



™ RT300
Supine
Service
Guide
for build 2

Caution for RT300 users in the USA:

Federal law restricts this device to sale by, or on the order of, a practitioner licensed by the law of the state in which he or she practices to use or order the use of the device.

3.Preventative maintenance

After each use		After each day		Weekly		50 hours of use		Annually	
Clean patient contact areas	13	Confirm cranks are tight	16	Confirm SAGE mounting is tight	17	Inspect cords	18	General inspection	19
		Confirm Internet connection	16	Clean	17			Drive belt inspection /replacement	29
				Inspect foot and leg straps	17			Calibration	19

Fault correction procedures

Fault correction	
Replace fuses	28
Tighten drive belt	29
Replace knee extension cable	32

Procedures after each use

Clean contact areas

Restorative Therapies recommends that you clean the surfaces of RT300 Supine that come into contact with anybody who uses it after each use.

Note: Be sure to follow your facility's procedures for universal precautions.

1. Remove the pedal gel inserts and wipe them down.



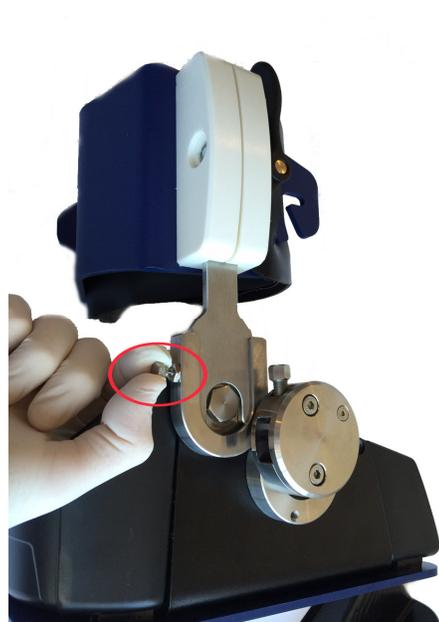
2. Wipe down the foot gel pads



3. Wipe down the foot straps.



4. Remove the calf rests by pulling the retaining pin and extracting the calf rest support from the pedal socket.



5. Remove the calf strap and wipe it down.
Be sure to unclip the strap from the securing balls and then fold it off as shown below.



Identify the 2 retaining balls Pull the strap off the balls Peel the strap off the calf rest

6. Remove the calf gel pad and wipe it down.



7. Reassemble the calf rest and fit it back onto the pedal

- Replace the calf pad
- Replace the calf strap
- Refit the calf support to the pedal

8. Wipe down the securing straps



9. Wipe down the SAGE controller



9. Wipe down the RT300 supine's table top, top cover and snout.

Note: If you do not have an applicable cleaning policy consider using a germicidal disposable wipe such as Sani-Cloth® AF3. Be sure to follow the manufacturer's instructions including use of protective equipment and contact time.

Procedures after each day

Confirm cranks are tight

1. Pull on each crank arm and confirm that they are tight. There should be no movement.
2. If a crank arm is loose, tighten it using a 13mm socket wrench.



Figure 3 Pull crank arm to confirm it is tight



Figure 4 Tighten crank arm with 13mm socket wrench

Confirm Internet connection

1. Look at the Globe icon on the bottom of the SAGE display.
 - If it contains a green check mark the Internet connection is operating
 - If it contains a red X the Internet connection is not operating
2. If the Internet connection is not operating tap on the Globe icon and then on the network manager link.

- Connect the RT300 Supine to the Internet by WiFi or wired Ethernet using standard Microsoft Windows procedure.

Procedures after each week

Confirm SAGE mounting is tight

1. Confirm that the SAGE mounting block is tight
2. If it is loose tighten the bolts shown in Figure 5.



Figure 5 Bolts securing SAGE mounting

Inspect foot and leg straps

1. Confirm that the straps have no cracks or tears.
2. Replace damaged straps.

Cleaning

Clean system

1. Clean the patient contact areas as per the daily cleaning instructions (page 13).
2. Wipe down the remaining RT300 Supine surfaces with a germicidal disposable wipe(s).

Procedures after each 50hrs of use

How to see hours of use

1. Tap Help and then About to display information about your system.
2. The hours of use is displayed as shown in Figure 6.

