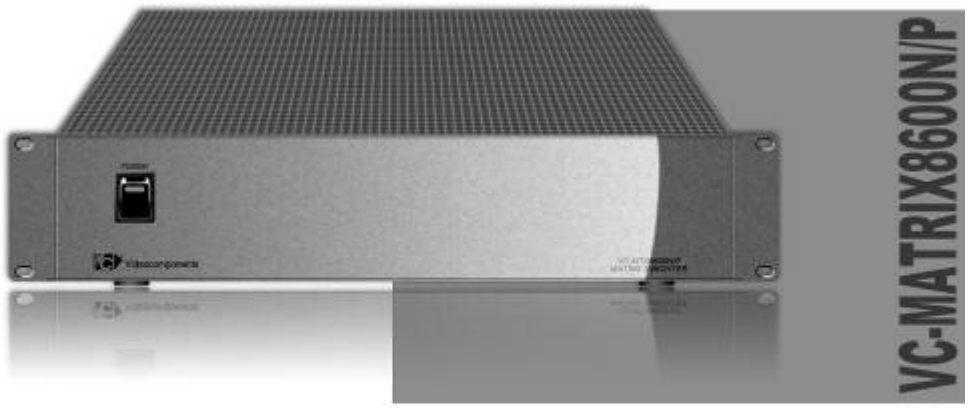

VC-MATRIX8600N/P

GERMANY VC VIDEOCOMPONENTS®
Research-Design-OEM-Production

Attention

- The installation, connecting and operation of VC-MATRIX8600N/P Middle Audio/Video Switching Matrix shall be operated by the qualified professional who has lots of electronic knowledge**.**
- As a sophisticated electronic equipment, all the maintenance of matrix shall be operated by the qualified professional. Opening the machine without authorization is forbidding.
- Please use the equipment under the condition as follows:

  Temperature: -10 to +45 , Humidity: < 95%, Input voltage: 110V/220V AC(±10%) 50Hz/60Hz(±10%)
- Handle with care! Avoid heavy collision and vibration.
- In no event, you could leave it in humid/rain area and start the machine. If the equipment is affected with moisture, shut down the power immediately. The moisture will damage the equipment and cause an electric shock.
- Cleaning the equipment with strong cleanser is prohibited. Please use dry cloth or PLEDGE.
- Please read this operating manual carefully before use. And keep this manual properly.

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Chapter one introduction of product

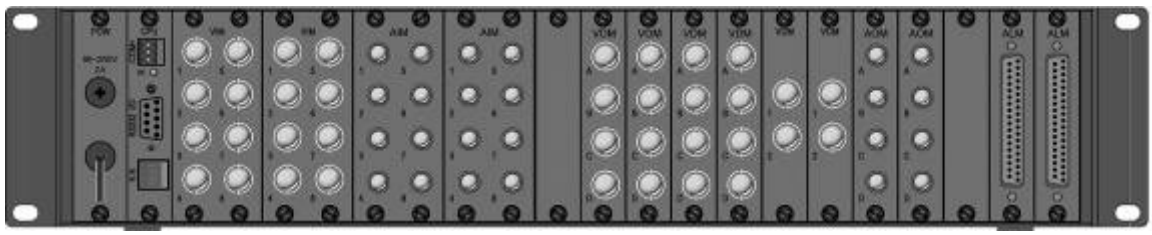
VC-MATRIX8600N/P Middle Audio/Video Switching Matrix is a modular audio/video switch with high integrated level, flexible configuration and excellent performance.VC-MATRIX8600N/P Middle Audio/Video Switching Matrix is easily to connect with VC system. It can control up to 64 cameras, 64 alarm inputs, 16 monitors, 64 audio inputs and 4 audio outputs via a random controller in the VC-SC1000 system with the capabilities of audio/video synchronous switching, the Chinese/English character generating and adjustable volume of the audio output.

VC-MATRIX8600N/P Middle Audio/Video Switching Matrix adopts the structure of modular board, with19 inch width, 2U standard height. The Matrix offers available 21 slots, the user can select the modules and easily buildup switch device with required capability and function. Its high performance memory can automatic protect the configuration when shut-down suddenly. And the RS 485 PORT with photoelectricity segregation function could ensure the reliability of the system.

This device possess the one-to-one alarm controlling module, 64-way alarm input, 2-way alarm output (on-off output).

Product appearance •

• front Ž



• rear Ž

Chapter two characteristic of product

1 • Video input

Up to 64 camera inputs

2 • Video output

Up to 16 monitor outputs with the Chinese/English character generating capability

3 • Audio Input

Connect up to 64 audio detectors

4 • Audio Output

Connect up to 16 speakers

5 • Switching Mode

Each image of the monitor can be independently set as switching mode or holding mode. The switching mode can be divided into 4 modes such as automatic switch, manual switch, programming switch and Salvo Switching.

6 • Alarm Input

Up to 64 alarm inputs

7 • Protection of shut-down

VC-MATRIX8600N/P Matrix can resume the working status in case it shutdown suddenly. • memory function Ž

8 • Standard 19 inch 2U case, easy installation.

9 • OSD MENU • support coordination of VDM characters Ž

Chapter three parameter

1 • Power Supply • AC 96V • 260V • 50HZ/60HZ±10%

2 • Consumed power • ž 50W

3 • Video Input Amplitude • 1Vp-p • 75• load, unbalanced Ž

4 • Video Output Amplitude • 1Vp-p • 75• load, unbalanced Ž

5 • Video Signal-to-Noise Ration • 50db • weighted Ž

6 • Video Isolation • 50db • weighted Ž

7 • Video Bandwidth • 12MHz • -3dB Ž

8 • Audio Input Amplitude • 0 • 2Vp-p

9 • Audio Output Power • 0.5W • 8• Ž

10 • Audio Signal-to-Noise Ration • 48dB • weighted • input S/N 50dB Ž

11 • Audio Isolation • 48dB • weighted Ž

12 • Audio Bandwidth • 20KHz • -3dB Ž

13 • Communication Mode • RS485 half-duplex and bi-directional bus 9600bit/s • default setting • please contact the supplier as to specific requirement Ž

14 • Temperature • -10 • +50

15 • Humidity • ž 95%RH • non condensing Ž

16 • Dimension • 444×95×270mm

17 • Weight • 7kg

Remark • The weight of Matrix is approximate one which is in accordance with the configuration of system. The weight is subject to change without notice.

CHAPTER FIVE module connecting instruction and system schematic diagram

5Ž1Ž Module connecting instruction

5.1.1 POWER SUPPLY MODULE • POW • CONNECTING DIAGRAM

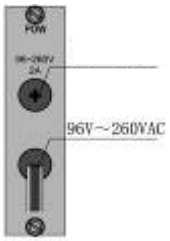


图 5.1

As shown in Figure 5.1, with input 96V • 260V • 50HZ/60HZ±10% A.C. patchboard provide the power supply to the whole system. The patchboard has a fuse box (in which 2A fuse is fitted, with the function of protecting the whole system and other key parts through melting the fuse, which will lead to shut the electricity off, when external instant voltage varies significantly under certain special circumstances.)

