WELCOME!

WEBINAR W-3-25

Auto Positions

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ARCOMA

ARCOMA WEBINAR

Autopositions • 4th of April 2025

- Intro: What is an Auto position?
- 999 Autopositions – New
  Release: May, 2025
- Autoposition Modes and Workflow Settings
- Q&A

ARCOMA WEBINAR - OVERVIEW

Autopositions • 4th of April 2025

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AUTO POSITIONS DEFINITION

What is an Autoposition?

The **ARCOMA Precision i5 / Aceso+** system can automatically position itself based on the selected examination or protocol. When a protocol is chosen, the system moves to the correct position with the activation of a servo button. When the position is reached, the OTC will track the Wall stand detector or the Tabletop height.

Benefits with autoposititon:

- Increased Efficiency and faster Examinations
- Ergonomic Benefits for the user
- Enhanced Patient Experience
- Improved Image Quality
- Less risk for Retakes

Activation of Autoposition

1. SELECT PROTOCOL
2. ACTIVATE SERVO BUTTON

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How is an Autoposition defined?

The Overhead tube crane is positioned in the room.

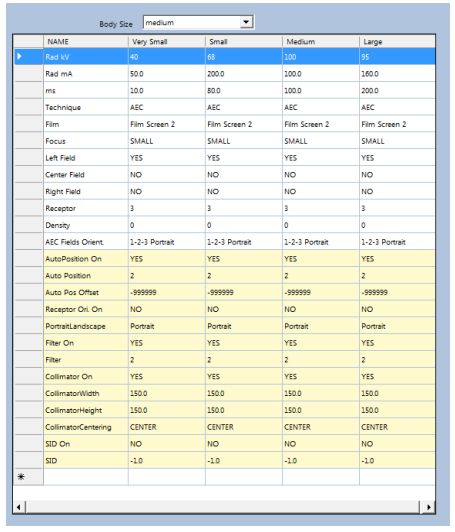
The position is then assigned with:

- Auto position number
- Mode: Decides how the system will act when the position is reached/activated.
- SID

The auto position number is selected for the examinations / protocols. Additional settings can be done in the protocol.

PROTOCOL – AUTO POSITION

CANON PROTOCOL EDITOR



NAME	Very Small	Small	Medium	Large
Rad kV	40	68	100	95
Rad mA	50.0	200.0	100.0	160.0
ms	10.0	80.0	100.0	200.0
Technique	AEC	AEC	AEC	AEC
Film	Film Screen 2	Film Screen 2	Film Screen 2	Film Screen 2
Focus	SMALL	SMALL	SMALL	SMALL
Left Field	YES	YES	YES	YES
Center Field	NO	NO	NO	NO
Right Field	NO	NO	NO	NO
Receptor	3	3	3	3
Density	0	0	0	0
AEC Fields Orient.	1-2-3 Portrait	1-2-3 Portrait	1-2-3 Portrait	1-2-3 Portrait
AutoPosition On	YES	YES	YES	YES
Auto Position	2	2	2	2
Auto Pos Offset	-999999	-999999	-999999	-999999
Receptor Ori. On	NO	NO	NO	NO
PortraitLandscape	Portrait	Portrait	Portrait	Portrait
Filter On	YES	YES	YES	YES
Filter	2	2	2	2
Collimator On	YES	YES	YES	YES
CollimatorWidth	150.0	150.0	150.0	150.0
CollimatorHeight	150.0	150.0	150.0	150.0
CollimatorCentering	CENTER	CENTER	CENTER	CENTER
SID On	NO	NO	NO	NO
SID	-1.0	-1.0	-1.0	-1.0

PARAMETERS RELATED TO AUTOPOSITIONING

PARAMETER	Description of parameter
Auto Position On	*Defines if Auto position shall be used.*
Auto Position	*Auto position number*
Auto Pos Offset	*Alpha offset, -135° degrees to +135°*
Detector Angle On	*Defines if the Wall stand detector shall be tilted*
Detector Angle	*-20° to +90°*

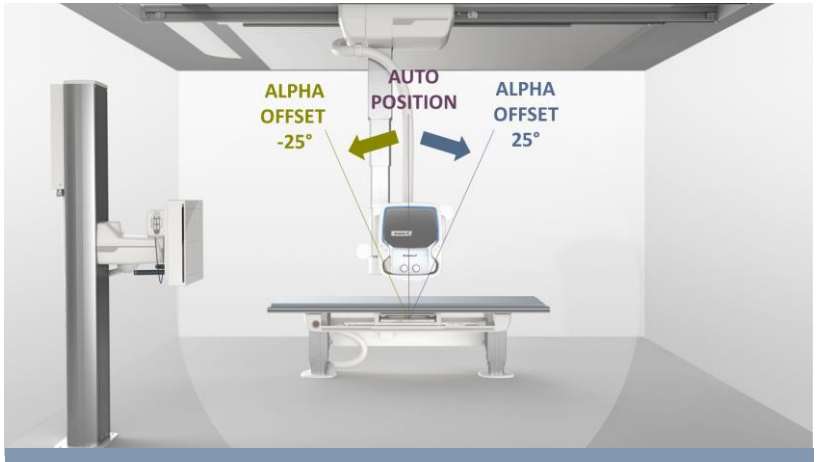
← YES for Autopositioning

← AUTOPOSITION NUMBER

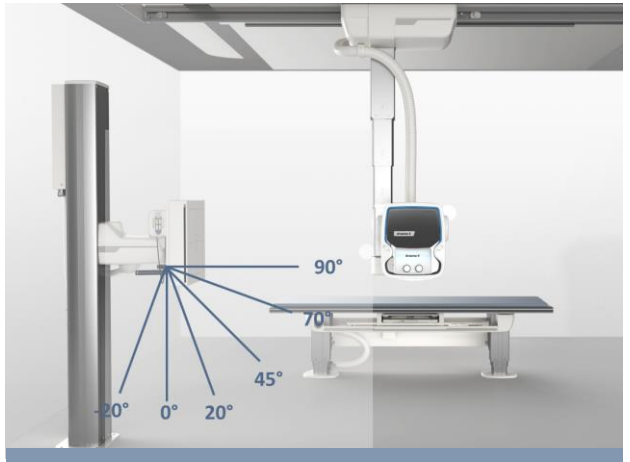
← Define OTC rotation

← YES when Wall stand detector shall be tilted

← Define detector angulation



Auto Pos Offset



Detector Angle

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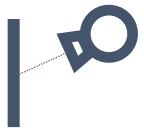
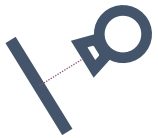
PROTOCOL – WALL STAND

HOW TO DEFINE AUTOPOSITION AND CANON PROTOCOL TO REACH THE DIFFERENT START POSITIONS UPON ACTIVATION OF THE AUTO POSITIONING (SERVO BUTTON).

	Settings to go to the Start position (auto position)		
START POSITION	AUTO POSITION	CANON PROTOCOL	POSSIBLE USER ADJUSTEMENTS
	Pos = 1* Autoposition with vertical detector.		Detector Angle with OTC keeping perpendicular position. OTC angle of incidence (pendulum) **).
	Pos = 1* Autoposition with vertical detector.	Use **Auto Pos Offset** in Protocol	Detector Angle with OTC keeping perpendicular position. OTC angle of incidence (pendulum) **).
	Pos = 1*) Autoposition with vertical detector.	Use **Detector Angle** in Protocol	Detector Angle with OTC keeping perpendicular position. OTC angle of incidence (pendulum) **).

**) Position 1 is only an example to show that same position can be used for all three examples.*

***) Pendulum mode can be used for detector angles -20° to +20 °.*

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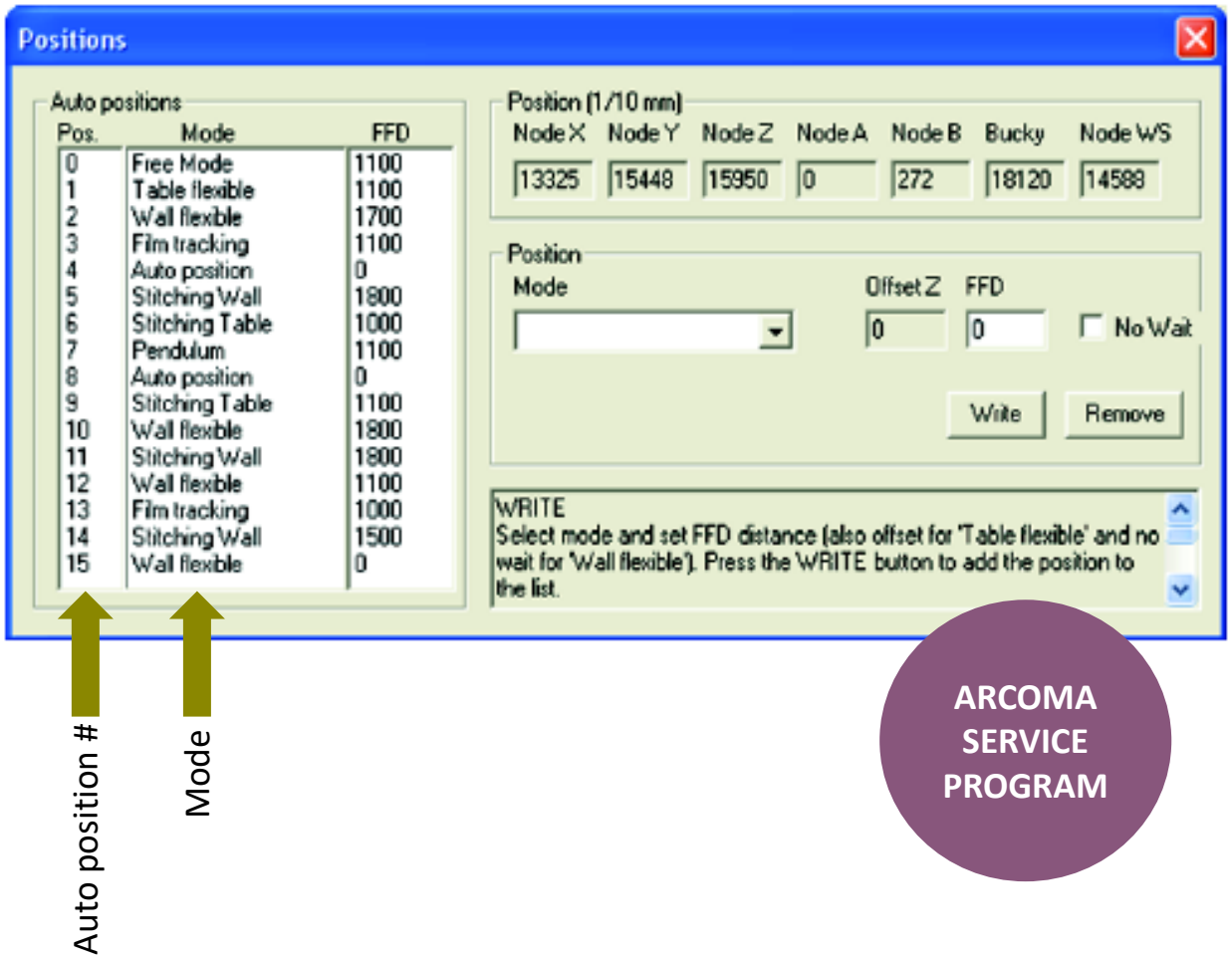
ADD NEW AUTO POSITION & MODES



AVAILABLE MODES		
FREE	TABLE	WALL STAND
Free Mode	Table Flexible	Wall Flexible
Auto Position	Film Tracking	Stitching Wall
	Pendulum	
	Stitching, Table	

