



July 25, 2014

SPLASH Monitoring Pairing of SPL Power data loggers with Edimax Homeplugs

This document details how to pair Edimax Homeplugs with the SPLASH Monitoring SPL Power Loggers.

The SPL Data Loggers have an internal data over power line gateway inside them that transmits the data over the phase connected to L1 on the SPL Power Logger. When an Edimax Homeplug is connected to the same phase as that connected to L1 on the SPL Power Logger, the SPL Power Logger will transmit data to the Edimax Homeplug over the power cable. The Edimax Homeplug then connects to the onsite router or LAN using a CAT5 connection.

A conflict can occur if multiple Edimax Homeplugs are installed on the same phase. To prevent this conflict occurring the SPL Power Logger and Edimax Homeplug must be “paired” to each other. This document covers the pairing and configuration of these devices.

To prevent the conflict between the Homeplugs, each of the SPL Power Loggers needs to be “paired” with their own Homeplug as follows

To pair the SPL Data Loggers with their Edimax Homeplug follow these instructions

1. Turn off all of the SPL Power Loggers and their Edimax Homeplugs
For each SPL Power Logger and Edimax Homeplug
2. Make sure SPL Power Logger 1 and EDIMAX Homeplug 1 have power, are on and are connected to the LAN.
3. Activate the SPL Power logger 1 to “Leave mode” by pressing and holding the reset button (this is a small hole under the padlock symbol adjacent to the Ethernet connection, push in to the hole an unpainted paper clip) for 14 seconds until the LED on the front of the Logger flashes blue and red rapidly. Release as soon as the LED starts flashing blue/red, otherwise if you hold it for any longer it will enter another mode.
4. Activate the EDIMAX Homeplug 1 to “Leave mode” by pressing and holding the group/reset button for 6 seconds. The Ethernet (top) and Power (bottom) LEDs will both flash green once at the same time.

Ph 09 442 0996

15B Saturn Place, Albany

Fax 09 442 0997

PO Box 81049, Whenuapai, Auckland

E ian@splashmonitoring.com

Web. www.splashmonitoring.com

5. Activate the EDIMAX Homeplug 1 to “Join mode” by pressing and holding the group/reset button for 2 seconds until the bottom LED (Power symbol) flashes green. The LED will continue to flash slowly for 2 minutes.
6. Activate the SPL Power logger 1 to “Join mode” by pressing and holding the reset button for 2 seconds until the LED on the front of the Logger flashes blue rapidly. The LED will continue to flash for two minutes.
7. The above should pair the SPL Power Logger with the Edimax Homeplug.
8. After 2 minutes, the EDIMAX Homeplug’s bottom LED will stop flashing and the middle LED (house sign) will turn blue to indicate that it’s connected to the SPL Power Logger. The SPL Power Logger LED will turn to green to indicate that it’s also connected to the Edimax Homeplug 1
9. You should now be able to browse to the SPL Power Logger 1 by typing in the IP address of the SPL Power Logger in a browser on a computer connected to the same LAN, ie type in 10.10.10.201 to view the SPL Power Logger behind the reception.

General Background Information Follows

Edimax Homeplug

The Edimax Homeplug can be activated into several different modes by pressing and holding the group/reset button for various lengths of time. The type of mode is shown by the LED which shows different colours

- Pressing and holding the group/ reset button for 0-3secs: activates **Joining mode**. Creates an encrypted powerline network group (homeplug cloud). The bottom LED (power) will flash slowly for 2 minutes.
- Pressing and holding the group/ reset button for 5-8secs: activates **Leaving mode**. Leaves an encrypted powerline network group. 2 green LEDs (Ethernet and Power) will flash once.
- Pressing and holding the group/ reset button for 10-15secs: **Restores** the Homeplug to factory default settings. 2 green LEDs (Ethernet and Power) will flash once.

Notes:

- If the group/reset button is pressed but the LED didn’t flash as expected, try repressing the button. If this does not work, turn the Edimax Homeplug off, wait 15 seconds, then turn it back on again, wait for a further 15 seconds and try pressing the button again.
- If there are multiple Edimax Homeplugs on the same phase they can conflict with each other and cause a “Loop”. If the middle LED light on the Edimax

Ph 09 442 0996

15B Saturn Place, Albany

Fax 09 442 0997

PO Box 81049, Whenuapai, Auckland

E ian@splashmonitoring.com

Web. www.splashmonitoring.com

Homeplug is flashing red rapidly without a SPL Power Logger connected, it could mean that two Edimax Homeplugs are talking to each other in a “Loop” and will crash the data transfer.

SPL Power Logger

- Pressing and holding the reset button for 0-3secs: activates **Joining mode**. In this mode it is ready to join with an EDIMAX Homeplug. The LED will quickly flash blue for 2 minutes.
- Pressing and holding the reset button for 13-16secs: activates **Leaving mode**. This disconnects the SPL Power Logger from any associated Edimax Homeplugs. The LED will quickly flash blue and red.
- Pressing and holding the reset button for more than 16secs: activates a **Factory reset**. This resets the SPL Power Logger to factory default settings
- Don't pair more than 10 SPL Power Loggers per EDIMAX Homeplug, it will slow down the Homeplug cloud

Ph 09 442 0996

15B Saturn Place, Albany

Fax 09 442 0997

PO Box 81049, Whenuapai, Auckland

E ian@splashmonitoring.com

Web. www.splashmonitoring.com