

CYCON-1280-4G Quick Start Guide

For use with digital inputs / relay output

August 2019 – for firmware version 2.2.1

1. Preparing and connecting the unit

Make sure you know the phone number of the new SIM. Use a full “standard” size SIM, with SMS capabilities enabled (most voice enabled SIMs allow this). Insert the SIM into the slot, following the orientation printed on the front of the CYCON unit. Push it inside until you feel it “click” and it should lock in place.

Refer to the user manual for wiring details. Here’s a quick summary:

- Connect the antenna to the socket marked “GSM”.
- Connect the 24-way plug into the matching socket.
- Connect the coloured wires coming from the 24-way plug to wire up your sensor or equipment that is producing an alert signal.
 - For Digital input #1, the wire colour is dark blue with black stripe (on the plug it's the 4th pin from the left on the bottom row, as you face the CYCON unit.)
 - For Digital input #2, the wire colour is red (or dark pink) with grey stripe (on the plug it's the 5th pin from the left on the bottom row, as you face the CYCON unit).
 - For the other inputs please refer to the user manual.
 - For a dry contact you need to connect the other side of the contact to the DC power supply. You can use the red wire with blue stripe as the DC power supply connection for this (bottom right hand corner pin).
 - For the relay output: Relay common wire is orange with white stripe. NC connection is red with brown stripe. NO connection is blue with red stripe.
- Remove the 4-pin loop plug (battery backup models only) from the CYCON. Plug in the mains adaptor’s 4-pin plug into the 4-pin socket of the CYCON.

2. Power-up check

Check that the LEDs light up on the front of the CYCON unit. There should be a yellow LED flashing slowly all the time, and an orange LED flashing from time to time. If you don’t see LEDs on, check your power connection (for DC power please also check that you’ve connected the correct wires to the +DC power and ground).

If you have inserted a valid SIM card and the unit has registered on the mobile network then you will also see a green LED on. If there is an issue with the SIM card (eg. if it requires a PIN, or if it’s not valid) then a red LED will light.

3. Check connectivity

Use your phone to send an SMS text message to the unit (sending to the phone number of the new SIM Card). The SMS should contain the following:

#ver

If everything is working correctly you should receive a reply via SMS within a minute or two, confirming the model number and firmware version.

4. Check the inputs are connected and working

Before you configure the CYCON unit, it’s a good idea to confirm that the correct inputs are connected up and working. Send the following message to the unit:

#dio

It will respond with a list of the digital inputs and their states (high or low).

Now force a change of state to each input that you've connected, by switching on/off equipment etc, and send the #dio command again. Confirm whether the input you've wired up now shows a different state. Note which DIO input numbers change state, so you can configure the correct alert message to suit.

If the inputs do not change state as expected, check your wiring of the inputs on the 24-way plug/cable.

5. Set up message recipients

Message recipients are arranged in groups. To add a new recipient for receiving alerts, add them to group "a" by sending the following message to the unit:

#group a add 0411111111

(replacing the phone number with the desired recipient number). The device will send back an "OK" message to acknowledge if you have done the command correctly. You can add up to 16 recipients to each of groups a, b, c and d. If you later want to remove a phone number from a group, just use the "#group a del 04111111" command.

6. Set up the site identifier / title

Normally when the device sends alerts, you'll want it to include information about which site it's on, so recipients know where the alarm has occurred. This is done by setting the title to a suitable text string. To set the title, send a message to the device as follows:

#title Pumping Station 1

(replace "Pumping Station 1" with your own site identifier). The unit should send back a response indicating the command was OK.

7. Set up the alert messages

Now you need to set up the actual message text to be sent when each input changes state. You had checked which inputs are connected in step 4 above. Now configure an ON and OFF (or High / Low) message for each input. To configure the ON or HIGH alert message, send the following:

#rpmsg d1 hi a Input #1 is HIGH!

Where you can replace "d1" with whichever input you need to (d1 through d7), and replace "Input 1 is HIGH!" with the alert text you want it to send. "hi" indicates this is the message to be sent when the input voltage goes high. "a" indicates the message is to be sent to group a – you can replace it with b, c or d if you're using a different group.

Similarly for an alert when the input drops back to a low state, send:

#rpmsg d1 lo a Input #1 is LOW!

Repeat this for all the inputs you need to be alerted of.

8. Set up power supply outage alerts (battery backup models only)

If you bought the unit with backup battery, you can also enable it to send you SMS alerts when the power supply drops out. This is simply done by sending the following message:

#group a power on

9. Save the settings

After the configuration is done and you've received the response messages from each command, be sure to save the settings by sending this message:

#save

If you need to make changes afterwards then be sure you save it every time.

10. How to switch on/off the relay remotely

To switch on the relay, send it the following message:

#relay on

To switch off the relay, send it the following message:

#relay off

11. Optional: Set up security

To prevent unauthorised people from being able to send commands to the CYCON unit, you can enable security. This restricts it to only respond to messages from people in specified groups.

- First you need to add all the phone numbers you want to allow, to a group, using the “#group” command as above. Make sure your own phone number is also added to the group.
- Then set security to only allow the group you want:
#security group b
(replacing “b” with all the groups you want to be able to send commands, separated by spaces – eg. “#security group b c d”)
- Then enable security:
#security on
- Then save the settings:
#save