Exablate Neuro

Exablate 4000
Checklists Handbook

For Type 1.1 Systems

SW version 7.33 Running on SIEMENS MRIs

WARNING:
This document constitutes a shortened reference manual. It does not replace the Operator Manual. Adhere to all warnings and precautions as detailed in the Exablate 4000 type 1.0 & 1.1 SW 7. 33 Operator Manual

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"Caution: Federal law restricts this device to sale by or on the order of a physician"

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REVISION INFORMATION

This is the **Revision 2** release of the Exablate 4000 Type 1.1 Handbook for SW version 7.33, applicable SIEMENS MR systems. Please contact Insightec Marketing Support to determine if this is the most current release.

Each chapter of this manual has a chapter revision level and date at the bottom. This indicates the release level & date for the individual chapters. Note that when the manual is updated, not all of the chapters are necessarily updated, so some chapters may have a revision level earlier than the release revision.

The cover page and this page are all **Revision 1.0** with the corresponding chapters of the manual:

Chapter #	*Chapter Name*	*Chapter Revision, Date*	*# of Pages in Chapter*
Chapter 1	System Setup Checklist	1.0, 07/21	2
Chapter 2	Preparation and DQA Checklist	2.0, 4/22	2
Chapter 3	Treatment Checklist	1.0, 07/21	2
Chapter 4	Cleaning Procedure Checklist	2.0, 05/23	2
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System Set Up Checklist

NOTE:
The water system will reach its optimal operating conditions within 30 minutes. Take this into consideration and turn on the system as early as possible before the treatment, to avoid downtime when the patient arrives.

NOTE:
Multiple flows exist for System setup, consult the flowcharts on the bottom of this Checklist and select the option most suitable to your workflow and preferences.
If turning on the System prior to connecting the Helmet System cables to the Front End Unit, press the Operator Stop Sonication Button to re-initialize connections.

- ☐ *Confirm that the MR console was rebooted at the beginning of the day. If not, reboot it.*

Connecting the Helmet System Cables to the Front End Unit

- ☐ *Unlock the Storage and Transfer Cart (STC) wheels, and position it near the Front End Unit (FE)*
- ☐ *Connect the Water Cable and the two, uniquely labeled, Quick Coupler Cables to the Front End*

CAUTION:
Verify that each Quick Coupler connector is connected to its intended labeled position. The connectors must be gently aligned into place before locking.
Ensure that the water cable is fully coupled, as indicated by a 'Click' sound.

System Power On

- ☐ *Turn on the System by pressing the green Power On switch located on the operator's console. The **Begin Logon** notice will appear.*
- ☐ *Remove all external media drives and/or CD's from the console computer.*
- ☐ *Press "Ctrl+Alt+Delete" to access the logon information dialog box.*
- ☐ *Login with the Username and Password provided to you by Insightec. Click "OK" to continue. (**Note:** Windows® login parameters are case sensitive)*
- ☐ *Select "**Brain Mid-Frequency**" from the application selection screen.*
- ☐ *The Exablate disclaimer popup window will open; click "OK" to continue.*

Preparing the Water System

- ☐ *Unload the Water Reservoir from The Water Reservoir Compartment in the Front End Unit and disconnect it via the Quick Release Cable.*
- ☐ *Fill the Reservoir up to the marking, Connect and return it to its designated compartment*
  Use fresh Reverse Osmosis water for DQA and cleaning, Type 2 medical grade water for treatments
- ☐ *Set the water system to "Preparation" either from the Workstation "Utilities" menu ( ) or from the Water System Control Touchscreen*
- ☐ *Degassing will start. The status of the Water System and Dissolved Oxygen (DO) levels [in PPM]) are indicated on the status bar on the bottom of the Workstation screen and the screen in the FE Unit.*

NOTE:
You may proceed with System Set Up while water preparation is ongoing, Degassing will proceed (unless manually halted) until the operator fills the Transducer

Preparing the MR Table

- ☐ *Bring the MR cradle all the way out of the MRI bore.*
- ☐ *Remove any imaging coils or MRI Baseplates currently connected to the MRI Table*
- ☐ *Place the Exablate MR Baseplate on the MR Table and ensure it is fully coupled*

Positioning the Helmet System on the MR Table

- ☐ *Unlock the STC wheels and roll it towards the MR Table while releasing the cables*
- ☐ *Place the STC perpendicularly to the MR Table, so that the markings are aligned*
- ☐ *Release and lower the Coupling Bridge. Ensure full connection between Coupling bridge and MR table.*
- ☐ *Lock the STC's wheels in place*

> CAUTION:
>
> To avoid damage to the system components, ensure there is a clear path between the Helmet System and its designated position on the MR Adapter Baseplate.

