

CR-KP3

6-Button Wall Plate Control Keypad



Operation Manual

SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply.

Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through any openings or empty slots in the unit, as you may damage parts inside the unit.
- Do not attach the power supply cabling to building surfaces.
- Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.
- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

REVISION HISTORY

VERSION NO.	DATE (DD/MM/YY)	SUMMARY OF CHANGE
RDV1	25/04/16	Preliminary Release

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1. INTRODUCTION

The Wall Plate Control System Keypads are versatile and useful products for both system integrators and smart home users alike. These keypads can send commands to any Ethernet controlled device in your system. With 6 direct macro buttons and extra 6 macro in WebGUI control which allows up to 16 commands to be executed, within one push and a total of 128 commands capacity inside this box that can bring out a set of scenes in a seconds. The soft and colorful LED buttons are suitable for all environments and PoE (Power over Ethernet) support allows for creative placement of the keypad within your space without needing to be concerned about keeping it near a live power source. Additionally, the integrated clock and calendar based scheduling feature allows you to trigger macros to control devices within your installation at a specific time, or on a recurring schedule.

2. APPLICATIONS

- Smart Home Control
- Control Center
- Function Room
- Product Showroom
- Ballroom

3. PACKAGE CONTENTS

- 1×Wall Plate Control Keypad
- 1×24 V/1 A DC Power Adaptor
- 1×Button Stickers (60pcs)
- 1×Operation Manual

4. SYSTEM REQUIREMENTS

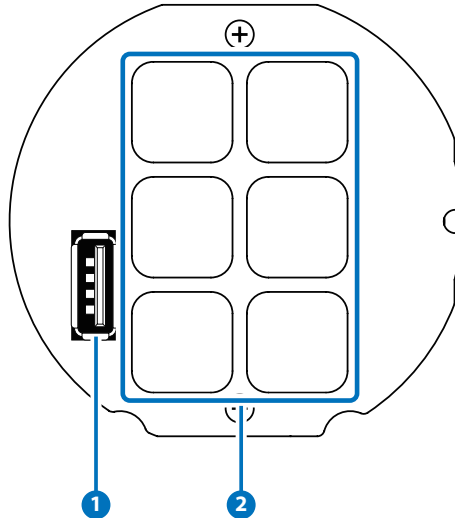
An active internet connection from a switch or router for control of Ethernet devices. A PoE supporting network switch or hub is required to use the PoE power function, otherwise access to a local power outlet is needed.

5. FEATURES

- 6 direct macro keys for controlling user equipment
- Up to 128 total commands can be stored and used across all macros in the system (up to 16 per macro)
- Supports relay triggers to control compatible devices
- Supports time and date macro scheduling (single and recurring)
- Supports one month of backup power for the internal clock and schedule function to protect against blackouts and temporary power loss
- Supports customizable daylight savings time for scheduling
- Supports Keypad, Telnet and WebGUI control
- Supports PoE or DC power supply
- Switzerland and Germany wall plate design with adjustable LED brightness
- Multiple uses for home, hotel rooms, central control rooms, conference rooms, etc.

6. OPERATION CONTROLS AND FUNCTIONS

6.1 Front Panel



- 1 Macro Buttons 1~6:** Each button has 2 color LEDs (red and blue) with adjustable individual brightness levels from 0~100. Each button can activate a customized macro (up to 16 commands). (For further detail on these settings please refer to section 6.6 WebGUI Control.)
- 2 SERVICE:** This slot (USB 2.0) is reserved for firmware update use only. Please plug in a USB thumb drive containing the new firmware to update the unit. Further, it provides quick charging for USB connection devices.

Note: Because of the power and temperature limitation, only use 24V adapter can support Quick Charger mode. PoE/PD side is not supported Quick Charger mode.

Quick Charger mode:

Apple mode (for Apple devices e.g iphone, ipad):

5V/1.6A

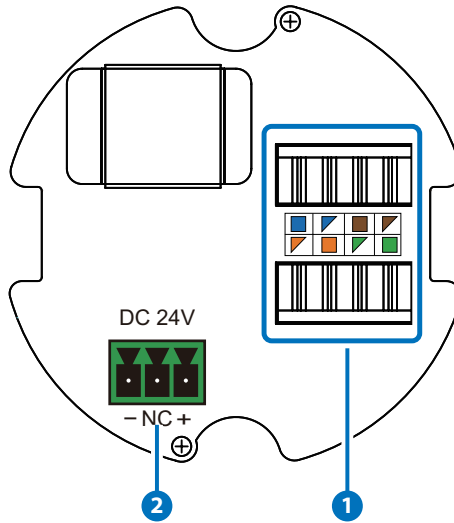
QC2.0 mode:

5V/1.6A

9V/1.6A

12V/1.25A

6.1 Front Panel



- 1 Ethernet IDC Socket:** Use IDC punch down tool terminating a twisted pair cable inside the wall. This slot supports PoE PD 48V function which means when the connected server/Hub supports PSE 48V, it can be powered without local DC supply connection. Connected via PC/Laptop through the same internet system for wall plate controlled by WebGUI or Telnet.
- 2 DC 24V:** Plug in the 24V DC power adapter included in the package and connect it to an AC wall outlet for power.

