# UVITEC

Cambridge



#### **UVITEC LIMITED**

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UV Table 2 Wavelengths USER MANUAL

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### **UV** table

You have purchased a new UV transilluminator. We are sure it will give you entire satisfaction. All our UV transilluminators come equipped with the following:

UV safety screen - total protection for the user against UV rays,

- fully adjustable angle.

- long lifetime

Filter - unrivalled UV transmitting quality,

- high capacity for absorption of visible light,

- brighter fluorescent response.

Reflector - high reflecting quality to give a perfect diffusion of UV radiation ("Optic"

quality).

Filter support

- stainless steel.

UV intensity selector

(2 positions) - on BXT and SXT models (position 100% for reading, position 70% for

preparation).

#### → Warning / On the safety

a) This unit must be connected to a wall outlet having protective earth terminal. Connecting to ground is an obligatory protection.

b) To prevent fire or shock hazard, do not expose the unit to rain or moisture.

c) Unplug the unit from the wall outlet if you do not use it for a long time. Disconnect the power cord by grasping the plug. Never pull the cord itself.

d) Never obstruct the air admission grids of the unit.

This symbol is warning against a possible UV radiation. Protect the eyes and skin from the UV radiation.

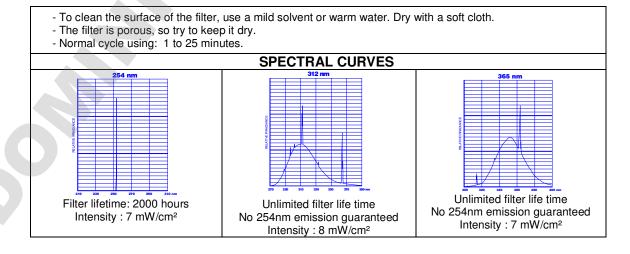
Climatic conditions

- Altitude : ≤ 2000 meters

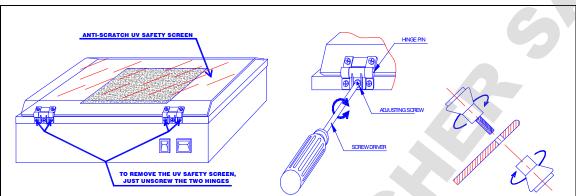
- Operating humidity : 20% to 80% (no condensation allowed)

- Operating temperature : 5 °C to 33 °C

#### → General advice



# **General instructions**



**CAUTION**: Switch off the fluorescent table when electrophoresis gel is not present. The fluorescent table should not be kept "On" for more than 25 minutes without gel. If such is the case, switch off the fluorescent table for 20 minutes before a new utilization. If the filter is too hot, it will destroy your electrophoresis gel.

All our fluorescent tables are fitted with one or two safety fuses. These are found in the plug at the back of the UV table. The plugs vary according to the type of UV table and the voltage (see the 2 different types below).

### **→** Type of socket and fuse

Type of sockets for all models	Sockets for all 100V~ 50/60Hz models except BXT and SXT	Type of fuse (all models)
		Type FST Time-lag T Ø 5 x 20

**Power**: See the power values for each item in the spare parts and characteristics board on the last page of the manual.

### Changing the frequency

BXT/SXT models work at all	For other 100V~ - 50/60 Hz models:
frequency	<ul> <li>Remove the fuse holder tray,</li> </ul>
	<ul> <li>Remove the frequency selector located inside,</li> </ul>
	Twist a half turn to change the frequency. Check that the value visible
	through the fuse holder tray corresponds to the desired frequency.



**WARNING** 



UV radiation can be dangerous for unprotected eyes and skin, therefore we recommend the user to wear UV protective goggles (LP-70) or face-shield (MP-80 or MP-800).

## **BXT** transilluminator

#### Operating instructions

- Place your UV Table on a level working surface,
- Plug the unit into <u>a properly grounded electrical outlet</u>,
- To work in "reading" mode, select position 100%, then switch on the on/off switch
- To work in "preparation" mode, select position 70%, then switch on the on/off switch
- After use, switch off the on/off switch.

