

# Captus<sup>®</sup> 700t Thyroid Uptake Table Top System

Small foot-print saves space

If space and budget are a limiting factor, consider the Captus<sup>®</sup> 700t Tabletop Thyroid Uptake and Well System for all of your uptake and well counting needs. Counting procedures using HIPAA compliant software and dedicated modules for Thyroid Uptake, Wipe Tests, Bio-Assay, and Lab Tests including Schillings Test, Blood Volume, and RBC Survival have never been faster or easier.

QA is fully automated and easy to perform for calibration, Constancy, Chi Square, MDA and resolution functions. System calibration, constancy and Chi-Square are automatically performed using a Cs-137 reference source. Eu-152 can be used for enhanced point to point spectral energy calibration. The General Measurement software is very user friendly. ROI's can be selected from a convenient menu of isotopes with pre-defined regions, or, ROI's can be defined by the user. Results are reported with full spectrum counts and counts by region of interest.

Multiple TU protocols can be created for I-123, I-131 or Tc-99m. The protocols can use a standard capsule method or allow the system to perform an automatic decay correction to the administered dose. The system will store detailed patient demographics, physician data and administered dose data. There is no limit to the number of uptakes that can be performed, and the results will be reported with detailed count information and automatic percentage uptake calculations.

Well procedures for wipe and lab tests allow user-defined counting protocols to be developed using a simple, step-by-step format to define, count, store and retrieve data.



## Features

- Quality Assurance includes zero adjust, automatic gain adjust, calibrator detector resolution, Chi-square, constancy, MDA, automatic efficiency calculation and storage.
- Thyroid Uptake protocols allow entry of patient demographics and the selection of a pre-defined procedure protocol. The standard can be measured with each uptake or automatically decay-corrected by the software. The number of uptakes for each patient procedure is user-defined. The Captus 700t software will automatically calculate and store each uptake which will be available for immediate access/printing or may be retrieved at the conclusion of the study or at a later point in time.
- Wipe Testing is state-of-the-art and uses a simple menu-driven format. The system will perform a peak search on each wipe sample and will identify any contamination by peak and by nuclide. The user determines and defines the number of wipe locations. Wipe locations can be grouped by a variety of variables including wipe location and type. Pre-defined or user-defined trigger levels are set to flag wipes above a specific activity level.
- Lab tests including Schillings Test and I-125 or Cr-51 Blood Volume offers step-by-step guidance through the counting procedure and automatic calculation of the results. Patient demographics and procedure results are printed or archived, as necessary.
- Red Blood Cell Survival is an added feature and provides the same step-by-step guidance through the counting procedure and automatic calculation of results.
- Bioassay for Staff allows for the quick and efficient assessment of potential thyroid burden for I-123, I-125 or I-131. Staff records, as with other test results, are maintained and archived on the instrument or available as printed records.



## Specifications

- 8" VGA LCD Color Touch Screen Display
- Detector: 2" x 2" shielded NaI (TI) crystal with standard or optional Pediatric/Bioassay collimator
- Well Detector: Drilled well 2"x2" NaI (TI) – lined with brass to minimize backscatter
- 1: Well Diameter: 1.6 cm max (5/8") x Depth: 4 cm (1 1/2") x Lead: 2.5 cm (1")
- 2: Well Diameter: 1.6 cm max (5/8") x Depth: 4 cm (1 1/2") x Lead: 5\* cm (2")
- Multichannel Analyzer: 512 Channels; Automatic self-calibration; Linearity - within 2% full scale; Differential Linearity - 2% SD; A to D conversion time - 10 microseconds; Low Energy Discrimination Level - 16 KeV, 4 Channels (whichever is greater); ROI - Automatic or Manual; Background subtraction and mean energy calculation via curve fittings; Maximum Count Rate - 100,000 counts per second (Real Time); Linear Display - Automatic/Manual
- Nuclide Data: Over 90 Nuclides in Memory (major gamma-ray energies, keV and half-life)
- Advanced System Setup: Test sources, Efficiencies, User Nuclides, Wipe Test Data, Bioassay Data, Thyroid Uptake protocols, Thyroid Uptake Normal Values

