

MVP-8C(N)/MVP-16C/ MVP-32C



User manual

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1、 Operation guide

1.1 Power source

MVP-8C(N)/MVP-16C/MVP-32C signal management platform using 100-250v ac voltage power supply. Power on when push the button <■>, Power off when push the button <○>.






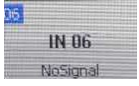
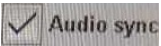


1.2 Capacitive touch screen

MVP-8C(N)/MVP-16C/MVP-32C signal management platform uses a 5" capacitive touch screen, which have a resolution of 800x480, the layout of system is shown in figure.



Each particular function button as shown in form

| button | function |
|---|---|
|  <p>Video</p> | Video switch select |
|  <p>Audio</p> | Audio switch select |
|  <p>EdieManage</p> | EDIE management |
|  <p>System</p> | System Settings |
| <p>TO ALL</p> | All switch to select |
| <p>CLOSE</p> | Close the output channel selection |
| <p>SAVE SCENE</p> | Save selection key scene |
| <p>CALL SCENE</p> | Call select key scenes |
|  | Output channel |
|  | Input channel |
|  | Audio and video synchronization switching |
| <p><-HOME</p> | Main interface |

1.3 Signal switching

MVP-8C(N) signal management platform use hot plug input/output card slots; Slots 7 ~ 8 are fixed to output, slots 1 ~ 6 are configurable for input or output.

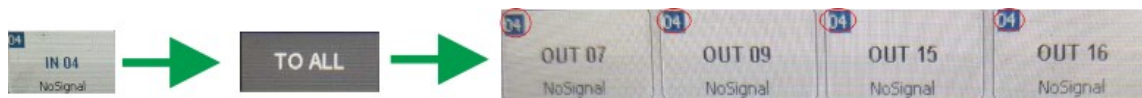
MVP-16C signal management platform use hot plug input/output card slots; Slots 13 ~ 16 are fixed to output, slots 1 ~ 12 are configurable for input or output.

MVP-32C signal management platform use hot plug input/output card slots; Slots 25 ~ 32 are fixed to output, slots 1 ~ 24 are configurable for input or output.

(1) Switch a input to all output channel

Simply choose the Video input and touch the screen interface: touch <Input channel number> + <TO All> button, input channel number will be displayed in the top left corner angle of the output channel.

for example , <IN6> + <TO All> key, Switch successful, at the upper left of the output channel Angle IN4 will be shown.



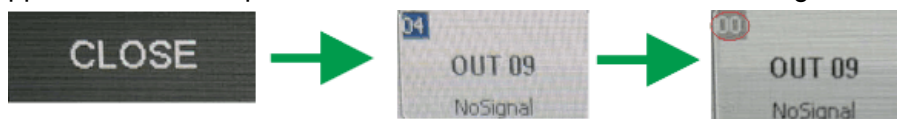
(2) Switch any one input to any or all output channels

Select a input and switch to any output channel. For example , IN4 + OUT7 + OUT9 + OUT15 + OUT16. Switch successful, IN4 will be shown at the upper left of the output channel angle.



(2) Close the output channel

MVP-8C(N)/MVP-16C/MVP-32C signal management platform provides a function of closing a channel output or multiplex channels output, output channel which was closed will have no signal output. If users need to close an output channel, just click the close button on touch screen, choose the corresponding channel. When close channel successfully, the output interface on touch screen will become gray, the upper left corner input channel number is 00. Such as the figure below.

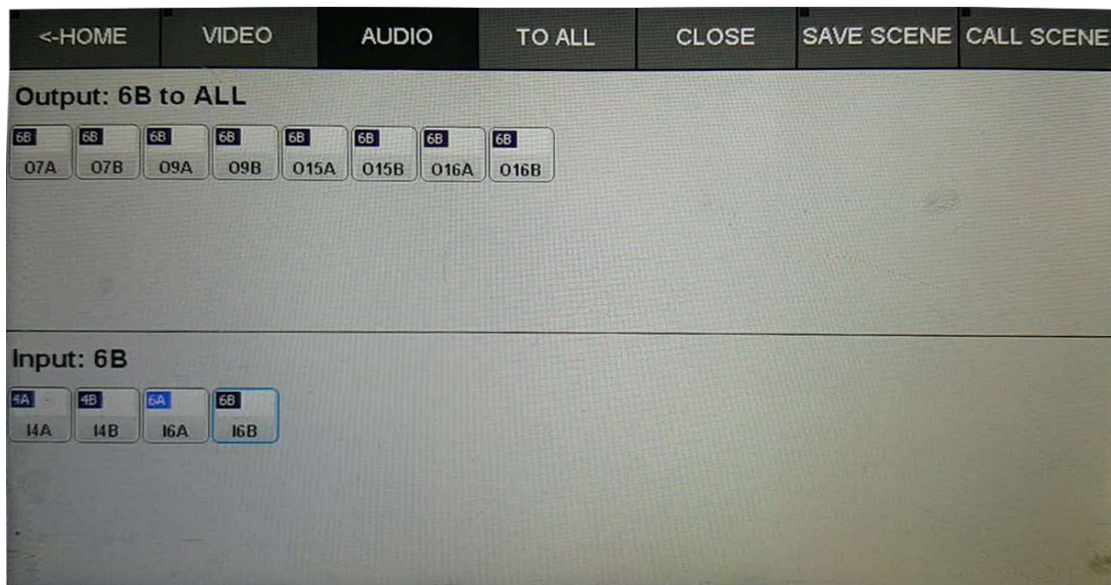


(3) Check the output channel state

MVP-8C(N)/MVP-16C/MVP-32C signal management platform provides a function of checking all channels status. Can be View the output channel video switching status,

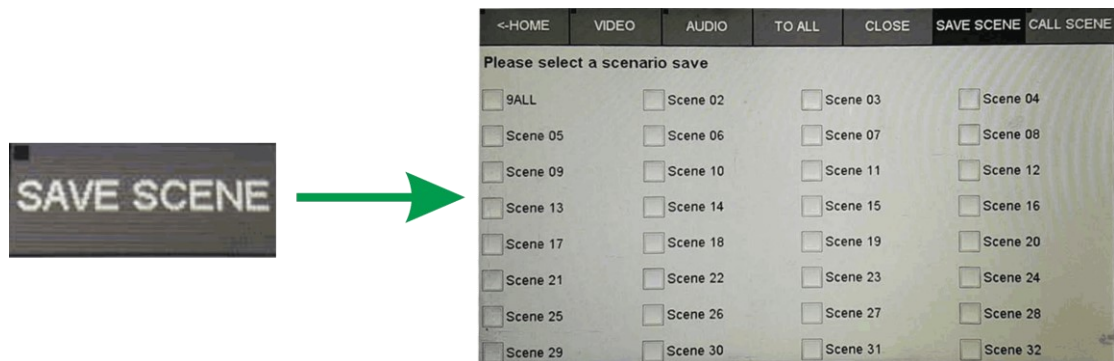
Audio switching status, EDID input channel switching status and output channel identification EDID status, display equipment in Video interface and so on.

For example, audio switching state.



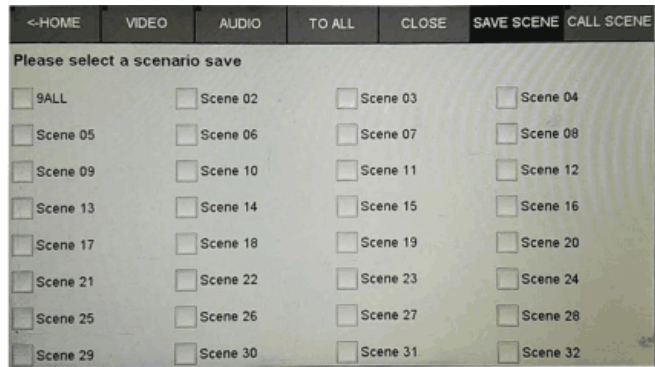
(4) Scene save and call

Save the current status of input and output channels are also called save the current scene, MVP-8C(N)/MVP-16C/MVP-32C signal management platform supports up to 32 scenes. If the current status of corresponding video input and output is to be preserved. The capacitive touch in Video Switcher to <Save scene>+<Storage unit number> . For example, to save input and output corresponding state 02 unit, <SAVE SCENE> + <Scene 02>.



