X-Ray High Voltage Generator

UD150L-40E
UD150L-40F
X-Ray High Voltage Generator

UD150L-40E/UD150L-40F

New Design Concept Ensures Ease-of-Use

The simplest and smoothest equipment procedures are essential for general x-ray radiography, which is the most widely used diagnostic imaging technique. The UD150L-40E/40F incorporates an illumination function plus other advanced features that allows the operator to concentrate on the examination procedure.

One-touch Setting of Exposure Parameters

Advanced APR

The system can register up to 245 exposure parameters. The 35 anatomical program keys can each register the exposure parameters for a series of examinations up to seven projections. After the examination is completed in one projection during a series of examinations, the exposure parameters are automatically updated to the next condition. This feature permits smoother examinations of areas requiring exposures from multiple projections. The Exposure Parameters can be freely setup to match the operator’s normal method of operation.

Exposure Parameters Are Easy Set Using Hybrid keys

X-ray parameters can be easily changed the hybrid dials. Large changes can be made using the fast up/down buttons and small changes can be made using the up/down buttons. Using both adjustment methods allows exposure parameters to be quickly set.

Anatomical Programs

35 modes

Exposure Directions

7 ways

Register up to 245 exposure parameters
(Add to fluoroscopy, the exposure parameters are 196 kinds.)

Wide Display
Shows the exposure parameters

Hybrid Keys
The exposure parameters are easy set.

Hand switch
Controls X-ray radiography. The hand switch operates in two stages. Press the hand switch to the first stage to prepare for X-ray radiography; press it to the second stage to conduct radiography.

Advanced APR

Sub-display
Shows error messages and setting menus.

Sound function
This advanced feature allows the x-ray generator to provide solutions to the following problems, allowing the operator to concentrate on patient care:

- Frail elderly patients who need constant attention.
- Split-second timing is required for patients who have difficulty holding their breath.
- Quick positioning and image capture when required.

**New Patient Care Concept**

**Illumination Functions**

The console panel indicates the status of the x-ray generator (e.g., 'ready status' to acquire the images or exposure in progress) using color perimeter display with audible sound.

The hand switch also lights up to indicate 'Ready Status'.

- **Option**
Higher Image Quality with Lower X-ray Doses

**High-frequency Inverter with a Maximum Frequency of 50kHz**

The ‘High-frequency Inverter’ with maximum frequency of 50kHz is used as the X-ray generation source, which generates low-ripple output with a high X-ray quantum efficiency. This dramatically reduces X-rays that do not contribute to high quality imaging.

Two-way Communications with External Equipment

**Anatomical Program Communications Functions**

The communications option permits exposure parameters (technique, kV, mA, sec, etc.) and anatomical program number to be received and set from external equipment (RIS, CR, etc.). It also allows the exposure parameters used for radiography to be automatically transmitted to the external equipment.

Optimal Image Density

**4 Field Photo-timer Pick-up SPT Photo-timer series**

The SPT Photo-timer series adopts 4 field pick-ups. The 4 pick-up field paddle provides more accurate density control due to each pick-up designed for specific parts of the patient’s anatomy.

* Four pickup fields detector is acceptable when the bucky is set at up-base position.

Protect Anatomical Programs from Unauthorized Changes

**Security Functions**

A 4-digit password can be set to protect anatomical programs from unauthorized changes and enhance the security of the equipment.
# X-Ray High Voltage Generator

## UD150L-40E/40F

### Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>UD150L-40E</th>
<th>UD150L-40F</th>
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<tbody>
<tr>
<td><strong>Radiographic Techniques</strong></td>
<td>General radiography</td>
<td>Bucky radiography</td>
</tr>
<tr>
<td></td>
<td>Auto changer radiography</td>
<td>Tomography</td>
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<tr>
<td></td>
<td>Fluoroscopy (option)</td>
<td></td>
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<tr>
<td><strong>Number of X-ray tubes connectable</strong></td>
<td>1 tube</td>
<td>2 tubes</td>
</tr>
<tr>
<td><strong>Setting range</strong></td>
<td><strong>Tube voltage</strong></td>
<td>40 ~ 150kV</td>
</tr>
<tr>
<td></td>
<td><strong>Tube current</strong></td>
<td>10 ~ 630mA (3-phase 200V~/400V), 10 ~ 500mA (Single-phase 200V)</td>
</tr>
<tr>
<td></td>
<td><strong>mAs</strong></td>
<td>0.5 ~ 800mAs</td>
</tr>
<tr>
<td></td>
<td><strong>Timer</strong></td>
<td>0.001 ~ 10sec.</td>
</tr>
<tr>
<td><strong>Preset memory</strong></td>
<td>Advanced anatomical program method: max. 245 user-programmable exposure parameters.</td>
<td></td>
</tr>
<tr>
<td><strong>Method of setting</strong></td>
<td>Sheet panel</td>
<td></td>
</tr>
<tr>
<td><strong>Self-diagnostic function</strong></td>
<td>Indicated on display and sub-display</td>
<td></td>
</tr>
<tr>
<td><strong>Normal power voltage (50/60Hz)</strong></td>
<td>3-phase AC: 200<em>~/220</em><del>/240*</del>/380/400/440/480V</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Single-phase AC: 200/220/240V</td>
<td></td>
</tr>
<tr>
<td><strong>Recommended capacity of switch board</strong></td>
<td>50kVA (Single-phase 30kVA)</td>
<td></td>
</tr>
<tr>
<td><strong>3-phase 200V~/400V system</strong></td>
<td><strong>Single-phase 200V system</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Normal max. voltage</strong></td>
<td>50kW</td>
<td></td>
</tr>
<tr>
<td><strong>Short-time rating</strong></td>
<td>150kV 320mA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>125kV 400mA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>100kV 500mA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>80kV 630mA</td>
<td></td>
</tr>
<tr>
<td><strong>Long-time rating (option)</strong></td>
<td>125kV 4mA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>125kV 4mA</td>
<td></td>
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</tbody>
</table>

*Automatic transformer (option) is necessary for the power supply of 3-phase 200V.*

### Standard constitutions

- **Control console:** 1
- **Control cabinet (including high voltage generator):** 1
- **Connection cable:** Power supply – control cabinet 10m, Control panel – control cabinet 12m

### Dimensions

- **Control Panel:** 264 x 308 x 65 (unit:mm) Weight: 2.5kg
- **Control Cabinet:** 700 x 40 x 1005 (unit:mm) Weight: 240kg

### Optional accessories

- Photo-timer control (for direct use) and Direct photo pickup
- Starter
- Illumination option
- Wirer protecting tube
- Automatic transformer
- Communications unit
Remarks:

- Every value in this catalogue is a standard value, and it may vary a little from the actual at each site.
- The appearances and specifications are subject to change for reasons of improvement without notice.
- Certain configurations may not be available pending regulatory clearance. Contact your Shimadzu representative for information on specific configurations.
- Before operating this system, you should first thoroughly review the Instruction Manual.