

All Round Cabling Solutions

NEOS3003-3G01

Operating Manual



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NEOS 3003-3G01

Supports 3G/UMTS 800/850/900/1900/2100 MHz bands

Telstra-Vodafone-Optus supported in all areas.

*

The Aristel logo is displayed in white text on a blue square background. The word 'Aristel' is written in a bold, sans-serif font.

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Introduction

Thank you for purchasing the **NEOS3003-3G01A** product from Aristel Networks Australia.

The **NEOS3003** enables you to take advantage of lower cost call plans.

You can reprogram the system at any time that you:

1. Change your mobile contract
2. Need more mobile phones
3. Change any of your mobile numbers
4. Or any other reason

No technician "service visit" is required for programming. You can do it yourself very simply.

Parts List

| DESCRIPTION | QUANTITY REQUIRED | STANDARD (INCLUDED) | OPTIONAL (NOT INCLUDED) |
|--------------------------|-------------------|---------------------|-------------------------|
| NEOS3003-3G01A | 1 | YES | |
| DC 12V/1.5A adapter | 1 | YES | |
| MALE SMA antenna | 1 | YES | |
| Operating manual | 1 | YES | |
| TC12-6000 battery backup | 1 | NO | YES |

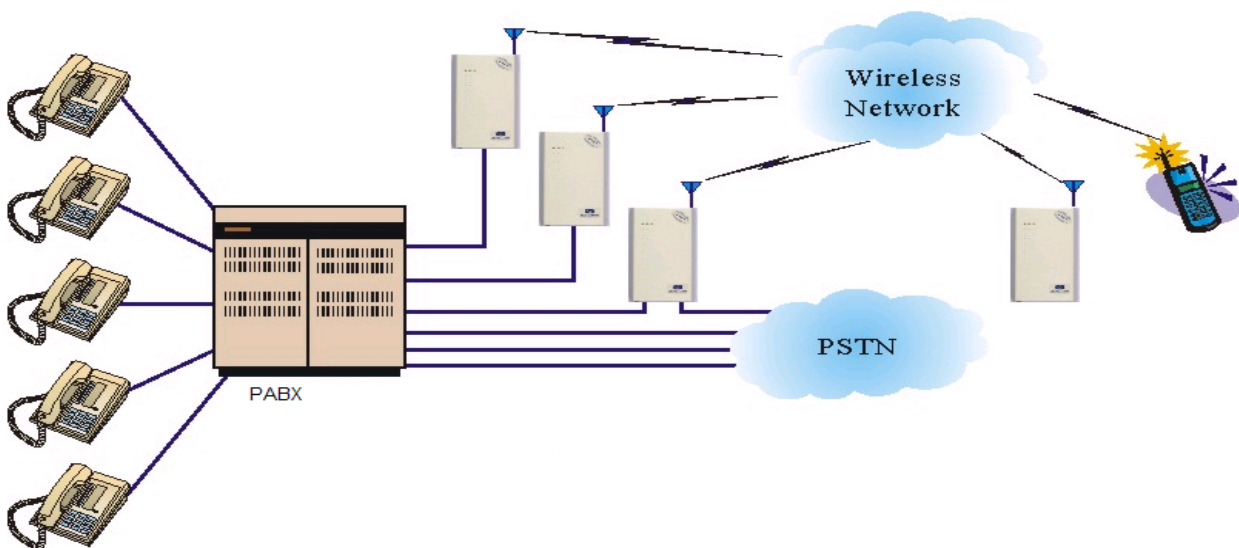
System architecture

Suitable for GSM networks operating in 900/1800 MHz bands and for Voda, Telstra Next G & Optus dual 3G networks utilising the 850/900/2100 MHz UMTS bands.

Australian standard dial tone, ring tone and ring cadence are supported.

Comfort tone is provided during call set up.

Supports high quality voice calls for PBX systems and data transmission for alarm systems.



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Warning

1. In the event of a mains power failure, this device may be unable to make or receive phone calls.
2. For 000 emergency calls, the PBX should be programmed to route these calls via the fixed PSTN or ISDN lines connected to the PBX systems.
3. If an inactive SIM or no SIM card is available, this device can make emergency 000 and 112 calls via the cellular network.

