



# Siretta

Inspired Wireless M2M Technology



## SNYPER 2G & 3G

Cellular Signal and Network  
Analyser

Quick Start Guide

Rev 1.4



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# SNYPER Overview

## What's in the Box?

As standard, the SNYPER comes with the following:\*

- » SNYPER signal and network analyser
- » Multi region power supply
- » Antenna
- » Hard carrying case
- » Quick start guide

## Part Numbers

The SNYPER range is available in 2 variants:

- » SNYPER-2G - High Performance 2G / GPRS Signal and Network Analyser
- » SNYPER-3G - High Performance 2G / GPRS and 3G / UMTS Signal and Network Analyser

\*For replacement parts, please contact your Siretta representative or call us on  
+44 (0)118 976 9014

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## General Description

The SNYPER is a high performance cellular signal and network analyser for the 2G / GPRS and 3G / UMTS networks.

The SNYPER can perform a number of different functions to determine optimum antenna placement, performance of existing installations or choice of network operator. As an example, the SNYPER can determine the strength of a particular network signal, or can review all available network signals in the area of use and rank these in order of received signal strength through its summary page.

The SNYPER has been designed to be as logical and intuitive as possible, with a simple to use menu and operation system. Provided with a large high contrast LCD display, the SNYPER ensures that all information is clearly visible, and allows for the presentation of considerable data at the same time.

All of these features combined make the SNYPER one of the most powerful signal and network analysers available today, guaranteed to enhance your application.

## Features

The SNYPER has the following features:

- » Measures and displays received network signal strength
- » Summary view detailing of all networks in range
- » Intuitive and powerful menu system
- » Most recent survey analysis stored internally
- » Large full colour portrait LCD screen
- » Robust enclosure for rugged and continuous use
- » Long life rechargeable battery gives up to 48 hours use on one charge
- » Configurable 'auto-off' feature
- » Supplied in a convenient hard carrying case with mains charger, antenna and quick start guide

# SNYPER Diagram

Figure 1. Front view of the SNYPER



\*The SNYPER SIM slot located in the enclosure base is used for debugging and enhanced network services. It is not required for the standard SNYPER functionality and can be ignored for normal operation.

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# Powering the SNYPER

## Power On

- » The SNYPER needs to be charged using the mains adaptor for at least 2 hours before use. The SNYPER does **not** need a SIM card to perform network and signal tests.
- » Ensure the antenna is screwed firmly into place on the SNYPER and isn't loose.
- » To power up the SNYPER press the ON/OFF button. A welcome screen will be displayed briefly (as shown below in figure 3) before the main menu is displayed (as shown over page in figure 7 'Main Menu screen'.)

Figure 2. ON/OFF button



Figure 3. Power on message



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## Charging and Battery Status

Approximately 4 - 6 hours are needed to fully charge the unit using the default fast charging mode.

Figure 4. Charging and battery status



### Charging and battery status bar:

During charging, the number of bars will increase and turn from red, to yellow, to green. The charge status LED will be red.

A full line of green bars indicates that the unit is fully charged.

During use, the number of bars will decrease and turn from green, to yellow, to red.

Recharging is recommended once red bars are displayed on the SNYPER battery status bar.

If the SNYPER drops below allowable low battery usage the unit will switch off and charging will be required. At power on, if the battery is below allowable low battery usage a low battery indicator will be displayed as shown below in figure 5.

**NOTE** - During low power charge the SNYPER will display the battery screen (as shown below in figure 6) until the SNYPER has enough power to be used.

Figure 5. Low battery screen

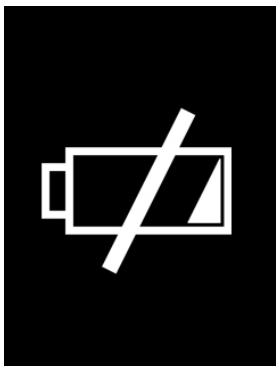
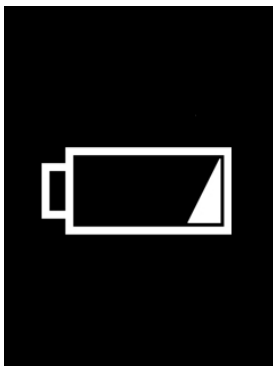


Figure 6. Low power charge screen

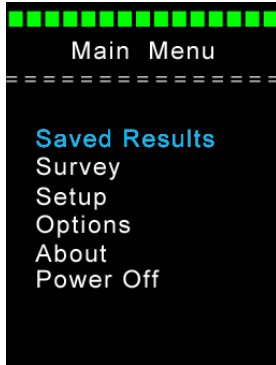


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## Main Menu

The SNYPER main menu has 6 menus (as shown below in **figure 7**), these can be selected using the UP/DOWN buttons. Once the chosen menu is highlighted, click OK. Press the BACK button to return to the main menu.

