

SILVERNET

WIRELESS-NETWORK-SOLUTIONS

EASY AS 1-2-3 QUICK SETUP GUIDE

This guide will cover all the necessary steps to quickly configure, install and troubleshoot SilverNet PRO Range equipment. It will be split into 3 sections: Installation, Configuration and Common Problems.

SECTION 1: INSTALLATION

Before beginning to install or configure a link, you must ensure all the necessary equipment is in the box. Below is an attached picture of what a SIL-MICRO-95 box will look like and what is contained within:



The box should contain the following: 1x Radio, 1x PoE Injector, 1x IEC Power Cable, 1x SIL MNT3 Mounting Bracket Set and 1x Cable Gland.

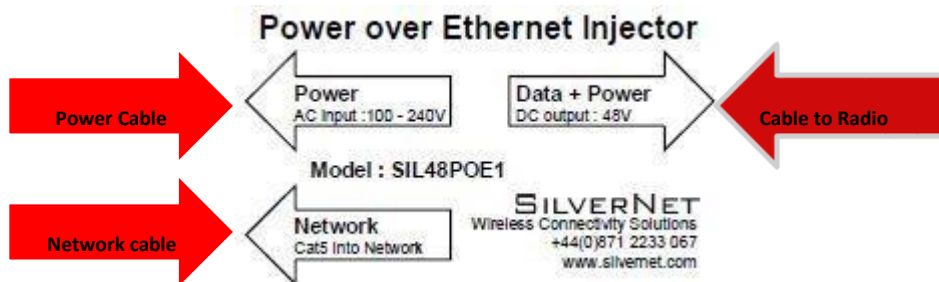
Next, you will need to assemble the bracket to mount the radio. When fully assembled and mounted correctly, the bracket should look like the following:



Now you need to run an outdoor shielded grade network cable through the cable gland as shown:



And finally, using the PoE Injector, power your radio as shown:



Your radio should now power on and you should notice the Ethernet LED indicator come on and start to blink.



SECTION 2: CONFIGURATION

To quickly configure as easy as possible, you will need to download and install SilverView.

You can find this on our website under the following link:

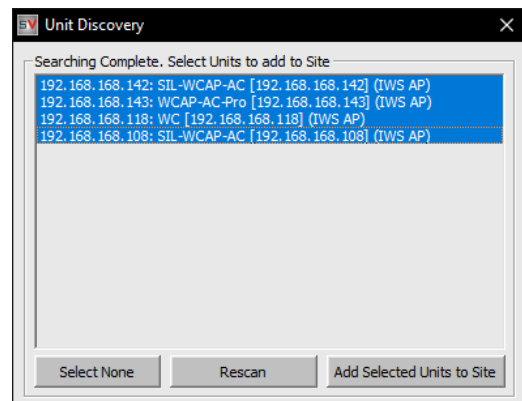
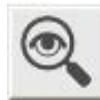
<https://www.silvernet.com/support/downloads-centre/>

Once SilverView has been installed, open it and login with the following details:

Username: admin

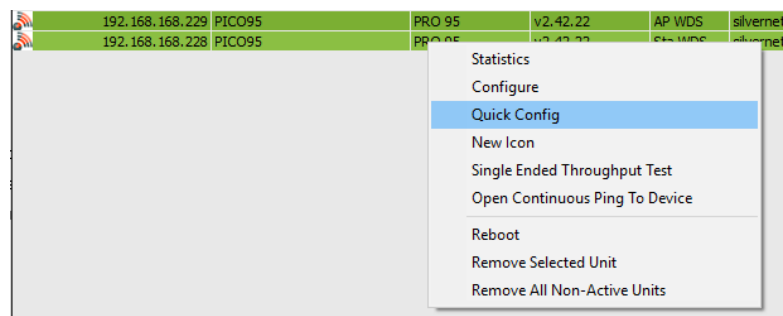
Password: password

Once you are logged in, start the discovery function In SilverView. To do this, click the magnifying glass button in the top left-hand corner. This should bring up the Unit Discovery window. After a few seconds, your units should appear within this window. (You can also use this tool to discover other networked equipment such as cameras or codecs).