6.3 Telnet Commands

COMMAND	DESCRIPTION	PARAMETER
HELP (?)	Show command list	NONE
HELP N	Show description of command	N=COMMAND NAME
IPCONFIG	Display the current IP configuration	NONE
SETIP N, N1,N2	Set Ethernet IP, net mask and gateway address	N=IP XXX.XXX.XXX. XXX(0~255) N1= net mask XXX.XXX. XXX.XXX(0~255) N2= gateway XXX.XXX. XXX.XXX(0~255)
SIPADDR XXX. XXX. XXX.XXX	Set Ethernet IP address	XXX=0~255
SNETMASK XXX. XXX.XXX. XXX	Set Ethernet net mask	XXX=0~255
SGATEWAY XXX. XXX.XXX. XXX	Set Ethernet gateway	XXX=0~255
SIPMODE N	Set Ethernet IP Mode	N=STATIC/DHCP
VER	Show unit firmware version	NONE
FADEFAULT	Set all configurations to factory defaults	NONE
ETH_FADEFAULT	Set all Ethernet config to factory default*	NONE
REBOOT	System reboot	NONE

COMMAND	DESCRIPTION	PARAMETER
LEDBLUES N	<i>All blue led backlight control</i>	N=% (0-100)
LEDREDS N	<i>All red led backlight control</i>	N=% (0-100)
LEDBLUE N N1	<i>Led blue backlight control</i>	N (LED NO.)=1~6 N1=% (0-100)
LEDRED N N1	<i>Led red backlight control</i>	N (LED NO.)=1~6 N1=% (0-100)
KEY_PRESS N RELEASE KEY_PRESS N HOLD	<i>Key press trigger type</i>	KEY_PRESS N RELEASE (Default) N=KEY NUMBER KEY_PRESS N HOLD N=K NUMBER
MACRO RUN N MACRO STOP MACRO STOP N	<i>Macro control</i>	MACRO RUN N N=MACRO ID (1~12) MACRO STOP (Stop All) MACRO STOP N N=MACRO ID (1~12)
BACKLIGHT N	<i>All led backlight control</i>	N=% (0-100)
LEDSHOW N	<i>Led dimming mode control</i>	LEDSHOW N N=ON/OFF/TOGGLE
TELNET_TIMEOUT N	<i>SET Telnet Time Out On/Off</i>	N= ON/OFF

COMMAND	DESCRIPTION	PARAMETER
DEVICE ADD N1 N2 N3 N4 DEVICE DELETE/ ENABLE/DISABLE N1	<i>Device Setting</i>	DEVICE ADD N1 N2 N3 N4 N1=ID(1~16) N2=X.X.X.X(0~255) N3=PORT(0~65535) N4=NAME(MAX 24 Character) DEVICE DELETE/ ENABLE/DISABLE N1 N1=ID(1~16)

Note:

Commands will not be executed unless followed by a carriage return.

Commands are not case sensitive.

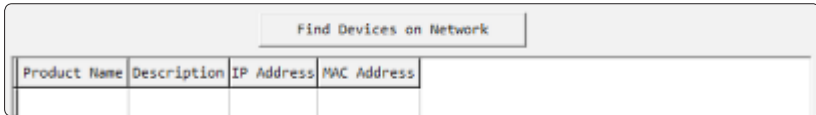
** This command only resets the network address information back to the factory default.*

6.4 Software Application

Please obtain the Device Discovery software from your authorized dealer and save it in a directory where you can easily find it.

Note: The keypad's default IP address is 192.168.1.50

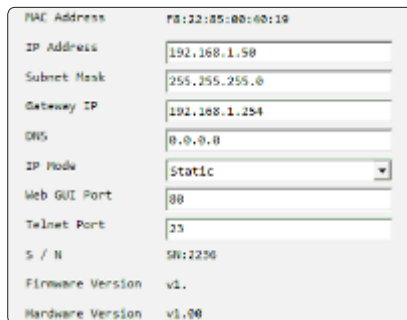
Connect the Keypad Control System and your PC/Laptop to the same active network and execute the Device Discovery software. Click on "Find Devices on Network" and a list of devices connected to the local network will show up indicating their current IP address.



Find Devices on Network			
Product Name	Description	IP Address	MAC Address

By clicking on one of the listed devices you will be presented with the network details of that particular device. If you choose, you can alter the static IP network settings for the device, or switch the unit into DHCP mode to automatically obtain proper network settings from a local DHCP server. To switch to DHCP mode, please select DHCP from the IP mode drop-down, then click "Save" followed by "Reboot".

