



BXB-C901

Conference Image Processor

User Manual

Version: 2.2

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Overview

Thank you for purchasing BXB-C901 Conference Image Processor from BXB Electronics Co.

BXB-C901 is the latest conference image processor with superb performance and elegant design which can be used in various conference rooms.

The advanced built-in digital control module provides compatibility of cameras such as BXB and SONY... 128 preset points X up to 4 cameras make your conference system even more powerful.

BXB-C901 is equipped with simplified keyboard; enables to control camera directions: up, down, left, right, zoom in& zoom out.

High reliability is our utmost purpose when developing BXB system. Each main control unit and its fittings have all gone through careful assembly and strict test in our ISO 9001 approved factory. The excellent performance, high reliability and reasonable price make it the indispensable conference system for you.

System Features

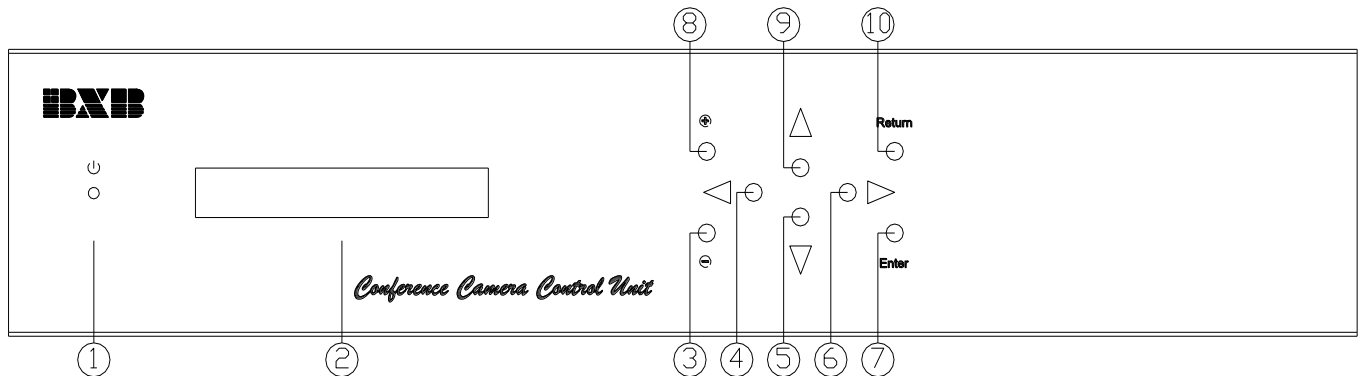
1. The apparatus is equipped with a graphic LCD screen and 8 control buttons: up, down, left, right, enter, return, zoom in& zoom out. You can operate the system on it without connecting keyboard.
2. RS485 and RS232 input connectors: comply with BXB FCS series (RS232 or RS-485 video camera signal output, and BXB EDC series (2400 baud rate).
3. RS485 and RS232output connectors: comply with BXB and SONY... multi-brand cameras.
4. USB connector data transfer and BXB graphical control software.
5. There are 4 in and 6 out ports for images, in which the two (main-out) can be set for overcome and individual display; the rest four correspondingly shows input1-> output1.
6. Each video input provides 4 sets of brightness GAIN value individual adjustment.
7. One microphone and camera preset point contrastive table, BXB-C901 supports up to 1009 microphones and four cameras.
8. Built-in simplified keyboard to control camera directions.
9. Camera preset point storage: 128 points for each camera, 4 cameras at most.
10. A 4-bit DIP switch settings (Reserved).