Ensure that you have your units selected and click "Add Selected Units To Site". This will ask you if you want to save your current site settings, and if you want to add or replace the current selected units to the site. For the purpose of this guide, simply click no to saving and replace the current site.

Once the units have populated the site, right click one of them and select "Quick Config". The default username and password are as follows:



Username: admin

Password: password

You can also double click the unit to open it in a web browser and access it via the web GUI.
(note your PC will need to be on the same subnet mask as the radio to view the page).

The screenshot shows the 'Quick Config' window for an Access Point. The 'Config Items' section has 'RF Channel' set to 5180 MHz, 'Auto Select Channel' checked, and 'Access Point WDS' selected. The 'Security Settings' section has 'WPA2 PSK AES' selected and 'Passphrase' set to 'silvernetwireless'. The 'Unit ID' section has 'IP Address' 192.168.168.229, 'Net Mask' 255.255.255.0, and 'Unit Name' PICO95. The 'Advanced Settings' section has 'Link Distance' 1000 Metres, 'Channel BW' 20/40 MHz, and 'Guard Interval' Short. At the bottom, 'Outdoor Channels' and 'Auto Adjust Slot and ACK Timing' are unchecked, and a 'Set Config' button is highlighted.

Optimal settings of an Access Point

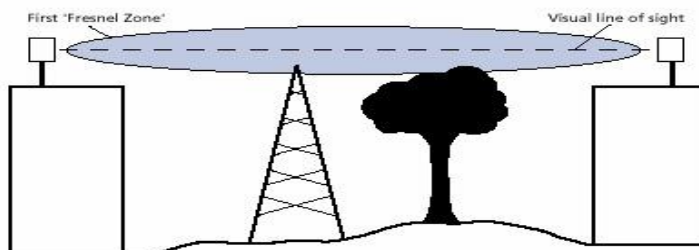
The screenshot shows the 'Quick Config' window for a Station. The 'Config Items' section has 'RF Channel' set to 5180 MHz, 'Auto Select Channel' checked, and 'Station WDS' selected. The 'Security Settings' section has 'WPA2 PSK AES' selected and 'Passphrase' set to 'silvernetwireless'. The 'Unit ID' section has 'IP Address' 192.168.168.228, 'Net Mask' 255.255.255.0, and 'Unit Name' PICO95. The 'Advanced Settings' section has 'Link Distance' 1000 Metres, 'Channel BW' 20/40 MHz, and 'Guard Interval' Short. At the bottom, 'Outdoor Channels' and 'Auto Adjust Slot and ACK Timing' are unchecked, and a 'Set Config' button is highlighted.

Optimal Settings of a Station

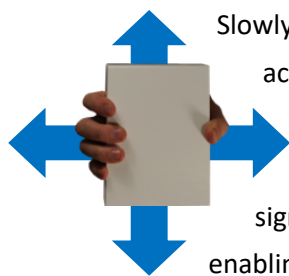
STEP 3: COMMON PROBLEMS

Below is a list of some common problems and how to resolve them;

- a) **Line of Sight** – The radios work best when they have absolute clear line of sight. If the radios don't have a clear line of sight then you will experience poor signals and unstable connections, or potentially no connection at all.

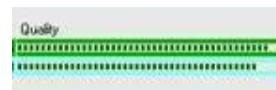


- b) **Alignment** – If the radios are not aligned correctly then the signal quality will reflect this.



Slowly rotate the radio from side to side and then up and down until you achieve the best signal. This is within the ranges of -30 RSSI to -45 RSSI.

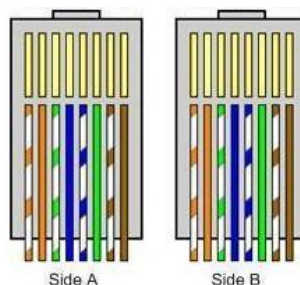
You can use the alignment tools within the radio to assist with this. The quality bar within SilverView gives you a gauge on the signal strength. There is a link align tool within the Station's web page – enabling this will also turn on the alignment beeper.