Once you are satisfied with the network settings, you may use them to connect via Telnet or WebGUI. The network information window provides a convenient link to launch the WebGUI directly.



MAC Address	FA:22:85:00:60:10
IP Address	192.168.1.50
Subnet Mask	255.255.255.0
Gateway IP	192.168.1.254
DNS	0.0.0.0
IP Mode	Static
Web GUI Port	80
Telnet Port	23
S / N	SN:2250
Firmware Version	v1.
Hardware Version	v1.00

6.5 Telnet Control

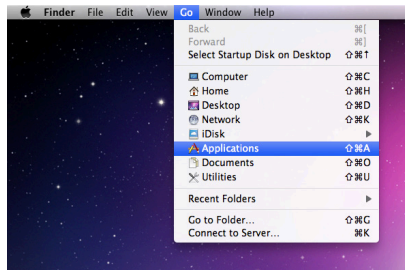
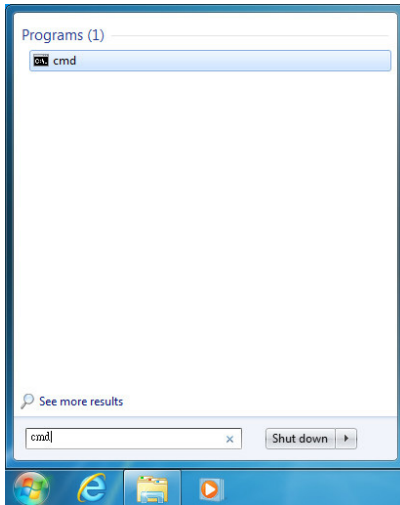
Before attempting to use Telnet control, please ensure that both the Wall Plate Control Keypad and the PC/Laptop are connected to the same active networks.

To access Telnet in Windows 7, click on the "Start" menu and type "cmd" in the search field, then press "Enter".

Under Windows XP go to the "Start" menu, click on "Run", type "cmd" then press "Enter"

Under Mac OS X, go to Go→Applications→Utilities→Terminal

See below for reference.



Once in the CLI (Command Line Interface) type "telnet" followed by the IP address of the unit and "23", then hit "Enter".

```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>telnet 192.168.5.80 23
```

This will connect us to the unit we wish to control. Typing “help” to list the available commands.

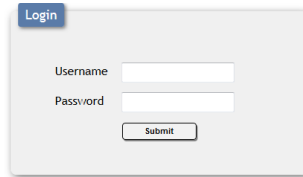
```
Welcome to TELNET.
>?
HELP          : SHOW DESCRIPT OF COMMAND
               USE <HELP N, N=COMMAND NAME> TO SHOW DESCRIPT OF COMMAND
?            : SHOW DESCRIPT OF COMMAND
               USE <? N, N=COMMAND NAME> TO SHOW DESCRIPT OF COMMAND
IPCONFIG     : DISPLAY THE CURRENT IPCONFIG
SETIP       : SET ETHERNET IP, NETMASK AND GATEWAY ADDRESS
SIPADDR     : SET ETHERNET IP ADDRESS
SNETMASK    : SET ETHERNET NETMASK
SGATEWAY    : SET ETHERNET GATEWAY
SIPMODE     : SET ETHERNET IP MODE
UER         : SHOW UNIT FIRMWARE UERSION
FADEFAULT   : ALL CONFIGURE SET TO FACTORY DEFAULT
ETH_FADEFAULT : ALL ETHERNET CONFIGURE SET TO FACTORY DEFAULT
REBOOT      : SYSTEM REBOOT
LEDBLUES   : ALL BLUE LED BACKLIGHT CONTROL
LEDREDS    : ALL RED LED BACKLIGHT CONTROL
LEDBLUE    : LED BLUE BACKLIGHT CONTROL
LEDRED     : LED RED BACKLIGHT CONTROL
RELAY      : RELAY CONTROL
KEY_PRESS  : KEY PRESS TRIGGER TYPE
MACRO      : MACRO CONTROL
BACKLIGHT  : ALL LED BACKLIGHT CONTROL
LEDSHOW    : LED DIMMING MODE CONTROL
TELNET_TIMEOUT : SET TELNET TIME OUT ON/OFF
DEVICE     : Device setting
```

Note: Commands will not be executed unless followed by a carriage return. Commands are not case sensitive. If the IP address is changed then the IP address required for Telnet access will also change accordingly.

6.6 WebGUI Control

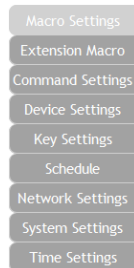
Open a web browser on a PC/Laptop that is connected to an active network and type the device's IP address into the web address entry bar. The login screen will appear and ask for a Username and Password. The default username and password is "admin". Please enter the information and then click "Submit" to log in.