Safety Instructions

1. Please read and observe these instructions before installing and using the apparatus.
2. **Use only accessories specified by the manufacturer. The manufacturer is not liable for damage caused by the use of non-specified accessories.**
3. Install the apparatus and its accessories carefully. Strike and fierce shaking may damage the apparatus.
4. Make sure the power cord is fixed properly.
5. Do not overload wall outlets and extension cords as this can result in a risk of fire or short circuit.
6. To reduce the risk of damage from lightning strikes, it is important that all electric cables should be bonded to the same grounding point.
7. Do not block any ventilation openings to prevent overheating and malfunction.
8. Do not expose the apparatus to rain or moisture.
Humidity may lead inside components to damage. Appropriate shelter is necessary when placing it outside (Best working environment: Temperature 0°C ~ 40°C <32°F ~ 104°F>, humidity below 90%).
9. Please do not switch on and off the apparatus rapidly.
Rapid switch on and off the apparatus should be avoided all the time to prevent inside sensitive electronic circuits from being damaged by surges.
10. Do not clean the apparatus and its accessories with chemical solvents. Use only a clean, dry/dampish cloth.
11. Refer to maintenance technician when the apparatus has been damaged in any way, such as:
 - A• power-supply cord or plug is damaged
 - B• liquid has been spilled in
 - C• has been exposed to rain or moisture
 - D• has been dropped
 - E• objects have fallen into the apparatus
 - F• does not operate normally
12. Note: When the printed circuit board is going through electric static treatment, correct ESD safety precaution and grounding should be assured.
13. **Note: Before connecting the apparatus to main AC, please select the supply voltage in accordance with the wall voltage in your country to prevent damage. Refer to Installation and Setting (Page 8) for selecting.**
14. **Warning: Do not disassemble or remodel the product, as these actions may lead to electrical shock or damage. The guarantee on the product will become null if the product is ever disassembled.**

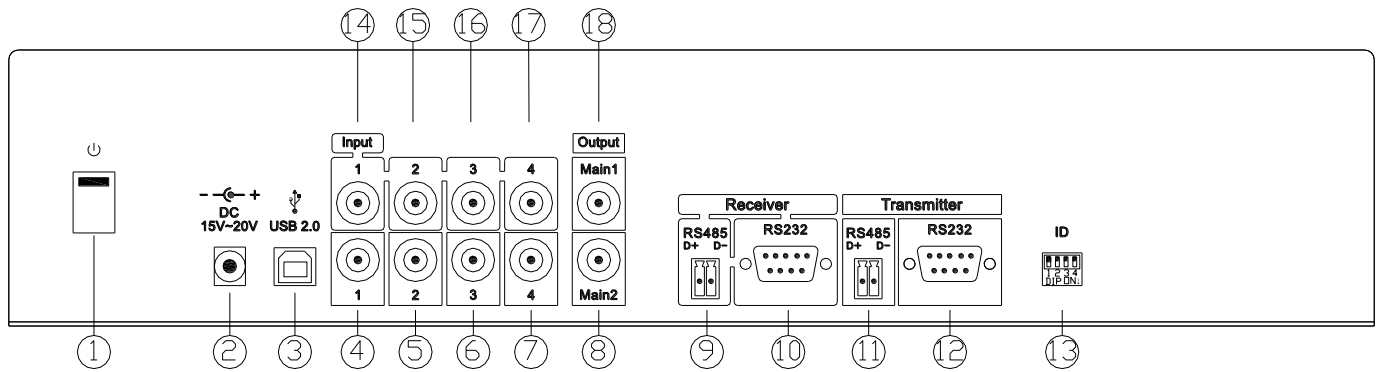
Operation and Features

Front Panel Description



- ① → Power indicator
- ② → 24×2 bits LCD screen; shows current settings configuration
- ③ → Camera zoom out and speed adjustment
- ④ → Left, for camera direction and menu selection
- ⑤ → Down, for camera direction and menu selection
- ⑥ → Right, for camera direction and menu selection
- ⑦ → Enter, to save settings
- ⑧ → Camera zoom in and speed adjustment
- ⑨ → Up, for camera direction and menu selection
- ⑩ → Return, to cancel settings and go back to top menu

Rear Panel Description



① → Power switch

② → DC power input: in+ out-, DC 15V~20V (MAX)

③ → USB 2.0: USB port for PC connection

④ → Video output 1, for input 1 image

⑤ → Video output 2, for input 2 image

⑥ → Video output 3, for input 3 image

⑦ → Video output 4, for input 4 image

⑧ → Output Main 2

Video matrix output 2, output selectable; in override mode, operating camera or adjusting GAIN will automatically switch to the image.

