



Via Michelangelo Buonarroti, 52/B - 20093 Cologno M.se (Mi)

## **X-RAY FILM VIEWERS WITH SHUTTERS**



## **INSTRUCTION AND INSTALLATION HANDBOOK**



REV.01/2015

## 1.0 DESTINATION

X-ray film viewers with shutters is intended for standard radiographic analysis  
The use of the shutters allows a perfect analysis of small radiography fragments.

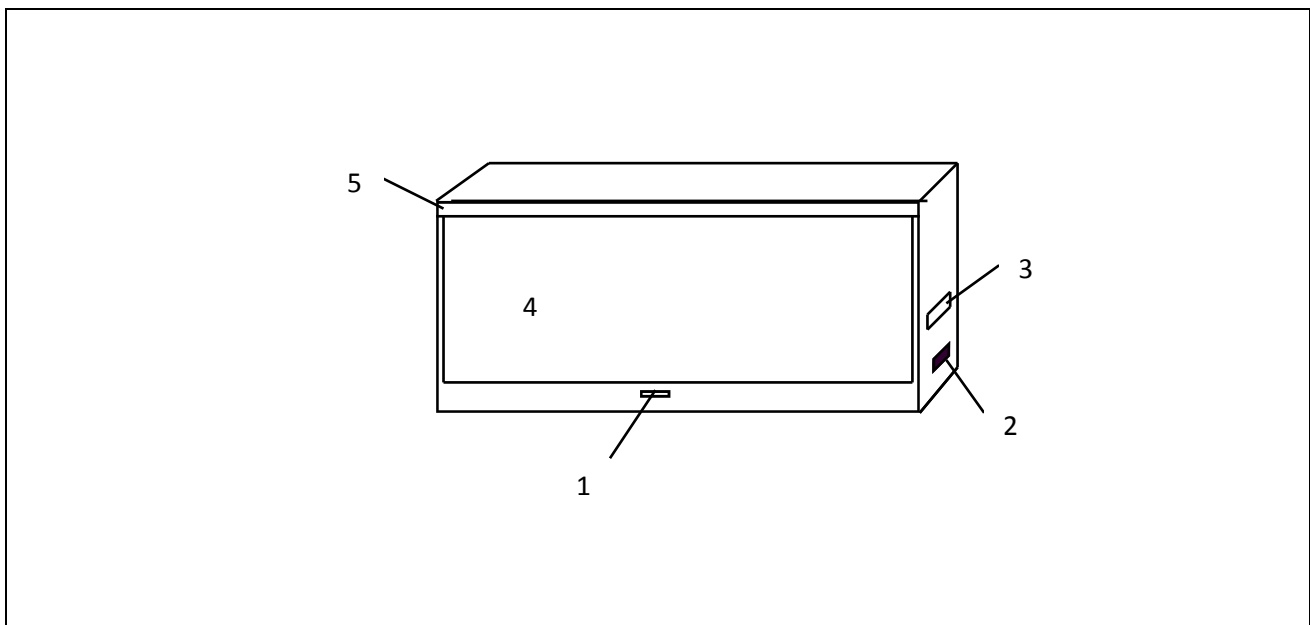
## 2.0 COSTRUCTION

X-ray film viewer in steel structure. The screen of the illuminator is made in milky Plexiglas. Structure predisposed for wall mounting. In the illuminator with shutters are used fluorescent tubes fed by high frequency reactors, that improve comfort of radiologist work and reduce eye fatigue. This solution eliminate lamps flutter and guarantees fluid luminescence regulation in wide ambit. Regulation possible from 100% to 10% of the maximum value.

## 3.0 WALL FIXING

Before hanging the illuminator, you must prepare two holes in the wall with expansion dowels (hook) Ø8 or Ø10. The holes for the expansion dowels must be far from each other about **1120mm**. On the prepared hooks, hang the illuminator..

## 4.0 CONNECTION AND MANAGEMENT OF THE ILLUMINATOR



### LEGEND


Illuminator with shutters:

- 1) Connection group W1 – Electric plug.
- 2) Tension regulation knob – Light regulator.
- 3) Vertical left shutter regulation knob.
- 4) Vertical right shutter regulation knob.
- 5) Horizontal lower shutter regulation knob.
- 6) Horizontal upper shutter regulation knob.

Illuminators are produced in Class 1 and earth is needed.  
To light the illuminator you must::

A	Connect the net cable W1 to the illuminator
B	Introduce the net cable in the socket.
C	Activate the switch in the group W1
D	To regulate the brightness activate the regulation knob 2.
E	Fluorescent tubes reach the entire light intensity value after some minutes from lighting.
F	Change of shutters position is due moving knobs 3/6
G	After using the illuminator, we suggest to switch off the lights. This have positive influence on the life of the fluorescent tubes and feeders.


