

# geyserTECH GT Lite GT Smart LED Lighting User Manual

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geyserTECH GT Lite GT Smart LED Lighting



# **Specifications**

• Product Name: GT+ Lite | GT+ Smart

• Manufacturer: GeyserTECH+

• Compatibility: Residential geysers

• Installation: Requires solar PV panels

• Display: GT+ Display

# **Product Usage Instructions**

#### **System Overview**

The GT+ unit is a device that optimally utilizes electricity generated through standard solar photovoltaic (PV) panels to heat water in an existing or new residential geyser without expensive modifications and installations. The installation is simplified in that only solar PV panels have to be installed together with the GT+ unit which is designed from high quality, solid state technology with passive cooling. There are two GeyserTECH+ solutions namely the GT+ Lite and the GT+ Smart.

• GT+ Lite System Diagram

Figure 1: GT+ Lite system diagram

GT+ Smart System Diagram

Figure 2: GT+ Smart system diagram

• GT+ Smart Interface: GT+ Display

#### Main Screen

The main screen has 5 different layouts namely: Kids, Geyser, Logger, Geyser-Logger, and Expert.

# **Basic Display Mode: Kids and Logger**

In this very basic mode of operation, the geyser temperature is shown almost full screen with minor statistical

information. There are two basic modes: Kids mode and the Logger mode. A screen shot of each mode is displayed in Figure 3 and 4 respectively.

Figure 3: Main screen – Kids mode Figure 4: Main screen – Logger mode

Section	Description
1	Current date and time. This time is synchronized with the server when WiFi is available and normally does not have to be set. Important: When WiFi is not available, it is important to set the time manually since each data reading is time stamped.

# **System Settings**

# Geyser Settings

The Geyser settings section allows you to customize various parameters related to the geyser.

#### Override Menu

The Override menu allows you to manually override the default settings for the geyser.

#### Temperature Settings

The Temperature settings menu allows you to set the desired temperature for the geyser.

#### Timers

The Timers menu allows you to set timers for specific operations related to the geyser.

#### History

The History menu displays the historical data of the geyser's temperature and usage.

# Graph

The Graph menu displays a graphical representation of the geyser's temperature and usage over time.

# Test

The Test menu allows you to perform tests on the geyser and check its functionality.

#### PV Panels

The PV Panels menu allows you to monitor and manage the solar PV panels connected to the GT+ unit.

#### Clear Status

The Clear Status menu allows you to clear any error or status messages displayed on the GT+ Display.

# System Settings

The System settings section allows you to customize various parameters related to the GT+ system.

#### WiFi

The WiFi menu allows you to connect the GT+ system to a WiFi network for remote monitoring and control.

#### Logger

The Logger menu allows you to configure the data logging settings of the GT+ system.

#### Display

The Display menu allows you to customize the display settings of the GT+ Display.

#### About

The About menu provides information about the GT+ system, including its version and serial number.

# USB

The USB menu allows you to connect external devices to the GT+ system via USB.

# Set Time

The Set Time menu allows you to manually set the date and time of the GT+ system.

#### Main Screen

The Main Screen menu allows you to customize the layout and information displayed on the GT+ Display's main screen.

#### Inverter Settings

The Inverter settings section allows you to configure parameters related to the inverter connected to the GT+ system.

#### Switch On

The Switch On menu allows you to turn on/off the inverter connected to the GT+ system.

#### Solar Setting

The Solar Setting menu allows you to configure parameters related to the solar power generation and usage.

# Battery

The Battery menu allows you to monitor and manage the battery connected to the GT+ system.

#### **Quick Links**

# How to Register a GT+ System

Instructions on how to register a GT+ system on the mobile application.

# · How to View the System ID's

Instructions on how to view the system ID's of the GT+ system.

# How to Setup a WiFi Network

Instructions on how to set up a WiFi network for the GT+ system.

#### How to Instantly Heat Your Geyser

Instructions on how to instantly heat your geyser using the GT+ system.

