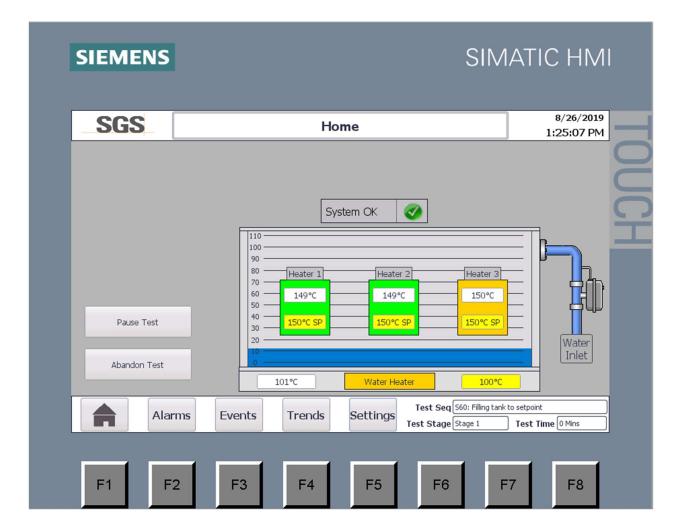


OPERATING INSTRUCTIONS CUI SYSTEM



1. UNPACKING

1.1 Remove all packing material and position on a level surface or adjust with the self levelling feet

2. MAINS SUPPLY

2.1 Connect the mains lead via a suitable triple pole and neutral switch fuse as follows. Connections are:

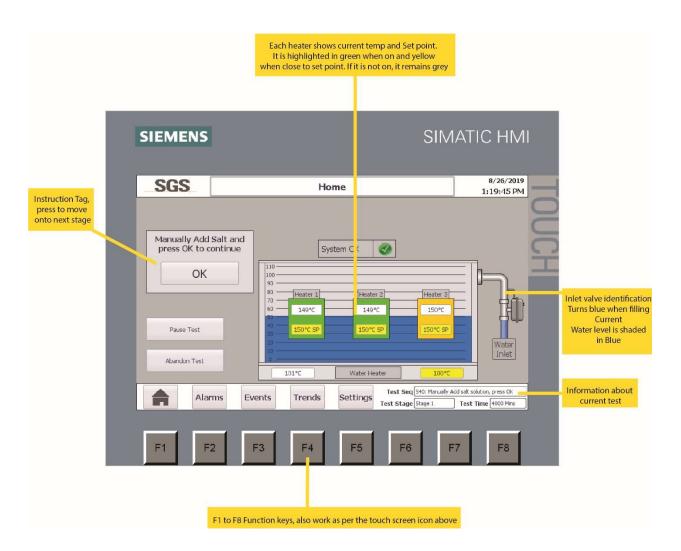
BROWN Phase 1 BLACK Phase 2 GREY Phase 3 BLUE Neutral GREEN/YELLOW Earth

2.2 Connect the drain with a ½ in BSP connection and connect the mains water inlet with an isolatable water connection.

3. OPERATION

- 3.1 Turn the unit on with the Main Switch
- 3.2 Set the overheat controller (Eurotherm P116) to the desired level
- 3.3 Press home button on the Touch Screen

Screen Layout.....



3.4 Press start test and the instrument will automatically start at stage 1. The lower left side of the screen highlights what stage the test is at.

3.5 If manual intervention is required such as manual salt water fill, a message will appear in the top left of the of the screen with instructions and the test will pause until the action is completed

3.6 If you require to change set points during a test, highlight which set point you want to change. The instrument will ask for log in details which is Eng and Eng as shown below

SIEMENS	SIMATIC HMI
SGS	Home 0/26/2019 1:25:48 PM
	Luph X
Paule Test	
Abandon Test	Carol Ca Unit 1017 Trade Heads
Alarm	is Events Trends Settings Test Seq[500:14natek to setsoret Test Stage[510:14natek to setsoret Test Stage[510:14natek to setsoret]
F1 F2	F3 F4 F5 F6 F7 F8

3.7 You can pause and/or abandon the test using the Touch screen commands

3.8 If an alarm is activated the top right screen will flash in yellow, press the Alarm tag to see the condition, to clear alarms, press F8 key once alarm is deactivated

SGS			Active Alarms			Δ	8/26/20: 1:31:32 P
Back							Next
ime 30:44 PM	Date 8/26/201	9 Heats	ar1 Over Temp	perature Stat T	ripped		

3.9 All events are logged on the Event Page, press the icon to view

SGS		Event History	8/26/2019 1:34:09 PM	
Back				Next
Time	Date	Text		
1:27:33 PM	8/26/2019	Test Pause PB pressed		î
1:27:33 PM	8/26/2019	Test Pause PB pressed		
1:21:51 PM	8/26/2019	Test Stop PB Pressed		
1:21:51 PM	8/26/2019	Test Stop PB Pressed		
1:15:25 PM	8/26/2019	Test Start PB Pressed		
1:15:25 PM	8/26/2019	Test Start PB Pressed		
1:15:19 PM	8/26/2019	Test Abort PB pressed		
1:15:19 PM	8/26/2019	Test Abort PB pressed		
1:06:08 PM	8/26/2019	Test Abort PB pressed		
1:06:08 PM	8/26/2019	Test Abort PB pressed		
1:06:00 PM	8/26/2019	Test Start PB Pressed		
1:06:00 PM	8/26/2019	Test Start PB Pressed		
1:05:55 PM	8/26/2019	Test Abort PB pressed		
1:05:55 PM	8/26/2019	Test Abort PB pressed		
5.00.0E.064	010610040	Test Stan DR Dessand		
		vents Trends Settings	Test Seq S850: Test Pa	sused, press start to resume
	Alarms E	ivents Trends Settings	Test Stage Stage 1	Test Time 0 Mins

3.10 Trend history of water levels and 4 temperatures are stored. To access press the Trend button and press the input you want to view and the previous 4 hours will be highlighted.

