

Testing an Ethernet port

Disclaimer

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The following procedure is the test sequence to confirm whether an Ethernet port is working correctly (Windows 10 / DOS Laptop shown)

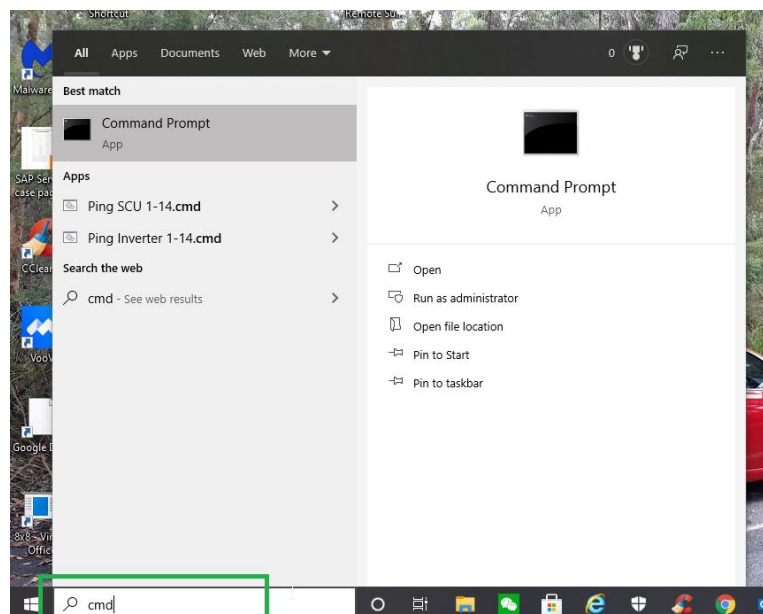
Applicability: SH5K series or any Sungrow device with an Ethernet Port.

You will need the following equipment:

- Laptop with Ethernet port.
- Patch lead.

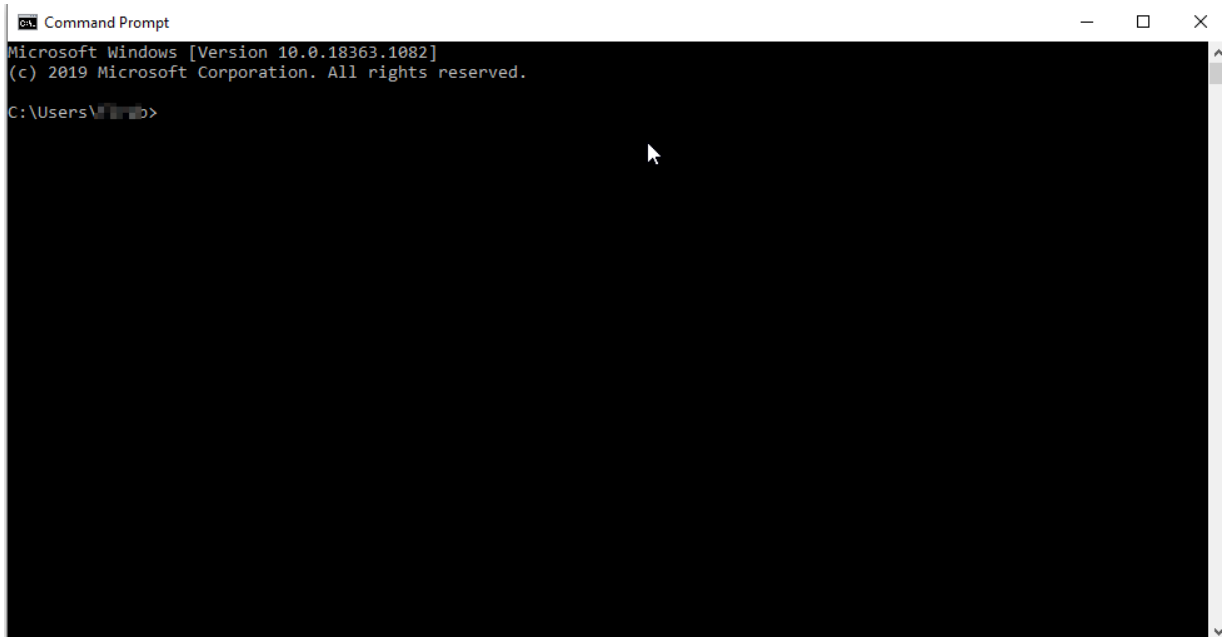
Before you proceed, you can do the following test to confirm your laptop ethernet port is functioning:

Open up the Command prompt by typing “cmd” into the search (or RUN) window on the bottom left.



