions

To ensure the best performance from the product, please read all instructions carefully before using the device. Save this manual for future reference.

- Follow basic safety precautions to reduce the risk of fire, electrical shock, and injury.
- Do not dismantle the housing or modify the module. It may result in electrical shock or burns.
- Do not open or remove the housing of the device as you may be exposed to dangerous voltage or other hazards.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture and do not install this product near water. Keep the product away from liquids.
- Spillage into the housing may result in fire, electrical shock, or equipment damage. If an object or liquid falls or spills on the housing, unplug the module immediately.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.
- Using supplies or parts not meeting the product specifications may cause damage, deterioration or malfunction.
- Refer all servicing to qualified service personnel.
- Install the device in a place with adequate ventilation to avoid damage caused by overheat.
- Unplug the power when left unused for a long period of time.
- Information on disposal of devices: do not burn or mix with general household waste, please treat them as normal electrical waste.

2. Introduction

The MuxLab Touch Control Panel 5 inch, PoE (model: 500817/500817-WH) is a versatile wall touch control panel for MuxLab devices and third-party products. The device combines the capabilities of an in-wall touch panel and an advanced control processor. Featuring a 5" high-resolution color touch screen, and two-way feedback, the device supports the addition of various programmable buttons that can be placed on different pages as required. The unit supports one (1) Ethernet port (for TCP/IP,, UDP, and Telnet), two (2) RS-232 ports, one (1) RS-485 port, one (1) Infrared port, two (2) voltage sense ports, and two (2) Relay ports for control of end devices.

The MuxLab Touch Control Panel 5 inch, PoE can control MuxLab products including MuxLab's AV over IP system via the 500812 ProDigital Network Controller, 500813 Muximus Network Controller, MuxLab's TCP/IP, Telnet and RS-232 managed Matrix Switches, as well as third party devices such as projectors, projector screens, displays, AV sources, and other similar devices. The 500817 Touch Control Panel can be programmed, configured, and managed via the web interface.

3. Features

- 5" LCD panel resolution 480x800
- Control end devices via TCP/IP, UDP, Telnet, RS232, IR & Relay
- Programmable via Web Interface
- Powered using power supply or PoE (Power over Ethernet)
- Supports the addition of various programmable buttons that can be placed on different pages.
- Supports one (1) Ethernet port, two (2) RS-232 ports, one (1) RS-485 port, one (1) Infrared port, two (2) voltage sense ports, and two (2) Relay ports

4. Package Contents

- One (1) Touch Control Panel 5 inch, PoE
- One (1) IR Emitter
- One (1) Spatula
- Six (6) 2-Pin Phoenix Connectors
- Two (2) 3-pin Phoenix Connectors
- One (1) 24VDC/0.5A Power Adapter
- One (1) User manual (available via download)

Notes: Confirm that the product and accessories are all included. If not, please contact the supplier from which you purchased the unit.

5. Specifications

Devices	AV over IP Controller, Matrix Switch, projectors, monitors, TV
Compatibility	Compatible with select MuxLab & third party products
Screen Size	5.0 inch
Video Resolution	800x480
Touch Screen	Capacitive touch
Output Ports	One (1) Ethernet port for TCP/IP Two (2) RS232 ports One (1) RS485 port One (1) Infrared Emitter port Two (2) Low voltage Relay ports
Input Ports	Two (2) Low level detection
Connectors	One (1) RJ45 for TCP/IP, Telnet, UDP control, and for firmware upgrade Two (2) 3-pin terminal blocks (3.81 mm) for Serial (RS232) One (1) 3-pin terminal blocks (3.81 mm) for Serial (RS485) One (1) 2-pin terminal block (3.81 mm) for IR Two (2) 2-pin terminal blocks (3.81 mm) for Relay Two (2) 2-pin terminal blocks (3.81 mm) for Low level detection One (1) 2-pin terminal block (3.81 mm) for Power One (1) USB female Type B for service
Relay	Max Voltage 30VDC, Max Current 0.5A
Low Level Detection	Range supported: 0 ~ 6VDC
PoE	802.3af
Power Supply	One (1) 110-240VAC to 24VDC/0.5A power supply with US, UK & Euro Blade
Housing	Metal Enclosure
Color	Black or White
Dimensions (WxDxH)	145mm x 37mm x 100mm
Weight	344g
Operating Temperature	32 - 104°F / 0 - 40°C
Storage Temperature	-4 - 140°F / -20 - 60°C
Relative Humidity	20~90% RH (non-condensing)
Compliance	Regulatory: FCC, CE, RoHS
Warranty	2 years
Order Information	500817 Touch Control Panel 5 Inch, PoE (UPC:627699008171) 500817-WH Touch Control Panel 5 Inch, PoE (UPC:627699018170)

6 Panel Description

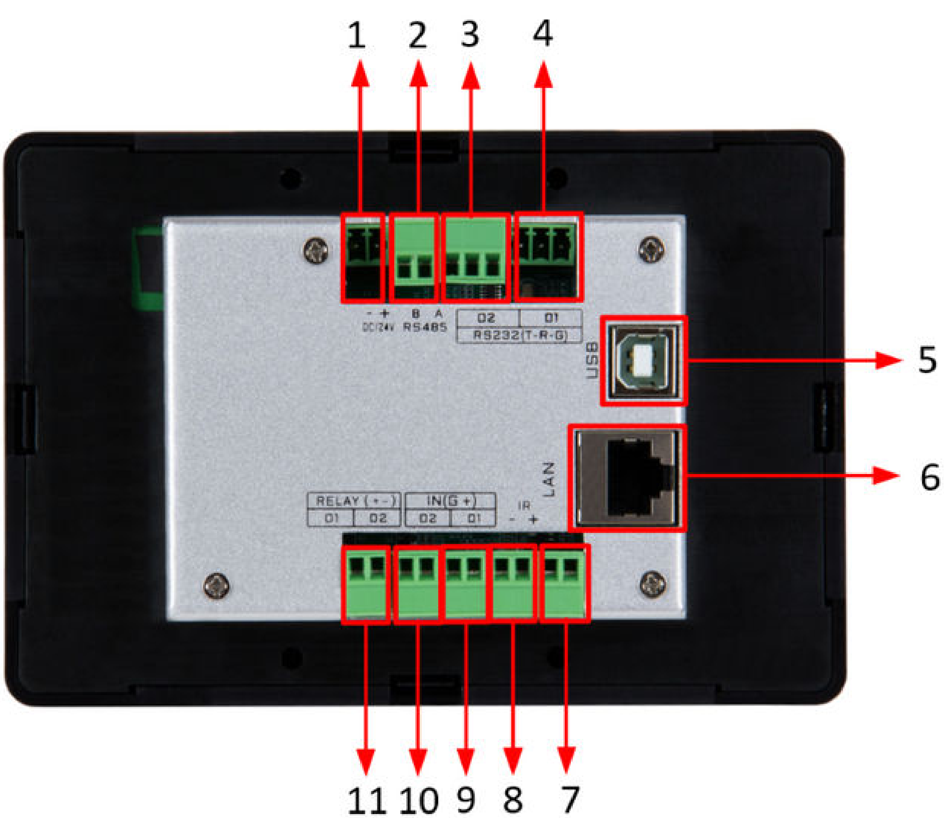
6.1 Front Panel View

Front view with faceplate

Front view without faceplate

1	Touch screen	5″ LCD panel resolution 480×800
2	IR reader	Learning IR sensor

6.2 Rear Panel View



1	Power	DC Power Input 24VDC/0.5A
2	RS-485 Port	RS-485 data output
3	RS-232 Port #2	RS-232 data output
4	RS-232 Port #1	RS-232 data output
5	USB Port	USB port
6	LAN (PoE)	LAN port with PoE (PD) power for web interface control
7	IR Port	IR Emitter output port
8	Voltage Sensor Port #1	Voltage sensor port (0 to 6VDC)
9	Voltage Sensor Port #2	Voltage sensor port (0 to 6VDC)
10	Relay Control Output	Relay Port #2
11	Relay Control Output	Relay Port #1

7. Unit Initialization

Before initial use, we recommend initializing the 500817 configuration (factory reset). To initialize the unit, connect the power source and immediately slide one finger from left to right across the screen several times until a blue screen with two buttons appears, as shown below (figure 1). Click on the "Reset System" button and then on the "Enter APP" button. Please note that this restores the factory default settings.

