



Obtaining Omnimeter Data From EKM Web Site

Summary

Meter Manufacturer	EMK
Meter Models	Pulse v3; Pulse v3 UL; Pulse v4; Pulse v4 UL
Size	All sizes
RS485 Interface	N/A
Maximum number of meters connected to a single SPLASH Monitoring STREAMbox	50

List of parts required for connection of meter to SPLASH Monitoring

To enable you to connect the above meters to SPLASH Monitoring you will need a SPLASH Monitoring STREAMbox and connection cables, these parts are listed below:

Part description	Part number
Meter Make / Model	As above
SPLASH Monitoring STREAMbox	SBoxS2 - Hardwired or Wireless network connection
Connection cable STREAMbox to meter	N/A
Connection cable STREAMbox to clients router or LAN	Part numbers SM CAT5 1m – 1m CAT5 cable SM CAT5 2m – 2m CAT5 cable SM CAT5 5m – 5m CAT5 cable SM CAT5 10m – 10m CAT5 cable
USB Serial Adapter (Splash model)	N/A

Installation Guidelines

We have found that the most reliable long-term results are achieved when the STREAMbox, and its power supply is installed well away from daily operational areas. The problem is that the loss of the Splash Monitoring service is not immediately obvious, so it can be many days or weeks before someone realises that their system is not being updated. We are in the process of developing a mechanism to detect the loss of communication which optionally sends an email alert to one or more nominated recipients, but it is always prudent to minimise the risk of disruption by following these guidelines:

- If possible install the equipment and power supplies well away from daily operational areas such as someone's desk or work bench.
- Try and secure the equipment by attaching it to a wall or shelf with screws, Velcro or double sided tape. This should prevent it from slipping and becoming disconnected.
- Always secure the STREAMbox power cord to the STREAMbox using the P clip supplied. The P clip should be located on the side of the STREAMbox using the mounting panel screw, as illustrated:



- Always ensure the LAN cables you use are in sound condition with their retaining clips intact, and make sure they are securely fitted to the equipment by giving them a gentle tug.
- Always ensure that all cables are secured using cable ties to protect them from accidental snagging.
- Never stretch cables to the point where any movement could cause them to become dislodged.
- The equipment and power supplies should be labelled 'DO NOT SWITCH OFF', but you should inform people with access to the installation area that this equipment should not be turned off; for example cleaning and maintenance personnel.

Setting Up Your STREAMbox and EKM Web Site

This section is intended as a quick guide to setting up Splash Monitoring and assumes your meter is already connected to all relevant CTs and power points, and is connected to an EKM Push Box. The EKM Push Box must be connected to the LAN/Internet and be transmitting data to the EKM web site. To achieve this you should have obtained a Push Key from EKM. For more details please refer to the Omnimeter User Manual.

Basic Connectivity

The STREAMbox must be connected to the Internet using either the RJ45 LAN port or via a wireless router. If you want to connect wirelessly you will need to supply the router's SSID and WPS-PSK key to SPLASH Monitoring so we can pre-configure the STREAMbox.

Setting Up Your STREAMbox

The STREAMbox will be delivered already configured for your site, but to achieve this you will need to supply the following to SPLASH Monitoring:

1. The EKM Push Key for this site;
2. The serial number and version of each Omnimeter connected to the Push Box;
3. The interval between data points sent to the EKM web site.

SPLASH Monitoring's default scan frequency is 30 seconds, but we can currently accommodate 10, 30, 60 or 300 seconds. Ideally the EKM Push interval and STREAMbox scan frequency should match.

If you require the STREAMbox to operate on a fixed IP address you will need to supply that IP address, subnet mask, Gateway IP address and DNS IP address.

Setting Up Your meters

Please refer to the Omnimeter manual for instructions on how to change the settings.

Trouble Shooting:

“No Stream Found” on the SM Web site:

This is because the web site hasn't received any data from the STREAMbox.

- Omnimeters will not respond if there is no AC power so make sure at least one of the AC power lines (L1) is connected to the AC power line.
- Allow at least 10 minutes after powering up the STREAMbox before starting your diagnostic checks.
- Check the connections between the STREAMbox and your router and ensure you have a solid green light at the top right of the RJ45 LAN socket and a flashing green light at the top left of the socket.
- No solid green light could indicate: the STREAMbox is switched off, check the power lights on the front of the STREAMbox, both top and bottom LEDs should be illuminated.
- Check the router is powered up; the LAN cable is connected to the router; the LAN cable isn't faulty. To eliminate the LAN cable and router, connect the LAN cable to a known working device like your laptop or PC and if you can get a web session, then the LAN connectivity is OK.
- Try power cycling the STREAMbox – switch it off, wait 5 sec, switch it back on.
- Try logging on to the STREAMbox: enter “splash” in your web browser's address line, or if your STREAMbox has a fixed IP address, enter that into your web browser. For instructions on how to use the STREAMbox's 'Web Information Page' go to <http://www.splashmonitoring.com/assets/SM-STREAMbox-Web-Information-Page.html>
- The most common issue we encounter is the site's network firewall not allowing outbound traffic. This is rarely an issue with domestic routers, but very common in managed commercial networks. Unless you have someone you can ask (like a network administrator) a good way to detect this issue is to log onto the STREAMbox and run a 'Healthcheck' report. This will give you lots of information including whether the STREAMbox can 'see' the internet.
- The STREAMbox is not able to work with a proxy server. If you have a proxy server you will need to make special arrangements with your network administrator to have the STREAMbox circumnavigate it by issuing a fixed IP address with appropriate privileges.

Status Codes:

Pulse Input State:

- 0 = High/High/High
- 1 = High/High/Low
- 2 = High/Low/High
- 3 = High Low/Low
- 4 = Low/High/High
- 5 = Low/High/Low
- 6 = Low/Low/High
- 7 = Low/Low/Low

Current Direction:

Line1/Line2/Line3

- 1 = Forward/Forward/Forward
- 2 = Forward/Forward/Reverse
- 3 = Forward/Reverse/Forward
- 4 = Reverse/Forward/Forward
- 5 = Forward/Reverse/Reverse
- 6 = Reverse/Forward/Reverse
- 7 = Reverse/Reverse/Forward
- 8 = Reverse/Reverse/Reverse

Outputs Indicator:

- 1 = OFF/OFF
- 2 = OFF/ON
- 3 = ON/OFF
- 4 = ON/ON

Comms Status:

- 1 = normal status
- 1 = the meter did not respond when interrogated by the STREAMbox.