

Application examples & detailed Case Studies

GSM Commander



The **GSM Commander** product is a GSM Telemetry Controller that is designed to effectively manage any unattended or remote site from your cellphone or a computer interface.

Our passion is to provide **peace of mind** to customers about their remote sites or equipment. Our easy-to-use setup interface enable users to **take control**.

The **GSM Commander** provide a 2-way communication via **sms**, **GPRS** and **voicecall**.

Some applications that you can look out for in this document:

Agricultural

Equipment control, reporting and security that every farmer is looking for. Pumps, pivots, cable theft, etc.

Industrial / Commercial

Machine running hours, logic control, reporting. Generator/ backup management, refrigeration, hotel management and so much more.

Residential

Geysers management, alarm reporting, irrigation and access control.

Security

Cable theft, electric fencing, alarm reporting, etc.

Access Control

Manage individual access for any gate or door.



Top reason why people buy this product:

* [Configuration software is so easy-to-use](#) * (4 min video)

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AGRICULTURAL

1. Borehole pump filling reservoir or tank far away

Use the GSM Commander to stop and start your borehole pump in order to fill a reservoir or tank that is far away from the borehole pump.

a. Summary:

Farmer needs drinking water from a borehole.

The GSM Commander-1 is installed at the Borehole control box, and GSM Commander-2 at the tank. When the low level float switch in the tank is activated, GSM Commander-2 will receive the input and place a missed call (drop) to GSM Commander-1 in order to activate the output that starts the Borehole pump for x-minutes. The high level switch can also perform this action to stop the Borehole pump. GSM Commander-1 will be powered from the 220V supply that is available at the pump, while GSM Commander-2 will rely on battery and solar power.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- GSM Commander sends sms to you if there is a power failure & power restore
- GSM Commander sends sms to you when borehole pump doesn't want to start
- GSM Commander sends sms to you if float switches does not register a rising water level
- GSM Commander sends sms to you if the borehole pump has not worked for some time
- GSM Commander sends sms to you with pump running hours for maintenance purposes (daily, monthly or even when it reaches a certain total)
- start and stop the borehole pump manually from your cellphone
- add flowmeter to send water volume statistics as required
- add flowsensor to prevent dry-run
- request tank level by sending an sms to the GSM Controller (4x floats required)

c. Case Study

Download detailed case study with wiring diagrams and complete setup "[Borehole pump to reservoir](#)".

d. Customer testimony

My borehole supplies all our drinking and washing water for the house, 2 guest cottages and some worker houses on my farm. The only backup is Teewaterskloof water and that is definitely not drinkable, and once too many did the borehole-to-tank system fail without any warning. We installed the GSM Commander to check any problems and this has saved me much trouble. I now know exactly what is happening and can fix it before it is too late. It is really handy to send an sms to the GSM Commander to check the water level in the tank. This is a must have if you want to focus on farming, and not worrying. Gawie Bredenkamp, Somerset West

2. Solarpump

Use the GSM Commander to stop and start your borehole pump, check battery status, check solar panel charging and prevent cable and equipment theft.

a. Summary:

Livestock farmer need to know if the solarpumps are working and if someone is tampering with it. The GSM Commander is installed at the Solarpump controlbox. It checks to see if the solarpump is working, check battery status and notify the farmer when a cable is cut or equipment is tampered with.

The GSM Commander is powered from the battery bank and solar power.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- GSM Commander sends sms to you if there is a charging error
- GSM Commander sends sms to you if solar pump doesn't want to start
- GSM Commander sends sms to you if the solar pump has not worked for some time
- GSM Commander sends sms to you if with pump running hours for maintenance purposes (daily, monthly or even when it reaches a certain total)
- start and stop the solar pump manually from your cellphone
- add flowmeter to send water volume statistics as required

c. Customer testimony

We have 3 solarpumps to provide water to some livestock at a neighbouring farm. We had endless problems with cable theft. It was very discouraging the day we found a solar panel and pump stolen. We then installed the GSM Commander at all 3 sites to monitor any person trying to steal anything. The couldn't believe the first time a sms message came to my cellphone indicating that someone is tampering with a solarpump. I immediately flew into my bakkie and rushed there. We caught the person red-handed. After we caught the second person trying to steal cables, the news spread within the local community that I'm monitoring my solarpumps. I've had no more trouble after installing the **GSM Commanders**. I also like the function to know if the pump is not working and also monitor the water level for my livestock

I will really recommend this clever GSM Controller to anyone.