#### · How to Set the Timers

Instructions on how to set timers for specific operations related to the geyser using the GT+ system.

# **Tips and Tricks**

# How to Choose the Best Timer Settings

Tips on how to choose the best timer settings for optimal geyser operation.

#### What is a Good Maximum Solar and Grid Temperature

Tips on what is considered a good maximum solar and grid temperature for efficient operation.

#### FAQ's

#### Will my geyser overheat if I am on vacation?

No, the GT+ system is designed to optimize electricity usage and prevent overheating of the geyser, even when you are on vacation. The temperature settings and timers can be adjusted to ensure safe operation.

# What maintenance is necessary?

The GT+ system requires minimal maintenance. Regularly check for any error or status messages displayed on the GT+ Display and follow the instructions provided. It is also recommended to clean the solar PV panels periodically to ensure optimal performance.

#### **Help Resources**

#### **Quick Links**

· My geyser does not have any hot water.

If your geyser does not have any hot water, refer to the quick link for troubleshooting steps and solutions.

· My Display doesn't work.

If your GT+ Display is not working, refer to the quick link for troubleshooting steps and solutions.

Customer Support

For further assistance and support, please contact our customer support team.

# USER MANUAL GT+ Lite | GT+ Smart



This document is to be used by the owners of a GeyserTECH+ (GT+) system. This manual contains information on how to interface with the GT+ unit using the Display and the mobile application. Steps on how to register the system on the mobile application are also included in this manual. This document does not contain instructions on how to install the GT+. Please refer to the User Manual as well as the Technical Data Specification sheet which can be downloaded from <a href="https://www.geysertech.co.za">www.geysertech.co.za</a>.

# **System Overview**

The GT+ unit is a device that optimally utilizes electricity generated through standard solar photovoltaic (PV) panels to heat water in an existing or new residential geyser without expensive modifications and installations. The installation is simplified in that only solar PV panels have to be installed together with the GT+ unit which is designed from high quality, solid state technology with passive cooling.

There are two GeyserTECH+ solutions namely the GT+ Lite and the GT+ Smart.

#### **GT+ LITE**

The GT+ Lite is a simpler and more economic solution. It works in conjunction with a timer. The timer allows the geyser to only use grid power at preset times specified by the user. The PV power is not restricted by the timer and is used to heat the geyser whenever the PV power is available. When the PV power is sufficient to heat up the geyser, no grid power is required. On overcast or rainy days when almost no PV power is available, the geyser is heated by the grid however, only during the time slot set on the timer therefore reducing grid power consumption. The GT+ Lite system diagram is displayed in figure 1.

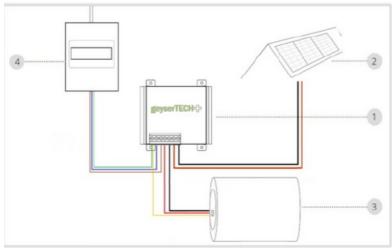


Figure 1: GT+ Lite system diagram

Number	Description
1	GT+ Lite
2	PV Solar Panel
3	Geyser
4	Supply DB

Table 1: GT+ Lite system diagram numbers and descriptions

# **GT+ SMART**

The GT+ Smart allows full automation of your geyser. The Smart comes with the GT+ Digital Display, which performs the task of the timer in the GT+ Lite solution. The GT+ Smart allows the user to interface the system either through the GT+ Digital Display, the GT+ mobile app or the GeyserTECH+ website.

With the GT+ Smart, the user can view daily savings, obtain the real-time temperature of the geyser, adjust timer settings remotely, instantly heat the geyser and more. The GT+ Smart system diagram is displayed in figure 2 below.