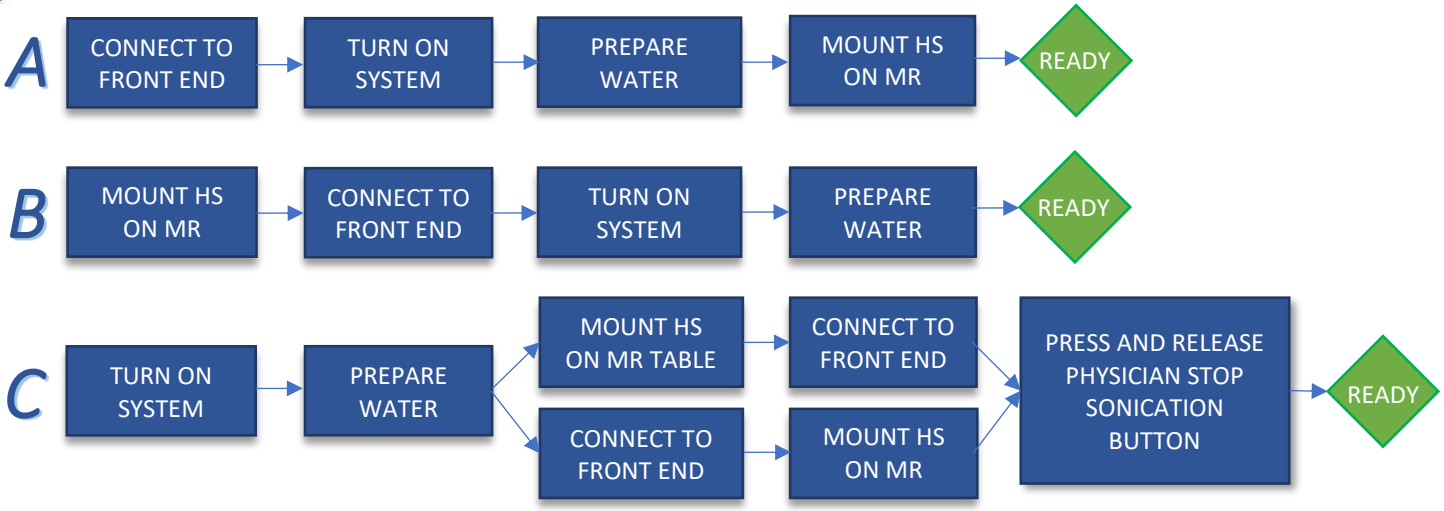
- ☐ *Place your hands on the Auxiliary and Main Handles. While pressing the "Transducer Release Button", slowly and firmly slide the Helmet System into place. A 'Clicking' sound denotes full coupling.*
- ☐ *Lower the Main Lock to secure the Helmet System in place*
- ☐ *Connect Tracking and Head coil Connector/s to the MRI Table (with adapter if needed)*
- ☐ *Connect the Patient Stop Sonication Button cord to the socket on the MRI Table.*
- ☐ *Place and\or align Landmark Labels*
- ☐ *Close the STC Bridge, unlock the STC wheels and roll it away from the MR table. it will not be needed until after treatment*

Verify System is Ready for Treatment

- ☐ *Ensure "remote connection" icon on the bottom of the MR workstation screen is enabled (). If Disabled () click on it to enable communication.*
- ☐ *Confirm that the System and MR status fields are "Ready" on Workstation screen, and the green System Power Indicator on the operator console is illuminated.*

> WARNING:
>
> Visually inspect the Exablate System to:
>
> - Verify the integrity of the Transducer, Front End and MR Table
> - Confirm that the connectors are properly fastened
> - Confirm that the Exablate MR Baseplate and Helmet System are properly docked
>
> **Failure to follow these instructions may result in improper system function.**

