



WEBFLEX GPRS Modem Option

Instruction Manual



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1.0 Introduction

The GPRS modem option provides **remote** communications with any Webflex controller, using the Webcall method. This permits changing of set points, downloading of data files, emailing of reports, and alarm notification.

The user must obtain an **unlimited data usage** GPRS account from a cell service provider, and install the SIM card in the modem. Once the Webflex controller is programmed correctly, it will connect to our Webcall server using a secure connection over the Internet. This connection will be dropped and restored on a regular basis throughout the day as a further security measure. It will not be connected to the Internet at the same IP address for very long.

When you want to Webcall the controller, simply log onto our Webcall server, identify the controller by its phone number, and you will be instantly connected to the controller. Its unique user name and password are required to enter the controller.

The GPRS cell service is a data only plan. The modem is not capable of answering a phone call, and therefore modem-to-modem communications is not possible as it is with the landline modem option.

2.0 Installation



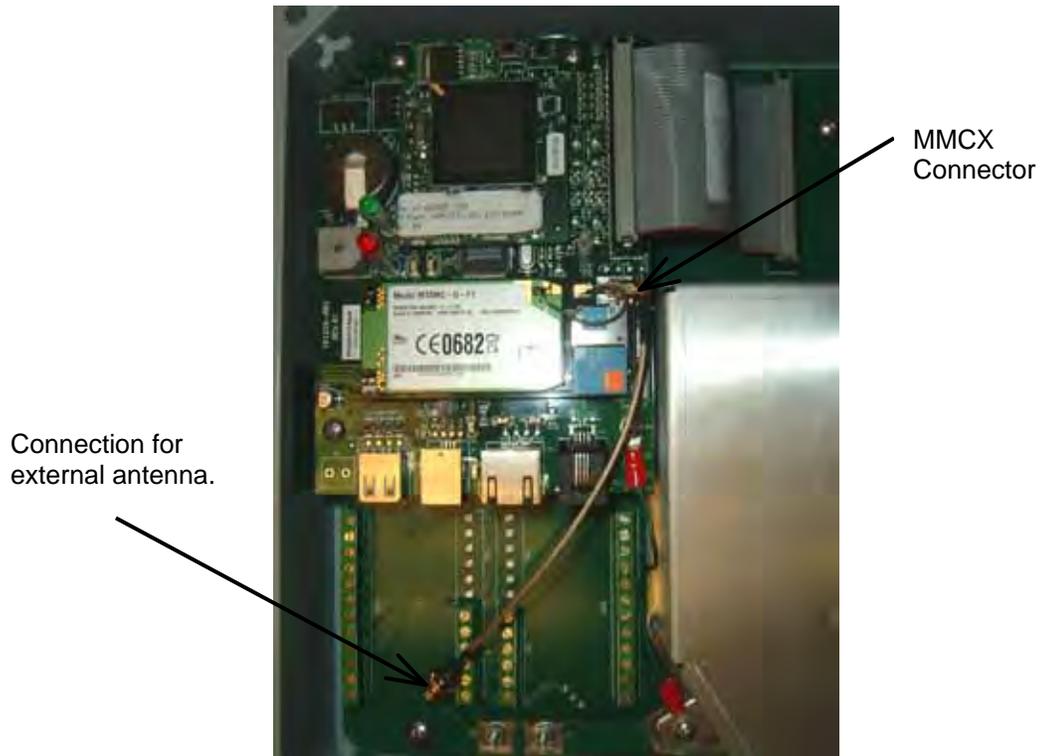
CAUTION! There are live circuits inside the controller. The front panel must never be opened before power to the controller is REMOVED!

1. Insert the SIM card into the slot as shown below. The notched corner must be oriented to match the outline silk-screened on the modem



SIM Card Installation

2. The modem has a small MMCX connector for the antenna.
3. An internal plastic antenna with an adhesive strip is commonly used, which connects directly to the MMCX connector on the modem and is affixed to the inside of the Webflex enclosure.
4. If an external antenna is being used, run the coaxial antenna cable into the controller through a watertight strain relief, and use an adaptor cable to reduce down to the MMCX connector.



Cable Installation

3.0 Programming

This section describes how to set up the controller to communicate using the GPRS cell modem.

When purchasing the unlimited data usage GPRS account, ask for the following information. The chart below shows the required information for a few typical cell service providers:

Provider	User Name	Password	Access Number	Mobile Number	Access Point Name (APN)
O2 (UK)	Web	Password	*99***1#	Ask for it	Mobile.02.co.uk
Orange (UK)	Web	Web	*99***1#	Ask for it	Oranginternet
Vodafone (UK)	Web	Web	*99***1#	Ask for it	Internet
Optimus (Portugal)	Web	Web	*99***1#	Ask for it	Internet

Power up the unit, and connect to it using USB or Ethernet as described in the controller's instruction manual.

Communications Page

In order to Webcall, the following fields need to be completed.

Controller ISP User name

Type the required user name into the text box. If the cell service provider does not require a user name, then type the word "web". The connection will fail if the text box is left blank.

Controller ISP Password

Type the required password into the text box. If the cell service provider does not require a password, then type the word "web". The connection will fail if the text box is left blank.

