

**GSM/GPRS MODEM CARD
Model: DP-OPT-CARD-GPRS**

**SIM Card Requirements,
Activation of Remote Comms,
How to set APN for GSM Network**



- Retrofit to (or supplied with) **DIGICHEM[®] Plus⁺** Controllers
- For Remote Connection to **www.digichemplus.com**

Please complete last page
and submit to Waterco for
Webserver Setup

Supplied by:

1. SIM Card Requirements

A standard size SIM card is required for the GSM/GPRS modem to operate.

The SIM card must be activated for Voice (for SMS) and 2G GPRS Data. Estimated data usage 10-20MB/month.

Depending on which service provider you choose, the SIM cards should have the following characteristics:

- The SIM Card should have the facilities for both DATA, and SMS communication.
- Billing of DATA transfer will be incurred on the DATA number.
- The DIGICHEM Plus+ Controller will not SMS alarms directly from the SIM card. This is dealt with from the Webserver, and no SIM Card alarm SMS bills will be accumulated.
- The SMS's will be forwarded by a 3rd party, that will be initialised by an alarm condition from the Webserver.

Note: It is recommended, if possible to have outgoing voice calls barred on the SIM Card, whilst still being able to send and receive SMS. This is however, often not possible, as to enable SMS transmission, VOICE needs to be enabled.

2. Installing the SIM Card

IMPORTANT:

Before installing SIM card, it is necessary to disable the PIN on the SIM card. Please insert the SIM card into a compatible mobile phone. On start up, if the phone prompts you for a PIN, which is usually 0000, please go into Settings and disable this feature. You can confirm it is disabled by turning the phone off and on again. You should go straight to the main screen on the phone WITHOUT being prompted for a PIN.

Please see the diagrams below, and follow steps 1 to 5.



Figure 1



Figure 2



Figure 3

1. To insert the SIM Card into the holder, slide the silver clip to the left as per figure 1 (if already not done), and lift up the top flap.
2. Slide the sim card into the top flap, between the silver clip, and sheath of the top flap as shown above in figures 2 & 3.
3. Make sure the positional tab on the SIM Card is towards the top, left hand corner, as shown in figure 2. Slide the card in all the way – figure 3.
4. Push the top flap down firmly, and slide the silver clip to the right, as shown below in figure 4.



Figure 4

5. The SIM Card is now installed, and the top flap should be secure, and should not be able to be lifted.

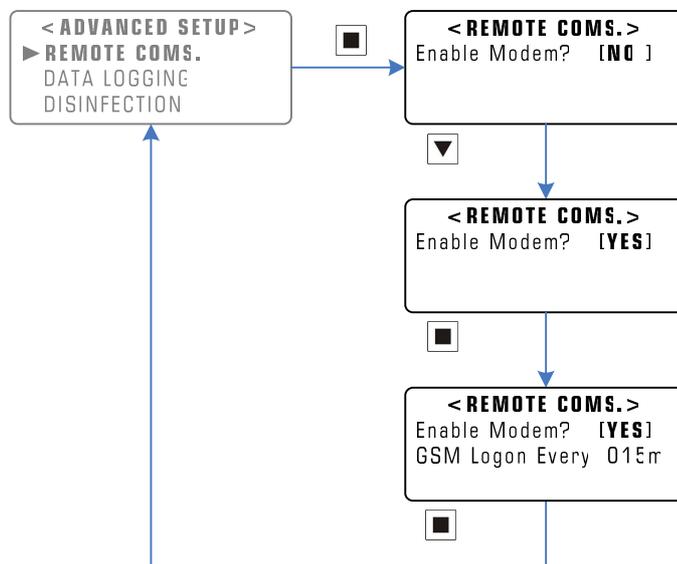
3. Enabling Remote Comms

The remote communications in the DIGICHEM Plus+ controller requires activation. Please follow the instructions below for this procedure. For a full explanation of how to operate through the menu structure, please consult the DIGICHEM Plus+ instruction manual.

The default GSM Logon cycle time to the remote server is once every 15 minutes (See Section 2 above for further explanation). This time can only be altered via the web based software, and cannot be edited from the DIGICHEM Plus+ controller. It is however recommended to keep it at 15 minutes or to increase, rather than decrease this GSM Logon Cycle.

Please follow the example below of how to implement this feature on the DIGICHEM Plus+ controller:

Main Menu > SETUP MENU > ADVANCED SETUP > REMOTE COMS.



