Programming and Deployment

Introduction

This document provides guidance on how to program and deploy Enigma3m and Enigma3hyQ loggers. The first step is to program the Communications Module. This need only be performed once. Once the Communications Module is programmed each Enigma3m logger is programmed individually on site.

STEP 1: Programming the Communications Module

- Open the Enigma3 PC software.
- Connect the Communications Module to the USB port and press the Program button to display the screen to the right.
- Select the Start Time at which correlation sound is to be recorded.
- Enter the commission delay - the number of minutes before the logger starts the commission process. By default this delay is 2 minutes. It should be set to a long enough time for the logger to be placed into position, the aerial located correctly and any covers put back in place.
- Enter the Commission Number - the mobile phone number of the technician installing the loggers. The results of the commission process will be sent to this mobile via an SMS, as well as being visible on PrimeWeb. For non-UK numbers, the commission number must be entered in international dialling format (for example 0033 for France, 0049 for Germany, etc.).
- The Time Sync Frequency can be set to a prominent FM radio station frequency. If this is not known then leave this at 0.0. PrimeWeb will automatically select the most appropriate frequency for all the loggers.
- Select 'Program' to transfer the configuration to the Communications Module.
- After loading the appropriate configuration, the Communications Module is ready to deploy loggers.

STEP 2: Deploying Loggers

When in the correct location for logger deployment, press and hold down the Home key to switch on the Communications Module.

If the GPS icon is flashing this shows that the GPS is still searching. If the icon is solid on then the GPS is locked. Wait until there is a GPS lock.
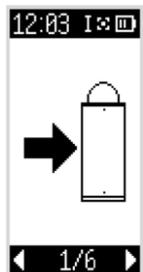
Use the left/right arrow keys to move to the Program screen (1/6).

Press Play ► to enter the Program screen. Point the IR sensor of the Communications Module at the window on top of the logger and press Play ►. A beep will be heard. The Communications Module display will show the status of the programming operation as below:

technology for network management and leakage control

143502 – Serial number of logger

Default – Configuration name programmed from the host PC

99% – Logger battery life remaining

OK – Self test has been successful

RUN – The logger is in RUN mode and will now record data

OK – The program operation has been successful.

Once the program operation is complete, a timer shows the countdown to the logger commission process. This countdown display can be cancelled by pressing any of the buttons.

Commission Process

Place the logger onto the pipe fitting; position it ensuring a good acoustic coupling. If using an Enigma3hyQ please refer to Quick Reference Guide IXD-748-QR for hydrophone installation guidelines. Attach the aerial magnet to the inside surface of the chamber cover. Ensure all chamber covers are closed.

- Once the commission delay has expired, the GSM modem in the logger will power up.
- Signal strength from all available GSM networks will be logged, and the appropriate network selected.
- Once a preferred network connection has been made the Enigma3m will attempt to post a report to PrimeWeb.
- Finally, an SMS will be sent to the **Commission Number**, indicating the logger status.

Whilst the logger is performing the commission process, the LED will flash every 5 seconds. If there is no GSM signal on site, the LED will continue with 3 rapid flashes every second for the next 5 minutes. During the commission process communication between the logger and Communications Module is disabled.

Results of the commission process should be checked in two ways.
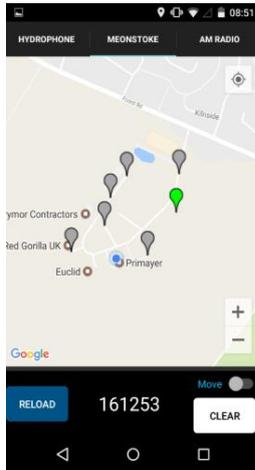
Firstly, use the PrimeDeploy App (available from the Google Play Store). Login to the PrimeWeb account to receive a notification when a logger is successfully commissioned.

The app will show the logger location on a map. If this is not accurate, select the logger pin (to highlight it in green), change the slider to **Move** and tap at a different location to drop the logger to this new map location.

The logger has been successfully deployed.

SN: 156241
12/10/17 11:33:20
Sig: 37%
Batt: 96%
Loc: +5053.7006,
-00104.1320
HTTP: OK (2G)

If no notification is received through PrimeDeploy, review the commission SMS. If the HTTP status shows **FAILED**, the commission process should be repeated with the GSM aerial in a different location. Quite often placing the GSM aerial close to a hole in the chamber cover or the edge of chamber cover can give an improvement in signal strength.

Note: The commission process can take up to 10 minutes to complete. If no PrimeDeploy notification or Commission SMS has been received after 10 minutes, it is likely there is no GSM signal available on site. A different aerial option or location should be investigated.

Please contact Primayer Technical Support about available aerial options.

Enigma3m training videos available for deployment and data processing at;
www.primayer.com/training/Enigma3m

Information in this document is subject to change without notice.