**CAUTION**: Switch off the fluorescent table when electrophoresis gel is not present on the transilluminator. If the filter is too hot, it will damage your electrophoresis gel. Over 20 minutes, transilluminator will be in energy saving mode. To activate it again, wait for 20 seconds and press switch on.

NOTE: Wait at least 20 second in the "100%" position before reducing the intensity selector to "70%".

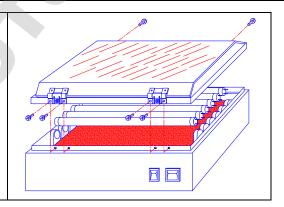
If one or several tubes are off or used, and in order to keep a better homogeneity, UVITEC recommends to change the 6 tubes simultaneously.

#### Changing the tubes

- a) Before dismantling, unplug the UV Table,
- b) Unscrew the 6 fixing screws on the filter support,
- c) Remove the filter support,
- d) Change the 6 tubes (A quarter turn will release the tubes).

**IMPORTANT**: Reassemble the UV table completely before checking it works correctly.

To reassemble the UV table, follow the above instructions in reverse order. Fuses are located in the plug - see page 4.



#### **→** Spare parts

			Tubes			Fuse Ø	5 x 20	
Ref. Article	Qty	Ref.	Wavelength	W	Filter with support	230 V~	100 V~	Power
						240 V~	115 V~	
BXT-15.L	6	T-8.L	365nm	8W	FBT-15.L	2 A	2 A	55 W
BXT-15.M	6	T-8.M	312nm	W8	FBT-15.S	2 A	2 A	55 W
BXT-15.S	6	T-8.S	254nm	W8	FBT-15.S	2 A	2 A	55 W
BXT-20.L	6	T-8.L	365nm	8W	FBT-20.L	2 A	2 A	55 W
BXT-20.M	6	T-8.M	312nm	W8	FBT-20.S	2 A	2 A	55 W
BXT-20.S	6	T-8.S	254nm	8W	FBT-20.S	2 A	2 A	55 W
BXT-26.M	6	T-8.M	312nm	W8	FBT-26.S	2 A	2 A	55 W
BXT-26.MX	6	T-8.M	312nm	W8	FBT-26.MX	2 A	2 A	55 W
BXT-26.S	6	T-8.S	254nm	8W	FBT-26.S	2 A	2 A	55 W
BTS-20.W	2	T-8.WL	White light	8W	FBT-20.W	2A	2A	32W





# BTS – 2 wavelengths transilluminator

#### Operating instructions

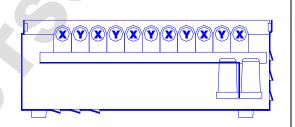
- Place your transilluminator on a level working surface.
- Check that your electrical supply is compatible with the voltage of your transilluminator,
- Plug the unit into a properly grounded electrical outlet,
- Select the desired wavelength,
- Put the O/I switch to the I position
- The switch diode will light up
- To change the wavelength, put the switch to position O.
- After use, select position O.

#### Changing the tubes

- a) Before dismantling, unplug the TABLE,
- b) Unscrew the 6 fixing screws on the filter support,
- c) Remove the filter support,
- d) Change the 6 tubes of the first wavelength and 5 tubes of the second wavelength, then the 11 starters. (starters are located under the tubes only for the BTS). A quarter turn will release the tubes and the starters.
- e) **CAREFULLY** keep tubes in the same order (see diagram)

**IMPORTANT**: Reassemble the transilluminator completely before checking it works correctly.

To reassemble the transilluminator, follow the above instructions in reverse order. Fuses are located in the plug (see page 4)