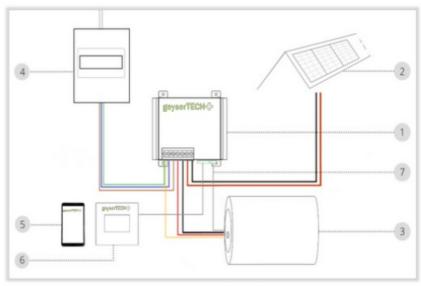


Figure 2: GT+ Smart system diagram

Number	Description
1	GT+ Smart
2	PV Solar Panel
3	Geyser
4	Supply DB
5	Smart phone with GT+ App
6	GT+ Digital Display
7	GT+ Thermostat

Table 2: GT+ Smart system diagram numbers and descriptions

# **GT+ Smart Interface: GT+ Display**

#### Main screen

The main screen has 5 different layouts namely

- Kids
- Geyser
- Logger
- Geyser-Logger
- Expert

# Basic Display mode: Kids and Logger

In this very basic mode of operation, the geyser temperature is shown almost full screen with minor statistical information.

There are two basic modes: Kids mode and the Logger mode. A screen shot of each mode is displayed in Figure 3 and 4 respectively.

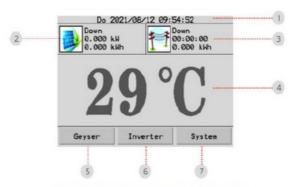


Figure 3: Main screen - Kids mode

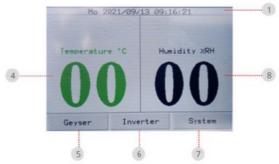


Figure 4: Main screen - Logger mode

Number	Description
1	Current date and time
2	Solar Power information
3	Grid power information
4	Temperature
5	Geyser settings
6	Inverter settings
7	System settings
8	Humidity reading

Table 3: Basic display section numbers and description

# 1. Current date and time

This time is synchronized with the server when WiFi is available and normally does not have to be set. Important: When WiFi is not available, it is important to set the time manually since each data reading is time stamped.

# 2. Solar Power Information

The following solar information is displayed next to the solar icon

- Available' / 'Down': indicates solar power availability.
- kW: The tempo of power currently being harvested.
- kWh: Total power that has been harvested for the day.

#### 3. Grid Power Information

The following grid power information is displayed next to the grid icon

• 'Available' / 'Down': indicates grid power availability.

- Time: : Total time that grid power has been used for the day.
- kWh: Total grid power that has been used for the day.

# 4. Temperature

The text color of the temperature indicates which power is being used. The following colours represent from which power source the geyser is being heated

- Red Grid power
- Green Solar power
- Black No power
- 5. Geyser settings (see section 2.2)
- 6. Inverter settings (see section 2.3)
- 7. System settings (see section 2.4)

# Advanced display mode: Geyser, Geyser-Logger and Expert

The advanced views allow the user to view more statistical information. Geyser and Geyser loggers show partial statistical information where the Expert mode shows all statistical information.

A Screenshot of each of the modes are displayed in Figure 5, 6 and 7 respectively. Each section of the different display modes is explained in the table below according to the number assigned in the figures.

1.

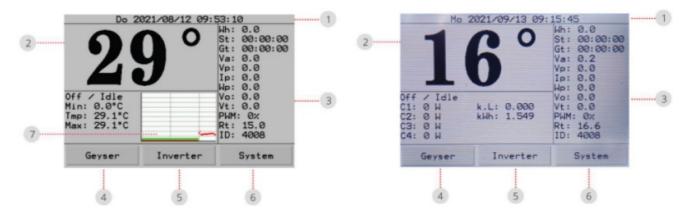


Figure 5: Geyser display mode

Figure 6: Geyser-logger display mode

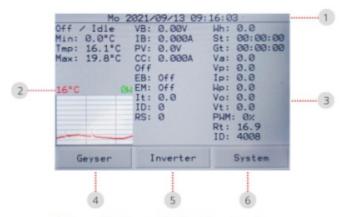


Figure 7: Expert display mode

Number	Description
1	Current date and time
2	Temperature
3	Grid and solar power information
4	Geyser settings
5	Inverter settings
6	System settings

Table 4:

Advanced display explanation with section numbers and description.