- Diagnostics and Tests: Full system self-diagnostics including all program and data memories; Comprehensive test programs include automatic Chi-Square, MDA and FWHM.
- Printer: Color Inkjet; Print results of studies including color graphic displays
- Power Requirements: Standard: 115V .25A 90-127V 50-60Hz; Optional: 220V .125A 180-250V 50-60HZ (With circuit protections, line filter and isolation transformer)
- Reports: Thyroid uptake, Bioassay, autocalibration, system test, MDA, Chi-Square and laboratory tests are archived and searchable by date. Wipe tests are archived and searchable by date, type, location and activity.

CAPTUS® 700t Thyroid Uptake System..... 5430-3137

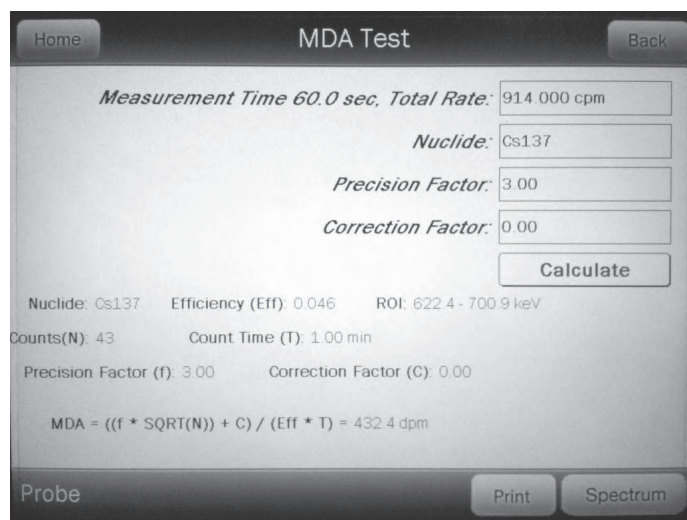
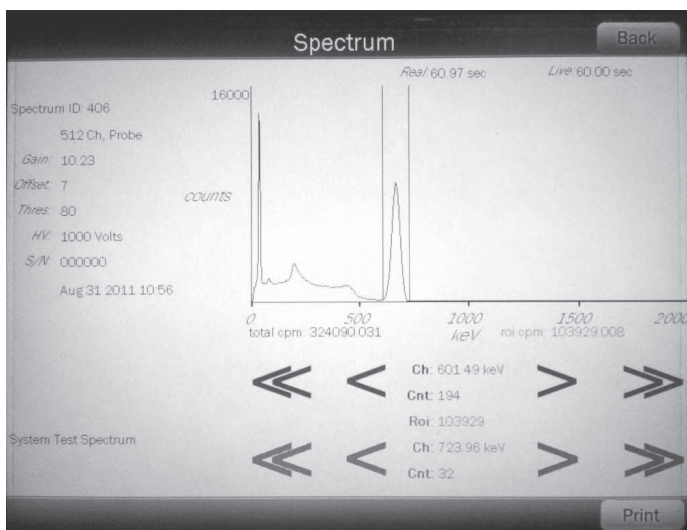
CAPTUS® 700t Thyroid Uptake & Well System..... 5430-3138

## Optional Accessories

Europium 152 (0.5µCi) Rod Source.....0975-152R

Cesium 137 (0.5µCi) Rod Source.....0975-137R

Well Detector with 2" Lead Shield ..... 5430-0069



## Table Top Stand

The Capintec Table Top Stand is an excellent alternative to the floor stand when space is at a premium. This stand is designed to work with the CAPTUS 3000 and the CAPTUS 700t Thyroid Uptake Systems. The Capintec Table Top Stand is very stable when placed on a sturdy table or bench, yet the unit may be easily moved to another location when desired. When fitted with a drilled crystal, the stand acts as a Well Detector System.