Fritz Viljoen, Wolmeranstad

3. Irrigation Pump House

Use the GSM Commander to monitor irrigation pumps, open and close actuator valves and control access to the pump house.

a. Summary:

A vegetable farmer is using 2 pumps to irrigate different fields from 2 dams. The 2 pumps must at any time be able to irrigate any field from any dam, depending on the dam levels and pump breakdown.

The GSM Commander is installed to monitor and send sms power failure, pump failure, monitor dam levels, switching actuator valves from dams, switching solenoids to irrigation fields., determine running hours of pumps for pump maintenance, calculate water volumes and allow access to pump house with a missed call (drop) from selected cellphone numbers.

GSM Commander will be powered from the 220V supply that is available in the pump house.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- GSM Commander sends sms to you when there is a power failure & power restore
- monitor 2x dams to switch actuators according to dam levels
- control solenoids to irrigation fields from both pumps
- GSM Commander sends sms to you if irrigation pumps doesn't want to start
- GSM Commander sends sms to you if with pump running hours for maintenance purposes (daily, monthly or even when it reaches a certain total)
- open pump house doors with missed call (drop) from cellphone
- 2x flowmeters reading calculated and totalised monthly and send via sms

4. Sewerage Water Treatment

Use the GSM Commander to control and monitor a sewerage water treatment system, including security for theft and unauthorised access.

a. Summary:

A hotel with no sewerage connection to the municipality must treat their own sewerage water before dumping it into a river. It is critical to monitor the sewerage treatment system in order to monitor possible breakdowns and prevent any dumping of unsafe water into the river.

The GSM Commander is installed to monitor and send sms power failure, pump failure, monitor low levels on chemical tanks, sending site status send sms every day, monitor perimeter beams and control room door, and allow access to site control room with a missed call (drop) from selected cellphone numbers.

GSM Commander will be powered from the 220V supply that is available in the control room.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- GSM Commander sends sms to you when there is a power failure & power restore
- GSM Commander sends sms to you if low level in chemical tanks
- GSM Commander sends sms to you if daily with site status
- GSM Commander sends sms to you if dosing pumps is faulty
- GSM Commander sends sms to you when perimeter beams or control room sensor is triggered without authorised access
- open control room door with missed call (drop) from cellphone (arm and disarm security simultaneously)

5. Borehole Water Treatment

Use the GSM Commander to control and monitor a borehole, tanks and water treatment system.

a. Summary:

A guest farm with restaurant, deli and family fun area uses borehole for water supply. This borehole water has high iron content and must be treated for use in restaurant, garden irrigation and general use. Iron water from the borehole stains everything red and taste awful. It is critical to always have good clean water and the water treatment system must be monitored for any mishaps or breakdowns.

The GSM Commander is installed to monitor and send sms power failure, pump failure, pump water between tanks through filters, backflush the system frequently, monitor low levels on chemical tanks, monitor clean water tank level.

GSM Commander will be powered from the 220V supply that is available at the water treatment system.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- GSM Commander sends sms to you if there is a power failure & power restore
- GSM Commander sends sms to you if when low level in chemical tanks are reached
- GSM Commander sends sms to you if with borehole pump failure
- pump water from settling tank through filters to treatment tank
- backflush filters every 4 hours
- GSM Commander sends sms to you if when clean water tank reaches a low level
- control whole treatment process

6. Irrigation Pump with sand filters

Use the GSM Commander to control & monitor irrigation pumps and backflush sand filters.

a. Summary:

A vineyard farmer is using Bergriver water to irrigate his vineyards. The Bergriver water is very polluted and need to be filtered through sand filters with different filter media.