# **Current date and time**

This time is synchronized with the server when WiFi is available and normally does not have to be set. Important: When WiFi is not available, it is important to set the time manually since each data reading is time stamped.

# 2. Geyser temperature

The text colour of the temperature indicates which power is being used. The following colours represent from which power source the geyser is being heated

- Red Grid power
- Green Solar power
- Black No power

# 3. Grid and solar power information

The solar and grid power is interspersed differently on each display. The following table includes abbreviations of all possible measurements and readings:

Abbreviation	Description
C1 - C4	Displays the current measurement of the connected current sensors. The display can
	handle up to 4 separate current sensors.
CC	Charging current: Instantaneous current out feeding to/ from of the battery charger unit.
EB	Enable battery
EM	
Gt	Grid time: total time duration of grid power used for the day.
IB	Battery current: Current fed to/from the battery. A negative number signifies that current
ID	is feeding to the battery.
ID (most right)	Identification number of the connected GT+ unit
ID (most left)	Identification of the connected GT+ Inverter
IP	Current feeding to/ from the PV panels
It	Inverter temperature (degree Celsius)
KL	Total water used for the day (kilolitre)
kWh	Total energy harvested for the day (kilowatts - hour)
Max	The maximum geyser temperature for the day (degree Celsius)
Min	The minimum geyser temperature for the day (degree Celsius)
Off/ Bulk/ Float/ Absorb	Describes in which battery charging state the unit is presently operating.
Off/Idlo/color/	Display the instantaneous power source used to heat the geyser. Power source can be
Off/Idle/solar/ grid	either solar, grid or none. In the example there is no power used to heat the geyser, hence
	the words 'off/idle'
PV	Instantaneous voltage provided by the PV panels
PWM	Pulse width modulation: The element's effort to draw power out of the PV's. PWM is also
	fairly accurate way to measure percentage of sunshine reaching the solar cells. The energy
	reaching the cells are affected by ozone, clouds, dust in the atmosphere and dirt on the
	panels as well as PV temperature. Clean panels under clear skies can reach beyond 80% of
	energy on the cells, producing a PWM of 80%.

PWM	Pulse width modulation: The element's effort to draw power out of the PV's. PWM is also a fairly accurate way to measure percentage of sunshine reaching the solar cells. The energy reaching the cells are affected by ozone, clouds, dust in the atmosphere and dirt on the panels as well as PV temperature. Clean panels under clear skies can reach beyond 80% of energy on the cells, producing a PWM of 80%.
RS	Reset: number of times a system reset has occurred.
Rt	The temperature sensor inside the GT+ Smart. Electronics do heat up considerably while working with strong loads such as a geyser. Anything under 85 Celsius should be safe.
St	Grid time: total time duration of grid power used for the day.
Tmp	Temperature of geyser water
Va	Total DC power available to the internal regulator. Typically, 300~340Vdc when Grid power is connected and available. Generally, slightly less than Vp when Grid is not available.
VB	Battery voltage
Vo	Open circuit voltage: measured directly before power starts flowing from the panels and not updated while working from solar.
Vp	Panel voltage: direct DC input from PV panels
Vt	Target MPPT voltage either set in (Section 2.2.7 PV Panels) or the calculated voltage in Auto Detect mode
Wh	Total Energy harvested for the day (Watt-hour)
Wp	Instantaneous power drawn from the PV panels. Calculated as Wp = Ip * Vp

Table 5: Summary of Advanced display mode information abbreviations and explanations.