BTS-20.LM/BTS-26.LM : X = T-8.M 312nm

: Y = T-8.L 365nm

BTS-20.MS/BTS-26.MS : X = T-8.S 254nm

: Y = T-8.M 312nm

BTS-20.LS/BTS-26.LS : X = T-8.S 254nm

: Y = T-8.L 365nm

#### → Spare parts

			Tubes		Filter with	Starter	Fuse Ø		
Ref. Article	Qty	Ref.	Wavelength	W	support	ST-151 (230/115V) FG-7P (100V)	230 V~ 240 V~	100 V~ 115 V~	Power
BTS-20.LM	5	T-8.L	365nm	8W	FBT-20.S	11	2 A	3.15 A	96 W
	6	T-8.M	312nm	8W		11	2 A	3.15 A	
BTS-20.MS	5	T-8.M	312nm	8W	FBT-20.S	11	2 A	3.15 A	96 W
	6	T-8.S	254nm	8W		11	2 A	3.15 A	
BTS-20.LS	5	T-8.L	365nm	8W	FBT-20.S	11	2 A	3.15 A	96 W
	6	T-8.S	254nm	8W		11	2 A	3.15 A	
BTS-26.LM	5	T-8.L	365nm	8W	FBT-26.S	11	2 A	3.15 A	96 W
	6	T-8.M	312nm	8W		11	2 A	3.15 A	
BTS-26.MS	5	T-8.M	312nm	8W	FBT-26.S	11	2 A	3.15 A	96 W
	6	T-8.S	254nm	8W		11	2 A	3.15 A	
BTS-26.LS	5	T-8.L	365nm	8W	FBT-26.S	11	2 A	3.15 A	96 W
	6	T-8.S	254nm	8W		11	2 A	3.15 A	



WARNING



## **SXT** transilluminator

#### Operating instructions

- Place your UV Table on a level working surface,
- Plug the unit into a properly grounded electrical outlet,
- To work in "reading" mode, select position 100%, then switch on the on/off switch
- To work in "preparation" mode, select position 70%, then switch on the on/off switch
- After use, switch off the on/off switch.

**CAUTION**: Switch off the fluorescent table when electrophoresis gel is not present on the transilluminator. If the filter is too hot, it will damage your electrophoresis gel. Over 20 minutes, transilluminator will be in energy saving mode. To activate it again, wait for 20 seconds and press switch on.

NOTE: Wait at least 20 second in the "100%" position before reducing the intensity selector to "70%".

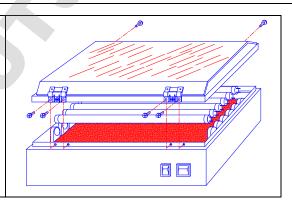
If one or several tubes are off or used, and in order to keep a better homogeneity, UVITEC recommends to change the 6 tubes simultaneously.

#### Changing the tubes

- a) Before dismantling, unplug the UV Table,
- b) Unscrew the 6 fixing screws on the filter support,
- c) Remove the filter support,
- d) Change the 6 tubes (A quarter turn will release the tubes).

**IMPORTANT**: Reassemble the UV table completely before checking it works correctly.

To reassemble the UV table, follow the above instructions in reverse order. Fuses are located in the plug - see page 4.



#### **→** Spare parts

			Tubes			Fuse Ø 5 x 20		_	
Ref. Article	Qty	Ref.	Wavelength	W	Filter with support	230 V~	100 V~	Power	
						240 V~	115 V~		
SXT-20.L	6	T-15.L	365nm	15W	FST-20.L	2 A	2 A	100 W	
SXT-20.M	6	T-15.M	312nm	15W	FST-20.S	2 A	2 A	100 W	
SXT-20.S	6	T-15.S	254nm	15W	FST-20.S	2 A	2 A	100 W	
SXT-26.M	6	T-15.M	312nm	15W	FST-26.S	2 A	2 A	100 W	
SXT-26.S	6	T-15.S	254nm	15W	FST-26.S	2 A	2 A	100 W	
SXT-26.MX	6	T-15.M	312nm	15W	FST-26.MX	2 A	2 A	100 W	
SXT-35.L	6	T-15.L	365nm	15W	FST-35.L	2 A	2 A	100 W	
SXT-35.M	6	T-15.M	312nm	15W	FST-35.S	2 A	2 A	100 W	
SXT-35.S	6	T-15.S	254nm	15W	FST-35.S	2 A	2 A	100 W	
SXT-40.M	6	T-15.M	312nm	15W	FST-40.S	2 A	2 A	100 W	
SXT-40.S	6	T-15.S	254nm	15W	FST-40.S	2 A	2 A	100 W	



WARNING



UV radiation can be dangerous for unprotected eyes and skin, therefore we recommend the user to wear UV protective goggles or face-shield.

