USER MANUAL

TOUCH MANAGER Modular Matrix Switcher Series

TOUCH-MANAGER-800/1600

Version: V2.0.1

Preface

We are honored for your purchasing of our products. In order to have the best performance of the products, please read the user manual carefully before using them. Hope this user manual can bring more convenience, and please don’t hesitate to get in touch with us or your local dealer if you have any issue during your usage.

Note: This user manual is for 80x80 matrix switch, the 160x160 also can reference this user manual.

SAFETY

To protect the device and operating personnel from electrostatic discharge, you need to check and ensure that the device is grounding well before the device is powered on. Please observe the following when you install, use, maintain this equipment.

Attention the equipment needs good earth grounded

- Please use single-phase three wire system AC 220V power supply, and ensure all transmission system is grounding well.
- To protect operating personnel and the device，please turn off all power supplies and pull the plug before moving the device or doing some specific works which need to be done when the electricity is turned off . Please turn off the main power switch on rainy days or when not in use for a long time.
- Please do not put anything upon the cables, or tread the cables.
- To avoid damaging the device, please turn off power supply before plugging cable into the device or pulling cable from device. The damage caused by plugging/ pulling cables without turning off power supply is outside the scope of the warranty.
- The power of the device gives out heat when it works, so it’s necessary to keep the work environment ventilated to protect the device from the damage caused by over temperature.
- Do not place the device in very cold or very hot places. Do not sprinkle any

corrosive chemicals or liquid on or around the device.

- To avoid accident or any further damage ,non-professionals please do not dismantle or maintain the device without permission.

Contents

1. Product Introduction

The TOUCH MANAGER modular matrix switcher series include two: TOUCH-MANAGER-800(80x80) and TOUCH-MANAGER-1600(160x160). All the signal input and output cards using 1-card 4-port, wide range selections of the input and output cards, it provides users the most flexible configuration ability to meet with the real applications. And the 1080P and 4K60 I/O cards can reach any switching, converting, extension, resolution adjustment. Supports seamless or fast switching function, electromagnetic protection function, it can efficiently shield the electromagnetic interference for the surrounding environment to make sure the equipment running more stable.

The single channel signal switching speed can reach 12.5Gbps, and the main board is using Four core four links processing technology, the switching ability speed can reach 32Gbps. With uncompressed transmission technology for the digital signal to make sure the image High fidelity output. Unique signal links shielding designing technology to make sure the signal completeness, the internal data switch has super strong capacity of resisting disturbance and long continuous and stable working ability. Supports 7*24 continuously working and with dual LAN and RS232 backup control, it's convenient for users to control via PC, iPad, APP and the 3rd parties central control by the the RS232 control commands.

With the dual RS232 and LAN control, users also can simply set up and control the surrounding equipment, such as the projector, electric curtain and TVs.

This matrix switchers have been widely used in the conferencing, radio&television project, multimedia conferencing hall, large screen display project, television teaching, command control center and so on applications.

2. Product Features

- Modular designing chassis
- 4-channel 1 card, supports DVI-I/ HDMI/ 3GSDI/ HDBaseT/ Fiber to mix input and output
- Support seamless switching between all the signals
- 4-core 4 links processing chipset provides up t0 32GBPS signal switching processing ability
- Front buttons with background lights, easier to operate at any time

- Support EDID automatic recognition and compatible with HDCP
- Support 3.5mm audio embedded and de-embedd function
- Support 4K60, HDMI2.0 444 digital HD video signal transmission and seamless switching
- Support 3D image frequency repairing, pixel reread processing function
- Support scaling up/down function via the DIP switch
- Support dual LAN ports backup control and centralization network management function
- Support hot-plug function
- Support auto saving protection and auto recovery function while power cut

3. Technical Datasheet

Model	TOUCH-MANAGER-800	TOUCH-MANAGER-1600
Description	80x80 Modular Matrix Switch	160x160 Modular Matrix Switch
Input card	1 card 4- port, Support HDMI/ DVI/ 3GSDI/ HDBaseT/ Fiber	
Output card	1 card 4-port, Support HDMI/ DVI/ 3GSDI/ HDBaseT/ Fiber	
Protocol	HDMI1.4a/ HDMI2.0, DVI1.0, compatible with HDCP and EDID function	
Color Space	RGB444, YUV444, YUV422, support x.v.Color extension color gamut standard	
Resolution	640x480---1920x1200@60Hz(VESA), 480i---4K30Hz(HDTV), 4K60Hz	
Bandwidth	12.5Gbps	
Transmission Distance	70/100m(Cat6), 80Km(Single-mode), 20m(Digital cable), 25m(Analog cable)	
Control	Dual RS232, dual LAN(WEB GUI), front touch panel, iPad APP	
Dimension	482*390*711mm(16 U)	482*465*1400mm(31.5 U)
Weight	28KG(No cards)	35KG(No cards)
Power	110--260V 50/60Hz	
Consumption	180W(No cards)	340W(No cards)
Working Temperature	-10℃-50℃	
Storage Temperature	-20℃-55℃	
Working Humidity	10%-90%	

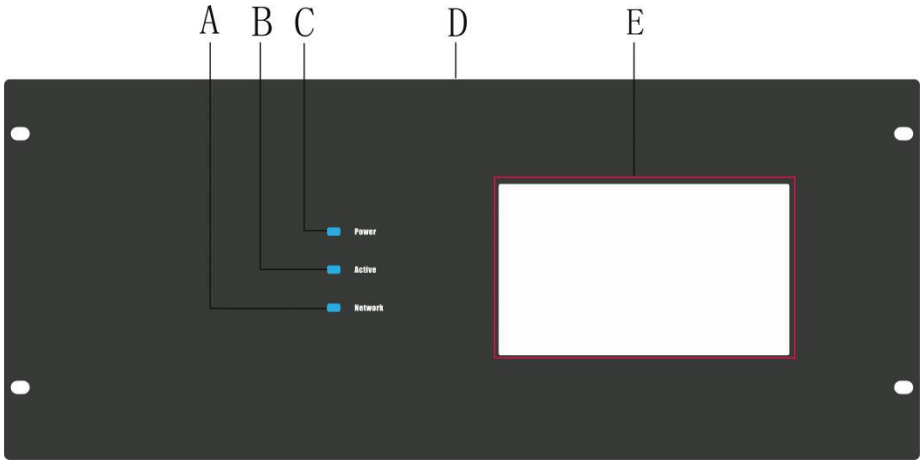
4. Packing Details

Matrix switch chassis with customized configuration .....1 unit
Power cord .....2 pcs
User

manual .....1 pcs

5. Panels(Here take example with 10x10)

5.1 Front Panel



A: Network Indicator: Shows the operations of WEB control, flicking once for every operations

B: Active Indicator: Shows the operations of Touch panel control, flicking once for every