⑨ → RS485 Receiver

For BXB FCS conference main controller speed dome camera control terminal

⑩ → RS232 Receiver:

For BXB FCS/ EDC conference main controller RS232 control terminal (jumper is essential)

2nd foot: Received Data (Rx) / 3rd foot: Transmitted Data (Tx) / 5th foot: Signal Ground(G)

⑪ → RS485 Transmitter: for camera control

⑫ → RS232 Transmitter: for camera control, RS-422 switchable with interface converter

2nd foot: Transmitted Data (Tx) / 3rd foot: Received Data (Rx) / 5th foot: Signal Ground(G)

⑬ → ID: reserved 4 PIN DIP switch

⑭ → Video output 1

⑮ → Video output 2

⑯ → Video output 3

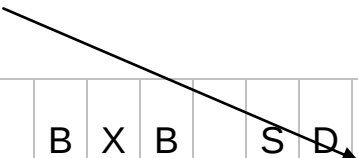
⑰ → Video output 4

⑱ → Output Main1 :

Video matrix output 1, output selectable; in override mode, operating camera or adjusting GAIN will automatically switch to the image.

Turn On

- ✧ After confirming all the wiring is done, switch on the main controller and the LCD will display following information



						B	X	B		S	D	C		S	y	s	t	e	m				
										V	e	r		1	.	x							

- ✧ Later, the system will start auto-scanning to see if it operate normally

						M	e	m	o	r	y		C	h	e	c	k						
								.	.	.	.	.	O	K									

- ✧ Or not

						M	e	m	o	r	y		C	h	e	c	k						
								.	.	.	.	.	E	R	R								

- ✧ After scanning completes, LCD will display following information (default page)

1	.	M	i	c		P	o	s	i	t	i	o	n	i	n	g							
2	.	S	e	t		P	r	e	s	e	t												

LCD Instructions

1	M	i	c	P	o	s	i	t	i	o	n	i	n	g					
2	S	e	t	P	r	e	s	e	t										
3	G	o	P	r	e	s	e	t											
4	P	r	o	t	o	c	o	l	S	e	t	t	i	n	g				
5	V	i	d	e	o	J	u	m	p	M	o	d	e						
6	G	a	i	n	S	e	t	t	i	n	g								
7	R	e	s	e	t	S	e	t	t	i	n	g	s						

1. Set microphone position (for image auto-track).
2. Set high-speed dome camera preset points.
3. Check the preset points above.
4. Set conference main controller type (input) and camera brand (output).
5. Set main output.
6. Adjust Gain values on each input screen.
7. Restore factory settings.

Note: All figures shown on this manual is only for examples. Each main control unit has been through a series of QC test before leaving factory. Default values are not identical, users can change settings simply followed by the instructions below.

System Operations & Settings

Mic Positioning

- ✧ Set auto-track preset points, 128 preset points for each camera and up to 4 cameras the most.
- ✧ Press ▲ or ▼, switch ■ to Mic Positioning, and then press Enter.

[illegible]

- ✧ After entering, switch the cursor below MIC, press ◀ or ▶ to choose items; press ▲ or ▼ to change value.

			M	I	C					D	O	M	E			A	D	R
			0	0	1					0	1					0	0	1

Mic Selection

Camera Selection

Preset Point Address

- ✧ MIC - Mic Selection

No. 001-999 (※)are delegate mic, *1 - *10are chairman mics.

※In EDC series (set on menu 4.Protocol Setting), delegate mics are 001-127.

※If BXB FCS RS485 is input, following information will be shown.

	S	e	t		u	p		M	I	C		p	o	s	i	t	i	o	n		o	n
		F	C	S		m	i	a	n			c	o	n	t	r	o	l	l	e	r	

- ### ✧ DOME - Camera Selection

No. 01-04

- ✧ ADR - Preset Point Address Selection

No. 001-128 following after OFF

- ✧ After setting, press Enter to save

S	a	v	e	.	.	.	.	.	.	.	.	O	K						

Set Preset

- ✧ Set preset points, each camera provides 128 points and BXB-C901 supplies up to 4 cameras.
- ✧ Press ▲ or ▼, switch  to Set Preset, and then press Enter.

[illegible]

- ✧ After entering, press ▲ or ▼ to choose number, and then press Enter.

			P	r	e	s	s	▲▼		t	o		c	h	o	o	s	e			
					C	a	m	e	r	a		N	o	:	0	0	1				

- ✧ After connecting, press ▲, ▼, ◀, ▶, , and  to set image direction and size.

If camera output is Pelco-D (set on menu 4.Protocol Setting), “Pelco-D” will be shown.

P	r	e	s	s	▲	▼	◀	▶	t	o	o	p	e	r	a	t	e						
P	a	n	:	0	0	0	0		T	:	0	0	0	0		Z	:	0	0	0	0		
Horizontal coordinate								Vertical coordinate								Image magnification							

- ✧ When disconnection occurs, following information will be displayed. It will get back to normal in three seconds.

