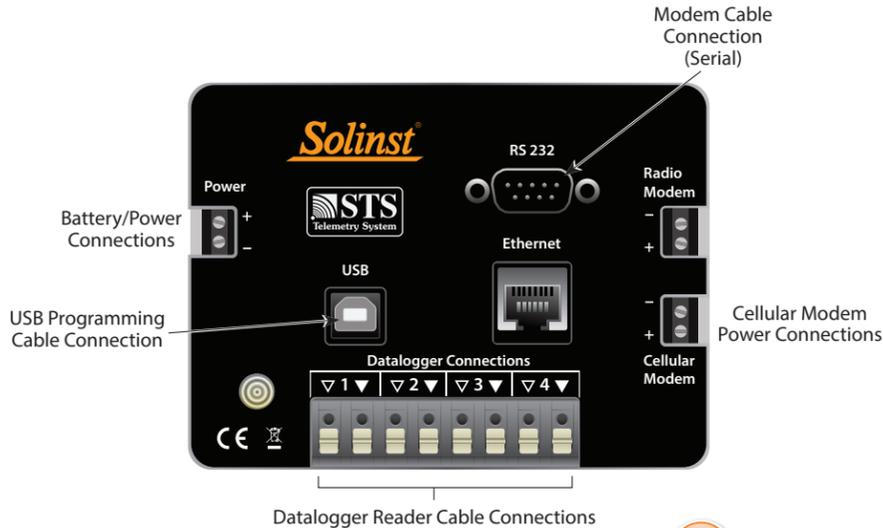
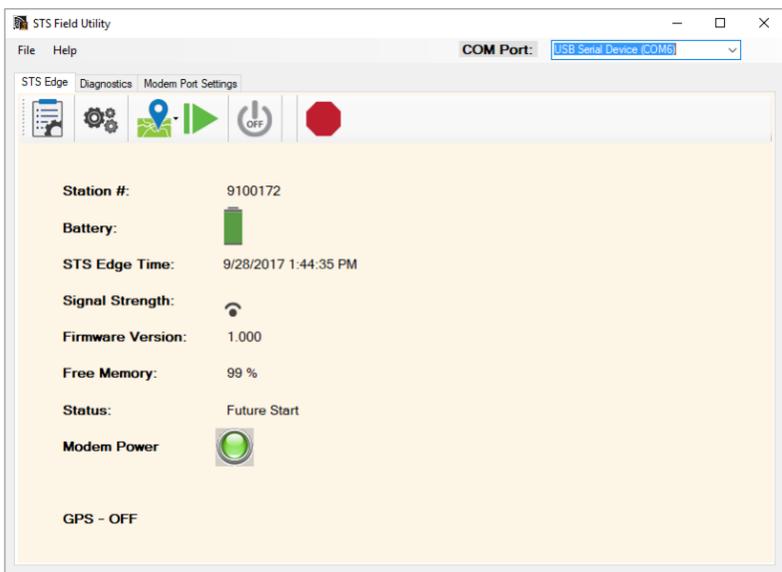


STS Telemetry System Remote Station Quick Start Guide

STS Cable Connections



STS Field Utility



The STS Field Utility is included with the Solinst Telemetry Software package. To communicate with the STS Field Utility, connect the STS to your PC using the USB Programming Cable. The connection is labeled "USB" on the STS.

To open the STS Field Utility, use the Tools menu in the STS/RRL Administrator. Select the appropriate USB or Com Port for the connected STS from the drop-down menu.

Click to retrieve information and settings from the connected STS.

The STS Edge tab will display the Serial Number of the connected STS, the battery level of the Remote Station, The STS Edge Time, the Signal Strength of the modem, the STS Firmware Version, the percentage of remaining Free Memory in the STS, the STS System Status, and the Modem Power and GPS status (red=off, green=on).

STS **Status** descriptions are as follows:

- **Idle** – indicates that the STS is idle and waiting for initialization.
- **Init** – shows that the STS is going through the initialization process
- **Logging** – indicates that the STS is collecting data from dataloggers.
- **Future Start** – indicates that the STS has been programmed with the future start option.

In the STS Edge tab, you can turn a connected modem on or off by clicking, or .

You can restore the factory settings of the STS by clicking . Sampling and reporting is stopped. This may be useful before you want to reprogram your STS for a new site.

You can disable or enable GPS location for the STS by clicking . Select "Get Location" from the drop-down menu to display a map with the STS location based on GPS coordinates.

You can stop a programmed STS from sampling and reporting by selecting .

Note: See the STS Telemetry User Guide for more information on the STS Field Utility Modem Port Settings tab.

Initialization Instructions

After all settings in the STS/RRL Administrator Software are programmed, modem set up, and all connections made at 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 Diagnostics tab to test the connection of each datalogger and the battery level of the remote station before initializing.

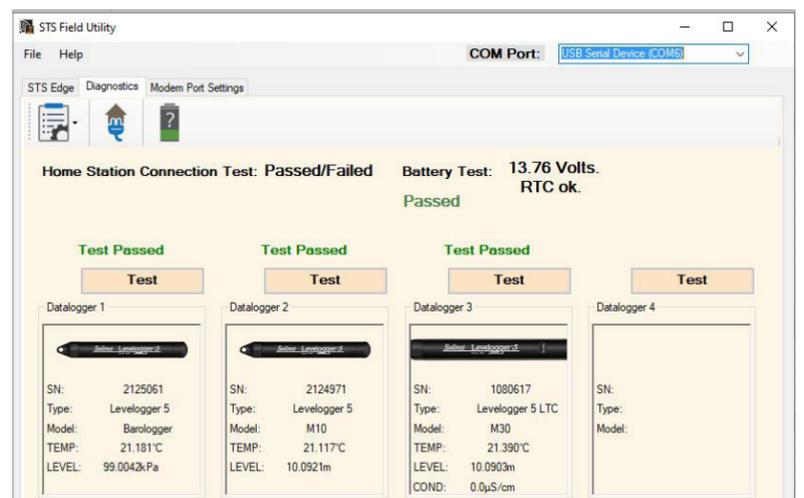
4. The initialization process is started by simply clicking in the STS Edge tab of the STS Field Utility. STS/RRL Administrator and Communication Agent Software must be running on the Home Station computer during the initialization process.

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 Diagnostics 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.

Sample Rate	Report Rate	Battery Life Estimates
Every 15 Minutes	Every 6 Hours	7 Months
Every Hour	Every 24 Hours	1 Year
Every 6 Hours	Every 3 Days	1.3 Years
Every 24 Hours	Every 7 Days	1.4 Years

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.

First, check to see if the battery needs recharging or changing. Check all connections to the STS. Check 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.

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