The AL2-GSM. 4 Alpha XL GSM Controllers
Quick Start Guide

Please ensure you read the full Mitsubishi Alpha XL Programming and installation guide to gain a full understanding of the basic functionality and programming of the Alpha. This quick guide relates only to the GSM based functions that utilise the AL2-GSM Module designed to fit within the expansion cover of the Alpha.

Note: The AL2-GSM module is only suitable for DC powered versions of the Alpha XL.
DO NOT CONNECT POWER AT THIS STAGE

Installation of the AL2-GSM Module/SIM Cards:
Read in conjunction with Contrive installation guide.

Unscrew the small cross head screw in the top right corner and carefully slide the expansion cover to the right to remove the module.

You will not be able to insert a SIM card with the gold contacts facing down. The cutout of the SIM should be near the edge of the expansion module.

As you refit the expansion cover you need to carefully push the "flying" power connector onto the plug in the base of the Alpha. Make sure this is seated correctly. Please also ensure the antennae lead is placed within the small aperture near to the crosshead screw. Now slide the cover carefully from right to left ensuring no cables are trapped and the left hand communications connectors fits into its reciprocal.
Now connect the 24VDC supply to the Alpha ensuring correct polarity is observed.
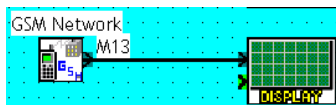You can also connect a GSM Antenna to the flying FME connector.

GSM Functions:

An example sample program is installed in the Alpha as an overview of the various functions:
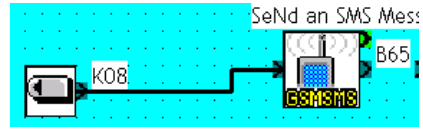
1.   Initialise Modem.
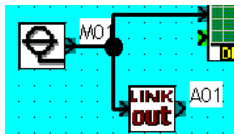
Link Function A01 needs to be activated to switch the GSM Modem ON.This can be done by triggering the block with an "Always On" contact.

2.   GSM Network Registration

GSM Network Function Block is activated when the AL2-GSM registers on the GSM Network. (This can take up to 30 seconds)

3.   SeNd an SMS Message:

The GSMSMS Function block when triggered sends the contents of the local display by SMS to the number contained within the function block. This can be triggered by any function of the Alpha (Inputs, Times, Compare, Clock/Calendar, Incoming SMS, Incoming call etc….). This gives total flexibility of when and what information to be sent by SMS. It also allows you to embed "live" variables into the messages as these can also be displayed on the local display. (eg. Temperature, Analogue Values, Counter, Hours Run, Set point Alarm etc…)

GSMSMS Fuction Block settings
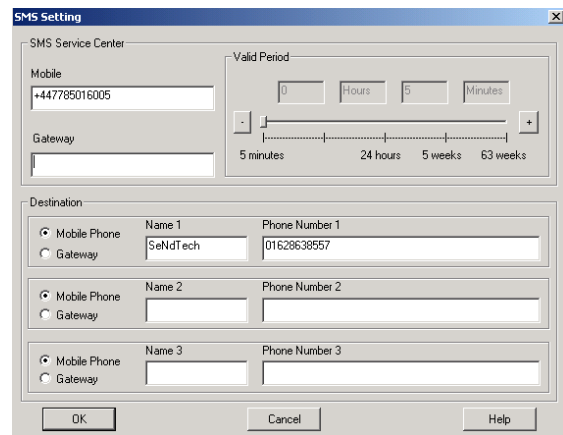
Please note the SMS service centre number should correspond to the SIM card network you are using:

O2 +447802000332 Alt: +447802000334 Alt: +447802092035	T-Mobile +447958879879
Orange +447973100973 Alt: +447973100974	Vodafone +447785016005
Virgin +447958879890	

4.SMR Function Block

This is used to monitor incoming SMS messages and perform actions based on the text string within the message. Eg – Turn Pump ON. (Send "on" via SMS)

