

***BX3M-CB
BX3M-CBFM
BX3M-HS
BX3M-HSRE
U-MIXR***

INSTRUCTIONS

BX3M-CB/CBFM

Control box/FM Control box

This instruction manual is for the control box or FM control box.

To ensure the safety, obtain optimum performance and to familiarize yourself fully with the use of this product, we recommend that you study this manual thoroughly before operating this product, and always keep this manual at hand when operating this product.

Retain this instruction manual in an easily accessible place near the work desk for future reference.

Optical Microscope Accessory

This product is a part of the system product which complies with the CE marking.

Please refer to the instruction manual of your system product for the safety instructions related to the CE marking.



In accordance with European Directive on Waste Electrical and Electronic Equipment, this symbol indicates that the product must not be disposed of as unsorted municipal waste, but should be collected separately.

Refer to your local EVIDENT distributor in EU for return and/or collection systems available in your country.

NOTE: This product has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the product is operated in a commercial environment. This product generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this product in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC WARNING: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the product.

For Korea only

이 기기는 업무용 환경에서 사용할 목적으로 적합성평가를 받은 기기로서 가정용 환경에서 사용하는 경우 전파간섭의 우려가 있습니다.

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Introduction

The control box BX3M-CB and BX3M-CBFM are used to control motorized revolving nosepiece, MIX slider for reflected light observation and so on installed on the microscope.

Contents of instruction manuals


This instruction manual is for control box BX3M-CB and BX3M-CBFM. For usage in combination with microscope, refer to the instruction manual for your microscope.

Safety precautions

If the product is used in a manner not specified by this manual, the safety of the user may be imperiled. In addition, the product may also be damaged. Always use the product according to this instruction manual.

The following symbols are used in this instruction manual.

 **CAUTION** : Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

 **NOTE** : Indicates a potentially hazardous situation which, if not avoided, may result in damage to the product or other property.

 **TIP** : Indicates the useful knowledge or information for use.


CAUTION - Installation of the product -

Install the product on a sturdy, level table or bench. (BX3M-CBFM)

If you install the product on an unstable table or a tilted table, the product may drop and you may get injured.

Attach the product securely to the back surface of the microscope. (BX3M-CB)

For installation procedure, refer to the instruction manual for system microscope BX53M.



CAUTION - Electric safety -

Always use the power cord provided by EVIDENT.

If the proper AC adapter and the power cord is not used, the electric safety and the EMC (Electro-Magnetic Compatibility) performance of the product cannot be assured.

If no power cord is provided, please select the proper power cord by referring to the section “Proper selection of the power supply cord” at the end of this instruction manual.

Always connect the ground terminal.

Connect the ground terminal of the power cord and that of the power outlet. If the product is not grounded, our intended electric safety and EMC performance of the product can not be assured.

Do not use the product in close proximity to the sources of strong electromagnetic radiation.

Proper operation may be interfered. The electromagnetic environment should be evaluated prior to operation of the product.

Remove the power cord in case of emergency.

In case of emergency, be sure to unplug the power cord from the power cord connector on the product or from the wall power outlet. Install the product at the location where you can reach the power cord connector or the wall power outlet at hand to remove the power cord quickly.

CAUTION - Protection of electric shock -

Keep the power cord and cables sufficiently away from the lamp housing.

If the power cord and cables contact a hot area of the lamp housing, they could melt and cause electric shock.

CAUTION - Protection for injury -




Do not pull the cable with an excessive force.

If you pull the cable connected to the control box with an excessive force, the control box may drop and you may get injured.

CAUTION - Safety symbols -

The following symbols are placed on the product.

Study the meaning of the symbols and always use the product in the safest possible manner.

Symbol	Meaning
	Indicates a non-specific general hazard. Follow the cautions given after this symbol or in the instruction manual.
	Indicates that the main switch is ON. (BX3M-CBFM only)
	Indicates that the main switch is OFF. (BX3M-CBFM only)

When caution labels are dirty or peeled off, contact EVIDENT for replacement or inquiries.

CAUTION - LED (light emitting diode) -

Do not look directly at the light from the LED light source for a long time.

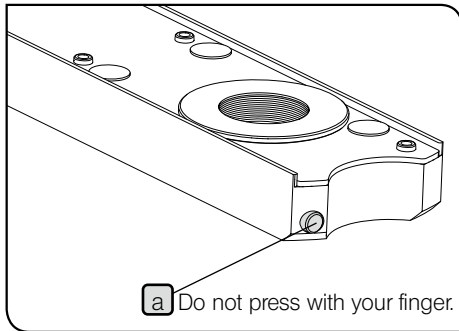
The LED built in the MIX slider for reflected light observation (U-MIXR) (separately available) is basically eye-safe. However, do not look directly at the light from the LED lamp house for a long time, since it may cause damage to your eyes. If the laws or regulations for workers health and safety have been established, follow them when using the microscope.

Do not look directly at the light coming out from the objective or the specular reflection light from the specimen.


Do not look directly at the light coming out from the objective for a long time, since it may cause damage to your eyes.

Do not expose your skin to the light coming out from the objective for a long time.

If your skin is exposed to the light coming out from the objective for a long time, you may get burned.



Do not press the micro switch of the MIX slider for reflected light observation (U-MIXR) with your finger.

If you press the micro switch  of the MIX slider for reflected light observation with your finger, the MIX slider for reflected light observation may emit the light.

Do not insert the MIX slider for reflected light observation (U-MIXR) upside down.

Do not insert the MIX slider for reflected light observation upside down. Otherwise, the light coming out from the MIX slider for reflected light observation enters your eyes through the eyepiece and your eyes may be damaged.

Handling precautions

NOTE

- This product is a precision instrument. Handle it with care and avoid subjecting it to a sudden or severe impact.
- Never disassemble any part of the product. Otherwise, failure could be caused.
- Do not use this product in areas where it may be subjected to direct sunlight, high temperature and/or humidity, dust or vibrations.
(For the conditions of operating environments, see “3 Specifications” (page 16).)
- Before attaching or detaching the units other than the MIX slider for reflected light observation (U-MIXR), turn the power of product **○(OFF)** as follows:
 - (BX3M-CB) set the main switch of the microscope to **○(OFF)**.
 - (BX3M-CBFM) set the main switch of the controll box to **○(OFF)**.