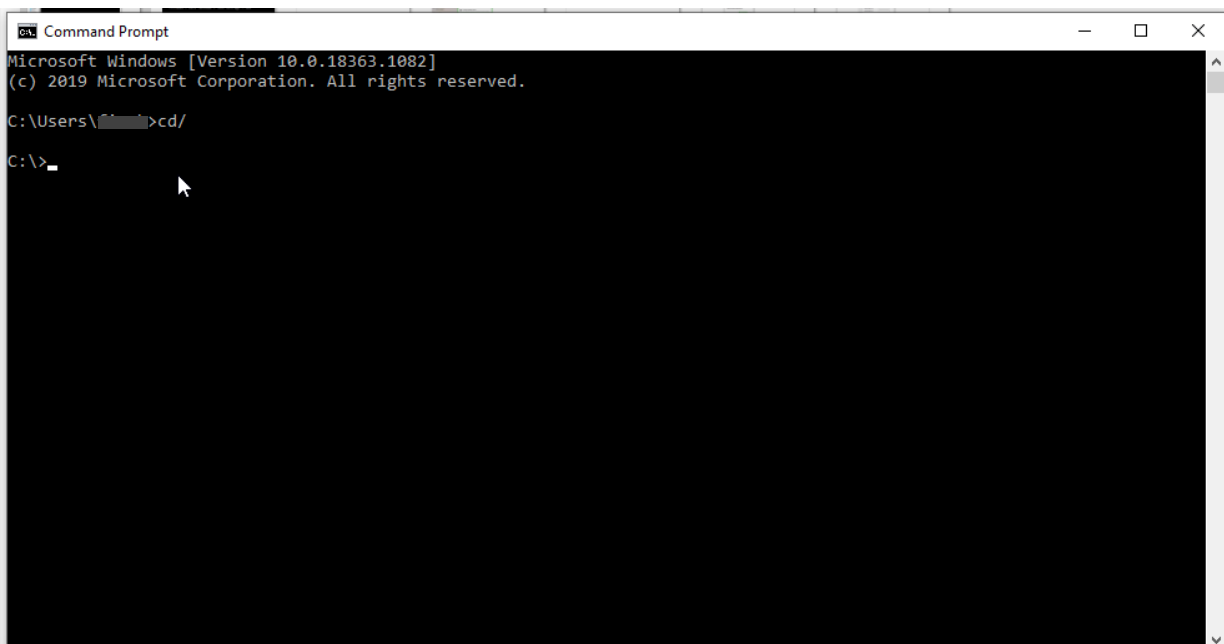
Picture 1 – Finding the command prompt

Click on 'Command Prompt and it will open a DOS window



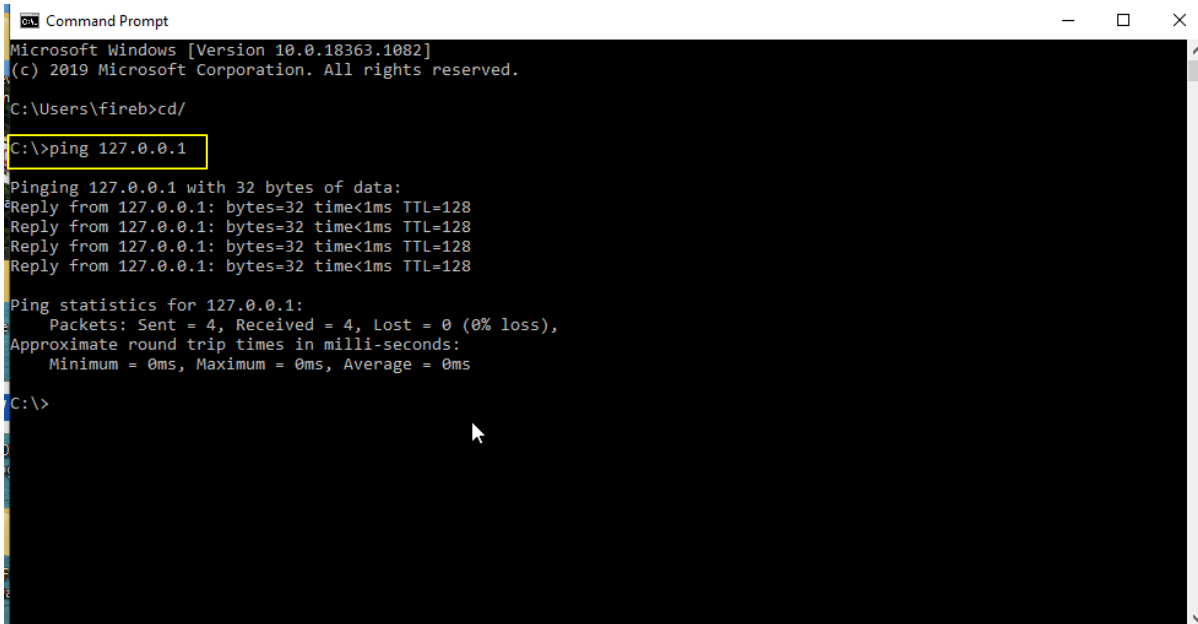
Picture 2 – Command prompt

Type `cd/` and then 'enter', and you will then be in the root directory (`C:/>`)



Picture 3 – Root directory (C drive)