The GSM Commander is installed to monitor and send sms power failures, pump failure, control irrigation schedule and control the backflush of sand filters.

GSM Commander will be powered from the 220V supply that is available in the pump house.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- GSM Commander sends sms to you if there is a power failure & power restore
- stop and start pump according to irrigation schedule
- separately backflush different filters every hour
- GSM Commander sends sms to you if that irrigation pump doesn't want to start

7. Cable theft prevention

Use the GSM Commander to monitor any cable theft. Monitor and protect from a 3phase pump cable, transformer cable, irrigation control cable, pivot cable, borehole pump cable or even a Telkom cable. It is really easy to make sure your copper stays where it belongs.

a. Summary:

A citrus farmer irrigates his citrus in different blocks and use distributed solenoids for this purpose. A 2-wire control cable runs to these solenoids and theft of these control cables is a common problem.

The GSM Commander is installed to monitor and send sms which section a cable is cut so he can take immediate action.

GSM Commander will be powered from a small solar panel. The battery on the solar panel is also monitored by the GSM Commander.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- GSM Commander sends sms to multiple recipients when there is a cable cut
- various other options are available to use, depending on the equipment or site surroundings

8. Advanced Pump & Pivot Control

Use the GSM Commander to control & monitor 5 Pivots, 2 pumphouses and 3 dams.

a. Summary:

A potato farmer has 5 pivots, and use 2 pumps from 3 dams to irrigate his potato fields. The 2 pumps must be able to irrigate any field from any dam, depending on the dam levels.

The GSM Commander is installed to monitor and send sms power failure, pump failure, monitor dam levels, switching actuator valves from various dams, switching actuator valves to pivots. Cable theft on Pivots must also be prevented.

5x Pivots and 2 pumphouses are fitted with a GSM Commander and will be powered from the 220V supply that is available on the Pivots and in the pump house.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- missed call (drop) Pivot to start Pivot and missed call (drop) pumphouse to start pump
- GSM Commander at pivots sends sms to you if there is a power failure & power restore
- GSM Commander at pivots sends sms to you if controlbox alarm signals (different equipment can also be monitored from controlbox or directly and send smsed via sms)
- GSM Commander at pivots sends sms to you if cable is cut
- GSM Commander at pump houses sends sms to you if there is a power failure & power restore
- monitor 3x dams to switch actuators according to dam levels
- GSM Commander sends sms to you if irrigation pumps doesn't want to start
- GSM Commander sends sms to you if someone unauthorised has accessed the pumphouse

9. Eskom Power Management

Use the GSM Commander to monitor Eskom power and to control a back-up generator.

a. Summary:

A milk farmer, has a fridge which needs to be functional 24/7 to keep his milk fresh. The farmer has experienced huge financial losses in the past due to power failures occurring in the middle of the night when no one is around to switch on the generator.

The GSM Commander is installed inside the generator housing to monitor and send sms mains power failure, and to automatically start the generator when a mains power failure occurs.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- GSM Commander sends sms to you if Eskom power failure occurs
- start generator when mains power failure occurs
- GSM Commander sends sms to you if generator failed to start after 3 attempts
- GSM Commander sends sms to you to confirm that the generator has indeed started
- switch off generator when mains power has been restored
- GSM Commander sends sms to you if mains power has been restored

10. Generator Control

Use the GSM Commander to monitor Eskom power and to control a back-up generator.

a. Summary:

Devine Foods, has a industrial freezer which needs to be functional 24/7 to keep their raw food items fresh. The warehouse has experienced huge financial losses in the past due to power failures occurring in the middle of the night when no one is at work to switch on the generator.

The GSM Commander is installed inside the generator housing to monitor and send sms mains power failure, monitor battery voltage of generator starter, and to automatically start the generator when a mains power failure occurs.