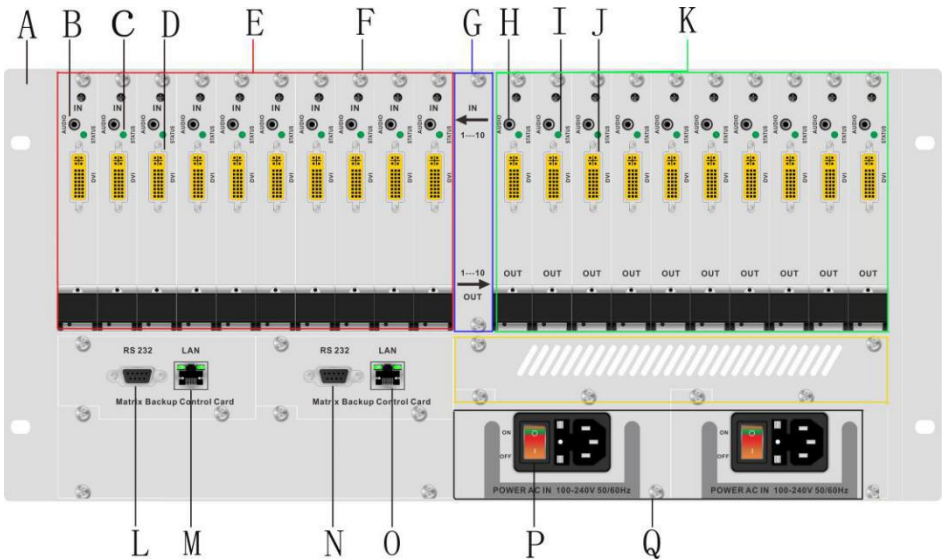
operations

C: Power Indicator: Light up means power on, flicking means connection problem

D: Front Panel: 482*711mm

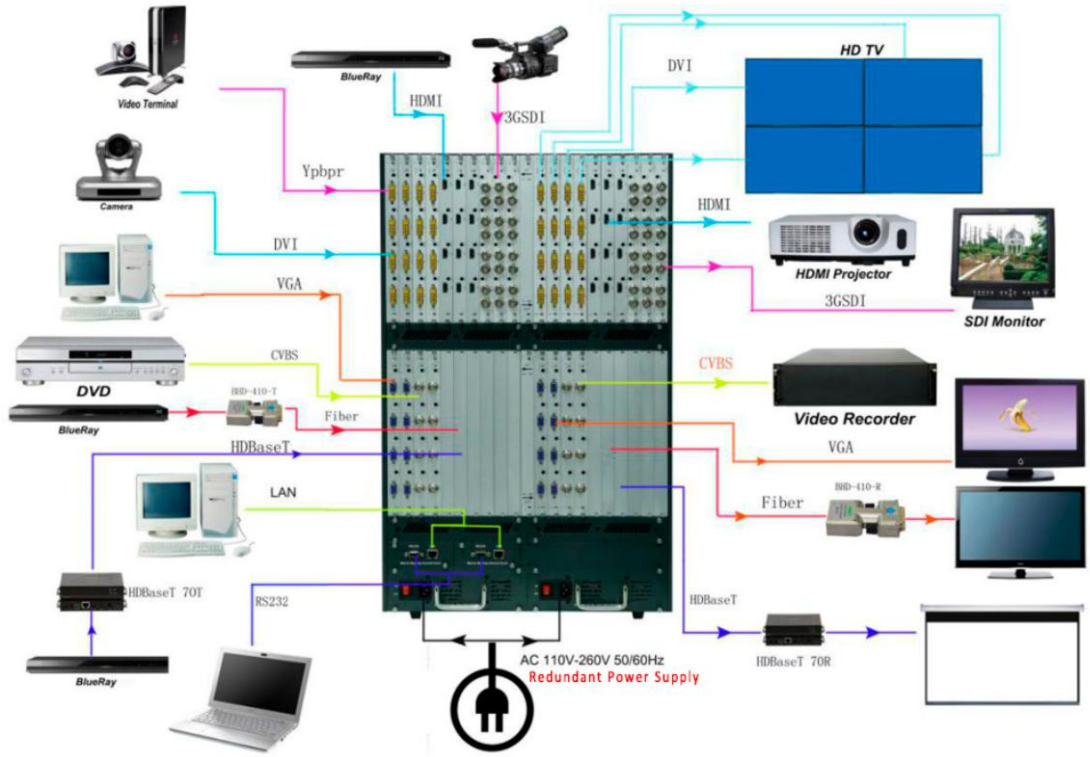
E: 10 inch touch screen

5.2 Back Panel



A: Back rack ear
B: 3.5mm Audio input
C: Status indicator: Power on will light up
D: DVI-I interface input, support DVI/ HDMI/ CVBS/ Ypbpr/ VGA input with adapters
E: Input area, maximum can support 80/ 160inputs, signals can be DVI/ HDMI/
CVBS/ Ypbpr/ VGA/ Fiber Optic
F: Plug helper
G: Input and output indicates flap, left side is 1-80 inputs, right side is 1-80outputs
H: 3.5mm Audio output
J: DVI-I interface output, support DVI/ HDMI/ CVBS/ Ypbpr/ VGA input with adapters
K: Output area, maximum can support 80/ 160 inputs, signals can be DVI/ HDMI/
CVBS/ Ypbpr/ VGA/ Fiber Optic
L & N: Dual RS232 ports
M & O: Dual LAN ports
P: ON/ OFF power switcher
Q: Redundant power system, 100-240V 50/60Hz

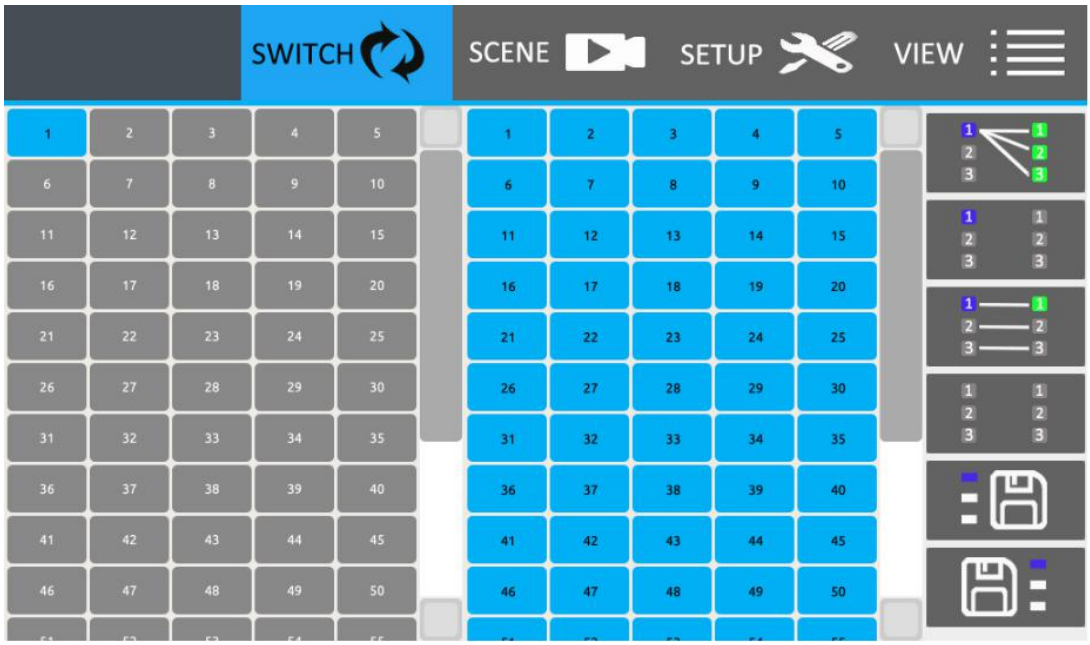
6. Connection Diagram



7. Operation

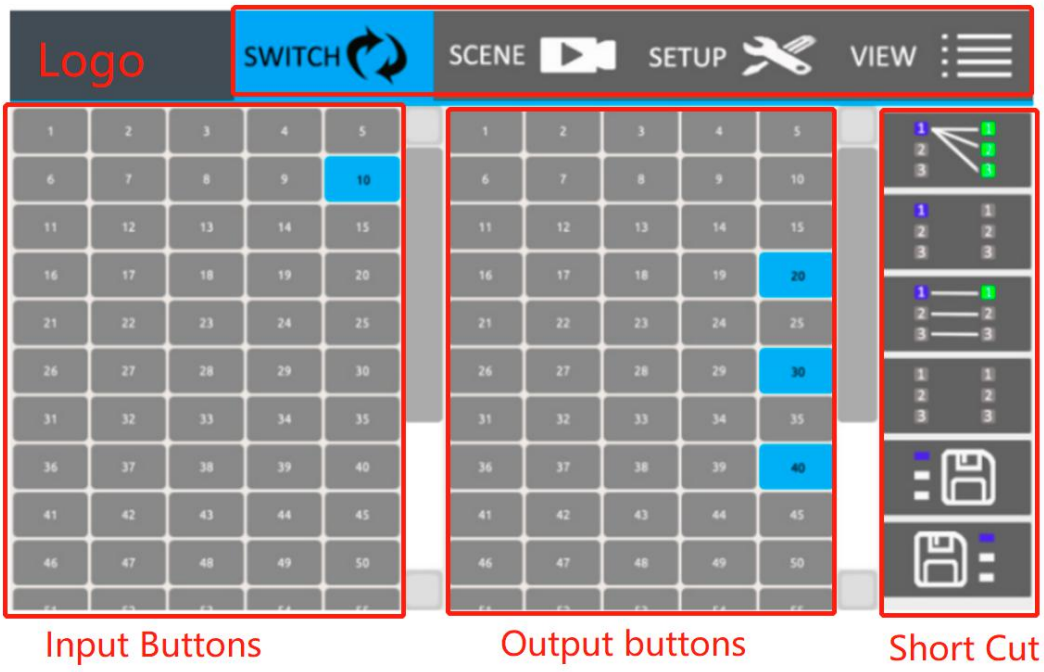
7.1 Touch Screen

After power on, it shows below interface:



Switch Icon:

After click switch icon, it shows below interface:



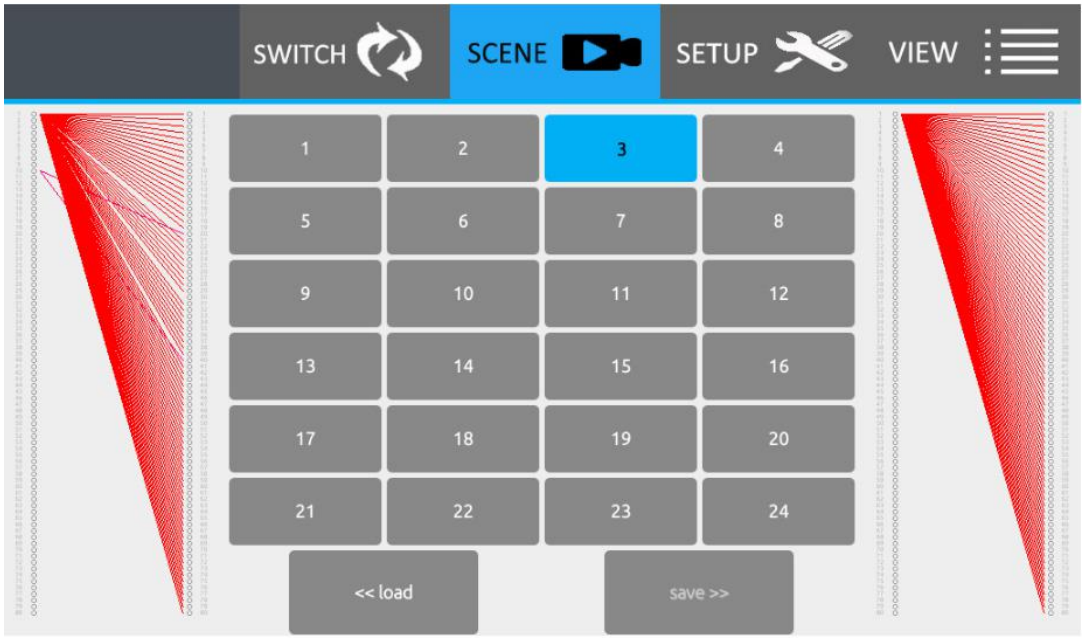
Eg. Switch input 10 to output 20/30/40.

Press number 10 from input buttons, and color turns to blue. Then same way to press number

20/30/40 on the output buttons area, shows as above picture.

SCENE Icon:

Total can save 24 scenes, after press SCENCE it will show below interface:



Save scene: After pressed scene icon, users can see above interface. Then users can choose any

number buttons from the above 24, and then press Save. Such as, users

want to save

the current switching status to scene 1, users only need to press number 1 and then

choose Save.(Note: This function only can be used under unlock status)

Recall scene: After the scenes saved successfully, user also can choose the scene name to recall

the previous/saved switching status. Such as users want to recall scene 6, only need

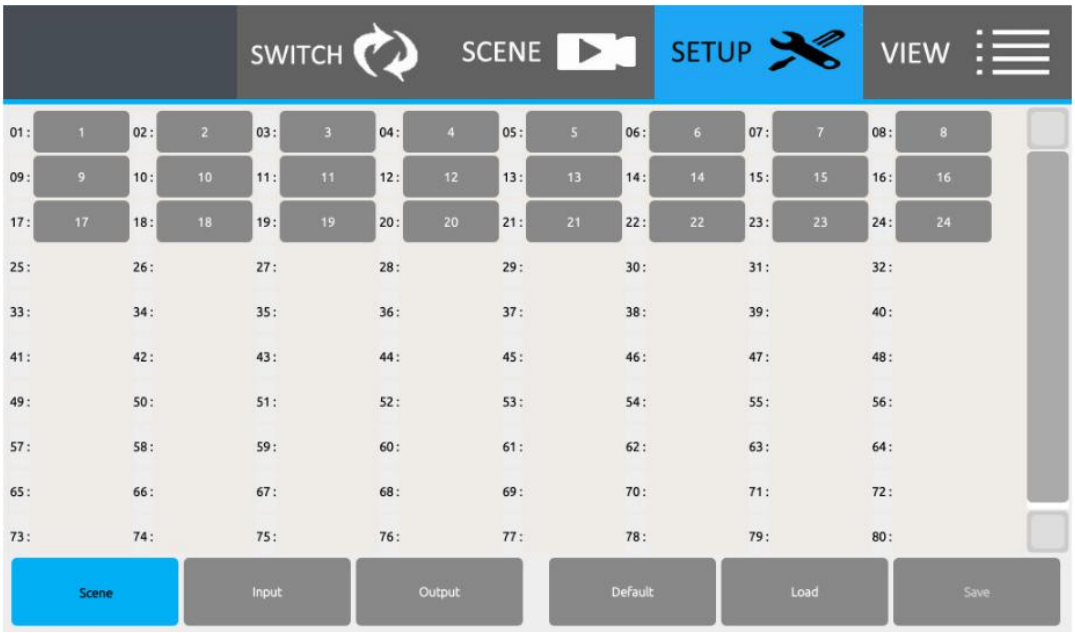
to press number 6 and then press load.

Users also can preview the scene switching status by both side windows next to the numbers.

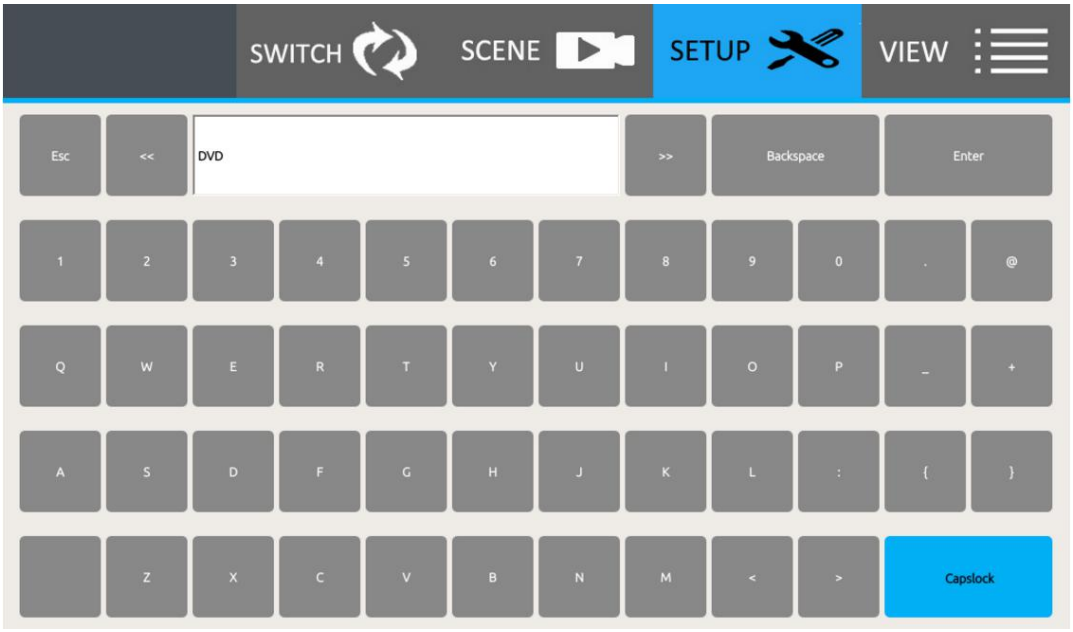
SETUP Icon:

Users can change the name of Scene, input and output here. After changing the default settings, users need to press Save to save the changes.

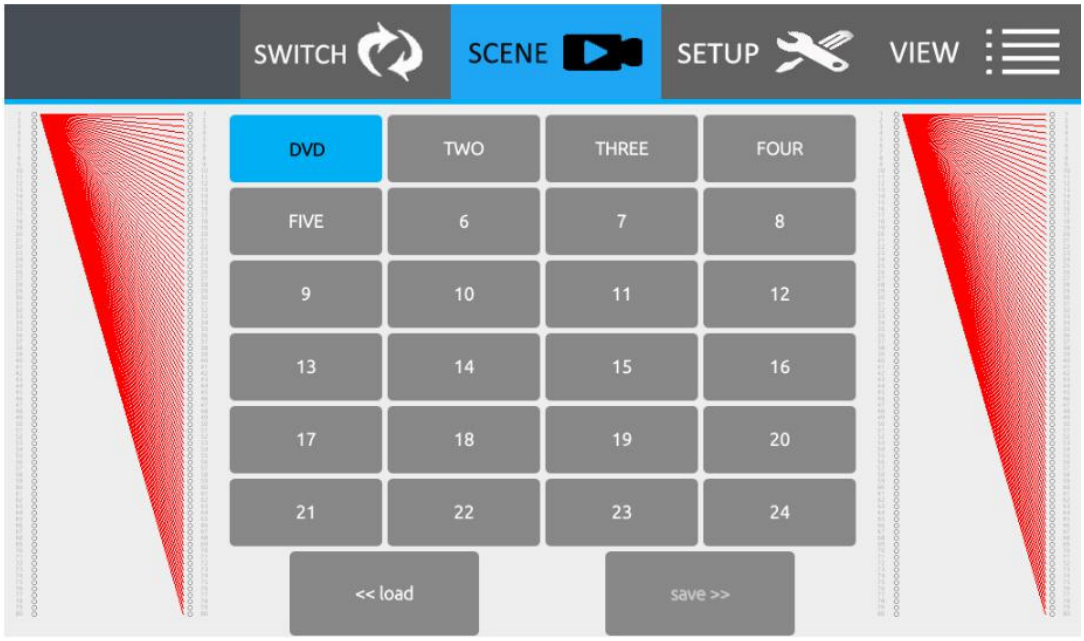
Change the name of scenes, only need to press Scene icon at the left bottom, showing as below:



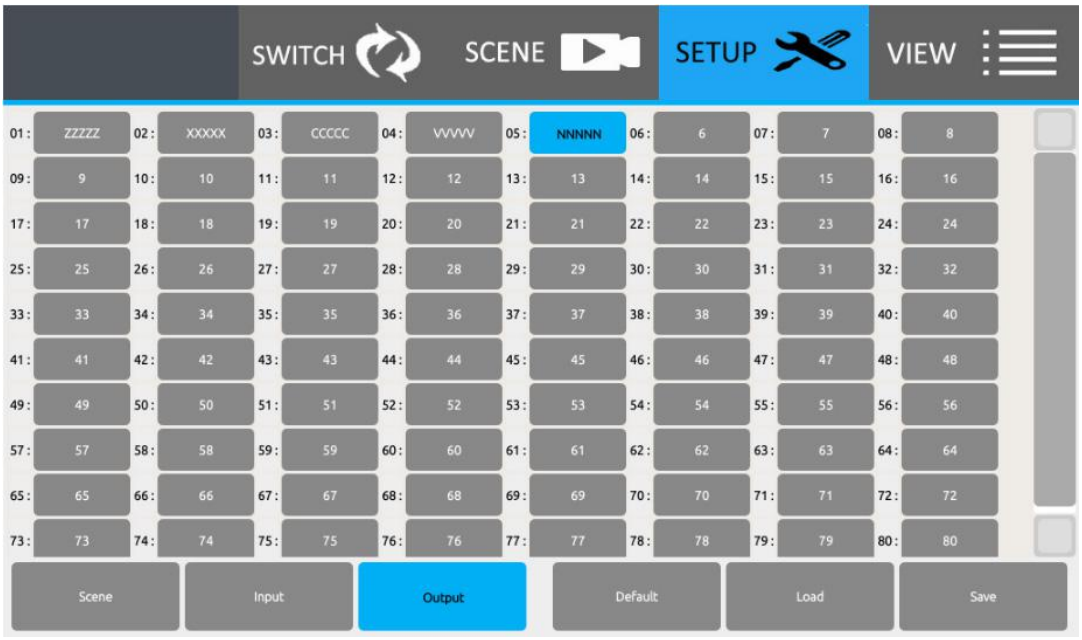
Then change to the needed names:



Users also can change all the 24 scenes name together or one by one and then to press the save button, as below:



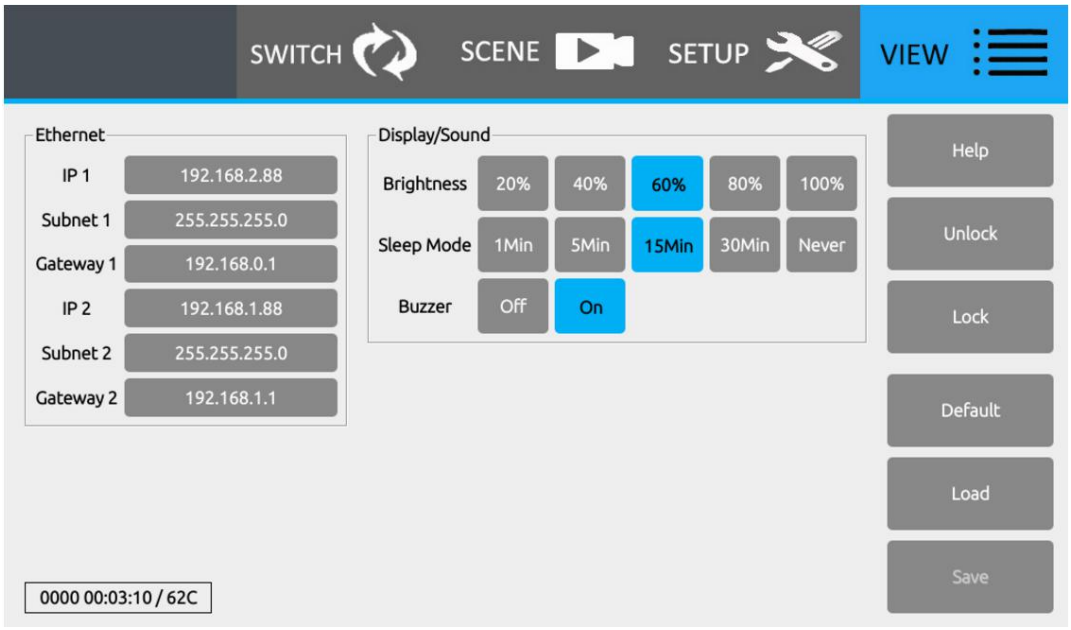
Change the name of Input and output, press the Input or Output icons, showing as below:



After users changed the names, and when back to the SWITCH and SCENE interface, users can see the names have been well changed, showing as below:

VIEW Icon:

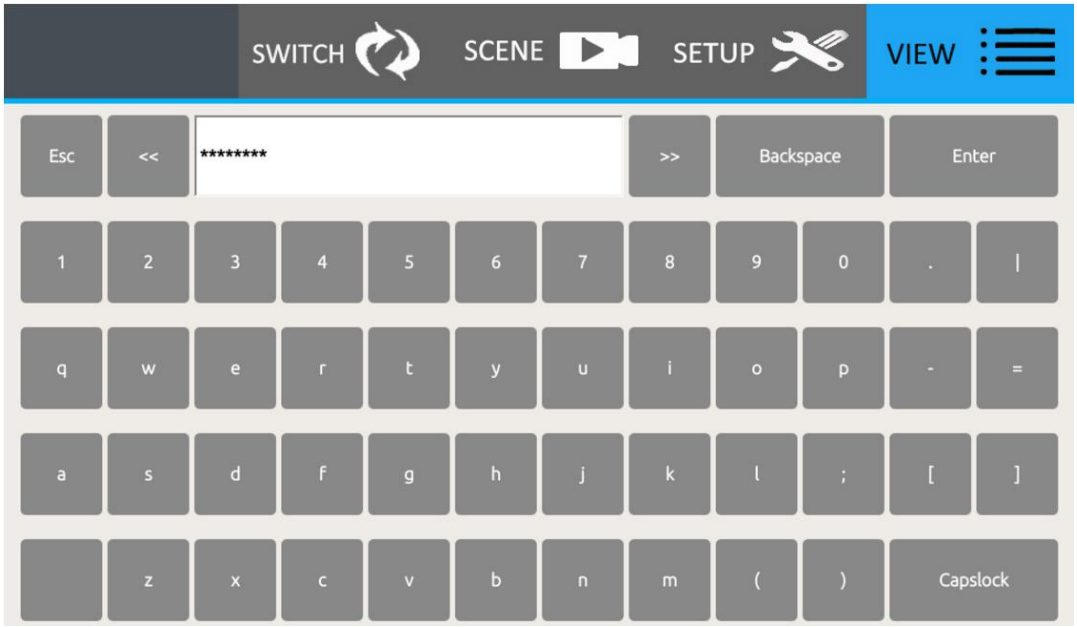
After press VIEW button, will show below interface, users can change the IP address, display and sound settings here, also unlock and lock, get help information as so on.



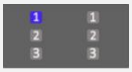
Unlock:

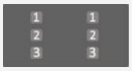
All the equipment have been locked, users need to unlock the equipment if need to change the default settings.

First, press Unlock button, and enter the default password: 12345678 and press Enter to unlock the equipment. After unlocked the equipment, users can change the names of the scene, inputs, outputs, IP address and so on.



Introduction for the shortcut icons:

	Introduction	Example
	Switch one to all	Press the input number, then press this button to switch to all
	Close the specific input switching status	Press any input number, then press this button to close the switching status

	Switch one to one	Press this button to realize one to one switching status
	Close all the switching status	Press this button to close all the switching status
	Save scene	Press this button will turn to the scene save interface
	Recall scene	Press this button will turn to the scene recall interface

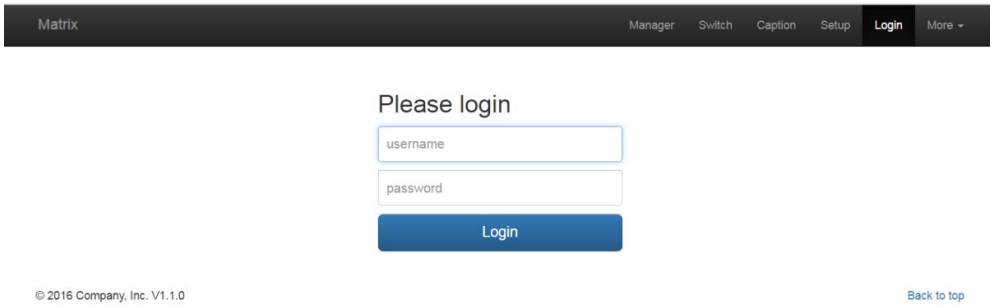
7.2 WEB control

Touch Manager series products support dual control system, the default IP address are: **192.168.0.80**(first one/ left one) and **192.168.1.80**(first one/ right one). If users using the first one to control the matrix.