System Setup Flow Option Charts



Preparation Checklist

System Set-Up for DQA

- ☐ *Perform one of the System Setup flow options as defined by the **Set-Up** chapter of this handbook*
- ☐ *Ensure the Transducer is located in **"Home Position",** according to label on Positioner*
- ☐ *Affix the Patient Membrane intended for the treatment into the **DQA Holder Setup***
- ☐ *Place a **DQA Phantom** into **DQA Holder Setup**, and lock it onto the Helmet System and Transducer*
  - ☐ *Plug the **Head Coil** into its dedicated connector (if applicable)*
- ☐ *Make sure the transducer's **Air Release Valve** is **open. Fill transducer** with water until slightly convex*
- ☐ ***Close Air Release Valve.** Release excess air from pipes via the **Red Excess Air Release button***
- ☐ *Perform short mandatory fill to replace lost water. Ensure no leaks. Begin water **Circulation***

DQA Procedure

- ☐ ***On MR scanner console: Register patient***
- ☐ ***In MR room: Set iso-center** and **Advance Cradle** to scan position*
  - ☐ ***(Optional) On 3T MR scanner console:** Perform **B1 calibration** (See **B1 Calibration Checklist**)*
- ☐ *Start a **New Treatment** TREATMENT from the main menu of the Exablate application software*
- ☐ ***On MR scanner console:** Prescribe and run a 3-Plane Localizer scan*
- ☐ ***On MR scanner console:** Prescribe and run 3 orientations of DQA planning images (Sag, Ax and Cor)*
- ☐ *Run **Automatic Transducer Tracking** and **MRI central frequency scan** (optional)*
- ☐ Open *the **Image Retrieval Dialog**, **select and upload** the three **DQA planning series***
- ☐ *Ensure the Transducer Focal Point is located at the **center** of the DQA phantom*
  - ☐ *If required: Reposition the transducer & Re-Run a **Transducer Tracking scan***
- ☐ *Set the **Treatment Protocol** to **Brain-DQA***
- ☐ *Press **Patient Stop Sonication Button** and proceed to **Treatment Stage** Treatment*
- ☐ *Switch Treatment level to **Treat High** Treat High*

NOTE: In the DQA procedure, there is NO need to use CT images or run Movement Detection scans

- ☐ ***Sonicate** Sonicate the predefined set of **5 spots** using the parameters outlined in the following table*

*Press **Continue** to proceed to the next sonication* Continue

*Use the **next sonication button** to switch between the predefined spots.*

- ☐ *Review results and **Adjust Spot Location** if it is not in place (>0.5$_{mm}$ from target)*
- ☐ *Repeat sonications as needed (after adjust, if images are with artifacts, unclear thermal rise etc.)*

Spot #	Orientation	Frequency Direction	Power	Duration	Goal [Expected Temperature]	Spot Confirmation
☐ **1**	Axial	AP	20 $_W$	13 $_{Sec}$	Geometric alignment	Spot is **clearly visible, aligned in RL**
☐ **2**	Sagittal	AP	20 $_W$	13 $_{Sec}$	Geometric alignment	Spot is **clearly visible, aligned in SI**
☐ **3**	Axial	RL	30 $_W$	13 $_{Sec}$	Geometric alignment Temperature increase	Spot is **clearly visible, aligned in AP**
☐ **4**	Axial	RL	30 $_W$	13 $_{Sec}$	Steering verification	**Steered** focus to the correct side
☐ **5**	Axial	RL	250$_W$	3 $_{Sec}$	Cavitation Control	Confirm **Active Power Modulation /cavitation halt**

- ☐ *Quit the treatment and return to entrance screen, drain water from transducer. Set to **Degassing***
- ☐ ***Unplug and dry** the **Patient Membrane**, and stow the DQA Phantom holder setup away*
- ☐ ***Inspect the transducer's surface for visible soil or fractures.***
- ☐ *Handle accessories as described **in Patient Membrane and DQA Phantom Gel Handling** section.*

Pre-Treatment Preparations

- ☐ *Make sure all necessary INSIGHTEC accessories are available – For one treatment procedure:*

INSIGHTEC PATIENT AND TREATMENT ACCESSORIES		
☐ *DQA setup Holder*	☐ *Patient Membrane*	☐ *Head Frame Set*
☐ *Treatment Kit, including Patient Membrane, DQA Gel, and Head fixation screws*		

PATIENT MANAGEMENT			
Surgical Marker	☐ *Razor/shaving tools*	☐ *Warming Blankets*	☐ *Ear Plugs*
☐ *IV Line*	☐ *Compression Stockings*	☐ *Blood Pressure/pulse Oxy*	☐ *Pin Site Anesthesia*