### Features

- Small size makes the Table Top Stand perfect for small departments and clinics
- Large 2" x 2" NaI (TI) crystal for highest sensitivity
- Same style and quality collimator or available with standard pediatric collimator as Captus 3000 or 600
- Rotates a full 360o with large locking knobs for ease of placement

**Table Top Stand**..... 5430-2038-OPT

## Capintec Well Detectors

All well shields supplied by Capintec contain a 2" x 2" NaI (TI) crystal, tube base and PM tube for the highest quality in counting statistics. The shield is lined with 0.25" thick copper or brass to minimize interference from lead x-rays and is finished in an attractive durable textured epoxy paint.



Capintec offers two shield thicknesses: 1" is standard, and 2" is the heavy shield. Both are suitable for use with the CAPTUS 3000, CAPTUS 700t, or CAPRAC-t.

### Features

- Completely shielded for low background
- Accommodates large samples
- 3 3/4 p geometry

**Well Detector (2" Shield)**..... 5430-0069

**Well Detector (1" Shield)**..... 5420-2033

## Pediatrics And/OR Bio-Assay Collimator

The collimator shown on the Table Top Stand is especially used for Thyroid Uptakes on pediatric patients. The reduced field-of-view is perfect for a smaller size thyroid without picking up unwanted body activity. When bioassay is the main function of the system, the shorter length collimator allows the detector to be within a closer distance of thyroid for enhanced sensitivity. The system is perfect for use in a Radiopharmacy.



**Pediatric/Bio-Assay Collimator**..... 5420-3110

## Drilled Well Crystal

Capintec offers a Drilled Crystal that is matched to fit the collimator for the CAPTUS 3000 or the CAPTUS 700t Thyroid Uptake Systems. If your system is not located in an area where high activities would cause high background, the drilled crystal is a low cost alternative to purchasing a well counter. The drilled crystal replaces the flat faced crystal in the thyroid probe and becomes both a thyroid detector and a well detector without loss of sensitivity. This crystal is the same quality as the rest of the excellent NaI (TI) crystals provided by Capintec.



A special "dipper" is used to lower samples into the well, to reduce the possibility of damage. There is also a well liner of very thin plastic that is shipped with each crystal (replacements are available).

### Features

- Same sensitivity as flat field crystal for thyroid uptake
- Lower cost alternative to purchase of additional well counter
- Improved geometry for counting wipes

**Drilled Well Crystal**..... 5430-0081

**Well Liner (pkg. of 5)**..... 5120-0176

## Rod Source Holder

Designed to provide precise, reproducible positioning of check sources in the thyroid uptake collimator. Easy to clean, and break resistant.



**Rod Source Holder**.....7315-1850

# 511 Spring Armed Dose Drawing Station

Capintec knows how important radiation safety is to your department, 511 keV nuclides make achieving this goal even more challenging.

The Capintec Dose Drawing Station was designed to help you meet the ALARA requirements of your department. With its proprietary spring arm design and exceptional shielding, the Dose Drawing Station is a fast and safety conscious way of handling your PET nuclides.

## The Four Key Features

### The Spring Arm (1):

The Dose Drawing Station's proprietary spring arm design allows for quick and near effortless positioning of the 35lb. (16 kg) vial shield. With minimal exertion and minimal time the vial shield can be raised, lowered and/or inverted.

### The 511 Vial Shield (2):

There are two components to the vial shield. First is the inner T-vial shield, which is made of tungsten and provides a 1" (25.4 mm) lead equivalence. Second is the outer shield, which has 1" (25.4 mm) thick walls of epoxy-coated lead.