First step, users need to make the sure RI-45 cable is workable and well connected with the control PC.

Second, users need to change the IP address of the control PC at the same segment.

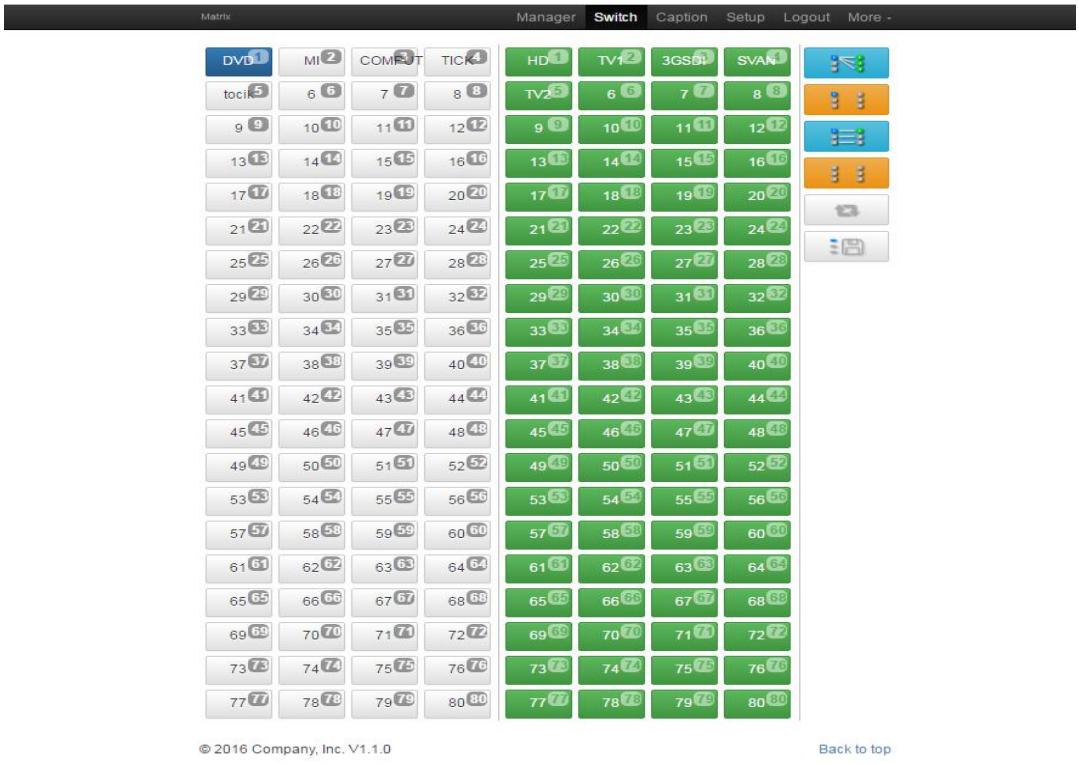
Third, users only need to open the browser and type the matrix IP 192.168.0.80 and enter, will show below interface:



Default user name and password are the same: admin, then click to Logo in

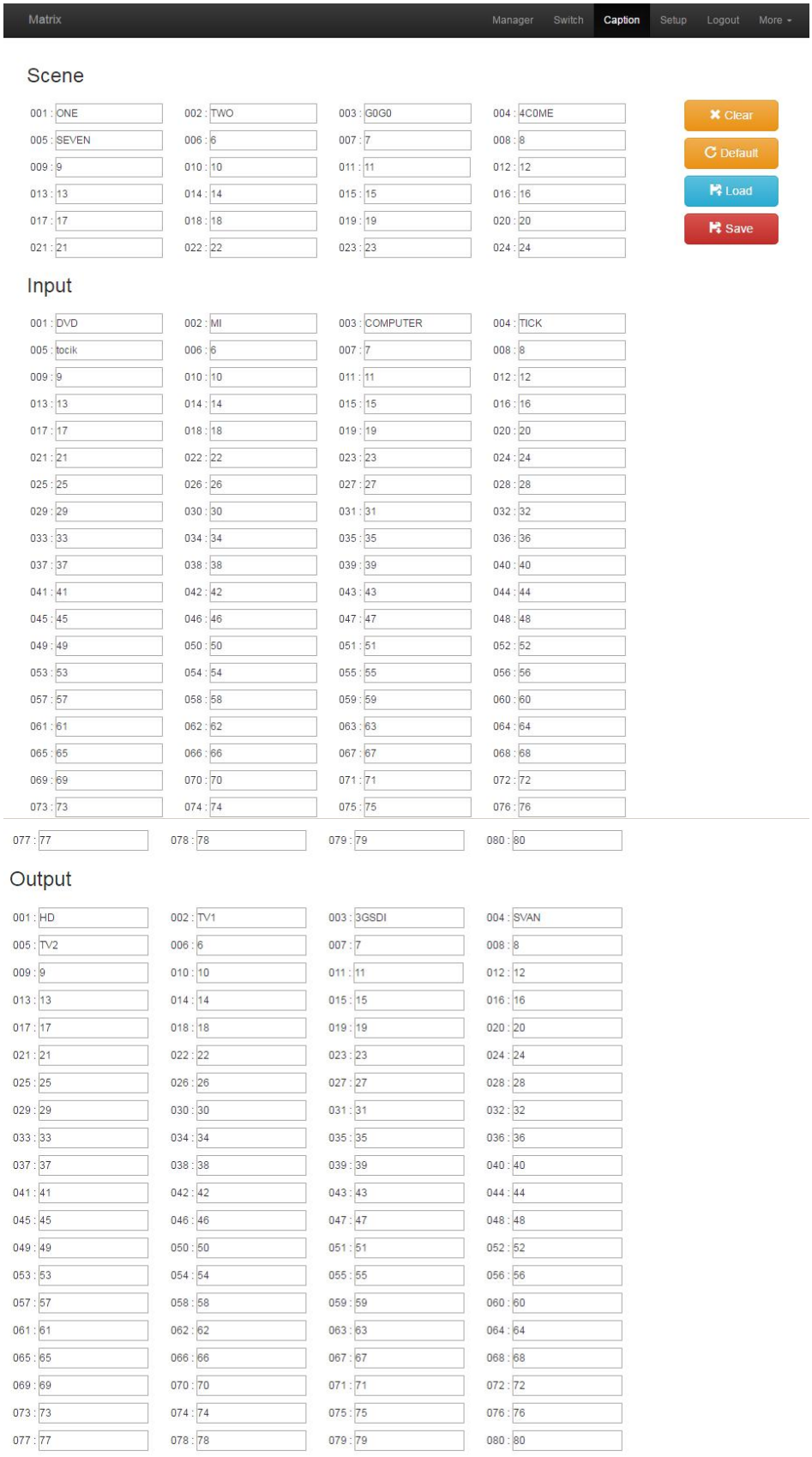
Switch interface:

Users can switch and control with the same way on the touch panels



Caption Interface:

Users can change the name of scene, inputs and outputs here, and click to save after changes


Matrix
Manager
Switch
Caption
Setup
Logout
More
Scene
001 : ONE
002 : TWO
003 : G0G0
004 : 4C0ME
005 : SEVEN
006 : 6
007 : 7
008 : 8
009 : 9
010 : 10
011 : 11
012 : 12
013 : 13
014 : 14
015 : 15
016 : 16
017 : 17
018 : 18
019 : 19
020 : 20
021 : 21
022 : 22
023 : 23
024 : 24
Clear
Default
Load
Save
Input
001 : DVD
002 : MI
003 : COMPUTER
004 : TICK
005 : tocik
006 : 6
007 : 7
008 : 8
009 : 9
010 : 10
011 : 11
012 : 12
013 : 13
014 : 14
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017 : 17
018 : 18
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067 : 67
068 : 68
069 : 69
070 : 70
071 : 71
072 : 72
073 : 73
074 : 74
075 : 75
076 : 76
077 : 77
078 : 78
079 : 79
080 : 80
Output
001 : HD
002 : TV1
003 : 3GSDI
004 : SVAN
005 : TV2
006 : 6
007 : 7
008 : 8
009 : 9
010 : 10
011 : 11
012 : 12
013 : 13
014 : 14
015 : 15
016 : 16
017 : 17
018 : 18
019 : 19
020 : 20
021 : 21
022 : 22
023 : 23
024 : 24
025 : 25
026 : 26
027 : 27
028 : 28
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065 : 65
066 : 66
067 : 67
068 : 68
069 : 69
070 : 70
071 : 71
072 : 72
073 : 73
074 : 74
075 : 75
076 : 76
077 : 77
078 : 78
079 : 79
080 : 80
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Back to top