ISP Primary/Secondary Phone Number

Type the required access number into the text boxes.

Controller Phone Number

Type the mobile number – less the leading "0" into the text box. Use the pull-down to select the country code. If the cell service provider does not actually assign a mobile number, use the controller's serial number to serve as the unique identifier for the Webcall process.

In order to send email reports and alarms, fill in email addresses to receive the emails and also complete the following fields. Whereas the cell service plan includes Internet access, it does *not* always include an email account.

SMTP IP Address

Type the email server's IP address into the text box. Because the controller is not always connected to the Internet using the email provider as the ISP, this email server must be an Authenticated server.

Controller Email Address

Type the email address for the controller's email account into the text box.

Send Email Via:

Click the radio button for via Modem.

Click Submit to accept the changes.

Advanced Comms Page**Extra Modem Init String**

The extra modem initialization string is required to prepare the GPRS modem to communicate properly. The commands must be typed exactly as shown without any extra spaces or punctuation! The APN is the last piece of data in quotation marks in the string. Contact your cell service provider for the correct APN

The string must be:

AT+CGDCONT=1,"IP","APN" where "APN" = whatever the cell service provider gives you. e.g. For Vodafone UK the string is: AT+CGDCONT=1,"IP","INTERNET"

Secure Tunnel

Pull down arrow to select Tunnel Via Modem.

Gateway Server

Type the server address 146.115.4.198 into the text box.

Gateway Port

Set to 1194

eTap ID#

Leave blank.

ASMTTP User Name

Type the email account user name into the text box.

ASMTTP Password

Type the email account user name into the text box.

Use ASMTTP for Email

Click on the check box to select use of ASMTTP.

Click the Submit button to accept the changes.

NOTE:

Once all changes are made the controller power must be cycled off and back on for the changes to all take place.

4.0 Connecting via Webcall

After programming, before leaving the site, it is important to verify that the modem is connected to our server and available over the Internet.

Testing the Connection

Connect to the controller via Ethernet or USB, go to the Advanced Comms Page, and look at the Webcall Internet Connection section, Dial up Connection Status. If it never gets to Connection Timeout in xxxx Sec, but keeps repeatedly trying to connect, then check all the settings again. Submit "Do not use Tunnel" in Secure Tunnel Settings, cycle the power off and on and wait for 2 beeps.

Check the antenna location by using the Wireless Modem Antenna Setup. Click Start Setup and move the antenna until Suggestion says Good Signal Strength and gives a reading higher than '10', over '20' is better. Return Secure Tunnel Settings to "Tunnel via Modem", click Submit and cycle power again. Once it reboots, check the Dialup Connection Status again.

A small LED on the modem will indicate the network status. "On" permanently means the SIM has not registered on the network, flashing approximately every 2 seconds means it has. Most likely causes of not registering are poor signal strength or a PIN code request has not been cancelled.

Change back to Always Online, click Submit, and cycle power again. Once it reboots, check the Dialup Connection Status again.

Connecting

Once the controller is on line, it can be accessed via Webcall.

1. From any computer with Internet access, surf to the Webcall web site:
<http://146.115.4.198/Hycontrol/frontdoor.asp>
2. Enter user name and password: webmaster and 2001.
3. At the next screen, enter the mobile number of the controller less the leading zero. If the cell service provider does not use mobile numbers, substitute the serial number. Regardless, the number you enter here must match the number entered into the Controller Phone Number field, including the country code pull-down.
4. Once connected to your controller, enter its unique user name and password as usual at the Authentication Page.

5.0 Troubleshooting

If you are unable to connect to the controller via Webcall the only recourse is for a person on-site to connect to the controller via Ethernet or USB and look at the diagnostic status messages on the Communications Page.

Can't Webcall and No Connection in Dialup Status

Possible Causes	Corrective Actions
No connection to cell tower	Check signal strength as described above and move antenna
ISP user name or password empty	Enter a valid user name and password, and if none is required, enter the word TEST
Wrong APN in the Extra Modem Init String	Enter the correct APN for your cell service provider
Wrong ISP phone number	Enter the correct Access Number for your cell service provider
Secure Tunnel not set to Via Modem	Set to Tunnel Via Modem
Controller not restarted after making programming changes	Cycle power to the controller

Can't Webcall but Connection in Dialup Status to 10.series IP Address

Possible Causes	Corrective Actions
Wrong Gateway Server	Set to 146.115.4.198
Wrong Gateway Port	Set to 1194
Webcall server problem	Contact the factory

Can't Webcall but Connection in Dialup Status to 169.series IP Address

Possible Causes	Corrective Actions
Entering wrong controller phone number	Check accuracy of phone number
Webcall server problem	Contact the factory

Not Sending Email (but Webcall is OK)

Possible Causes	Corrective Actions
Wrong SMTP IP address	Check with your email service provider
SMTP IP address is not for an ASMTTP server	Check with your email service provider
Use ASMTTP is not checked	Check the box.
ASMTTP user name or password is incorrect	Enter a valid user name and password
No email account	Set up an email account
Controller email address is empty or incorrect	Enter a valid email address
Send Email Via is set to Ethernet	Set to Modem
Email address to send to is empty or incorrect	Enter a valid email address
Email server problem	Check with your email service provider