SELECTED MODE DEFINES

- Possible Movements
- Selected workplace
- When Exposure is possible

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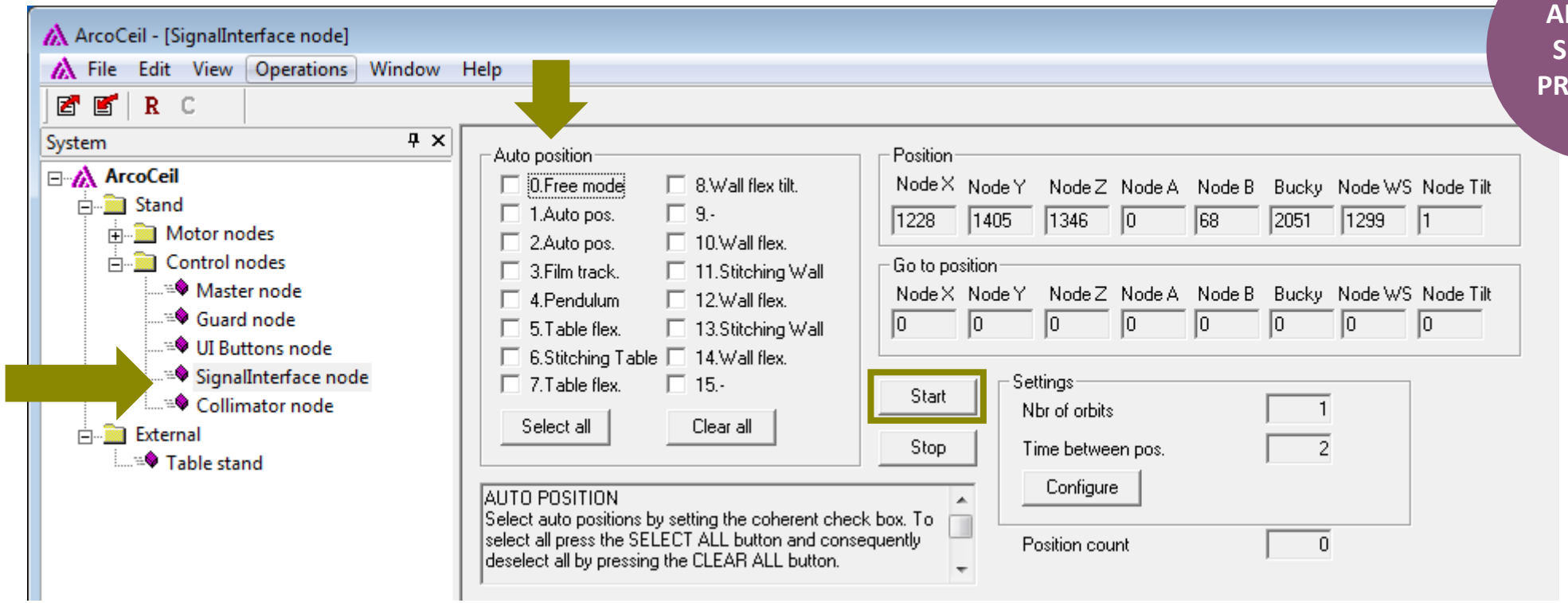
AUTO POSITION - CHECK

The defined Auto positions can be checked quickly from the ARCOMA Service Program.

Select SignalInterface node and check the position of interest. When pushing Start button the system will move to the programmed position. Stop button can be used to stop the movement.



ARCOMA SERVICE PROGRAM

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999 AUTO POSITIONS DEFINITION

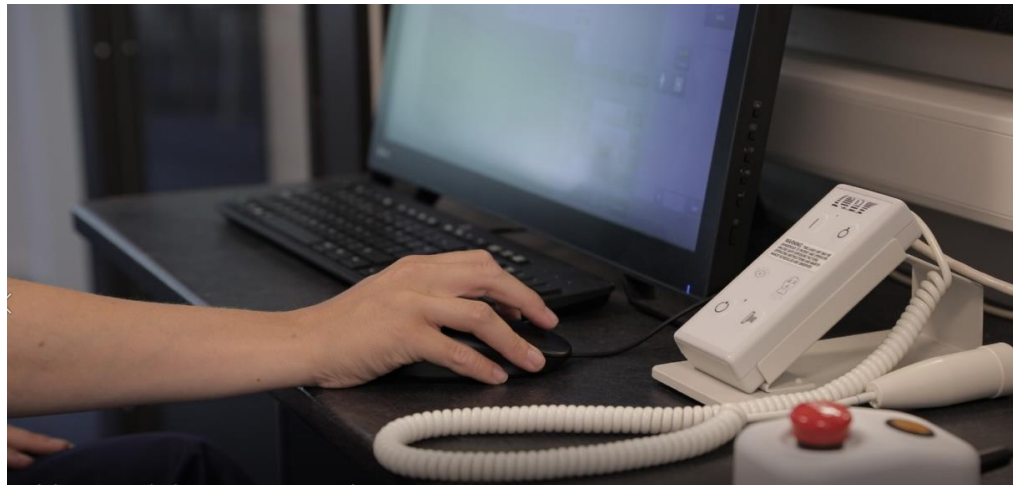
999 AUTOPOSITIONS – Interface

Auto positions can be entered via:

1) **OTC Display**, Settings menu ⚙

2) **Canon PC**
   Open browser, enter 192.168.0.1

Note! Do not use interface 1 and 2 above at the same time.



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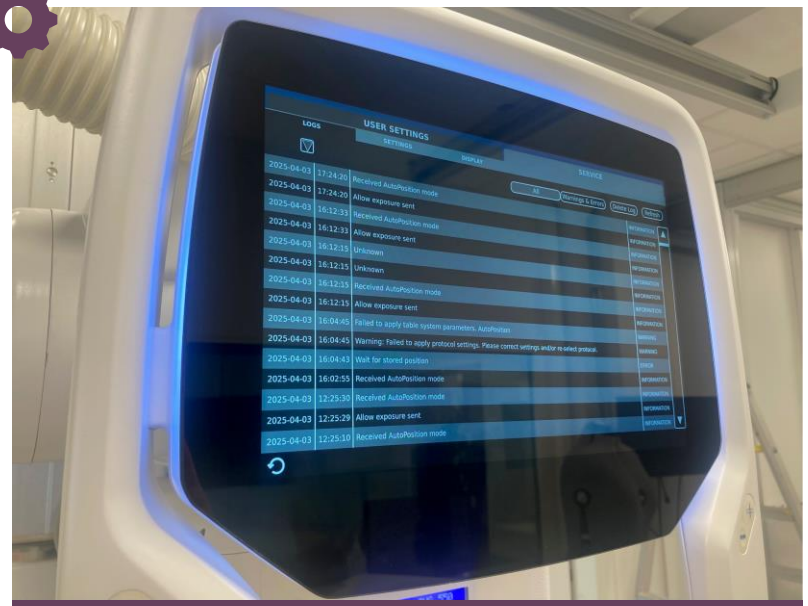
999 AUTOPOSITIONS – Interface

Auto positions can be entered via:

1) OTC Display, Settings menu



TAB: SERVICE

TAB: SETTINGS, PIN: 1895

TAB: AUTOPOS

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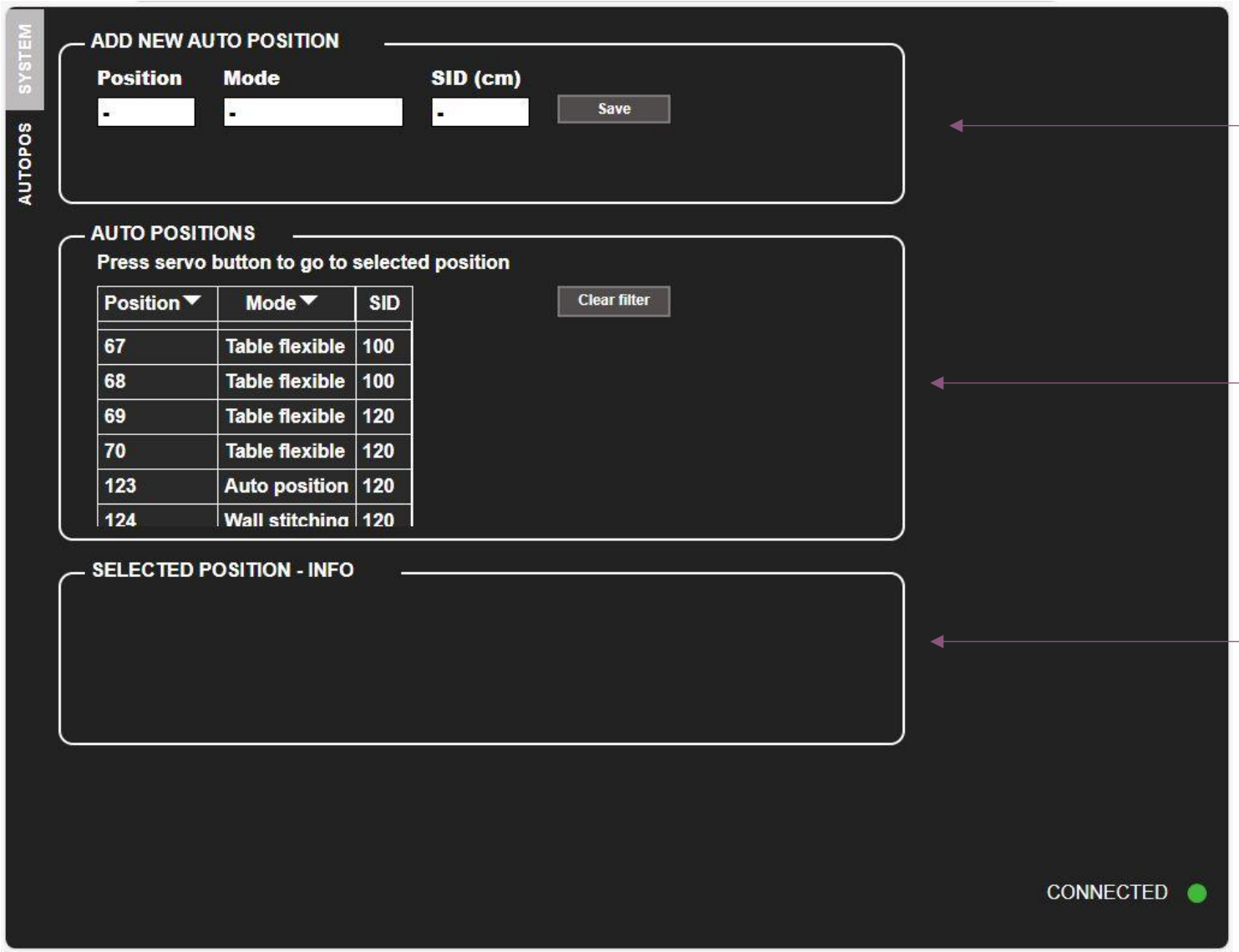
999 AUTOPOSITIONS – Interface