Figure 1

8 Configuration

8.1 Web Server

The units comes with a factory default IP Address of: 192.168.168.53

To access the unit web server, the user can directly connect a PC LAN port to the 500817 LAN port with a straight polarity Ethernet cable. After connecting the PC and the Touch Control Panel, go to the PC network connection section to change the PC's IP property status to "Static IP" and set the PC IP address to say 192.168.168.178, Subnet Mask to 255.255.255.0 and Default Gateway to 192.168.168.1, as shown below (figure 2). Once done, open a web browser and enter the IP Address 192.168.168.53 to access to the Touch Control Panel web server.

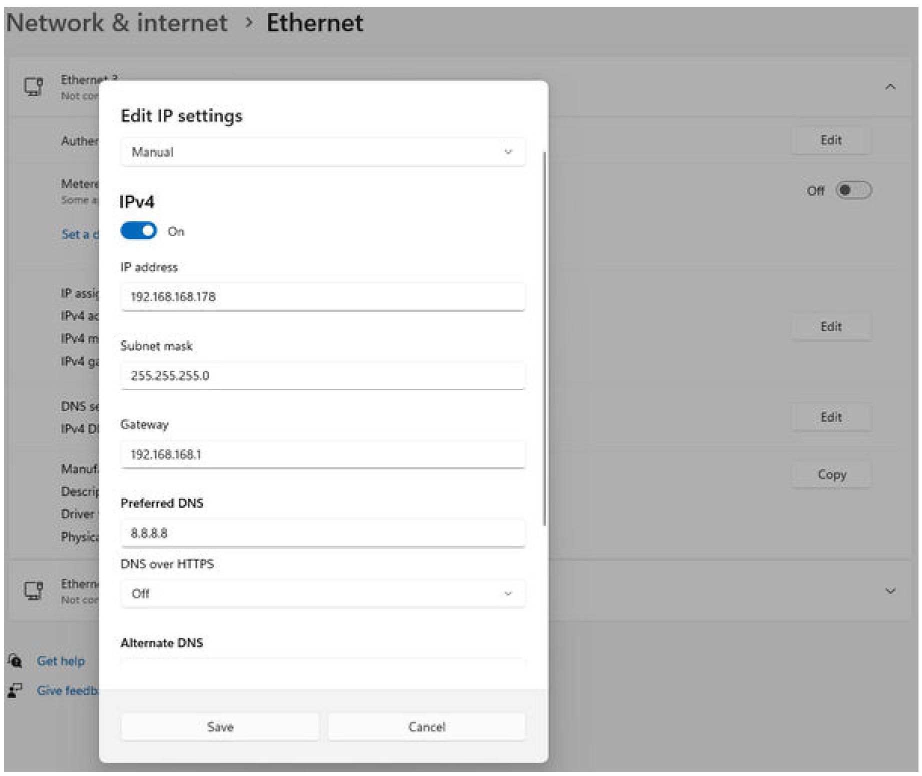


Figure 2

The user must now set the Touch Control Panel to the same IP segment as the local area network where the device will be used. To achieve this, click on System (see figure 3) and go to the Network section via the 500817 web interface, as shown below (figure 4), and set the Touch Control Panel IP address accordingly to match the local area network IP Address setting.

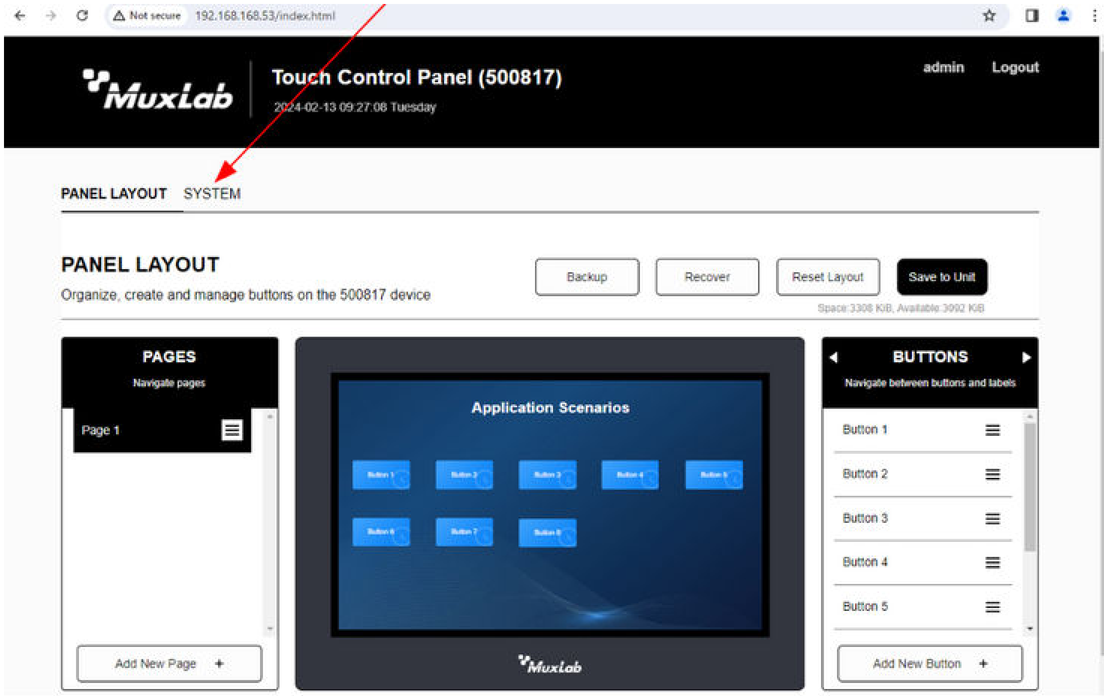


Figure 3

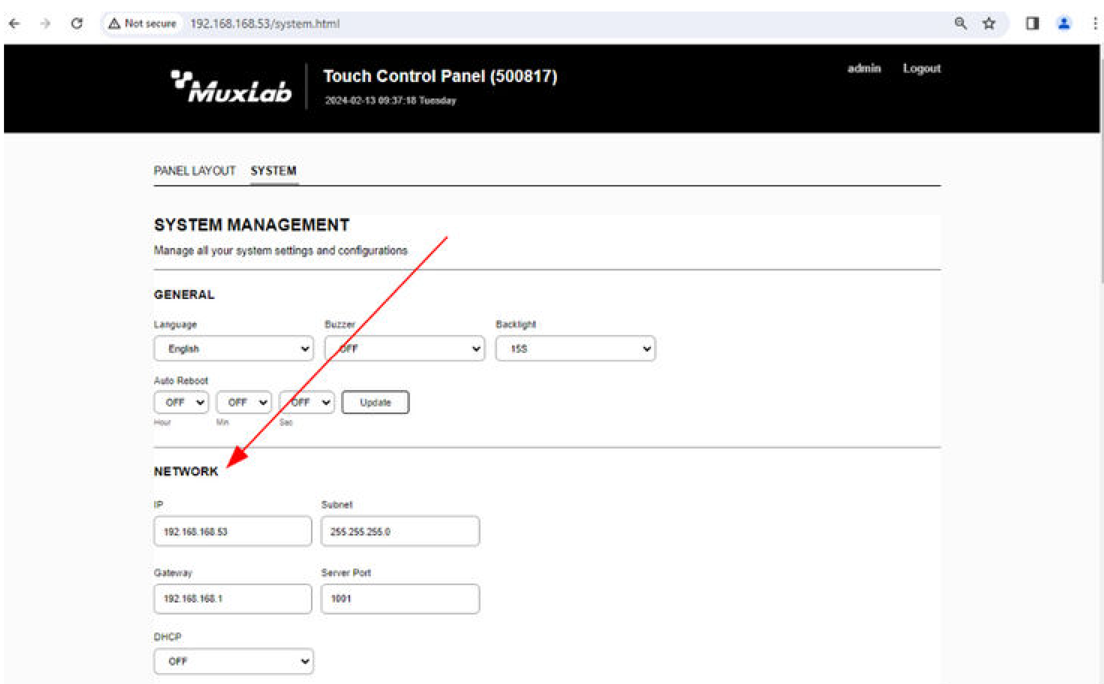
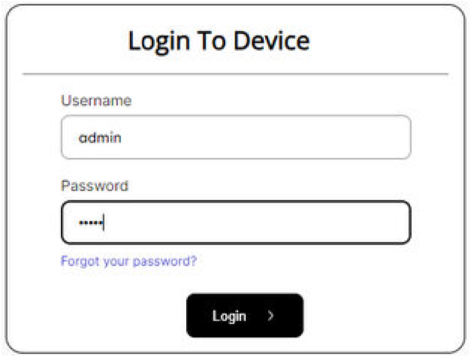


Figure 4

For example if the LAN IP segment is set as 192.168.88.xxx, then set the product IP Address to 192.168.88.1xx. Once the IP Address is set, then the user can access this device in the intended local area network via the Touch Control Panel web interface using the IP Address 192.168.88.1xx (where xx represents the settings selected above).