Maintenance and storage

1. Wipe the portions with a dry soft cloth.

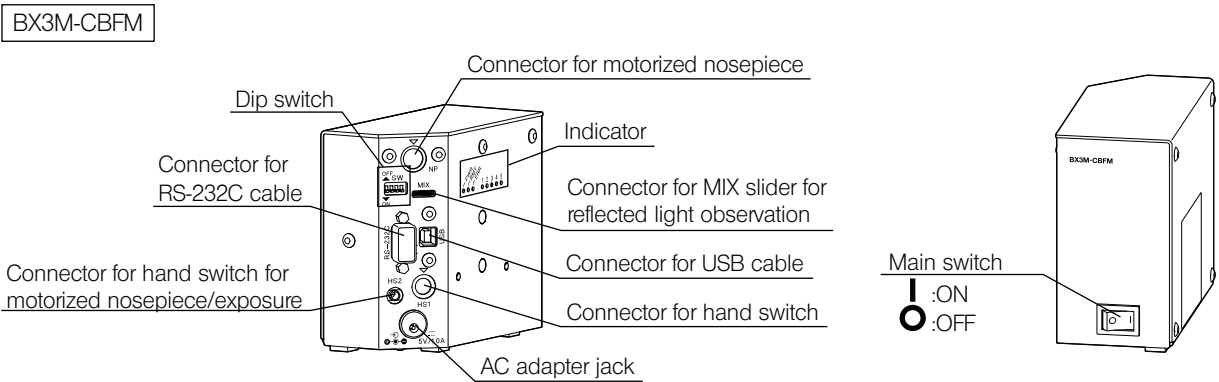
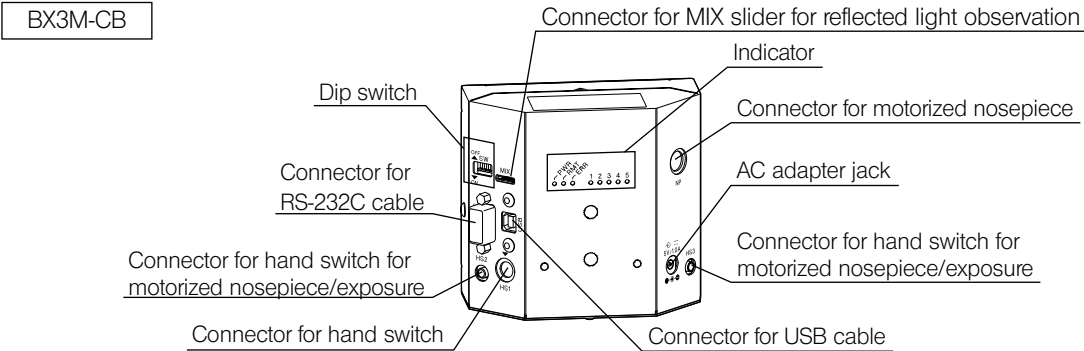
If the dirt cannot be removed by dry-wiping, moisten a soft cloth with diluted neutral detergent and wipe the dirty surface with it.

NOTE

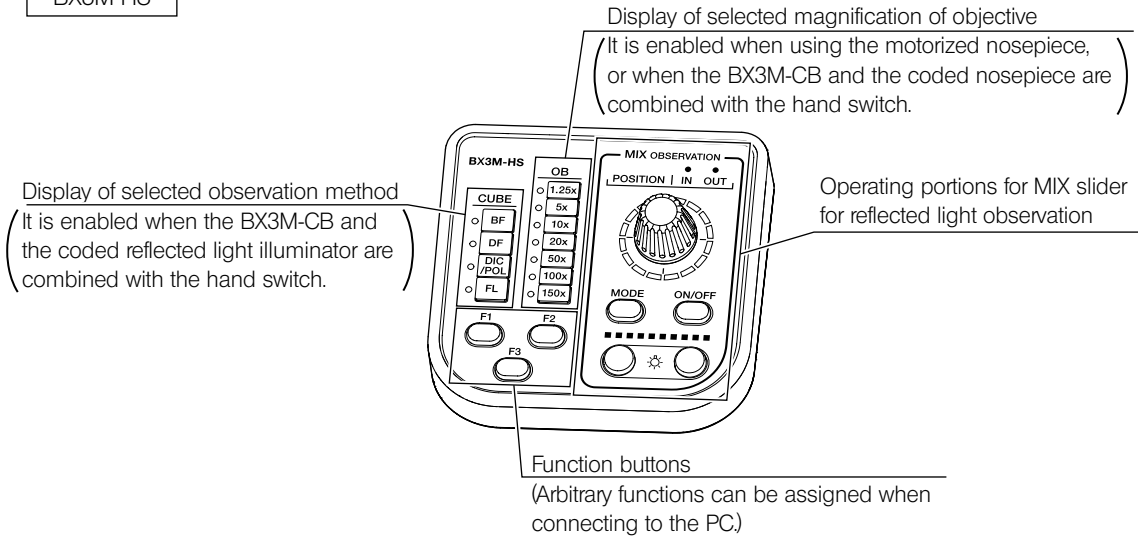
- Do not use the organic solvents because they may deteriorate the coated surface or plastic parts.**
2. Before disposing of this product, be sure to follow the regulations and rules of your local government.

1 Nomenclature of respective portions

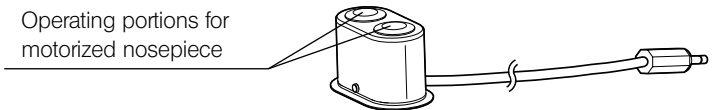
As to attaching procedures to the microscope and other units, refer to the instruction manual of dedicated system.