To invoke the saved scene, <CALL SCENE> + < Storage unit number>, For example, to invoke the saved in 02 storage unit

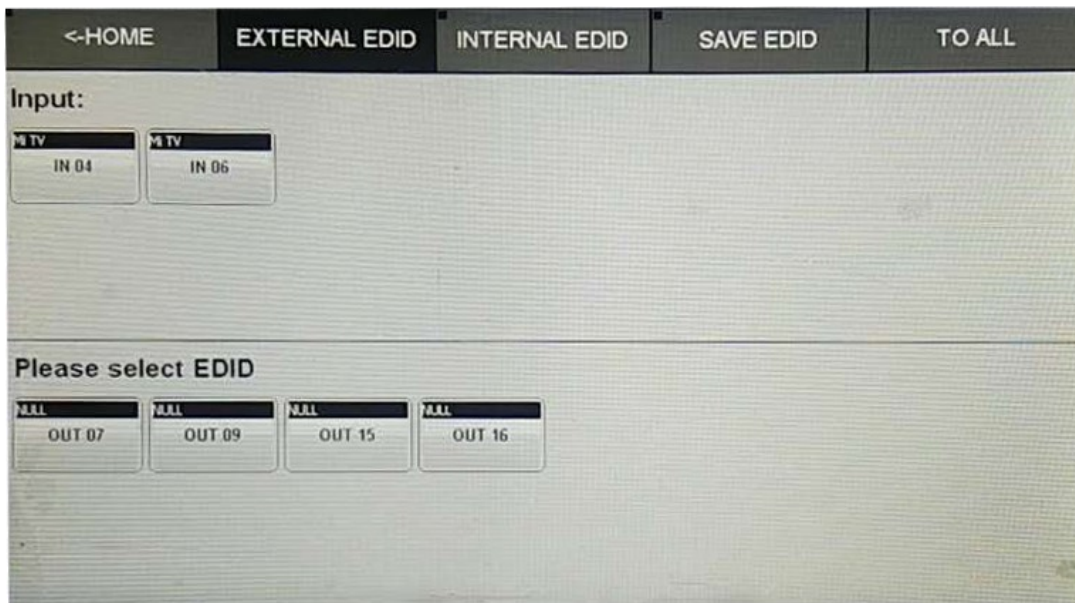
CALL SCENE



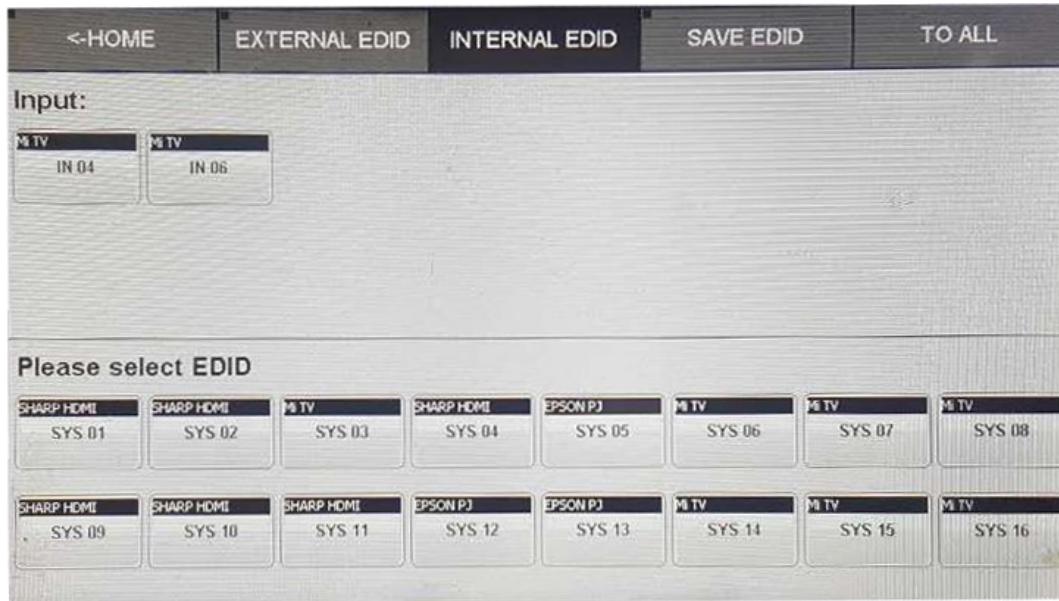
1.4 EDID management

MVP-8C(N)/MVP-16C/MVP-32C signal management platform provide EDID read, reset, storage, and other functions, the latest generation of signal management platform in the update EDID would be more convenient and quick operation.

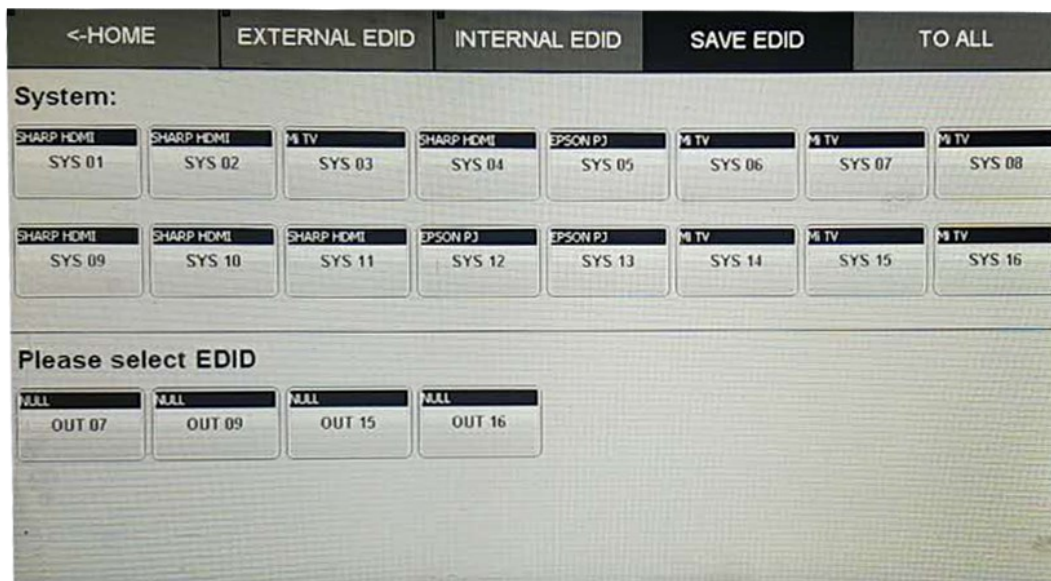
Each output channel will automatically identify the EDID of display devices, and will feedback the EDID information to the touch screen output channel. Update EDID to input port, also displays the same input EDID information. To updates the input port EDID from output port. Select EDID switcher, click on the output channel and click need update EDID input channel. Input channel EDID information same as the output channel identification EDID. For example, Output channel 1 EDID information update to the input channel 1, 2, 3. Select EXTERNAL EDID and then <OUT1> + <IN1> + <IN2> + <IN3>.



MVP-8C(N)/MVP-16C/MVP-32C support store 16 group EDID, Save EDID may achieve at any time. To update the data to input channel .In an INTERNAL EDID state, select save EDID, then click on the corresponding input channel



If you need to have one output channel EDID information stored. In the SAVE EDID state, select output and click save the location of the EDID.



1.5 Internet network communication Settings

Enter to the system Settings menu, select NETWORK menu options. Into the next sub menu view or change the IP address, protocol, port, network setting is shown in the figure.



| <-HOME | GENERAL | DISPLAY | NETWORK | UART | RESET | ABOUT HOST |
|---------------------------------|---|---------|---------|------|-------|------------|
| 1.Network Address Config | | | | | | |
| IP Address | <input type="text" value="192.168.2.222"/> | | | | | |
| Subnet Address | <input type="text" value="255.255.255.0"/> | | | | | |
| Gateway Address | <input type="text" value="192.168.2.1"/> | | | | | |
| Server Port | <input type="text" value="1001"/> | | | | | |
| DHCP | <input checked="" type="radio"/> NO <input type="radio"/> YES | | | | | |

1.6 RS232 setting

RS232 communication parameters including Baud Rate, Data Bits, Stop bit, Parity. If you want to change these parameters can click on the System into the System Settings menu, select UART to enter RS232 setting.



| <-HOME | GENERAL | DISPLAY | NETWORK | UART | RESET | ABOUT HOST |
|--|---------|---------|---------|------|-------|------------|
| 1 Baud Rate | | | | | | |
| <input checked="" type="radio"/> 115200 <input type="radio"/> 9600 <input type="radio"/> 1200 <input type="radio"/> 1800 | | | | | | |
| 2 Data bits | | | | | | |
| <input checked="" type="radio"/> 8 <input type="radio"/> 7 | | | | | | |
| 3 Stop bits | | | | | | |
| <input checked="" type="radio"/> 1 <input type="radio"/> 1.5 <input type="radio"/> 2 | | | | | | |
| 4 Parity bits | | | | | | |
| <input checked="" type="radio"/> None <input type="radio"/> Odd <input type="radio"/> Even | | | | | | |

1.7 Version information query

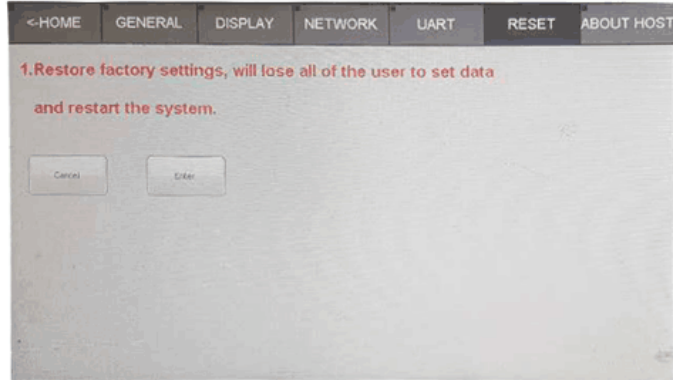
In the system Settings of the options ABOUT HOST users can see the Main control board (Main - Version), and the exchange board (Back - Version), and the Version information etc.



| <-HOME | GENERAL | DISPLAY | NETWORK | UART | RESET | ABOUT HOST |
|--------------------|---------|---------|---------|------|-------|----------------|
| Host | | | | | | MVP-16C |
| IP Address | | | | | | 192.168.88.229 |
| Main-Version | | | | | | 1.0.0 |
| Back-Version | | | | | | 1.0.0 |
| System Update Time | | | | | | 2017.1.16 |

1.8 system reset

MVP-8C(N)/MVP-16C/MVP-32C signal management platform support system restore factory settings, and setup system. Click RESET interface, click on ENTER to reset the product with factory settings.