## STS - Mixed

#### Operating instructions

- Place your UV Table on a level working surface,
- Plug the unit into a properly grounded electrical outlet,
- To work in "reading" mode, select position 100%, then switch on the on/off switch
- To work in "preparation" mode, select position 70%, then switch on the on/off switch
- After use, switch off the on/off switch.

**CAUTION**: Switch off the fluorescent table when electrophoresis gel is not present on the transilluminator. If the filter is too hot, it will damage your electrophoresis gel. Over 20 minutes, transilluminator will be in energy saving mode. To activate it again, wait for 20 seconds and press switch on.

NOTE: Wait at least 20 second in the "100%" position before reducing the intensity selector to "70%".

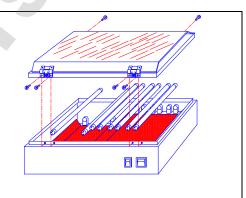
If one or several tubes are off or used, and in order to keep a better homogeneity, UVITEC recommends to change the 8 tubes simultaneously.

#### Changing the tubes

- a) Before dismantling, unplug the UV Table,
- b) Unscrew the 6 fixing screws on the filter support
- c) Remove the filter support
- d) Change the 8 tubes and 8 starters (starters are located under the tubes. A quarter turn will release the tubes and the starters).
- e) CAUTION: Keep the tubes in the same order

**IMPORTANT**: Reassemble the UV table completely before checking it works correctly.

To reassemble the UV table, follow the above instructions in reverse order. Fuses are located in the plug - see page 4.



#### **→** Spare parts

			Tubes		Filter with	Starter	Fuse Ø 5		
Ref. Article	Qty	Ref.	Wavelength	W	Support	ST-151 (230/115V) FG-7P (100V)	230 V~ 240 V~	100 V~ 115 V~	Power
STS-20.WS	6	T-8.S	254nm	8W	FST-20.WL	6	2 A	3.15 A	100 W
010 20.00	2	T-8.WL	White Light	8W	10120.00	2	2 A	3.15 A	100 11
STS-20WM	6	T-8.M	312nm	8W	FST-20.WS	6	2 A	3.15 A	100 W
	2	T-8.WL	White Light	8W		2	2 A	3.15 A	
STS-20WL	6	T-8.L	365nm	8W	FST-20.WS	6	2 A	3.15 A	100 W
	2	T-8.WL	White Light	8W		2	2 A	3.15 A	







UV radiation can be dangerous for unprotected eyes and skin, therefore we recommend the user to wear UV protective goggles or face-shield.

### STS - 35W

#### Operating instructions

- Place your UV Table on a level working surface,
- Plug the unit into a properly grounded electrical outlet,
- To work in "reading" mode, select position 100%, then switch on the on/off switch
- To work in "preparation" mode, select position 70%, then switch on the on/off switch
- After use, select position 0.

CAUTION: Switch off the fluorescent table if not used.

NOTE: Wait at least 20 second in the "100%" position before reducing the intensity selector to "70%"

**CAUTION**: When one or several tubes are out of order, the warning tubes flicker for a short moment at the lighting of the UV table. Then all the tubes are automatically switched off by the security device.

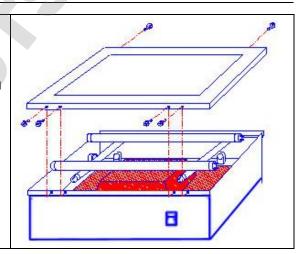
For a better homogeneity, UVITEC recommends to change the 2 tubes simultaneously.

#### Changing the tubes

- a) Before dismantling, unplug the UV table,
- b) Unscrew the 6 fixing screws on the filter support,
- c) Remove the filter support,
- d) Change the 4 tubes and 4 starters (starters are located under the tubes. A quarter turn will release the tubes and the starters).