ADD NEW AUTO POSITON

AUTO POSITIONS IN THE SYSTEM

DETAILED INFORMATION ABOUT THE AUTO POSITON

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ADD NEW AUTO POSITION

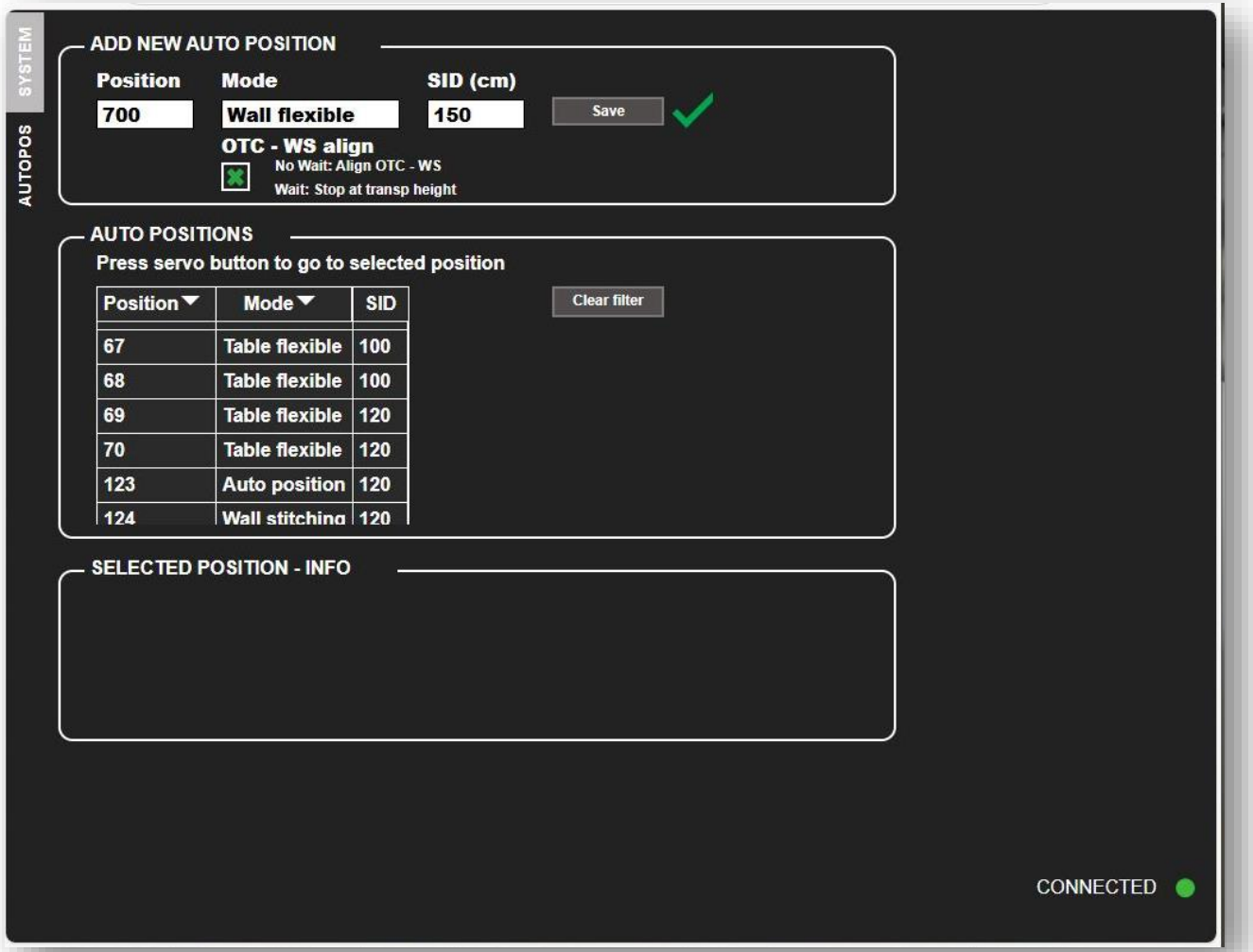
Add new Auto position by defining:

- POSITION (Range: 16-1015)
- MODE
- SID

Additional settings are available for:

- WALL FLEXIBLE MODE
  > OTC – WS align
- TABLE FLEXIBLE MODE
  > Z offset (mm)

Select SAVE



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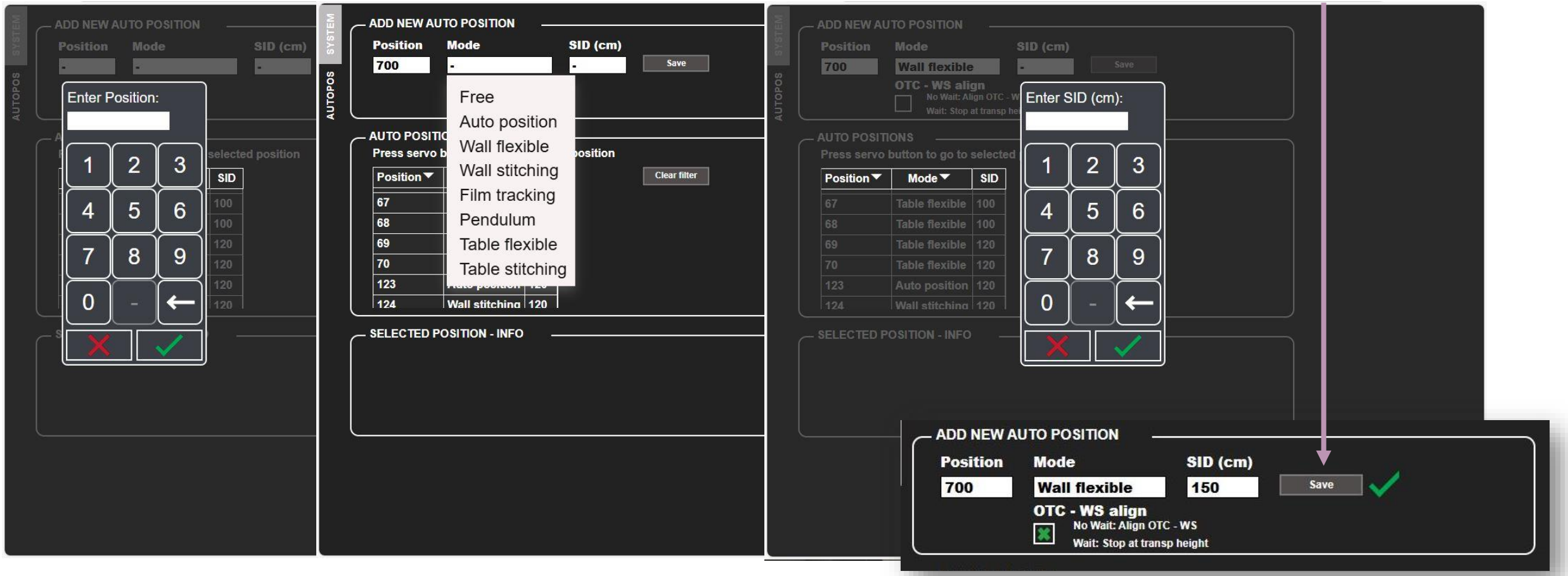
ADD NEW AUTO POSITION

1. ENTER POSITION
2. SELECT MODE
3. ENTER SID
4. SAVE



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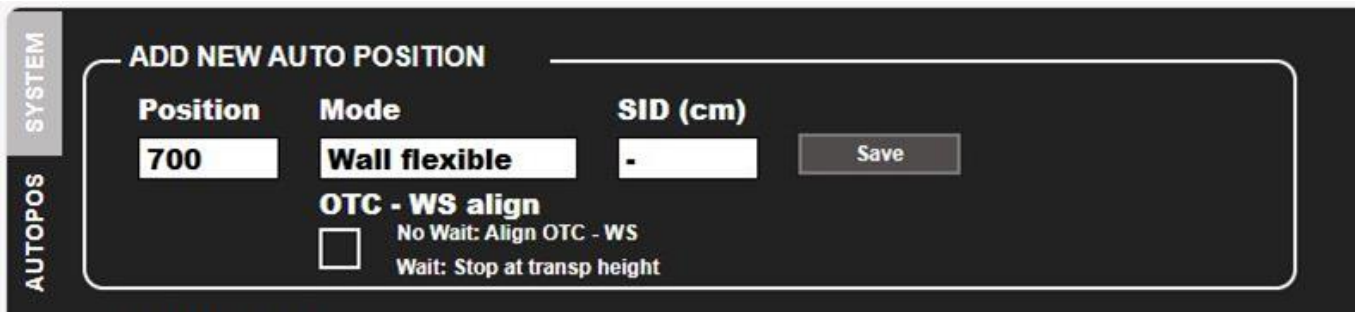
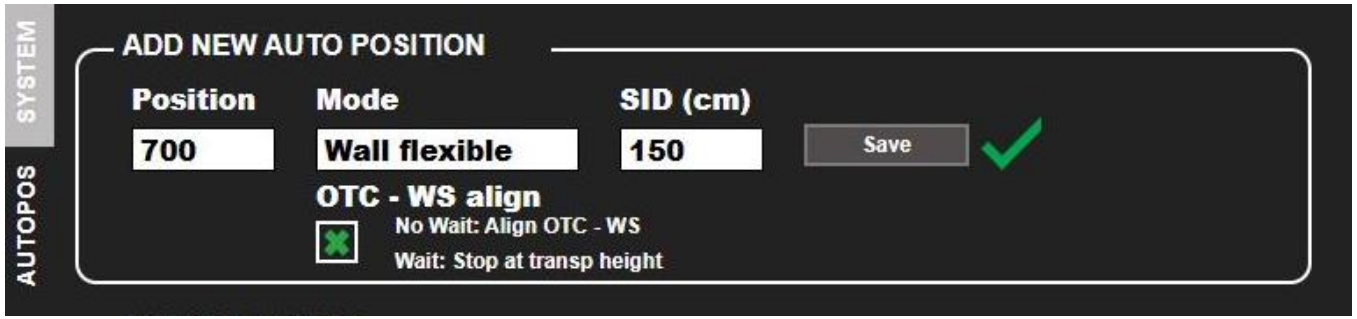
ADD NEW AUTO POSITION: MODE

2. SELECT MODE: WALL FLEXIBLE MODE



NO WAIT



WAIT

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WALL STAND – ALIGNEMENT OPTION (WAIT)

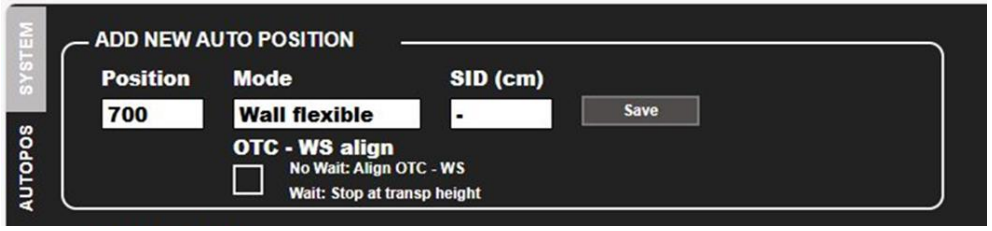
OTC STOPS IN TRANSPORTATION HEIGHT

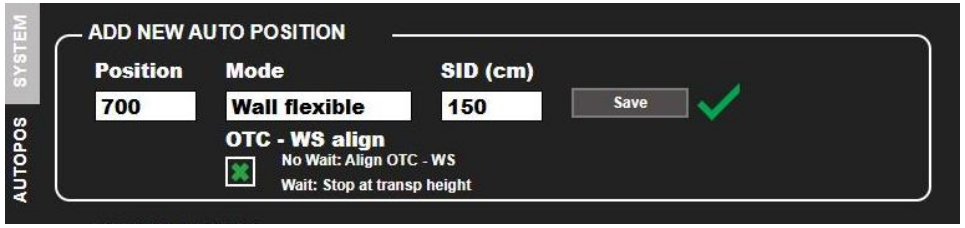
The OTC stops in front of the Wall stand in transportation height. When the detector at the wall stand is moved up/down the OTC will find the center position of the detector and start tracking.

OTC ALIGNES WITH THE WALL STAND DETECTOR

The OTC will find the center position of the detector and start tracking.