Note: The default static IP address is 192.168.1.50.



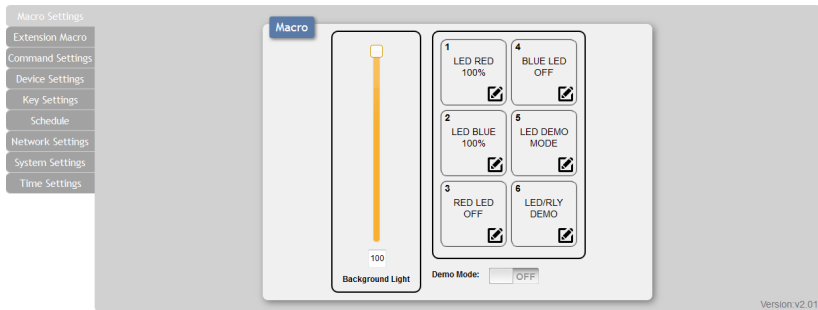
A login form with a blue "Login" button in the top left corner. Below it are two input fields: "Username" and "Password". At the bottom center is a "Submit" button.

The browser will display the device's Macro Settings, Extension Macro, Command Settings, Device Settings, Key Settings, Schedule, Network Settings, System Settings and Time Settings pages for users to control.



6.6.1 Marco Setting

Click on the “Macro Settings” tab to execute/edit the settings for the physical macro buttons. These macros can be executed by pressing the physical buttons on the keypad as well as via the WebGUI or telnet.






- Macro 1: Sequentially light all red LEDs on the keypad with 100% brightness and a delay of 500ms between commands
- Macro 2: Sequentially light all blue LEDs on the keypad with 100% brightness and a delay of 500ms between commands
- Macro 3: Switch off all red LEDs (set brightness to 0%)
- Macro 4: Switch off all blue LEDs (set brightness to 0%)
- Macro 5: LED demo mode toggle (switch on/off Demo Mode)
- Macro 6: Light the blue LEDs with 10% brightness → set all blue LEDs to 0% brightness → switch off & on relay 1 → switch off & on relay 2 with a delay of 1000ms between commands

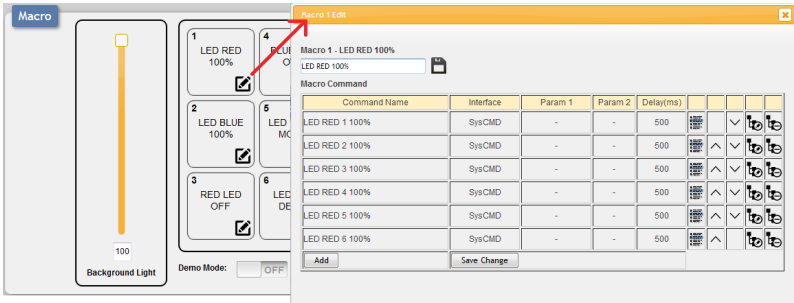
Note: Demo Mode is on by default. To disable Demo Mode please click the switch at the bottom of this WebGUI tab.


The “Background Light” slider allows the user to adjust the overall brightness of the keypad’s LEDs.

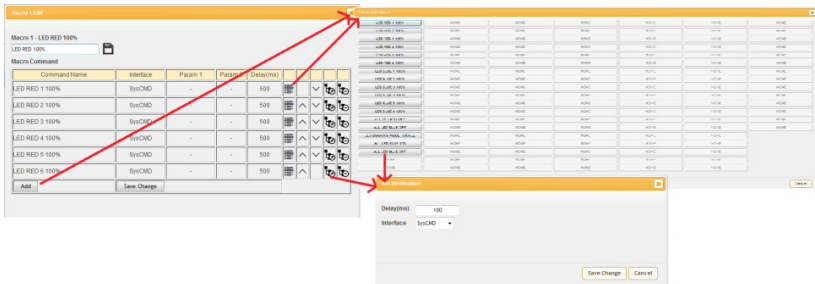
Click on the  icon to edit each button’s macro.

At the top of the Macro edit window is a text field where you can edit the name of the macro. Type your new macro name into the box and then click the  icon to save it.

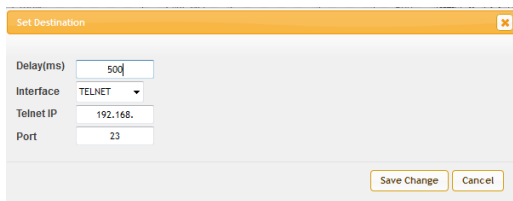
Within the edit window the up/down arrows will change the command's execution order. The  icon allows you to edit the delay and interface for the command. The  icon will delete the command.