5.1.2 CPU MODULE • CPU • CONNECTING DIAGRAM

As shown in Figure 5.2, there are three interfaces on CPU Module RS485 Port (COM): RS485 is a half-duplex bidirectional bus, 9600bit/s (default setting, the users may contact supplier when special requirements occurs. RS-485 bus is of its particular feature of high noise-proof, wide range of conjugated module, long transmit distance and conflict protection etc.). RS-485 bus is connected with keyboard and takes control over matrix through master keyboard. Be careful with the cathode and anode when splicing. RS232I/O Interface: Using the accessory RS232 (9 Pins) serial port cord to connect this interface with the relevant interface of the PC. It serves to upgrade the software and generate characters on line. K.B Interface • A backup Interface which is not put into use normally, used mainly for VC keyboard compatibility.

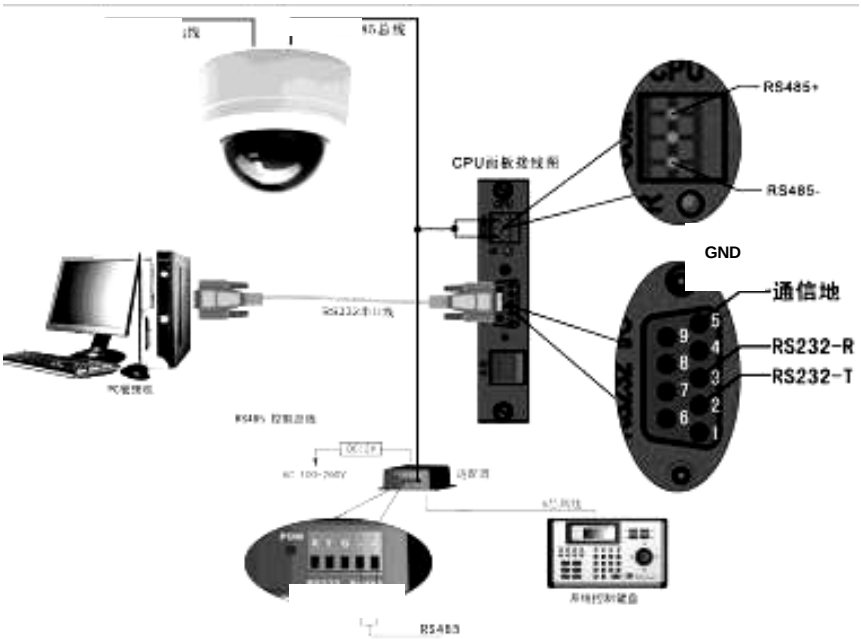
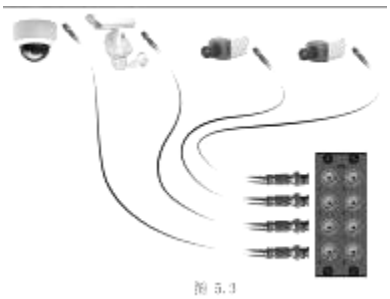


图 5.2

5.1.3 MATRIX VIDEO INPUT MODULE • VIM • CONNECTING DIAGRAM



As shown in Figure 5.3, each camera can be connected to BNC socket of VIM board through video cable with both ends - BNC plug, send the video signal to VIM.

5.1.4 MATRIX AUDIO INPUT MODULE • AIM • CONNECTING DIAGRAM

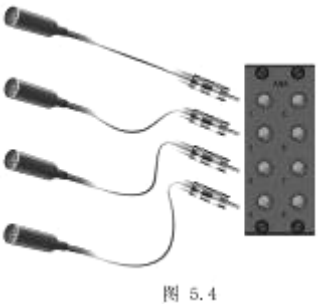


图 5.4

As shown in Figure 5.4, each audio collector can be connected to AIM board through audio cable, send the audio signal to VIM.

5.1.5 MATRIX VIDEO OUTPUT MODULE • VOM • CONNECTING DIAGRAM

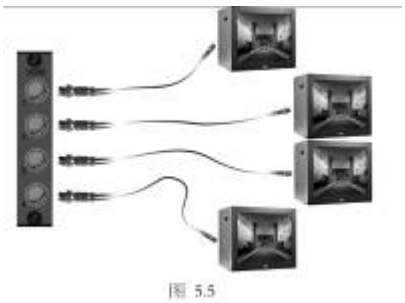
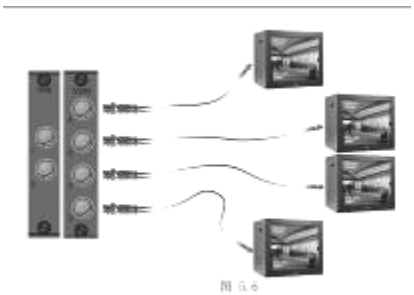


图 5.5

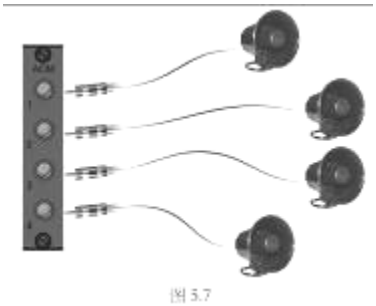
As shown in Figure 5.5, through the video cable with both ends - BNC plug, the user can connect the VOM to Monitor. Thus, the video signal will be transmit from VOM to Monitor.

5.1.6 MATRIX VIDEO CHARACTER OUTPUT MODULE • VDM • CONNECTING DIAGRAM

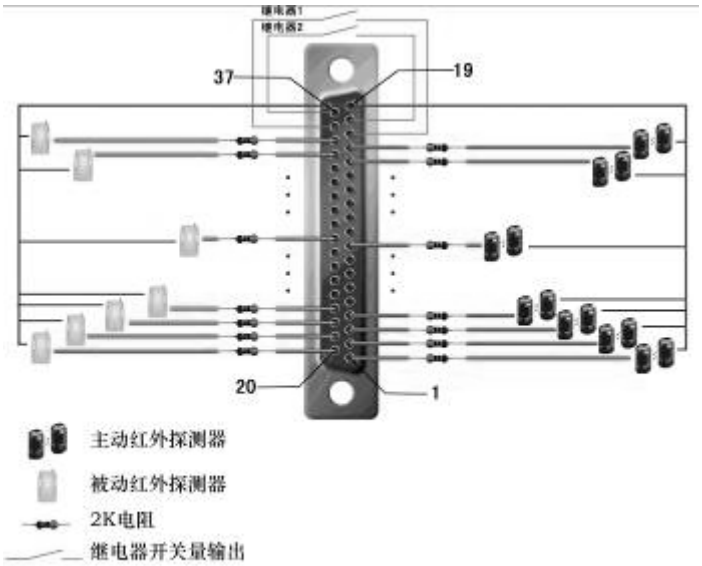


As shown in Figure 5.6, through the video cable with both ends - BNC plug, the user can connect the VDM to Monitor. Thus, the video signal will be transmit from VDM to Monitor. (The connecting way of VDM and VOM are the same. The difference between them is that VOM does not include the character display, while VDM has it.