Arcoma Service program





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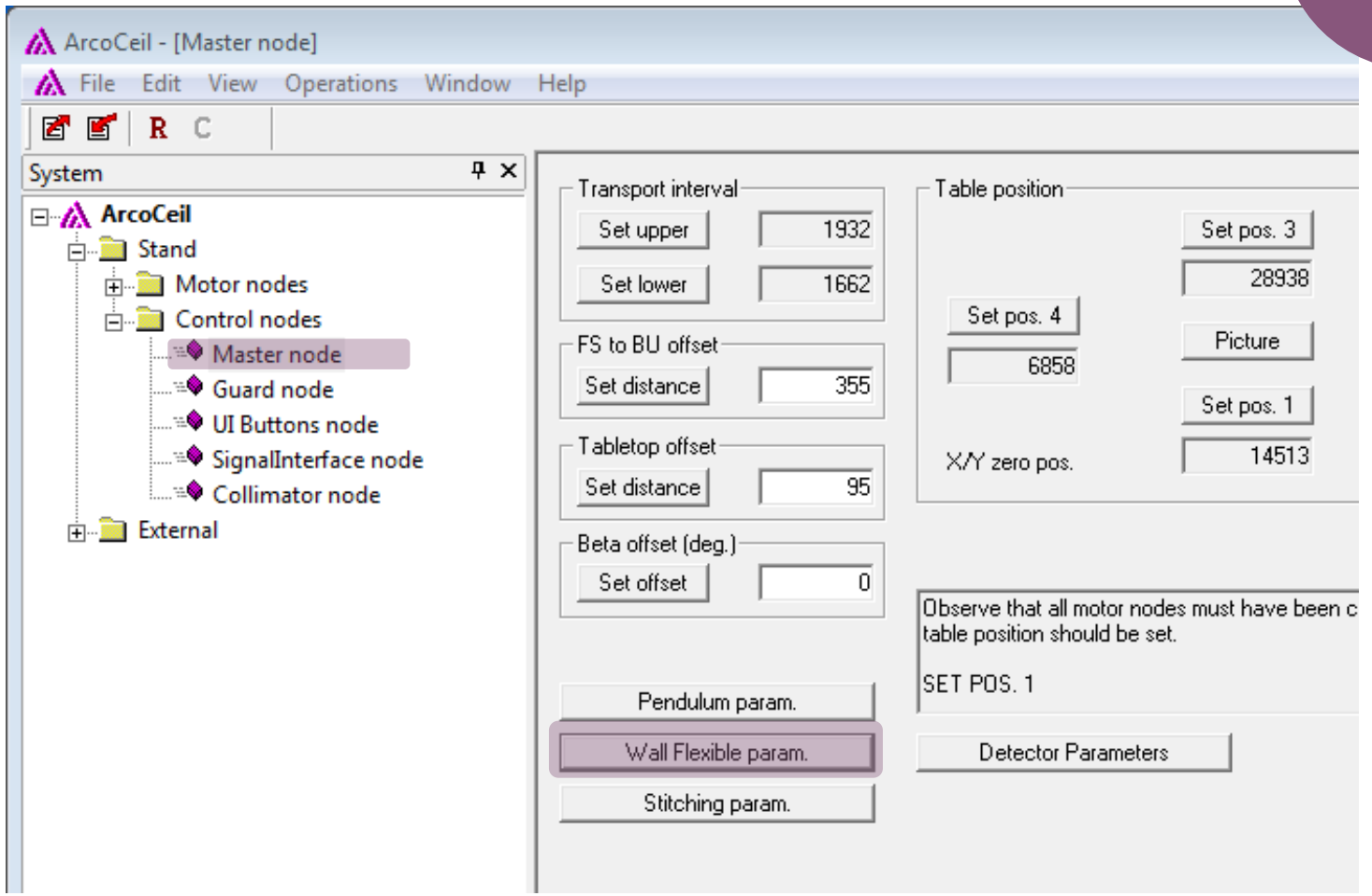
WALL STAND MODE - SETTINGS

ARCOMA SERVICE PROGRAM



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WALL STAND MODE – SETTINGS – Sideway movements

ARCOMA SERVICE PROGRAM

Adjust WallFlexible parameters

Movements

- (•) Not blocked
- ( ) Beta blocked and Sideways supervised
- ( ) Beta and Sideways blocked

Autopositioning

- [x] Autoposition wallstand

Read

Write

MOVEMENTS
Option used to block movements in the system.It is possible to block Beta and Sideways in following ways:
Supervised: Beta is blocked. Sideways is possible to move half distance of the detector width (in landscape).

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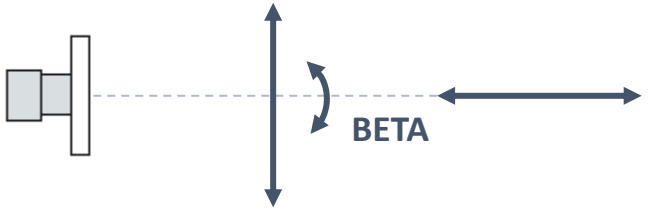
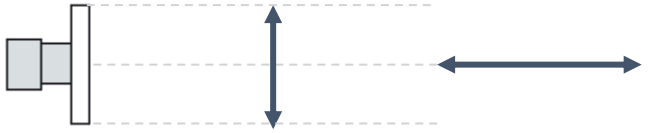
WALL STAND – sideway movements

Sideways movements

For sideways movements of the OTC in front of the detector there are three different alternatives. You select the behavior in the Arcoma service program.

WALL STAND	OTC MOVEMENTS	SETTING	OTC MOVEMENTS
		Not blocked	All movements of the OTC in front of the detector are allowed.
		Beta blocked and Sideways supervised	Sideways movements allowed until center line of x-ray field reaches the edge of the detector. The servo is then de-activated.
		Beta and Sideways blocked	Only movements that will change the SID-value are allowed. No sideway movements allowed.

Alpha rotation and SID adjustments always allowed.

ARCOMA SERVICE PROGRAM SETTING

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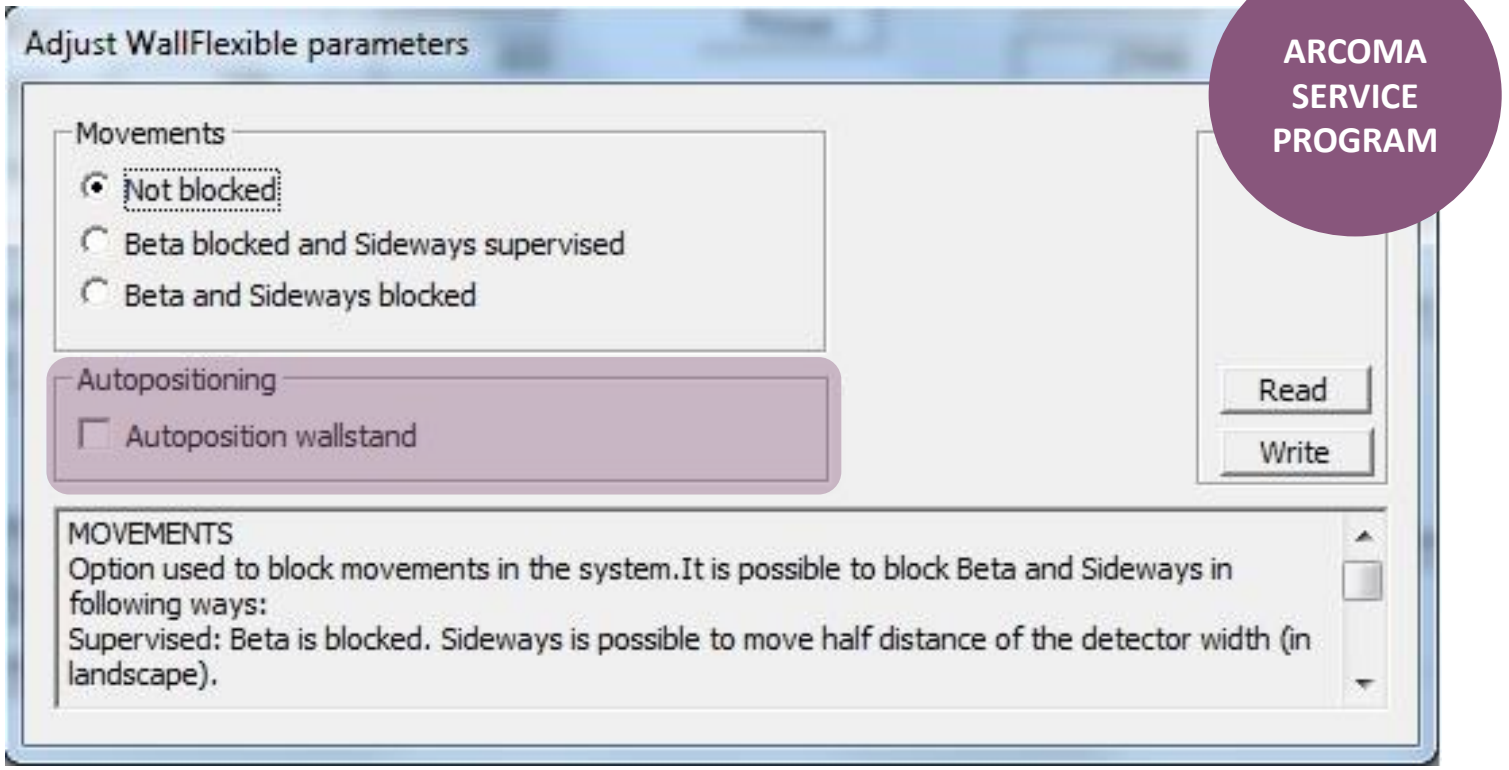
WALL STAND MODE – SETTINGS – Autopos.

Auto positioning Wall stand detector

You can select if the detector at the Wall stand shall go to a predefined position or not.



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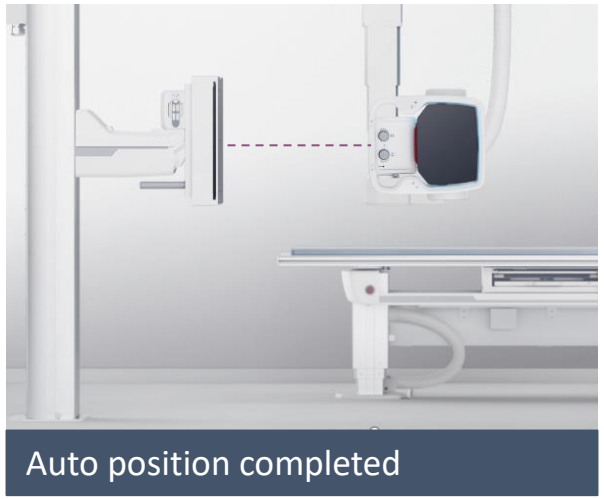
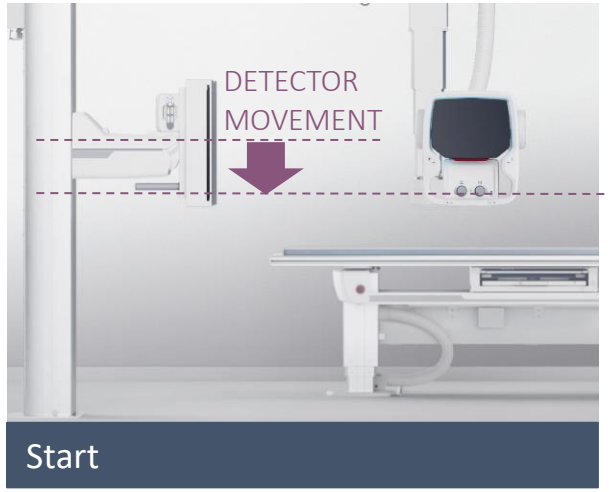
WALL STAND – Autopositioning detector options

Start

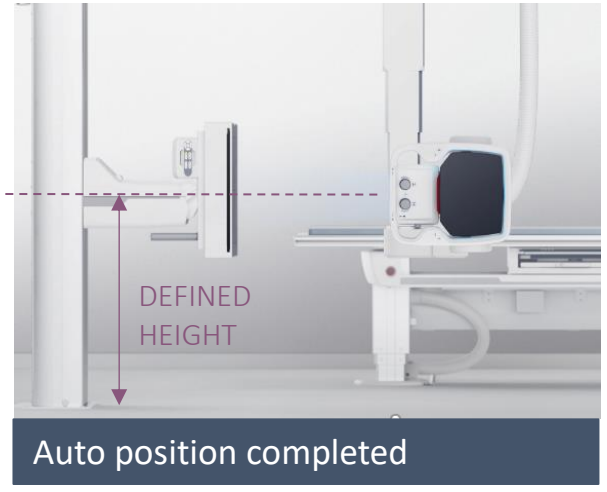


Auto position completed

Autoposition wall stand NOT selected
Wall stand detector stays in current position and OTC moves to align with the detector.



Start



Auto position completed

Autoposition wall stand selected
Wall stand detector will move to the defined height when auto position is performed.

