Model L-745
X-ray Generator Output Detector

Radiation Detection for a Safer World

Part Number 99-9214

Ludlum Measurements, Inc.

Introduction

The Ludlum Model L-745 X-ray Generator Output Detector provides a simple way to confirm X-ray generator performance. By connecting the detector directly to a digital scope, a storage scope, or a standard oscilloscope camera, the device will display intensity and time relationships of the X-ray beam to illustrate real-time operation. The detector supplies a minimum 200 mV signal at typical diagnostic settings (80 kVp /100 mA), which together with the better than 1 microsecond rise time, provides a true X-ray output pulse.

Using the device is straightforward. The detector, while connected to a standard oscilloscope, is simply placed in the X-ray beam. Examining the resulting waveform will enable a variety of potential X-ray issues to be identified. The general applications include measurement of exposure time, rectifier problems, cable or connector arcing, and general verification of X-ray operation. Model L-745 applications include documentation, verification, and troubleshooting of X-ray system operation. The detector is weighted for easy placement and uses a BNC-type connector.

Specifications

POWER SOURCE: none required
RISE TIME: less than 1 microsecond
200 mV peak minimum
X-ray at 80 kVp and 100 mA with head 15 cm (6 in.) above the detector
MINIMUM OSCILLOSCOPE INPUT IMPEDANCE: 100,000 Ohms
OSCILLOSCOPE IMPEDANCE: typically 1 or 10 mOhm
CONNECTOR: BNC
SIZE: 51 x 32 x 20 mm (2.0 x 1.25 x 0.8 in.)
WEIGHT: 85 g (3 oz.)

Option: Cable Model L-40-1008-20

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