BX3M-HS



BX3M-HSRE

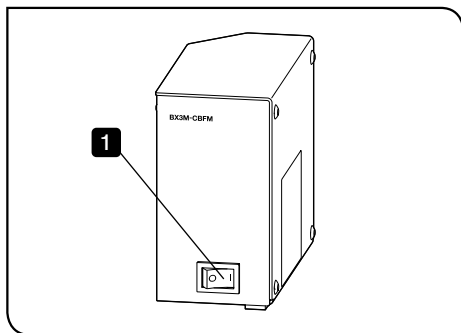


2 Operation procedures

2-1 Turning ON the main switch (BX3M-CBFM only)

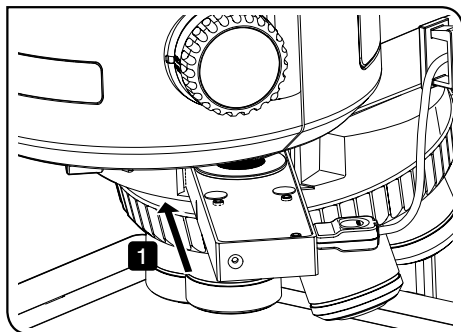
This section describes the procedure to turn ON the main switch of the BX3M-CBFM.

If you use the BX3M-CB, turn ON the main switch of the microscope frame. For details, refer to the instruction manual of BX53M system microscope.



- 1** Set the main switch of BX3M-CBFM to **I** (ON). The beep sound is heard once.

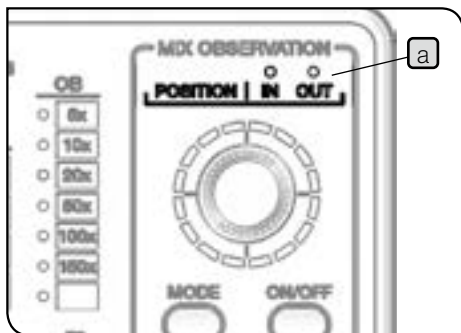
2-2 Operating the MIX slider for reflected light observation



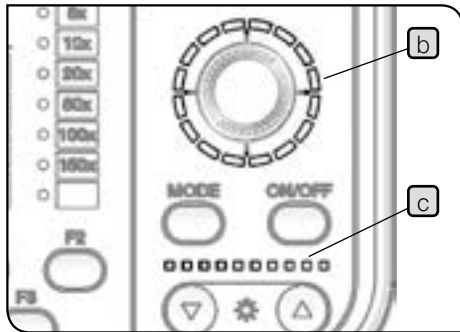
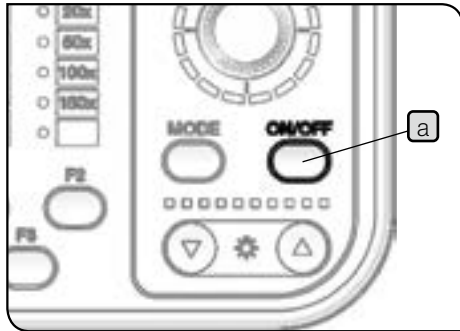
1 Inserting the MIX slider for reflected light observation

- 1 Push the MIX slider for reflected light observation (U-MIXR) in the second level (position where the clicking sound is heard).

MIX slider for reflected light observation position	Light path
First level (pulled out)	OUT
Second level (pressed in)	IN



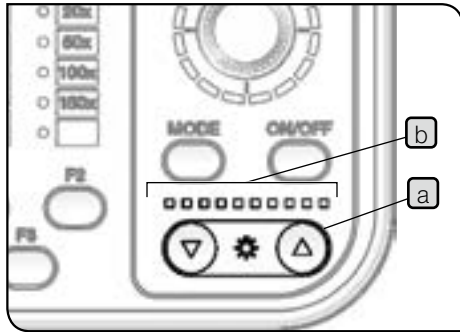
The state whether the MIX slider for reflected light observation is engaged in or removed from the light path can be checked by the POSITION indicator **a** of the hand switch (BX3M-HS).



2 Turning ON the illumination of the MIX slider for reflected light observation

1 If you press the ON/OFF button **a** of the hand switch (BX3M-HS) to set it to ON, the illumination of the MIX slider for reflected light observation (U-MIXR) turns ON.

State	Indicator (b , c)	Function
ON	Turns ON.	The illumination turns ON.
OFF	Turns OFF.	The illumination turns OFF.



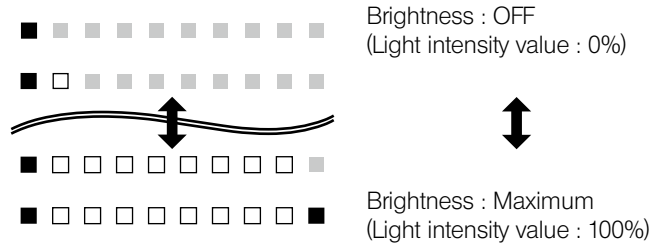
3 Adjusting the brightness

- 1 Press the light intensity button **a** of the hand switch (BX3M-HS) to adjust the brightness of the illumination.

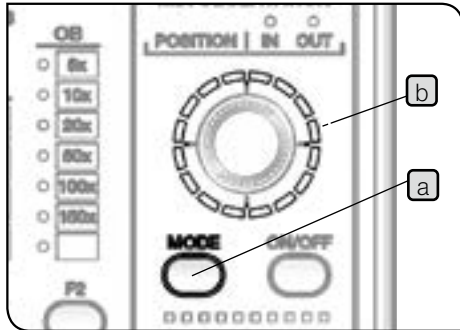
Button	Operation	Function
▼	Short press	Darken by predetermined quantity.
	Long press	Darken continuously.
▲	Short press	Brighten by predetermined quantity.
	Long press	Brighten continuously.

Indicator

The light intensity state can be checked by the indicator **b**.



■ : Turns ON in blue. □ : Turns ON in white. ■ : Turns OFF.