- 4. Geyser settings (see section 2.2)
- 5. Inverter settings (see section 2.3)
- 6. System settings (see section 2.4)

# **Geyser settings**

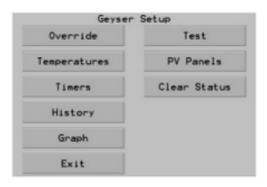


Figure 8: Geyser settings display

Button	Function
Override	Override menu: Heats up geyser instantaneously for a set time or until a certain
	temperature is reached
	Temperature menu: Set the maximum geyser temperature when powered from the
Temperatures	different sources. Typically, will the solar temperature be set higher than the grid power to
	ensure extra savings
Timer	Timer menu: Set the time slots when the GT+ unit is allowed to use grid power
History	Displays a summary of the daily grid and solar power usage. Daily summary of the present
History	day as well any previous can be viewed.
Graph	Graphical presentation of the grid and solar power used for the day
Test	Used to test functionality of the GT+ unit
PV Panels	Sets voltage on which the system will start drawing power from the panels
Clear status	Clears the memory of the Display
Exit	Returns to main menu

Table 6: Geyser setup options

#### Override menu

The override menu lets the user choose how long grid power will be used as a once-off override.

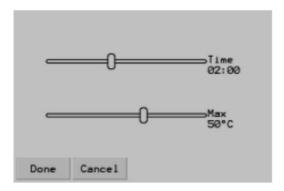
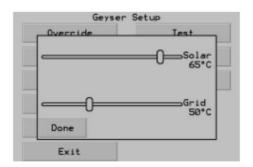


Figure 9: Override settings

The top slider sets maximum time that will be allowed for the override. The bottom slider sets the maximum required temperature (Figure 9). Grid will be used until set temperature is reached or time runs out, whichever is reached first

# **Temperature settings**

It is possible to set independent maximum temperatures for when using solar power and for when using grid power. Independent temperatures enable more efficient saving profiles for the end user. The top slider sets solar temperature, while the bottom slider sets grid temperature (Figure 10).



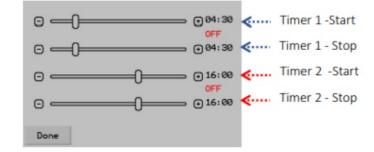


Figure 10: Temperature settings

Figure 11: Timer settings

#### **Timers**

The GT+ has two independent timers that determine when grid power may be used. The goal is to set timers to effectively work around the user's schedule. The top two sliders set the first timer's start and stop times, while the bottom two sliders set the second timer's start and stop times (Figure 11 above).

# **History**

The history page shows the daily statistics for the GT+ Smart unit.



Figure 12: History screen example

#### Graph

The graph page shows visual representation of the last 36 hour geyser data. Solar power is scaled according to installed PV capacity.

#### **Test**

Mainly for installer use, this page can force the GT+ Smart to switch either

- Off no power passed through to the geyser
- Solar solar power passed through to the geyser
- Grid grid power passed through to the geyser

When the GT+ Smart is forced to use a specific source, then measuring equipment can be used to see if the GT+ Smart is functioning properly.

#### **PV Panels**

The top slider shows installed PV capacity measured in Watts. This value is used to optimize calculations within the GT+ Display and to display the Graphs on the correct scale (section 2.2.5).

The middle slider sets the Vmp of your panel bank. The Vmp can be set from 50 to 250, below 50 sets the MPPT algorithm to auto detect. If you do not know your Vmp voltage, then Auto detect is a safe option here.

The bottom slider sets the geyser element size. This is used to calculate how many kWh is used when functioning from grid power. Geysers smaller than 150 litres typically have a 2kW element; 150 litre geysers typically have a 3kW element and geysers larger than 150 litres typically have a 4kW element, as a standard. If you do not know your element or geyser size, 3kW is a safe choice.

# **Clear status**

This is mainly for installers. After the tests have been completed, clear status will zero the statistics for the day and move all data one day back into the history (see section 2.2.4).