SGS	5	Water Heater Tre	end	8/26/2019 1:39:42 PM
80 60				
40				-
20				
00				-
80				
40				
20				
0. 9:39:42 AM 8/26/2019	10:39:42 AM 8/26/2019	11:39:42 AM 8/26/2019	12:39:42 PM 8/26/2019	1:39:42 PM 8/26/2019
frend Setpoint Actual	Tag connection WaterHeater_HNI>PU WaterHeater_PLC>HM	C /Setpoint	ilue Date/t 100.000000 8/26/20 100.909100 8/26/20	ime 19 1:39:42:326 PM
				d, press start to resume

4. MAINTENANCE - ROUTINE CHECKS ON EACH OCCASION OF USE:

4.1 Check the condition of supply lead and plug top. These should be sound and undamaged.

4.2 Calibrations & manual control can be done via the 'settings icon'

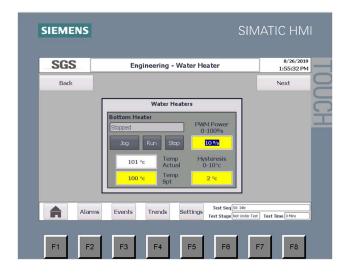
4.3 You need to be in <u>Manual Control</u> to change any settings. You need to log on using Eng and Eng password. In the mode, screen will state System in 'Manual Mode'

SIEMENS	SIM	IATIC HMI
SGS	Home	8/26/2019 1:25:48 PM
Paule Test	Unge X	
Abandon Test	101°C Water Heater 100°C	
Alar	ns Events Trends Settings Test Seq 500: Fingure Test Stage Stage 1	to setpoint. Test Time O Mins
F1 F	F3 F4 F5 F6 F	F7 F8

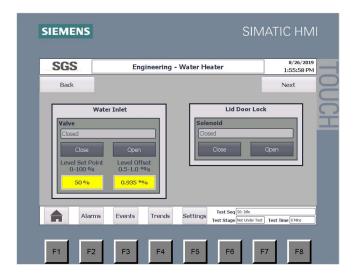
4.31 Press a temperature level and highlight the Set Point. Enter the desired set point and press 'Run' and to stop press 'Stop'. Individual heaters can be turned on and off in this way

SIEMENS	EMENS SIMATI					
SGS	Engineering - Heaters 1-3	8/26/2019 1:54:48 PM				
Back		Next				
140 % Ter	mp 150 % Temp 15	Run Stop to nc Temp Actual to nc Temp Spt				
F1 F2	Events Trends Settings Test Seq Or Life Test Stage Cast Under	F7 F8				

4.32 With the water heater, these have additional settings such as PWM and Hysteresis. We advise not to change these from the pre-set values of 60% and 2 deg C. Contact your supplier if these have been changed.



4.33 Water Inlet is the level % the valve will fill to and set at 50% as per test spec. Level offset is a value that compensates for the time the valve takes to close and due to different water pressures and flow rates may need changing. It is a % of the set point when the valve starts to close. To manually fill and close, use the Close / Open icons



4.34 Lid door lock has been deactivated on this model.

4.4 In manual mode only you can calibrate the system.

4.41 Go to Tank heater control icon as above and press the Next icon until calibration is highlighted above. Enter the value you wish to calibrate to using a calibrated instrument and press the Tare button. That channel is now calibrated to the new value

SGS	Engine	ering - Te	mp Calil	bration 1		8/26/201 1:56:24 PM
Back					N	√ext
Wate	er Heaters	1	Γ	Tank Heat	er 1	1
Temperatu Press Reset Reset 101 °c	PB Tare			149 °C	Tare Temp Sensor Femp Measured	
Alarn	ns Events	Trends	Setting	S Test Seq S0: Idle Test Stage Not Under	Test Test Tin	no O Mine

5. PREVENTATIVE MAINTENANCE

Ensure that the unit is maintained in a clean, dry condition and when not in use, stored in a normal warm atmosphere. Inbetween each test clean with a suitable detergent to remove any salt excess.

Minimum recommendation every six months:-

5.1 Check the water inlet and outlet connections are tight and no leaks.

5.2 Check the operation of the overheat protection system by raising the desired temperature above the overheat temperature.

5.3 Check that the control temperature is maintained within limits. The manufacturer can offer the above service on request.

Note, should you need to open the enclosure to do maintenance or repair, there is a sequence of what panels need to be removed via the panel stickers. Opening these in the incorrect routine may cause the pipes to get pulled of their fittings.