After accessing the Touch Control Panel web server, the default user ID is admin, and the password is admin. Login to configure and manage the unit. It is advisable to change these defaults later.

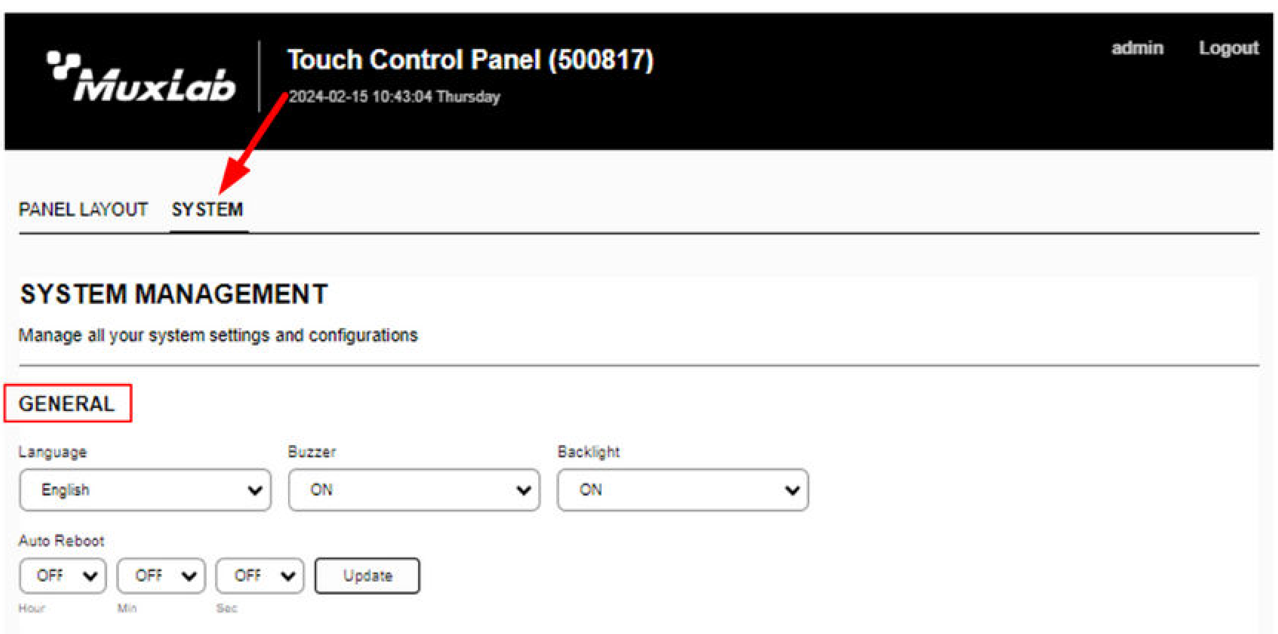


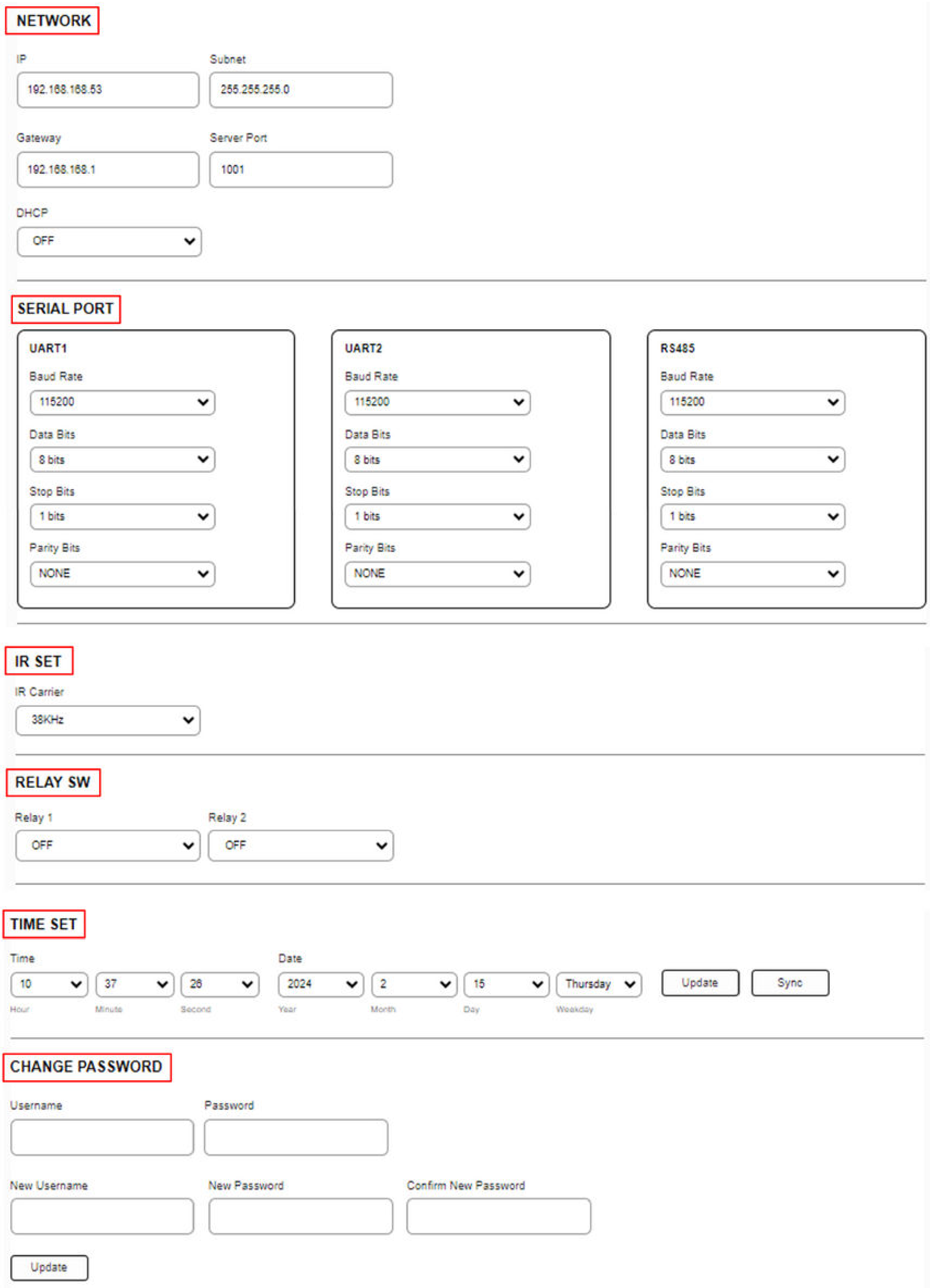
The factory default:
IP: 192.168.168.53
Username: admin
Password: admin

Figure 5

8.2 System Page

After login, click the SYSTEM tab to manage system options.
System management mainly includes General Settings, Network Configuration, Serial Port Configuration, Infrared Settings, Relay Settings, Time Settings, System Settings Backup, System Options and device information, as shown below (figure 6). Users can configure them according to actual requirements.