Click on the  icon to insert a new command before the current one. Select one of the pre-defined commands from the list. (Details on how to create these pre-defined commands are later in this section)



After selecting a command, you will need to choose the delay and interface for the command.



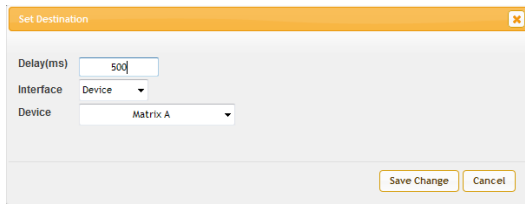
The "Delay(ms)" setting is the length of time to wait before sending the next command and is set in milliseconds. The interface for sending commands can be set to the keypad itself (SysCMD), to pre-defined Ethernet devices (Device), to a specified IP address (TELNET) or to

trigger the relay ports (Relay). Click on "Save Change" to confirm the settings.

Sending commands to devices on the local network, or across the internet requires the IP address and network port number of the destination device.

Once the destination information is complete please click on "Save Changes".

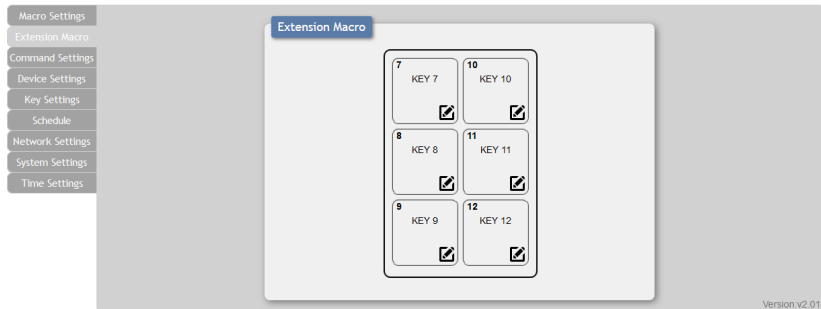
Note: It is strongly suggested to not set a delay time less than 100ms for system commands or less than 500ms for telnet commands to ensure that the command is properly received and executed before the next command is sent.



The image shows a dialog box titled "Set Destination" with a close button (X) in the top right corner. It contains three input fields: "Delay(ms)" with the value "500", "Interface" with a dropdown menu showing "Device", and "Device" with a dropdown menu showing "Matrix A". At the bottom right, there are two buttons: "Save Change" and "Cancel".

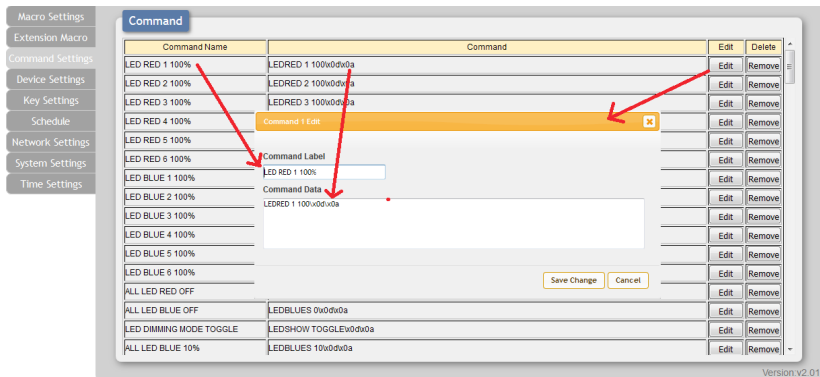
Extension Marco:

Click on the "Extension Macro" tab to execute/edit the additional software-only macro buttons up to 6 or more. These macros can only be executed via the WebGUI or telnet. Macro editing in this tab is identical to editing the prior tab's macros



Command Setting:

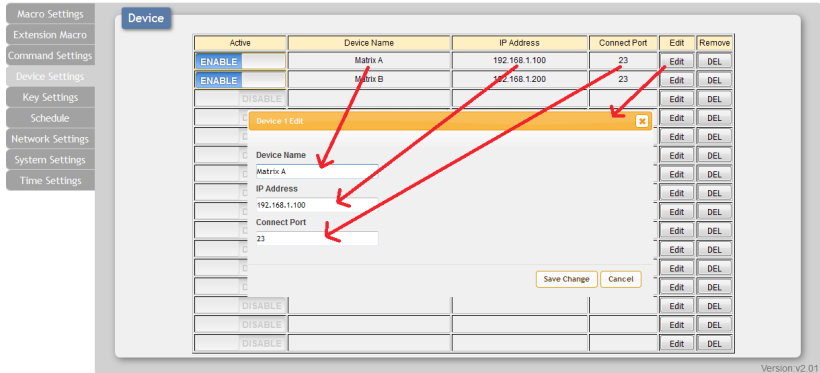
Click on the "Command Settings" tab to create, edit or delete commands. The number of commands that can be stored in the keypad is limited by memory. It is generally recommended that commands be under 128 characters long (including spaces). However, if longer commands are needed there is limited support for commands up to 512 characters long. In this case the number of (up to) 512 character commands is limited to 32 and the remaining 96 commands must be under 128 characters. Click on "Save Change" to save the command.