7.2.6 Setup

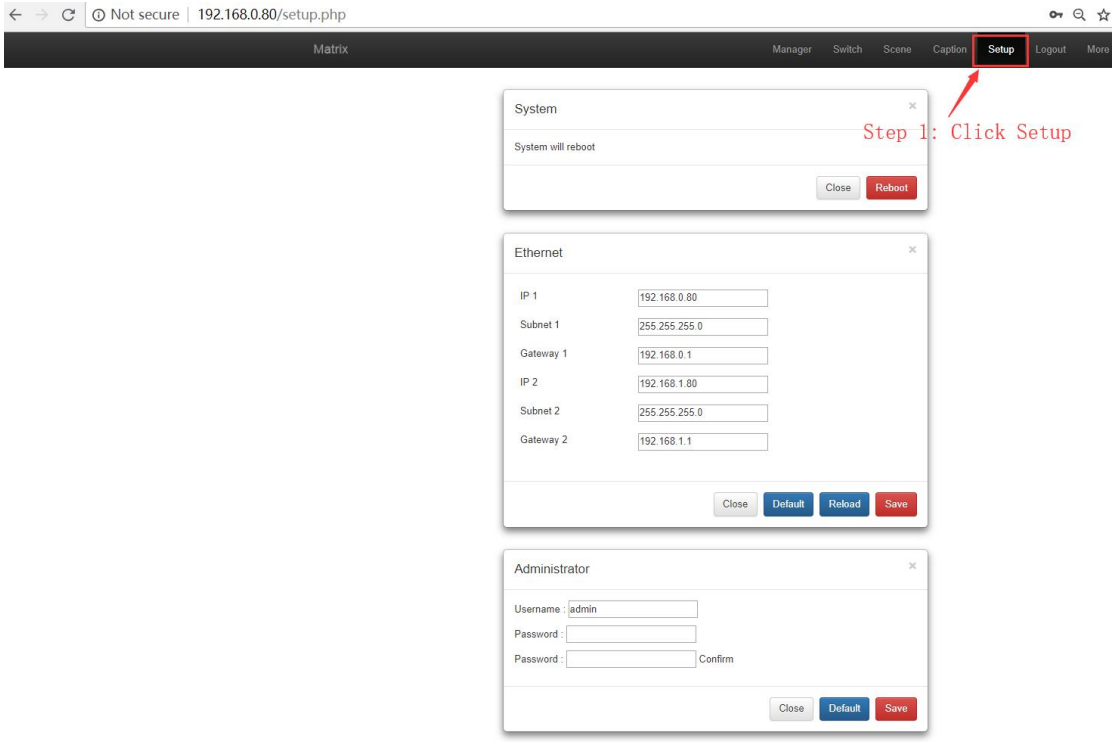
Set up interface:

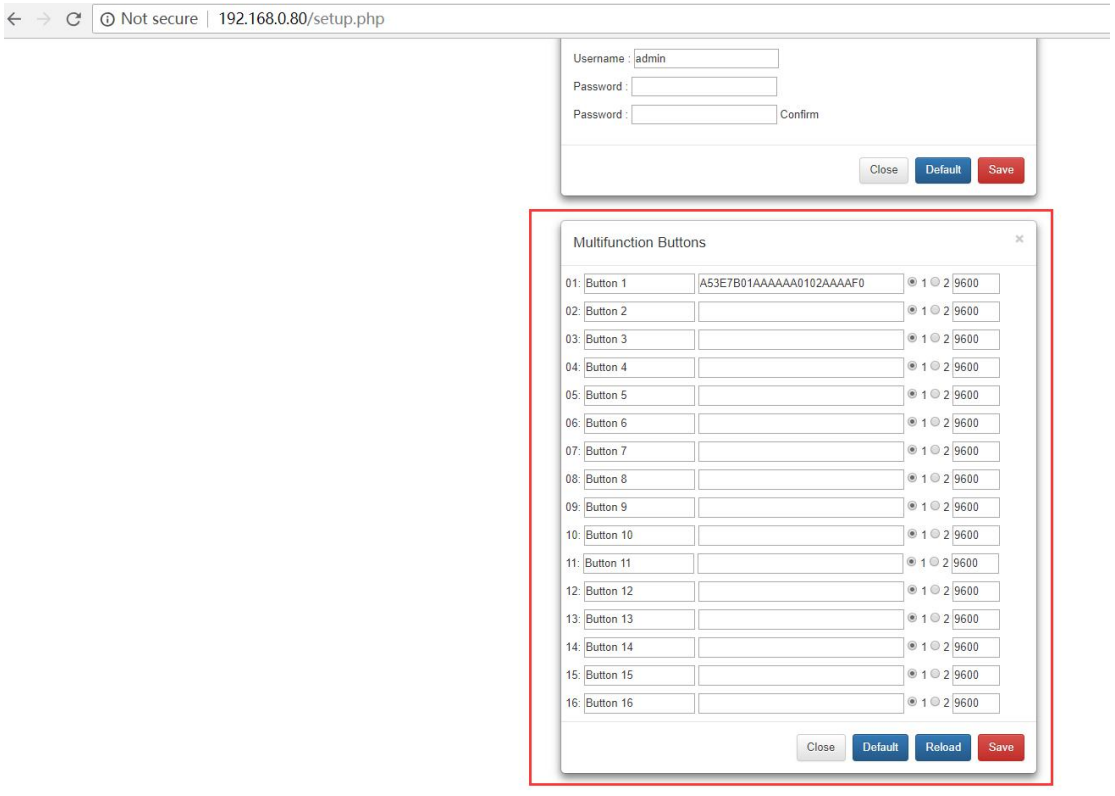
System Reboot: for modifying the matrix configuration(IP address, Login password)

Ethernet: for changing IP address accordingly

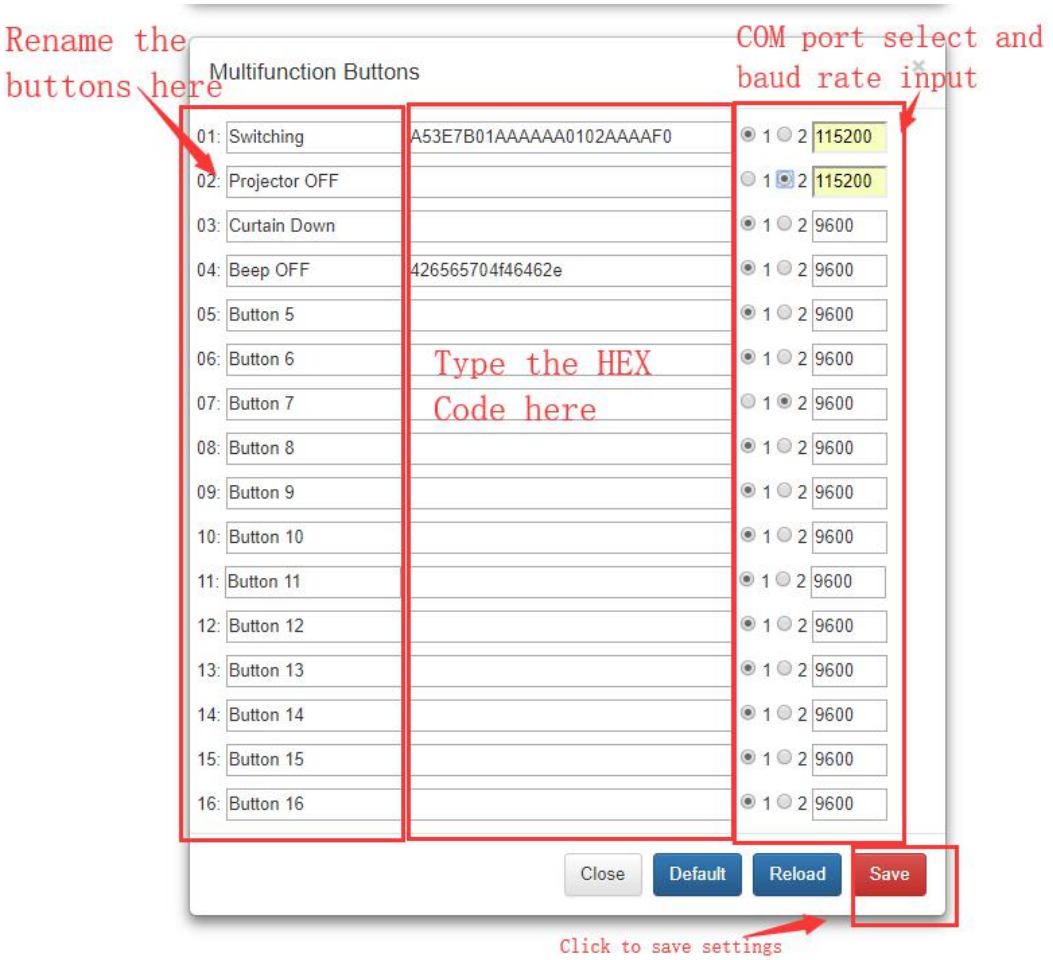
Administrator: For changing the Login user name and password