NETWORK
IP
192.168.168.53
Subnet
255.255.255.0
Gateway
192.168.168.1
Server Port
1001
DHCP
OFF
SERIAL PORT
UART1
Baud Rate
115200
Data Bits
8 bits
Stop Bits
1 bits
Parity Bits
NONE
UART2
Baud Rate
115200
Data Bits
8 bits
Stop Bits
1 bits
Parity Bits
NONE
RS485
Baud Rate
115200
Data Bits
8 bits
Stop Bits
1 bits
Parity Bits
NONE
IR SET
IR Carrier
38KHz
RELAY SW
Relay 1
OFF
Relay 2
OFF
TIME SET
Time
10
37
28
Date
2024
2
15
Thursday
Update
Sync
CHANGE PASSWORD
Username
Password
New Username
New Password
Confirm New Password
Update

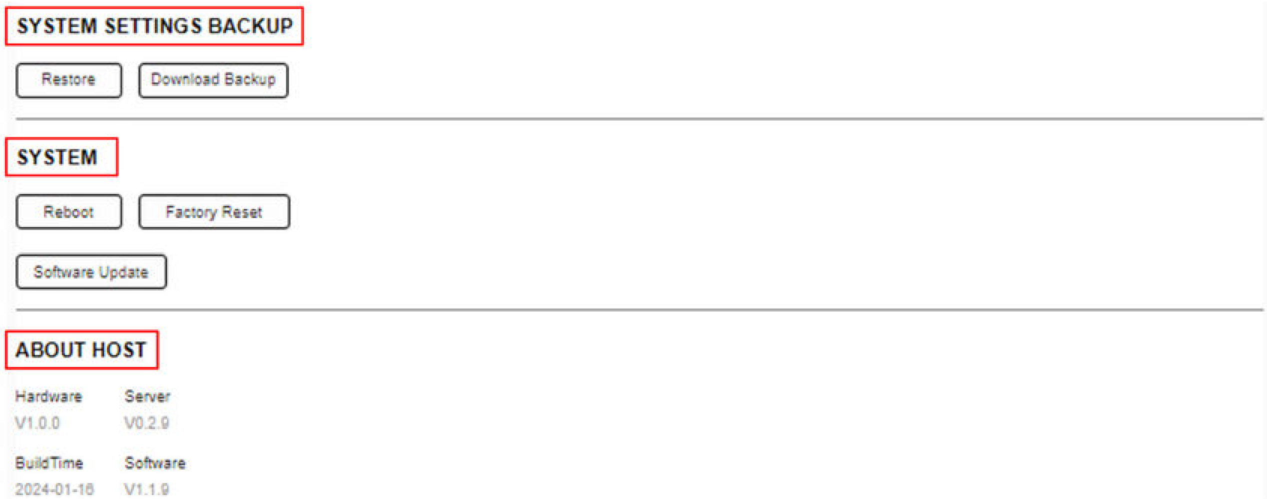


Figure 6

General:
Buzzer: The User can turn the audio tactile feedback on or off.

Backlight: The User can determine the time in which the screen goes into sleep mode.

Auto Reboot: The User can set an exact time for the device to reboot.

Network:
The User can set IP Address, Subnet Mask, Default Gateway, Server Port and DHCP info in the Network Control sub-section.

Serial Port:
The User can set UART1, UART2 and RS485 Baud Rate, Data Bits, Stop bit and Parity settings.

Infrared Settings:
The User can select the frequency of sending the infrared commands.

Relay Settings:
The User can configure the states of the relays.

Time Settings:
The User will be able to synchronize or configure the time and date of the device.

Change Password:
The User can change the username and password.

System Settings Backup:
User can restore or backup system settings.

System:
The User can restart, do a factory reset or update the software version of the device.

About Host:
The User can see the hardware and software versions of the device.

8.3 Panel Layout Page

Once the user has logged in, the Panel Layout screen will appear, as shown below (figure 7). On this page the user can manage and program the unit either by creating pages, adding buttons to the pages, adding commands to the buttons, creating or recovering a backup, assigning images to the buttons or changing the wallpaper among other.

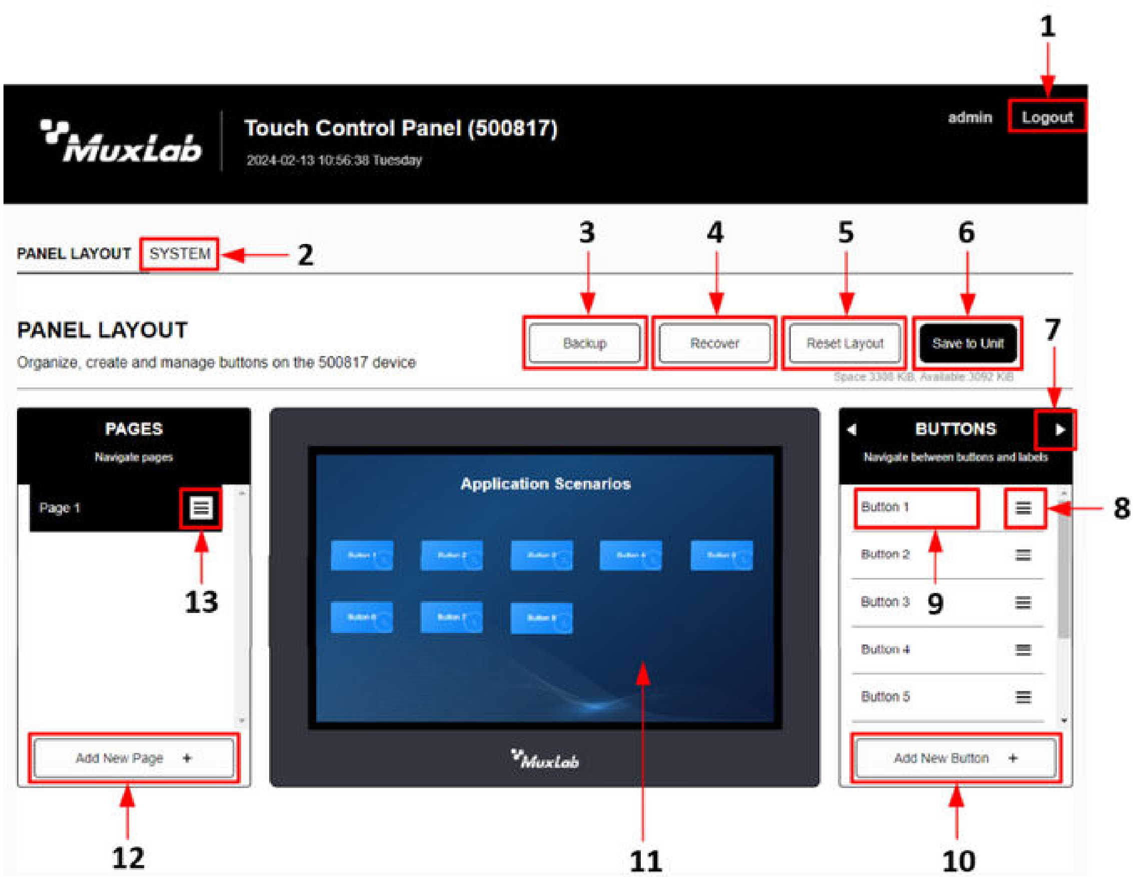


Figure 7

1 Logout:
Click "logout" to close the system.

2 System:
Click "System" to go to the System page.

3 Backup:
Click "Backup" to create a backup copy of the page layout and button programming.

4 Recover:
Click "Recover" to restore a backup copy of the page layout and button programming.

5 Reset Layout:
Click "Reset Layout" to reset the unit's default page layout and buttons. By default, 8 buttons are shown that do not have any programmed commands.

6 Save to Unit:
Click "Save to Unit" to send the page layout and button programming to the Unit.

7 Buttons or Labels selector:
Click "▶" to select whether to add or edit Buttons or Labels.

8 Setting Button:
Click "≡" to either program the button, delete it or execute the programmed command. The Button Programming section explains in detail how to assign commands to the buttons.

9 Edit Button:
Click the button name to edit it. In this section you can give the button a name, choose the font size and color, assign a PNG image to the button, or program the button so that when the user touches it it changes the screen to a specific page.

Note: Please note that if you assign an image to the button the system only accepts images in PNG format.

10 Add New Button:
Click "Add New Button" to add buttons. The system allows you to add up to 50 buttons.

11 Screen:
Designated area for creating page layouts by adding buttons and adding labels.

12 Add New Page:
Click "Add New Page" to add a new page. The system allows you to add up to 10 pages.

13 Setting Pages:
Click "≡" to change the name of the page, delete the page, change or remove the background. Only use PNG images for the background.

9 Button Programming

The PANEL LAYOUT page is displayed after successful login. By default, page 1 is displayed on the screen with eight buttons. The user can add pages and on each page add buttons at will, in addition the user can change the size of the buttons, assign them an image and place them anywhere on the screen.
Each button can be programmed to send one or more commands. If the User has assigned multiple commands to the button, once the button is touched, the system automatically executes each command based on the sequence and the configured time between them. The commands assigned to the button must be configured based on the actual environment. The user can execute the commands assigned to the buttons from the web interface page. This can be used to test the button programming.
To assign commands to a button, select the "Program Button" option of the desired button (see below figure 8).