A pressure sensor(submerged in the diesel tank of generator) is connected to the GSM Commander to monitor the diesel level of the generator. A temperature probe is also connected to monitor the temperature of the generator.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- GSM Commander sends sms to you if Eskom power failure occurs
- automatically start generator when mains power failure occurs
- GSM Commander sends sms to you if generator failed to start after 3 attempts
- GSM Commander sends sms to you to confirm that the generator has indeed started
- place voice call when diesel level of generator is running low
- automatically switch off generator when mains power has been restored
- GSM Commander sends sms to you if mains power has been restored
- GSM Commander sends sms to you if generator is overheating
- GSM Commander sends sms to you if battery voltage of generator starter falls below 11V.

c. Case Study

Download detailed case study with wiring diagrams and complete setup "[Refrigeration & Generator control](#)".

11. Farm Security

Use the GSM Commander to safeguard your family and protect your farm when you away.

a. Summary:

Koos wants only his wife and kids to have access to the farm, and also wants perimeter flood lights around his house to automatically switch on in the evening to deter criminals.

The GSM Commander is installed inside the gate motor housing to control the gate, to determine when the gate has been forcefully opened by means of a read switch, to automatically switch on flood lights, to monitor beams placed around the house, to activate a siren and to monitor battery voltage of gate motor.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- missed call (drop) GSM Commander to open gate
- automatically switch on flood lights at 8pm
- automatically switch off flood lights at 6am
- GSM Commander sends sms to you if gate has been forcefully opened
- or place voice call , activate siren and intermittently switch flood lights when beams have been bridged
- GSM Commander sends sms or place voice call to you when mains power fails
- GSM Commander sends sms to you if battery voltage goes below 10.5V

12. Electric Fencing

Use the GSM Commander together with your electric fence to notify you when your property has been infiltrated.

a. Summary:

The GSM Commander is installed to monitor and send sms power failure, control a siren and the fence's energiser, which will activate the input of the GSM Commander when an alarm condition (intrusion attempt) has occurred.

The energiser, siren and 12V batter back-up will be connected to the GSM Commander which will be powered from a 220V mains supply.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- GSM Commander sends sms or place voice call to you when an intrusion attempt occurs
- activate siren when alarm condition has occurred
- GSM Commander sends sms to you when mains power fails
- GSM Commander sends sms to you if backup battery of energiser is running flat
- GSM Commander sends sms to you if mains power has been restored
- switch electric fence on by sms
- switch electric fence off by sms

13. Greenhouse Management

Use the GSM Commander to control the temperature and humidity inside your greenhouse.

a. Summary:

A herbalist farmer wants to automatically control and regulate the temperature and humidity in his greenhouse as it is critical to the successful growth of his herbs.

The GSM Commander is installed inside the greenhouse to monitor and send sms power failure, humidity and temperature levels and to control a sprinkler system, fans, heater and air vent.

A humidity sensor, temperature probe, sprinkler system, fans, heater , air vent and 12V battery back-up will be connected to the GSM Commander to be monitored and controlled accordingly.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- monitor the humidity level
- monitor the temperature level
- sms greenhouse to obtain humidity and temperature levels
- open air vent when humidity level gets too high
- switch on fans when humidity level gets too high
- monitor temperature level
- switch on fans when temperature level gets too high
- switch on heater when temperature level gets too low
- automatically switch on sprinkler system at specified times
- GSM Commander sends sms to you when mains power fails
- GSM Commander sends sms to you if battery voltage goes below 10.5V

INDUSTRIAL / COMMERCIAL

1. Machine Control

Use the GSM Commander to control machinery and notify you of any power failures.

a. Summary:

A factory has waste water that by law, must be treated before the water is dumped into the sewage system. The one process is a filtration system, and the second process involves the dosing of chemical solution into the water for the neutralization of harmful elements.

The ultrasonic level sensor, flow meter, backwash pump, solenoid valve and dosing pump are connected to the GSM Commander.

b. The GSM Commander can be configured to **monitor and control** the following:

- monitor flow meter
- automatically switch on backwash pump and solenoid as required
- automatically activate dosing pump as required
- monitor ultrasonic level sensor
- GSM Commander sends sms to you if chemical solution is running low
- GSM Commander sends sms to you detailing the volume effluent that was treated in the week
- GSM Commander sends sms to you if mains power fails

2. Staff Access Control

Use the GSM Commander to monitor and control access to a certain part of a building.

a. Summary:

A textile company wants to limit access to their financial department after hours by unauthorised staff members and wants to know how many times it has been accessed.