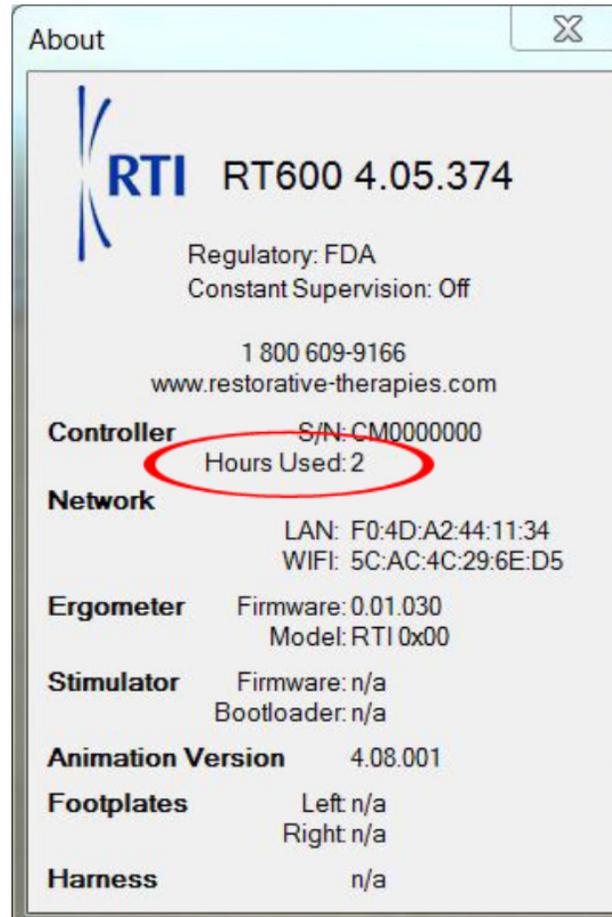


Figure 6 Hours of use

Inspect cords

1. Unplug the system from the AC mains supply
2. Inspect the AC power cord for any fraying, cuts and replace if damaged
3. Plug the system back into the AC mains

Procedures annually

General inspection

1. Inspect for any damaged components and replace
2. Confirm the condition and test the operation of the RT300 Supine ergometer emergency stop switch
3. Confirm the operation of the down stop switches beneath the electronics compartment and on the underside of the distal part of the snout.
 - a. Position the height of the RT300 Supine to approximately ½ way
 - b. While lowering the RT300 Supine using the Up/Down switch press the blue plastic plate beneath the electronics compartment. The downward motion should stop. Release the blue plate and downward motion should continue.
 - c. While lowering the RT300 Supine using the Up/Down switch press the white plastic switch on the underside of the distal part of the snout. The downward motion should stop. Release the white plastic switch and downward motion should continue.



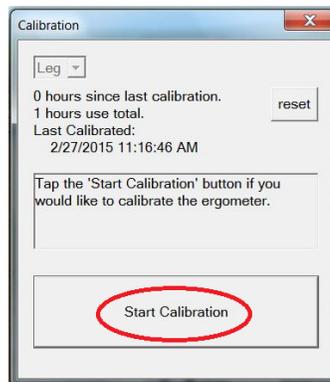
Figure 7 Snout switch

Ergometer calibration

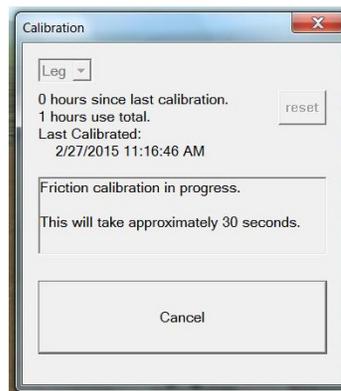
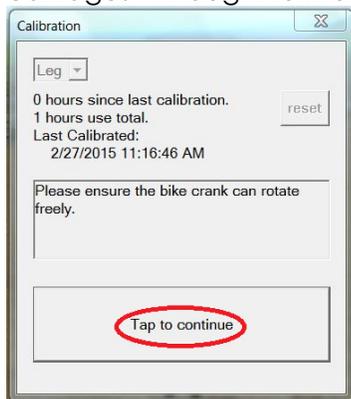
The Drive Unit is supplied calibrated. It should be recalibrated annually.