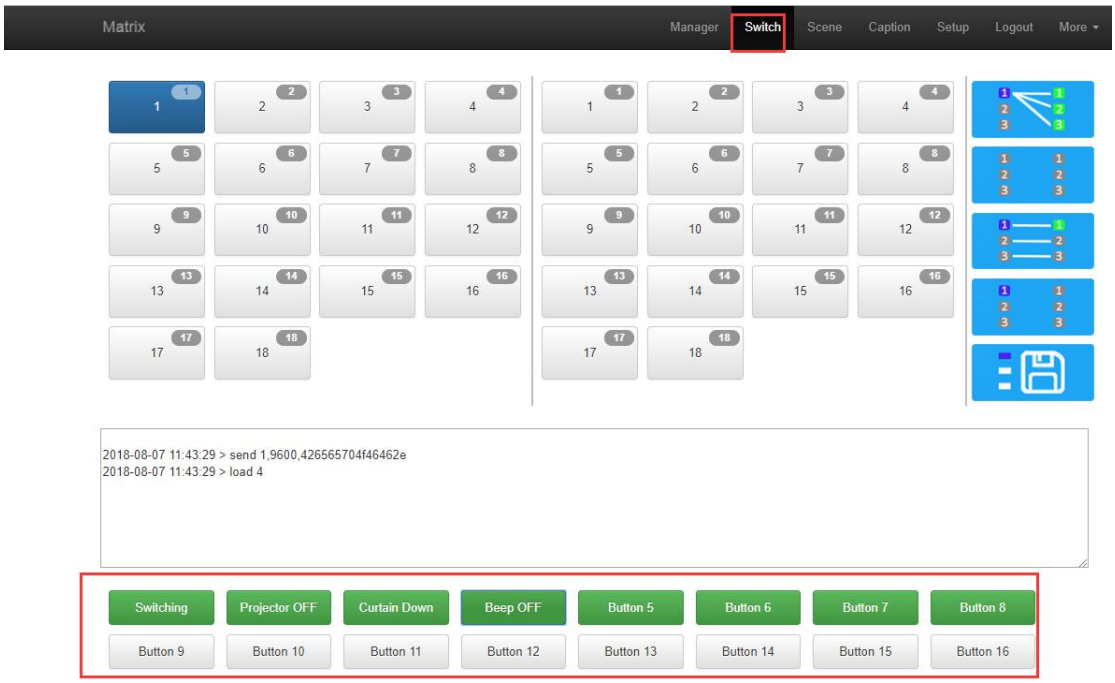
Multifunction Buttons: For controlling the surrounding equipment





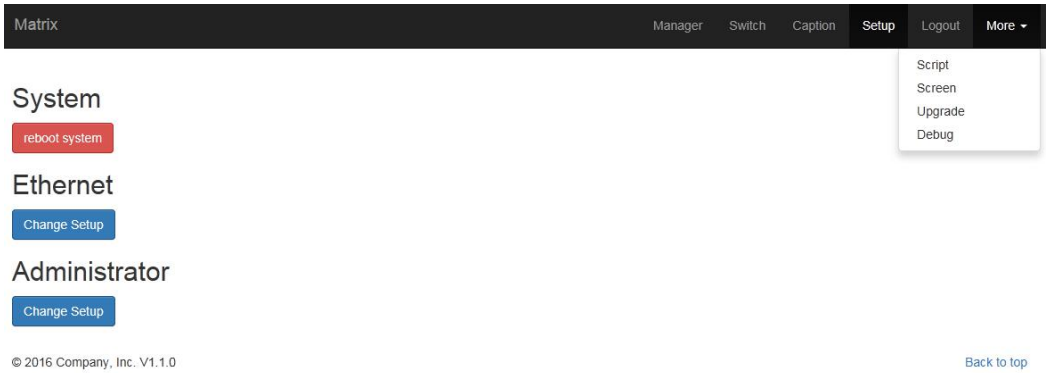
Multifunction buttons set up, total we have 16 multifunction buttons at present. We can rename the buttons, Type the HEX code for each button, and baud rate select. Then click “Save”.





7.2.7 More:

Upgrading: Click Upgrade can realize new software upgrading

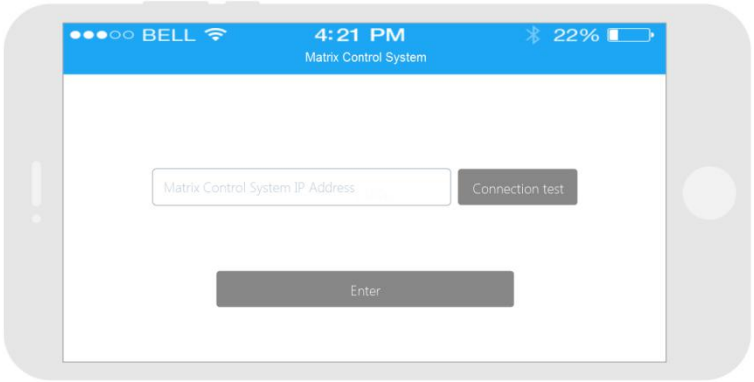


7.3 APP Control

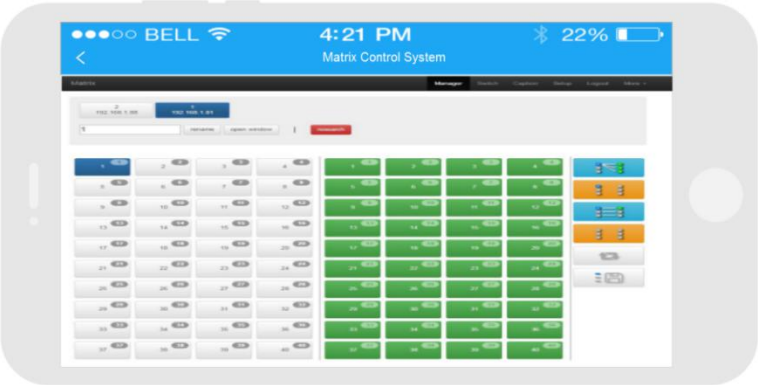
It also can support IOS and Android APP control, users only need to well connected the matrix with the WIFI router or local network. Download the APP from the application store. The steps and interfaces show as below:

Step 1: Make sure the matrix well connected with the router or local network, and open the APP:

Step 2: Enter the IP address of the matrix:



Step 3: After log in successfully, users can switch, change the inputs and outputs name directly.



7.4 Central Control Commands

RS232 cable with straight-through connection(USB-RS232 can be used directly to control)

Communication protocol:

Baud rate: 115200

Data bit: 8

Stop bit: 1

Check bit: None

Commands	Explanation	Function description
YAll.	Y=1,2,3,4.....	Switch Input Y to all the outputs Eg. "**1ALL.**" means switch input 1 to all outputs
All1.	One to one	Switch all the channels to be one to one. Eg.1->1, 2->2, 3->3.....
YXZ.	Y=1,2,3,4..... Z=1,2,3,4.....	Switch Input Y to Output Z Eg. "**1X2.**" means switch Input 1 to output 2
YXZ&Q&W.	Y=1,2,3,4..... Z=1,2,3,4..... Q=1,2,3,4..... W=1,2,3,4.....	Switch Input Y to Output Z, Q, W Eg. "**1X2&3&4.**" means switch Input 1 to Output 2, 3, 4
SaveY.	Y=1,2,3,4.....	Save current status to scene Y Eg. "**Save2**." means saving current status to Scene 2
RecallY.	Y=1,2,3,4.....	Recall the saved scene Y Eg. "**Recall2**." means recall the saved Scene 2
BeepON.	Beep sound	Buzzer on
BeepOFF.		Buzzer off
Y?.	Y=1,2,3,4.....	Check the Input Y to outputs switching status Eg. "**1?.**" means to check Input 1 switching

		status

Note:

➢ Every command ends with a period “.” and it can’t be missing.

➢ The letter can be capital or small letter.

➢ Switch success will return as “OK”, and failed will return as “ERR”.

8.Trouble Shooting and Attention

No signal on the display?