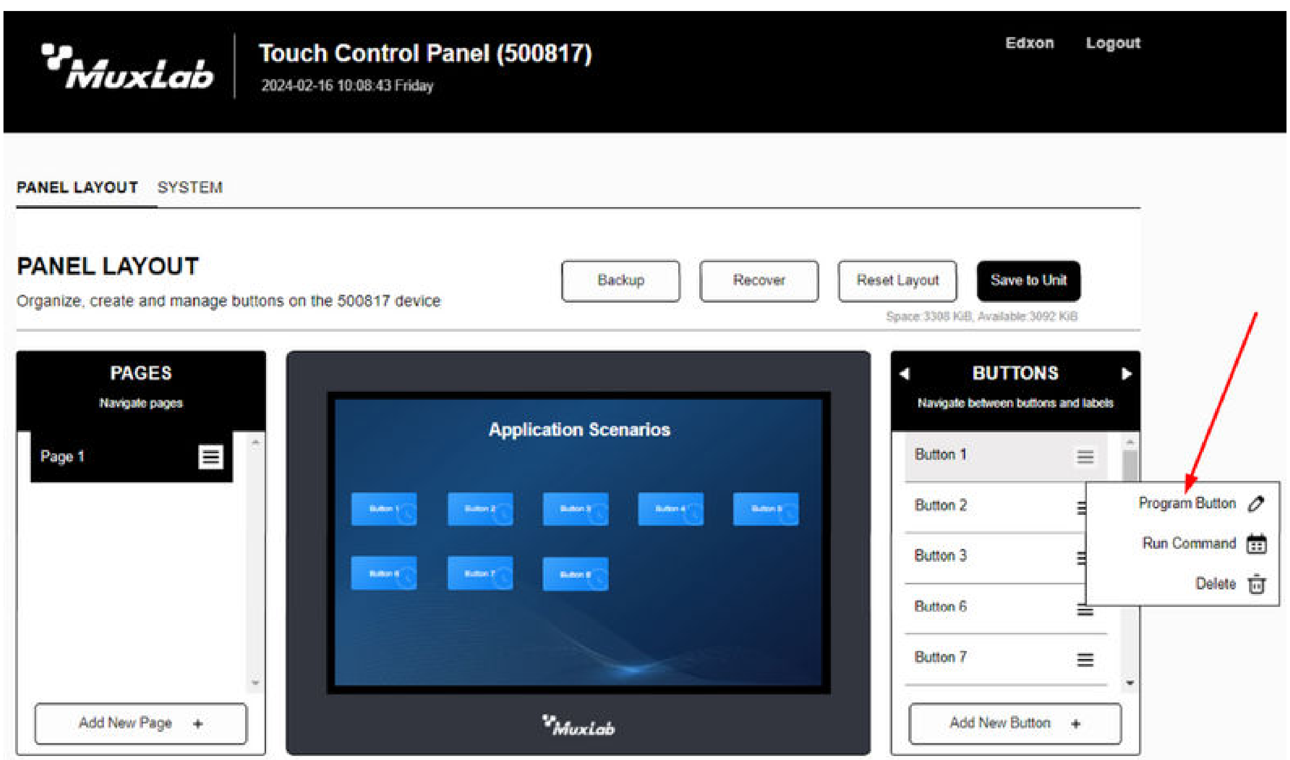


Figure 8

10 Program Button Page

The Program Button page is displayed after clicking the "Program Button " button. On this page, the user can set commands, set trigger conditions, set timers, define execution sequences, and more (see below figure 9).

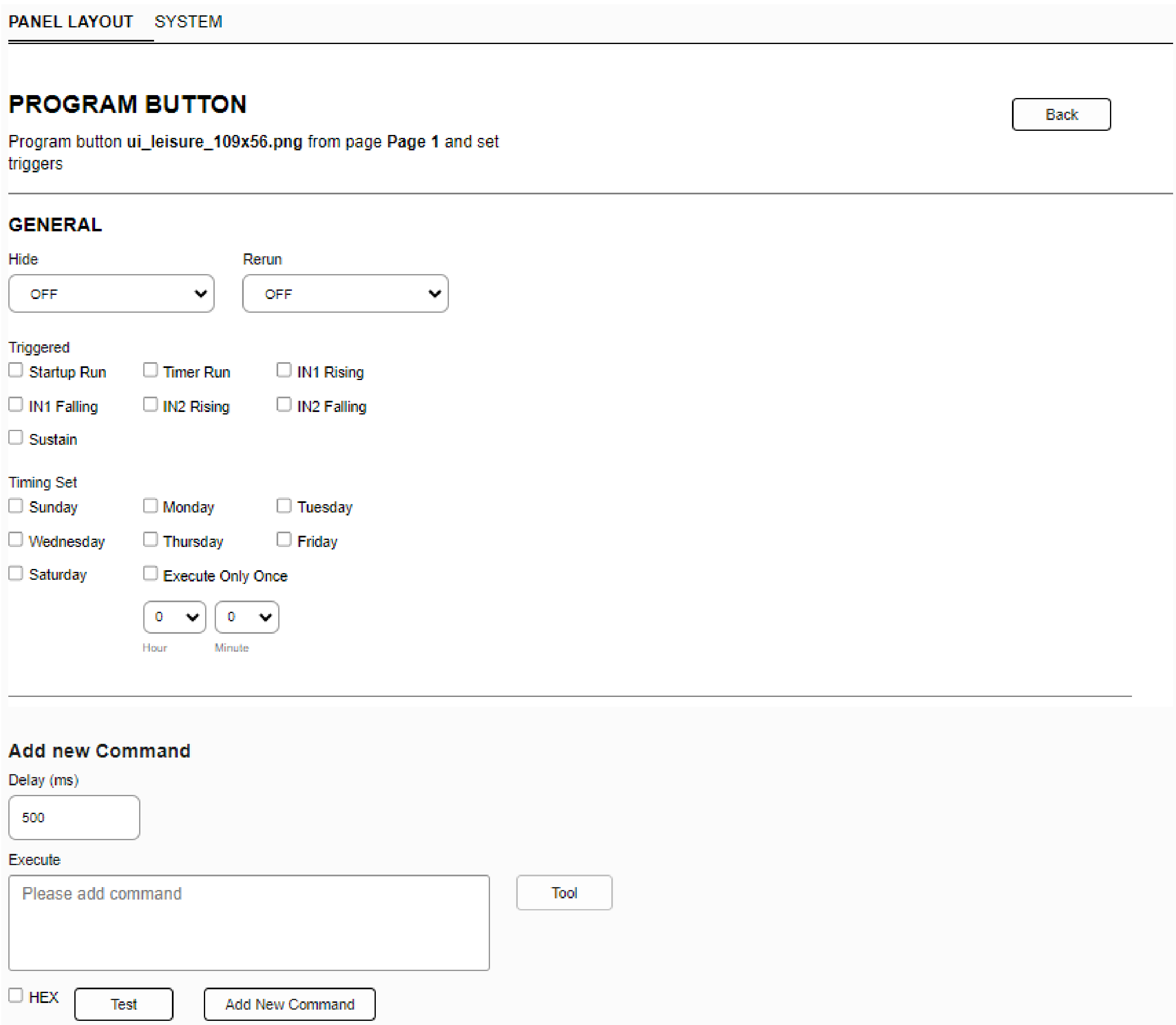


Figure 9

This page is divided into two sections; General (Figure 10) and Add New Command (Figure 11). In the General section, the user can set trigger conditions, configure timers, and leave a button visible or hidden. In the Add New Command section, the user can assign one or more commands to the button and assign a execution time between them.