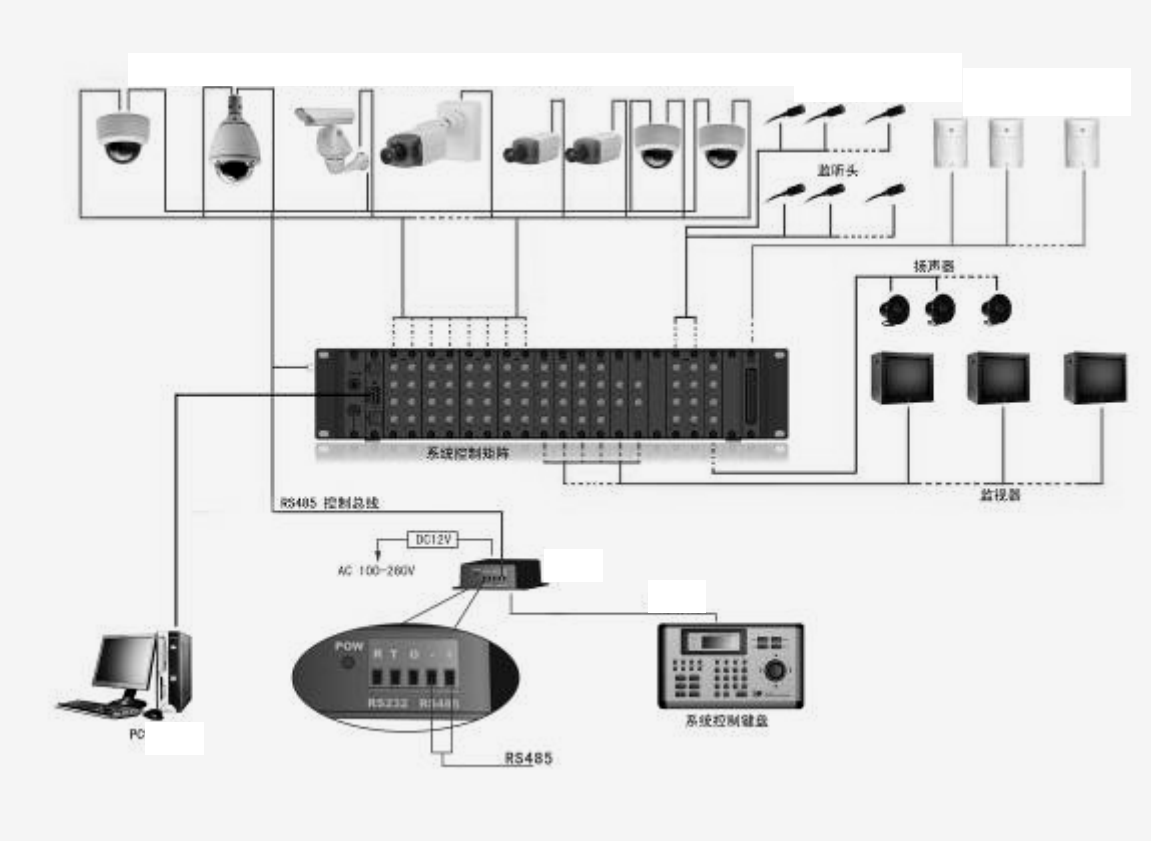
5.1.7 MATRIX AUDIO OUTPUT MODULE • AOM • CONNECTING DIAGRAM

 图 5.7	As shown in Figure 5.7, through the audio cable with, the user can connect the AOM to speaker. Thus, the audio signal will be transmit from AOM to speaker.

5.1.8 32-WAY ALARM SYSTEM MODULE • ALM • CONNECTING DIAGRAM

 图 5.8	As shown in Figure 5.8, weld the parts DB-37(Pin) per request and then install it on alarm system module. DB-37(Pin)'s connection point 1 • 16 and connection point 20 • 35 need to be connected with signal cable of alarm detector by serial number with a 2k resistance in series. DB-37(Pin)'s connection point 19 needs to be connected with earth connection of alarm detector. DB-37(Pin)'s two relays• first relay: 17&36, second:18&37 Žcan deliver on-off signal. First relay correspond to 1~16 way alarm signal, second relay correspond to 17~32way alarm signal.

5 Ž 2 Ž **SIMPLE CONNECTING DIAGRAM OF SYSTEM**



CHAPTER SIX CONFIGULATION

The VC-MATRIX8600N/P Middle Audio/Video Switching Matrix is the audio/video switching equipment with modular construction. Configurations can be easily modified and expanded as per your various requirements. Please be noted that the number of modular circuit board contained in one single machine is limited. 21 slots are available to the utmost. Each modular circuit board may need to occupied 2 or 1 slots, the details please refer to below.

Circuit Board	Slots per unit(H)
CPU Module	1
Video Input Module (8 way)	2
Audio Input Module (8 way)	2
Video Output Module (4 way)	1
Video Character Generating Module (4 way)	1
Audio Output Module (4 way)	1
Alarm Module (32 way)	1

CHAPTER SEVEN SYSTEM INSTALLATION AND OPERATION GUIDE

The system must be installed by the experienced technician and the installation should be in the light of below guideline strictly:

1) Fix the VC-MATRIX8600N/P Audio/Video Switching Matrix on the frame.

2) The connection of the cameras: connect cameras to the camera input connector (BNC) of the video input module.

3) The connection of the monitors: connect monitors to the monitor output connector (BNC) of video output module.

4) Connect the “COM”RS485 signal port with the system RS485 communication bus (Notice the +/- polarity).

5) Connect the RS232I/O port with PC through serial port line. It could be used to upgrade software online and generate characters.

6) Expandable to the input and the output

Please order the corresponding modular circuit board and the fittings from the supplier as per your requirements.

The system must be installed by the experienced technician according to the additional manual of the fittings installation.

All the operations of the VC-MATRIX8600N/P switching Matrix must be operated on the VC-SC1000M/VC-SC2000 main system controller. Please refer to "Operational Guide of the VC-SC1000 Main System Controller" for the details.

CHAPTER EIGHT TROUBLESHOOT

Most problems encountered in the course of using VC-MATRIX8600N/P Middle Audio/Video Switching Matrix may be relevant to the incorrect hardware installation. Therefore • before claiming maintenance, please read the following text, then look up the solutions.

1 • Problems during booting

Trouble • VC-MATRIX8600N/P Middle Audio/Video Switching Matrix cannot put through power supply.

to check whether the connection between power cable and socket is ok.

to check the fuse in the back of the equipment is in good condition or not.

2 • Problems during running/operating

2Ž1 Trouble • No image displayed on designated monitor

If the image of the camera can't be displayed on random monitor, check the camera and the connection of the camera with the audio/video switching matrix.

If the monitor can't select a certain camera, check whether the image has been deleted.

to check the malfunction of monitor.

2Ž2 Trouble • Image of the designated monitor can't be switched.

to check whether the monitor is on the switching mode.

reset the switching time.

to check whether the images of the monitor are all deleted.

2Ž3 Trouble • No response to manual switch

to check whether the monitor is selected.

to check whether the monitor No. has been locked.

to check whether the indicator of the "CPU" will be blinking when operate, if not, check whether the connection of communication interface of the switching matrix is proper.