			D	o	m	e		i	s		n	o	n	e		e	x	i	s	t			
						o	r		t		i	m	e	o	u	t	!						

- ✧ To switch camera rotation speed, press  and  at the same time, you will see A (Auto) at the top right and Move Speed: Auto below, rotation speed varies base on magnification; The greater the magnification the slower rotation speed, the smaller magnification the faster speed.

P	r	e	s				t	o		o	p	e	r	a	t	e	A
				M	o	v	e	S	p	e	e	d	:	A	u	t	o

- ✧ To switch camera rotation speed manually, press  or  to choose Auto,001 (the slowest) – 020 (the fastest); when in manual mode, you can see M (Manual) at the top right and speed selection in the bottom. After choosing, press     to check camera rotation, to change the speed again, please repeat instructions above.

P	r	e	s	s	▲	▼	◀	▶	t	o	o	p	e	r	a	t	e	M
					M	o	v	e	S	p	e	e	d	:	0	0	1	

- ✧ Press Enter to save preset point position, and then press ▲ or ▼ to set address no.

		P	r	e	s	s	▲▼	t	o	c	h	o	o	s	e			
		C	a	m	e	r	a	P	r	e	s	e	t	N	e	:	0	1

- ✧ Press Enter to save.

S	e	t		P	r	e	s	e	t		0	0	1		.		.		.		→	O	K
			C	a	m	e	r	a		P	r	e	s	e	t			N	o	:	0	0	1

Go Preset

- ✧ On menu 3.Go Preset, you can check preset point you set previously quickly.

- ✧ Press ▲ or ▼, switch ■ to Go Preset, and then press Enter.

3	◻	G	o	P	r	e	s	e	t									
4		P	r	o	t	o	c	o	l	S	e	t	t	i	n	g		

- ✧ Press ▲ or ▼ to choose camera number, and press Enter.

			P	r	e	s	s	▲▼	t	o	c	h	o	o	s	e			
					C	a	m	e	r	a		N	o	:	0	0	1		

- ✧ Press ▲ or ▼ to choose preset point number.

			P	r	e	s	s	▲▼	t	o	c	h	o	o	s	e					
			C	a	m	e	r	a	P	r	e	s	e	t		N	o	:	0	0	1

- ✧ Press Enter to move to the point.

	G	o		P	r	e	s	e	t		0	0	1	.	.	.	.	.	.	O	K			
		C	a	m	e	r	a		P	r	e	s	e	t			N	o	:	0	0	1		

Protocol Setting

✧ Set conference main controller type (input) and camera brand (output).

✧ Press ▲ or ▼, switch ▣ to Protocol Setting, and press Enter.

3		G o		P r e s e t															
4	▣	P r o t o c o l		S e t t i n g															

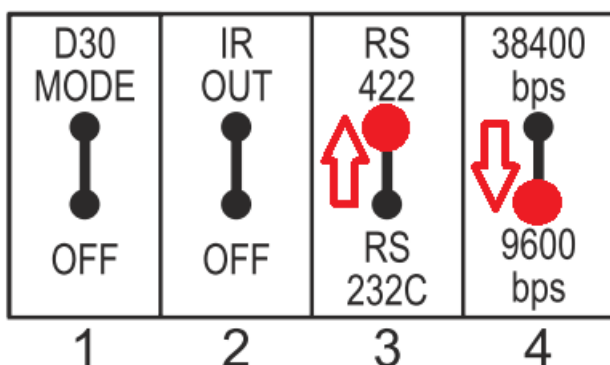
✧ Press ▲ or ▼, switch ▣ to Input/ Output, and then press ► to choose main controller type (input) and camera brand (output)

1	▣	I n p u t :	B X B	F C S	R S	2	3	2											
2		O u t p u t :	B X B	D 7 0 1	P R E S E T														

✧ Press Enter to save.

S	a	v	e	.	.	.	.	.	.	.	.	.	.	.	.	.	O	K	

※When connecting to SONY D70 camera, please dial DIP switches in the bottom as follow (RS-422 and 9600bps).



Video Jump Mode

✧ Set Output Main1& Main2 video matrix output

✧ Press ▲ or ▼, switch ▣ to Video Jump Mode, and press Enter.