# System settings



Figure 13: System settings display menu

Button	Function
WiFi	WiFi menu: Scan and connect to different WiFi networks.
Logger	Logger
Display	Display settings: Change contrast and brightness of the display
About	Summary of the system settings
USB	Checks if USB is inserted and send all data to the USB FLASH drive
Set Time	Timer menu: sets the time manually
Main	Change the main screen display mode
Exit	Returns to main screen

Table 7: System setup options with functions explained

WiFi

•

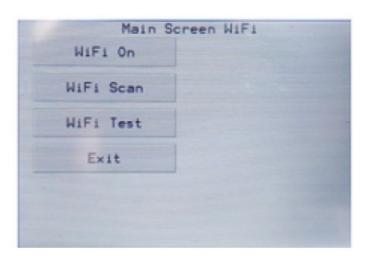


Figure 14: WiFi menu

**WiFi On** indicates that the WiFi module will function in the background uploading data on its schedule. All data sent to the server is compressed and the GT+ Display uses very little data, less than 32kb/day (or less than 1 mb/month).

- WiFi Off indicates that the WiFi is disabled by the user. If the WiFi is disabled, then it will not connect automatically and will not use up the user's internet data.
- WiFi Scan will initialize the WiFi and try to connect with the saved Access Point and password. It will also show the modem's MAC address if the user's Access Point has a MAC filter set up for safety reasons. After a complete scan of the WiFi signals, the strongest Access Points will be shown. The user can pick an Access Point and enter a password. If the GT+ Display can connect successfully to the Access Point, it will then

contact the central server to retrieve time automatically. Default time zone is SAST (South Africa Standard Time) or UTC+2, with no DST

(Daylight savings time). If your Access Point does not show in the list, check that the Access Point is set up for 2.4GHz operation, 5GHz is not compatible with the WiFi modem.

• WiFi Test will initialize the WiFi module, attempt to connect to the stored Access Point and try to retrieve local time from the server. If this fails, check your router's connection or mobile data balance.

# Logger

The GT+ Display has a built in micro logger. Data is averaged and stored every 5 minutes. The only thing that the user can set is for the pulse counters (i.e. Power meter and Water meter). The left button shows the current calculated value on the meter itself. Therefore, if your meter did not start at a ZERO value when you installed the GT+ Display, you can enter the current value displayed on the meter itself. The right button shows how many pulses your meter outputs per unit of measure.

**Example 1**: If you have a Elster A200 power meter which outputs 1600 pulses per kWh, then you set the value to 1600. After this value is entered you will notice that the Display value (left value) will increase alongside the actual meter's display value. The Display value will increase 1/1600 or 0.000625 for every pulse received. Example 2: If you have a water meter that outputs one pule for every 10.0 liter, then you will want to set the constant (right button) to 0.1 pulse/Liter. The display value will increase 10.0 for every pulse.

# **Display**

The user can set the active and passive back-light setting. The active setting is when the user is interacting with the display. The passive light activates after no touch is detected for longer than 30 seconds. A low passive back-light decreases power usage and increases battery life in off-grid installations.

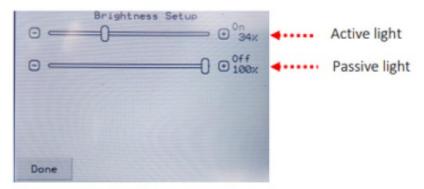


Figure 15: Brightness setup

The top slider sets active back-light power, while the bottom slider sets passive back-light power. While holding down the slider, the back-light will instantly reflect the chosen power level. This is handy for changing the passive power level.

#### **About**

The about screen only shows information on the devices and connected plug-ins.

- **ID** GT+ Display serial number linking your data to your profile on the server Hardware The GT+ Display hardware version
- Software The GT+ Display software version
- Memory FLASH memory storage space
- Battery Battery voltage level
- Charger Can have one of four operating statuses

1. Fault: no input power

2. Full: battery full

- 3. Active: charging
- 4. Suspended: charging time-out reached or temperature error
- **Ambient** GT+ Display on-board temperature sensor (Humidity optional)
- Robot GT+ Smart Serial number and software version (if connected)
- **Inverter** GT+ Inverter Serial number and software version (if connected)

```
About
ID: 2000603
Hardware: V1.3 Jun 2020
Software: V1.16 Jul 2021
Memory: 7.92% used, 5969 logs
System: 3.766 Volt
Battery: Li-Ion 3.792 Volt
Charger: Fault
Ambient: 19.29°C
Robot v1.22: GR4Smart#004008
Inverter: Not connected / Error
```