2、RS232 and LAN control command

When MVP-8C(N)/MVP-16C/MVP-32C signal management platform can be controlled by the external control devices/system cotroller through RS232 connection, TCP/IP telnet. RS232 default settings are: Baud 115200bps, 8 data bits, 1 stop bit, no parity.

| Number 序号 | Action 执行 | Basic ASCII String 基本的 ASCII 字符串 | Variables 变量 | Example Settings 示例设置 | Example String 字符串示例 | Example Response 示例响应 |
|--------------|---|-------------------------------------|--|-------------------------------|-------------------------|--------------------------|
| 1 | Video switch input into multiple or single channel output | >Catob, c <CR> | a = input(1 ~ matrix max) b c = output(1 ~ matrix max or ALL) | Switch input 1 to output 2, 3 | >C1to2, 3<CR> | <C1to2, 3<CR> |
| 2 | Video switch corresponding | >CRa:b, c :d<CR> | a c = output(1 ~ matrix max) b d = input(1 ~ matrix max) | Switch input 1 to output 3 | >CR1:3, 2:4<CR> | <CR1:3, 2:4<CR> |

| | | | | | | |
|---|---|---------------|--|---|------------------|------------------|
| | relations between | | | Switch input 2 to output 4 | | |
| 3 | Video select input (starting up Off by default) | >CSWI:a<CR> | a = input(1 ~ matrix max) | Select input 2 | >CSWI:2<CR> | <CSWI:2<CR> |
| 4 | Video switch to the output | >CSWO:a<CR> | a = output(1 ~ matrix max) | Select input the switch to the output 2, 3 | >CSWO:2, 3<CR> | <CSWO:2, 3<CR> |
| 5 | Video query corresponding relations between | #CR<CR> | NULL | Query corresponding relations between | #CR<CR> | <CR1:3, 2:4<CR> |
| 6 | Audio switch input into multiple or single channel output | >Tatob, c<CR> | a = input(1 ~ matrix max) + A/B b c = output(1 ~ matrix max or ALL) + A/B Note:A=Internal audio B=External audio | IN1 video internal embed audio switch OUT2 internal or external | >T1Ato2A, 2B<CR> | <T1Ato2A, 2B<CR> |

| | | | | | | |
|----|---|----------------|--|--|---------------------|---------------------|
| 7 | Audio switch corresponding relations between | >TRa:b,c:d<CR> | a c = output(1 ~ matrix max) + A/B b d = input(1 ~ matrix max or ALL) + A/B Note:A=Internal audio B=External audio | Switch input 1A to output 2A Switch input 1B to output 2B | >TR1A:2A, 1B:2B<CR> | <TR1A:2A, 1B:2B<CR> |
| 8 | Audio select input (starting up Off by default) | >TSWI:a<CR> | a = input(1 ~ matrix max) + A/B Note:A=Internal audio B=External audio | Select input 2A | >TSWI:2A<CR> | <TSWI:2<CR> |
| 9 | Audio switch to the output | >TSWO:a<CR> | a = output(1 ~ matrix max) + A/B Note:A=Internal audio B=External audio | Select input the switch to the output 3A, 3B | >TSWO:3A, 3B<CR> | <TSWO:2, 3<CR> |
| 10 | Audio query corresponding relations between | #TR<CR> | NULL | Query corresponding relations between | #TR<CR> | <TR1A:3A, 2A:4B<CR> |
| 11 | Save the scene | >Sa<CR> | a = Scene location (1~32max) | Save the current state to 10 | >S10<CR> | <CR1:3, 2:4, ..<CR> |
| 12 | Call scenario switch | >Ra<CR> | a = Scene location (1~32max) | Call scenario 10 | >R10<CR> | <CR1:3, 2:4, ..<CR> |

| | | | | | | |
|----|--|------------------|--|--------------------------------|----------------------|----------------------|
| 13 | Switch the audio and video synchronization | >SYNC:a<CR> | a = 0:no synchronous 1:synchronous | Switch synchronous | >SYNC:1<CR> | <SYNC:1<CR> |
| 14 | Query the audio and video synchronization | #SYNC<CR> | NULL | Query synchronous | #SYNC<CR> | <SYNC:1<CR> |
| 15 | Set the scene name | >SNAMEa:b<CR> | a = Scene location (1~32max) b = scene name(15English char) | Set the scene10 name "Meeting" | >SNAME10:Meeting<CR> | <SNAME10:Meeting<CR> |
| 16 | Query the scene name | #SNAMEa<CR> | a = Scene location (1~32max) | Query the scene10 name | #SNAME10<CR> | <SNAME10:Meeting<CR> |
| 17 | Set the scene use | >SUSEa:b<CR> | a = Scene location (1~32max) b = scene use (0=no 1=yes) | Set the scene10 use | >SUSE10:1<CR> | <SUSE10:1<CR> |
| 18 | Query the scene use | #SUSEa<CR> | a = Scene location (1~32max) | Query the scene10 use | #SUSE10<CR> | <SUSE10:1<CR> |
| 19 | Uart switch | >CUARTatob,c<CR> | a = RX(1 ~ matrix max) b c = TX(1 ~ matrix max or ALL) | Uart switch rx1 to tx1\2 | >CUART1to1,2<CR> | <CUART1to1,2<CR> |

| | | | | | | |
|----|---------------------------------|----------------------|--------------------------|------------------------------------|---------------------------|--|
| 20 | Query the all uart switch state | #CRUART<CR> | NULL | Query the all uart switch state | #CRUART<CR> | <CRUART1:1,2:1,...<CR> |
| 21 | Set the IP addresses | >IP:a.b.c.d<CR> | a b c d = address(0~255) | set IP addresses 192.168.2.229 | >IP:192.168.2.229<CR> | <IP:192.168.2.229<CR> |
| 22 | Set the Subnet | >SUBNET:a.b.c.d<CR> | a b c d = address(0~255) | set Subnet 255.255.255.0 | >SUBNET:255.255.255.0<CR> | <SUBNET:255.255.255.0<CR> |
| 23 | Set the Gateway | >GATEWAY:a.b.c.d<CR> | a b c d = address(0~255) | set Gateway 255.255.255.0 | >GATEWAY:192.168.2.1<CR> | <GATEWAY:192.168.2.1<CR> |
| 24 | Set the Socket Server port | >PORT:a<CR> | a = Server port | Set the Socket Server port 1001 | >PORT:1001<CR> | <PORT:1001<CR> |
| 25 | Set Network DHCP | >DHCP:a<CR> | 1= 0:no 1:yes | Set Network DHCP | >DHCP:1<CR> | <DHCP:1<CR> |
| 26 | Query the network information | #NETWORK<CR> | NULL | Query the network information | #NETWORK<CR> | <IP:192.168.2.229<CR> <SUBNET:255.255.255.0<CR> <GATEWAY:192.168.2.1<CR> <PORT:1001<CR> |

| | | | | | | |
|----|-----------------------------|----------------------|--|---------------------------------|----------------------------|----------------------------|
| 27 | Set the serial port | >UART:a, b, c, d<CR> | a = Baud Rate(115200 38400 19200 9600) b = Data bits(8 9) c = Stop bits(1 1.5 2) d = Parity bits(None Odd Even) | Set the serial 9600, 8, 1, None | >UART:9600, 8, 1, None<CR> | <UART:9600, 8, 1, None<CR> |
| 28 | Query the serial port | #UART<CR> | NULL | Query the serial port | #UART<CR> | <UART:9600, 8, 1, None<CR> |
| 29 | Command can make | >CMDEN:a<CR> | a = 0:no make 1:make | Set command can make | >CMDEN:1<CR> | <CMDEN:1<CR> |
| 30 | Query Command can make | #CMDEN<CR> | NULL | Query command can make | #CMDEN<CR> | <CMDEN:1<CR> |
| 31 | Command notice sound | >CSOUND:a<CR> | a = 0:no sound 1:sound | Set command notice sound | >CSOUND:1<CR> | <CSOUND:1<CR> |
| 32 | Query command notice sound | #CSOUND<CR> | NULL | Query command notice sound | #CSOUND<CR> | <CSOUND:1<CR> |
| 33 | switch EDID output to input | >EDIDato b<CR> | a = output(1 ~ matrix max) b = input(1 ~ matrix max or ALL) | Switch output 1 to input 2 | >EDID1to2<CR> | <EDID1to2<CR> |
| 34 | switch EDID system to input | >SYSEato b<CR> | a = system(1 ~ 16) b = input(1 ~ matrix max or ALL) | Switch system 1 to input 2 | >SYSE1to2<CR> | <SYSE1to2<CR> |