Installation

1. SIM card installation (Fig 1)

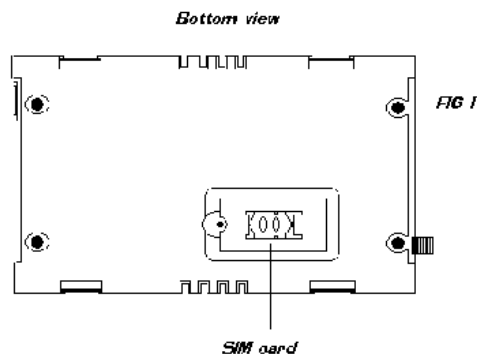
- 1.1 Disconnect the 12V adaptor from the NEOS3003
- 1.2 Remove the SIM card cover from the bottom of the unit
- 1.3 Slide the SIM card holder towards the front of the unit
- 1.4 Lift up the holder
- 1.5 **Before inserting the SIM card, ensure that it is not PIN number locked. (If locked, use a mobile phone to unlock it).**
- 1.6 Insert the SIM card (Note orientation of notched corner)
- 1.7 Replace holder and slide towards the rear of the unit to lock in place
- 1.8 Replace cover and power adaptor

2. Connecting the Antenna (Fig 2)

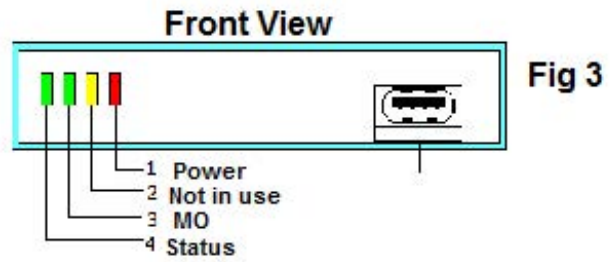
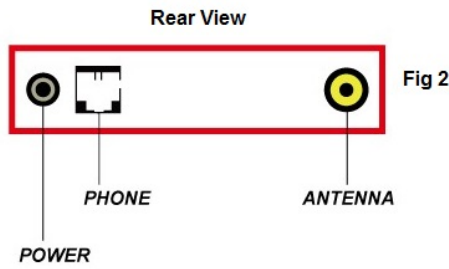
- 2.1 Screw on the antenna cord to the connector on the rear of the unit
- 2.2 Place antenna away from electrical/electronic systems (computers, microwave ovens, etc.)

3. Connecting to a PBX, Elevator phone/intercom, alarm system or analogue phone

- 3.1 Plug your device into the connector marked PHONE. Go to step 3.3
- 3.2 If connecting to a phone system, elevator phone or alarm system, plug into the connector marked PHONE.
- 3.3 Connect the power adaptor into the connector marked PWR
- 3.4 The red POWER indicator should be on.



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LED status indicators (FIG 3)

| LED Position | LED colour | LED Activity | Description |
|--------------|----------------|---------------------------------|---|
| 1 (POWER) | RED | ON OR OFF | DC POWER IS ON OR OFF |
| 2 N/A | YELLOW | ON | Not Used |
| 2 N/A | YELLOW | OFF | Not Used |
| 2 N/A | YELLOW | FLASH 0.5sec ON / 0.5sec OFF | Not Used |
| 3 (MO) | GREEN | ON | The Mobile line is idle |
| 3 (MO) | GREEN | FLASH 0.05secON/0.05secOFF | The Mobile line is in use |
| 3 (MO) | GREEN | FLASH 2.5sec ON / 0.5sec OFF | The circuit is busy Number Unobtainable(NU) Tone |
| 3 (MO) | GREEN | FLASH 0.375secON/0.375secOFF | The Mobile line is disconnected |
| 3 (MO) | GREEN | OFF | No SIM Card |
| 4 (STATUS) | GREEN | FLASH 0.5sec ON / 0.5sec OFF | 3G NO SIM CARD OR NETWORK SEARCHING |
| 4 (STATUS) | GREEN | FLASH 0.01sec ON/3.99sec OFF | IN SERVICE |
| 4 (STATUS) | GREEN | FLASH 0.01sec ON/0.99sec OFF | CALL IN PROGRESS |
| 4 (STATUS) | GREEN | FLASH 0.01sec ON/1.99sec OFF | DATA TRANSMISION |
| 4 (STATUS) | GREEN | OFF | 3G POWER OFF |
| 3 | GREEN & YELLOW | FLASH 3 PER SECOND | SET-UP MODE |
| 3 | GREEN & YELLOW | FLASH ¼ SEC ON & ¾ SEC OFF | PROGRAMMING MODE |

Using the NEOS3003

Stand-alone (no Telephone System)

Programme the codes to be sent to Mobile network

Lift off the handset.

