Plant Mounting Battery Powered Radio Site Survey Router

Features

- High quality external antenna
- Encrypted data transmission

Specification

Radio Output:	
Frequency	2.4GHz
16 channels, automatically selected	
Direct-sequence spread spectrum	
Compliance	IEEE 802.15.4-2006
Aerial Characteristics	
Gain	2.0dBi
VSWR	<2:1
Data Encryption:	AES 128
Power Output:	+10dBm
Battery Type:	3.7V Lithium Polymer, rechargeable 1080mAh
Housing:	
Material	ABS (flame retardant type VO)
Dimensions	55mm x 90mm dia.
Mounting holes	4mm spaced 85mm apart
Environmental:	
Operating:	
Temperature	-10°C to +50°C
RH	0 to 90%, non-condensing
Storage:	
Temperature	-10°C to +80°C
RH	0 to 90%, non-condensing
Country of origin:	UK

Product Codes

RF-PS-522 - Battery powered radio site survey router

Technical Overview

The site survey routers are used in conjunction with the Sontay® **RF-RXSS** site survey receiver, **RF-HHT** hand-held monitor and **RF-TS-911** nodes, which form a site survey kit (SSK).

Routers are used to route signals from battery powered nodes and other routers to the receiver module, where the signal strength of a direct path is not sufficient for reliable communications.

Data is transmitted back to the receiver at configurable time intervals, or on a configurable change in measured value. Each sensor retains these configurations if the battery becomes discharged or requires replacement.

The SSK receiver automatically selects which of the 16 transmission channels available gives the best radio network performance, taking into account both signal strength and interference levels from adjacent channels and equipment (such as Wi-Fi etc.)

The SSK hand-held monitor, nodes and routers automatically find the best path back to the receiver, which may be directly to the receiver or via "parent" routers.

The **RF-PS-522** is not fitted with any sensing elements.

Installation

1. Remove all packaging from the SSK router.
2. Enable power by switching the On/Off switch on the side of the unit to On.
3. Temporarily position the SSK router in a location that will give good link qualities between an SSK node and the SSK router. (See SSK quick start guide or user manual)

Battery Charging

To charge the battery in an SSK router, connect the correct charger to the socket on the side of the housing. The status LED on the charger will show red until the battery is fully charged, when the status LED will turn green.

Note that when charging the SSK router battery, the battery under charge is disconnected from the rest of the device, and therefore that device will not function until charging is complete.

Battery Fitting and Replacement

The current battery level of an SSK router can be monitored using the **RF-HHT**. When a battery is replaced, observe the correct polarity. **Fitting the battery incorrectly may result in permanent damage to the sensor**. Remove the power jumper prior to removing a battery. After fitting a battery, press and hold the reset button while replacing the power jumper to reset the hours run data.

NB Lithium Polymer batteries are rechargeable, but care must be taken to use **ONLY THE CHARGER SUPPLIED IN THE SSK BY SONTAY**. Replacements or spares should be stored in a clean, cool (not exceeding +30°C), dry and ventilated area.

Disposal of Batteries - Warning! Fire, Explosion and Burn Hazard.

Do not short-circuit, crush, disassemble, heat above 100°C (212°F), incinerate, or expose the battery contents to water. Do not solder directly to the cell.

All batteries must be disposed of in accordance with EC Directive 2006/66/EC, amended by EU Directive 2008/12/EC.