- ☐ *Ensure availability of a **CT scan** (mandatory) and **pre-treatment** MR (optional)*
  - ☐ *Prepare **Pre-Treatment Plan** (with or without **pre-treatment MR** images)*
- ☐ *Perform **Daily Quality Assurance (DQA)** as outlined in this document*
- ☐ *Ensure **water system** is in **active degassing mode**, transducer is positioned as **superiorly** as possible.*

Patient Preparation

- ☐ *Confirm patient is **shaved** and the **scalp** is **cleaned** with alcohol.*
- ☐ *Ensure **IV line** is in place*
- ☐ *Fit the patient with **Compression Stockings** [recommended]*
- ☐ *Prepare the Head Frame to fit patient's head size anatomy using the provided accessories/kits*
- ☐ *Affix the **Head Frame**, as inferiorly as possible above the eyebrows*
- ☐ *Place the **Patient Membrane** on the patient's head, as low as possible, in the right orientation:*
  - ☐ *Membrane without coil: screw/plastic side down (towards patient's feet)*
  - ☐ *Membrane with coil: Ensure the Head Coil connectors are in the right location according to the coil socket position next to the transducer*
  - ☐ ***Note:** In some cases membrane may require cutting to fit the patient*

Patient Positioning

- ☐ *Prepare table for patient arrival: mattresses (cover with blankets), cushions, warm blankets, etc.*
- ☐ *Make sure the transducer is placed superiorly and that it is roughly centered along the A-P direction*
- ☐ *Ensure the transducer is placed in the "**Home**" position (as defined by label on HS)*
- ☐ *Bring the patient into the MR suite. Assist patient on **Table***
- ☐ *Attach **Frame** to **Baseplate** and **Membrane** to **Transducer***
  - ☐ *Plug the **Head Coil** into its dedicated connector (if applicable)*
- ☐ *Fit **earplugs** and **Mirrored Glasses** (optional), Cover patient with warming **Blankets***
  - ☐ ***Restrain** patient's feet and body with **straps** and use **patient Leg holder** if needed*
- ☐ *Equip patient with **Stop Sonication** button*
- ☐ *Move **Transducer** to estimated clinical position**. Ensure clearance between patient and Transducer***
- ☐ ***Fill transducer** with water until slightly convex (via Water Control Screen or Remote Controller)*
- ☐ ***Close Air Release Valve**. Release excess air from pipes via the **Red Excess Air Release button***
- ☐ *Fill additional water to replace lost water. Ensure no leaks. Begin **Treatment Circulation***
- ☐ ***Minimize membrane air folds** within transducer's pass zone*
- ☐ *Ensure cables are free to move and **advance cradle to scan** position*

The patient and the Exablate system are now ready for treatment…

Treatment Checklist – Planning Stage

- ☐ ***On MR scanner console: Register Patient, In MR Room: Set Iso-center*** *according to labels*
- ☐ ***On MR scanner console (3T MR Only):*** *Perform* ***B1 calibration procedure*** *(See* ***B1 Calib. Checklist)***
- ☐ *Run* ***Automatic Transducer Tracking scan*** *and* ***MRI central frequency scan***
- ☐ *Select an appropriate* ***Treatment Protocol***
- ☐ *Load Pre-Plan if available. Otherwise load CT scan (Pre-op MR is optional)*
- ☐ ***on MR scanner console:*** *Plan the first orientation\volumetric series on the MR Console*
  - ⬚ *Select* ***2D*** *or* ***Volumetric*** *scan protocols, according to imaging preference*
  - ⬚ *Take care to place your mid-slice along the AC-PC Plane*
  - ⬚ *Up to 150 Axial\Sagittal\Coronal slices (Non-Volumetric)*
- ☐ ***Scan Prepared Series*** ***(Note:*** *The Step last edited will be the one scanned)*
  - ⬚ *Wait for automatic* ***Movement Detection Reference*** *images acquisition to finish*
- ☐ *Choose an image acquisition method and proceed accordingly:*

Reformat Mode

- ☐ *Locate and place the* ***AC*** *and* ***PC***
- ☐ Define the ***Mid-Line***
  *(****Parallel*** *to anatomical midline)*
- ☐ *Turn* ***Reformat Mode*** *ON* Reformat Mode On
- ☐ *Press to create volume*
- ☐ *Fine-tune orientations.*
- ☐ *press to create series*