5	▣	V	i	d	e	o	J	u	m	p	M	o	d	e						
6		G	a	i	n	S	e	t	t	i	n	g								

✧ Press ▲ or ▼, switch ▣ to Output Main 1/ Output Main 2, and then press ► to set camera output screen. (※)

1	▣	O	u	t	p	u	t	M	a	i	n	1	:	O	v	e	r	r	i	d	e
2		O	u	t	p	u	t	M	a	i	n	2	:	D	o	m	e	0	1		

✧ Press Enter to save.

S	a	v	e	.	.	.	.	.	.	.	.	.	.	.	.	.	.	O	K	

※

✧ When Output 1/Output 2 is in Override mode, output screen displays according to the arrangement on 1.Mic Positioning (MIC xxx, DOME1- DOME4, ADR xxx). If DOME1- DOME4 are all set, it will be displayed by order.

✧ When Dome01- Dome04 is selected, Output 1/ Output 2 output screen will be displayed individually.

Gain Setting

- ✧ Brightness of each camera can be set individually. There is 0, 1, 2, and 3; in total 4 sets of brightness are adjustable.

- ✧ Press ▲ or ▼, switch  to Gain Setting, and press Enter.

5		V	i	d	e	o		J	u	m	p		M	o	d	e						
6	■	G	a	i	n			S	e	t	t	i	n	g								

- ✧ After entering, press ◀ or ▶ to select camera, press ▲ or ▼ to adjust brightness (0-3).

V	I	D	E	O		I	N	:		1	2	3	4						
	C	H		G	a	i	n	:		0	1	2	3						

- ✧ Press Enter to save.

S	a	v	e	.	.	.	.	.	.	.	O	K
---	---	---	---	---	---	---	---	---	---	---	---	---

Reset Settings

- ✧ Reset to factory setting.

- ✧ Press ▲ or ▼, switch  to Reset Settings, and press Enter.

[illegible]

- ✧ Press ◀ or ▶ to select items you want to reset.

- ✧ Selectable items:

1. MIC position (1.Mic Positioning on menu)
2. Camera preset points (2.Set Preset on menu)
3. All the preset points

P	r	e	s	s		◀	▶		t	o	c	h	o	o	s	e		i	t	e	m
		(	M	I	C	)			P	R	E	S	E	T			A	L	L		

- ✧ Press Enter to confirm reset item, or press Return to cancel.

		P	r	e	s	s	E	N	T	E	R		t	o		E	R	A	S	E		
o	r		P	r	e	s	s		R	E	T	U	R	N		t	o		E	X	I	T

- ✧ Clear all preset points.

						E	r	a	s	e		M	e	m	o	r	y						
					.	.	.	.	.	.	.	.	.	.	.	O	K						

Data Transfer through USB Port

✧ Connect graphical control software on PC through USB port, you can have the data you set up on main controller/ software work synchronically.

✧ Data transfer rate (from PC to the main controller)

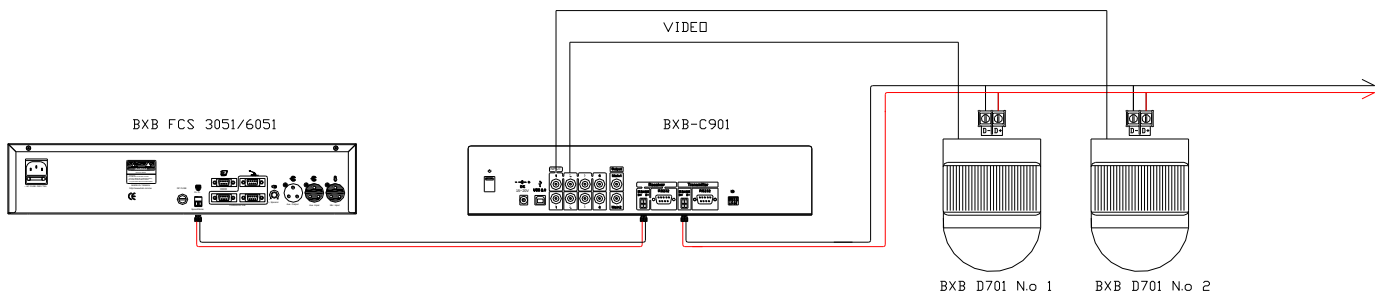
		I	N		S	P	E	E	D		D	O	M	E		S	E	T	U	P				
			P	C		-	>		M	A	I	N		(	1	0	0	%	)					