Note: If you are creating commands to control the relay trigger interface, only "CLOSE" and "OPEN" are used.

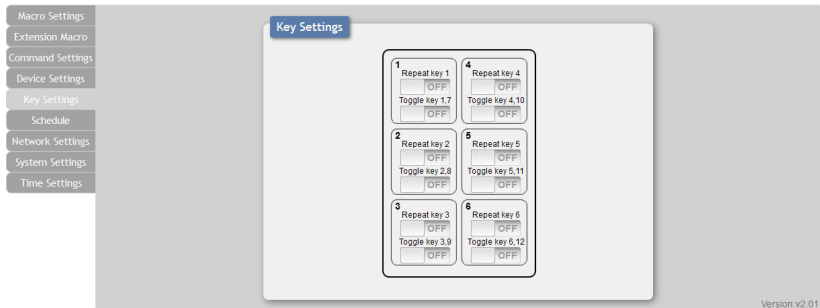
Device Settings:

Click on the "Device Settings" tab to enable/disable or add/remove common network connected devices. Up to 16 devices can be defined for easy use with commands. Device naming is up to 24 characters including space, IP address and Connection port re-assignable. These settings are directly linked to any associated macro commands. Click on "Save Change" to save the device.



Key Settings:

Click on the "Key Settings" tab to enable/disable the "Repeat" and "Toggle" modes associated with each of the macro buttons. Enabling Repeat Key mode will cause the button's macro to be executed repeatedly as long as the button is being held down. Enabling Toggle Key mode will link the two listed macros together and allow them to be toggled back and forth each time the associated button is pressed.



Note: These functions only work for macros associated with physical buttons on the keypad.

Schedule:

Click on the "Schedule" tab to control the built in scheduling features of the keypad. You can set macro events to repeat on a regular daily/weekly schedule or configure a one-time event. Events can be edited and deleted from the main tab. The system can store up to 32 repeating events and up to 8 for one-time events.

Repeat							
Active	Weekly	Hour	Minute	Second	Macro	Edit	Delete
		00	00	00		Edit	Remove
		00	00	00		Edit	Remove
		00	00	00		Edit	Remove
		00	00	00		Edit	Remove
		00	00	00		Edit	Remove
		00	00	00		Edit	Remove

Once								
Active	Month	Date	Hour	Minute	Second	Macro	Edit	Delete
	00	00	00	00	00		Edit	Remove
	00	00	00	00	00		Edit	Remove
	00	00	00	00	00		Edit	Remove
	00	00	00	00	00		Edit	Remove
	00	00	00	00	00		Edit	Remove
	00	00	00	00	00		Edit	Remove

To set up a repeat event:

click on "Edit" from the "Repeat" section of the page. Now select the macro to be run and which days of the week and at what time you would like it to run each of those days. You can now set the event as "Active". Click on "Save Change" to save the changes to the event.

Schedule - Repeat 1 Edit

Active: NONE ACTIVE

Weekly: Sun Mon Tue Wed Thu Fri Sat

Time: 00:00:00

Macro/Extension Macro: NONE

Choose Time: Time 00:00:00, Hour, Minute, Second

Macro/Extension Macro Select

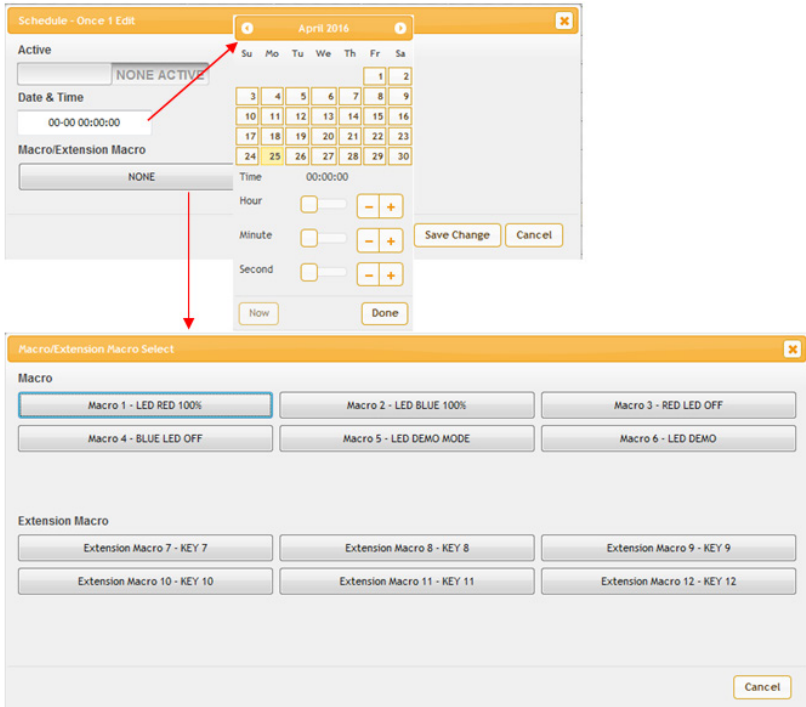
Macro: Macro 1 - LED RED 100%, Macro 2 - LED BLUE 100%, Macro 3 - RED LED OFF, Macro 4 - BLUE LED OFF, Macro 5 - LED DEMO MODE, Macro 6 - LED DEMO