Example: Enabling the Remote Communications

Once logged on, the server is updated from the DIGICHEM Plus+ Controller. If alarm conditions exist, the various contact people set up in the web based software are contacted via SMS, and/or e-mail depending on the software's setup parameters.

4. Setting Network APN

Each service provider has an APN number, (Access Point Name), which is a unique number that identifies that service provider's network.

Each DIGICHEM Plus+ Modem needs to know this APN number of the service provider.

To set the correct APN, an SMS will be required to be sent via the Modem's SIM Card from a mobile phone, while the modem is on and communicating.

Please select and enter the appropriate text message from the table below into a mobile phone, ready to send for the following service providers but do **NOT** send the text message yet, continue reading these instructions:

NOTE: All text is CASE SENSITIVE, so please check
The underscore (_) represents a space character
The text is to be sent to the Voice number of the SIM Card

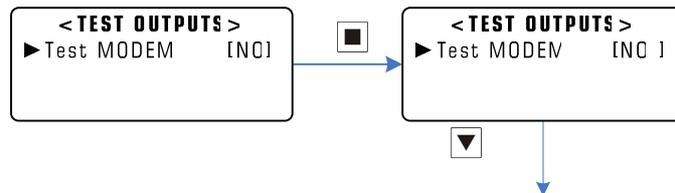
Service Provider:	Text Message to be sent:
Network	AQUAGPRS,APN=XXX,YYY,ZZZ# Where: XXX = Network APN YYY = Username ZZZ = Password For many networks, the Username and Password is blank, as per the examples below.
Vodafone	AQUAGPRS,APN=vfinternet.au,_,_#

1. In the 'Send to Number Menu' of your mobile phone, enter the telephone number of the SIM Card into your mobile phone, but do **NOT** press the send button yet.
2. The Modem must be activated in order for the relevant text message to be received by the SIM Card. In order to activate the Modem, please enter the

TEST Outputs menu of the DIGICHEM Plus+ controller, and test the modem as shown in the diagram below:

(For a full explanation of how to operate through the menu structure, please consult the DIGICHEM Plus+ user manual.)

Main Menu > TEST OUTPUTS.



Modem will now switch on, and Controller will default to the main screen –
See Modem messages displayed on the last line

Manual Testing of Modem

3. Once the Modem messages start appearing on the last line of the display, **send the text message immediately.**
4. To test if the Modem has received the relevant text message, perform the steps in section 4.2 below.

5. Polling Modem to check if correct APN is Set

To check whether the Modem contains the correct APN number:

1. Enter the following text into a mobile phone:

AQUAGPRS,APN?

NOTE: All text is **CASE SENSITIVE**, so please check
This text is to be sent to the **DATA** number of your **SIM**
card

2. In the 'Send to Number' Menu of your mobile phone, enter the **Phone No** of the SIM Card into your mobile phone, but do **NOT** press the send button yet.

3. Do not send the text yet, and turn the modem on by following from Step 3 of Section 4.1 on the previous page. Complete all remaining steps in that section.
4. Within around 3 – 15 seconds, you should receive a text to the mobile phone that you sent the original message from.
5. This text should confirm the APN number that is in the Modem, as per the example in the following table:

Service Provider:	APN Setting:
Vodafone	APN Settings:vfinternet.au,_,_

NOTE: The underscore (_) represents a space character

Note: The SMS charge will not be billed from the service provider of the SIM Card.

For Loss of Communication Alarm - this alarm will only be sent if the controller cannot log on to the Webserver after 100 sequentially failed GSM Logon Cycles.

For example, if the Webserver Interval is 15 minutes, then the Communication Lost Alarm will only occur after 15 x 100 minutes = 1500 minutes (i.e. 25 hours)

DIGICHEM Plus+ Registration

Please print out and fax, or e-mail this page to Waterco to register & activate your DIGICHEM Plus+ Controller on www.digichemplus.com.

Company: _____

Authorised person: _____

Contact number: _____

Date: _____

Hold the Red button (View Settings) down for 3 seconds on the DIGICHEM Plus+ Controller to obtain the ID of the controller:

DIGICHEM Plus+ ID: _____

Service Provider: _____

SIM Card Voice No: _____

Please check the silver label on the DIGICHEM Plus+ Controller, and enter the **serial number** of the unit below. (The serial number can also be found on other silver labels either on the PVC backboard or Cabinet if ordered)

DP+ Serial Number: _____

Site Name: _____
(16 Characters max)

Controller Name: _____
(16 Characters max)