ARCOMA SERVICE PROGRAM SETTING

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ADD NEW AUTO POSITION: MODE

2. SELECT MODE: TABLE FLEXIBLE

Z offset (mm)

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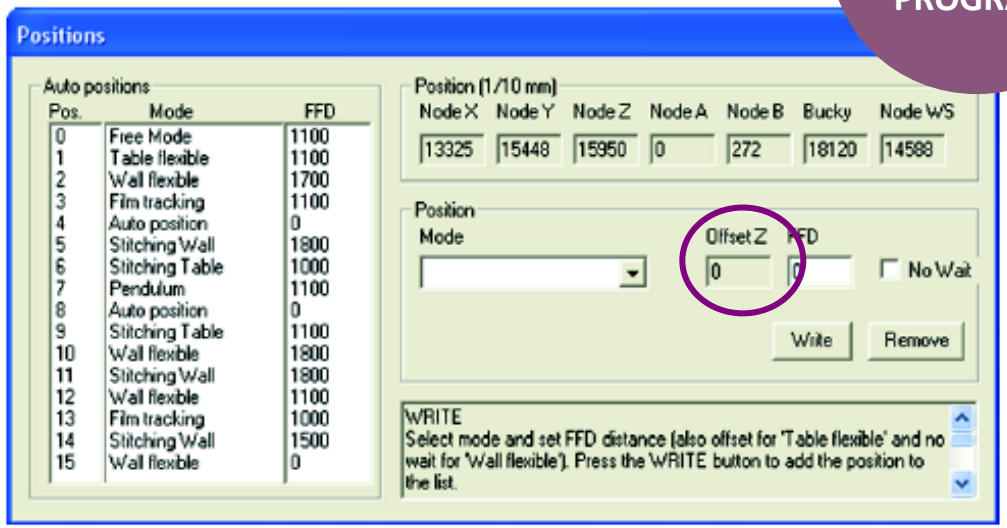
TABLE MODES - SETTINGS

TABLE FLEXIBLE

ARCOMA SERVICE PROGRAM



Offset z defines distance from detector in detector holder to top of detector when placed on the table top with or without a mattress.
Can be adjusted for different mattress thicknesses.

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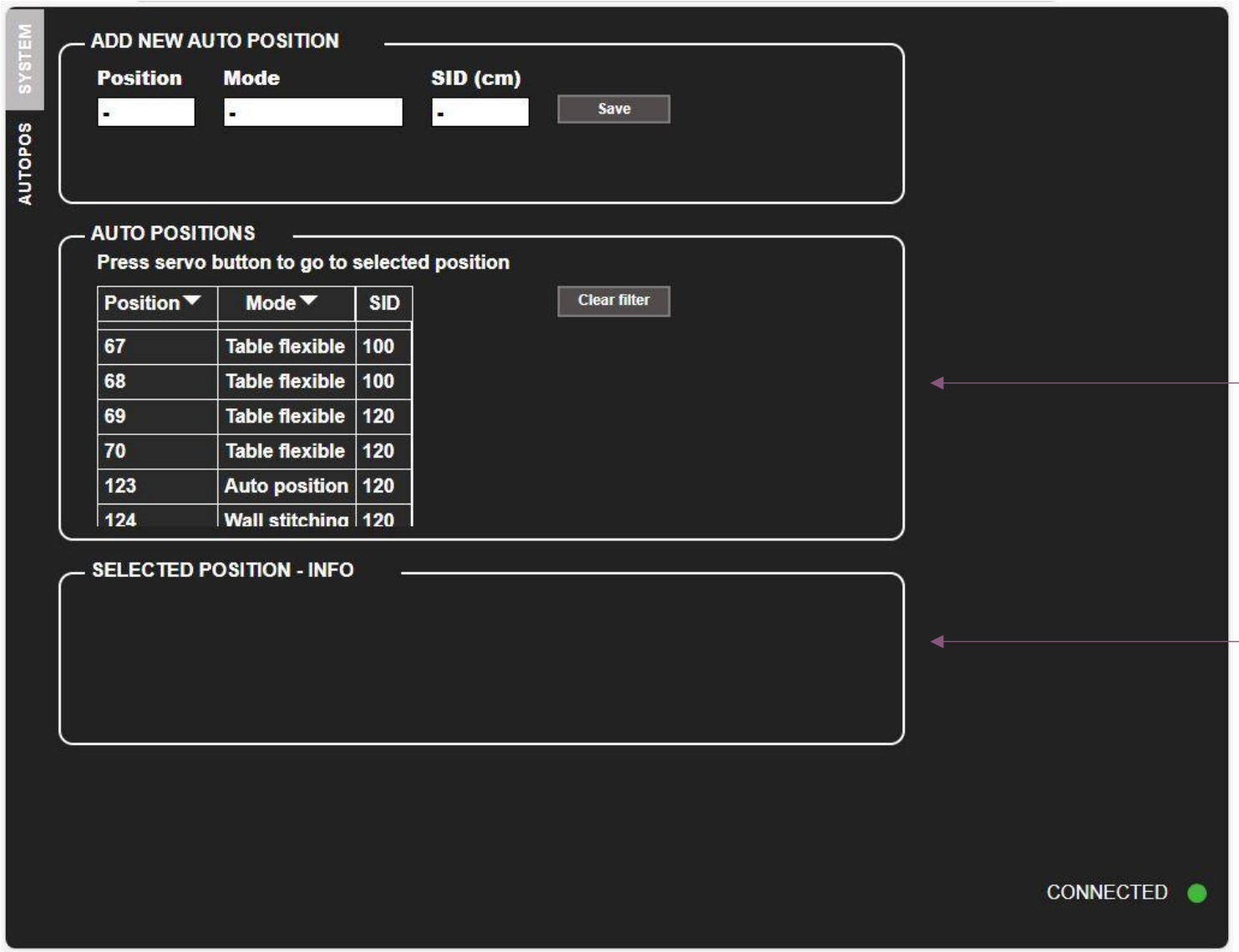
AUTO POSITIONS IN THE SYSTEM



AUTO POSITIONS IN THE SYSTEM

DETAILED INFORMATION ABOUT THE AUTO POSITON

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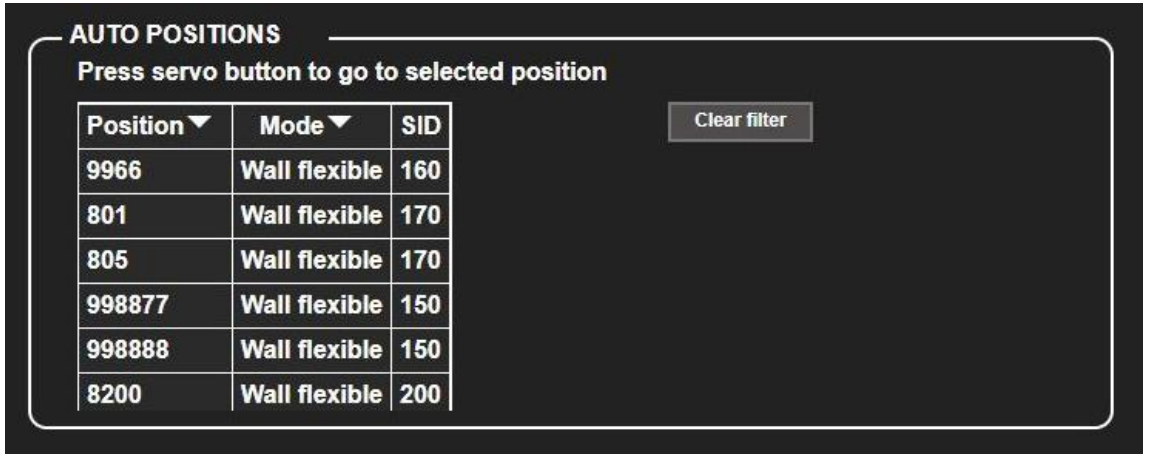
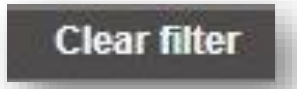
AUTO POSITIONS IN THE SYSTEM

LISTS CAN BE FILTERED

FILTER: POSITION

FILTER: MODE





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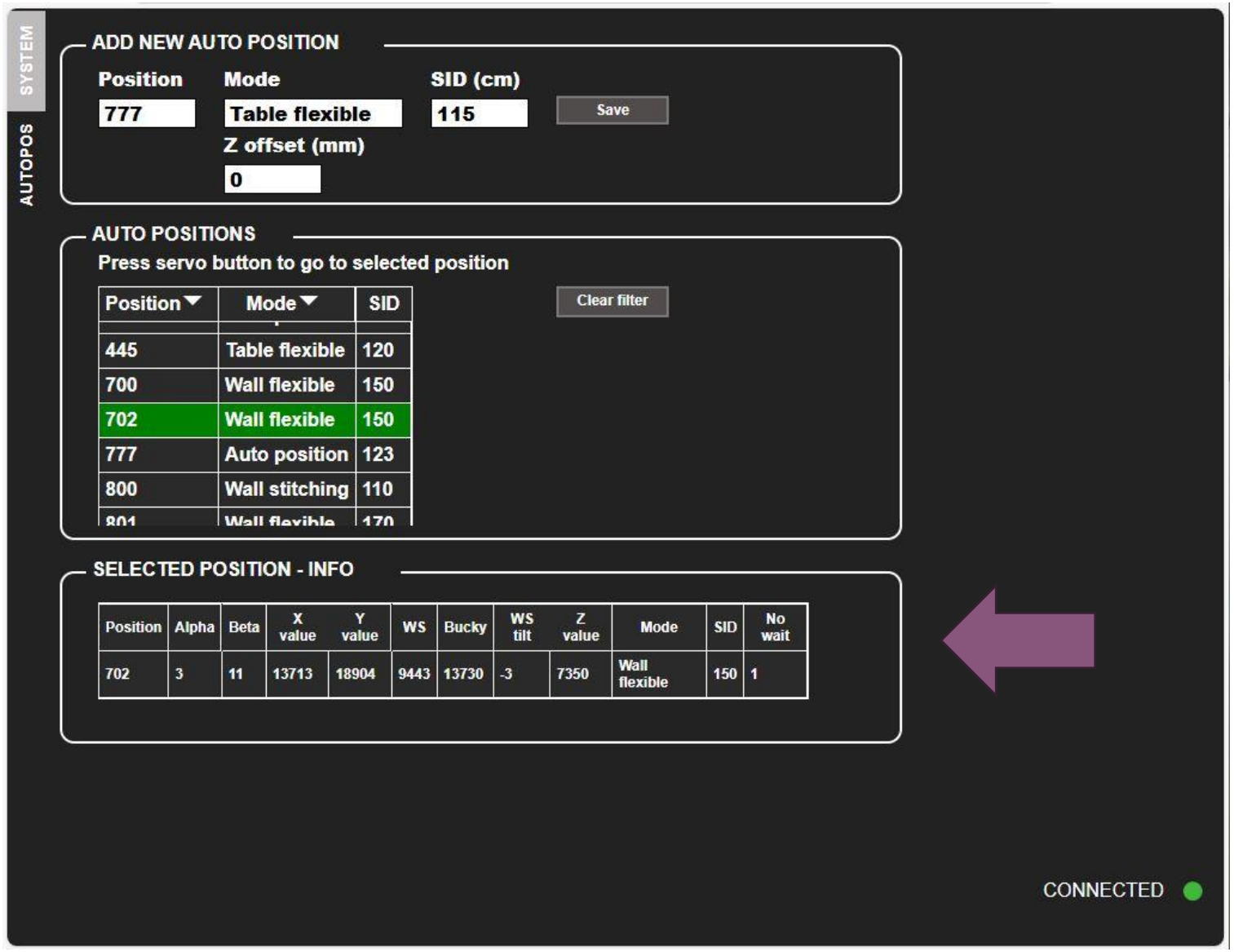
AUTO POSITIONS IN THE SYSTEM – CHECK