Follow the procedure detailed below:

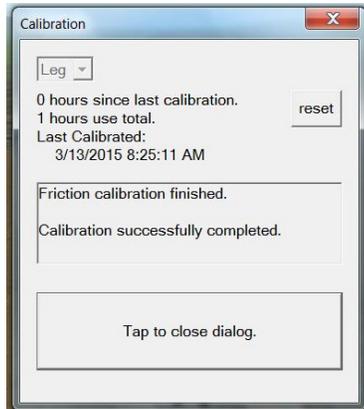
1. Power on the RT300 Supine and wait for the main "GO" page to appear
2. Insert the carriage arms into the 18" stride length selector and be sure they can rotate freely
3. Tap System and then Calibrate Ergometer
4. Tap Start Calibration



5. Once "Tap to continue" is pressed the motor will engage and the crank arms and carriages will begin to move
6. While in motion the screen will display as shown below. Please note that if for any reason the calibration must be stopped press the "Cancel" button.



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7. Once complete the following window will display. Choose "Tap to close dialog." to complete the process.



5.RT300 Supine diagnostics

Symptom	Potential cause	Troubleshooting
Power up		
RT300 Supine does not power up, e.g. both LEDs visible through cooling holes in electronics (orange LED is 19V supply, blue is 24V supply) compartment are not glowing.	No AC power	<p>Confirm that the system is turned on:</p> <ol style="list-style-type: none"> 1. Power switch on side of electronics compartment is on 2. Emergency stop is in raised position <p>Confirm that the AC power cord is fully inserted into the AC inlet and wall AC outlet.</p> <p>Confirm that the 2 AC inlet fuses are OK (see page 28)</p>
Errors		
"Stimulator disconnected"	RT60 switched off	Confirm that the LED on the RT60 switch is illuminated.
	No RT60 power	Confirm that the power cable is fully inserted into the RT60(s)
	19V supply failed	If this supply fails the orange LED will not be visible thru the cooling holes in the electronics compartment.
"Ergometer disconnected"	No AC power, tablet running off battery	See tem above "No AC power"
	SAGE tablet has not been BlueTooth paired with the motor control board.	Run bikediagnostic.exe and confirm that it is set to use BlueTooth and that the MAC address selected matched the MAC address shown on the side of the electronics compartment.
	24V supply failed	If this supply fails the blue LED will not be visible thru the cooling holes in the electronics compartment.
"Crank rotation not detected" Pedal crank does not rotate.	Wiring to motor is broken or connection assembly has bad contact	Check connector and wiring between motor and motor control PCB.
	Motor Control Board defective.	Change Motor Control Board (PP214675)
	Motor is defective	Change motor (PP217731)

Symptom	Potential cause	Troubleshooting
	Drive belt is broken	The pedals will turn very freely if the belt is broken. Inspect drive belt, see page 29.
	Drive belt is too loose	Inspect drive belt, adjust tension, see page 29.
Drive unit belt slips.	Drive belt is not tight enough.	You can easily stop the crank turning. Tighten drive belt, see page 29.
SAGE		
SAGE does not power up	Not switched on	Press the power switch on the left side of the tablet
	Not connected to 19V supply	The 19V supply is not connected to the power connector on the left side of the tablet
	No 19V supply	If this supply fails the orange LED will not be visible thru the cooling holes in the electronics compartment.
SAGE software does not start	Not auto starting	Try and start SAGE from the Windows start menu
	Software is missing or corrupt	Start Internet Explorer and browse to restorative-therapies.com/s Download the latest SAGE software Install the software
	BIOS boot order has changed	Remove the green USB security dongle, and restart the system. If this fixes the problem reinsert the dongle. BIOS boot order will need to change, contact RTI. If this does not fix the problem contact RTI.
Stimulation		
SAGE reports that it cannot find an RT60	RT60 switched off	Switch on the RT60 using the toggle switch on the top of the RT60
	RT60 not Bluetooth paired to SAGE	On SAGE tap System and stimulators. Ensure that the correct RT60(s) are paired by matching the MAC address shown on the rear of each RT60.
	RT60 has no power	Confirm the 19V power cable plugged into the RT60.

Symptom	Potential cause	Troubleshooting
		<p>Check the LED on the power switch glowing.</p> <p>If neither is true, contact RTI</p>
	RT60 may be paired with another RTI device	Press system and stimulator and confirm the last four characters of the MAC address match the serial number label.