Listen for dial tone. (Check system connections if no dial tone is heard)

Dial the desired number.

Connected as an exchange line on a Telephone System, alarm system or elevator phone

Select the exchange line connected to the NEOS3003 (Manual or Auto LCR)

Listen for dial tone. (Check system connections if no dial tone is heard)

Dial the desired number.

NOTE! If using a system, the NEOS3003 can be left in the default condition. No programming is required.

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Entering programming mode

Plug an analogue telephone (SLT) into the "PHONE" socket and lift off the handset. You will hear continuous dial tone. Dial * * * * #. You will hear "Beep, Beep, Beep" repeated continuously. The green and yellow LEDs flash. You have 8 seconds to enter the password. Enter the password (default = 1234#) you will hear a "Der" tone (this is "set-up" tone) repeated every 2 seconds. The green and the yellow LEDs will slow flash.

System programming can now be commenced. See chart below. If a feature is correctly programmed, the green and the yellow LEDs will flash once and a Beep tone will be heard. If the input was incorrect, the green and the yellow LEDs will flash three times and three Beep tones will be heard. If you make an incorrect entry, hang up for less than 2 sec. to return to set-up mode To end programming, hang-up for more than 2 sec. or press * * 0 0 #

Programming Features

Factory Default Settings

Press 9 9 9 to reset the unit back to Factory Default Settings

| Feature | Function Code | Description |
|--------------------------|-------------------|--|
| Setup Mode | * * * * # | Enter the setup mode from the normal mode. Pick up the phone handset and you will hear the dial tone. Press F * * * * # to enter setup mode. Press the engineer password to enter the programming mode in 8 seconds. Otherwise it will escape the setup mode and return to the normal mode. |
| | * * 0 0 # | Escape the programming mode and return to the normal mode. When programming is finished please press F * * 0 0 # to escape the setup mode and you will hear the dial tone and return to the normal mode. |
| | SECRET | Original manufacture password. You can use the original password to enter programming mode if you lose the engineer password. |
| Password | 0 X X X X X X X # | Set the engineer password. It is 4 to 8 digits not including #. The default is F 1 2 3 4 # . Example: Set 0 8 7 6 5 4 3 2 1 #, the password becomes 8 7 6 5 4 3 2 1 # from 1 2 3 4 #. |
| | 9 1 3 | To disable press the engineer password. Don't press the engineer password after pressing F * * * * # to enter programming mode directly. |
| | 9 1 4 | To enable press the engineer password. You need to press the engineer password after pressing F * * * * # to enter programming mode. |
| Permissible Dialling | 9 1 5 | Disable the limited dial of a permissible dialling number. It is the default. You can make any call from a mobile trunk limitlessly and the routing function deactivates. |
| | 9 1 6 | Enable the limited dial of permissible dialling number. You can only call through a mobile trunk when the prefix of a number matches the permissible dial number without a PSTN line. Routing function: The matched numbers are called through a mobile trunk. |
| | 8 0 X X X X # | Add the new permissible dialling number (without PSTN line). The permissible dialling number is 1 to 4 digits and up to 50 sets. Example: Set 8 0 9 1 2 #. The numbers of 0912xxxxx go through a mobile trunk. |
| | 7 0 X X X X # | Delete the saved permissible dialling number (without PSTN line). |
| | 9 9 8 | Delete all the saved permissible dialling numbers (without PSTN line). |
| Time limit & Call signal | 9 0 0 | Disable outgoing time limit. It is the default. |
| | 9 1 1 | Disable break in the call. NEOS will emit the reminding tone on 30 seconds before ending and keeping the call until break. |
| | 9 1 2 | Enable break in the call. NEOS will emit the reminding tone on 30 seconds before ending and break the call at the end. |
| | 9 0 X | Set the time of one outgoing call. X is 1 to 9 minutes. The default is 3 minutes. |
| | 9 6 5 | Disable the counting signal for SCM50. |
| | 9 6 6 | Enable the counting signal for SCM50. It should be enabled when coupling SCM50. |
| | 9 6 3 | Disable the polarity reversal for outgoing call. It is the default. |