**IMPORTANT**: Reassemble the UV table completely before checking it functions correctly.

To reassemble the UV table, follow the above instructions in reverse order. Fuses are located in the plug - see page 4



#### → Spare parts

Tubes			Filter with Starter		Fuse (	ð 5 x 20			
Ref. Article	Qty	Ref.	Wavelength	W	support	ST-151 (230/115V) FG-1P (100V)	230 V~ 240 V~	100 V~ 115 V~	Power
STS-35.W	2	T-15.WL	White Light	15W	FS-T35.WL	2	2 A	3.15 A	80 W
	2	T-6.WL	White Light	6W		2	2 A	3.15 A	



WARNING



UV radiation can be dangerous for unprotected eyes and skin, therefore we recommend the user to wear UV protective goggles (LP-70) or face-shield (MP-80 or MP-800).

## **UVICHROMTRANS**

#### Operating instructions

- Place the UVIChromtrans-transilluminator on a level working surface,
- Check that your electrical supply is compatible with the voltage of the UVIChromtrans-transilluminator,
- Plug the unit into a properly grounded electrical outlet,
- To work in "viewing/documentation" mode, select position 100%, then switch on the unit
- To work in "preparation" mode, select position 70%, then switch on the unit
- After use, switch off the on/off switch

#### To switch on the side-arms:

254nm : switch n° 2
365nm : switch n° 3
White light : switch n° 4

• After use, put all switches on the OFF position

#### → Changing The Tubes

Before dismantling, unplug the unit.

#### **→Tubes In The Table**

- a) Unscrew the 6 fixing screws on the filter support.
- b) Remove the filter support,
- c) Change the 6 tubes. (A quarter turn will release the tubes).

#### →Tubes In The Side-Arms

- a) Unscrew the 2 screws in the end-plate,
- b) Remove the end-plate,
- c) Remove the filter support,
- d) Change the tubes and the starters

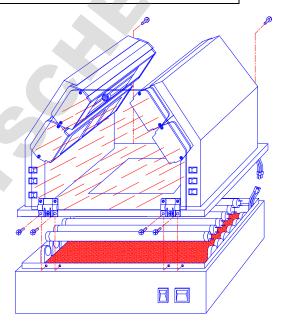
**IMPORTANT**: Reassemble the unit completely before checking it functions correctly.

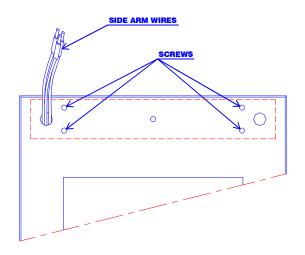
To reassemble the table, follow the above instructions in reverse order.

Fuses are located in the plug - see page 2.

# → Changing The Transilluminator Filter

- a) Before dismantling, unplug the unit.
- b) Unscrew the 6 fixing screws on the filter support,
- c) Raise the filter support and disconnect the cable in each side-arm (note the colour of each cable),
- d) Completely remove the filter support,
- e) Unscrew and remove the 4 fixing screws in each of the side-arms,
- f) Fix the 2 side-arms on to the new filter support by first passing the cables through the corresponding holes,
- Reconnect the cables on the side-arms according to the colours,
- h) Fit the filter support on to the table.





#### → Spare parts

	Tubes			Filter with	Starter	Fuse Ø 5			
Ref. Article	Qty	Ref.	Wavelength	W	support	ST-151 (230/115V) FG-7P (100V)	230 V~ 240 V~	100 V~ 115 V~	Power
CTS-20.L	6	T-15.L	365nm	15W	FCT-20.L	6	3.15 A	4 A	250W
CTS-20.M	6	T-15.M	312nm	15W	FCT-20.S	6	3.15 A	4 A	250 W
CTS-20.S	6	T-15.S	254nm	15W	FCT-20.S	6	3.15 A	4 A	250W
CTS-35.L	6	T-15.L	365nm	15W	FCT-35.L	6	3.15 A	4 A	250W
CTS-35.M	6	T-15.M	312nm	15W	FCT-35.S	6	3.15 A	4 A	250 W
CTS-35.S	6	T-15.S	254nm	15W	FCT-35.S	6	3.15 A	4 A	250W
SIDE-ARMS	2	T-8.L	365nm	W8	FLF-8.S	2			
	2	T-8.S	254nm	W8	FLF-8.S	2			
	2	T-8.WL	White Light	W8		2			



**WARNING** 



UV radiation can be dangerous for unprotected eyes and skin, therefore we recommend the user to wear UV protective goggles (LP-70) or face-shield (MP-80 or MP-800).