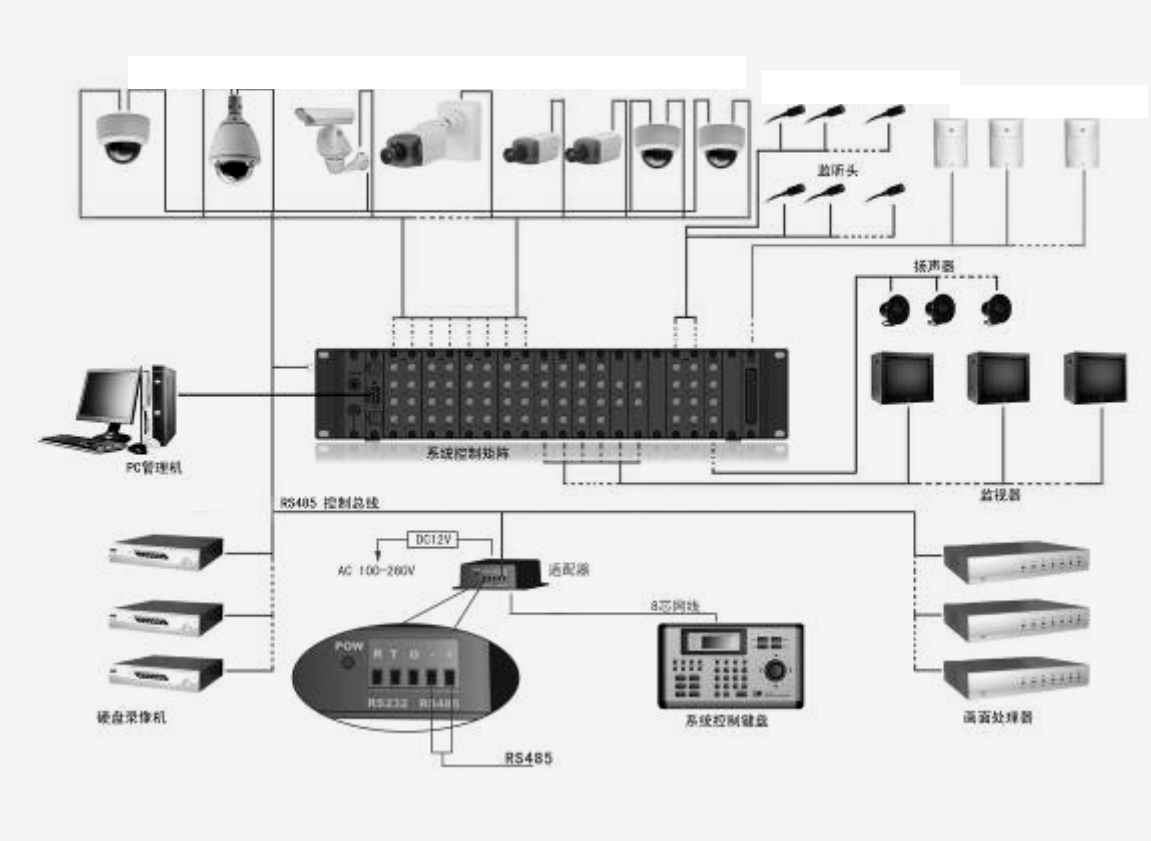
Other malfunction, please contact vendor so as to access further information.

APPENDIX

APPENDIX ONE: PARTICULAR OPERATION TABLE BETWEEN VC-SC1000M KEYBOARD AND VC-MATRIX8600N/P MIDDLE MATRIX

Matrix Function	VC-SC1000M operation	Remark
On/Off Time Display	ON/OFF+MON+1+ENTER	
On/Off image character Display	ON/OFF+MON+2+ENTER	
On/Off Cam Monitor address character Display	ON/OFF+MON+3+ENTER	
Matrix default setting	ON +MON+8+ENTER	
Menu On/Off	ON/OFF +MON+89+ENTER	
Menu Selection	PREV or NEXT	
Menu Setting	HOLD	

APPENDIX TWO: SYSTEM CONNECTING DIAGRAM OF VC-MATRIX8600N/P AND KEYBOARD, BALL CAMERA, electronic listening device, alarm, digital video recorder and multi-image monitor



APPENDIX THREE: CHARACTER TABLE

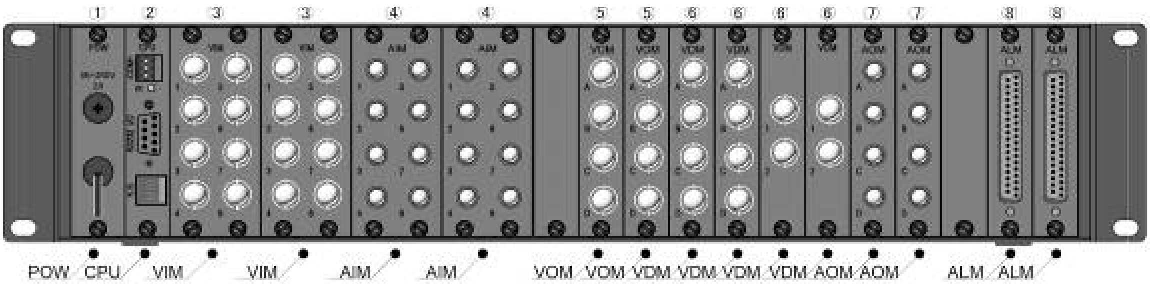
• Please refer to EXCEL character table inserted herein Ž

Chapter four Panel Layout, Module Function and Menu Operating Guide

VC-MATRIX8600N/P Middle Audio/Video Switching Matrix is composed of the power module (POW), the CPU module (CPU), the video input module (VIM), the audio input module (AIM), the video output module (VOM), the character generating module (VDM), the audio output module (AOM), the alarm module (ALM), BUS and the box (including the power supply).

4 Ž 1 Ž Front Panel Layout

4Ž2Ž Rear Panel Layout



4Ž3Ž Module Function:

4.3.1 POWER SUPPLY MODULE • POW ••

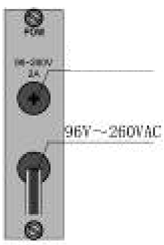


图 4.1

Power supply • POWŽ includes a 2m power cable with 3pin socket and a fuse socket. Input voltage 96V • 260VAC •2A, shown as Figure 4.1

4.3.2 CPU MODULE • CPU ••

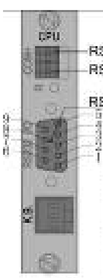


图 4.2

1		6
2	RS232-T	7
3	RS232-R	8
4		9
5	通信地	

表 4.1

CPU MODULE • CPUŽ is the central processing unit of VC-MATRIX8600N/P Middle Audio/Video Switching Matrix. It has a RS485 port • COMŽ and a RS232I/O port. When connected with the VC system, the communication signal port (RS485) is able to link with the RS485 port of main controller keyboard of VC-SC1000 M system. RS232I/O port is used to connect with PC for upgrading software and generating

	characters. Please refer to its structure as Figure 4.2. You can also find the meaning of 9 Pin of RS232I/O in Table 4.1 Notes: KB port is stand-by port which is mainly used to be compatible with part of VC series Keyboard.