It can also be used to pass values into registers within the Alpha . Eg set a counter threshold to 1000. (Send val=1000)
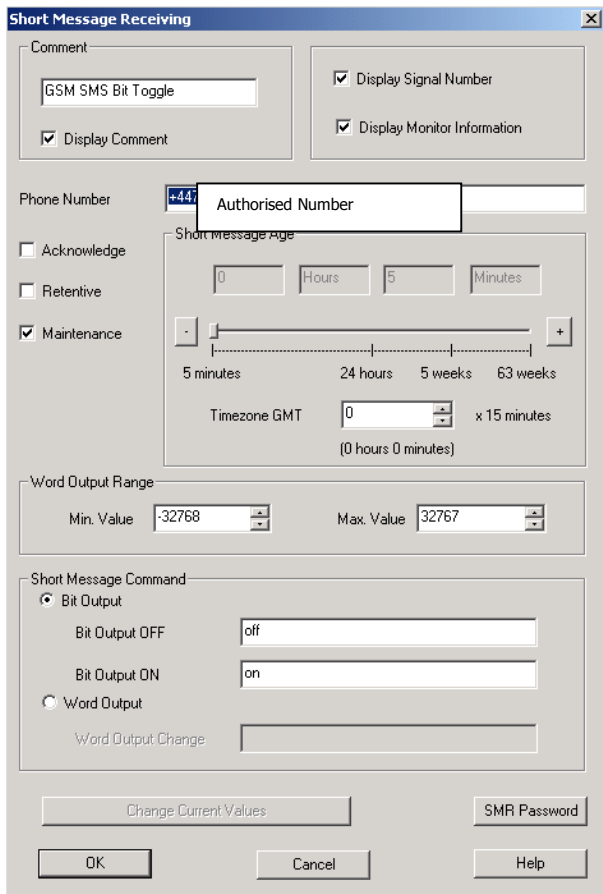
The above example allows bit output control based on incoming messages from the authorised mobile number shown in the "phone number" box only. It can also be password protected.

A word can also be passed by using the "word output" check box and entering a trigger SMS in the "Word output Change" block.

Eg if you wished to change a counter you could used the SMS command "Counter" as the trigger. The message you would send would be in the format:

Counter=10000 *(No spaces and case specific)*
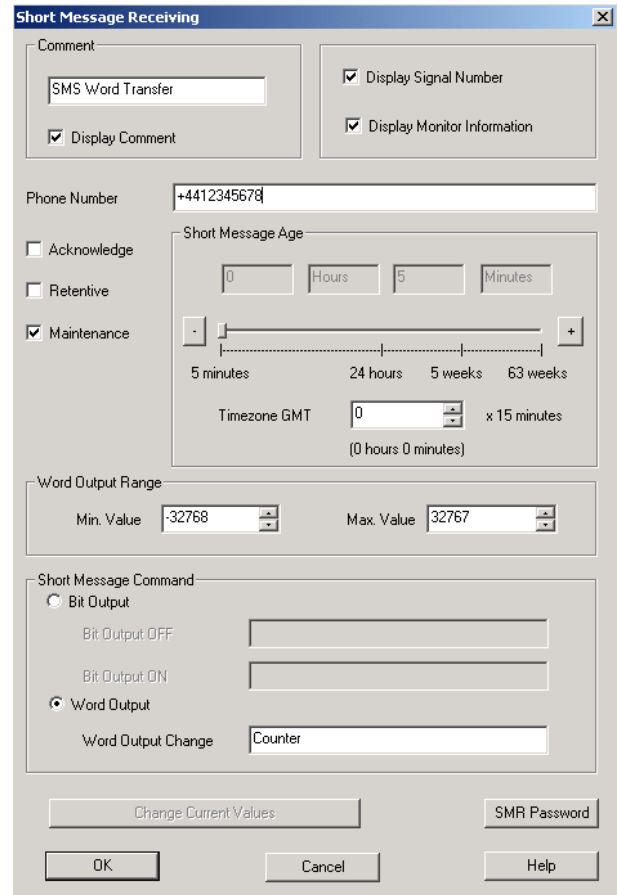
5. **Remote Access**

Using the Mitsubishi ALVS software it is possible to dial in and remotely monitor and program the Alpha XL over GSM Network. To achieve this your SIM card will need to be data enabled and you need the data number to make a data connection.

Ask your network provider for this number.

Remote Access Block (M14) can be used to show a remote connection has been made. This may be used to inhibit operation of the process/machine whilst remote connections are made.

You must ensure you are using the latest version of ALVLS software (V2.4) for this function.