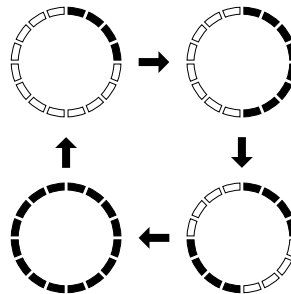


4 Selecting the illumination pattern

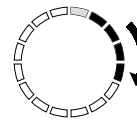
- 1 Press the MODE button **a** of the hand switch (BX3M-HS) to select the illumination pattern. The indicator **b** turns ON according to the illumination pattern.

Operation	Function
Short press	Changes the illumination pattern.
Long press (Short press while the illumination pattern is rotating automatically)	The illumination pattern rotates automatically clockwise. (The automatic rotation stops.)

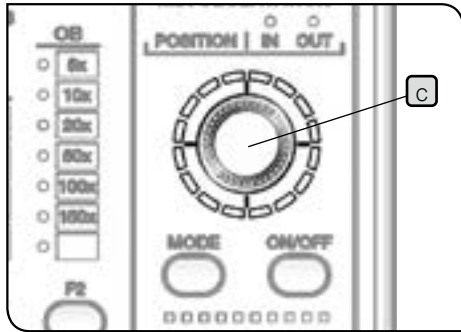
Short press



Long press

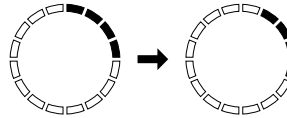


! : The illumination turns ON and the indicator turns ON in blue.

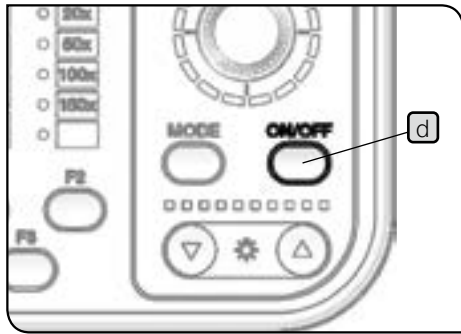


- 2** Turn the dial **c** to change the illumination position. The illumination position shifts in the rotated direction by one scale at a time.

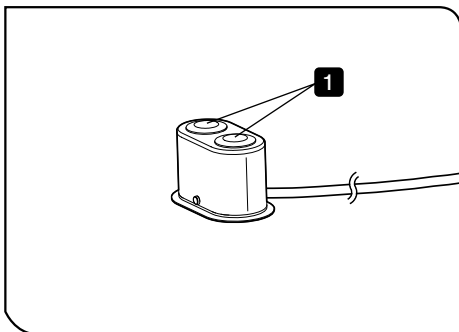
(Example of clockwise rotation)



NOTE While the illumination pattern is rotating automatically, you cannot operate the dial **c** and the ON/OFF button **d**.



2-3 Operating the motorized nosepiece



When the motorized nosepiece is combined

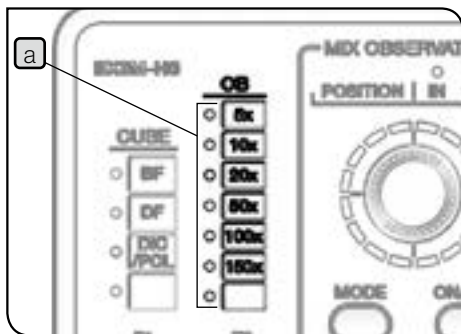
1 Press the button of BX3M-HSRE to select the objective.

TIP

The nosepiece rotation direction specified by pressing the button can be changed by setting the dip switch of the control box (BX3M-CBFM or BX3M-CB). For details, see "5-3 Setting the dip switch" (page 33).

NOTE

Before setting the dip switch, set the main switch to **○** (OFF).



When the motorized nosepiece and the hand switch are combined

The lighting of the OB indicator **a** of the hand switch (BX3M-HS) is changed according to the selection of the objective.

3 Specifications

Item	Specification	
	BX3M-CB	BX3M-CBFM
Rating	Main unit: input: 5 V / 2.5 A $\overline{\text{---}}$ AC adapter: input: 100-240 V \sim 50-60 Hz 0.4 A output: 5 V $\overline{\text{---}}$ 2.5 A	
Power consumption	74 W, 22.7 VA	
Cooling system	Natural circulation air cooling	
Indicator	Power ON/OFF Remote control by software is enabled/disabled Error Connected to units (5 positions)	
Dimensions and weight	115(W) x 56(D) x 106(H) mm 490 g USB cable length: 2 m RS-232C cable length: 2 m	59(W) x 116(D) x 109(H) mm 670 g USB cable length: 2 m RS-232C cable length: 2 m
External interface	RS-232C (external cable is included, D-SUB 9-pin female straight connector) USB 2.0 (external cable is included)	

Operating environment
<ul style="list-style-type: none"> • Indoor use • Altitude: Max. 2,000 meters • Ambient temperature: 5 to 40 °C (41 to 104 °F) • Maximum relative humidity: 80% for temperatures up to 31 °C (88 °F) (without condensation) In case of over 31 °C (88 °F), the relative humidity is decreased linearly through 70% at 34 °C (93 °F), 60% at 37 °C (99 °F), and to 50% at 40 °C (104 °F). • Supply voltage fluctuations: Not to exceed $\pm 10\%$ of the normal voltage. • Pollution degree 2 (in accordance with IEC60664-1) • Installation/Overvoltage category : II (in accordance with IEC60664-1)

4 Troubleshooting

Meaning of notations in the following tables

Number of beeps: The beep sound is heard when the control box (BX3M-CBFM or BX3M-CB) is combined. This is a number of this beep sound.

CB : Indicates the lighting state of the indicator of the control box (BX3M-CBFM or BX3M-CB).

HS : Indicates the lighting state of the indicator of the hand switch (BX3M-HS).

MIX : Indicates the lighting state of the indicator of the MIX slider for reflected light observation (U-MIXR).


● : Turns ON. ● (with a dot) : Blinks. ○ : Turns OFF. ○ (with a dot) : Varies depending on state.