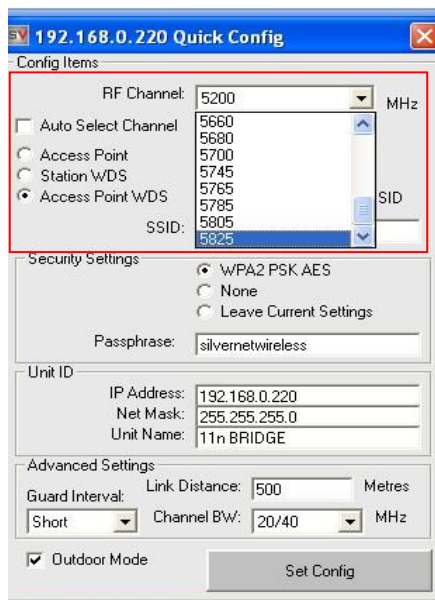
- c) **Power/No Network Connection** – If the radios are not powering on from fresh out of the box then the best course of action is to first check the cat5 cable that you are using and re-terminate as per below. Ensure that the PoE is plugged in and that the LEDs are on. We recommend the use of surge protection and always the use of shielded outdoor data cables for all equipment.

Pin ID	Side A	Side B
1	Orange-white	Orange-white
2	Orange	Orange
3	Green-white	Green-white
4	Blue	Blue
5	Blue-white	Blue-white
6	Green	Green
7	Brown-white	Brown-white
8	Brown	Brown

1 2 3 4 5 6 7 8 1 2 3 4 5 6 7 8



- d) **Interference** - Our radios use auto-channel select and should avoid interferences as best as possible. Rebooting the radios will allow a re-scan and re-selection of the channel if there is a better one available. If you are experiencing interference problems when using the radios, then please try each of the channels until you find one that gives you a better link quality.



- e) **IP Addresses** – Default IP addresses are 192.168.0.228 and 229. Change the IP address of each radio to suit your needs. Note: If you reset the Pro Range via the Web page menu or via the external reset button, the IP address will reset back to Default IP address: 192.168.1.1.
- f) **Login Password** – The default is set to “admin” and “password”. We recommend changing this. Use something that you won’t forget, like a job number or project number. Use this on all radios in the system.

Radio Password

Changes the administrator password for accessing the device

Password	<input type="password"/>
Confirmation	<input type="password"/>

- g) **Distance** – On shorter links leaving the distance setting on auto is fine as the radios will auto adjust. Link distances over 2km need the distance setting adjusted. Usually overestimating the distance is better than underestimating for better signal stability. On longer distances, turn off auto adjust in the advanced wireless settings. Do this for point-to-point and multipoint systems.

Device Configuration

General Setup	Advanced Settings
Distance Optimisation (Auto-ACK Timeout)	<input type="checkbox"/> For Point to Multi-Point customers, please disable this Auto-ACK Timeout and select the furthest distance of the client to this device, otherwise it may cause instability
Distance (meters)	<input type="text" value="2000"/> Min: 300, Max: 24000
Chainmask Selection	<input type="text" value="2x2"/>

- h) **SSID** – The SSID needs to be the same in each end of the link. If you are configuring multiple links please ensure that **each link has its own unique SSID**. You can check this within SilverView.
- i) **Security Key** – The security passphrase needs to be the same in both radios on the same link.
- j) **Config Files / Firmware** – The default configuration files and latest versions of firmware can be found on our website under the downloads centre. Upload the 0.228 config onto one radio and the 0.229 config onto the other.
- k) **Manual** – Read the manual for detailed explanations of the SilverNet equipment. This can be downloaded from our website.
<http://www.silvernet.com/support/downloads-centre/>
- l) Youtube – Training videos are available to watch on YouTube.
<https://www.youtube.com/user/SilverNetLTD>