| | | | | | | |
|----|---|------------------|--|---|------------------------|------------------------|
| 35 | switch EDID output to system | >SEDIDat ob<CR> | a = output(1 ~ matrix max) b = system(1 ~ 16) | Switch output 1 to system 2 | >SEDID1to2<CR> | <SEDID1to2<CR> |
| 36 | Set the HDMI output format | >HDMODE:a, b<CR> | a = output(1 ~ matrix max) b = 0:DVI 1:HDMI | Output :2 set HDMI format | >HDMODE:2, 1<CR> | <HDMODE:2, 1<CR> |
| 37 | Set card the hdec switch | >HDCP:a, b<CR> | a = port(1 ~ matrix max) b = 0:OFF 1:ON | Set port:2 the hdec off | >HDCP:2, 0<CR> | <HDCP:2, 0<CR> |
| 38 | Daughter card power management | >CPOWER:a, b<CR> | a = port(1 ~ matrix max) b = 0:OFF 1:ON | Close port 2 power supply | >CPOWER:2, 0<CR> | <CPOWER:2, 0<CR> |
| 39 | The query card power state | #CPOWER:a<CR> | a = port(1 ~ matrix max) | Query port 2 power state | #CPOWER:2<CR> | <CPOWER:2, 0<CR> |
| 40 | Set management user name and password | >MUNP:a, b<CR> | a = name(15 the English characters) b = password(15 the English characters) | ser user:Main password:123456 | >MUNP:Main, 123456<CR> | <MUNP:Main, 123456<CR> |
| 41 | Query management user name and password | #MUNP<CR> | NULL | Query management user name and password | #MUNP<CR> | <MUNP:Main, 123456<CR> |

| | | | | | | |
|----|--|--------------------|--|------------------------------------|---------------------------------------|---|
| 42 | Send commands to control card | >COMa<CR> | a = control card command | send "-TEST" | >COM-TEST<CR> | NULL (you don't online returns the ERROR) |
| 43 | Query whether central online | #COM<CR> | NULL | Query whether central online | #COM<CR> | <COM:1<CR> |
| 44 | To TCP Socket server send data | >SEND-SS:a:b,c<CR> | a = IP b = Server port c = data | To 192.168.88.100:1001 send "TEST" | >SEND-SS:192.168.88.100:1001,TEST<CR> | >SEND-SS:4<CR> |
| 45 | Query status information Returned in JSON format | #JSON:a,b<CR> | a = ("video","scene","system","webur1","cont") b = mark (Status update version, 0 = Request all data) | Query the state of the video | >JSON:video,0<CR> | { "system": { "run": "Run 000:01:15", "temp": "20~35", "ip": "192.168.88.151:8020", "wcolor": "#66ff00", "mark": 55, "ahpd": 1, "uhpd": 1, "lang": 1, |

| | | | | | | |
|----|-----------------------------------|------------------|--|------------------------------------|------------------|---|
| | | | | | | <pre> "update": true }, } </pre> |
| 46 | Set the system language | >LANG:a<CR> | a = 0: English 1: Chinese | Set the system language is Chinese | >LANG:1<CR> | <LANG:1<CR> |
| 47 | Query system language | #LANG<CR> | NULL | Query system language | #LANG<CR> | <LANG:1<CR> |
| 48 | Restart the system | >SOF-RESTART<CR> | NULL | Restart the system | >SOF-RESTART<CR> | <SOF-RESTART<CR> |
| 49 | Restore the factory Settings | >SYS-RESET<CR> | NULL | Restore the factory Settings | >SYS-RESET<CR> | <SYS-RESET<CR> |
| 50 | Query all the daughter card types | #RCID<CR> | <u>NULL (return data reference link)</u> | Query all the daughter card types | #RCID<CR> | <RCID:1:I1,2:N/A...<CR> |
| 51 | Query main software version | #SVER<CR> | NULL | Query main software version | #SVER<CR> | <SVER:1.0.0<CR> |

| | | | | | | |
|----|-----------------------------|-----------|------|-----------------------------|-----------|--------------------------------|
| 52 | Query hardware version | #HVER<CR> | NULL | Query hardware version | #HVER<CR> | <HVER:1.0.0<CR> |
| 53 | Query back software version | #BVER<CR> | NULL | Query back software version | #BVER<CR> | <BVER:1.0.0<CR> |
| 54 | Query matrix type | #MO<CR> | NULL | Query matrix type | #MO<CR> | <MVP-8C(N)/MVP-16C/MVP-32C<CR> |
| 55 | Query instruction set head | #CMD<CR> | NULL | Query instruction set head | #CMD<CR> | ... |

Update time:2017-1-17

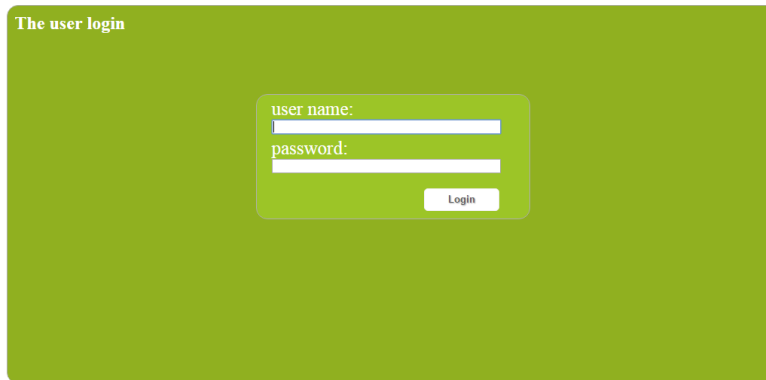
> - Command, # - Query, < - Response

<CR> = 0x0D Hex / 13 Decimal

Note: The default communication settings are 115200 8N1 None. IP address:192.168.88.229 Socket Server port:1001

3、 Web management

MVP-8C(N)/MVP-16C/MVP-32C signal management platform support web server management, write in the IP address of the MVP-8C(N)/MVP-16C/MVP-32C in the browser, and write in user name and password, then login to the web management interface.



NOTE:

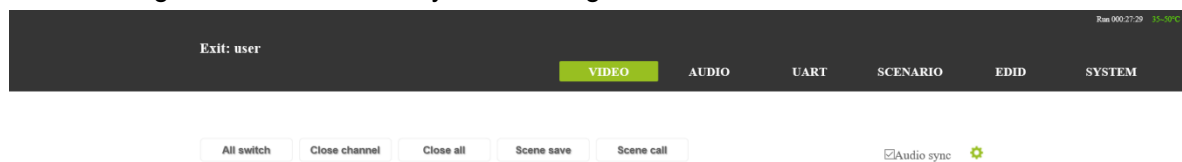
When LAN ports connection if the direct connect. Need to set equipment IP network segment and MVP-8C(N)/MVP-16C/MVP-32C in the same network segment.

The default user and password are user and 123456.

The factory default Settings segment for 192.168.88.229

3.1 WEB management option

Enter into WEB management option can choose video management, audio management, EDID management, scene calls, system Settings.



(1)、Video switch: switch input channel video signal to output channel, click on the input channel selection switch output channel or click All switch. For example, input 1 to all the output channel. Click input 1 and all switch, upper left corner of the output boards display NI4 channel, means they have fourth input signal switching to all outputs.

All switch
Close channel
Close all
Scene save
Scene call
☑Audio sync

Output

| | | | |
|--|--|--|---|
| <div style="background-color: #90EE90; padding: 2px; border: 1px solid #333; display: flex; justify-content: space-between;"> 4 7 </div> <div style="background-color: #90EE90; padding: 2px; border: 1px solid #333;"> HDBT_70M - HPD OFF - 1920x1080p54 - NULL </div> | <div style="background-color: #90EE90; padding: 2px; border: 1px solid #333; display: flex; justify-content: space-between;"> 4 9 </div> <div style="background-color: #90EE90; padding: 2px; border: 1px solid #333;"> HDBT_70M - HPD OFF - 1920x1080p54 - NULL </div> | <div style="background-color: #90EE90; padding: 2px; border: 1px solid #333; display: flex; justify-content: space-between;"> 4 15 </div> <div style="background-color: #90EE90; padding: 2px; border: 1px solid #333;"> HDMI - HPD ON - 1920x1080p54 - NULL </div> | <div style="background-color: #90EE90; padding: 2px; border: 1px solid #333; display: flex; justify-content: space-between;"> 4 16 </div> <div style="background-color: #90EE90; padding: 2px; border: 1px solid #333;"> HDBT_70M - HPD OFF - 1920x1080p54 - NULL </div> |
|--|--|--|---|

Input: 6

| | |
|--|---|
| <div style="background-color: #90EE90; padding: 2px; border: 1px solid #333; display: flex; justify-content: space-between;"> 4 </div> <div style="background-color: #90EE90; padding: 2px; border: 1px solid #333;"> HDMI - HPD ON - 1920x1080p54 - EPSON PJ </div> | <div style="background-color: #90EE90; padding: 2px; border: 1px solid #333; display: flex; justify-content: space-between;"> 6 </div> <div style="background-color: #90EE90; padding: 2px; border: 1px solid #333;"> HDMI - HPD OFF - NoSignal - EPSON PJ </div> |
|--|---|

(2)、The input video signal switching to one or more Output , first clicking one input , then clicking one or more output . The upper right corner of the display corresponding to the input channel switch means switching successful or not.

(3)、Check Audio sync, when switching the video signal audio and video will be switched synchronization.

(4)、Clicking , Set interface will pop up the card.

- A、Cards power supply can be set.
- B、select output HDMI\DVI format.
- C、Choose HDCP on-off

(5)、Scene save and recall. Select scene save, then click save channel, scene can be saved OK. Select Scene call, then click on the corresponding storage channel then scene can be called out.