Number of beeps	Phenomena			Cause	Remedy	Page
	CB	HS	MIX			
a) The motorized nosepiece does not rotate even though pressing the button of the hand switch for motorized nosepiece (BX3M-HSRE).						
None		-	-	The control box (BX3M-CBFM or BX3M-CB) is not connected.	Set the main switch to ○ (OFF) and connect the control box and the AC adapter of the control box again. Then, set the main switch to ● (ON) and confirm that the beep is heard once.	9, 27, 28
				The control box (BX3M-CBFM or BX3M-CB) is damaged.	If the indicator on the side or the back of the controller does not light even though the control box and the AC adapter of the control box are connected again, and also if the beep sound is not heard when the main switch is set to ● (ON), contact EVIDENT.	9, 27, 28

● : Turns ON. ● (with star) : Blinks. ○ : Turns OFF. ○ (with star) : Varies depending on state.

Number of beeps	Phenomena			Cause	Remedy	Page
	CB	HS	MIX			
3 times		-	-	The motorized nosepiece is not connected.	Set the main switch to ○ (OFF) and connect the motorized nosepiece again.	9, 27
				The motorized nosepiece or its cable is damaged.	Contact EVIDENT.	-
None		-	-	The hand switch for motorized nosepiece (BX3M-HSRE) is not connected.	Set the main switch to ○ (OFF) and connect the hand switch for motorized nosepiece (BX3M-HSRE). If the indicator4 on the side or the back of the control box does not turn ON even though the hand switch for motorized nosepiece is connected, contact EVIDENT.	9, 27
				The hand switch for motorized nosepiece (BX3M-HSRE) is damaged.	Contact EVIDENT.	-
None		-	-	The hand switch for motorized nosepiece (BX3M-HSRE) or the motorized nosepiece is damaged.	Contact EVIDENT.	-

● : Turns ON. ● (with sunburst) : Blinks. ○ : Turns OFF. ○ (with sunburst) : Varies depending on state.

Phenomena				Cause	Remedy	Page
Number of beeps	CB	HS	MIX			
b) When the button of the hand switch for motorized nosepiece (BX3M-HSRE) is pressed, the motorized nosepiece rotates, but it does not reach the specified hole.						
5 times		-	-	The setting of the dip switch is not correct.	Set the main switch to ○ (OFF), and use the dip switch on the side of the control box (BX3M-CBFM or BX3M-CB) to set the number of objective mounting holes on the nosepiece.	9, 33
				The motorized nosepiece did not reach the click position within the specified time. The motorized nosepiece is damaged.	Set the main switch to ○ (OFF) and check that there is no obstacle when the nosepiece rotates. If the nosepiece contacts with the obstacle, remove the obstacle. Then, set the main switch to I (ON). If the same phenomena still occurs, contact EVIDENT.	9


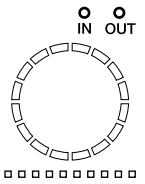
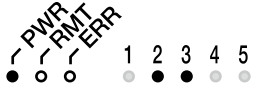
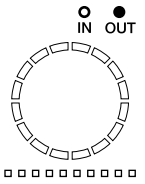

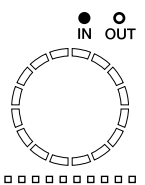
● : Turns ON. ● (with a dot) : Blinks. ○ : Turns OFF. ○ (with a dot) : Varies depending on state.

Number of beeps	Phenomena			Cause	Remedy	Page
	CB	HS	MIX			
c) The MIX slider for reflected light observation (U-MIXR) cannot be controlled by operating the hand switch (BX3M-HS).						
None			Turns OFF	The control box (BX3M-CBFM or BX3M-CB) is not connected.	Set the main switch to ○ (OFF) and connect the control box and the AC adapter of the control box again. Then, set the main switch to I (ON) and confirm that the beep is heard once.	9, 27, 28
				The control box (BX3M-CBFM or BX3M-CB) is damaged.	If the indicator on the side or the back of the controller does not light even though the control box and the AC adapter of the control box are connected again, and also if the beep sound is not heard when the main switch is set to I (ON), contact EVIDENT.	9, 27, 28


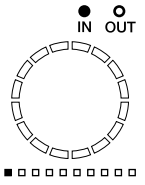




● : Turns ON. ● (with a dot) : Blinks. ○ : Turns OFF. ○ (with a dot) : Varies depending on state.

Phenomena				Cause	Remedy	Page
Number of beeps	CB	HS	MIX			
None			Turns ON	The hand switch (BX3M-HS) is not connected.	Set the main switch to ○ (OFF) and connect the hand switch (BX3M-HS). If the indicator3 on the side or the back of the control box does not light even though the hand switch is connected, contact EVIDENT.	9, 27
				The hand switch (BX3M-HS) is damaged.	If the indicator3 on the side or the back of the control box does not light even though the hand switch (BX3M-HS) is connected, contact EVIDENT.	9, 27
None			Turns OFF	The MIX slider for reflected light observation (U-MIXR) is not connected.	Connect the MIX slider for reflected light observation. If the indicator2 on the side or the back of the control box does not light even though the MIX slider for reflected light observation is connected, contact EVIDENT.	27
				The MIX slider for reflected light observation (U-MIXR) is damaged.	If the indicator2 on the side or the back of the control box does not light even though the MIX slider for reflected light observation is connected, contact EVIDENT.	27


● : Turns ON. ● (with star) : Blinks. ○ : Turns OFF. ○ (with star) : Varies depending on state.

Number of beeps	Phenomena			Cause	Remedy	Page
	CB	HS	MIX			
None			Turns ON	The cable for U-MIXR (U-MIXRCBL) or the extension cable for U-MIXR (U-MIXRECBL) is disconnected.	Contact EVIDENT.	-
None			Turns ON	The MIX slider for reflected light observation (U-MIXR) is not engaged in the light path.	Engage the MIX slider for reflected light observation in the light path. If the POSITION indicator of the hand switch (BX3M-HS) keeps lighting OUT (IN does not light) even though the MIX slider for reflected light observation is engaged in the light path, contact EVIDENT.	10
None			Turns ON	The illumination of the MIX slider for reflected light observation (U-MIXR) is turned OFF. Or the hand switch (BX3M-HS) is damaged.	Press the ON button of the hand switch (BX3M-HS). If the illumination does not turn ON even though the ON button is pressed, contact EVIDENT.	11

● : Turns ON. ✨ : Blinks. ○ : Turns OFF. ◐ : Varies depending on state.