A door lock actuator, read switch and 12V battery back-up is connected to the GSM Commander.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- open door if missed call (drop) is received (only if cellphone number is in list)
- increment counter every time door is opened
- GSM Commander sends sms to you with total amount of times the door has been opened
- GSM Commander sends sms to you if door is opened after a specified time
- GSM Commander sends sms to you when mains power fails
- GSM Commander sends sms to you if battery voltage goes below 10.5V
- remove number of resigned staff member to prohibit access

3. Refrigeration / Cold storage

Use the GSM Commander to monitor the temperature and potential power failures of a cold room.

a. Summary:

Devine Foods, has a walk-in freezer which needs to be functional 24/7 to keep their raw food items fresh. The restaurant has experienced huge financial losses in the past due to power failures occurring in the middle of the night. They also want to be notified if the freezer door has been left open for too long.

A temperature probe, read switch, door lock actuator and 12V battery back-up is connected to the GSM Commander which is powered from the freezer's main power supply.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- missed call (drop) freezer to open door (allows for controlled access)
- monitor temperature inside the freezer
- send sms if temperature is outside specified boundaries
- sends sms when mains power fails
- GSM Commander sends sms to you if battery voltage goes below 10.5V
- GSM Commander sends sms to you if freezer has been left open for too long
- GSM Commander sends sms to you if freezer has been entered during specified times.

c. **Case Study**

Download detailed case study with wiring diagrams and complete setup "[Refrigeration & Generator control](#)".

4. Business Access control

Use the GSM Commander to control and monitor access to your business.

a. Summary:

A business owner only wants certain employees to have access to his workplace

A door lock actuator and read switch at the main entrance are connected to the GSM Commander together with a 12V batter back-up.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- open door if missed call (drop) is received (only if cellphone number is in list)
- GSM Commander sends sms to you if door is opened after a specified time
- GSM Commander sends sms to you when mains power fails
- GSM Commander sends sms to you if battery voltage goes below 10.5V
- remove number of resigned staff member to prohibit access

5. Laboratory Power Management with backup generator

Use the GSM Commander to ensure that there is always power supplied to your equipment.

a. Summary:

A laboratory has 5 power generators as back-up in case of a mains power failure. They rely on these generators to keep their critical laboratory equipment functioning during a mains power failure.

5 generators and a 12V battery back-up is connected to the GSM Commander which is powered from a 220V mains power supply.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- GSM Commander sends sms to you when a power failure has occurred
- GSM Commander sends sms to you with global input(generator) status sms to you 15 seconds after a mains power failure
- GSM Commander sends sms to you if one of the generators switch off during a power failure
- GSM Commander sends sms to you when power has been restored
- GSM Commander sends sms to you when battery voltage goes below 10.5V

c. Case Study

Download detailed case study with wiring diagrams and complete setup "[Refrigeration & Generator control](#)".

6. Guest House Management

Use the GSM Commander to control the geyser and access of your guest house.

a. Summary:

A guest house wants to be able to control who has access and also wants to be able to have the geyser automatically switched on and off to save them money on electricity costs.

A door lock actuator at the main entrance, geyser and temperature probe is connected to the GSM Commander together with a 12V battery back-up.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- send sms to add and remove cellphone number from GSM Commander
- open door if missed call (drop) is received (only if cellphone number is in list)
- automatically switch geyser on and off at specified times of the day
- monitor temperature level of geyser
- automatically switch off geyser when temperature reaches a critical limit
- GSM Commander sends sms to you when mains power fails.
- GSM Commander sends sms to you when battery voltage goes below 10.5V

7. Hotels

Use the GSM Commander to monitor and allow access only to lodgers.

a. Summary:

A hotel wants to only allow access to lodgers as there is huge security risk if unauthorised people gain access.