All switch
Close channel
Close all
Scene save
Scene call
☑Audio sync

Output: 6 to 15

| | | | |
|---|--|---|---|
| <div style="background-color: #90EE90; padding: 2px; border: 1px solid #333; display: flex; justify-content: space-between;"> 7 </div> <div style="background-color: #90EE90; padding: 2px; border: 1px solid #333;"> ◦ Power <input type="radio"/> OFF <input checked="" type="radio"/> ON ◦ Format <input checked="" type="radio"/> DVI <input type="radio"/> HDMI </div> | <div style="background-color: #90EE90; padding: 2px; border: 1px solid #333; display: flex; justify-content: space-between;"> 9 </div> <div style="background-color: #90EE90; padding: 2px; border: 1px solid #333;"> ◦ Power <input type="radio"/> OFF <input type="radio"/> ON ◦ Format <input type="radio"/> DVI <input checked="" type="radio"/> HDMI </div> | <div style="background-color: #90EE90; padding: 2px; border: 1px solid #333; display: flex; justify-content: space-between;"> 15 </div> <div style="background-color: #90EE90; padding: 2px; border: 1px solid #333;"> ◦ Power <input type="radio"/> OFF <input type="radio"/> ON ◦ Format <input type="radio"/> DVI <input checked="" type="radio"/> HDMI </div> | <div style="background-color: #90EE90; padding: 2px; border: 1px solid #333; display: flex; justify-content: space-between;"> 16 </div> <div style="background-color: #90EE90; padding: 2px; border: 1px solid #333;"> ◦ Power <input type="radio"/> OFF <input type="radio"/> ON ◦ Format <input type="radio"/> DVI <input checked="" type="radio"/> HDMI </div> |
|---|--|---|---|

Input: 6

| | |
|---|---|
| <div style="background-color: #90EE90; padding: 2px; border: 1px solid #333; display: flex; justify-content: space-between;"> 4 </div> <div style="background-color: #90EE90; padding: 2px; border: 1px solid #333;"> ◦ Power <input type="radio"/> OFF <input checked="" type="radio"/> ON ◦ Hdep <input type="radio"/> OFF <input checked="" type="radio"/> ON </div> | <div style="background-color: #90EE90; padding: 2px; border: 1px solid #333; display: flex; justify-content: space-between;"> 6 </div> <div style="background-color: #90EE90; padding: 2px; border: 1px solid #333;"> ◦ Power <input type="radio"/> OFF <input checked="" type="radio"/> ON ◦ Hdep <input checked="" type="radio"/> OFF <input type="radio"/> ON </div> |
|---|---|

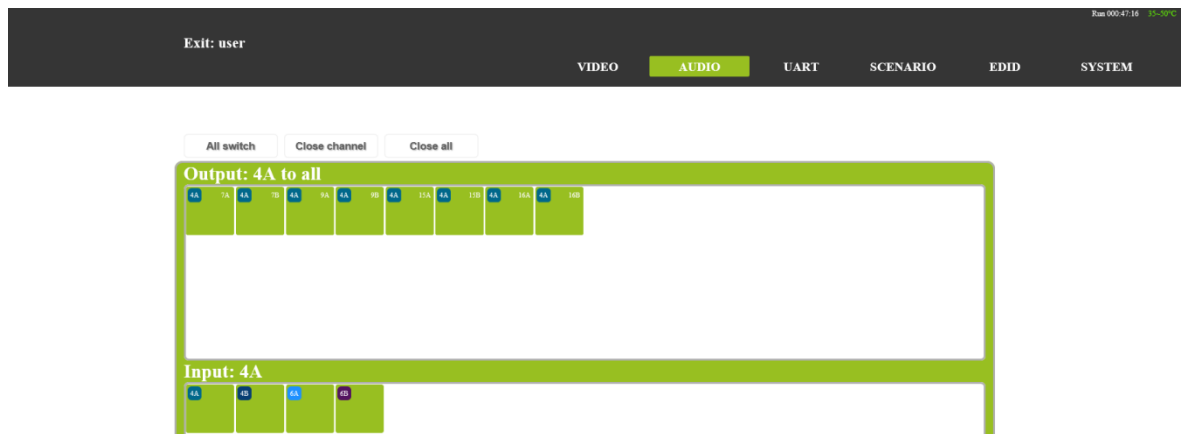
(6)、Audio switch(audio break away): A for internal audio, B for external audio.

① , click A, then clicking All switch, for Internal audio switch to both external and internal

② , click B, then clicking All switch, for external audio switch to both external and internal

③ , click A, then clicking A or B, for internal audio switch to A or B.

④, click B, then clicking A or B, for internal audio switch to A or B.



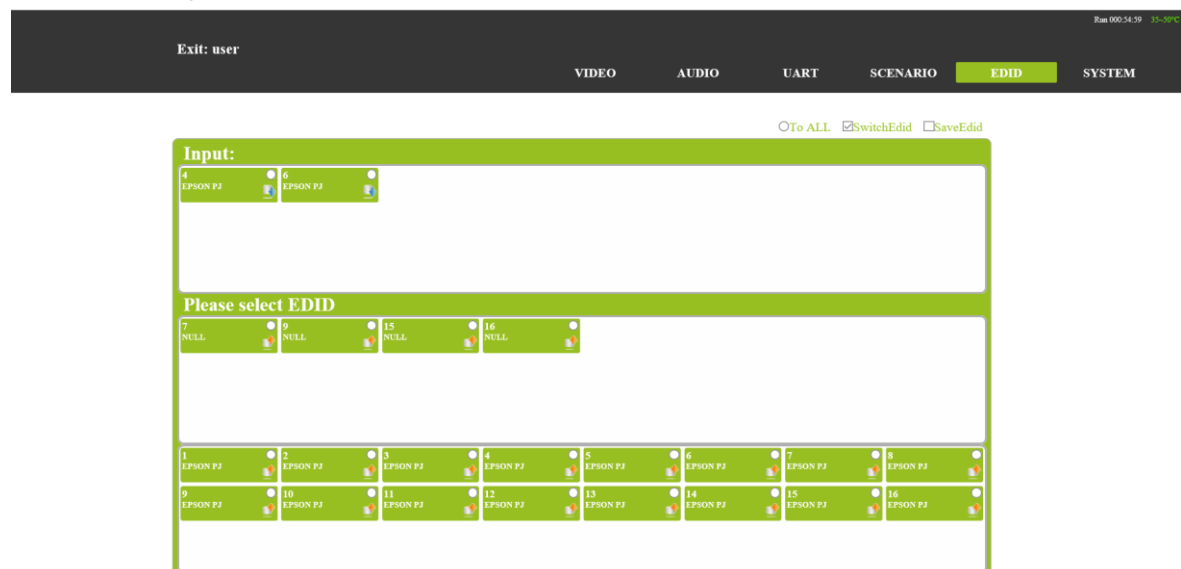
3.2 EDID options

(1)、Input EDID for input port save EDID;

(2)、Please select EDID, for output port read interface display device EDID;

(3)、Internal EDID, for the system built-in save EDID. Users can save 16 groups EDID.

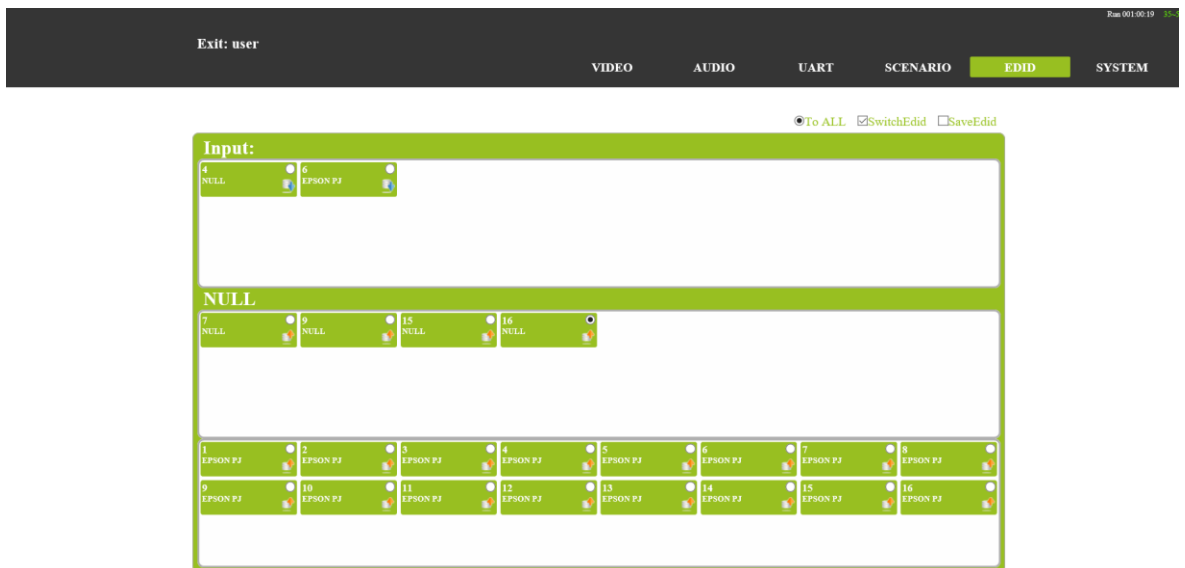
As shown in figure below.