Number of beeps	Phenomena			Cause	Remedy	Page
	CB	HS	MIX			
None			Turns ON	The light intensity value of the MIX slider for reflected light observation (U-MIXR) is 0%. Or the hand switch (BX3M-HS) is damaged.	Press the light intensity button (▲) of the hand switch (BX3M-HS). If the illumination does not turn ON even though the light intensity button is pressed, contact EVIDENT.	12
d) The OB indicator does not light even though selecting the objective by turning the motorized nosepiece.						
None			-	The control box (BX3M-CBFM or BX3M-CB) is not connected.	Set the main switch to ○(OFF) and connect the control box and the AC adapter of the control box again. Then, set the main switch to I(ON) and confirm that the beep is heard once.	9, 27, 28
None			-	The hand switch (BX3M-HS) is not connected.	Set the main switch to ○(OFF) and connect the hand switch (BX3M-HS). If the OB indicator does not light even though the hand switch is connected, contact EVIDENT.	9, 27
				The hand switch (BX3M-HS) is damaged.	Contact EVIDENT.	-

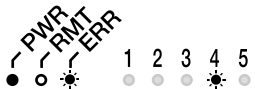
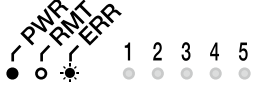
● : Turns ON. ● (with a starburst) : Blinks. ○ : Turns OFF. ● (with a vertical line) : Varies depending on state.

Phenomena				Cause	Remedy	Page
Number of beeps	CB	HS	MIX			
e) The system cannot be controlled by PC.						
None		-	-	The interface cable is not connected.	Connect the interface cable.	30
				The main switch is set to ○ (OFF) while the communication between PC and the microscope is in process.	Close the application software. Then, set the main switch to I (ON) and start the application software.	9
				The device driver is not installed.	Install the device driver from the installation media of the application software.	-
				The device is not detected properly.	Scan the device again with the Windows® device manager.	-
				The USB cable is connected to the USB connector of PC for the first time.	Install the device driver in accordance with the installation wizard.	-
				The communication between the control box (BX3M-CBFM or BX3M-CB) and PC is disconnected.	Remove the interface cable from PC and connect it again. Then, restart the application software. If the communication is still not restored, turn OFF the power supplies of the microscope and PC and turn ON again.	30

● : Turns ON. ● (with star) : Blinks. ○ : Turns OFF. ● (with star) : Varies depending on state.

Number of beeps	Phenomena			Cause	Remedy	Page
	CB	HS	MIX			
f) The beep sound is heard once suddenly, and the system returns to the state that the power is ON.						
1 time		-	-	The large supply voltage fluctuation, etc. occurs caused by thunder, etc. and the system was reset.	This is not a failure. If this phenomenon occurs frequently, contact EVIDENT.	-
g) The beep sound is heard five times.						
5 times		-	-	The communication between the control box (BX3M-CBFM or BX3M-CB) and the hand switch (BX3M-HS) is disconnected. The cable of the hand switch (BX3M-HS) is removed while the power is ON.	Set the main switch to ○ (OFF) once and set the main switch to I (ON) again. If the error occurs frequently, contact EVIDENT.	9

● : Turns ON. ✨ : Blinks. ○ : Turns OFF. ● : Varies depending on state.

Number of beeps	Phenomena			Cause	Remedy	Page
	CB	HS	MIX			
5 times		-	-	<p>The communication between the control box (BX3M-CBFM or BX3M-CB) and the hand switch for motorized nosepiece (BX3M-HSRE) is disconnected. The cable of the hand switch for motorized nosepiece (BX3M-HSRE) is removed while the power is ON.</p>	<p>Set the main switch to ○ (OFF) once and set the main switch to I (ON) again. If the error occurs frequently, contact EVIDENT.</p>	9
5 times		-	-	<p>The communication between the control box (BX3M-CBFM or BX3M-CB) and PC is disconnected.</p>	<p>Set the main switch to ○ (OFF) once and set the main switch to I (ON) again. If the error occurs frequently, contact EVIDENT.</p>	9

5 Assembly

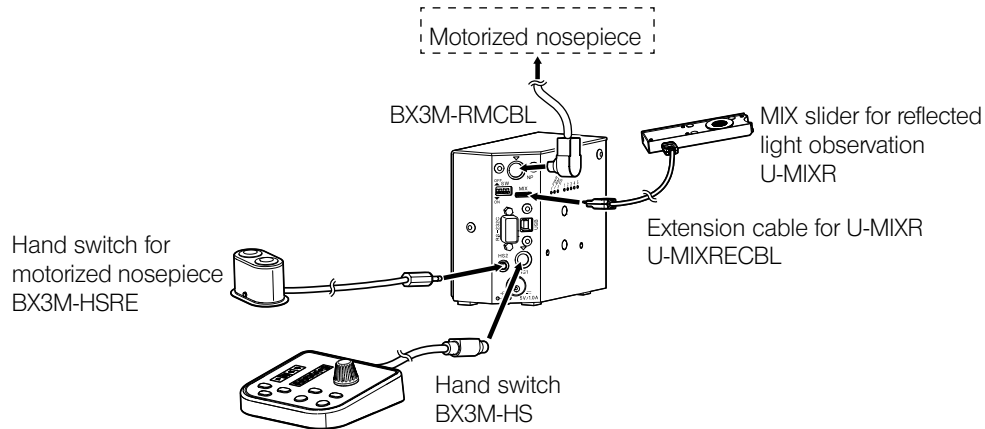
5-1 Assembly procedures (BX3M-CBFM only)

This section describes assembly procedures of the BX3M-CBFM. If you use the BX3M-CB, refer to the instruction manual of BX53M system microscope for assembly procedures of the BX3M-CB.

