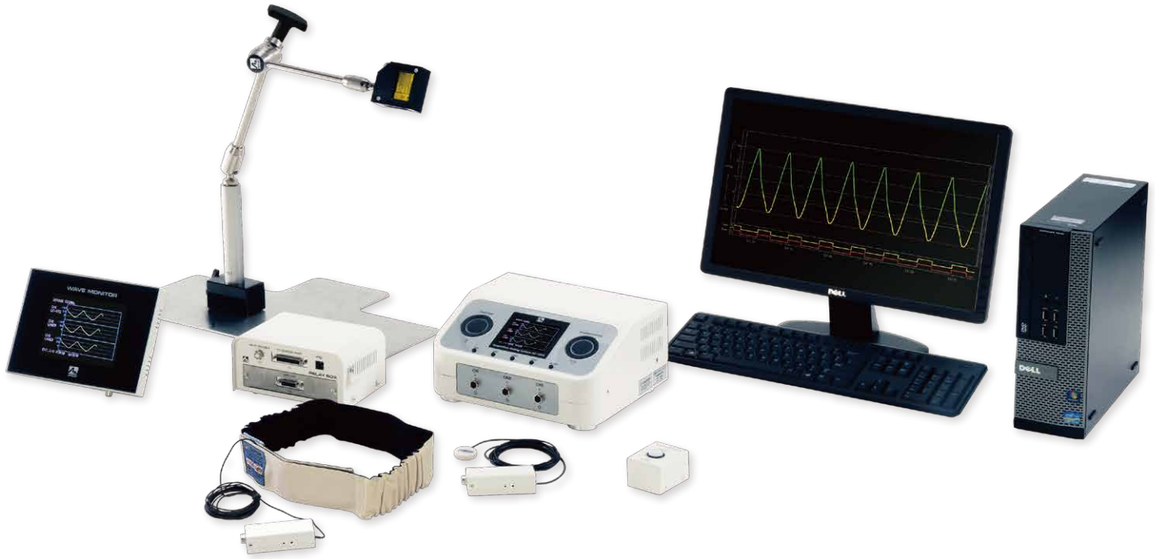
Specifications



Dimension
Sensor Port W:260 × D:230 × H:126mm

Weight
Approx. 5.0kg

Power Supply
AC100-240V, 50/60Hz 200VA

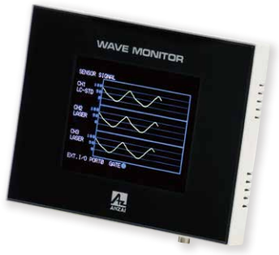
Configuration
Sensor Port
Relay Box
Gate Disable Switch
Personal Computer
Respiratory Sensor Load Cell (Standard, Deep)
Load Cell Fixing Belt (LL,L,M,S)
Load Cell Calibrator
Sets of Cables

Options
Laser Sensor & Fixing Arm
Wave Monitor

Options

laser sensor 120mm
Distance measuring : 120mm
Range : ±60mm
Class : Class2
Size : W:67 × D:22 × H:57mm

laser sensor 85mm
Distance Measuring : 85mm
Range : ±20mm
Class : Class2
Size : W:67 × D:22 × H:57mm



Wave Monitor
LCD : 5.7inch TFT color
Size : W:206 × D:36 × H:150mm

Anzai Medical,Co.,Ltd
Add:3-6-5 Nishi-Shinagawa-Ku Tokyo 141-0033,Japan
Tel:+81-3-3779-1611 FAX: +81-3-3779-6606
E-mail:headoffice@anzai-med.co.jp Web: http://www.anzai-med.co.jp

ANZAI
since 1976

Respiratory Gating System
AZ-733VI

What is Respiratory Gating System ?

Respiratory Gating System is essential to the imaging diagnoses and the radiation therapy. In the imaging diagnoses, the respiration-gated image provides the blur-corrected image, and in the radiation treatment it minimizes the area of the treatment target tumor which moves due to patient respiration.
At AAPM Report No. 92 written by AAPM Task Group 76 in July 2006, it is reported that the first study of the respiration-gated radiation therapy was conducted in Japan. The study was conducted at University of Tsukuba Hospital. In 1989 ANZAI, in collaboration with University of Tsukuba Hospital, developed the Respiratory Gating System for the first time in the world. The AZ-733V, a world-standard model of the Respiratory Gating System, utilizes "**ANZAI BELT**" as the respiratory sensor which has been used from the original model. Now, we would like to introduce the new model, AZ-733VI, with the additional safety function and the new type of respiratory sensor "Laser Sensor".

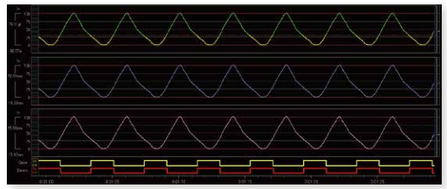
Feature

High Speed output of Gate signal is realized!

The delay time is remarkably shortened in preparation for the next-generation standard.
The delay time from the detection of the respiration to the output of the Gate signal is realized to be less than 50 msec.

Addition of Respiratory Sensor

Patient-contactless respiratory sensor “Laser Sensor” is added besides the conventional ANZAI BELT. The Laser Sensor detects the amount of change of body surface caused by patient respiration as the respiratory waveform. By using ANZAI BELT and Laser Sensor case by case, selectable external equipment to connect with our Respiratory Gating System increases. Also, as there are three sensor-connection ports, simultaneously three respiratory sensors are able to use as well as plural respiratory waveforms are able to display on the screen.