4.3.3 MATRIX VIDEO INPUT MODULE • VIM ••

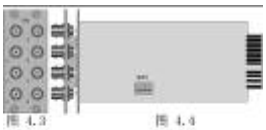


图 4.3 图 4.4

C.B.No	CAMERA INPUTNo	SW1
1	1~8	
2	9~16	
3	17~24	
4	25~32	
5	33~40	
6	41~48	
7	49~56	
8	57~64	

表 4.2

MATRIX VIDEO INPUT MODULE • VIM Žis used to receive the composite black & write or color input signal from the camera. The appearance of VIM could be found at Figure 4.3 and Figure 4.4. Video input was connected with the corresponding BNC Video connector. C.B. No. 1 must correspond to CAMERA Input No. 1# • 8#, and C.B. No. 2 must correspond to CAMERA Input No. 9# • 16#, the rest may be deduced by analogy. The setting of VIM could be referred to SW1 in Figure 4.4. The detailed SW setting is shown as Table 4.2.

4.3.4 MATRIX AUDIO INPUT MODULE • AIM ••

图 4.5 图 4.6

C.B.No	MIC INPUTNo	SW1
1	1~8	
2	9~16	
3	17~24	
4	25~32	
5	33~40	
6	41~48	
7	49~56	
8	57~64	

表 4.3

MATRIX AUDIO INPUT MODULE • AIM Žis used to receive the audio signal. The appearance of AIM could be found at Figure 4.5 and Figure 4.5. Audio input was connected with the corresponding AV audio connector. C.B. No. 1 must correspond to MIC Input No. 1# • 8#, and C.B. No. 2 must correspond to MIC Input No. 9# • 16#, the rest may be deduced by analogy. The setting of AIM' could be referred to SW1 in Figure 4.6. The detailed SW setting is shown as table 4.3.

4.3.5 MATRIX VIDEO OUTPUT MODULE VOM(EXCLUDING TIME CHARACTER OVERLAPPING)

图 4.7 图 4.8

C.B.No	MONITOR 1,2,3,4 OUTPUTNo	SW1	SW2	SW3
1	1、2、3、4			
2	5、6、7、8			
3	9、10、11、12			
4	13、14、15、16			

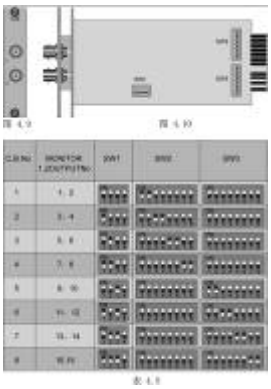
表 4.4

VIDEO OUTPUT MODULE • VOM Ž is used to connect the video output signal to the monitor. The appearance of VOM could be found at Figure 4.7 and Figure 4.8. C.B. No. 1 must correspond to Monitor output No. 1# • 4#, and C.B. No. 2 must correspond to Monitor output No. 5# • 8#, the rest may be deduced by analogy. The setting of VOM could be referred to SW1, SW2, SW3 in Figure 4.8. The detailed SW setting is shown as table 4.4.• SW1 •SW2 •SW3 are the DIP switch in VOM •

4.3.6 MATRIX VIDEO OUTPUT MODULE VOM (INCLUDING TIME CHARACTER OVERLAPPING •

There are two types of MATRIX VIDEO OUTPUT MODULE: one is two way video output module, the other is four way video output module. VDM can transmit the video output signal with time character overlapping to the monitor.

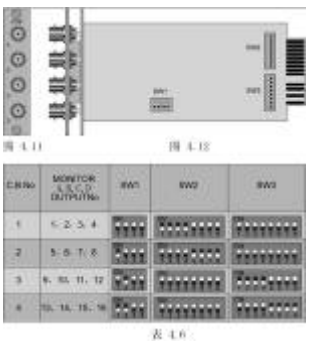
Ž **TWO WAY VIDEO OUTPUT MODULE (INCLUDING TIME CHARACTER OVERLAPPING) • VDM-2 •**



The appearance of two-way video output module could be found at Figure 4.9 and Figure 4.10. Each two way video output module can output two-way video signal with time character simultaneously. The panel of the VOM with time character marks 1 and 2 on it representing the first VDM board and second VDM boar which means the first VDM board provides the 1 & 2 video output channel, following the same, the number will go from left to right, that is, the second VDM board provides the 3 & 4 video output channel, the rest may be deduced by analogy. And the user can set the character by software (for setting details, please refer to the special operation manual of VC-MATRIX8600N/P), the user can use the software on the CD to generate character through PC. The overlapping character on the screen could be up to 8-digit Chinese character or 16-digit English character. Two way video output module provides two different video output terminal (1, 2) separately.

sw1, sw2 and sw3 in Figure 4.10 are the DIP switches which are used to designate the corresponding output signal number (that is monitor number). The setting details of output No. see Table 4.5.

• **FOUR WAY VIDEO OUTPUT MODULE (INCLUDING TIME CHARACTER OVERLAPPING)** • VDM-4 •

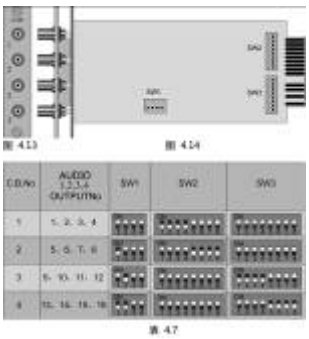


The appearance of four way video output module could be found at Figure 4.11 and Figure 4.12. Each four-way video output module can output four-way video signal with time character simultaneously. The panel of the VOM with time character marks A to D on it representing the first VDM board and second VDM boar which means the first VDM board provides the 1~4 video output channel, following the same, the number will go from left to right, that is, the second VDM board provides the 5~8 video output channel, the rest may be deduced by analogy. And the user can set the character by software (for setting details, please refer to the special operation manual of VC-MATRIX8600N/P), the user can use the software on the CD to generate character through PC. The overlapping character on the screen could be up to 8-digit Chinese character or 16-digit English character. Four way video output module provides four different video output terminal (A, B, C, D) separately.

sw1, sw2 and sw3 in Figure 4.12 are the DIP switches which are used to designate the corresponding output signal number (that is monitor number). The setting details of output No. see Table 4.6.

Note: the software named "Project1.EXE" on CD contains the character setting function. You can use this software to edit the matrix's characters.

4.3.7 MATRIX AUDIO OUTPUT MODULE (AOM) •

	AUDIO OUTPUT MODULE (AOM) is used to connect the audio output signal to the speaker. The volume can be adjusted by the system control keyboard of the VC system. Each module includes 4 channels of independent audio outputs and the audio output can synchronize with the video that has the same Output No. The appearance of audio output module could be found at Figure 4.13 and Figure 4.14. sw1, sw2 and sw3 in Figure 4.14 are the DIP switches which are used to designate the corresponding output signal number (that is audio output number). The setting details of output No. see Table 4.7.