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|------------------|---|--|--------|---------------|-----------------|
| | 9 6 4 | Enable the polarity reversal for outgoing call. | | | |
| | 9 6 7 | Disable the polarity reversal for incoming call. It is the default. | | | |
| | 9 6 8 | Enable the polarity reversal for incoming call. | | | |
| Tone Frequency | 9 6 0 | Set the dial tone as 425X25Hz. | | | |
| | 9 6 1 | Set the dial tone as 425Hz. | | | |
| | 9 6 2 | Set the dial tone as 400Hz+425Hz. It is the default. | | | |
| | 9 2 7 | Disable the false ring back tone. It is silent without the reminding tone (DU DU) and false ring back tone. | | | |
| | 9 2 8 | Set the reminding tone (DU DU) after dial. | | | |
| | 9 3 3 | Set the reminding tone (DU DU) then false ring back tone after dial. | | | |
| | 9 3 4 | Set pseudo ring back tone after dialling. There is no reminder tone (DU DU). It is the default. | | | |
| | 9 3 9 | Set the pseudo ring back tone as 400Hz. | | | |
| | 9 6 9 | Set the pseudo ring back tone as 440Hz+480Hz. It is the default. | | | |
| | 9 2 9 | Set the reorder tone as 400Hz after the calling party ends the call. | | | |
| 9 3 0 | Set the reorder tone as 480Hz+620Hz after the calling party ends the call. It is the default. | | | | |
| Speed Dial | 5 7 3 | Disable speed dialling through phone book of SIM. It is the default. | | | |
| | 5 7 4 | Enable speed dialling through phone book of SIM. | | | |
| | 5 2 X | Set the speed dialling code. X is 0 to 9 and *. * is default. Example: Set 574 and 52*. When you dial * 1 0 NEOS will call by the 10th number of SIM through the mobile trunk. | | | |
| Transfer Dialler | 6 5 X # | Set the forward number on busy. X is the forward number from 1 to 10 digits. 65*# cancels the function. | | | |
| | 6 3 X # | Enable dialler function for mobile international calls. NEOS will transfer the international call through the mobile by specified operator. 63*# cancels the function. Example: Set 6 3 3 #. When dial 0 0 2 8 6 2 9 8 2 0 3 1 5 6, NEOS will call 0 0 3 8 6 2 9 8 2 0 3 1 5 6 through the mobile. | | | |
| | 5 8 X | Enable auto-add number function. X is the add number - only 1 digit. 58*# cancels the function. | | | |
| Others | 6 2 X # | Reserved | | | |
| | 9 3 1 | Disable barring an incoming call. NEOS will ring when an incoming call occurs. | | | |
| | 9 3 2 | Enable barring an incoming call. NEOS will bar the call when an incoming call occurs. It is the default. | | | |
| | 9 1 7 | Enable call waiting. You can press HOOK or FLASH to hold the call and answer the other call. | | | |
| | 9 1 8 | Disable call waiting. It is the default. | | | |
| | 9 9 9 | Restore the factory defaults. | | | |
| Network | 6 7 X X X X X # | Enable searching specified network. X X X + X X X is the MCC+MNC. XXXXX and XXXXXX both are available. | | | |
| | 5 7 2 | Enable the RSSI (received signal strength indicator). When you set 572 please check the LED of MO and CO as below. Press # to escape. | | | |
| | | MO LED | CO LED | RSSI | Network Quality |
| | | ON | ON | -51db ~ -64db | BEST |
| | | ON | OFF | -65db ~ -82db | BETTER |
| | | OFF | ON | -83db ~ -95db | GOOD |
| OFF | OFF | -96db ~ | POOR | | |
| 9 3 7 | Disable caller line identification (CLI). Enables calling party to prevent presentation of its line identity to called party. | | | | |