#### ATTENTION

	<p>Before begin any repair or maintenance action, remove the plug from the electrical net socket.</p>
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#### 6.0 WASHING, CLEANING AND DISINFECTION

Wash the painted surfaces with humid sponge and commonly used detergent. Do not apply scraping detergents. Clean the Plexiglas screen with a humid sponge and with detergent that remove electrostatic charges. The disinfection must be done by means of disinfection owning Ministry of Health certificate.

#### ATTENTION

	<p>In case of one fluorescent tube replacement (that you will see with the darkening of part of the screen) you must replace the entire set of tubes. Using the illuminator with one non-functioning tube or replace a single tube, will seriously worsen the uniformity of the light on the screen and will make not possible an adequate radiographic screening. To avoid worsening of lighting parameters, you must use only fluorescent tube with adequate colour and temperature always available by the manufacturer of the illuminator.</p>
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## 7.0 SUBSTITUTION OF THE FLUORESCENT TUBES

	After 12000 hours, it is necessary to substitute all the fluorescent tubes in the x-ray film viewer, otherwise there is a loss of lamps parameters. For the substitution please refer to qualified personnel. This will guarantee the continuous work and the correct use of the illuminator.
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## 8.0 FUSES REPLACEMENT

A	Remove the plug from the net socket.
B	Remove the smallest plug of the net cable net from connection group W1.
C	With a screwdriver, raise the door of the fuse-holder drawer in the connection group W1.
D	Remove the drawer with fuses
E	Replace the fuses with new ones (use only WTA-T250/2,0A).
F	Introduce the drawer with fuses in the connection group W1.
G	Introduce the smallest plug of the net cable in the connection group W1.


## 9.0 WARRANTY

Repair or replacement of faulty parts is under warranty.

Warranty does not include indirect damages and any kind of consumer material is excluded. Moreover warranty is excluded in case of inappropriate use, incorrect use and in case of inobservance of the information contained in this manual.

**ATTENTION: this handbook must be kept during all the life of the illuminator and must be always at disposal of operators and maintenance staff.**

**Cablas srl declines every kind of responsibility on case of omission or tampering of the device.**

	<p>This apparatus is countermarked by the symbol of differentiated collection related to the electrical and electronic components material dumping. It means that this product must be brought to a differentiated collection centre in accordance with the European Directive 2002/96/CEE, in order to be recycled or demolished to reduce the possible environmental impact.</p> <p>For more information in this matter we suggest you to refer to the local or regional administrations. Electronic products that are not object of a differentiated collection are potentially injurious to the environment and to the human health because of the presence of dangerous substances.</p>
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**TECHNICAL DATA - SHEET**

**X- RAY FILM VIEWER WITH SHUTTERS**

CODE	CND	N. REP.	FORMAT	OUTSIDE DIM.CM	WEIGHT Kg.	N. OF TUBES	LIGHT SECTION	W	A	FUS	Cd/mq
LXJ40	Z110702	305636	40X43	60x62,5x10	20	4-15W	1-40x43	65	0,35	1	4500
LXJ80	Z110702	305648	80x43	100x62,5x10	31	4-30W	1-80x43	135	0,60	1	6200
LXJ120	Z110702	305650	105x43	125x62,5x10	38	4x36W	1-105x43	165	0,75	1	5800
LXJ121	Z110702	305652	120x43	140x62,5x10	43	4x36W	1-120x43	165	0,75	1	5800
LXJ140	Z110702	305654	140x43	160x62,5x10	51	4x58W	1-140x43	225	1,10	2	7000
LXJ140/2	Z110702	305656	144x86	168x134x12	70	8x58W	2-144x43	450	2,20	2	7000

## CE CONFORMITY DECLARATION

The undersigned "CABLAS S.r.l."  
office at Via Michelangelo Buonarroti 52/B  
20093 Cologno Monzese (MI) - ITALY

### DECLARES

Under own responsibility that the product

### X-RAY FILM VIEWER WITH SHUTTERS

#### Codes

LXJ40	LXJ80	LXJ120	LXJ121	LXJ140	LXJ140/2
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Which this declaration refers, conforms to  
Directive 93/42/CEE – Medical Devices - Class 1

Moreover meets the Directive 73/23 CEE (Low tension)  
89/336 CEE (Electromagnetic compatibility).

The construction conforms to Norms  
EN 60601 -1,2 - Din 6856 -1,2

Cologno Monzese, year 2013

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