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# **X- RAY FILM VIEWERS:**



# **LED-NGP**

## **11 / 21 / 31 / 41**

# **Manual instruction**

## **APPLICATION**

X – Ray film viewers series LED-NGP can be used to view X – Ray pictures and films of all sizes. They can be used in operating theatres, consulting rooms, X – Ray and photo labs etc.

## **ADVANTAGES LED-NGP:**

- ultraslim – only 35 mm of thickness
- life- time span – 50 000 working hours - average 25 years
- energy efficient – 45% of standard power consumption
- high luminance -  $6000 \text{ cd/m}^2$  (19 000 lux)
- superior light uniformity – over 95%
- step – less luminance adjustment
- no flickering

## **DESIGN**

The X – Ray film viewer is mounted in a tough, rectangular housing made of steel sheet. Its screen is made of milky- white Plexiglas. The X – ray film viewer series LED-NGP can be wall – mounted, desktop or set on a mobile stand.

In the X – Ray film viewers series LED-NGP to highlight a screen modern diode array was used, whose color temperature and luminance allow viewing pictures for a long time without eye fatigue. The step – less light intensity ( luminance) adjustment allows to adjust the luminance to the picture's black level and individual preferences of a user. The adjustment is possible within a range from 100 % to 10% for each frame separately.

## **TECHNICAL DATA**

Model	LED-NGP-11	LED-NGP-21	LED-NGP-31	LED- NGP-41
Power supply	90 ÷ 260 V ; 50 Hz			
Power consumption	65 W	125 W	180 W	250 W
Luminance	$6000 \text{ cd/m}^2 \pm 15\%$			
Uniformity	$\geq 95\%$			
Screen dimension	36 x 43 cm	72 x 43 cm	108 x 43 cm	144 x 43 cm
Class of protection against electric shock	I			
Weight	4,5 kg	8,0 kg	12,0 kg	16,0 kg
Dimensions	430x520x45 mm	794x520x45 mm	1157x520x45 mm	1518x520x45 mm

## **ASSEMBLY**

X – Ray film viewers series LED-NGP are designed to be mounted on the wall. To mount the viewer LED-NGP you need to prepare two pinholes for stretchers( hooks) Ø8.

Pinholes are to be prepared with the following spans:

- LED-NGP-11 388 mm
- LED-NGP-21 751 mm
- LED-NGP-31 1114 mm
- LED-NGP-41 1477 mm

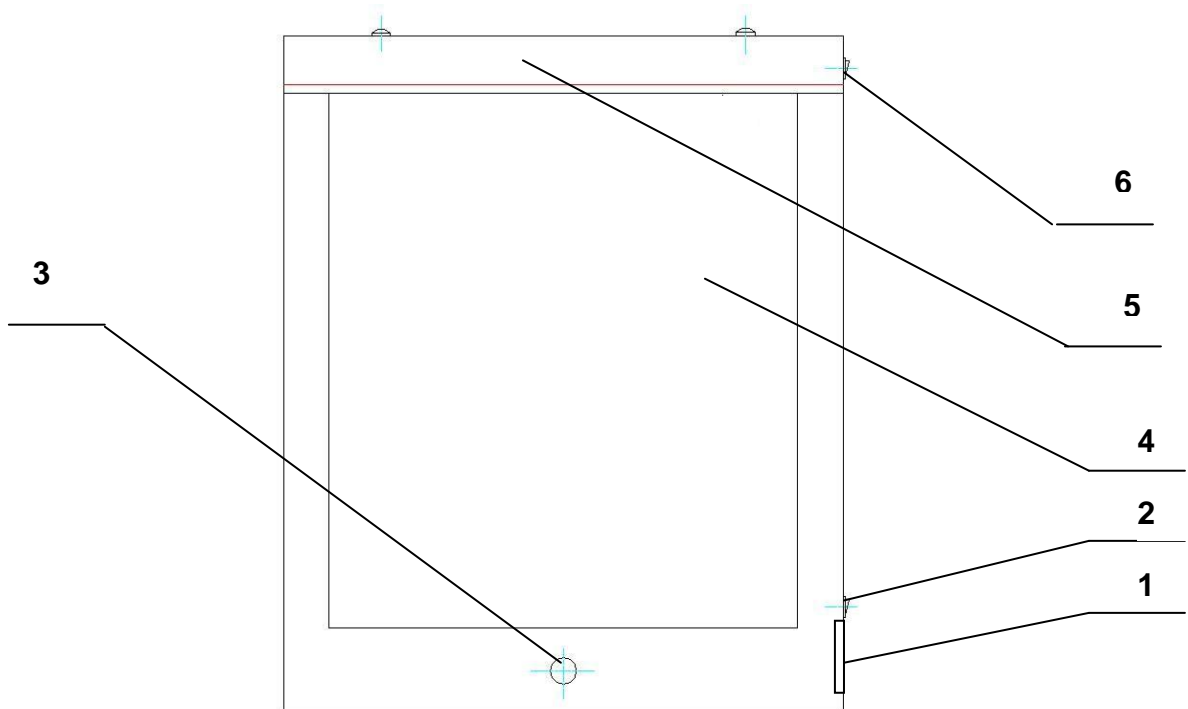
The viewer is to be placed on the hooks.