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| | | |
|---|---------------------------------|--|
| | 9 3 8 | Enable caller line identification (CLI). Shows the number of calling party. It is the default. |
| | 5 3 X | Adjust the volume of receiver. X is 0 to 4. 5 3 3 is default. It represents level 3. |
| | 6 0 X # | Adjust the volume of transmitter. X is 0 to 4. 6 0 2# is default. It represents level 2. |
| | 6 4 X # | Set the code of caller ID. X : * = cancel 1 = DTMF. 641# . It is the default. 2 = V.23 FSK 3 = BELL 202 |
| | 9 2 3 | Disable assign specified carrier of SIM. It is the default. |
| | 9 2 4 | Enable assign specified carrier of SIM. NEOS calls through the same carrier of the SIM only. If you change SIM to a different carrier NEOS will bar the call. |
| | 5 9 1 | Disable assign specified SIM. It is the default. |
| | 5 9 2 | Enable assign specified SIM. NEOS calls through the SIM only. If you change to another SIM, NEOS will bar the call. |
| Technical Programming | 9 5 X X # | Set the waiting period after dialling. X X is 00 to 83 seconds. The default is 57 seconds. 9557# |
| | 6 9 X X # | Set the times of fake ring back tone. X X is 01 to 99 times. The default is 20 times. 6920# |
| | 5 4 X | Set the delay period between dialled with fake ring back tone. X is 1 to 9 and * (=10), unit is 0.5 seconds. Default is 3, the time period is 1.5 seconds. 543 |
| | 5 0 X | Set the interval of number to number of dial. X is 0 to 9 seconds. Default is 4 seconds. Set 5 0 0 is 0.5 seconds. 504 |
| | 5 1 X | Set the send delay time. X is 0 to 9 seconds. Default is 0. It represents 0.5 seconds. 510 |
| | 9 4 X X # | Set the digits of send number. X X is 02 to 31 digits. The default is 9431# |
| Hot Line | 32X# | X=0, Disable the Hot Line function. X=1, Enable the Hot Line function. 320# |
| | 33X# | X= Hot Line Number, Set the Number from 3 to 13 digits. |
| Call waiting feature – The function codes below are for cellular calls only. 917 enable this function and 918 disable. | | |
| Make 2 nd Call | ** + "Insert Number" + # | Make a second call during a call. |
| Conference | 0 | Add a held call to the active calls in order to set up a conference (multiparty) call. |
| Release waiting call | 1 | Release all held calls or set User Determined User Busy (UDUB) for a waiting call. |
| Active waiting call | 2 | Terminate all active calls (if any) and accept "the other call" as the active call. |
| Call waiting | 3 | Place all active calls on hold (if any) and accept "the other call" as the active call. |
| Held Call time | 433XX# | Set the held call by Flash for incoming call. It is suitable for without PSTN line. The call is held until the time is end or flash. XX=01~99 seconds. XX=00, it means return the call after flash. |
| Flash detect time | 421X# | Set the flash detect time. X=1~9 *100ms, X=0, it means 1000ms. |
| Emergency | 112 or 000 | If there is no SIM, or the SIM is inactive, you can make an emergency call. When you pick up the phone you will hear dial tone for 15 seconds then Do Mi So tone. |

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FREQUENTLY ASKED QUESTIONS

1. The Power light does not come on after power up.

Check the power adapter and power cord/socket for correct operation

2. How do I check the LED status?

Check figure 3 on page 4

3. When I pick up the phone I cannot hear dial tone.

Check that the phone is OK and operating correctly

Check that the phone line (cord) is connected

Check the pattern of the LED lights for more information in figure

4. When I pick up the phone I hear musical tones. (Do Mi So tone)

The SIM is not registered to the network

The SIM is not operating correctly. Plug it into a mobile phone and check for operation

It may be PIN locked.

5. I cannot hear the other party's voice.

Retry the call. It could be a network connection problem

The signal strength may be too low for proper transmission and reception. Relocate the antenna

6. When I dial the mobile number, there is no answer.

Mobile network is still searching for mobile phone

Check that line and antenna are connected correctly

7. I cannot dial via the PBX system

Power off the NEOS unit. If you cannot make a call via the PBX, the connection to the PBX or

The PBX may be faulty. Consult your local PBX dealer.

If you can make a PBX call with the NEOS powered off, consult your NEOS dealer

8. I need battery backup for use with an elevator intercom or an alarm system.

When ordering a NEOS 3003 also include a NEOS BATTERY. In the event of a power outage, this will power the device for up to 8 hours.

Contact Us

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Authorised Dealer