Extension Macro: Extension Macro 7 - KEY 7, Extension Macro 8 - KEY 8, Extension Macro 9 - KEY 9, Extension Macro 10 - KEY 10, Extension Macro 11 - KEY 11, Extension Macro 12 - KEY 12

Cancel

To set up a one-time event:

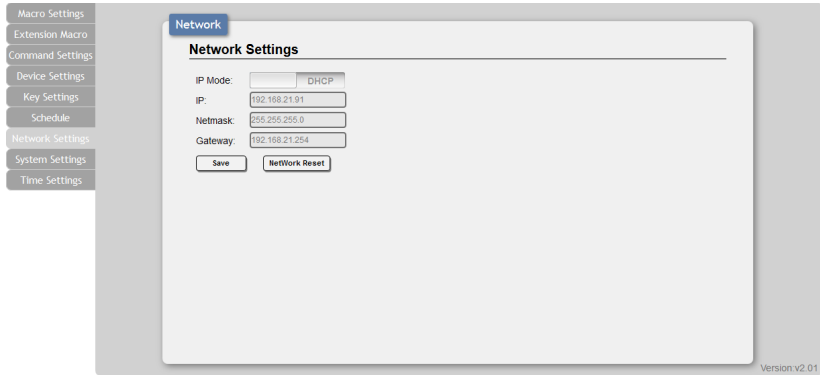
To set up a one-time event click on “Edit” from the “Once” section of the page. Now select the macro to be run and which date and time you would like for it to run on. You can now set the event as “Active”. Click on “Save Change” to save the changes to the event.



Note: This unit has one month of backup power for the internal clock to protect against power loss and blackouts. After the backup power is exhausted the system will reset the time back to 2015/01/01 00:00:00.

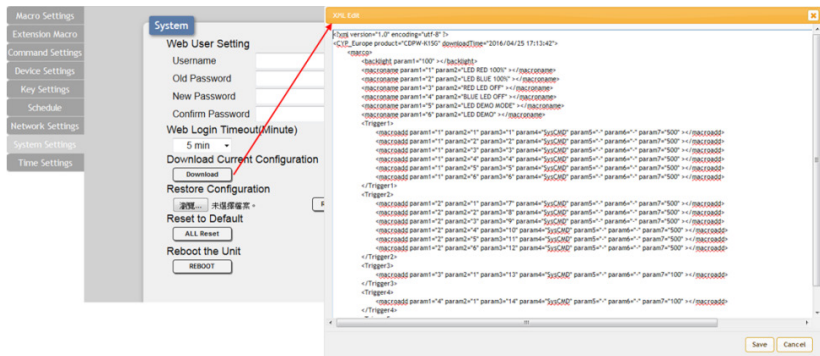
Network Settings

Click on the "Network Settings" tab to change the network settings for the keypad. You can manually set the IP address, netmask and gateway in "Static IP" mode, or you can obtain an IP address automatically by enabling DHCP.



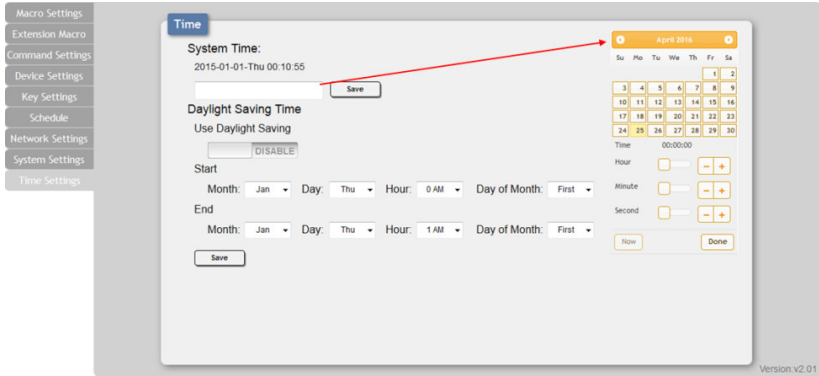
System Settings:

Click on the "System Settings" tab to make changes to various system settings. From this tab you can change the WebGUI login password and login timeout settings. You may also save the full system configuration, including all macros, to your connected PC/Laptop or restore them from a previously saved configuration. Finally, this tab provides buttons to reset the unit to factory defaults and to reboot the keypad.