- SELECT AN AUTOPOSITON
- GO TO HE POSITION BY ACTIVATING THE SERVO BUTTON

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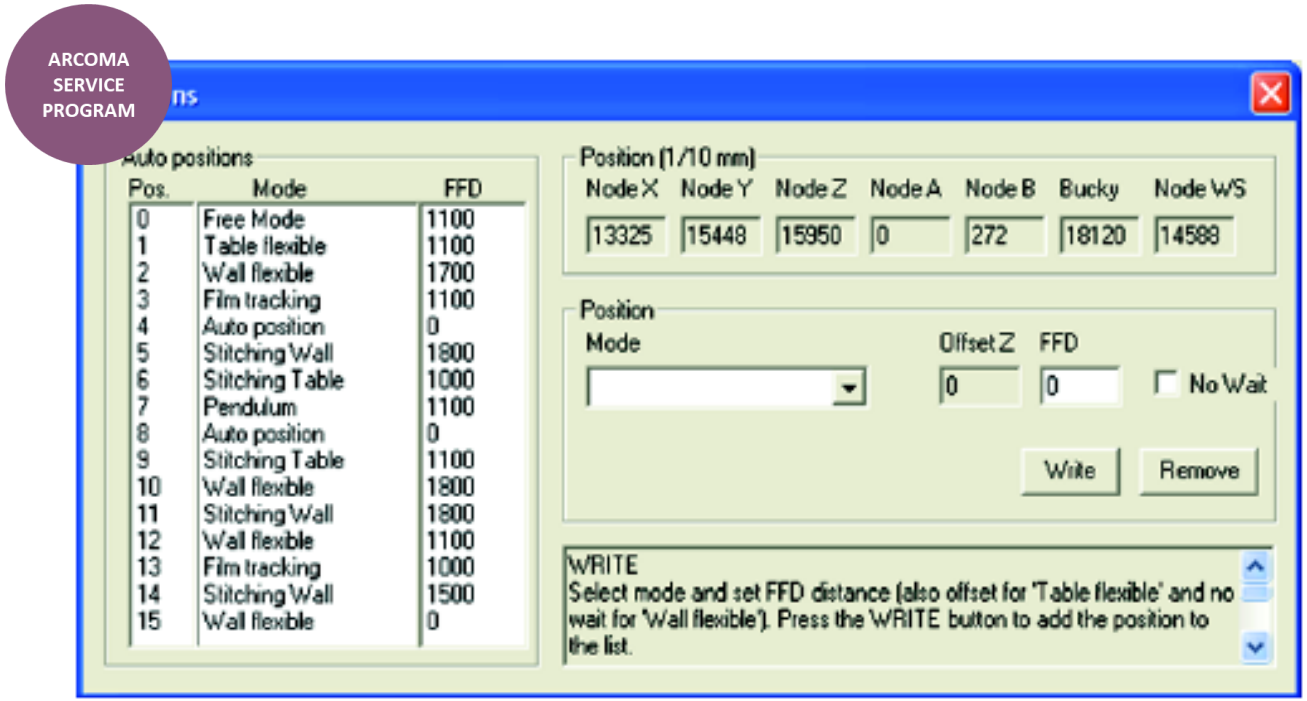
NEW INTERFACE VERSUS ARCOMA SERVICE PROGRAM

ARCOMA Service Program

- **Position 0**
  > Will still be used when no Canon Protocol is active. Define as Free Mode.
- **Position 1-15**
  > Will not be shown on the OTC display interface
- **Position 1-15**
  > Shall only be used for tests, for example during installation or service.

Autoposition Interface OTC Display

- **Position 16-1015 can be used**



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AUTO POSITIONS: MODES

Auto position – Free examinations

MODES

FREE MODE > *No position defined*
AUTO POSITION > *Position defined*

FREE MODE
Designed for emergency examinations or examination with a mobile detector and patient on a stretcher.

Movements
All movements are available.
No defined position in the room, the OTC stays in the current position.
No tracking of Table or Wall stand.

Exposure
Exposure is possible when the ceiling unit is
not moving.

Note!
The ceiling unit will automatically enter the "Free mode" at start-up.

AUTO POSITION
Designed for emergency examinations or examination with a mobile detector and patient on a stretcher.
Good to use for a Parking position.

Movements
When servo button is pressed the OTC goes to the predefined position.
All movements are available.
No tracking of Table or Wall stand detector.

Exposure
Exposure is possible when the ceiling unit is not moving.

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Table modes

MODES
TABLE FLEXIBLE
FILM TRACKING
PENDULUM
TABLE STITCHING

TABLE FLEXIBLE

Designed for examinations with the detector placed on the table top.

MOVEMENTS

- OTC can be moved freely in all directions.

EXPOUSURE

Exposure is possible when the OTC is not moving, and the servo mode indication light is fixed.

Note! In "Table Flexible mode" exposure is possible outside the imaging unit.

FILM TRACKING

Designed for examinations of patients lying on the Table with the detector placed in the detector holder.

MOVEMENTS

- Detector will track the OTC movements in longitudinal direction above the table to keep aligned with the central x-ray.
- When the OTC is angulated the detector will move to keep aligned with the central x-ray.
- SID can be changed.
- Lateral movements and beta rotations blocked.

EXPOUSURE

Exposure is possible when the OTC is not moving, and the servo mode indication light is fixed, and the x-ray beam covers the image unit.

PENDULUM

Designed for examinations of patients lying on the Table with the detector in the detector holder. Only tube angulation.

MOVEMENTS

- When the OTC is angled (pendulum sweep) the detector will keep its position. The center ray is centered to the center of the detector.
- Pendulum sweep is activated from table control handle.

EXPOUSURE

Exposure is possible when the OTC is not moving, and the servo mode indication light is fixed.

TABLE STITCH

Designed for examinations where stitching of images are needed to cover the whole area of interest.

MOVEMENTS

- The user will select start and stop position by angle the OTC.
- When the exposure handle is activated the movement and capturing of images is performed automatically.

EXPOUSURE

Exposure is possible when the OTC is not moving, and the servo mode indication light is fixed and the stitched image is defined.

- OTC goes to a predefined position above the table when auto positioning is activated.
- OTC will track the table top height to keep the focus – detector distance constant.

AUTO POSITION – WALL STAND MODES

MODES

WALL FLEXIBLE
WALL STITCHING

WALL FLEXIBLE

Designed for examinations of patients standing up against a vertical moving imaging unit.

MOVEMENTS

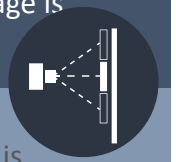
When servo button is pressed the OTC goes to the predefined position.
When the detector is moved up or down the OTC will track the detector position.

EXPOSURE

Exposure is possible when the OTC is not moving, and the servo mode indication light is fixed.

WALL STITCH

Designed for examinations of patients standing up against a vertical moving imaging unit when a stitched image is needed.



MOVEMENTS

When servo button is pressed the OTC goes to the predefined position.
The user is defining the upper and lower limit of the image.
The exposure handle is kept activated during the exposure sequence.

EXPOSURE

Exposure is possible when the OTC is not moving, and the servo mode indication light is fixed and the stitched image is defined.

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IMPROVED WORKFLOW

IMPROVED WORKFLOW

INTRODUCED APRIL 2022

- Faster positioning for Wall stand examinations with tilted detector
- Improved workflow for dedicated Chest X-ray rooms

Faster positioning for Wall stand examinations with tilted detector

CURRENT

- Protocol selected and autoposition activated.
- If the detector is too high for the tube to reach the correct position the positioning is stopped.
- User adjust the height of the detector until the requested SID / tube position can be reached.

SID cannot be reached.
User move detector down.

NEW

- Protocol selected and autoposition activated.
- System automatically adjust the detector height if needed and goes to requested position.

SID cannot be reached.
System automatically adjust detector height.

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Faster positioning for Wall stand examinations with tilted detector

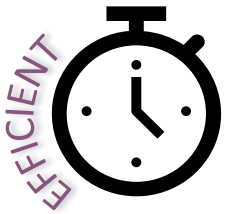
- More automated and supporting operation
- Saves time
- Smoother workflow

WORKFLOW

SAME PATIENT

> RE-POSITIONING NEED MINIMIZED

> EFFICIENT WORKFLOW



NEWS

No need to reposition between exposures were top (or bottom) centered collimation selected.

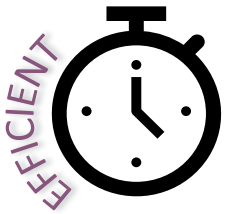
No need to reposition between exposures were an autopositioning wall stand detector is used.

WORKFLOW

BETWEEN PATIENTS

> RE-POSITIONING NEED MINIMIZED

> EFFICIENT WORKFLOW



NEWS

Servo remains active between patients.

> *You can define that servo shall remain active also between patients, under the condition that the same position is used also for next patient*.

CHEST ROOM Improvements: Top/Bottom-centring

1 PROTOCOL selected + activated, servo active

2 ADJUST COLLIMATOR FIELD FOR PATIENT, servo active

3 EXPOSURE

7 OTC position + collimator field size from protocol. OTC will move.

8 ADJUST COLLIMATOR FIELD FOR PATIENT **READY FOR NEXT EXPOSURE**

4 NEXT PROTOCOL SELECTED
(manual or automatic)
Collimator: Topcentring

5 SERVO
De-activated

6 SERVO
Re-activated

COLLIMATOR:
Top-centring

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CHEST ROOM Improvements: Top/Bottom-centring

1 PROTOCOL selected + activated, servo active

2 ADJUST COLLIMATOR FIELD FOR PATIENT, servo active

3 EXPOSURE

4 NEXT PROTOCOL SELECTED
(manual or automatic)
Collimator: Topcentring

5 SERVO STAYS ACTIVE
Collimator field size kept
SYSTEM READY.
READY FOR NEXT EXPOSURE

COLLIMATOR:
Top-centring

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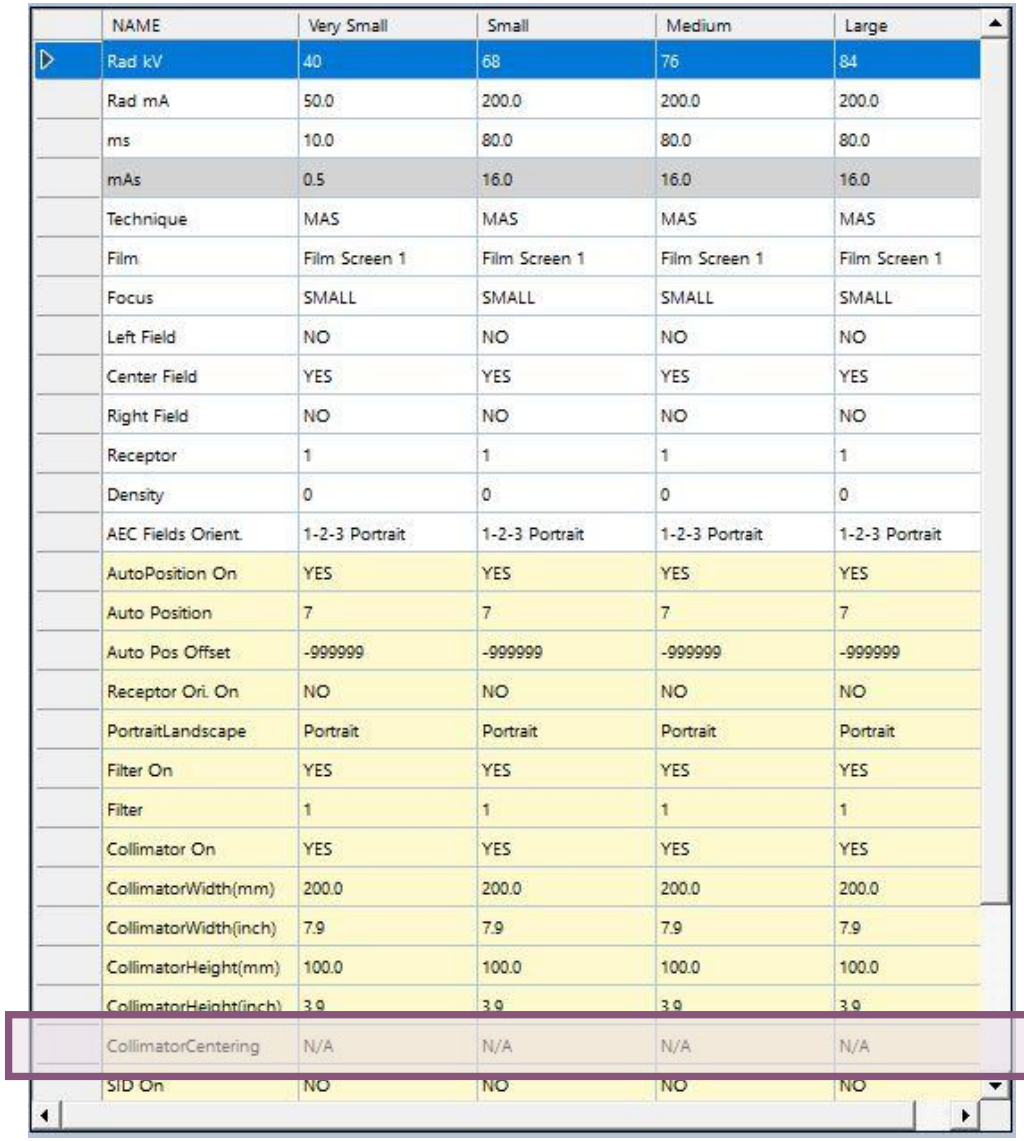
CHEST ROOM Improvements: Top/Bottom-centring