10.1 General

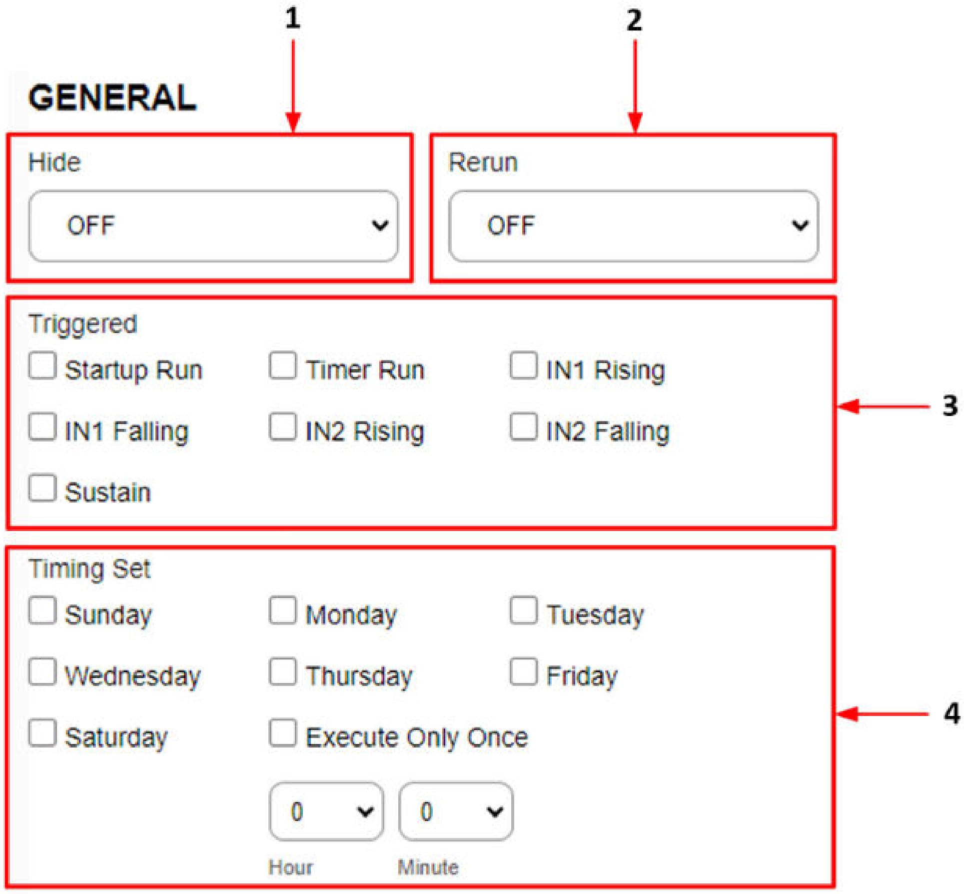


Figure 10

1 Hide:
By selecting ON, the button will not be displayed on the interface, but it can be executed by invoking a command.

2 Rerun:
By selecting ON, when the command is executed, it will repeat continuously until the user taps the button again.

3 Triggered:
Set the command sending mode, either every time the device is turned on (Startup Run), a specific day and time (Timer Run), by detecting a voltage difference on the Voltage Sensor ports (IN1, IN2 / Rising, Falling) or give the option to send the command repeatedly while touching the button (Sustain).

4 Timing Set:
Set the exact day(s) and time you want the command(s) to be sent when the "Timer Run" option is selected in the "Triggered" section.

10.2 Add new Command

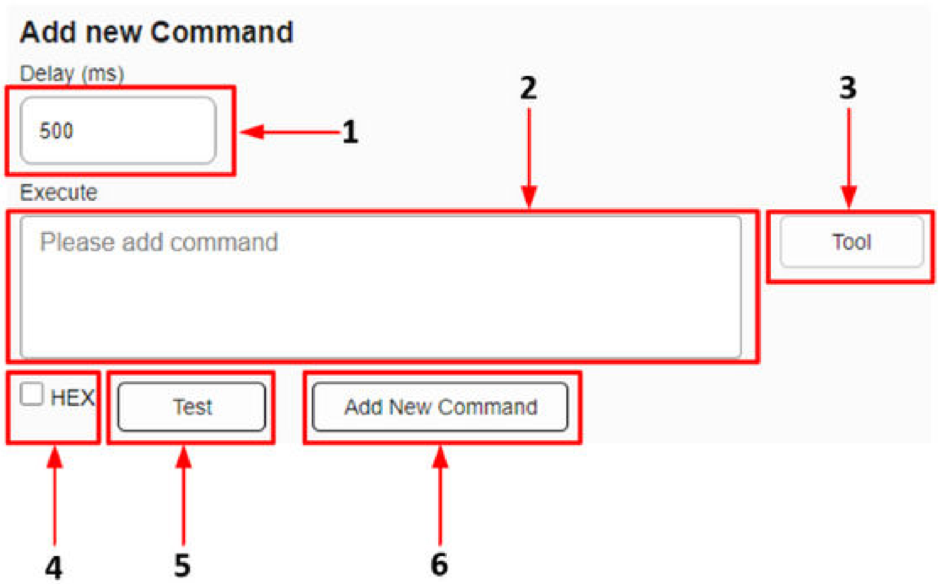


Figure 11

1 Delay:
Set the delay time, in milliseconds, before executing a command.

2 Execute:
In this box the user can view, enter, or modify the programmed command.

3 Tool:
Click "Tool" to display the Command Editing page. See section 10.2.1.

4 Hex:
Check the box if you want to view the command in hexadecimal format.

5 Test:
Click "Test" to test the command.

6 Add New Command:
Click "Add New Command" to add the command to the execution sequence.

10.2.1 Command Editing Page

The Command Editing page is displayed after clicking the "Tool" button. On this page the user can generate TCP, UDP, UART, IR and RELAY control commands or call control commands already programmed in other buttons (see below figure 12)

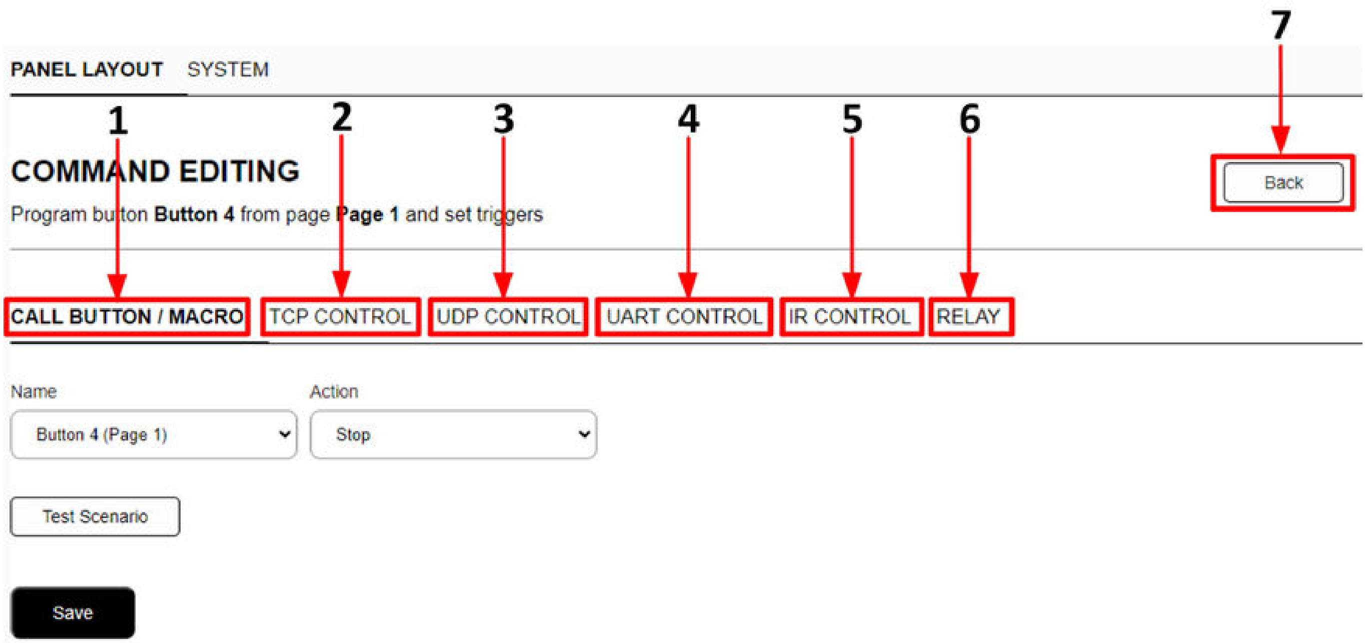


Figure 12

1 Call Button/Macro:
Click "Call Button/Macro" to start/stop a command already programmed on another button.

2 TCP Control:
Click “TCP Control” to generate a TCP control command.

3 UDP Control:
Click “UDP Control” to generate a UDP control command.

4 UART Control:
Click “UART Control” to generate a UART control command.

5 IR Control:
Click “IR Control” to generate an IR control command.

6 Relay Control:
Click “Relay” to generate a Relay control command.

7 Back:
Click "Back" to return to the Program Button Page.

10.2.1.1 Command Editing (Call Button/Macro)

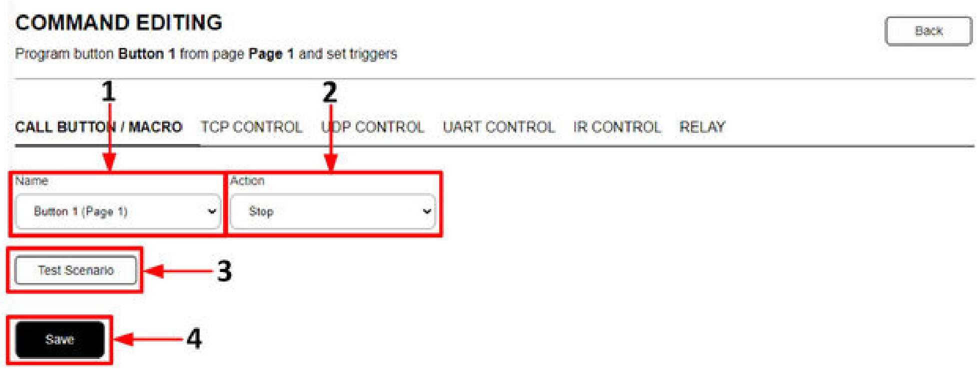


Figure 13

1. Select the button you want to stop or start.
2. Select whether to start or stop the button.
3. Click "Test Scenario" to test the command(s).
4. Click "Save" to ensure that the command is generated and can be viewed in the Execute box.