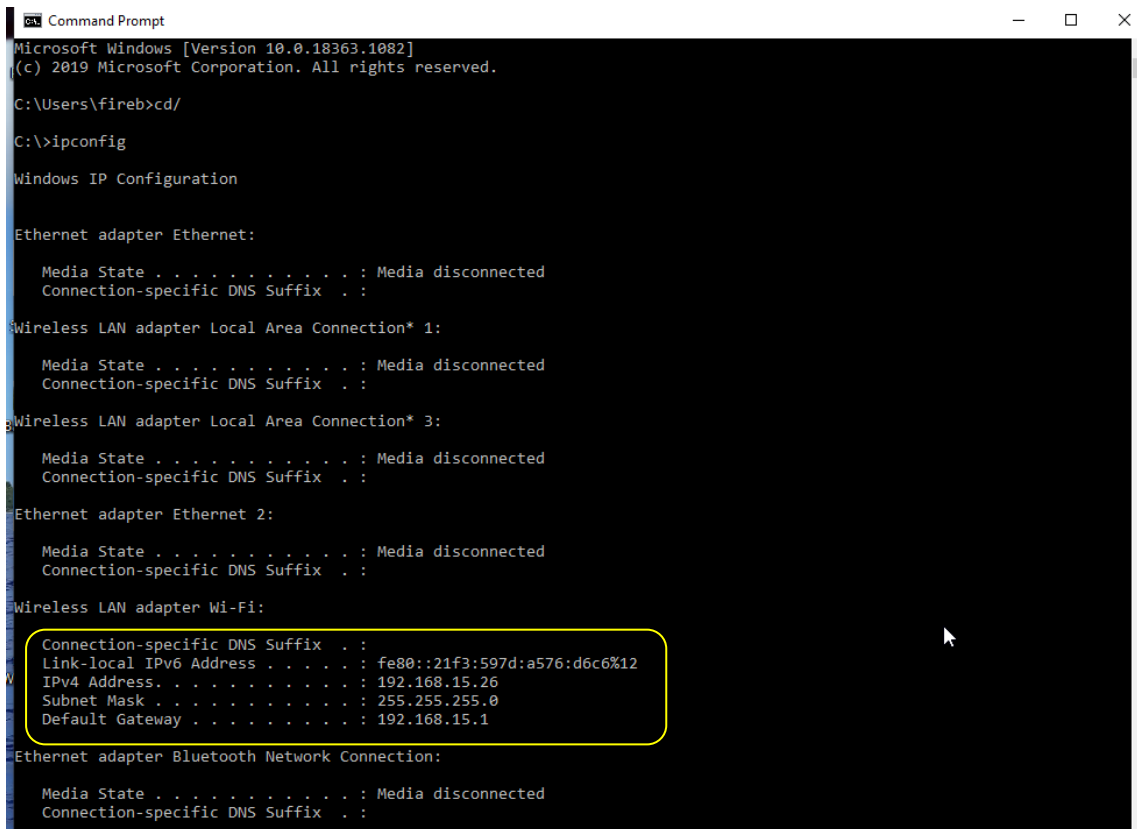
Type in `ping 127.0.0.1` and 'enter'. This is a loopback test to check your internal adaptor.



Picture 4 – Successful test

Check your Laptop IP address (Option 1):

In the command prompt window, type *ipconfig* and enter. The IP address will be shown.