Time from setting of the patient to the adjustment of the respiratory waveform is extremely short

With the new function that the operator is able to adjust the waveform at the side of respiratory sensor and the new respiratory monitor that supports the patient to breathe steady, the setting time is further shorten!

Enhanced safety function

New user-interface is designed to allow the intuitive operation, preventing malfunction.
With the new Gate Disable Switch which allows the user to stop the Gate Signal instantly during the imaging and the irradiation, the safety is improved.

Connection with a wide range of external equipment becomes possible

With various Gate Signal output modes and respiratory wave form outputs the system is compatible to a wide range of external equipment.One Respiratory Gating System is able to connect to three external equipment at the maximum.

External equipment includes the radiation image diagnoses system, X-ray CT for the radiation treatment planning and the radiation treatment system.

External Equipment

- CT scanner
- Radiotherapy system
- PET CT
- Particle therapy system

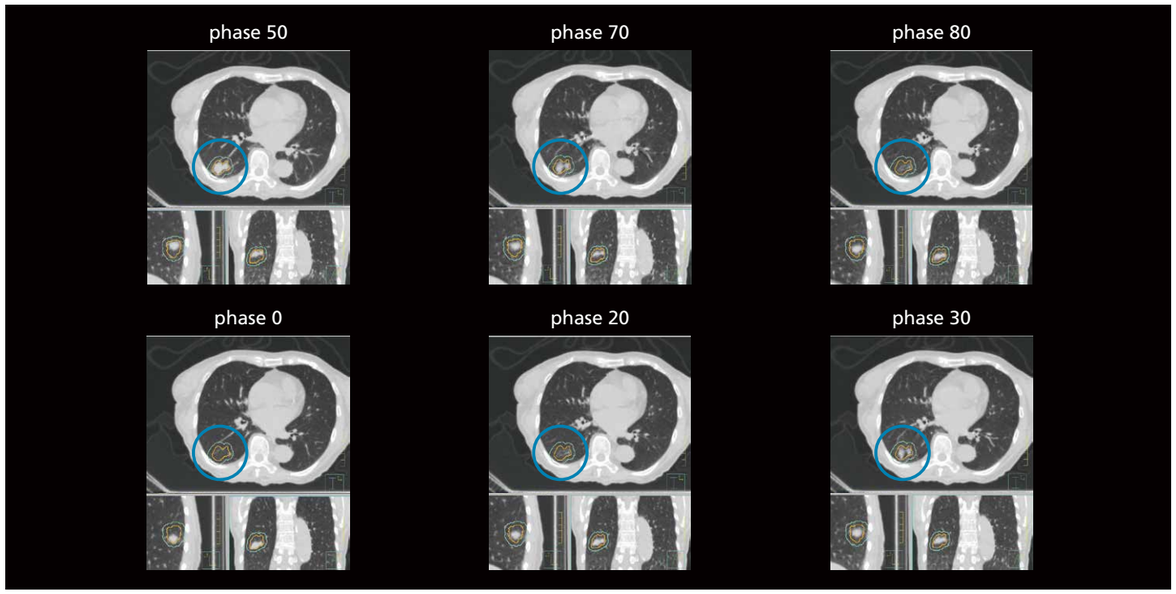
Workflow

Respiratory Gating System | **External Equipment**

Sensor setting ▶ Respiratory waveform setting ▶ Gate setting ▶ Gate output enabling ▶ Scan / Beam

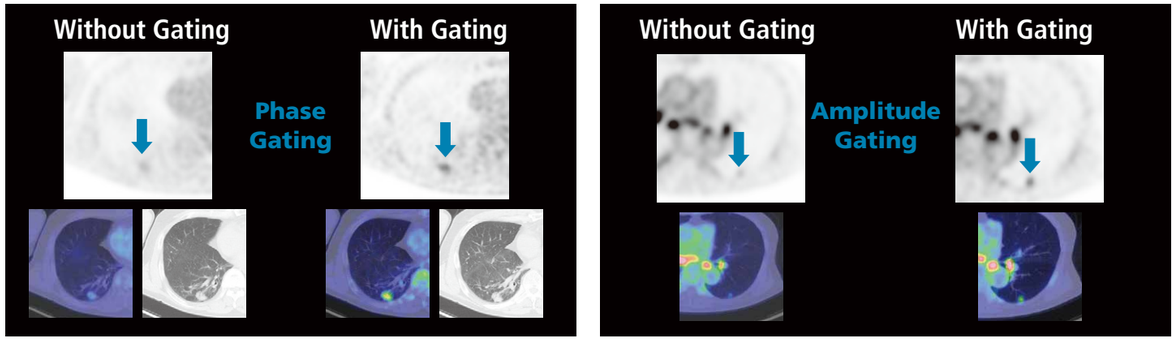
Clinical Data

4DCT Example of Treatment Planning Using 4DCT



by courtesy of The University of Tokyo Hospital

PET CT



SUVmax 2.03 → SUVmax 3.66

SUVmax 1.84 → SUVmax 3.12

by courtesy of Kyushu University Hospital

Layout