✧ Data transfer rate (from the main controller to PC)

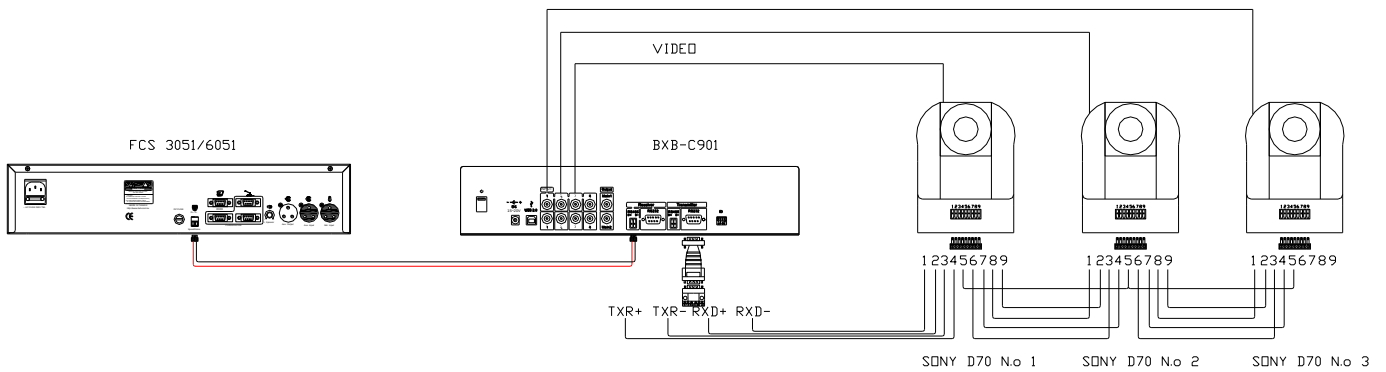
		I	N		S	P	E	E	D		D	O	M	E		S	E	T	U	P				
			M	A	I	N		-	>		P	C		(	1	0	0	%	)					

Connection

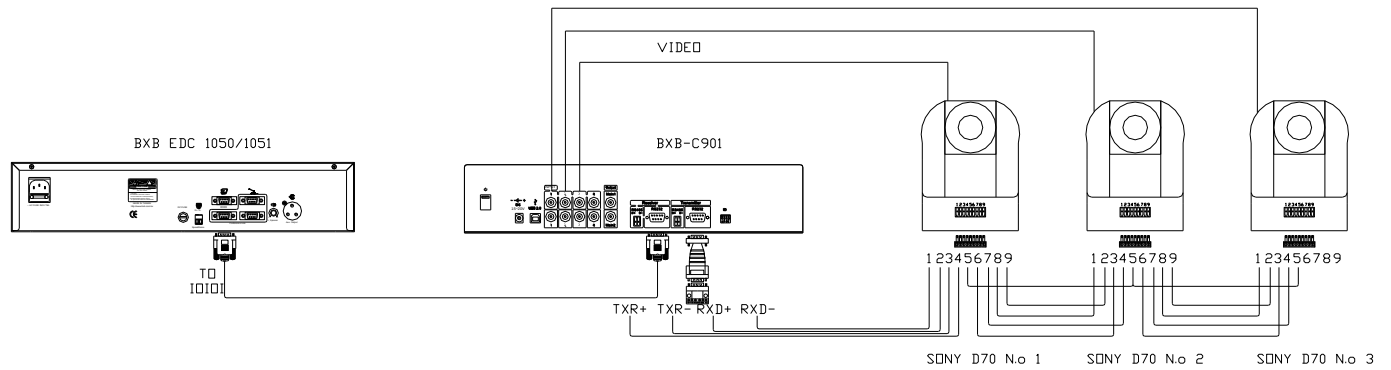
BXB FCS TO BXB D701

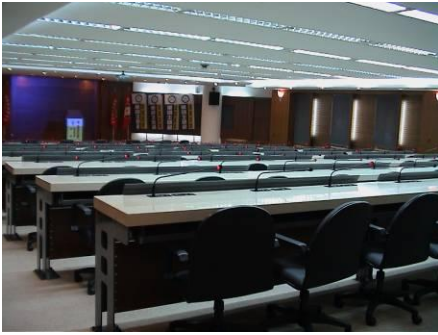


BXB FCS TO SONY D70



BXB EDC TO SONY D70





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