

# SP1001

SINGLE PLATE READER

## *KCAT and short description:*

K2025JB Centricity CR SP1001 Reader

## *Long description:*

The SP1001 Reader is the smallest footprint for a fully functional CR Reader on the market today. The SP1001 Reader scans the exposed photostimulable phosphor imaging plate, converts the information to 12 bit digital data and automatically transfers the image to the AW workstation for processing. The SP1001 consists of a single plate input and network connections for transmission of data to the QA workstation. Features include optimum image quality, user efficiency with no button operation and no waiting, quality monitoring and feedback.

## *Economic and versatile*

The Centricity CR SP1001 computed radiography system has a footprint so small it can easily be placed in the most confined locations. Designed with ease of use in mind, it requires only a standard wall outlet, so you can recognize the advantages of digital imaging almost instantly. Equip the Centricity CR SP1001 with a single identification/quality assurance workstation PC for processing images, and you have all the hardware you need.

## *Automated operation*

The Centricity CR SP1001 converts an X-ray image into digital data and automatically transfers the image to the processing server for further enhancement and visualization. There are no manual steps required. All you do is insert a cassette into the slot on the CR reader. The system automatically reads the demographic data from the memory chip on the cassette, scans the imaging plate, digitizes the image and returns the cassette, ready for the next exposure.

## *Rapid ID and instant image preview*

The Centricity CR SP1001 is available with software for identification, preview and processing. Patient demographic and exam data are automatically recorded onto a memory chip embedded in the CR cassette when it is inserted into either the ID tablet, or with the Direct Identification option, in the reader itself. During scanning, the digitizer links the data with the image and sets the correct processing parameters depending on the exam type. To enhance performance even further, the ID software can be linked with the HIS/RIS system by adding the RISLink software option. Quality assurance software at the PC workstation allows you to check patient positioning, collimation border detection and processing quality even before hardcopy is printed or the softcopy is sent on to its destination. So you can evaluate images or make changes right away.

## *Optimum image quality*

The Centricity CR SP1001 reads the imaging plates with 12-bits/pixel grayscale resolution. The complete raw data set is transmitted to the processing server. Spatial resolution can range from 7 to 10 pixels/mm. Standard resolution reading of 35 x 43 cm and 35 x 35 cm imaging plates provides readout with 7 pixels/mm. Optionally, high-resolution reading is available for these large plate sizes providing 10 pixels/mm. Reading of 24 x 30 cm, 18 x 24 cm and 15 x 30 cm imaging plates is done at 10 pixels/mm, standard.

## *First step to digital*

Centricity CR cassettes are compatible with conventional X-ray tables, so you can go digital – simply and cost-effectively. And the high productivity of the Centricity CR system makes it a cost-effective building block for the all-digital X-ray department.



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## Technical Information

### Dimensions

45 x 70 x 140 cm (depth 73 cm at cassette-slot)  
18 x 28 x 55 in. (W x D x H)

### Weight

Approx. 210 kg/465 lb.

### Cassette Buffer Capacity

Single cassette feed

### Power

230-240 V/50-60Hz standby  
230W, max. 1610W, 16A fuse (USA)  
120 V/60Hz (USA) standby  
216W, max. 1440W, 15A fuse  
100 V/60Hz (Japan) standby  
220W, max. 1500W, 15A fuse

### Accepted Cassette Sizes

35 x 43 cm (14 x 17 in.)  
35 x 35 cm (14 x 14 in.)  
24 x 30 cm  
18 x 24 cm  
15 x 30 cm  
8 x 10 in.  
10 x 12 in.

### Display

Machine status and error conditions  
Emergency keys



### Environmental Conditions

Temperature: 15 – 30° C/59 – 86° F  
Temperature change: 0.5° C/min  
Humidity: 15% – 75% RH  
Magnetic fields: max. 1260  $\mu$ T (in conformance with EN 61000-4-8: level 3), 10 A/m

### Environmental Effects

Noise level: ax. 65dB(A)  
Heat dissipation:  
standby 230W  
maximum 1610W

### Safety Standards

EN 60950, 60825-1:1994, 60601-1-2  
UL 1950  
FDA 501 (K)  
CSA C22.2 No. 950  
DHHS/FDA 21 CFR parts 1040.10 and 1040.11  
CFR title 21, part 820  
EEC 89/336, 93/42, 73/23, 89/392

### Approvals

TUV, GS, CE, UL, CUL

### Throughput

55 plates/h (18 x 24 cm)  
59 plates/h (for small plate)  
45 plates/h (35 x 43 cm)  
31 plates/h (35 x 35 cm)

### Grayscale Resolution

Date acquisition: 12-bits/pixels  
Output to processor: 12-bits/pixels

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