Scan by AC-PC

- ☐ *Locate and place the* ***AC*** *and* ***PC***
- ☐ *Define the* ***Mid-Line***
  *(****Parallel*** *to anatomical midline)*
- ☐ *Scan remaining orientations*
  - ⬚ *User may perform targeting during scans*

- ☐ *Alternative Method: acquire images via scan prepared series or from* ***Archive***
  - ⬚ *If No* ***Movement Detection Images*** *have been acquired, press to acquire*
- ☐ *Run* ***Auto-Registration***
- ☐ *adjust manually (If necessary) until satisfactory registration is obtained*
- ☐ *Determine target by measurements →* ***OR*** *by manual input of* ***AC-PC\RAS coordinates***
- ☐ *Check distance between transducer focus and target*
  - ⬚ *If necessary, adjust transducer location and re-run* ***Transducer Tracking scan***
- ☐ *If not already part of pre-plan, press the* ***Auto-Sinus*** *&* ***calcification Marking tool***
- ☐ *Review the CT images to evaluate sinus and calcification markings*
  - ⬚ *If necessary, add markings using the* ***Polygonal*** ***and Spherical NPR*** *tools*
  - ⬚ *Use the* ***Interpolate*** *tool to auto-draw* ***Polygons*** *between marked slices*
- ☐ *Mark* ***Membrane Folds*** *on Axial MR series with the* ***Polygonal NPR*** *and* ***Interpolate*** *tools*
- ☐ *Confirm* ***Water Temperature<19°C*** *and* ***PPM Level<2.0*** *(displayed on lower left corner of screen)*
- ☐ *Instruct Patient to press* ***Stop Sonication Button*** *and proceed to* ***Treatment Stage*** Treatment

Treatment Checklist – Treatment Stage

- ☐ *Verify spot is **on target location** and **Locked***
- ☐ *Press* Transducer *to display **Transducer Element Map**. Press* Calculate *and confirm:*
  - ! ***# Elements ON ≥ 700***
  - ! ***Skull Area ≥ 200cm²***
  - ! ***Skull Score ≥ 0.4** (or according to regional labeling)*

Prior to Applying Sonication

- ☐ *Set **Sonication Power, Duration** and **Time Extension***
- ☐ *Set **Scan Orientation, Frequency Direction***
- ☐ *Confirm Water Temperature<19°C*
- ☐ *Confirm **PPM Level<2.0***

After Every Sonication

- ☐ *Verify spot **alignment***
- ☐ *Check for **Heating outside of treatment area***
- ☐ Update ***Peak Temperature** if necessary*
- ☐ *If **Background Temperature** is inconsistent, enable **Background Elimination***

Align

- ☐ ***Sonicate and check location of spot along phase direction, keeping sub-lesional target temp.***
- ☐ ***Verify alignment for every direction. See table for reference:***

Sonications #	Validating	Orientations (frequency directions)	Result
	RL	Axial(AP) **OR** Coronal(SI)	Confirmed R\L ☐
	AP	Sagittal(SI) **OR** Axial(RL)	Confirmed A\P ☐
	SI	Coronal(RL) **OR** Sagittal(AP)	Confirmed S\I ☐

- ☐ *If spot is misaligned, use the **Geo-Adjust Tool** to pinpoint the center of the spot*
  - ! *Continue to next level only after spot is clearly visible and aligned along **ALL** orientations*

Verify

- ☐ *Proceed to verify stage. Accumulated adjustments [mm]: RL:_____ AP:_____ SI:_____.*
- ☐ *Gradually increase energies by 10%-25% until reaching temperature of ~50°C*
- ☐ *Evaluate Patient before proceeding to "Treat Low"*

Treat Low | Treat High

- ☐ *Gradually increase energies by 10%-25% until achieving effect & permanent lesioning temperatures*
- ☐ *If necessary, adjust Target Location*