### ACCESSORIES

#### Other accessories

**CV 015W**: Viewing cabinet with internal white light that can be fitted onto a standard (large) transilluminator for maximum fluorescence in daylight. A UV-blocking viewing port enables safe viewing of fluorescent objects in the darkroom.

The lighting (2 x 40W white light) enables easy positioning of the object to be viewed.

**CV 415UV:** UV viewing cabinet with powerful overhead (epi-) UV lights, that can be fitted onto a standard (large) UV transilluminator for very high UV intensity in daylight.

#### Warranty

Our products (except Compact Flash<sup>®</sup>, light tubes and filters) are warranted against faulty construction or defective material for a period of TWO YEARS from the date of supply. Our products are not warranted for damage due to carelessness, incorrect use or bad maintenance.

The following defects are also specifically excluded:

- Defects caused by improper operation.
- Repair or modification done by anyone other than UVITEC or an authorised agent.
- Corrosion caused by improper solvents or samples.
- Use of spare parts supplied by anyone other than UVITEC.
- Damage caused by accident or misuse.
- Damage caused by disaster.

This instrument should not be modified or altered in any way. Modification or alteration of this instrument will:

- 1. Void the manufacturer's warranty.
- 2. Void the conformity certifications.
- 3. Create a potential safety hazard.

The Compact Flash®, the tubes and the filters are not covered by our warranty.

The use of consumable products or non-original spare parts not recommended by our service department is at the user's own risk and therefore automatically invalidates the warranty.

Tubes, filters, batteries and consumable products are not included in the warranty.

We reserve the right to decide where the faulty goods will be repaired (in our workshop or elsewhere), and whether or not the faulty part is to be replaced; all other freight charges incurred being at the cost of the purchaser.

Returned goods will not be accepted for repair unless previous written authorisation is obtained from our service department. A request for authorisation must be accompanied by an itemised list of products, model numbers and the corresponding invoice numbers under which they were originally shipped.

All returned goods should have a certificate of decontamination.

The Buyer must bear all costs and risks incurred during the transportation of the goods from their collection at UVITEC warehouse.

In the case UVITEC incorporates some devices or equipment from another supplier in the manufacture of its products, the extent and the duration of the warranty will be those conceded by the suppliers or sellers.

Manufacturer cannot be held responsible for any loss, bodily injury or material accident incurred by any failure of this supply, whatever the origin of this failure may be.

The responsibility of Manufacturer is strictly limited to its staff and to its own supplies.

In the case of dispute, only the commercial court of Cambridge (United Kingdom) shall be competent, even in third party claims proceedings or when there are several co-defendants.

NOTE: UVITEC is not responsible for any injury or damage caused by use of this instrument for purposes other than those for which it is intended, or by modifications of the instrument not performed by UVITEC.

Decontamination, collection and elimination of waste



The buyer ensures and finances the decontamination, the collection and the disposal of waste electrical and electronic equipment (WEEE) under the conditions provided in the Articles 21 and 22 of the Decree No. 2005-829 dated of 20 July 2005.

Improper disposal may be harmful to the environment and human health.

#### Declaration of conformity



The materials complies with the requirements of the EC Directive 89/336/EEC, 73/23/EEC and EN 61010-1 (electro-magnetic compatibility and low voltage).

The electro-magnetic susceptibility has been chosen at a level that gains proper operation in residential areas, on business and light industrial premises and on small-scale enterprises, inside as well as outside of the buildings. All places of operation are characterized by their connection to the public low voltage power supply system.