### **ATTENTION!**

The carrier elements need to undergo validation. After inserting the hooks into the walls, apply a load four times heavier than the viewer which is to be installed.

## **SWITCHING ON AND OPERATING**



Picture.1. X – Ray film viewer LED-NGP-11

1. – connection unit with fuses
2. – main switch
3. – luminance adjustment knob with a switch off/ on
4. – screen
5. – picture holder
6. – switch off the “glare”



The X – Ray film viewers LED – NGP are devices of 1 protection class and requires a socket outlet with a grounding pin. Before plugging the viewer, the grounding pin in a socket needs to be checked out by qualified technical staff.

To switch on the viewer:

- Plug a wire connector into the connection unit 1 (plug a smaller end of a wire connector into a socket of the connection unit 1)
- Plug into an electrical socket a bigger end of a wire connector.
- Switch on the X – Ray film viewer with the main switch
- Switching on a frame of the X – Ray film viewer and its lumiance adjustment during the performance is applied by turning the knob 3 .
- Pictures are to be placed on the screen 4 (picture. 1) by slipping them under the holder.

In order to minimize the glare effect, that may occur by the device operator, the function of activation of the screen backlight of the X – ray film viewer ( 4) was applied while the viewed film is placed in the holder (5). For this purpose switch the “switch off “(6). Sliding the film in the holder ( 5) causes activation of the screen. Ejecting of the film causes switching off the screen backlight.

## **WASHING, CLEANING AND DISINFECTION**

The coated surfaces of the housing need to be washed with a sponge soaked in water and commonly used detergents. Do not use scouring substances as they may damage the surface. The plexiglass screen needs to be washed with a sponge soaked in a substance removing static charges. Disinfection should be carried out with the use of disinfecting substances approved by the National Institute of Hygiene (e.g. Manusan, Descosept)

## **CONDITIONS OF PERFORMING AND STORING**

The acceptable environmental conditions for transport, storage and use of LED-NGP:

Ambient temperature	-	+10°C do + 40°C
Relative humidity	-	30% do 70%
Atmospheric pressure	-	700 hPa do 1060 hPa

## **FUSES REPLACEMENT**



### **- Plug out a smaller end of wire connector of the connection unit 1**

- Using a screwdriver lever up the ledge of fuse case in teh connection unit 1
- Partly remove the fuse case
- Replace fuses (use only F x A L 250 of the appropriate value)
- Place the fuse case into the connection unit 1
- Plug in the smaller end of the wire connector in the connection unit 1

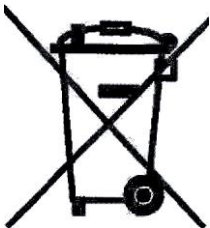
## **REPAIR**



All repairs should be carried by qualified repaires.

## **ENVIRONEMENT PROTECTION**

Packaging, the device itself and its accessories are made of recyclable materials and as such they need to undergo appropriate scrapping.



Sorting and recycling waste is beneficial for the environment and enables to re-use resources.

Remember that we are all equally responsible for the condition of the environment.