The GSM Commander is installed inside the gate motor housing to control the gate, to determine when the gate has been forcefully opened by means of a read switch and to monitor battery voltage of gate motor.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- open gate if missed call (drop) is received (only if cellphone number is in list)
- GSM Commander sends sms to you when gate has been forcefully opened
- allow staff to open gate at certain times of the day
- GSM Commander sends sms to you when mains power fails.
- GSM Commander sends sms to you when battery voltage goes below 10.5V

8. Restaurants

Use the GSM Commander to monitor the temperature and potential power failures of a cold room.

a. Summary:

Devine Foods, has a walk-in freezer which needs to be functional 24/7 to keep their raw food items fresh. The restaurant has experienced huge financial losses in the past due to power failures occurring in the middle of the night. They also want to be notified if the freezer door has been left open for too long.

A temperature probe, read switch, door lock actuator and 12V battery back-up is connected to the GSM Commander which is powered from the freezer's main power supply.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- missed call (drop) freezer to open door (allows for controlled access)
- monitor temperature inside the freezer
- GSM Commander sends sms to you if temperature is outside specified boundaries
- GSM Commander sends sms to you when mains power fails
- GSM Commander sends sms to you if battery voltage goes below 10.5V
- GSM Commander sends sms to you if freezer has been left open for too long
- GSM Commander sends sms to you if freezer has been entered during specified times.

c. Case Study

Download detailed case study with wiring diagrams and complete setup "[Refrigeration & Generator control](#)".

9. Estate Access Control

Use the GSM Commander to control and monitor a dual gate system.

a. Summary:

A wine estate wants to be able to control who has access to their property and also prevent intruders from gaining access to the estate when someone enters.

A GSM Commander is connected to both gate motors together with a 12V back-up battery and read switch for each gate.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- send sms to add and remove cellphone number from GSM Commander
- open gate 1 if missed call (drop) is received (only if cellphone number is in list and gate 2 is closed)
- automatically open gate 2 when gate 1 closes
- GSM Commander sends sms to you if either gate remains open for longer than 60 seconds
- GSM Commander sends sms to you if either gate is forcefully opened
- GSM Commander sends sms to you when mains power fails.
- GSM Commander sends sms to you when battery voltage goes below 10.5V

10. Golf Course Management – various

Use the GSM Commander to control your irrigation system and prohibit access.

a. Summary:

A Golf Course wants to be able to control who has access to their property to stop unauthorised access from non-members and to control the entire irrigation system

A GSM Commander is connected to the main gate motor, read switch at gate and irrigation control box together with a 12V back-up battery, moisture sensor and temperature probe.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- monitor whether it has rained or not
- automatically turn irrigation system on and off when it hasn't rained
- monitor outdoor temperature
- automatically turn irrigation on at night for slightly longer on hot days
- send sms to add and remove cellphone number from GSM Commander
- open gate if missed call (drop) is received (only if cellphone number is in list)
- GSM Commander sends sms to you if either gate remains open for longer than 60 seconds
- GSM Commander sends sms to you if either gate is forcefully opened
- GSM Commander sends sms to you when mains power fails.
- GSM Commander sends sms to you when battery voltage goes below 10.5V

11. Estate Irrigation control

Use the GSM Commander to control your irrigation system.

a. Summary:

An Estate wants to be able to automatically control their entire irrigation system

A GSM Commander is connected to the irrigation control box together with a 12V back-up battery, moisture sensor and temperature probe.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- monitor whether it has rained or not
- automatically turn irrigation system on and off when it hasn't rained
- monitor outdoor temperature
- automatically turn irrigation on at night for slightly longer on hot days
- GSM Commander sends sms to you when mains power fails
- GSM Commander sends sms to you when battery voltage goes below 10.5V

RESIDENTIAL

1. Gate Access Control

Use the GSM Commander to control access to your property.

a. Summary:

A home owner wants to be able to control and allow access to his property by opening the main gate from his cell phone. He also wants to allow his family to have access.