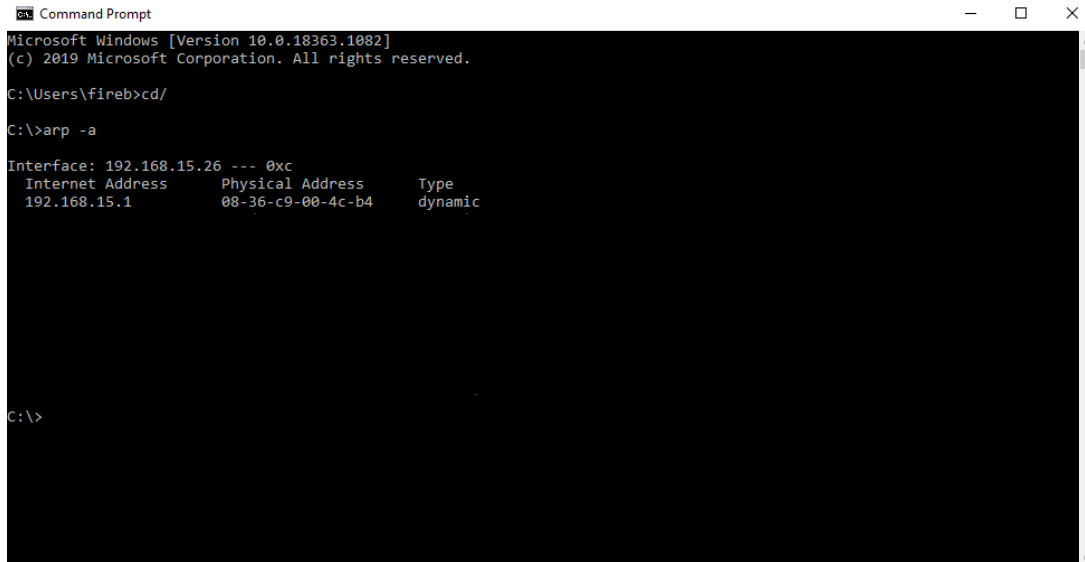


Picture 5 – Your laptop IP address (192.168.15.26).

Connect the ethernet / patch lead between the laptop and the device.

To scan all devices connected on the network, type in `arp -a` (Ensure there is a space between arp and the hyphen).

The Inverter should be listed here:



Picture 6 – Example connected IP device address

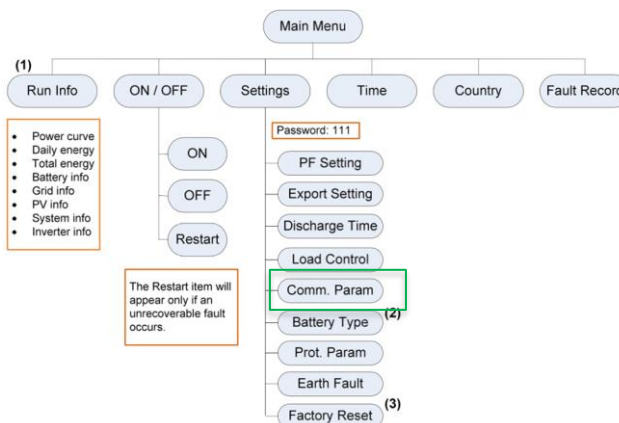
Check that the IP address of the device under test is on this list.

Before you do a ping test, the IP addresses of the laptop and inverter need to be in the same range i.e. 192.169.15. xxx.

Either the inverter or the laptop IP address can be changed.

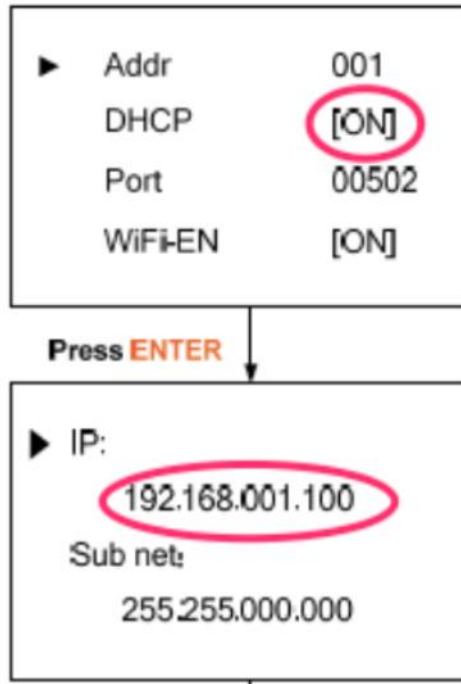
xxx can be anywhere between 1 and 254, but they cannot be the same.