### The Dose Drawing Syringe Shields (3):

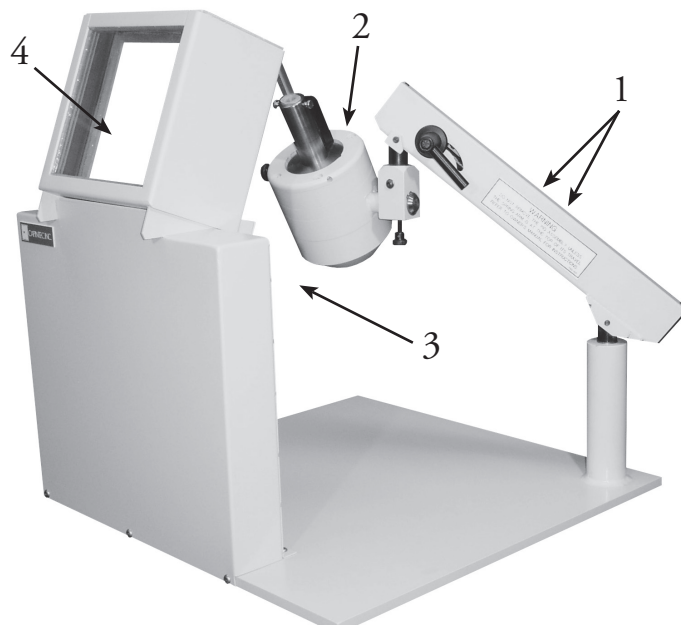
Included with the Dose Drawing Station is a Dose Drawing Syringe Shield in 5, 10 or 20 cc sizes. The syringe shield has a tungsten flange that provides maximum protection and locks onto the 511 vial shield with a twist of the wrist.

### The 511 "L" Block Body Shield (4):

Inside of the steel covering of the body shield lie interlocking 2 3/8" (6 cm) lead bricks. Mounted at a 20o angle on top of the steel cover is an 8" x 8" x 4" (51 x 51 x 25 cm) High Density lead glass view port.

## Features

- Designed for maximum radiation protection and greater flexibility when drawing doses.
- Spring arm is constructed to provide ease of positioning and effortless lifting of the 35 lb. Tungsten vial.
- Easily removable inner tungsten vial shield with 1" lead equivalence shielding.
- Outer shield is 1" thick epoxy coated lead. In conjunction with the inner tungsten shield the user gets a combined 2" of lead shielding.



- Flanged tungsten shield is manufactured to twist and lock into the tungsten vial shield. One flanged tungsten shield is included in the purchase of the dose drawing station. (When purchasing specify which shield size you would require, 5cc., 10cc or 20cc).
- Lead glass is protected by 1/4" plate glass laminated to the front and back viewing surface to protect lead glass from scratching and chipping.

## Specifications

- 23 7/8" H x 22 1/2" W x 22" D
- 8" H x 8" W x 4" D (51 x 51 x 25 cm) 5.2 g/cc density lead glass window at a fixed angle to ease viewing.
- 2 3/8" (6 cm) Gapless lead shielding.
- Weight: 250 lbs.

Drawing Station with body shield .....	5510-3003
Drawing Station without body shield .....	5510-3004

## Optional Items

5 cc Dose Drawing Syringe Shield.....	0665-2017
10 cc Dose Drawing Syringe Shield.....	0665-2011
20 cc Dose Drawing Syringe Shield.....	0665-2018
Unpainted Dose Drawing Station Brick Kit- 12" H x 32" W x 24" D x 2" Thick (31 x 82 x 61 x 5 cm).....	5530-1028
Painted Dose Drawing Station Brick Kit- 12" H x 32" W x 24" D x 2" Thick (31 x 82 x 61 x 5 cm).....	5530-1031
Unpainted Dose Drawing Station Brick Kit- 12" H x 32" W x 24" D x 2 3/8" Thick (31 x 82 x 61 x 6 cm) ....	5530-1033
Painted Dose Drawing Station Brick Kit- 12" H x 32" W x 24" D x 2 3/8" Thick (31 x 82 x 61 x 6 cm) ....	5530-1034