Figure 16: About screen

# **USB**

The USB port can take almost any mass storage class FLASH drive with a FAT file system. When you enter this menu, the software tries to probe and open the FLASH drive. If the driver and the file system is compatible, the drive is opened and the following menus will be available

- CSV Export: converts and saves all data in the on-board memory to a Libre Office, OpenOffice and MS Excel compatible file.
- Update: checks for a firmware file and updates on-board code, this will cause a reboot. Read
- Logo: checks for a Logo file and copies the file to on-board memory.
- Exit: safely removes the drive and can now be unplugged

#### **Set Time**

If no WiFi is available, the data will log with invalid timestamps. Therefore, a date and time can be updated manually. Time is entered in the format

- YYYY/MM/DD hh:mm
- YYYY Year
- **MM** Month of the year, 1 = January
- **DD** Day of month
- hh Hour of day
- mm Minutes

Seconds will always default to zero when entering time.

#### Main Screen

The main screen can be changed to the 5 different modes. Two of the modes are basic modes showing very limited data (section 2.1.1) and the other three are advanced display modes showing partial or all statistical information (section 2.1.2). Click on the respective button to change main screen layout.

# **Inverter settings**

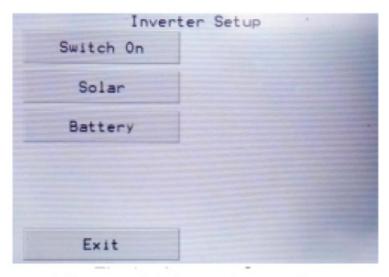


Figure 17: Inverter setup

#### Switch on

This allows the user to either switch the inverter on or off.

#### Solar setting

The Solar setting screens allows the user to change the maximum power point voltage (Vmp). The Vmp can be set from 50 V to 250 V, below 50 V sets the MPPT algorithm to auto detect.

#### **Battery**

The battery settings are often only used by the installers. Do not change these setting unless a thorough understanding of setting implications is gained. Screen contains the following settings: ?

- · Low cutout voltage
- · Low recover voltage
- · Soft fuse current
- · Absorb voltage
- Floating current

# **Quick links**

# · How to register a GT+ system

To register a system a User Profile must be created. A User Profile can be created using the Telemetric App (<a href="www.telemetric.co.za">www.telemetric.co.za</a>) which can be found using either your phone or a computer.

To register, follow the steps below

**STEP 1**: Go to <u>www.telemetric.co.za</u> with either your phone or a computer.

**STEP 2**: On the homepage (Figure 18 A) scroll down to "Signup" (Figure 18 B). STEP 3: Complete the required information (Figure 18 B) and click 'Login'.

**Note**: On the GT+ Display, under 'System', 'About', you will find the Display ID and the Robot ID which you will need when signing up (see section 3.2).

STEP 4: After you have logged in, you will see the main screen (Figure 18 C).

Figure 18: A

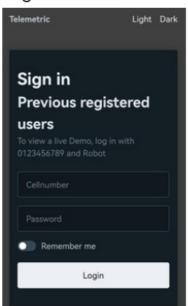


Figure 18: B



Figure 18: C



# · How to view the System ID's

In order to register your system on the mobile app you have to enter the system ID's. To view the system ID the steps below can be followed:

- STEP 1: On the GT+ Display unit's main screen, click on the 'System' button in the right bottom corner
- **STEP 2**: Click on the 'About' button of the systems screen.

**STEP 3**: On the 'About' screen you will see the ID's of the GT+ Display, the GT+ unit and the inverter (if connected).