Figure 7. 'Main Menu' screen



### Saved Results

**Saved Results:** Reviews previously saved survey.

### Survey

**Survey:** Used to perform a new survey.

### Setup

**Setup:** Basic setups of the SNYPER.

### Options

**Options:** User options for the SNYPER.

### About

**About:** Displays information about the SNYPER.

### Power Off

**Power Off:** Powers off the SNYPER.



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## Power Off

After use, remember to power off the SNYPER. The SNYPER can be powered off in the following 2 ways:

- » Selecting the 'Power Off' option from the main menu. The SNYPER will display a power off message as shown below in figure 9.

Figure 8. Select 'Power Off'

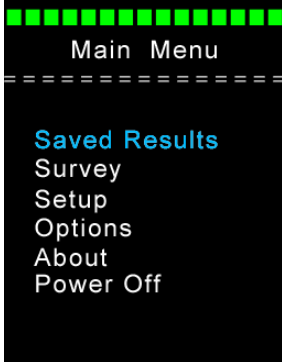
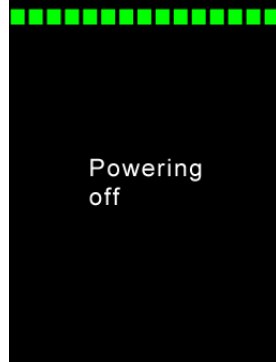


Figure 9. Power off message

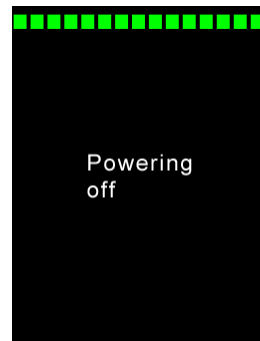


- » Press and hold the ON/OFF button on the SNYPER for >2 seconds. The SNYPER will display a power off message as shown below in figure 11.

Figure 10. ON/OFF button



Figure 11. Power off message



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# Survey Menu

## Performing a Survey

**Step 1.** Select 'Perform Survey' from the 'Survey' menu, this will automatically begin a new survey. Whilst the survey is being performed, the SNYPER will display a sequence of messages as shown below in figures 12 - 14.

Figure 12. Initialising survey

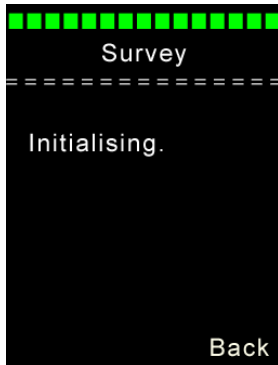


Figure 13. Performing survey

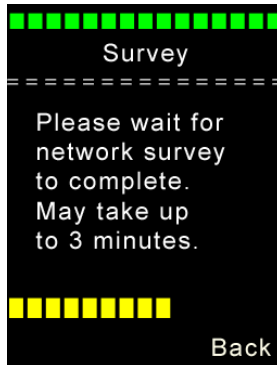
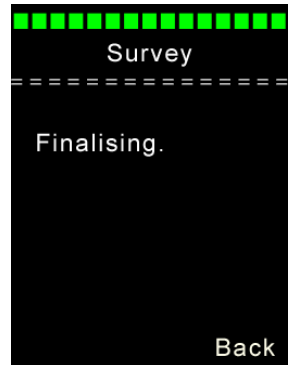
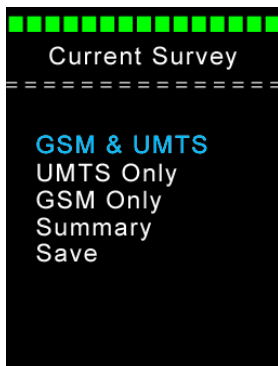


Figure 14. Finalising survey



**Step 2.** Once the survey is complete, the screen will display a 'Current Survey' menu as shown below in figure 15. The 'Current Survey' menu has 5 menus, these are selected using the UP/DOWN buttons. Once the chosen sub menu is highlighted, click OK.

Figure 15. 'Current Survey' screen



### GSM & UMTS

**GSM & UMTS:** Displays GSM & UMTS survey results.

### UMTS Only

**UMTS Only:** Displays UMTS survey results.

### GSM Only

**GSM Only:** Displays GSM survey results.

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## Summary

**Summary:** Displays a summary of signal strengths from the survey.

## Save

**Save:** Saves the results of the performed survey.

## Viewing Survey Results

**Step 1.** From the 'Current Survey' menu, select the results that you require to be displayed (GSM & UMTS / GSM Only / UMTS Only).

**NOTE -** To switch between all signals found in the survey, use the LEFT/RIGHT buttons (LEFT displays stronger signal, RIGHT displays weaker signal).\*

Figure 16. Strongest signal found in the survey

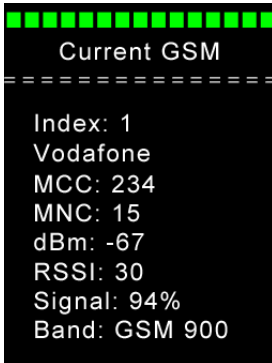
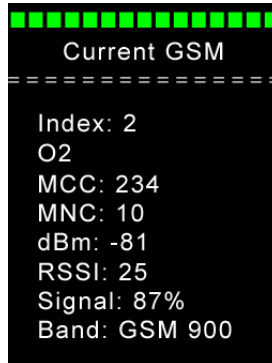


Figure 17. Next strongest signal found in the survey



Press the back button to return to the 'Current Survey' menu.