4.3.8 32-WAY ALARM SYSTEM MODULE • ALM ••

32 – way alarm system module is used to receive the 32 – way alarm input signal and each single board can be equipped with 2 alarm module which means 64-way auto alarm input signal and 2-way on-off output (UPS). Please refer to Figure 4.15 & Table 4.8 for the details of the alarm module, and Figure 4.16 for the connection with the alert.

64-way auto alarm function corresponding table:

Alarm at the first spot	Corresponding to the image gathered by No.1 camera showed on the No. 1 monitor
Alarm at the second spot	Corresponding to the image gathered by No.2 camera showed on the No. 2 monitor
Alarm at the third spot	Corresponding to the image gathered by No.3 camera showed on the No. 3 monitor
……	……
Alarm at the sixty-fourth spot	Corresponding to the image gathered by No.64 camera showed on the No. 64 monitor

2-way on-off output (UPS) function corresponding table:

Function of UPS	1~16 alarm signal correspond to UPS output 1
	17~32 alarm signal correspond to UPS output 2

Connecting method of alarm detector as shown below:

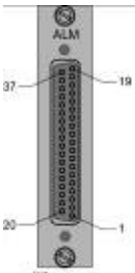
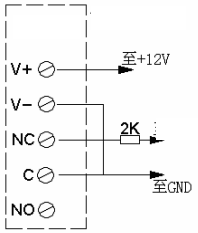


图 4.15

脚标	
1~16	1~16
17,36	
19	GND
20~35	17~32
18,37	

表 4.8



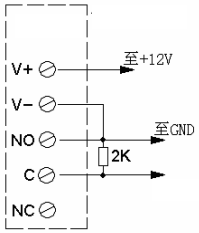


图 4.16

NC: normally off
NO: normally on
C: common

Note: As shown in table 4.8, the output of relay is the on-off output when alarm which is used to control the peripheral equipments (recorder, alarm and light, etc.). Please be noted that connection point 19 needs to be connected with a 2k earth resistance and independent power supply for the alarm detector.

4Ž4Ž MENU CONFIGULATION AND OPERATION GUIDE •

4.4.1 FEATURE OF THE MENU • ILLUSTRATION DISPLAY MODE •

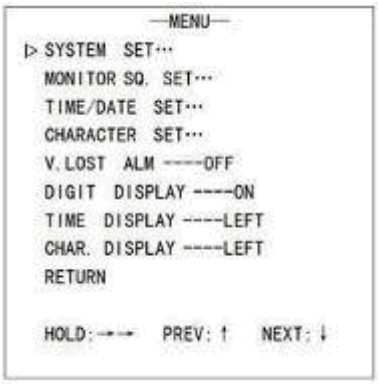
When the system is electrified, the image standard displayed on the monitor will be: Time is showed in the upper right hand side, character of current camera description, camera number and the monitor number can be found in the bottom left corner. Pls refer to ž **operation manual for VC-SC1000M controlling keyboard** • for its general operating method. Other special operation are as follows:

ON/OFF Time display •	ON/OFF + MON + 1 + ENTER
ON/OFF Image character display •	ON/OFF + MON + 2 + ENTER
ON/OFF Character of Monitor, Camera display •	ON/OFF + MON + 3 + ENTER
System reset:	ON + MON + 8 +ENTER
After reset, the system will resume 64-way input, 16-way output default setting. The user need to setup the configuration of the system per requirement. • Operating details refer to Menu operation guideline •	

4.4.2 DETAILED OPERATING INSTRUCTION OF MENU

• 1Ž **Enter the main menu via the controller by pressing "ON+MON+89+ENTER". The**

following menu will be displayed on the monitor •



MENU ITEM CN-EN corresponding explanation

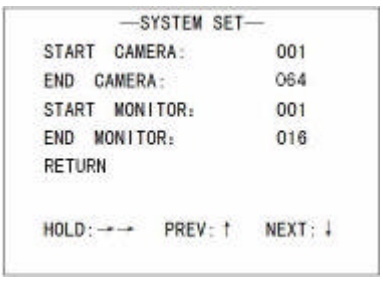
SYSTEM SET	Enter into SYSTEM setting sub-menu
MOITOR SQ. SET	Enter into Monitor sequence switch setting sub-menu
TIME/DATE SET	Enter into TIME/DATE setting sub-menu
CHARACTER SET	Enter into character setting sub-menu
V.LOST ALM	Enter into video lost alarm sub-menu
DIGIT DISPLAY	Character of Monitor, Camera display on/off
TIME DISPLAY	Time character setup
CHAR.DISPLAY	Image character setup
RETURN	Exit
HOLD	Select/Confirm, correspond to the “HOLD” key in the keyboard
PREV	Up/Decrease • correspond to the “PREV” key in the keyboard
NEXT	Down/Increase •correspond to the “NEXT” key in the keyboard

CLEW/NOTE •

“▷” on the menu indicates the current selected item.

PREV	PREV is used to select the previous item or increase numerical value “1” on blink menu
NEXT	NEXT is used to select the next item or decrease numerical value “1” on blink menu
HOLD	HOLD is used to execute the required item of menu
RETURN is used to exit the menu or return to previous menu.	

• 2Ž **Enter the main menu via the controller by pressing “PREV/NEXT+HOLD” or “control stick + HOLD”, you can enter into System setting sub-Menu. Please Choose the “**SYSTEM SET...**” Item in main menu, and then press “Hold” to conduct the setting. The following menu will be displayed on the monitor:**



MENU ITEM CN-EN corresponding explanation

START CAMERA	set up the start No. of cameras
END CAMERA	set up the end No. of cameras
START MONITOR	set up the start No. of monitors
END MONITOR	set up the end No. of monitors
RETURN	return back to main menu

CLEW/NOTE •

After selection of the item of menu, press ”HOLD”. And then the corresponding item of the menu will be blinking. Now press “PREV” or “NEXT” to alter numerical value. (Press “PREV” to increase “1”, press ‘NEXT’ to decrease “!”). Press “HOLD” again to confirm the altered value. The blinking will stop.

“The No. of end cameras” should not be less than “the No. of start cameras”.
“The No. of end monitors” should not be less than “the No. of start monitors”.
After the setting, use KEY “PREV” or “NEXT”, make the cursor “>” towards “RETURN”, and then press “HOLD” to exit the setting.

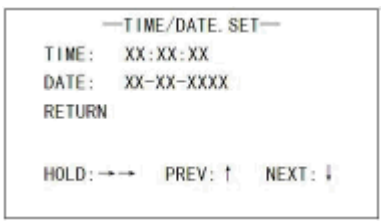
• 3Ž **Enter the main menu via the controller by pressing “PREV/NEXT+HOLD” or “control stick + HOLD”, you can enter into Monitor sequence switch setting sub-menu. Please Choose the “MONITOR SQ. SET…” Item in main menu, and then press “Hold” to conduct the setting. The following menu will be displayed on the monitor:**

MENU ITEM CN-EN corresponding explanation

MONITOR ID	Select No. of monitors
SQ.TIME	Set up the dwell time of switching on the selected monitor
CAMERAS	001 ON (or OFF) (camera on/off • in “001”, select the required on or off matrix channel input number. Then you can setup the “ON” or “OFF”. The command is • “CAM+N+ON/OFF”)
RETURN	Return back to main menu

CLEW/NOTE •
Menu setting instruction. After selection of the item of menu, press ”HOLD”. And then the corresponding item of the menu will be blinking. Now press “PREV” or “NEXT” to alter numerical value. Press “ENTER” again to confirm the altered value. After the setting, use KEY “PREV” or “NEXT”, make the cursor “▷” towards “RETURN”, and then press “HOLD” to exit the setting.