Post-Treatment Procedures

- ☐ ***Open** the **Air Release Valve** on top of the Transducer and **Drain** the water from the Transducer.*
- ☐ ***Disconnect Head Coil** (if applicable), **Release** and **handle the Membrane** as defined at the end of the **Cleaning Procedure Checklist**, move transducer **as superiorly as possible.***
- ☐ ***Release** Head Frame from the Baseplate, take the patient **off the Table** and **Remove the Head frame.***
- ☐ *Transfer Helmet System to the Cart. Perform the cleaning as defined by **Cleaning Procedure Checklist,** or further detailed in the **Cleaning and Disinfection** Chapter of the Operator Manual.*
- ☐ *After the Cleaning, **drain** Transducer, **discard** drained water, and **Shut Down System.***
- ☐ ***Check availability** of **DQA Phantom** and **Patient Membrane** for next treatment.*

Cleaning Procedure Checklist

The Exablate Cleaning Procedure Requires:

- ***Water Tank Disinfectant*** *- 50 ml Sodium Hypochlorite (CAS # 7681-52-9) 4.00% - 4.99%*
- ***Cleaning & Disinfection Wipes*** *- containing 0.2 - 0.4% of benzalkonium chloride (CAS # 8001-54-5)*

Water System Cleaning Procedure

- ☐ *Handle the Patient Membrane as defined at the end of the* ***Cleaning Procedure Checklist***
- ☐ *Ensure Transducer is empty and all water used during the procedure has been discarded of*
- ☐ *Fill the Water System Reservoir (Tank) with ~13 liters of fresh Reverse Osmosis water, as marked on the Tank*
- ☐ *Pour* ***Water Tank Disinfectant*** *in the Tank and re-connect it*
- ☐ *On the Water System home screen (Figure 1A), press the "Clean" option*
  The system will switch to Clean Mode (Figure 1B)
  *(**Note**: If not at home screen, press the "Home" button)*

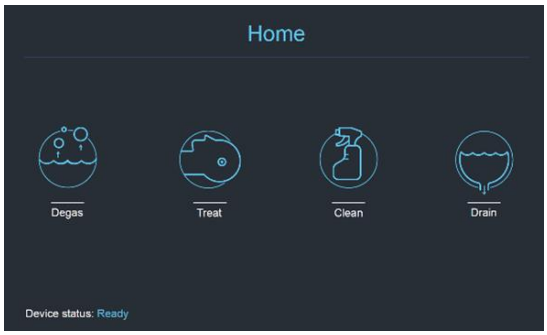


Fig. 1A: *Water System Touchscreen "Home" Menu*

Fig. 2B: *Water System "Clean" Menu – on Hold*

- ☐ *Press "Start" button to start the cleaning operation (Figure 2A). A countdown timer on the WS status bar and water system screen displaying the remaining Tank cleaning time*

Fig. 2A: *"Tank Cleaning in Progress" Screen*

Fig. 2B: *– "Cleaning Tank Completed" Screen*

- ☐ *Mount Patient Membrane on the DQA holder setup (without a DQA phantom)*
- ☐ *Attach the DQA holder setup to the HS and seal the Transducer*
- ☐ *A "Cleaning Tank Completed" message (Figure 2B) will appear when the timer reaches zero. The system is now ready for stage two of the cleaning cycle – Transducer cleaning.*
- ☐ *Verify that the Transducer is connected to the water system connector at the Front-End*
- ☐ *Fill the Transducer by pressing the "Fill" button on the Screen or on the Water System Remote Controller. Close the Valve once the Transducer is full.*
  *(**Tip**: bringing the Transducer to an inferior position reduces the required volume for filling the Transducer interface, shortening fill and drain times for the transducer cleaning procedure)*

- ☐ *Start the "Cleaning Transducer" timer by pressing the "Start" button on the Screen (Figure 3A) or on the Water System Remote Controller*

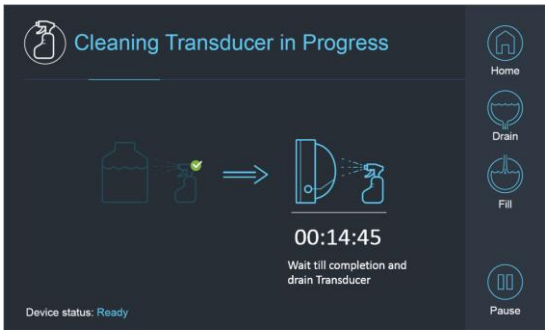


Fig. 3A: *"Cleaning Transducer in Progress" Screen* ***Fig. 3B:*** *"Cleaning Transducer Complete" Screen*