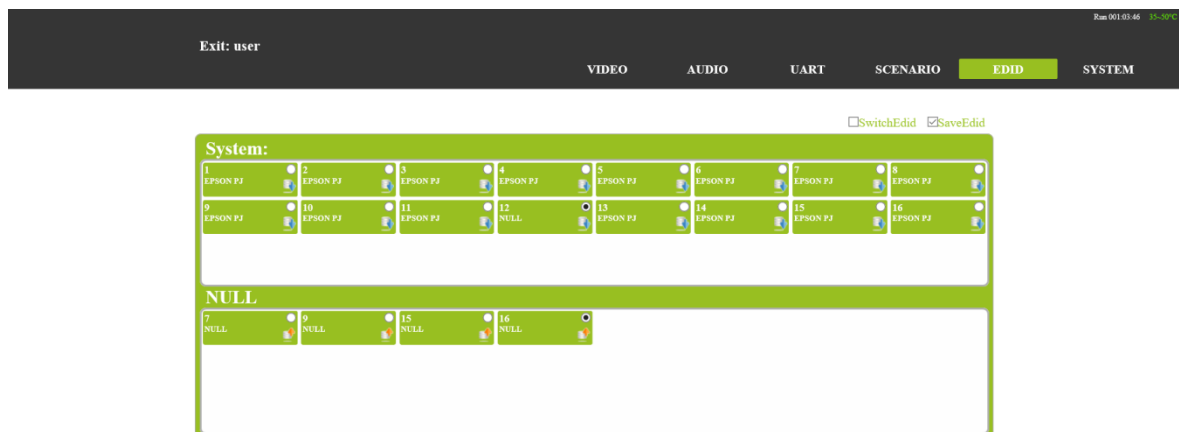
(4)、EDID update and save

EDID update: select output channel or system EDID option, click input channel will switch EDID to input channel. TO ALL will update the EDID to all input channels. As

shown in figure below.



EDID save: Select Save EDID interface, select output channel EDID, then Select system save EDID channel. Corresponding storage channel EDID displayed and output channel consistent said saved successfully. As shown in figure,

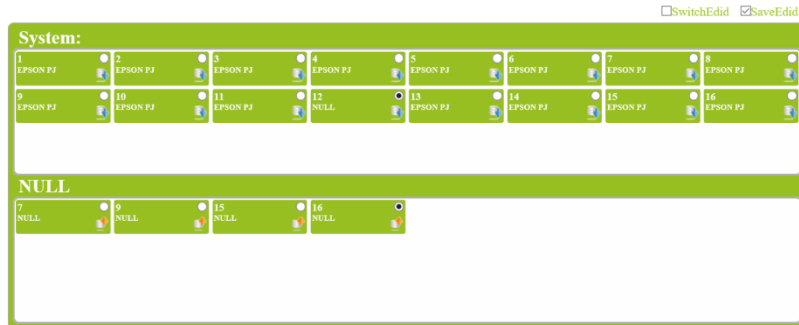


3.3 UART option

In this option users can switch the RS232 from HDBT input cards and HDBT output cards Serial port communication; It can realize RS232 pass through control function; first choose RX, then choose tx contact.

- (1)TX: output cards option
- (2)RX: input cards option.

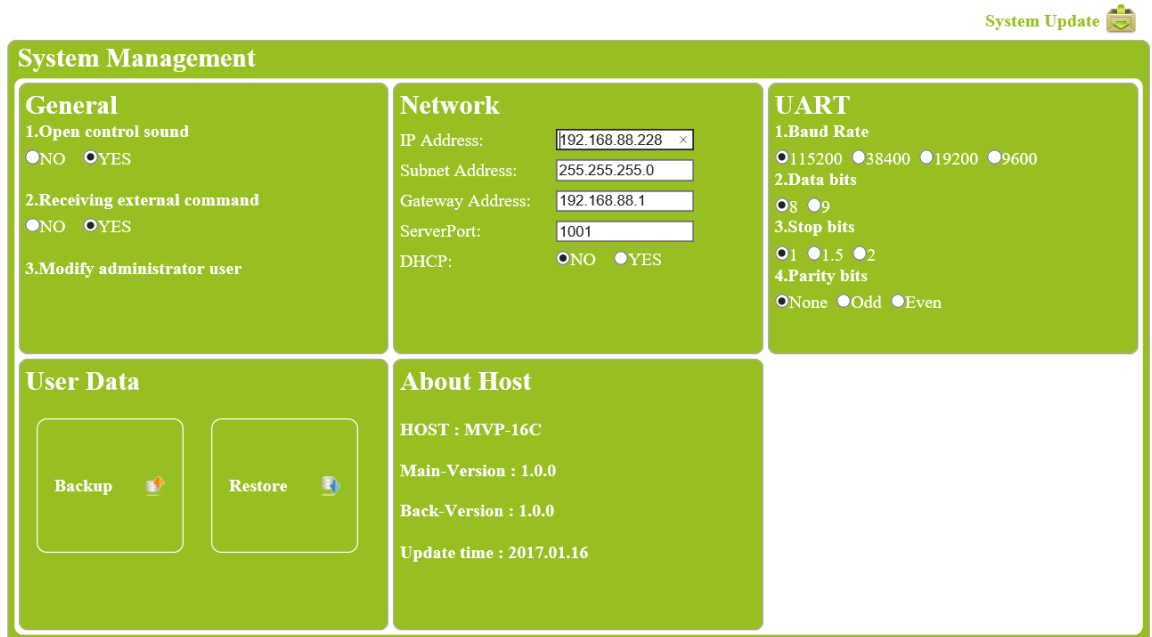
As shown in figure,



3.4 System option

Protect system settings: General settings, Network settings, UART settings, User data, About host, System Update.

- (1) 、 General: Buzzer, external command, account password modification Settings.
 - (2) 、 Network: IP address, gateway, subnet mask, port, DHCP Settings.
 - (3) 、 UART: Baud rate, data bits, stop bits, parity bits.
 - (4) 、 USER DATA: Data backup, data recovery.
 - (5) 、 About host: A host name, main control board firmware version, exchange board (back) firmware version, the system updated time.
 - (6) 、 System Update: The main board, exchange board, control card program.
- Before the system update, users need to login to confirm the operation.



Update the device

Main Back Control

Choose File No file chosen

Please select a file to update

Update

StartApp

WARNING : please do not access the web server again to ensure update stability

4、 product technical parameter

MVP-8C(N)/MVP-16C/MVP-32C is modular designed, users can choose cards according to the application configuration with different input and output. MVP-8C(N)/MVP-16C/MVP-32C support asymmetric configuration, all the input and output sockets support hot plug, when need to be replaced, users can directly replace the cards, and it does not affect the normal functions.

4.1 Matrix technical parameter



| Type | MVP-8C (N) | MVP-16C | MVP-32C | |
|---------------------------|---|--|--|--|
| Size | 2Urack mounted | 3Urack mounted | 5.5Urackmounted | |
| Port number | 8 | 16 | 32 | |
| Maximum AV in/out channel | 7~8 are fixation output channel; 1~6 are input or output channel | 13~16 are fixation output channel; 1~12 are input or output channel | 25~32 are fixation output channel; 1~24 are input or output channel | |
| Center control | Not support | | 1 | |

| | | | |
|--------------------------------|--|----------------------|--|
| number | | | |
| Power input | AC 100 - 240V 50Hz/60Hz | | |
| Power output | $\leq 5 \text{ A}$ | | |
| Power dissipation | $\leq 180 \text{ W}$ | $\leq 320 \text{ W}$ | |
| Fuse standard | 220 V 1.5A | | |
| Redundant power | ● | | |
| Storage temperature/humidity | $-20^{\circ}\text{C} \sim 85^{\circ}\text{C} / 20\% \sim 60\%$ | | |
| Operating temperature/humidity | $0^{\circ}\text{C} \sim 60^{\circ}\text{C} / 10\% \sim 80\%$ | | |
| Altitude limit | 0 ~ 2000m | | |
| Air pressure limit | $\leq 79.5 \text{ kPa}$ | | |
| Signal type | TMDS | | |
| Lever | $+0.6 \text{ V} \sim +1.2 \text{ V}$ | | |
| Maximum TMDS bandwidth | 3.2G bit/s | | |
| Maximum connector bandwidth | 3.2G bit/s | | |
| Maximum audio sampling | 48kHz | | |
| Maximum color | 1080P 36 bit/px; 4K 24 bit/px | | |
| Port impedance | $50 \Omega / 100 \Omega$ | | |
| Clock recovery | Auto | | |
| DDC protocol | DDC DDC2B | | |
| DDC lever | 5 Volts p-p(TTL) | | |
| Switching time | seamless $\leq 1\text{s}$; common $\leq 5\text{s}$ | | |
| Serial port | 1-bidirectional RS-232, 3PIN Phoenix (female) | | |
| Port define | PIN 1:TX PIN 2:GND PIN 3:RX | | |
| Baud rate | 9600~115200 (default) , 8 data bits, 1 stop bit, none, | | |
| Control protocol | ASCII code | | |
| LAN port | RJ-45 | | |

| | | |
|---------------------------|-------------------------------------|--|
| LAN data rate | 10/100BaseT, half/full duplex | |
| Ethernet support protocol | ICMP, ARP, IP, TCP, UDP, DHCP, HTTP | |
| Update port | RJ45 | |
| Update way | browser | |
| Cooling system | Cool wind | |