# How to setup a WiFi network

Steps on how to setup the WiFi on the GT+ Display unit:

- STEP 1: On the GT+ Display unit, click on the 'System' button in the right bottom corner on the main screen.
- STEP 2: Click on the 'WiFi' button.
- STEP 3: Click on the 'WiFi Scan' button.
- STEP 4: Select your WiFi router name
- STEP 5: Enter WiFi Password

Your GT+ Display should now be connected to the WiFi, allowing the unit to connect to the GeyserTECH+ servers. Information is updated every 10 minutes which can be viewed on the mobile app.

# How to instantly heat your geyser

First check that your override settings are correctly set.

- STEP 1: Click on the 'System' button on the Main screen
- STEP 2: Click on the 'Override' button
- **STEP 3**: Change settings accordingly. Top slider sets your desired temperature and bottom slider sets how long the geyser should be heated. The geyser will stop heating once either limit is reached.

Thereafter, activate the override function

STEP 1: Go to main screen

**STEP 2**: Hold the 'Geyser' button down until a pop-up message notifies you that the override function is activated.

#### · How to set the timers

**STEP 1**: On the Main screen click on the 'Geyser' button in the left bottom corner. STEP 2: Click on the 'Timers' button

STEP 3: Set the start and end time for the first timer

First slider: Timer 1 start time
Second slider: Timer 1 stop slider

STEP 4: Set the start and end time for the second timer, bottom two sliders

Third slider: Timer 2 start time
Fourth slider: Timer 1 stop slider

# Tips and tricks

#### How to choose the best timer settings.

Geysers heat up at roughly 15-20 °C per hour, depending on size and stratification. It is recommend to set the timer for about an hour before normal water use. For example, if hot water is required by 18h00, set the timer to start at 17h00 and stop at 18h00, right up until you start using the hot water.

# What is a good maximum solar and grid temperature

For optimal savings, keep the grid power as low as possible and the solar power as high as possible. Setting the temperature to a maximum while using solar power can boost savings. This is because heating the geyser to a high temperature, can potentially eliminate the use of the grid power. For example, let's say the solar power heated the geyser throughout the day to 70°C and your timer is set to heat the geyser at 18h00 because you need hot water around 19h00. If your geyser hasn't cooled below your maximum grid power temperature, there would be no need to use grid power.

To find the lowest acceptable temperature, start off with setting your grid temperature to 50 °C. After using the hot water, decide whether or not the water temperature can be reduced.

#### **FAQs**

# Will my geyser over heat if I am on vacation?

No, the GT+ switches off when the set geyser temperature is reached. This also reduces water spillage in a country where water is becoming scarce.

# What maintenance is necessary?

The GT+ works together with a standard geyser, therefore anything that will affect a standard geyser applies here.

# Help resources

# **Quick links**

#### My geyser does not have any hot water

If your geyser does not have any hot water check the following

- Check that the circuit breaker for the geyser is switched on at the DB.
- Check that your timer is set to have sufficient time to heat the geyser.
- Check if the maximum temperature when using grid power is set high enough.

# My display does not work

If your display doesn't work check the following

• Check that the circuit breaker for the geyser is switched on at the DB.

- Check if the terminal block is connected properly behind the display.
- Check if each cable is connected tightly to the terminal block.

# **Customer support**

If you still have problems with the system or have any queries, please send an email to <a href="mailto:info@geysertech.co.za">info@geysertech.co.za</a> or call our office number 021 203 5557.

For any additional information, visit www.geysertech.co.za.

# Contact us

- . 021 203 5557
- 9066 436 7304
- www.geysertech.co.za
- info@geysertech.co.za

#### **Documents / Resources**



geyserTECH GT Lite GT Smart LED Lighting [pdf] User Manual GT Lite GT Smart LED Lighting, GT Lite, GT Smart LED Lighting, Smart LED Lighting, LED Lighting

# References

- Solar systems and installations geyserTECH+ Solar
- ♥ Pi²R
- User Manual

Manuals+, Privacy Policy