

GETTING STARTED

INSTALLING THE SIM CARD

The SIM card must NOT have PIN number security enabled

If needed, put the SIM in your mobile phone to disable the **SIM PIN** security code.

The SIM card and modem are mounted piggy-back on the main controller.

To install the SIM card into your modem. Gently slide the hinged part approx. **1mm** to release and tilt the SIM carrier. It is not necessary to unplug the modem from the controller board.

Insert the SIM card (it only fits one way), gently tilt the carrier back down until the SIM feels securely located – and push the latching cover back into place - that same **1mm** to lock the SIM in place.

Ensure the SIM uses the same mobile carrier which you specified when ordering your FloodBucket. See the separate section on 'modems'.



Before connecting power or any external devices to ControlMate

Connect the cellular antenna (supplied or a 'high-gain' version).

Apply power (12-15V DC) as indicated, and wait approximately 30 seconds for the green LED to blink every second. A converter to drop from 24V or 48 V is available upon request.

Next to the 'power in' connector - if the Green *and* Red LEDs stay lit for more than a minute, check the SIM card is seated correctly.

When a 'new' modem is first connected – it may take up to three minutes before the network acknowledges the IMEI and SIM in a 'new' cell area.

Correct start-up & wireless connectivity is indicated with the green LED blinking every second.



IMPORTANT: If the unit can't *connect* to the onboard modem or to the cellular network, the controller will retry & RESET every few seconds – in ongoing attempts to reach the network.

Attaching the outboard LED panel (or optional LCD) is not critical at this stage, and will show the I/O status, not configuration details.

Send the following messages to your controller's SIM phone number.

You'll receive SMS replies for each command message that is sent...

WHEN PROGRAMMING OR OTHERWISE CHANGING THE SETUP, TAKE PRECAUTION THAT ANY DEVICES CONNECTED TO THE OUTPUT RELAYS DO NOT ACTIVATE UNEXPECTEDLY.



Let's get started

The ***asterisk** prefix is a back-door override to *ignore* the caller's number – allowing you to start working on an 'empty' controller. It's not needed once your number has been saved.

STEP 1 – CLEAR ANY OLD CONFIGURATION SETTINGS (if necessary!)

MESSAGE 1

```
*set clear all (Clear ANY previous settings)  
<reply>
```

STEP 2 – TELL THE CONTROLLER WHO YOU ARE

ControlMate uses your caller-ID number to identify who can execute commands...
We have to tell the controller who you are.

```
*set clinum 0 012345678 (your phone 'number' stored into user number 0)  
<reply>  
set cliname 0 myName mcGoo (max 16 chars as the 'name' for user number 0)  
<reply>
```

Note the ***asterisk** isn't needed once your number is stored as a 'known' user.
You can add more names and numbers (without the ***asterisk** if they're sent from your number).
Once saved, they too can send messages without the ***asterisk**.

To check if that worked... send two commands in a single message – (see, no ***asterisk**!)

```
sho cli 0 (this will reply with the values you set for user number 0 above)  
<reply>  
sho sim (will send a message back to you about the modem, carrier & SIM card)  
<reply>
```

Now... you have to work through settings in the user manual to configure ControlMate the way you want it.

Once your controller is basically setup – you may send **SET CLEAR COUNT**, which zeroes some diagnostic counters that keep track of power loss/failures, missed or failed SMS/dial-in calls, and other internal events.

For configuration support, send your questions to info@SL4P.net

STARTUP ISSUES

In most likely order of appearance

UNABLE TO STARTUP or REGISTER TO CELL NETWORK *

- Red (Attention) & Green (Activity) LEDs both stay on, with a short off every 20-30 seconds.
- The LED status panel walks across the red & green LEDs, but never reaches the 'all-on' state. This cycle steps between the 5th and 6th red/green pair several times, then attempts to restart until cell registration has completed.
- Low/no cell coverage
- Antenna location, cable damage
- SIM not installed correctly
- SIM PIN-locked
- Low supply voltage

UNABLE TO SEND MESSAGES

- Low SIM account credit – allows receive only
- Low/no cell signal coverage
- Administrator must enable INSMS or OUTSMS for CLI users.
- Corrupted ON/OFF message text (known bug in older units – re-set the INON and INOFF text)

UNABLE TO RECEIVE COMMANDS

- Invalid Caller-ID from sender – a query will be returned to the caller.
(Can't match any CLI members)
- Low/no cell signal coverage

* COVERAGE & CONNECTIONS

There are several mobile bands between 850 and 2100 MHz– spread randomly among different carriers in different regions. This is the reason we provide two optional modems – one is generally suited to Telstra regions, and the other to Optus/Vodafone networks (and their affiliates).

The 1800-2100 MHz bands are rarely useful in outlying regional areas.
Telstra has the widest 800-950 MHz coverage in rural locations.

To 'connect' to the cellular network (slow blink green Activity LED), a SIM card must be installed – but that only permits the modem to 'connect' – not to send or receive.

If the account has been *activated* – with most carriers, the controller can 'receive' messages.

But ONLY if the SIM account is in credit – can the unit send messages.

For these reasons – you may be able to send commands to the controller – and they will be acted upon, but the controller is unable to reply or send messages back to you or any other CLI member.

To locate nearby mobile cells within Australia – visit <https://www.rfnsa.com.au/>

AUSTRALIAN MOBILE NETWORKS

The modems used in ControlMate are developed for a global market – and as such, Australian carriers straddle various ‘bands’ in different regions. It doesn’t make it easy, but it is *almost* logical. Commercial interests reign. The choice of modem is partially dependent on whether you are using the Telstra, or Optus/Vodafone 3G networks.

IMPORTANT:

Starting 1st December 2016, Australian telco’s will be progressively turning off the legacy 2G mobile network.

- Primarily Telstra 3G – order the [A] modem (see table below)
- Primarily Optus/Vodafone 3G – order the [E] modem

Exceptions shown *	A modem ALL 850/900 *	E modem OPTUS & VODA	J modem SPECIAL ORDER
Telstra	850MHz	*2100MHz	850MHz 2100MHz
Optus & Virgin	900MHz *2100MHz	900MHz 2100MHz	*2100MHz
Vodafone	850MHz	900MHz 2100MHz	850MHz 2100MHz

Band	Frequency Band (MHz)
1	2100
3	1800
5	850
7	2600
8	900
28	APT 700
40	2300

Visit <https://www.rfnsa.com.au/>

for detailed location maps and service info for all Australian cell towers.