4.2 Cards technical parameter

| Card version | Type | Video signal type | Resolution | | | Seamless switching | EDID/HDCP | Control signal/POE | Audio embedded | Status |
|----------------|------|-------------------|------------|------|----|--------------------|-----------|--------------------|----------------|--------|
| | | | HDTV | VESA | 4K | | | | | |
| MVPS-I-HDMI | I | HDMI | ● | ● | ● | × | ● | × | ● | Sale |
| MVPS-O-HDMI | O | HDMI | ● | ● | ● | × | ● | × | ● | Sale |
| MVPS-I-HDBT1 | I | HDBT | ● | ● | ● | × | ● | ● | ● | Sale |
| MVPS-O-HDBT1 | O | HDBT | ● | ● | ● | × | ● | ● | ● | Sale |
| MVPS-I-HDBT2 | I | HDBT | ● | ● | ● | × | ● | ● | ● | Sale |
| MVPS-O-HDBT2 | O | HDBT | ● | ● | ● | × | ● | ● | ● | Sale |
| MVPS-I-VGA- | I | VGA | ● | ● | × | × | × | × | ● | Sale |
| MVPS-I-YPbPr | I | YPbPr | ● | × | × | × | × | × | ● | Sale |
| MVPS-I-CVBS | I | CVBS | ● | × | × | × | × | × | ● | Sale |
| MVPS-I-DVI | I | DVI | ● | ● | × | × | ● | × | ● | Sale |
| MVPS-I-SDI | I | 3G SDI | ● | × | × | × | ● | × | ● | Sale |
| MVPS-I-DP | I | DP | ● | ● | ● | × | ○ | × | ● | |
| MVPS-I-OPTIC | I | Optic | ● | ● | ● | × | ● | ○ | ● | Sale |
| MVPS-O-HDMI-S | O | HDMI-S | ● | ● | ● | ● | ● | × | ● | Sale |
| MVPS-O-DVI-S | O | DVI-S | ● | ● | ● | ● | ● | × | ● | Sale |
| MVPS-O-DP-S | O | DP-S | ● | ● | ● | ● | ● | × | ● | |
| MVPS-O-SDI-S | O | 3G SDI-S | ● | × | × | ● | × | × | ● | Sale |
| MVPS-O-HDBT-S | O | HDBase T-S | ● | ● | ● | ● | ● | ● | ● | Sale |
| MVPS-O-OPTIC-S | O | Optic-S | ● | ● | ● | ● | ● | ○ | ● | Sale |

| | | | | | | | | | | |
|----------------|---|---------|---|---|---|---|---|---|---|------|
| MVPS-0-VGA-S | 0 | VGAS | ● | × | × | ● | × | × | ● | Sale |
| MVPS-0-YPBPR-S | 0 | YPBPR-S | ● | × | × | ● | × | × | ● | Sale |
| MVPS-0-CVBS-S | 0 | CVBS-S | ● | × | × | ● | × | × | ● | Sale |

note:

- “I” means input card, “0” means output card
- ● : support all character
- ○ : support portion character
- × × : not support
- HDTV resolution: 480i、576i、720p、1080i、1080p
- VESA resolution: 800×600 ~ 1920×1200
- 4k resolution: 3840×2160

5、 card description

5.1 HDBaseT card

MVP-8C(N)/MVP-16C/MVP-32C HDBaseT cards can be used to transmit video/audio/RS232/power with a single CAT 6 shielding cable as long as 90 meters. HDBaseT cards also have the function of embed/de-embedded audio, audio in the cards can be switched separately. HDBaseT cards support EDID management and support standard HDCP. Cards support RS232 pass through.

Technical parameters

| The board type | HDBT1 input | HDBT2 input | HDBT1 output | HDBT2 output |
|-------------------------------------|---|-------------|---------------|--------------|
| number/Signal types | A HDBaseT audio and video signals and control signals | | | |
| The connector type | RJ-45 8P line terminal | | | |
| Recommend the cable type | STP CAT6/CAT6A and above | | | |
| 1080P Maximum transmission distance | ≤ 60m | | ≤ 90m | |
| 4KMaximum transmission | ≤ 30m(CAT6A) | | ≤ 60m (CAT6A) | |

| | |
|-------------------------------------|---|
| distance | |
| Support video standard | HDTV 1080p @60Hz; VESA 1920×1200; 4K 30Hz |
| Support color space | RGB; YCbCr(4:2:2) YCbCr(4:4:4) |
| Seamless switching | No support |
| EDID management | DDC channels, EDID manager |
| HDCP management | Settings HDCP authorization or not |
| Board type | HDBT1 input HDBT2 input HDBT1 output HDBT2 output |
| Audio embedded | embedded De-embedded |
| Port hot plug | support |
| Power supply | Single channel transceiver power supply DC +28V or standard PSE |
| Storage temperature/humidity | -20°C ~ 85°C / 5%~40% RH |
| Work temperature/humidity | 0°C ~ 50°C / 10%~70% RH |
| Note | Support RS232 pass through, terminal blocks, more flow |

Appearance of the structure

HDBT1 input/HDBT2input as shown in the figure



HDBT1 output/HDBT2 output as shown in the figure



Light is state

| light | describe | function |
|-------|--------------|---|
| STA | Signal light | Always off — The corresponding channel has no signal input Normally on - the corresponding channel has signal input |
| PWR | Power light | Always off - corresponding interface card does not work, power off. Normally on - board electricity work accordingly |

5.2 HDMI cards

The HDMI interface card can embed separated audio, support audio embedded solution, audio can be switched independently (break away). Support HDCP2.2, Input card support EDID information update operations and output card support EDID read operations, which make the EDID management more effective.

Technical parameters

| The board type | HDMI input | HDMI output | |
|-------------------------------|---|----------------------|--|
| number/Signal types | A HDMI signal | A HDMI signal | |
| The connector type | HDMI Type A terminal | HDMI Type A terminal | |
| Recommend the cable type | The standard 26AWG HDMI 2.0 | | |
| Maximum transmission distance | ≤ 10m | | |
| Support video standard | HDTV 1080p @60Hz; VESA 1920×1200; 4K@60Hz | | |
| Support color space | RGB; YCbCr(4:2:2) YCbCr(4:4:4) | | |
| Seamless | Not support | Support | |

| | |
|---------------------------------------|---|
| switching | |
| EDID management | DDC channels, EDID manager |
| HDCP management | Settings HDCP authorization or not |
| Audio embedded | embedded De-embedded |
| Port hot plug | support |
| Power supply | DC +5V 0.25A(1.25W) |
| Storage temperature/humidity | -20°C ~ 85°C / 5%~40% RH |
| operating temperature/humidity | 0°C ~ 50°C / 10%~70% RH |

Appearance of the structure

HDMI input as shown in the figure



HDMI output as shown in the figure



Technical parameters

| light | describe | function |
|-------|--------------|--|
| STA | Signal light | Always off — The corresponding channel no signal input Normally on - the corresponding channel signal input |
| PWR | Power light | Always off - corresponding interface card does not work, power off Normally on - board electricity work accordingly |

5.3 DVI card

Technical parameter

| The board type | MVPS-I1-DVI | MVPS-O1-DVI-S |
|-------------------------------|------------------------------------|----------------|
| number/Signal types | 1 channel DVI-D signal | |
| The connector type | DVI-I 24+5 | |
| Recommend the cable type | Standard 26AWG | |
| Maximum transmission distance | ≤ 10m | ≤ 10m |
| Support video standard | HDTV 1080p @60Hz; VESA 1920×1200 | 1080p/720p60Hz |
| Support color space | RGB; YCbCr(4:2:2) YCbCr(4:4:4) | |
| Seamless switching | Not support | Support |
| EDID management | DDC channels, EDID manager | Not support |
| HDCP management | Settings HDCP authorization or not | Not support |
| Audio embedded | embedded | De-embedded |
| Port hot plug | Support | |
| Power supply | DC +5V 0.25A(1.25W) | |
| Storage temperature/humidity | -10℃ ~ 70℃ / 5%~40% RH | |

| | |
|--------------------------------|-------------------------|
| ty | |
| operating temperature/humidity | 0°C ~ 50°C / 10%~70% RH |

Appearance of the structure

DVI input as shown in the figure



DVI output as shown in the figure



Technical parameters

| light | describe | function |
|-------|--------------|--|
| STA | Signal light | Always off — The corresponding channel no signal input Normally on - the corresponding channel signal input |
| PWR | Power light | Always off - corresponding interface card does not work, power off Normally on - board electricity work accordingly |

5.4 Optic card

Technical parameter

| The board type | MVPS-I1-Optic | MVPS-O1-Optic |
|--------------------------------|--|---------------|
| number/Signal types | 1-core Multi Mode Fiber Video Extender | |
| The connector type | LC fiber optic port | |
| Recommend the cable type | 2-core one mode G652.D or Multi Mode OM3 | |
| Maximum transmission distance | single mode \leq 1500m or multi mode \leq 300m | |
| Support video standard | HDTV 1080p @60Hz; VESA 1920 \times 1200 | |
| Support color space | RGB; YCbCr(4:2:2) YCbCr(4:4:4) | |
| Seamless switching | Not support | Support |
| EDID management | Not support | |
| HDCP management | Not support | |
| Audio embedded | embedded | De-embedded |
| Port hot plug | Support | |
| Power supply | Not support | |
| Storage temperature/humidity | 0 $^{\circ}$ C ~ 60 $^{\circ}$ C / 5%~40% RH | |
| operating temperature/humidity | 0 $^{\circ}$ C ~ 45 $^{\circ}$ C / 10%~70% RH | |
| | | |
| | | |

Appearance of the structure

Optic input as shown in the figure



Optic output as shown in the figure



Technical parameters

| light | describe | function |
|-------|--------------|--|
| STA | Signal light | Always off — The corresponding channel no signal input Normally on - the corresponding channel signal input |
| PWR | Power light | Always off - corresponding interface card does not work, power off Normally on - board electricity work accordingly |