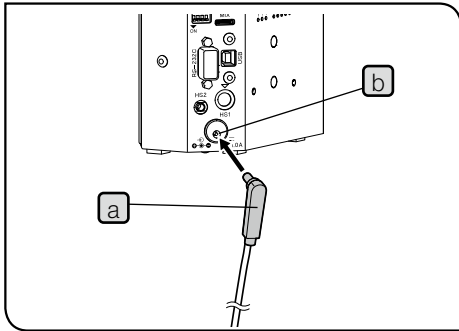
1 Cable connections

NOTE

- Before connecting or disconnecting cables, set the main switch to **○(OFF)** and unplug the power cord from the outlet.
- Cables are vulnerable when bent or twisted. Never subject them to excessive force.
- Connect the connectors in the correct orientation paying attention to the shape of the connector.



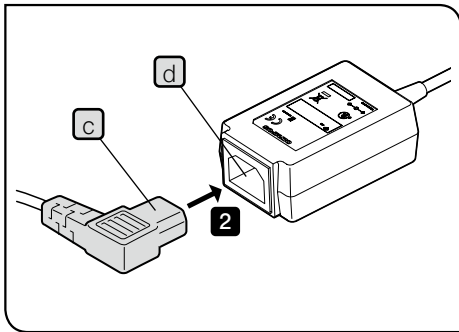
2 Connecting the AC adapter and the power cord



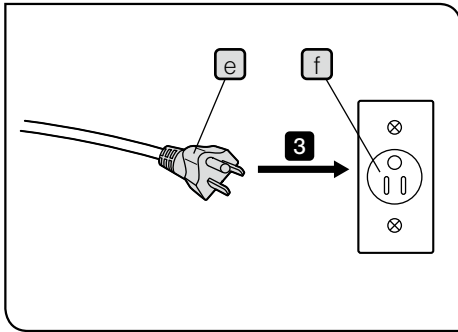
- 1 Insert the AC adapter plug **a** firmly in the AC adapter jack **b** of the FM control box.

NOTE

When inserting or removing the AC adapter plug, hold the plug and insert straightly.



- 2 Insert the power cord connector **c** in the connector **d** of the AC adapter.



3 Connect the power cord plug **e** to the power outlet **f**.

NOTE For the safety purpose, connect the power cord plug last.

5-2 Connection with PC

To control the system microscope from PC, the PC must be connected to the control box (BX3M-CBFM or BX3M-CB) with the interface cable (USB cable or RS-232C cable). In addition, the application software to control the system microscope must be installed on PC.

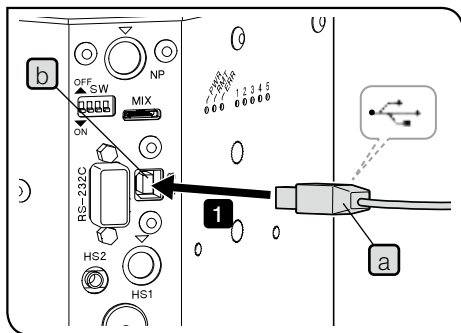
1 Connecting the interface cable

CAUTION

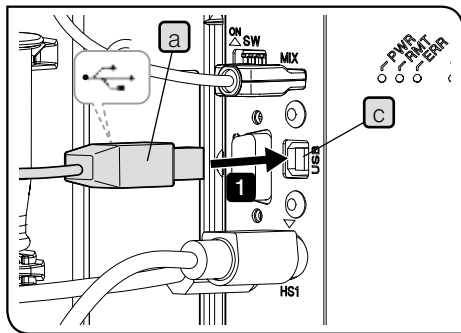
- Always use the USB cables and RS-232C cable interface cables provided by EVIDENT. If you use the commercially available USB 2.0 cables or hubs, the system operations cannot be ensured.

NOTE

- Be sure to connect cables when the main switch of BX3M-CBFM or the microscope and the power supply of PC are turned OFF.
- Cables are vulnerable when bent or twisted. Never subject them to excessive force.
- Connect the cables in the correct orientation paying attention to the shape of the connector.
- You cannot connect the PC and the control box (BX3M-CBFM or BX3M-CB) using both the USB cable and the RS-232C cable.



BX3M-CBFM



BX3M-CB

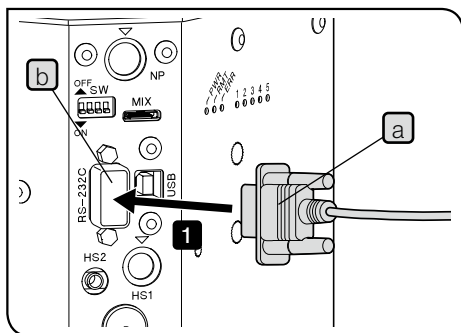
Connecting the USB cable

- 1** Connect the USB cable connector **a** to the connector **b** of BX3M-CBFM or the connector **c** of BX3M-CB.
- 2** Connect the other connector of the USB cable to the USB 2.0 connector of PC.

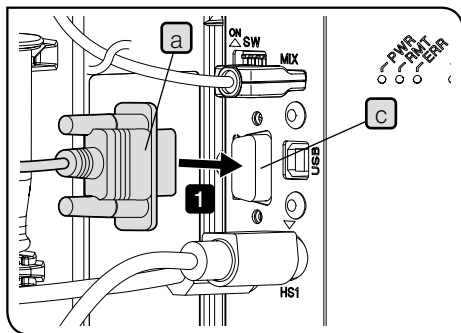
NOTE

Some PCs are equipped with both USB 2.0 and USB 3.0 connectors. Be sure to connect the USB cable to the USB 2.0 connector. If it is connected to the USB 3.0 connector, the operations are not ensured. (For some USB 3.0 connectors, the color of the terminal part is blue or "SS" is printed on.)





BX3M-CBFM



BX3M-CB

Connecting the RS-232C cable

- 1** Connect the RS-232C cable connector **a** to the connector **b** of BX3M-CBFM or the connector **c** of BX3M-CB.
- 2** Connect the other connector of the RS-232C cable to the RS-232C connector of PC.

