

Troubleshooting VGR connectivity

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This document outlines the procedure to troubleshoot VGR connectivity. For more information, see manuals and powerpoint available on our website:

<http://www.victronenergy.com/panel-systems-remote-monitoring/victron-global-remote2/#type-7>

Step 1 – Make sure that the modem has made a connection to the GSM network: the red LED should be blinking. If it doesn't blink check:

- That the modem has power (red LED will be continuous on when powered and not connected to GSM network)
- That the pin-security has been removed from the simcard
- That the latch has been closed over the simcard
- That the simcard is working (insert it into a phone to double-check)

Step 2 – Make sure that you can exchange text (SMS) messages with the modem. Send the command 'gsm'. The reply should be similar to:

```
GSM
imei: 354662030005820
sim: OK
signal: -67dB
ber: 0
network: home (Vodafone ES)
SMS from: +316460123532
```

If you do not receive a reply, check the following:

- For prepaid simcards, make sure that there is enough credit on the card.
- The best way to make sure that the simcard is working is to insert it into a phone, and make sure that it can send and receive text messages.

Step 3 – Connection with BMV and/or VE.Bus device (Multi/Quattro). Send the command 'info'. The reply will contain information on BMV, Multi/Quattro or both. An example from a VGR with both products connected:

```
System state: inverter
Alarms: none
Warnings: none
DC: 48.97V 16.71A in
AC in: 0.0V 0.0A 0.0Hz
AC out: 229.9V 3.8A 60Hz

Battery: 26.6V, -017A
Level: 98%, -8Ah
TTG: 240h
```

If not successful, check connections and check for faulty equipment and equipment interoperability. Common causes of problems:

- VGRs and VERs cannot be combined with any of the following products:
 - o VE.Net to VE.Bus Converter
 - o Blue Power Panel 2
 - o Blue Power Panel GX
 - o VE.Bus to NMEA2000 interfaces.
- Combining with the Digital Multi Control, VE.Bus Multi Control or Phoenix Inverter Control is possible.
- The minimal firmware version of the VE.Bus device is 19xx111 or 20xx111, released in 2007.
- The minimal firmware version of the BMV-60xS is v2.06 released on 22nd October 2009.

Note: step 4 is only necessary when you want to log data to the VRM website, which requires a configured GPRS data connection

Step 4 – Check the internet connection of the VGR.

Send the text message 'log' the to VGR. The reply should look like this:

```
LOG
Period: 5min
Extra: off
Last log: 1 minutes 3 seconds ago
```

If it states Last log: Never, that means that the VGR does not have a proper internet connection. Configure the internet connection, also known as Data connection or GPRS. Send the text command 'gprs'. See also the VGR manuals and VGR powerpoint available on our website for more information on configuring a GPRS connection. An APN, username and password will be necessary.

In case just setting up GPRS with a username and password is not sufficient, ask the telecom operator if configuring a proxy is required.

Step 5 - Log-in to the VRM Portal, <https://vrm.victronenergy.com/>, go to your site, and then go to System Overview, found on the Settings tab. You will see this page:

Gateway

Model	-
Software version	v2.14, build date: Oct 31 2012 12:18:22
Last connection	2013-05-03 09:58:51, 22 seconds ago
Last power up or restart	2013-04-30 04:50:28, 3 days, 5 hours, 8 minutes and 45 seconds ago
Logging interval	1 minute

Shows when the modem was last able to connect to the website. If too long ago, double check GPRS connection.

VE.Bus System

Instance	0
Description	VE.Bus Device 0
Model	Quattro 48/10000/140-2x100
VE.Bus device version	1953201
MK2 version	1130132
Last connection	2013-05-03 09:58:51, 22 seconds ago

Shows when the modem has last sent VE.Bus data to the website

Battery Monitor

Instance	0
Description	Battery Monitor 0
Last connection	2013-05-03 09:58:51, 22 seconds ago

Shows when the modem has last sent BMV data to the website

IO Extender

Instance	0
Description	IO Extender 0
Temp. sensor connected	No
Last connection	2013-05-03 09:58:51, 22 seconds ago

Shows when the modem has last sent IO Extender data to the website