\*See the 'SNYPER User Manual' for more information on survey results.

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## Summary Menu

By selecting 'Summary' from the 'Current Survey' menu, a summary of all network signals detected in the survey will be displayed. Results are displayed in order of strength within signal strength bands across different screens.

To display higher or lower signal strengths received on the SNYPER, click the LEFT/ RIGHT buttons (LEFT displays higher signal strengths, RIGHT displays lower signal strength). The signal strengths are displayed in 15% steps, decreasing in signal strength from 85% to 10%.

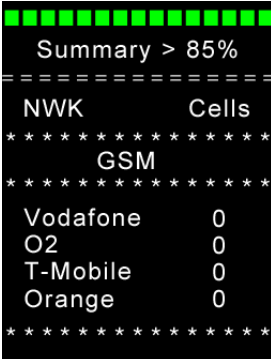
**NOTE -** To display a summary of GSM or UMTS results, click the UP/DOWN buttons to scroll between GSM and UMTS network list.

The example in **table 1** below shows the following:

- » A Vodafone cell had the strongest signal sensed in the area
- » O2, T-Mobile and Orange cells were sensed at a weaker strength

Table 1. Summary of network signals

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The screenshot shows a black background with green signal strength bars at the top. The text reads: 'Summary > 85%' followed by a dashed line separator. Below this is a table with two columns: 'NWK' and 'Cells'. The table lists 'GSM' as the network type, and then lists four networks: Vodafone, O2, T-Mobile, and Orange, each with a value of 0 in the 'Cells' column. The table is framed by asterisks on the sides.

NWK	Cells
GSM	
Vodafone	0
O2	0
T-Mobile	0
Orange	0

### 85% Signal Strength

The SNYPER is displaying all 2G networks being received at 85%.

At this level, none of the networks have cells with this signal strength.

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Summary > 70%	
NWK	Cells
GSM	
Vodafone	1
O2	0
T-Mobile	0
Orange	0

### 70% Signal Strength

The SNYPER is displaying all 2G networks being received at 70%.

At this level, Vodafone shows 1 cell being received.

Summary > 55%	
NWK	Cells
GSM	
Vodafone	1
O2	1
T-Mobile	0
Orange	0

### 55% Signal Strength

The SNYPER is displaying all 2G networks being received at 55%.

At this level, O2 now shows 1 cell being received.


Summary > 40%	
NWK	Cells
GSM	
Vodafone	2
O2	1
T-Mobile	1
Orange	1

### 40% Signal Strength

The SNYPER is displaying all 2G networks being received at 40%.

At this level, there is 1 additional Vodafone cell being received at a weaker strength than the previous cell received.

There is also 1 T-Mobile cell and 1 Orange cell being received at this signal strength.



Summary > 25%


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NWK	Cells
GSM	
Vodafone	3
O2	5
T-Mobile	1
Orange	1

### 25% Signal Strength

The SNYPER is displaying all 2G networks being received at 25%.

At this level, there is 1 additional Vodafone cell and 4 additional O2 cells being received at a weaker strength than the previous cells received.



Summary > 10%

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NWK	Cells
GSM	
Vodafone	3
O2	5
T-Mobile	1
Orange	1

### 10% Signal Strength

The SNYPER is displaying all 2G networks being received at 10%.

At this level, there are no further cells being received by the SNYPER.

Press the back button to return to the 'Current Survey' menu.

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## Saving a Survey

**Step 1.** Once you have performed a survey, you can save the results by selecting 'Save' from the 'Current Survey' menu.\*

**Step 2.** Once the 'Save' option is highlighted, you will be prompted to select 'YES' to confirm the save, or 'NO' to cancel the save. Whilst results are being saved, a message will be displayed as shown below in **figure 18**.

Figure 18. Saving survey results to the SNYPER



Once the survey has been stored, the SNYPER will return to the main menu.\*\*

**NOTE -** The SNYPER can only store results from 1 survey. Therefore when saving a survey, the last saved survey will be overwritten.

\*The SNYPER doesn't automatically save survey results, if you wish to save results from a survey follow steps 1 and 2 above. If you do not wish to save results from a survey, return to the main menu. Results which aren't saved will be immediately lost.

\*\*See the 'SNYPER User Manual' for more information on reviewing saved survey results.

## Further Information

The full user guide for the SNYPER can be downloaded from the following locations:

[www.siretta.co.uk/snyper-2g](http://www.siretta.co.uk/snyper-2g)

[www.siretta.co.uk/snyper-3g](http://www.siretta.co.uk/snyper-3g)



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