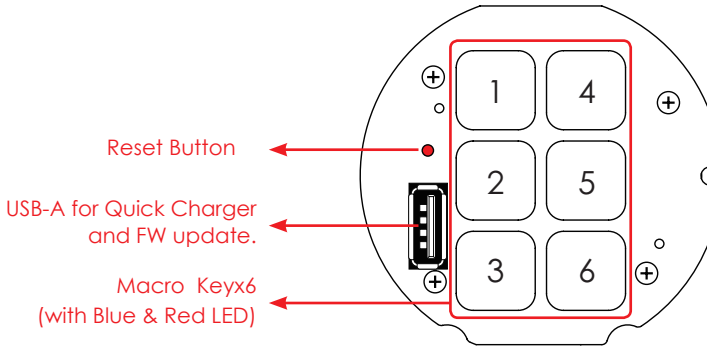


Time Settings:

Click on the "Time Settings" tab to set the system time and to enable/disable the Daylight Saving Time (DST) function. If your country uses Daylight Savings Time you can configure the start and end times/dates here so that your scheduled events will always occur at the correct times throughout the year.

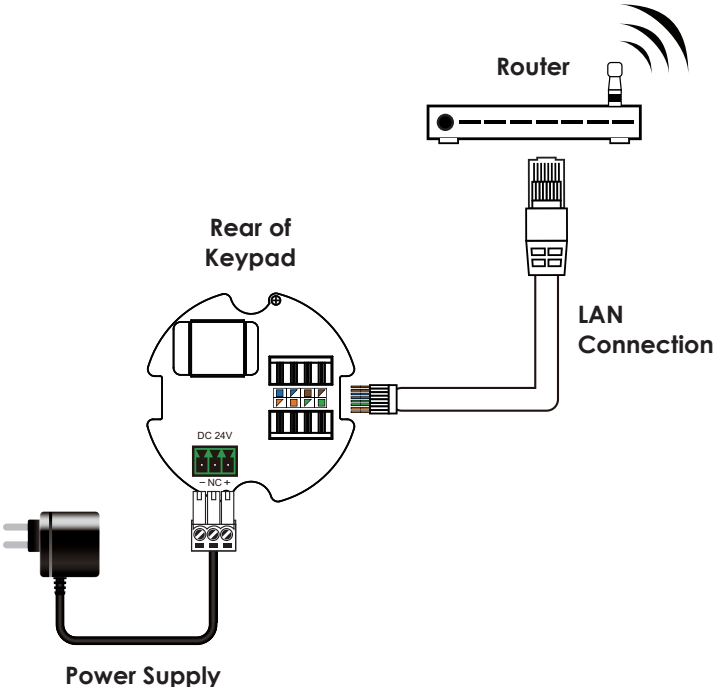


6.7 Hot Keys and Reset IP Address



1. **All configure return to factory default**
 - I. Press and hold KEY 3.
 - II. Press the reset button by using an thin object, pointed instrument such as a pin or re-powering the device. All configure will return to factory default.
2. **Clear all command and macro setting**
 - I. Press and hold KEY 2.
 - II. Press the reset button by using an thin object, pointed instrument such as a pin or re-powering the device. All macro settings and command settings will be cleared.
3. **Reset IP address**
 - I. Press and hold key 4.
 - II. Press the reset button by using an thin object, pointed instrument such as a pin or re-powering the device. The IP default at DHCP IP.

7. CONNECTION DIAGRAM



8. SPECIFICATIONS

Input Ports	6×Buttons
Control Interfaces	1 x IP control (Terminal Block) 1 x USB 2.0 (Firmware update)
Power Supply	24V/1 A DC (US/EU standards, CE/FCC/UL)
ESD Protection	Human body model: ±12 kV (air-gap discharge) ±8 kV (contact discharge)
Dimensions	63 (W)x61 (L)x47(D) mm
Weight	124g
Chassis Material	Metal
Color	White
Operating Temperature	0°C~40°C/32°F~104°F
Storage Temperature	-20°C~60°C/-4°F~140°F
Relative Humidity	20~90% RH (non-condensing)
Power Consumption	8.5W (includes USB charging 5V/1A)

9. ACRONYMS

ACRONYM	COMPLETE TERM
CLI	Command Line Interface
GUI	Graphical User Interface
IP	Internet Protocol
LAN	Local Area Network
PoE	Power over Ethernet
USB	Universal Serial Bus