- ☐ *When timer is over, the Transducer cleaning is completed (Figure 3B)*
- ☐ *Set the Release Valve to air*
- ☐ *Drain the water from the Transducer by pressing the "Drain" button on the Screen or on the Water System Remote Controller*
- ☐ *Dispose the water from the Water Tank according to the site and/or local regulations*
- ☐ *Leave the Tank open to air (without the cap)*
- ☐ *Replace the phantom holder interface membrane with the protective transducer cover*
- ☐ *Turn off the Exablate® Workstation if no more treatments are scheduled for the day*

Patient Membrane and DQA Phantom Gel Handling

WARNING

Failing to comply with Patient Membrane and DQA Phantom Gel Handling instructions may result in reduced imaging quality, water leakage, cross-contamination, burns, electrocution risk and false/unreliable DQA results

- ☐ *It is recommended to wear personal protective equipment (i.e. gloves) when handling the accessories.*
- ☐ *Patient Membranes (with/without coil) and DQA Phantom are intended for single-use only.*
- ☐ *Discard of membrane and DQA Phantom Gel and their storage boxes following the conclusion of a treatment (according to the local/site procedures).*

Wiping the Transducer

- ☐ *Before and after each cleaning cycle, Clean the internal surface of the Transducer with the cleaning & disinfection wipes.* ***Do not apply force on the Transducer surface.***
  Visually inspect Transducer surface for soil/ fracture.
- ☐ *Following treatment, place the protective cover to cover the Transducer surface*

B1 Calibration Checklist

NOTE:
Performing a B1 Calibration is recommended for **3T SIEMENS MR Scanners only** at the start of every Exablate treatment (optional for DQA). Perform the Calibration when the patient or DQA phantom is positioned in the bore and the transducer interface is filled with water.

The entire procedure is performed on the MRI Operator Console

- ☐ *Ensure the patient has been registered, and patient cradle is at the defined iso-center location*
- ☐ *Open the relevant **Exablate treatment protocol***
- ☐ *Run a **shimming+T1_loc** sequence*
- ☐ *Run **the tfl_B1map** sequence*
- ☐ *On the MRI console's **Image Viewer**, scroll to the tfl_B1map series images marked as "flip angle map" and draw an ROI around the center of the brain\DQA phantom (see Figure 1)*

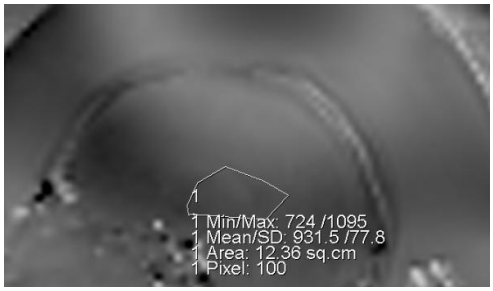


Fig. 3: *ROI drawing around center of DQA Phantom*

Fig. 2: *Updating the Amplitude value (example, SIEMENS VE11e\VE11c)*

- ☐ *Write down the mean value. In this example: **931.5***
- ☐ *Find the **Amplitude(sys)** value. For SIEMENS VE11e\VE11c Systems:*
  - ☐ *On the **Exam Card,** open the next Template for editing*
  - ☐ *at the top of the screen, select: **Options → Adjustments***
  - ☐ *In the window that opens, select the **Transmitter** tab.*
- ☐ *Multiply the displayed **Amplitude(sys)** by **800** and divide the previously calculated **Mean** value.*
  *In this example: **Amplitude(sys)*800/Mean = 310*800/931 = 266.4***
  <u>You may also refer to the reference table on the next page.</u>
- ☐ *Enter the result into the **Amplitude(temp)** field, and press **Apply** (see Figure 2)*
  - ☐ *If the suggested value exceeds the maximal allowed value set the value to the maximum*
- ☐ *Enter the next step in the MR queue to set the value*
- ☐ *Write down the calculated value for future reference (see Note below)*
- ☐ *B1 Mapping is now complete. The newly set value will be applied for all subsequent scans.*
- ☐ *Optional: Run another **the tfl_B1map** sequence from the MR and repeat the ROI measurement.*
  *The **Mean** value should now be ~800*

NOTE:
In case of exam loss, update the new exam with the previously calculated value after re-registering the patient

B1 Amplitude Calculation Reference Table:

MEAN \ AMPLITUDE (sys)	250	260	270	280	290	300	310	320	330	340	350	360	370	380	390	400
500	400	416	432	448	464	480	496	512	528	544	560	576	592	608	624	640
510	392	408	424	439	455	471	486	502	518	533	549	565	580	596	612	627
520	385	400	415	431	446	462	477	492	508	523	538	554	569	585	600	615
530	377	392	408	423	438	453	468	483	498	513	528	543	558	574	589	604
540	370	385	400	415	430	444	459	474	489	504	519	533	548	563	578	593
550	364	378	393	407	422	436	451	465	480	495	509	524	538	553	567	582
560	357	371	386	400	414	429	443	457	471	486	500	514	529	543	557	571
570	351	365	379	393	407	421	435	449	463	477	491	505	519	533	547	561
580	345	359	372	386	400	414	428	441	455	469	483	497	510	524	538	552
590	339	353	366	380	393	407	420	434	447	461	475	488	502	515	529	542
600	333	347	360	373	387	400	413	427	440	453	467	480	493	507	520	533
610	328	341	354	367	380	393	407	420	433	446	459	472	485	498	511	525
620	323	335	348	361	374	387	400	413	426	439	452	465	477	490	503	516
630	317	330	343	356	368	381	394	406	419	432	444	457	470	483	495	508
640	313	325	338	350	363	375	388	400	413	425	438	450	463	475	488	500
650	308	320	332	345	357	369	382	394	406	418	431	443	455	468	480	492
660	303	315	327	339	352	364	376	388	400	412	424	436	448	461	473	485
670	299	310	322	334	346	358	370	382	394	406	418	430	442	454	466	478
680	294	306	318	329	341	353	365	376	388	400	412	424	435	447	459	471
690	290	301	313	325	336	348	359	371	383	394	406	417	429	441	452	464
700	286	297	309	320	331	343	354	366	377	389	400	411	423	434	446	457
710	282	293	304	315	327	338	349	361	372	383	394	406	417	428	439	451
720	278	289	300	311	322	333	344	356	367	378	389	400	411	422	433	444
730	274	285	296	307	318	329	340	351	362	373	384	395	405	416	427	438
740	270	281	292	303	314	324	335	346	357	368	378	389	400	411	422	432
750	267	277	288	299	309	320	331	341	352	363	373	384	395	405	416	427
760	263	274	284	295	305	316	326	337	347	358	368	379	389	400	411	421
770	260	270	281	291	301	312	322	332	343	353	364	374	384	395	405	416
780	256	267	277	287	297	308	318	328	338	349	359	369	379	390	400	410
790	253	263	273	284	294	304	314	324	334	344	354	365	375	385	395	405
800	250	260	270	280	290	300	310	320	330	340	350	360	370	380	390	400
810	247	257	267	277	286	296	306	316	326	336	346	356	365	375	385	395
820	244	254	263	273	283	293	302	312	322	332	341	351	361	371	380	390
830	241	251	260	270	280	289	299	308	318	328	337	347	357	366	376	386
840	238	248	257	267	276	286	295	305	314	324	333	343	352	362	371	381
850	235	245	254	264	273	282	292	301	311	320	329	339	348	358	367	376
860	233	242	251	260	270	279	288	298	307	316	326	335	344	353	363	372
870	230	239	248	257	267	276	285	294	303	313	322	331	340	349	359	368
880	227	236	245	255	264	273	282	291	300	309	318	327	336	345	355	364
890	225	234	243	252	261	270	279	288	297	306	315	324	333	342	351	360
900	222	231	240	249	258	267	276	284	293	302	311	320	329	338	347	356
910	220	229	237	246	255	264	273	281	290	299	308	316	325	334	343	352
930	215	224	232	241	249	258	267	275	284	292	301	310	318	327	335	344
940	213	221	230	238	247	255	264	272	281	289	298	306	315	323	332	340
950	211	219	227	236	244	253	261	269	278	286	295	303	312	320	328	337
960	208	217	225	233	242	250	258	267	275	283	292	300	308	317	325	333
970	206	214	223	231	239	247	256	264	272	280	289	297	305	313	322	330
980	204	212	220	229	237	245	253	261	269	278	286	294	302	310	318	327
990	202	210	218	226	234	242	251	259	267	275	283	291	299	307	315	323
1000	200	208	216	224	232	240	248	256	264	272	280	288	296	304	312	320