NAME	Very Small	Small	Medium	Large
Rad kV	40	68	76	84
Rad mA	50.0	200.0	200.0	200.0
ms	10.0	80.0	80.0	80.0
mAs	0.5	16.0	16.0	16.0
Technique	MAS	MAS	MAS	MAS
Film	Film Screen 1	Film Screen 1	Film Screen 1	Film Screen 1
Focus	SMALL	SMALL	SMALL	SMALL
Left Field	NO	NO	NO	NO
Center Field	YES	YES	YES	YES
Right Field	NO	NO	NO	NO
Receptor	1	1	1	1
Density	0	0	0	0
AEC Fields Orient.	1-2-3 Portrait	1-2-3 Portrait	1-2-3 Portrait	1-2-3 Portrait
AutoPosition On	YES	YES	YES	YES
Auto Position	7	7	7	7
Auto Pos Offset	-999999	-999999	-999999	-999999
Receptor Ori. On	NO	NO	NO	NO
PortraitLandscape	Portrait	Portrait	Portrait	Portrait
Filter On	YES	YES	YES	YES
Filter	1	1	1	1
Collimator On	YES	YES	YES	YES
CollimatorWidth(mm)	200.0	200.0	200.0	200.0
CollimatorWidth(inch)	7.9	7.9	7.9	7.9
CollimatorHeight(mm)	100.0	100.0	100.0	100.0
CollimatorHeight(inch)	3.9	3.9	3.9	3.9
CollimatorCentering	N/A	N/A	N/A	N/A
SID On	NO	NO	NO	NO

CANON PROTOCOL SETTING
> Select collimator centring

COLLIMATION CENTERING SETTING

- Top / Center / Bottom

Default setting can be changed when needed by the user from the tube display.

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CHEST ROOM Improvements: Autopositioning detector

1. PROTOCOL selected + activated, detector moves to programmed height. servo active

2. ADJUST DETECTOR HEIGTH FOR PATIENT, servo active

3. EXPOSURE

4. NEXT PROTOCOL SELECTED (manual or automatic)

5. SERVO De-activated

6. SERVO Re-activated

7. OTC & Detector moves to programmed height servo active

8. ADJUST DETECTOR HEIGHT FOR PATIENT Servo active **READY FOR EXPOSURE**

ARCOMA

CHEST ROOM Improvements: Autopositioning detector

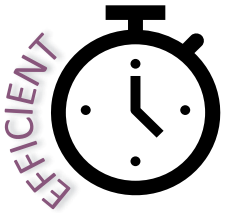
1 PROTOCOL selected + activated, detector moves to programmed height. servo active

2 ADJUST DETECTOR HEIGTH FOR PATIENT, servo active

3 EXPOSURE

4 NEXT PROTOCOL SELECTED
(manual or automatic)
Same autoposition

5 OTC & Detector moves to programmed height
servo active
READY FOR EXPOSURE



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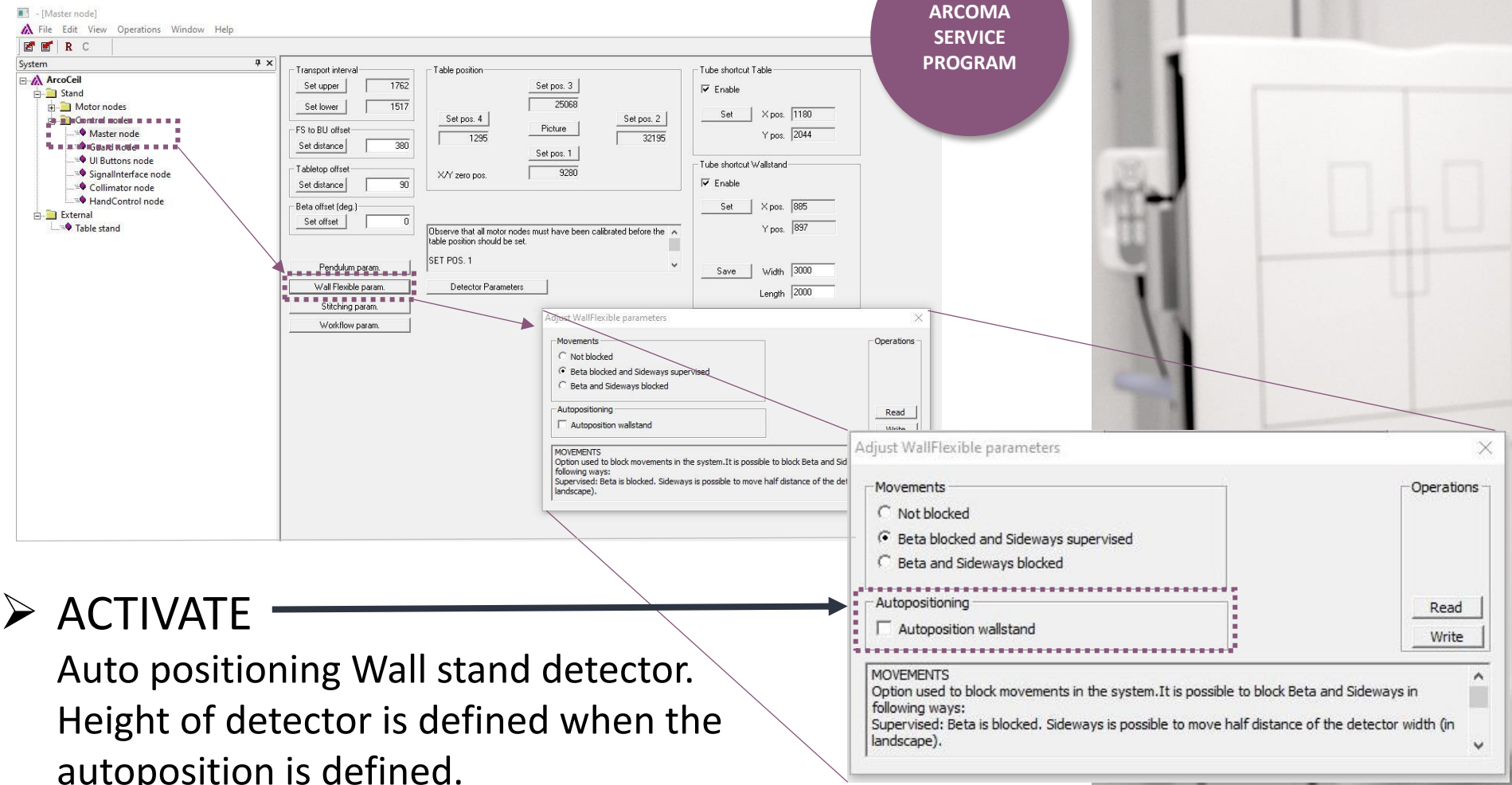
Auto positioning Wall stand detector

ARCOMA SERVICE PROGRAM

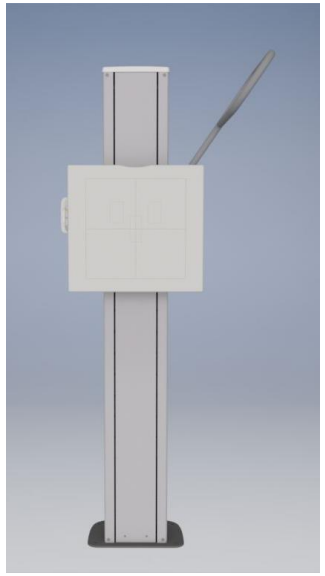


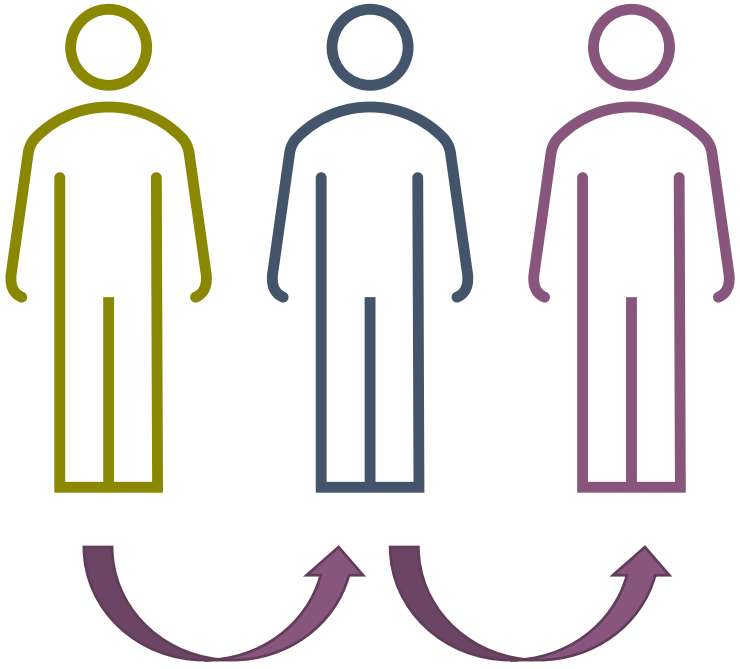
- ACTIVATE

  Auto positioning Wall stand detector.
  Height of detector is defined when the autoposition is defined.