2 Start procedures /Exit procedures

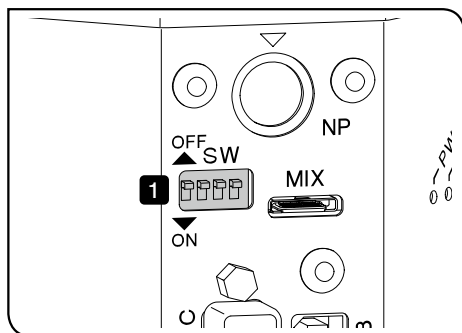
Start procedures

- 1** Turn ON the power of PC and log on Windows®. Wait until the desktop appears.
- 2** Set the main switch of the microscope frame to **I** (ON).
- 3** Start the application software.

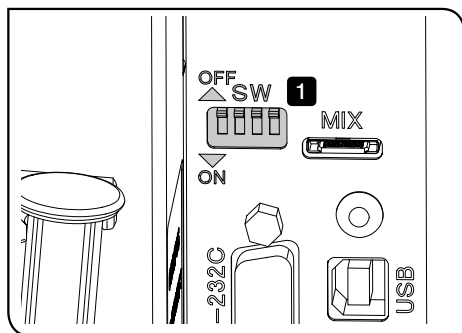
Exit procedures

- 1** Exit from the application software.
- 2** Shutdown Windows®.
- 3** Set the main switch of the microscope frame to **O** (OFF).

5-3 Setting the dip switch



BX3M-CBFM





BX3M-CB

Setting the dip switch

This setting is necessary when combining the motorized nosepiece or the hand switch for motorized nosepiece (BX3M-HSRE) to the microscope.

- 1 Set the dip switch on the back of BX3M-CBFM or the side of BX3M-CB.

 : Factory default setting

Function/Unit					Setting
	1	2	3	4	
Beep	OFF				The beep sound is heard.
	ON				The beep sound is not heard.
Motorized nosepiece		OFF			5 holes
		ON			6 holes
Hand switch for motorized nosepiece (BX3M-HSRE)			OFF		When the right button is pressed, the nosepiece rotates counterclockwise.
			ON		When the right button is pressed, the nosepiece rotates clockwise.
Reserved by maker				OFF	This switch should be always kept OFF.
				ON	

6 Proper selection of the power supply cord

If no power supply cord is provided, please select the proper power supply cord for the product by referring to “Specifications” and “Certified Cord” below:

Caution : In case you use a non-approved power supply cord for EVIDENT products, EVIDENT can no longer warrant the electrical safety of the product.

Specifications

Voltage rating	125 V AC (for 100-120 V AC area) or, 250 V AC (for 220-240 V AC area)
Current rating	6 A minimum
Temperature rating	60 °C minimum
Length	3.05 m maximum
Fittings configuration	Grounding type attachment plug cap. Opposite terminates in molded-on IEC configuration appliance coupling.

Table 1 Certified cord

A power supply cord should be certified by one of the agencies listed in Table 1 , or comprised of cordage marked with an agency marking per Table 1 or marked per Table 2. The fittings are to be marked with at least one of the agencies listed in Table 1. In case you are unable to buy locally the power supply cord which is approved by one of the agencies mentioned in Table 1, please use replacements approved by any other equivalent and authorized agencies in your country.
















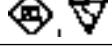



Country	Agency	Certification mark	Country	Agency	Certification mark
Argentina	IRAM		Italy	IMQ	
Australia	SAA		Japan	JET	
Austria	ÖVE		Netherlands	KEMA	
Belgium	CEBEC		Norway	NEMKO	
Canada	CSA		Spain	AEE	
Denmark	DEMKO		Sweden	SEMKO	
Finland	FEI		Switzerland	SEV	
France	UTE		United Kingdom	ASTA BSI	
Germany	VDE		USA	UL	
Ireland	NSAI				

Table 2 HAR flexible cord

Approval organization	Printed or embossed harmonization marking (May be located on jacket or insulation of internal wiring)		Alternative marking utilizing black-red-yellow thread (Length of color section in mm)		
			Black	Red	Yellow
Comite Electrotechnique Belge (CEBEC)	CEBEC	<HAR>	10	30	10
Verband Deutscher Elektrotechniker (VDE) e.V. Prüfstelle	<VDE>	<HAR>	30	10	10
Union Technique de l'Electricite' (UTE)	USE	<HAR>	30	10	30
Instituto Italiano del Marchio di Qualita' (IMQ)	IEMMEQU	<HAR>	10	30	50
British Approvals Service for Electric Cables (BASEC)	BASEC	<HAR>	10	10	30
N.V. KEMA	KEMA-KEUR	<HAR>	10	30	30
SEMKO AB Svenska Elektriska Materielkontrollanstalter	SEMKO	<HAR>	10	10	50
Österreichischer Verband für Elektrotechnik (ÖVE)	<ÖVE>	<HAR>	30	10	50
Danmarks Elektriske Materialkontroll (DEMKO)	<DEMKO>	<HAR>	30	10	30

Approval organization	Printed or embossed harmonization marking (May be located on jacket or insulation of internal wiring)		Alternative marking utilizing black-red-yellow thread (Length of color section in mm)		
			Black	Red	Yellow
National Standards Authority of Ireland (NSAI)	<NSAI>	<HAR>	30	30	50
Norges Elektriske Materiellkontroll (NEMKO)	NEMKO	<HAR>	10	10	70
Asociacion Electrotecnica Y Electronica Espanola (AEE)	<UNED>	<HAR>	30	10	70
Hellenic Organization for Standardization (ELOT)	ELOT	<HAR>	30	30	70
Instituto Portages da Qualidade (IPQ)	np	<HAR>	10	10	90
Schweizerischer Elektro Technischer Verein (SEV)	SEV	<HAR>	10	30	90
Elektriska Inspektoratet	SETI	<HAR>	10	30	90

Underwriters Laboratories Inc. (UL)

SV, SVT, SJ or SJT, 3 X 18AWG

Canadian Standards Association (CSA)

SV, SVT, SJ or SJT, 3 X 18AWG

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Service Center



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Industrial solutions

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Official website



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