The GSM Commander is installed inside the gate motor housing to control the gate, to determine when the gate has been forcefully opened by means of a read switch and to monitor battery voltage of gate motor.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- missed call (drop) (drop) from anywhere to open gate
- GSM Commander sends sms to you when gate has been forcefully opened
- allow housekeeper to open gate at certain times via missed call (drop) from her cellphone
- GSM Commander sends sms to you when mains power fails.
- GSM Commander sends sms to you when battery voltage goes below 10.5V

c. Case Study

Download detailed case study with wiring diagrams and complete setup [“Gate & Access Control”](#).

2. Irrigation Control

Use the GSM Commander to automatically control your irrigation system.

a. Summary:

A home owner wants to automate his current irrigation system to water his garden at specific times of the day.

The GSM Commander is installed to control solenoid valves connected to the irrigation system.

A moisture sensor and temperature probe is also connected to the GSM Commander so that the owner is able to determine if whether it has rained so that he doesn't unnecessarily waste water and so that he can give his garden extra water on hot days.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- monitor whether it has rained or not
- automatically turn irrigation system on and off when it hasn't rained
- monitor outdoor temperature
- automatically turn irrigation on at night for slightly longer on hot days
- GSM Commander sends sms to you when mains power fails.
- GSM Commander sends sms to you when battery voltage goes below 10.5V

3. Geyser Management

Use the GSM Commander to automatically control the geyser in your house.

a. Summary:

A home owner wants control when his geyser must switch on and off. He also wants to be notified if the geyser overheats due to malfunction of the thermostat so to prevent it from possibly bursting , costing him lots of money to replace and to repair his flooded ceiling.

The geyser, a temperature probe and 12V back-up battery are connected to the GSM Commander which is powered by the geyser's main power supply

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- automatically switch geyser on and off at specified times of the day
- monitor temperature level of geyser
- automatically switch off geyser when temperature reaches a critical limit
- GSM Commander sends sms to you when mains power fails.
- GSM Commander sends sms to you when battery voltage goes below 10.5V

4. Electric Fencing

Use the GSM Commander together with your electric fence to notify you when your property has been infiltrated.

a. Summary:

The GSM Commander is installed to monitor and send sms power failure, control a siren and the fence's energiser, which will activate the input of the GSM Commander when an alarm condition (intrusion attempt) has occurred.

The energiser, siren and 12V batter back-up will be connected to the GSM Commander which will be powered from a 220V mains supply.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- sms or place voice to you call when an intrusion attempt occurs
- activate siren when alarm condition has occurred
- GSM Commander sends sms to you when mains power fails
- GSM Commander sends sms to you when backup battery of energiser is running flat
- send sms wto you hen mains power has been restored
- switch electric fence on by sms
- switch electric fence off by sms

5. Alarm Monitoring

Use the GSM Commander to monitor and control your existing alarm system.

a. Summary:

A home owner wants to be notified when his alarm has been triggered, a panic button has been pressed and also be able to enable and disable it from anywhere by means of his cellphone.

The GSM Commander will be connected to the existing alarm panel and 12V battery back-up.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- send sms to GSM Commander to enable or to disable alarm
- place a time delay to actually arm the alarm system once sms is received to enable alarm
- GSM Commander sends sms to you when alarm has been triggered
- place voice call to you when panic button has been pressed
- GSM Commander sends sms to you when mains power fails.
- GSM Commander sends sms to you when battery voltage goes below 10.5V

6. Create Your Own Security System

Use the GSM Commander to create your own security system.

a. Summary:

A home owner wants to be notified when movement is detected in his house and unauthorised entry was gained to his property.