BETWEEN PATIENTS

SERVO CAN STAY ACTIVE BETWEEN PATIENTS



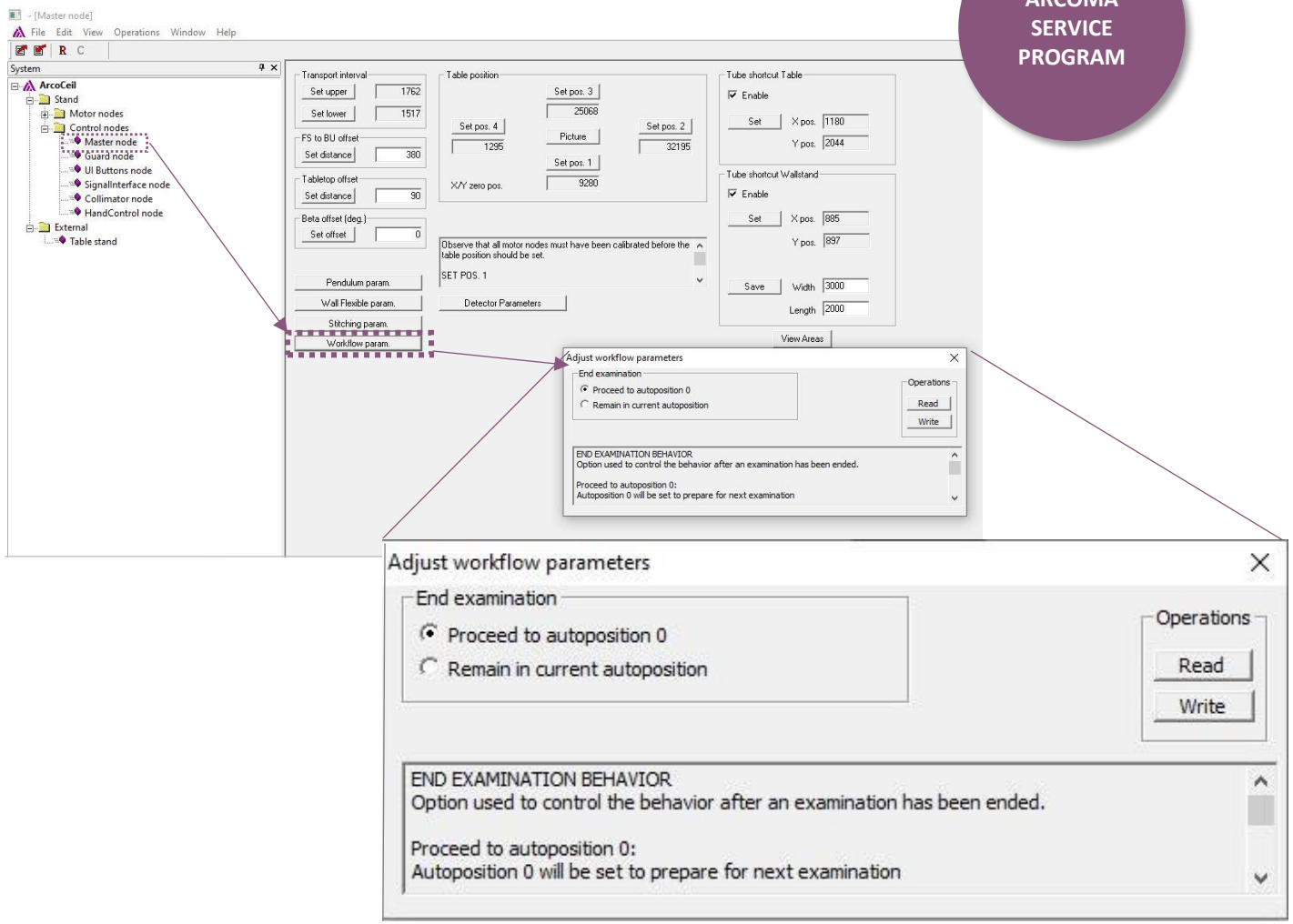


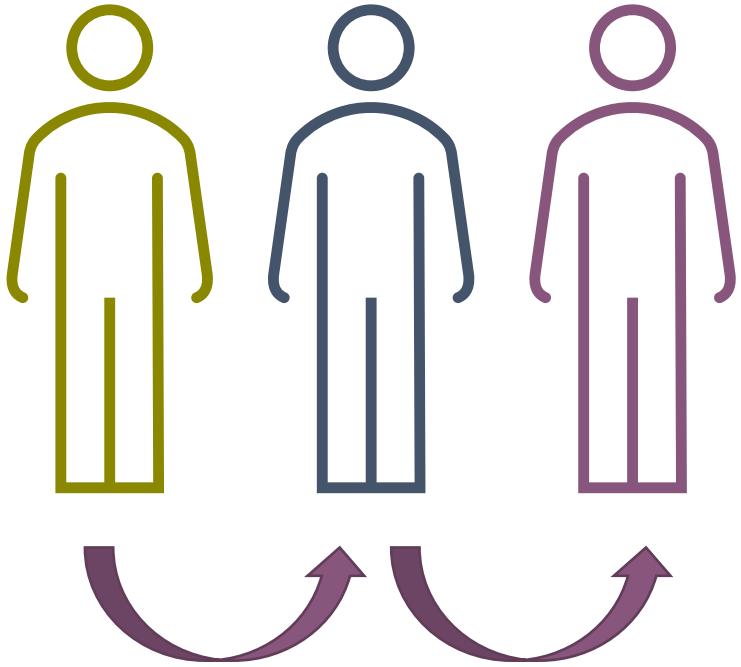
SAME POSITION? YES > SERVO ACTIVE YES? > SERVO ACTIVE

SYSTEM INSTANTLY READY

Servo active between patients

ARCOMA SERVICE PROGRAM





SAME POSITION?
YES > SERVO ACTIVE

SAME POSITION?
YES > SERVO ACTIVE

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IMPROVED WORKFLOW - SUMMARY

- Smart positioning
  – Increased system automation
- System instant ready for next exposure
- System instant ready for next patient

SETTINGS - OVERVIEW

Update	Setting performed to activate
Tilted detector, automatic vertical movement	*No settings needed, basic feature*
Collimator centring Top/Bottom/Center	*Canon Protocol Editor*
Autopositioning Wall stand detector	*Arcoma Service program*
Servo active between patients	*Arcoma Service program*

CHANGE PROTOCOL DIRECTLY ON TUBE

> Adapt for the unique patient and situation by quickly changing protocol on the tube display

Patient-Centered Care

Flexibility to adapt your X-ray workflow seamlessly directly in the examination room.

Efficient Workflow

Save time and reduce errors.

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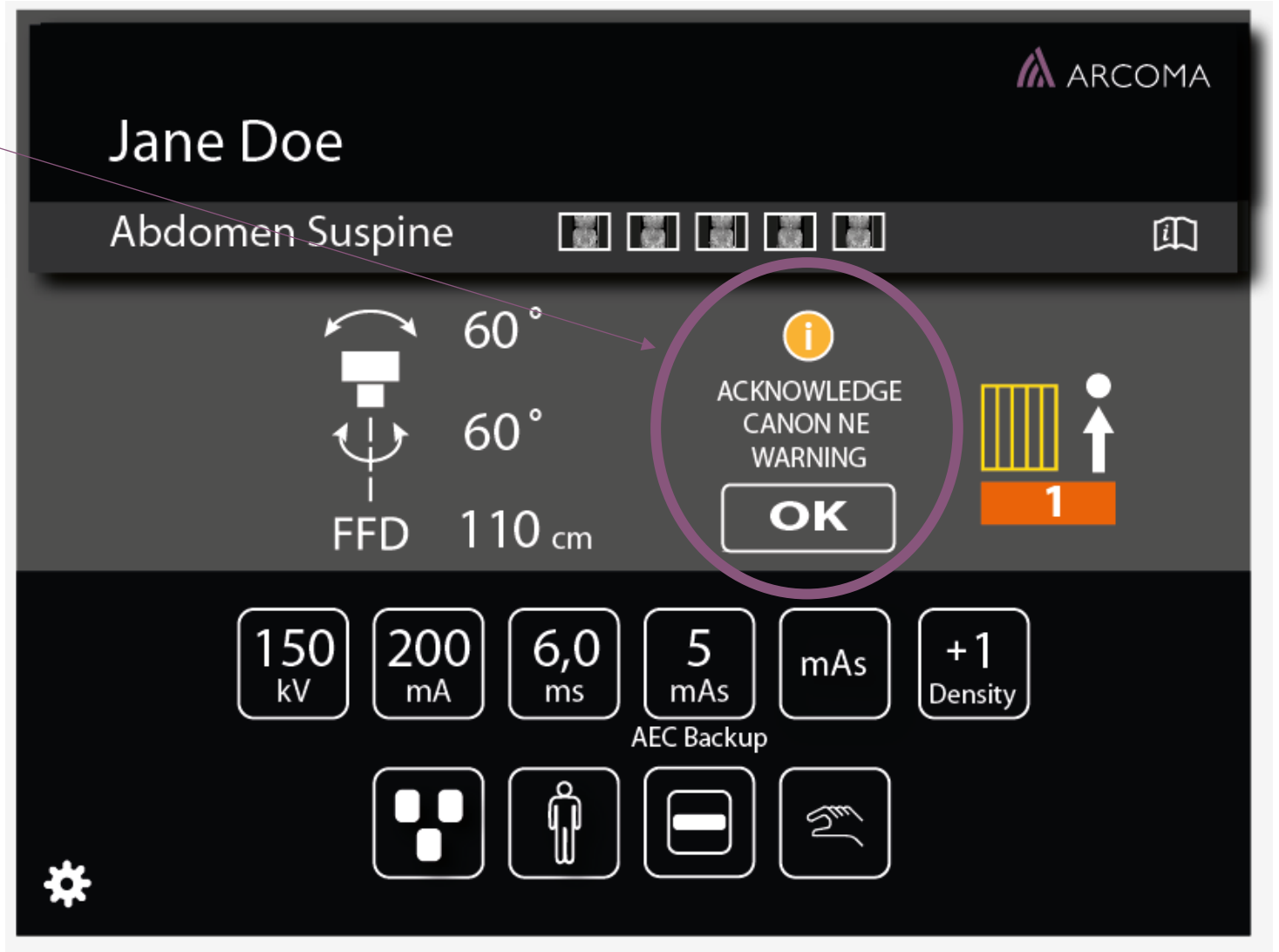
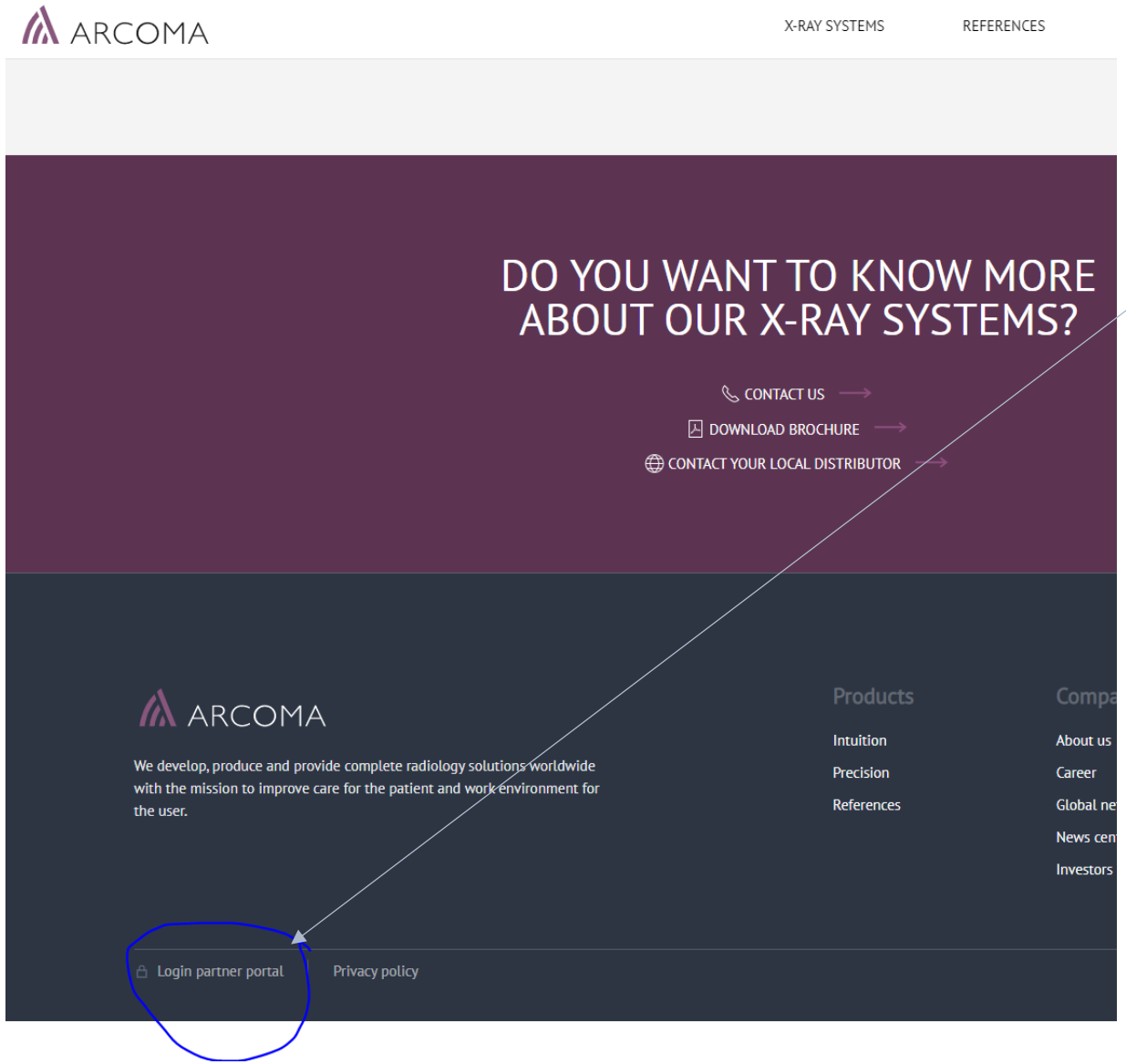
CHANGE PROTOCOL DIRECTLY ON TUBE

Acknowledge message of Canon NE Warnings shown in the OTC display.



ARCOMA PARTNER PORTAL

ARCOMA PARTNER PORTAL



arcoma.se

Login partner portal

- Documents and manuals
- System Software
- Marketing Materials
- Guides
- Training info
- Images
- Videos
- Much more

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THANK YOU

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