• **4Ž Enter the main menu via the controller by pressing “PREV/NEXT+HOLD” or “control stick + HOLD”, you can enter into TIME/DATE setting sub-menu. Please Choose the “TIME/DATE SET ••• ” Item in main menu, and then press “Hold” to conduct the setting. The following menu will be displayed on the monitor:**



MENU ITEM CN-EN corresponding explanation

TIME	TIME: H:M:S
DATE	DATE: DATE-MONTH-YEAR
RETUN	Return back to main menu

CLEW/NOTE •
TIME/DATE SETTING: Select “TIME” by “PREV” and “NEXT”. Press “HOLD” to enter into the TIME/DATE setting sub-menu. You can find the digit of hour is blinking. Alter the numerical figure of hour by “PREV” and “NEXT”. Press “HOLD” again to make acknowledgement. Then the digits of minute will be blinking. Alter the digits of minute by “PREV” and “NEXT”. Press “HOLD” to exit the TIME setting. The DATE setting is as same as the setting of TIME part. After setting is done, select “RETURN” to return back to the main menu.

• 5Ž **Enter the main menu via the controller by pressing "PREV/NEXT+HOLD" or "control stick + HOLD", you can enter into Character setting sub-menu. Please Choose the "**CHARACTER SET...**" Item in main menu, and then press "Hold" to conduct the setting. The following menu will be displayed on the monitor:**

MENU ITEM CN-EN corresponding explanation

CAMERA ID	Select the No. of required camera
WORD/LINE-CLUN	WORD stand for the position of the characters which is required to setup (8-digit CN character, 16-digit EN character)
LINE	LINE represents the Line which the character locate in the character table. 76 lines totally.
CLUN	CLUN represents the column which the character locate in the character table. 99 columns totally.

CLEW/NOTE •

Character setting: Select "WORD/LINE-CLUN". Press "HOLD" to enter into the Character setting sub-menu. You can find the tens digit is blinking. Find out the line No. and column No. of the required character on Character Table (8-digit CN character, 16-digit EN character), then input the line No. into the blinking tens digit number by altering the figure via key "PREV" and "NEXT". After alteration of tens digit number, please press "HOLD" again to make acknowledgement. Then the units' digit will be blinking. Please key-in and alter it accordingly. The setting of column No. is the same as the setting of Line No. The previous input character will be save even if the user exit the menu or change the camera No.. After setting is done, select "RETURN" to return back to the main menu.

• 6Ž Operation Guideline on generating character by PC

Note: With a view to enabling users to generate character, our company provides the Compact Disk with character generating software on it. You could connect it with PC through the serial port line, and then use the software to generate character. That could make things much easier – eliminating the process of looking up complicated Character Table.

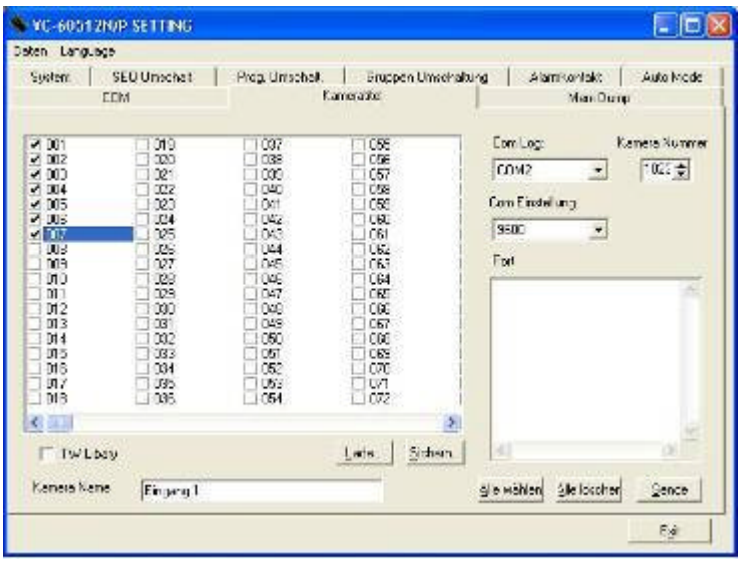
The full operating process is as follows:

• 6.1 Ž Open the software

Put the CD into the computer, open it. Then you will see it shows

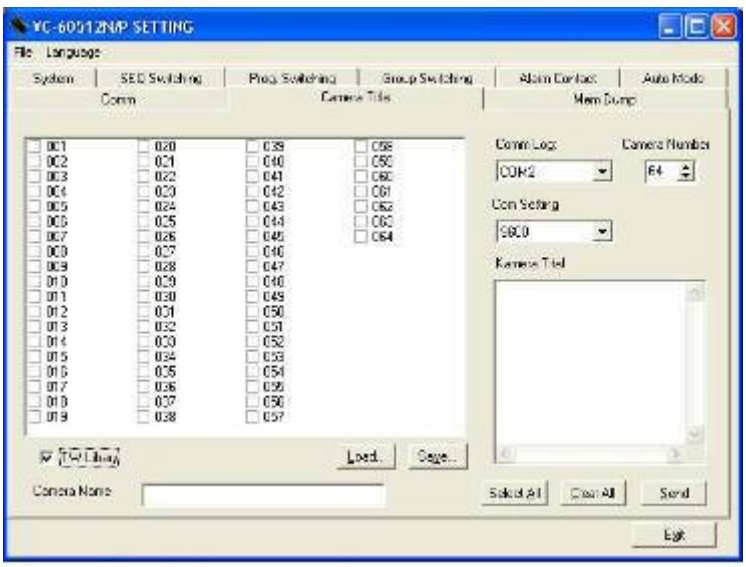
“    ”. Double click “  ”. You could find

“  ”, select “OK” to access the operating interface. It shows as below:



• 6.2 Ž Setting

Select the Port in the second line as below figure shows •

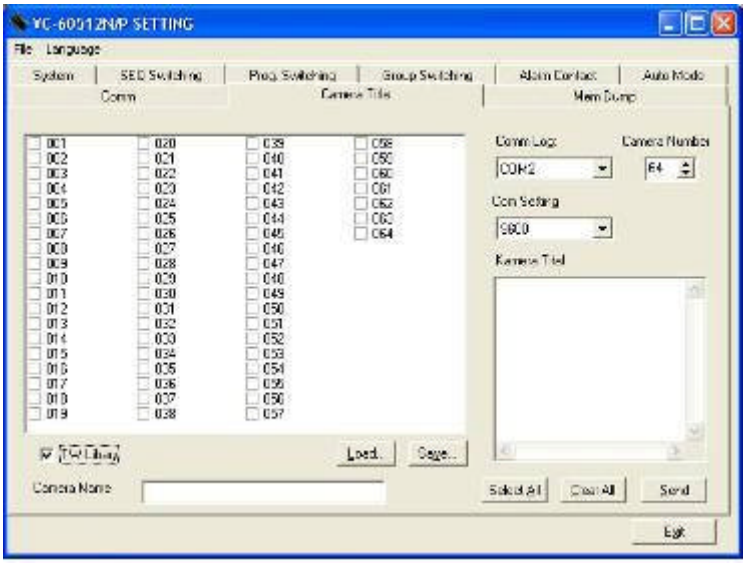


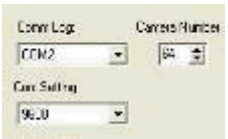
Now you can set the characters.

