# CABLAS <br> s.r.l. 

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

## X-RAY FILM VIEWERS HIGH FREQUENCY SERIES



## INSTRUCTION AND INSTALLATION

 HANDBOOK
## C

REV.01/2015

### 1.0 INTRODUCTION

Stove enamelled steel structure. Lighting is given by fluorescent tubes with colour temperature of $6000^{\circ} \mathrm{K}$; speed switching. Equipped with special electronic light regulator that allows a very good light regulation from $100 \%$ to $10 \%$. The detailed study of their position has allowed an homogeneous lighting on all the surface of the screen. Diffuser in smelted opaline acrylic. All the electrical components conforms to the strictest Norms in force. The apparatus is equipped with pressing rolls film holding system. All the x-ray film viewers are of Class 1.

## 1.0a DESCRIPTION



## LEGEND

1) General bipolar switch
2) Cable connection with flush fuse-holder (fuses value is shown on the data-plate)
3) Data-plate
4) Opaline diffuser
5) Film-holder profile

### 2.0 INSTALLATION

Before installation process, check that all the delivered material is complete in all parts.

### 2.1 Wall fixing

Wall fixing of the illuminator must be done only through expansion dowels (anti un-hooking).
To proceed with fixing you have to disassemble the upper film-holder (5) and slip off the opaline diffuser (4). Inside you will see two cables with holes. The person in charge for installation have to use these two holes to fix the illuminator on the wall, using, as already told, anti un-hooking dowels with washer, in order to block the head of the screw to the holes. After wall fixing put the diffuser and the film-holder to their position before using the x-ray film viewer.

### 2.2 Electrical connection

## Feeding 230V - 50Hz

The illuminator is supplied with feeding cable with plug and protection fuses. The customer must predispose an electrical socket with earth nearby the apparatus, which has to be connected to a bipolar switch with fuses suitable for each phase.

### 3.0 OPERATION

The illuminator operation is very simple. Assure you've inserted the plug into the fed electrical socket and switch on the apparatus through the apposite general switch (1). At this point the device lights up. If not control that at the socket there is a tension of 230 V AC. After this control if the result is still negative, check the fuses (2) on the right side of the apparatus. If the failure persists call the nearest CABLAS technical assistance.

### 4.0 MAINTENANCE

The x-ray film viewer doesn't need a special maintenance. We suggest a regular diffuser cleaning with a cloth in order to remove dust and prints that could "filter" light emission and adulterate the screen.

### 4.1 Raplacement of the tubes

In case of internal tubes replacement, follow the below instructions:
Before approaching the apparatus, assure that the switch is in "off" position and that the plug is disconnected from electrical net. To approach into the viewer, open the apparatus as described in paragraph "2.1 Wall fixing". Possible replacement of the fluorescent tubes must be done with another one of the same model and power in order not to compromise the correct functioning of the electrical components. Also fusible replacement must be done with the apparatus not fed. Fusible value is shown on the data plate (4).

### 5.0 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.


COMPLIANT
2002/95/EC

HIGH FREQUENCY SINGLE LIGHT SECTION

| CODE | CND | N.REP | SIZE | $\begin{aligned} & \text { OUTSI } \\ & \text { DE } \\ & \text { DIMEN } \\ & \text { SION } \\ & \text { CM } \end{aligned}$ | $\begin{gathered} \text { WEIGH } \\ \mathrm{T} \\ \mathrm{Kg} . \end{gathered}$ | N. OF TUBES | $\begin{aligned} & \text { LIGHT } \\ & \text { SECTIO } \\ & \mathrm{N} \end{aligned}$ | W | A | FUS. | $\begin{aligned} & \mathrm{Cd} / \\ & \mathrm{mq} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| M-NF-010 | Z110702 | 55631 | 40x43* | $\begin{gathered} 45 \times 52 x \\ 11 \\ \hline \end{gathered}$ | 6,8 | 4-15W | 1-40x43 | 72 | 0,4 | 1 | 2200 |
| M-NF-100 | Z110702 | 1001909 | 70X43* | $\begin{gathered} 78 \times 52 x \\ 11 \\ \hline \end{gathered}$ | 12.0 | 4-15W | 1-70X43 | 95 | 0.5 | 1 | 2600 |
| M-NF-110 | Z110702 | 55731 | 90x43* | $\begin{gathered} 95 \times 52 x \\ 11 \\ \hline \end{gathered}$ | 12,8 | 4-30W | 1-90x43 | 118 | 0,6 | 1 | 2700 |
| M-NF-120 | Z110702 | 55734 | 120X43* | $\begin{gathered} 125 \times 52 \\ \times 11 \\ \hline \end{gathered}$ | 16,5 | 4-36W | 1-120x43 | 142 | 0,7 | 1 | 2800 |
| M-NF-150 | Z110702 | 55743 | 150X43* | $\begin{gathered} 155 \times 52 \\ \times 11 \\ \hline \end{gathered}$ | 19,5 | 4-58W | 1-150x43 | 222 | 1 | 2 | 3000 |
| M-NF-2000 | Z110702 | 55748 | 90x86* | $\begin{gathered} 95 \times 99 x \\ 11 \\ \hline \end{gathered}$ | 25 | 8-30W | 2-90x43 | 236 | 1 | 2 | 2700 |
| M-NF-2010 | Z110702 | 55750 | 120x86* | $\begin{gathered} 125 \times 99 \\ \times 11 \\ \hline \end{gathered}$ | 30 | 8-36W | 2-120x43 | 284 | 1,3 | 2 | 2800 |
| M-NF-2020 | Z110702 | 55753 | 150x86* | $\begin{gathered} 155 \times 99 \\ \times 11 \\ \hline \end{gathered}$ | 39 | 8-58W | 2-150x43 | 444 | 2 | 3 | 3000 |