10.2.1.2 Command Editing (TCP Control)

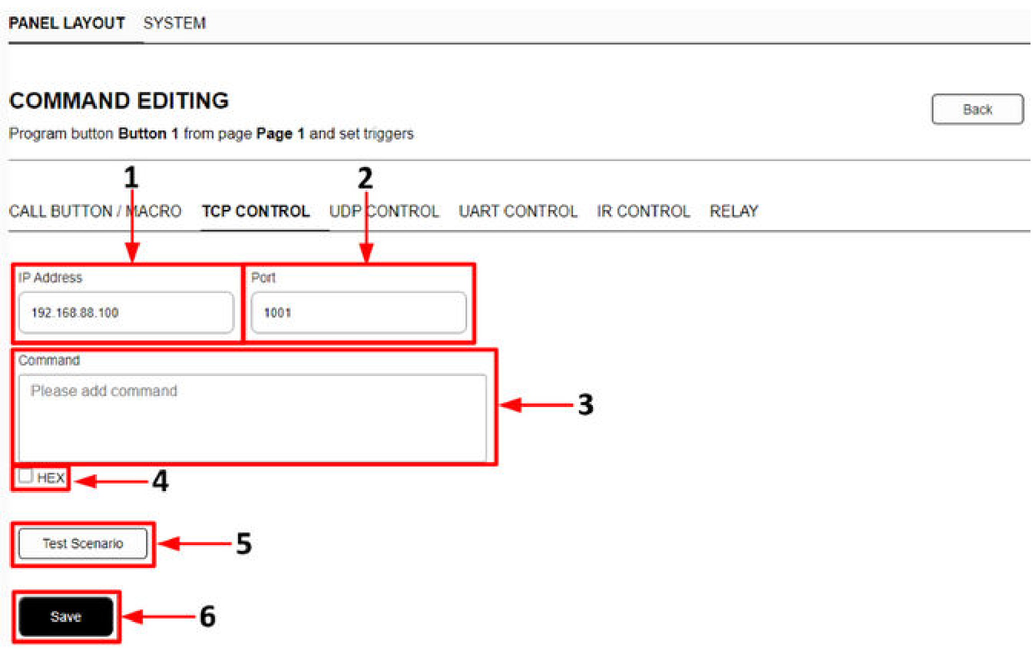


Figure 14

1. Enter the IP address of the device to control.
2. Enter the Port number of the device to control.
3. Enter the instructions that should be sent to the destination IP address.
4. Put a check mark in this box if you need to send the instructions in HEX format.
5. Click "Test Scenario" to test the command.
6. Click "Save" to ensure that the command is generated and can be viewed in the Execute box.

10.2.1.3 Command Editing (UDP Control)

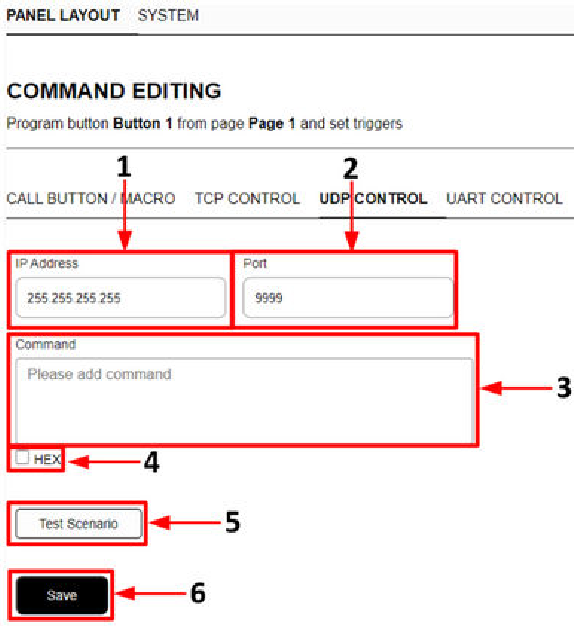


Figure 15

1. Enter the IP address of the device to control.
2. Enter the Port number of the device to control.
3. Enter the instructions that should be sent to the destination IP address.
4. Put a check mark in this box if you need to send the instructions in HEX format.
5. Click "Test Scenario" to test the command.
6. Click "Save" to ensure that the command is generated and can be viewed in the Execute box.

10.2.1.4 Command Editing (UART Control)

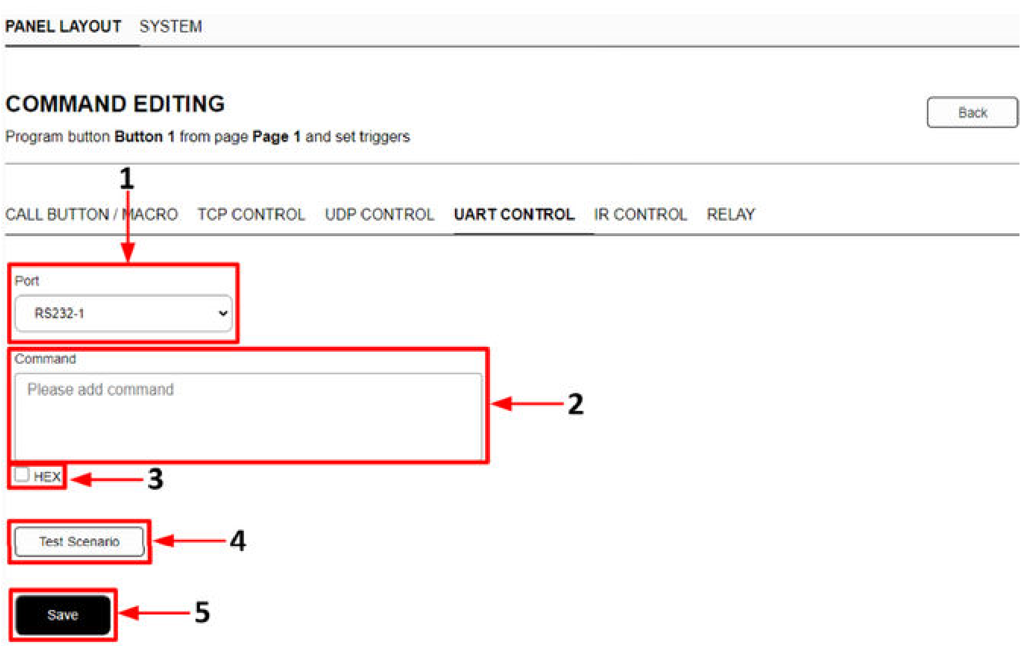


Figure 16

1. Select the UART port to control (This model has three UART ports).
2. Enter the instructions that should be sent to the destination.
3. Put a check mark in this box if you need to send the instructions in HEX format.
4. Click "Test Scenario" to test the command.
5. Click "Save" to ensure that the command is generated and can be viewed in the Execute box.