PIR sensors, panic buttons, beams, electric fence, gate motor, reed switch at gate and siren and 12V back-up battery will be connected to the GSM Commander.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- send sms to GSM Commander to arm and disarm security system
- momentarily activate siren to indicate whether system has been armed or disarmed
- place a time delay to actually arm the security system once sms is received to arm
- monitor PIR sensors, panic buttons, beams, electric fence and gate when in armed mode
- place voice call to you when panic button is pressed
- activate siren when PIR sensors, beams or electric fence detect an intrusion
- GSM Commander sends sms to you when gate has been forcefully opened
- open gate if missed call (drop) is received (only if cellphone number is in list)
- GSM Commander sends sms to you when mains power fails.
- GSM Commander sends sms to you when battery voltage goes below 10.5V

7. *Holiday House Management*

Use the GSM Commander to control access to your holiday house.

a. Summary:

A business man has a holiday houses which he rents through estate agents. He would like to control access to his houses and would like to be informed when entry has been made when there aren't suppose to be rentals.

A door lock actuator and read switch at the main entrance is connected to the GSM Commander together with a 12V battery back-up.

b. The **GSM Commanders** can be configured to **monitor and control** the following:

- send sms to add and remove cellphone number from GSM Commander
- open door if missed call (drop) is received (only if cellphone number is in list)
- GSM Commander sends sms to you when door has been opened when there aren't suppose to be rentals
- GSM Commander sends sms to you when mains power fails.
- GSM Commander sends sms to you when battery voltage goes below 10.5V

SECURITY

1. Cable theft

Use the GSM Commander to monitor any cable theft. Monitor and protect from a 3phase pump cable, transformer cable, irrigation control cable, pivot cable, borehole pump cable or even a Telkom cable. It is really easy to make sure your copper stays where it belongs.

Click this link [7. Cable theft prevention](#)

2. Farm Security

Use the GSM Commander to safeguard your family and protect your farm when you away.

Click this link [11. Farm Security](#)

3. Electric Fencing

Use the GSM Commander together with your electric fence to notify you when your property has been infiltrated.

Click this link [12. Electric Fencing](#)

4. Alarm Monitoring

Use the GSM Commander to monitor and control your existing alarm system.

Click this link [5. Alarm Monitoring](#)

5. Create Your Own Security System

Use the GSM Commander to create your own security system.

Click this link [6. Create Your Own Security System](#)

ACCESS CONTROL

1. Staff Access

Use the GSM Commander to monitor and control access to your business premise.

Click this link: [2. Staff Access Control](#)

2. Gate Access Control

Use the GSM Commander to control access to your property.

Click this link [1. Gate Access Control](#)

3. Holiday House Management

Use the GSM Commander to control access to your holiday house.

Click this link [7. Holiday House Management](#)

4. Hotel / Lodges / Guesthouses

Use the GSM Commander to monitor and allow access only to lodgers.

Click this link [6. Guest House Management](#)

5. Estate Access Control

Use the GSM Commander to control and monitor a dual gate system.

Click this link [9. Estate Access Control](#)

Why GSM Commander?

- **Easy to use** configuration setup (just choose and click)
- **Expandable** hardware plugins
- Logic controller with **built-in** GSM functions
- Advanced **power and battery** management
- **Local** support desk

Product Highlights

- Up to 32 opto isolated digital **inputs**
- Up to 32 relay **outputs** (8amp)
- 1 **analogue** input
- 10 – 24vDC power input with
- 1 backup battery input
- 2 **temperature** inputs (with interface)
- **Serial** interface port
- **Audio** interface port
- Dual SIM for **redundancy** (Professional version)
- External antenna jack
- sms, **Voicecall** and **GPRS** capability



Additional Products

BaseLogger software is developed to manage from 1 to 127 GSM Commander field devices, using sms communication. A very cost effective system for basic site control and critical events reporting.

CentralCommand software is developed for **real time** site management using **GPRS** communication. It boasts a Web based user interface with unlimited GSM Commander field device connections. A subscription based service for real time site control, critical events management and advanced reporting.

PLC Commander:

Another version of the GSM Commander, called the **PLC Commander**, is available. This unit is all the PLC-type functionality and easy-to-use configuration software, without a GSM module.

More documents:

Top reason why people buy this product: [Configuration software is so easy-to-use](#) (4 min video)

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[GSM Commander Manual](#) download

[PLC Commander Datasheet](#) download

[GSM Base Logger Manual](#) download