STS Telemetry System Remote Station Quick Start Guide

Initialization Instructions

After all settings in the STS/RRL Administrator Software are programmed, modem set up, and all connections made to the STS, the STS Field Utility is used to "initialize" the system.

1. After you have retrieved the information and settings from the connected STS, use the icon to turn the modem off. Disconnect the battery. Wait a few seconds, then re-connect the battery. The LED on the STS should blink green. Turn the modem back on, by clicking . The green light on the modem should flash to indicate that it is working.

2. At the Home Station, shut down, then restart the STS/RRL Administration Software and the STS /RRL Communication Agent. After the software has been restarted, the STS/RRL Administrator window should show the message "Waiting for Update" in the Site Status field.

3. Before completing the initialization process, perform a test to ensure the Home Station and STS are communicating properly. This can be done using the Diagnostic tab in the STS Field Utility. If the test is successful, begin the initialization process.

Note: You can also use the Diagnostic tab to test the connection of each datalogger and the battery level of the remote station before initializing.

4. The initialization process is started by simply clicking on the STS Edge tab of the STS Field Utility. STS/RRL Administrator and Communication Agent Software must be running on the Home Station computer during the initialization process.

Note: After you start initialization, a message may ask if you want to stop the dataloggers from recording, if you have previously set them to start logging. This is a precaution, as the internal battery will be used if the dataloggers are set to record independent of the STS System.

5. A Window will open showing the progress of the initialization process. The initialization process should only take a few minutes. During the process, the status of the STS will change from ‘Idle’ to ‘Init’. If initialization is successful, a message will be given and the STS status will change from ‘Init’ to ‘Logging’ or ‘Future Start’.

6. Click OK in the Initialize Home Station window, and the STS System will start collecting data at the specified time.

STS Field Utility – Diagnostics

The Diagnostic tab is used to verify the STS connection with the Home Station and dataloggers, and to test the battery.

Click to test the STS connection with the Home Station. Click to check the STS Remote Station battery voltage.

For each datalogger connected, click Test. If successful, information about each connected datalogger will be displayed. Real-time readings from the dataloggers will also be shown.

Site Maintenance

As with any monitoring project, you should select the proper equipment and determine a maintenance schedule based on the monitoring environment specific to your application.

Battery re-charging should be done on regular scheduled intervals, based on the battery life estimates shown below. Estimates based on 12V sealed lead-acid battery with 4 dataloggers connected. It is recommended to recharge the battery once it reaches 10 Volts. Recharging is especially important in the fall and the winter temperatures are cold. Replace existing lead-acid batteries every 3-5 years.

<table>
<thead>
<tr>
<th>Sample Rate</th>
<th>Report Rate</th>
<th>Battery Life Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every 15 Minutes</td>
<td>Every 1 Hours</td>
<td>6.5 months</td>
</tr>
<tr>
<td>Every Hour</td>
<td>Every 24 Hours</td>
<td>1 Year</td>
</tr>
<tr>
<td>Every 6 Hours</td>
<td>Every 3 Days</td>
<td>1.5 Years</td>
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<tr>
<td>Every 24 Hours</td>
<td>Every 7 Days</td>
<td>2 Years</td>
</tr>
<tr>
<td>Every 7 Days</td>
<td>Every 15 Days</td>
<td>2.5 Years</td>
</tr>
</tbody>
</table>

Under normal operation the LED on the STS will flash green. The LED will flash red if a failure is detected with the modem or STS power. Check the modem and wiring for short circuits. You can reset the LED by "Restoring Factory Settings", stopping logging, or testing the Home Station connection in the STS Field Utility.

If none of these actions correct the error, contact Solinst for further assistance.

High Quality Groundwater and Surface Water Monitoring Instrumentation