Choose the Camera No. that you want to set in the Menu window (that is, Matrix video input channel). Once selecting, the Camera No. will be highlighted with blue.

Now you can turn to the “ 

” box in the bottom left, input the corresponding character, and then press “ENTER” Key. The character will be displayed on the selected port number shown as below.



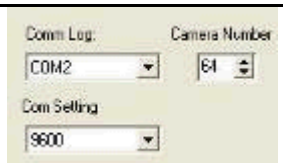
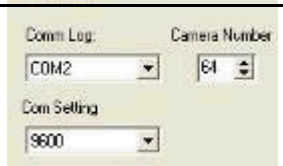


When finish all above mentioned process, please select “ 

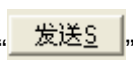
” to save your setting. Using the “ 

” to import your previous setting.

• 6.3 Ž **Transmit the character into Matrix through RS 232 Serial port line**

1 • Make sure that the Matrix has been connected with PC via RS 232 serial port. (In the upper right corner of window) •	
2 • click “COM”, and then choose the COM No.”	
3 • the number of camera depends on max input channel of the used Matrix. COM Setting means the Baud Rate, the default setting is 9600.	

Next, according to requirement, choose the character channel number (for transmitting) in the character selecting window. If you decide to generate it, please click, like “☑ 001 CAM1”, if you don’t need it, let it be”☐ 001 CAM1”. Of course, “ 

” buttons could help you select/clear all the characters. After selecting, do remember to select button “ 

”, the selected character will transmit to the Matrix through serial port line.
In the end, close the software.

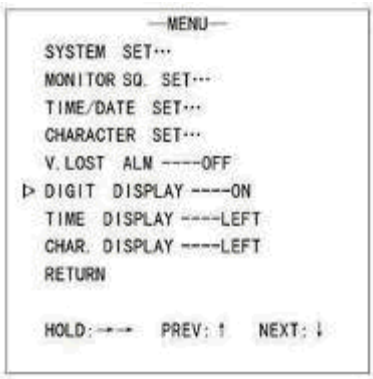
• **7** Ž **Enter the main menu via the controller by pressing “PREV/NEXT+HOLD” or**

“control stick+HOLD”, you can enter into Video lost alarm sub-menu. Please Choose the “V.LOST ALM” Item in main menu, and then press “Hold” to conduct the setting. The following menu will be displayed on the monitor:

- Move the cursor to “V.LOST ALM”
- Press “HOLD” to choose “ON” or “OFF” – setup on/off video lost alarm. While select “ON”, the buzzer on the keyboard will alarm automatically if the video signal lost. The “Video lost XXXX” will be shown on Keyboard • XXXX represents the lost video signal No. in the matrix •• the monitor will display “ALARM VIDEO LOST XXXX” at the same time.

- Press“ACK” to acknowledge the alarm signal and close the buzzer. While Select “OFF”, it will not alarm if the video signal lost. After setting, move the cursor to “RETURN” via key “PREV” and “NEXT”.
- Press “HOLD” to exit.

• 8Ž **Enter the main menu via the controller by pressing “PREV/NEXT+HOLD” or “control stick+HOLD”, you can enter into Character of Monitor, Camera display on/off sub-menu. Please Choose the “DIGIT DISPLAY” Item in main menu, and then press “Hold” to conduct the setting. The following menu will be displayed on the monitor:**



- In “DIGIT DISPLAY” sub-menu, the user can setup the on/off of the character (setting the character for camera, monitor address is similar to command “ON/OFF+MON+3+ENTER”, but the difference is that the character set in the Menu will not be displayed when it is turned off and the character set by command will be displayed again when it is turned off).
- In main menu, move the cursor to “DIGIT DISPLAY” item • Press “HOLD” and then choose “ON” or “OFF” to setup the on/off of the character.

- After setting, move the cursor to “RETURN” via key “PREV” and “NEXT”. Press “HOLD” to exit.

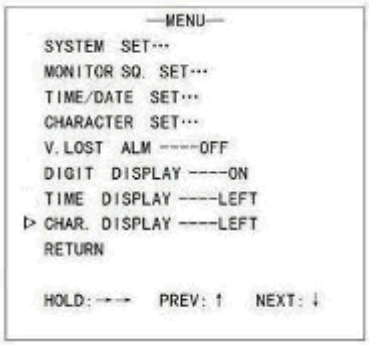
• **9Ž Enter the main menu via the controller by pressing “PREV/NEXT+HOLD” or “control stick+HOLD”, you can enter into Time character setting sub-menu. Please Choose the “TIME DISPLAY” Item in main menu, and then press “Hold” to conduct the setting. The following menu will be displayed on the monitor:**

- In “TIME DISPLAY” sub-menu, the user can setup the on/off of the time character (setting the on/off or the character is similar to command “ON/OFF+MON+1+ENTER”, but the difference is that the character set in the Menu will not be displayed when it is turned off

and the character set by command will be displayed again when it is turned off). In main menu, move the cursor to “TIME DISPLAY” item • Press “HOLD” and then choose “ON” or “OFF” to setup the on/off of the character.

- The users can also setup the address of characters. Press “HOLD”, it will displayed “LEFT”, “MID”, “RIGHT” in the screen. Users can setup it accordingly.
- After setting, move the cursor to “RETURN” via key “PREV” and “NEXT”. Press “HOLD” to exit.

• 10Ž Enter the main menu via the controller by pressing “PREV/NEXT+HOLD” or “control stick+HOLD”, you can enter into Image character setting sub-menu. Please Choose the “CHAR.DISPLAY” Item in main menu, and then press “Hold” to conduct the setting. The following menu will be displayed on the monitor:



- In “CHAR.DISPLAY” sub-menu, the user can setup the on/off and address of the image character (setting the on/off or the character is similar to command “ON/OFF+MON+2+ENTER”, but the difference is that the character set in the Menu will not be displayed when it is turned off and the character set by command will be displayed again when it is turned off).
- In main menu, move the cursor to “CHAR. DISPLAY” item • Press “HOLD” and then choose “ON” or “OFF” to setup the on/off of the character.
- The users can also setup the address of characters. Press “HOLD”, it will displayed “LEFT”, “MID”, “RIGHT” in the screen. Users can setup it accordingly.
- After setting, move the cursor to “RETURN” via key “PREV” and “NEXT”. Press “HOLD” to exit.