- Make sure all the power code well connected
- Check the display switcher and make sure it’s in good condition
- Make sure the the DVI cable between the device and display are short than 7 meters
- Reconnect the DVI cable and restart the system
- Make sure the signal sources are on
- Check the cables between the devices and displays are connected correctly.
- Dial the switcher 7 to 1, then dial the switcher1,2 and choose the corresponding inputs.
- Make sure the resolution less than WUXGA(1920*1200)/ 60HZ
- Make sure the display can support the output resolution.

9. After Sales

9.1 Warranty Information

The Company warrants that the process and materials of the product are not defective under normal use and service for 2 (2) year following the date of purchase from the Company or its authorized distributors.

If the product does not work within the guaranteed warranty period, the company will choose and pay for the repair of the defective product or component, the delivery of the equivalent product or component to the user for replacement of the defective item, or refund the payment which users have made.

The replaced product will become the property of the Company.

The replacement product could be new or repaired.

Whichever is longer, any replacement or repaired of the product or component is for a period of ninety (90) days or the remaining period of the initial warranty. The Company shall not be responsible for any software, firmware, information, or memory data contained in, stored in, or integrated with the product repaired by the customer's return, whether or not during the warranty period.

9.2 Warranty limitations and exceptions

Except above limited warranty, if the product is damaged by over usage, incorrectly use, ignore, accident, unusual physical pressure or voltage, unauthorized modification, alteration or services rendered by someone

other than the Company or its authorized agent, the company will not have to bear additional obligations. Except using the product properly in the proper application or normal usage

Attachment A:
Input and output cards for TOUCH-MANAGER-800/1600

Input Cards		
1080P Seamless Switching Cards		
Universal		Support HDMI/DVI/VGA/YPBPR/CVBS+LR input Support HDCP, 1080P60, Seamless switching
SDI		Support 4 SD/HD/3G-SDI input and loop out Resolution up to 1080p60
4K60 Seamless Switching Cards		
4K60 HDMI2.0		Supports 4 HDMI2.0 inputs Support HDCP2.2, 4K60 Supports 3.5mm audio embedded
4K60 HDBaseT		Support HDBaseT input with one HDMI loop out Distance up to 40/70m at 4K60 Work with 4K60 40M TX
4K60 Fiber		Supports 4 Fiber Optic LC input Distance up to 2km at 4K60 with SM fiber cable Needs to work with FIBER-HDV-2KT-4K60
Output Cards		
1080P Seamless Switching Cards		
MAV		Support HDMI/DVI/VGA/YPBPR/CVBS+LR input Support HDCP, 1080P60 , Seamless switching
SDI		Supports 2 SD/HD/3G-SDI outputs Supports 1080P60, Seamless switching
4K60 Seamless switching Cards		
4K60 HDMI2.0		Support 4K30 HDMI input Support HDCP1.4 Support EDID handshaking
4K60 HDBaseT		Supports HDBaseT input with 1 HDMI loop out Distance up to 40m at 4K30 POC(Power over Cable) function

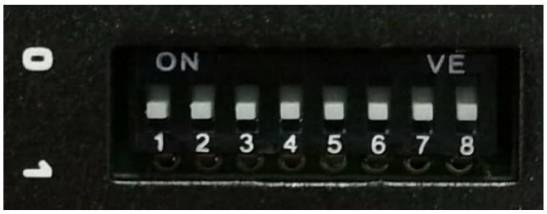
4K60 Fiber		Supports LC connector SM fiber output Distance up to 2km Work with the 4K60 Fiber Optic Rx

Note: All the above cards can work with TOUCH-MANAGER-800/1600, BUT we suggest to use only 1080P or 4K60 cards on one chassis instead of mixing use 1080P and 4K60 cards together.

Attachment B:
DIP Switches Operation Instruction
4K60 seamless switching cards:

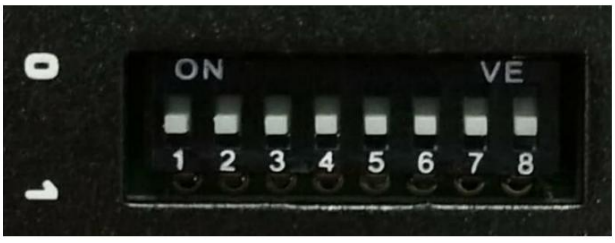
4K60 HDMI2.0 Input Card DIP Switch

Customize Resolution					3.5mm Audio		Null				IR Function	
DIP 1	DIP 2	DIP 3	DIP 4	Description	DIP 5	Description	DIP 6	Description	DIP 7	Description	DIP 8	Description
0	0	0	0	1080P@60Hz	0	Using External audio	0	Null	0	Null	0	IR off
0	0	0	1	1080P@50Hz	1	Using HDMI audio	1		1		1	IR on
0	0	1	0	3840*2160@50Hz								
0	0	1	1	720P@60Hz								
0	1	0	1	1366*768@60Hz								
0	1	1	0	1024*768@60Hz								
0	1	1	1	3840*2160@30Hz								
0	1	0	0									
1	0	0	0	3840*2160@24Hz								
1	0	0	1	480P@60Hz								
1	0	1	0	720P@50Hz								
1	0	1	1	576P@50Hz								
1	1	0	0	3840*2160@60Hz								
1	1	1	0	4096*2160@60Hz								
1	1	1	1	4096*2160@50Hz								



4K60 HDMI2.0 Output Card DIP Switch

Customize Resolution					Customize Color Space			HDCP2.2		IR Function	
DIP 1	DIP 2	DIP 3	DIP 4	Description	DIP 5	DIP 6	Description	DIP 7	Description	DIP 8	Description
0	0	0	0	1080P@60Hz	1	1	RGB	0	HDCP On	0	IR off
0	0	0	1	1080P@50Hz	1	0	YUV422	1	HDCP Off	1	IR on
0	0	1	0	3840*2160@50Hz	0	0	YUV420				
0	0	1	1	720P@60Hz	0	1	YUV444				
0	1	0	1	1366*768@60Hz							
0	1	1	0	1024*768@60Hz							
0	1	1	1	3840*2160@30Hz							
1	1	1	1								
0	1	0	0	4096*2160@50							
1	0	0	0	4096*2160@30							
1	0	0	1	480P@60Hz							
1	0	1	0	720P@50Hz							
1	0	1	1	576P@50Hz							
1	1	0	1	1920*1200/60							
1	1	0	0	3840*2160@60Hz							
1	1	1	0	4096*2160@60Hz							



1080P seamless switching cards:

1080P Input Card DIP Switch

Customize Resolution			
DIP 3	DIP 4	DIP 5	Description
0	0	0	1024*768
0	0	1	1360*768
0	1	0	1920*1200
0	1	1	720P/60
1	0	0	Null
1	0	1	Null
1	1	0	1080P/50
1	1	1	1080P/60

Input Source Select			
DIP 7	DIP 1	DIP2	Description
1	0	0	CVBS Input
1	0	1	YPBPR input
1	1	0	VGA input
1	1	1	DVI input
0			Signal Auto detect

Image or Audio Select		
DIP 6	Version	Description
1	Version 1	Normal display
0		Image mirror
1	Version 2	HDMI audio input
0		3.5mm audio input

IR Function	
DIP 8	Description
0	IR off
1	IR on

1080P Output Card DIP Switch

Resolution Set Up					
D2	D3	D4	D5	D6	Description
0	0	0	0	0	1024*768@60
0	0	0	0	1	800*600@60
0	0	0	1	0	1280*800@60
0	0	0	1	1	1280*1024@60
0	0	1	0	0	1360*768@60
0	0	1	0	1	1366*768@60
0	0	1	1	0	1400*1050@60
0	0	1	1	1	1440*900@60
0	1	0	0	0	1680*1050@60
0	1	0	0	1	1600*1200@60
0	1	0	1	0	1920*1200@60
0	1	0	1	1	1600*1200@60
0	1	1	0	0	1680*1050@60
0	1	1	0	1	1400*900@75
0	1	1	1	0	640*480@75
0	1	1	1	1	800*600@75
1	0	0	0	0	480I@60
1	0	0	0	1	576I@50
1	0	0	1	0	480P@60
1	0	0	1	1	576P@50
1	0	1	0	0	1280*720@24
1	0	1	0	1	1280*720@25
1	0	1	1	0	1280*720@30
1	0	1	1	1	1280*720@50
1	1	0	0	0	1280*720@60
1	1	0	0	1	1080I@50
1	1	0	1	0	1080I@60
1	1	0	1	1	1080P@24
1	1	1	0	0	1080P@25
1	1	1	0	1	1080P@30
1	1	1	1	0	1080P@50
1	1	1	1	1	1080P@60

Color Space	
D1	Description
0	RGB
1	YUV

Image	
D7	Description
0	Image mirror
1	Normal display

IR	
D8	Description
0	IR ON
1	IR OFF