* HORIZONTAL SECTIONS MODEL
- OVERLAPPED HORIZONTAL SECTIONS MODEL

HIGH FREQUENCY INDIPENDENT LIGHT SECTIONS

| M-NF-02 | Z110702 | 55897 | $72 \times 43^{*}$ | $75 \times 52 x$ <br> 11 | 12,5 | $8-15 \mathrm{~W}$ | $2-36 \times 43$ | 144 | 0,7 | 1 | 4000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| M-NF-03 | Z110702 | 55900 | $108 \times 43^{*}$ | $112 \times 52 x$ <br> 11 | 17,5 | $12-15 \mathrm{~W}$ | $3-36 \times 43$ | 216 | 1 | 2 | 4000 |

HIGH FREQUENCY MODEL COMBINED WITH TWO OVERLAPPED LIGHT SECTIONS

| M-NF-20 | Z110702 | 55905 | $108 \times 86$ <br> $*$ | $113 \times 102$ <br> $\times 11$ | 48 | $24-15 \mathrm{~W}$ | $3-36 \times 43$ <br> $1-108 \times 43$ | 432 | 2 | 3.15 | 4000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| M-NF-21 | Z110702 | 55909 | $144 \times 86$ <br> $*$ | $148 \times 102$ <br> $\times 11$ | 64 | $32-15 \mathrm{~W}$ | $4-36 \times 43$ <br> $1-144 \times 43$ | 576 | 2,6 | 3.15 | 4000 |

HIGH FREQUENCY VERTICAL MODEL

| M-NF-300 | Z110702 | 53996 | $30 \times 90^{*}$ | $35 \times 98$ <br> $\times 11$ | 11,5 | $2-30 \mathrm{~W}$ | $1-30 \times 90$ | 59 | 0,3 | 1 | 3500 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| M-NF-600 | Z110702 | 54008 | $60 \times 90^{*}$ | $65 \times 98$ <br> $\times 11$ | 13,5 | $4-30 \mathrm{~W}$ | $1-60 \times 90$ | 118 | 0,6 | 1 | 3800 |
| M-NF-1200 | Z110702 | 54010 | $60 \times 120$ <br> $*$ | $65 \times 128 \mathrm{x}$ <br> 11 | 16,5 | $4-36 \mathrm{~W}$ | $1-$ <br> $60 \times 120$ | 142 | 0,7 | 1 | 3800 |

## CE CONFORMITY DECLARATION

The undersigned "CABLAS S.r.I."
office at Via Michelangelo Buonarroti 52/B
20093 Cologno Monzese (MI) - ITALY
DECLARES
Under own responsibility that the product
X-RAY FILM VIEWER HIGH FREQUENCY SERIES
Codes

| M-NF-010 | M-NF-100 | M-NF-110 | M-NF-120 | M-NF-150 |
| :--- | :--- | :--- | :--- | :--- |


| M-NF-2000 | M-NF-2010 | M-NF-2020 |
| :--- | :--- | :--- |


| M-NF-02 | M-NF-03 |
| :--- | :--- |


| M-NF-20 | M-NF-21 |
| :--- | :--- |


| M-NF-300 | M-NF-600 | M-NF-1200 |
| :--- | :--- | :--- |

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
CABLAS S.R.L.