10.2.1.5 Command Editing (IR Control)

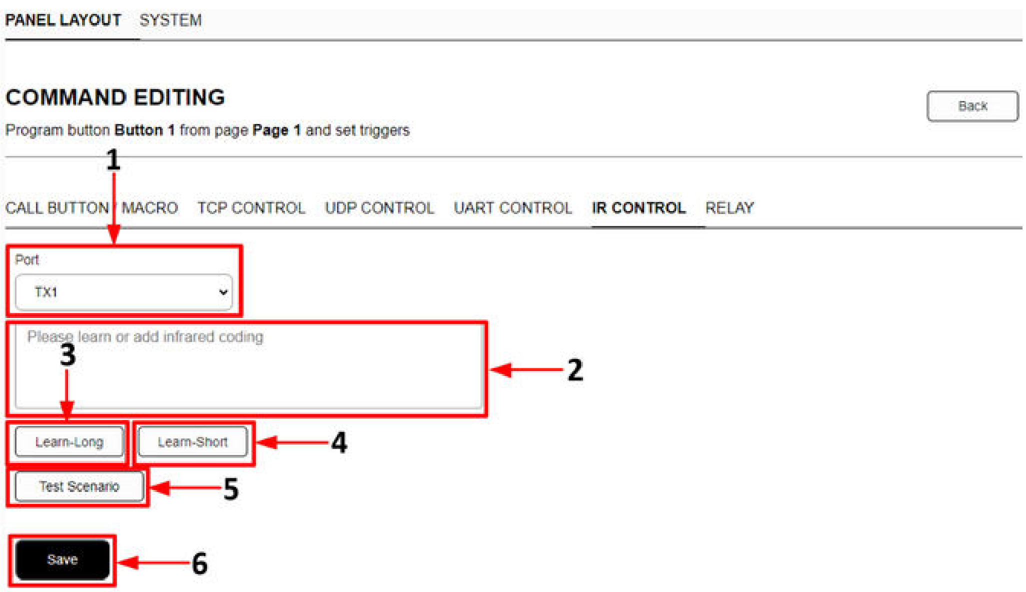


Figure 17

1. Select the IR Port (This model only has one port).
2. Learn or enter a specified infrared code.
3. Click "Learn-long" if you need to learn a long infrared code.
4. Click "Learn-short" if you need to learn a short infrared code.
5. Click "Test Scenario" to test the command.
6. Click "Save" to ensure that the command is generated and can be viewed in the Execute box.

10.2.1.6 Command Editing (Relay Control)

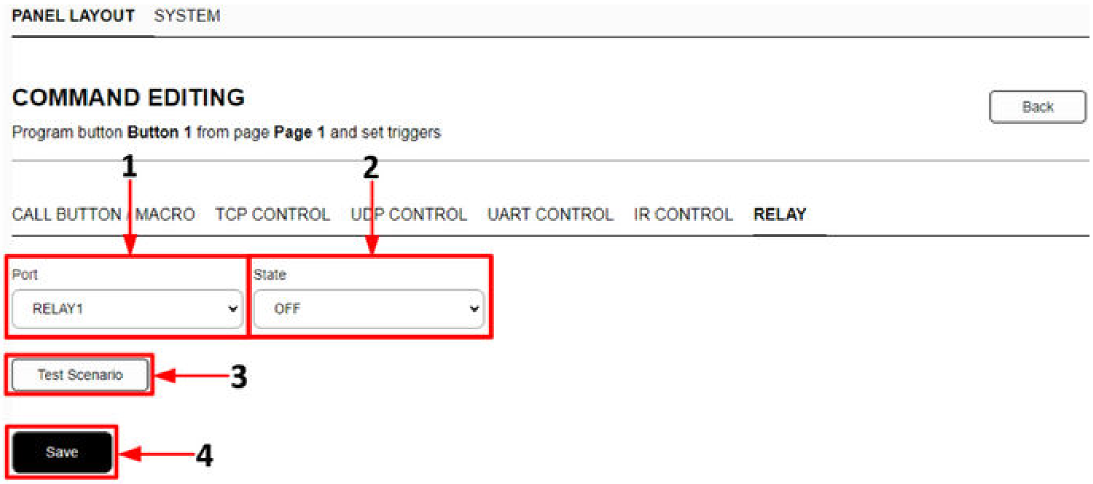


Figure 18

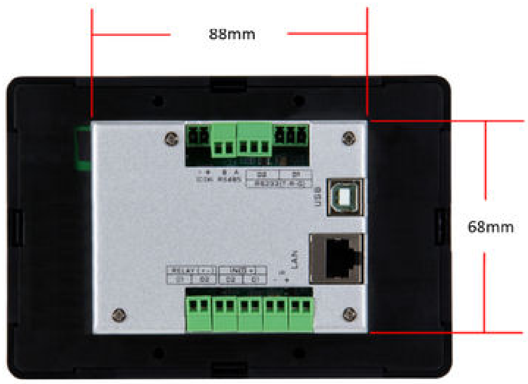
1. Select the Relay to control (This model has two Relays).
2. Select the relay state (On or Off).
3. Click "Test Scenario" to test the command.
4. Click "Save" to ensure that the command is generated and can be viewed in the Execute box.

11 Update Software

Follow the steps below if a software update is required.

1. Connect a network cable to the device. Ensure that the PC and the device are on the same network segment. The default IP address of the device is 192.168.168.53
2. Access the web interface of the device and select the "SYSTEM¨tab and then the System option.
3. Under System option, choose Software Update, select the .bin file and wait for the file to install on the unit.

12 Dimensions



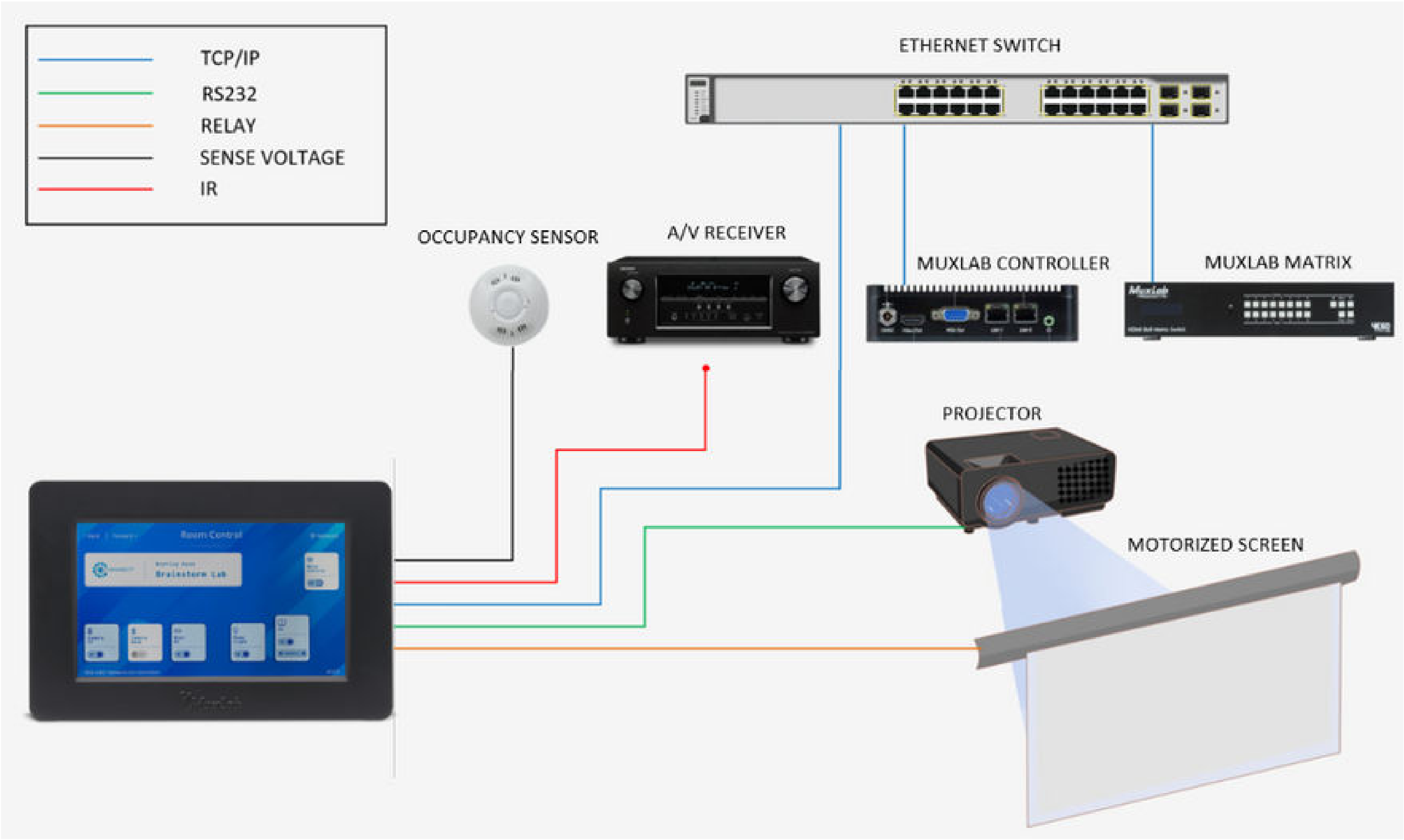
13 Installation

It is possible to install the unit in a two-gang US electrical box by using four screws to secure the unit to the box (see figure 19) or by drilling a hole in the wall according to the dimensions indicated above.
To remove the unit from the wall, use the spatula that comes as an accessory and pry on one of the sides to remove the front plate (see figure 20).

Figure 19

Figure 20

14 Application Diagram



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