To check / change the IP address on the Hybrid inverter, use the following procedure, accessing the information from the LCD display:



Picture 7 – Menu tree of Hybrid inverter

Main Screen (Press ENTER)→Menu (Press >×2)→Settings (Press ENTER)→ Inputting password 111 (Press ENTER)→Settings (Press >×4)→Comm. Param (Press ENTER)



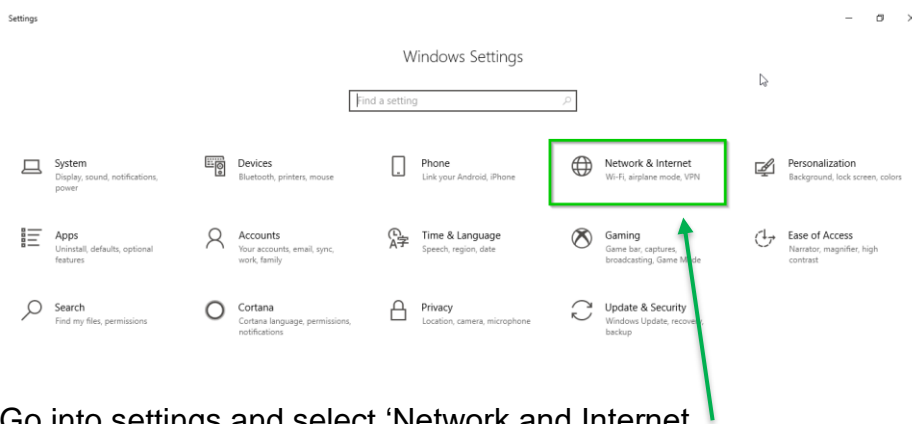
Picture 8 – IP address info

Setting the IP addresses:

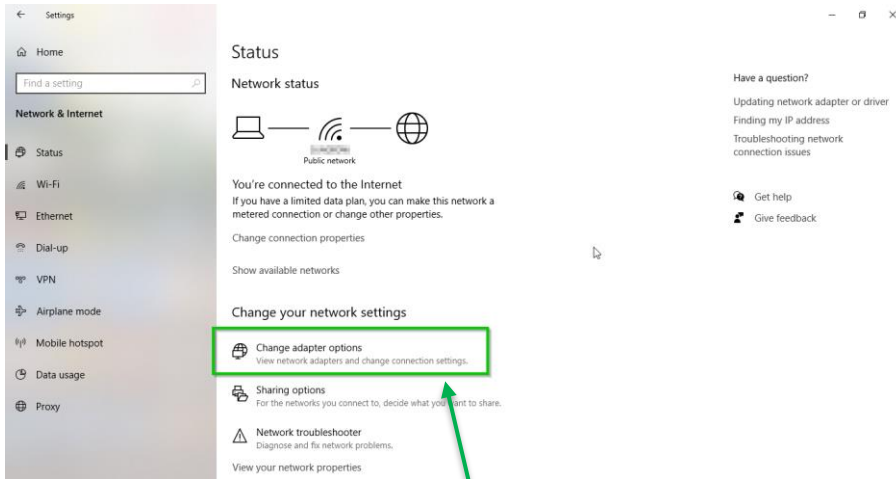
You can set the DHCP to 'OFF' and then manually enter the IP address to suit your laptop.

Or you can change the laptop IP address (option 2) to suit the inverter.

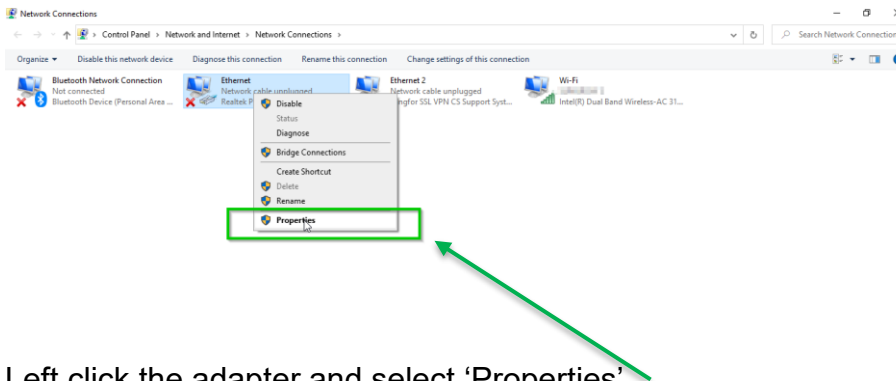
To change your laptop adapter settings, use the following procedure:



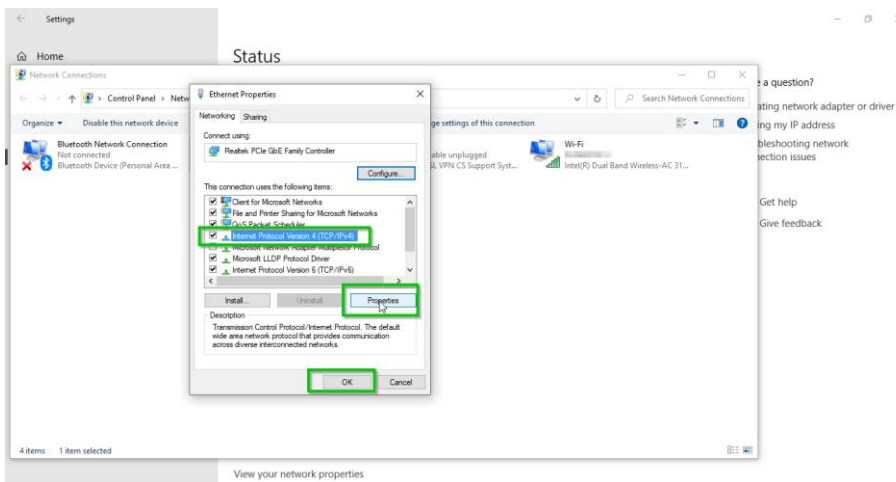
Go into settings and select 'Network and Internet'



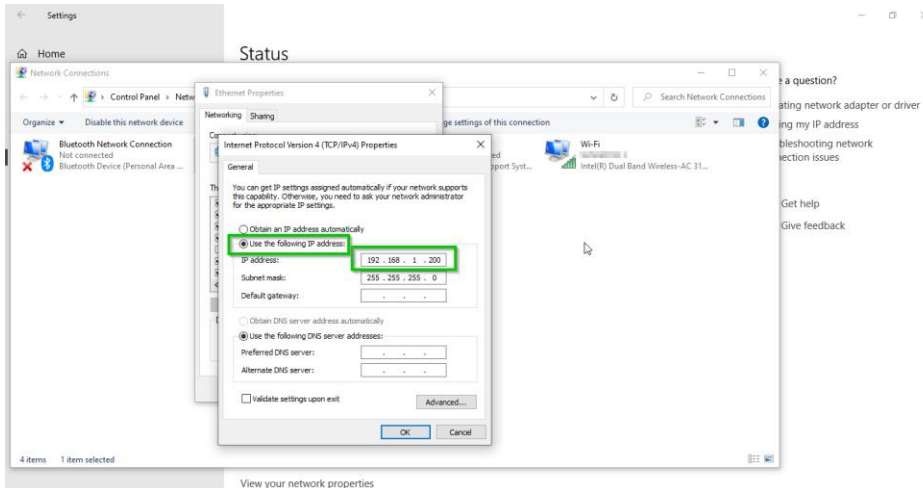
Select 'Change Adapter options'



Left click the adapter and select 'Properties'



Select "Internet protocol Version 4 (TCP/IPv4), click 'Properties' and OK



Enter an IP address in the same range as the inverter and click “OK”

(Subnet mask is normally 255.255.255.0 – both must be the same)

How to PING:

Once the devices are set to the same IP address range, return to the ‘Command prompt’ and type `cls` (this will clear the screen)



Picture 9 – Clear screen

Type `ping` (space) then the IP address of the inverter (i.e. in this example, 192.168.0.100) `ping 192.168.0.100`

```
Command Prompt
Microsoft Windows [Version 10.0.17763.615]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\>cd\

C:\>ping 192.168.0.100

Pinging 192.168.0.100 with 32 bytes of data:
Reply from 192.168.0.100: bytes=32 time=3ms TTL=255
Reply from 192.168.0.100: bytes=32 time=1ms TTL=255
Reply from 192.168.0.100: bytes=32 time=1ms TTL=255
Reply from 192.168.0.100: bytes=32 time=1ms TTL=255

Ping statistics for 192.168.0.100:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 3ms, Average = 1ms

C:\>_
```

Picture 10 – Successful ping.

A successful ping proves the two devices are communication.

If the issue persists after following above procedures, please take photos testing on site and contact Sungrow Service Department on 1800 786 476 or email to service@sungrowpower.com.au, Monday- Friday 9am - 5pm (AEDT).