5.5 SDI card

Technical parameter

| The board type | MVPS-I1-3GSDI | MVPS-01-3GSDI-S |
|----------------|---------------|-----------------|
|----------------|---------------|-----------------|

| | | |
|---------------------------------------|--|-------------|
| number/Signal types | 1channel SD/HD/3G - SDI signal | |
| The connector type | BNC | |
| Recommend the cable type | 75-5 RG6/RG59 | |
| Maximum transmission distance | RG6 ≤ 120m; RG59 ≤ 80m | |
| Support video standard | SMPTE-259M/ 274M/292M/296M/ 372M/424M/425M | |
| Support color space | RGB; YCbCr(4:2:2) YCbCr(4:4:4) | |
| Seamless switching | Not support | Support |
| EDID management | Not support | |
| HDCP management | Not support | |
| Audio embedded | embedded | De-embedded |
| Port hot plug | support | |
| Power supply | Not support | |
| Storage temperature/humidity | 0°C ~ 60°C / 5%~40% RH | |
| operating temperature/humidity | 0°C ~ 50°C / 10%~70% RH | |
| | | |
| | | |

Appearance of the structure

SDI input as shown in the figure



SDI output as shown in the figure



Technical parameters

| light | describe | function |
|-------|--------------|--|
| STA | Signal light | Always off — The corresponding channel no signal input Normally on - the corresponding channel signal input |
| PWR | Power light | Always off - corresponding interface card does not work, power off Normally on - board electricity work accordingly |

5.6 CVBS card

Technical parameter

| | | |
|--------------------------|-----------------------|--------------|
| The board type | MVPS-I1-CVBS | MVPS-01-CVBS |
| number/Signal types | 1 channel CVBS signal | |
| The connector type | BNC | |
| Recommend the cable type | Standard 26AWG | |

| | | |
|---------------------------------------|-------------------------|-------------|
| Maximum transmission distance | ≤ 10m | |
| Support video standard | NTSC/PAL | |
| Support color space | RGB | |
| Seamless switching | Not support | Support |
| EDID management | Not support | |
| HDCP management | Not support | |
| Audio embedded | embedded | De-embedded |
| Port hot plug | Support | |
| Power supply | Not support | |
| Storage temperature/humidity | 0°C ~ 60°C / 5%~40% RH | |
| operating temperature/humidity | 0°C ~ 50°C / 10%~70% RH | |
| | | |
| | | |

Appearance of the structure

CVBS input as shown in the figure



CVBS output as shown in the figure



Technical parameters

| light | describe | function |
|-------|--------------|--|
| STA | Signal light | Always off — The corresponding channel no signal input Normally on - the corresponding channel signal input |
| PWR | Power light | Always off - corresponding interface card does not work, power off Normally on - board electricity work accordingly |

5.7 YPBPR card

Technical parameter

| The board type | MVPS-I1-YPBPR | MVPS-O1-YPBPR-S |
|-------------------------------|------------------------|-----------------|
| number/Signal types | 1 channel YPBPR signal | |
| The connector type | DB15 | |
| Recommend the cable type | Standard 26AWG | |
| Maximum transmission distance | ≤ 10m | |

| | | |
|---------------------------------------|-------------------------|-------------|
| Support video standard | SJT 11333-2006 | |
| Support color space | RGB | |
| Seamless switching | Not support | Support |
| EDID management | Not support | |
| HDCP management | Not support | |
| Audio embedded | embedded | De-embedded |
| Port hot plug | Not support | |
| Power supply | Support | |
| Storage temperature/humidity | 0°C ~ 60°C / 5%~40% RH | |
| operating temperature/humidity | 0°C ~ 50°C / 10%~70% RH | |
| | | |
| | | |

Appearance of the structure

YPBPR input as shown in the figure



YPBPR output as shown in the figure



Technical parameters

| light | describe | function |
|-------|--------------|--|
| STA | Signal light | Always off — The corresponding channel no signal input Normally on - the corresponding channel signal input |
| PWR | Power light | Always off - corresponding interface card does not work, power off Normally on - board electricity work accordingly |

5.8 VGA card

Technical parameter

| The board type | MVPI-1-VGA | MVPI-1-VGA-S |
|-------------------------------|----------------------|--------------|
| number/Signal types | 1 channel VGA signal | |
| The connector type | DB15 | |
| Recommend the cable type | Standard 26AWG | |
| Maximum transmission distance | ≤ 10m | |
| Support video standard | VESA/ HDTV | |

| | | |
|---------------------------------------|-------------------------|-------------|
| Support color space | RGB | |
| Seamless switching | Not support | Support |
| EDID management | Not support | |
| HDCP management | Not support | |
| Audio embedded | embedded | De-embedded |
| Port hot plug | Support | |
| Power supply | Not support | |
| Storage temperature/humidity | 0°C ~ 60°C / 5%~40% RH | |
| operating temperature/humidity | 0°C ~ 50°C / 10%~70% RH | |
| | | |
| | | |

Appearance of the structure

VGA input as shown in the figure



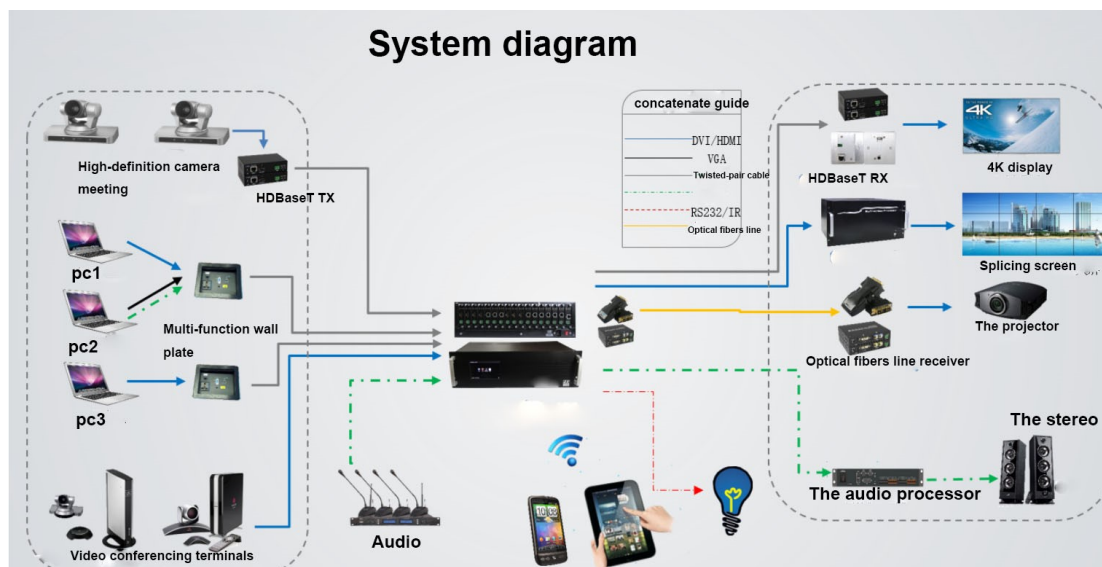
VGA output as shown in the figure



Technical parameters

| light | describe | function |
|-------|--------------|--|
| STA | Signal light | Always off — The corresponding channel no signal input Normally on - the corresponding channel signal input |
| PWR | Power light | Always off - corresponding interface card does not work, power off Normally on - board electricity work accordingly |

6、 System diagram



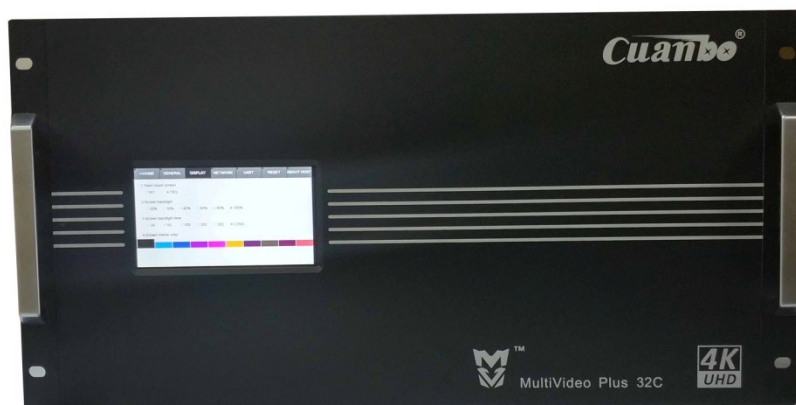
MVP-8C



MCP-16C



MVP-32C



Safety Information



To reduce the risk of electric shock, do not expose this product to rain or moisture.



Do not modify the wall plug. Doing so will void the warranty and safety features.



If the wall plug does not fit into your local power socket, hire an electrician to replace your obsolete socket.



This equipment should be installed near the socket outlet and the device should be easily

accessible in the case it requires disconnection

Warranty

Warranty time is two years and from the date of original shipment. This warranty shall be void if a serial number has been removed from the product.

Upon determination of a legitimate defect covered by this warranty, user should bear the transport cost during the warranty.

If product is out of warranty then repair charge is required.

Minimum repair charge: 10% of the retail price plus the cost of failed components. We will repair the failed product after repair cost has been approved by Customers and proper financial arrangements are made. Customer must cover round trip shipment expenses.

Return and RMA Policies

Shipments will not be received and processed for warranty repair/replacement without an RMA (Return Materials Authorization).