

Siemens Technical Action Bulletin No.

STAB21-0121

TITLE**ST950 Firmware Release 46059 Issue24**

Product	ST900	T400	Cuckoos	Street Furniture	ST950	OTU	INSTATION SOFTWARE	OTHER
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Are Modifications Required?**No****Retrospective Action Required?****No****Priority of the Change**URGENT
ASAPACTION
AT NEXT
SITE VISITACTION
WITHIN 3
MONTHSACTION
AT
NEXT PIACTION
ONLY IF
PROBLEM
ARISESINFORMATION
ONLY

<p>Introduction</p>	<p>The ST950 Firmware 667/TZ/46059/000 has now been updated to Issue 24 and is available to download from Siemens Traffic Downloads</p> <p>This Version 24 contains the following new features:</p> <ul style="list-style-type: none"> • MOVA8 • I/O Count Logging <p>There are many other changes incorporated in this release from versions 20-23, including:</p> <ul style="list-style-type: none"> • Supports the ST950 Plus+ Controller • IC4 Special Conditioning now supports signed 16-bit integer values. • Quicker reprogramming of the Primary, SEC and FailFlash CPUs, reducing the signals off time. • Improved usability with touch-screen devices • Improved configurability of GPS for use in areas of poor reception • Fixed: Drift of System Time when time mode is set to “Controller Time” • Fixed: High CPU load warning no longer triggered by expected events • Fixed: Incorrect logging of actions against user “RS232” • Fixed: Occasional failure of the programming button to operate correctly • Security updates <p>However, for the complete list of changes, refer to the ST950 Compatibility Handbook (667/SU/46000/000 Issue18 or later)</p>
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<p>Scope</p>	<p>ST950 Firmware upgrades</p> <p>Upgrading from v23 to v24 only requires the user to press the Level-3 pushbutton and during the upgrade the Traffic Signals will enter Reserve State, which in most cases means they remain illuminated and cycle in Fixed Time.</p> <p>Upgrading from an earlier version will require the user to switch off the signals and press the Program button, and the signals will remain off until the upgrade is complete, which could take 20 minutes or more.</p> <p>This should be the last time the program button needs to be pressed to initiate the upgrade. Upgrading from v23 (or later) will upgrade the EFC while the signals remain in Reserve State. If the Primary CPU Firmware also needs to be upgraded, this step is performed later and should only mean the signals need to be switched off for 2-3 minutes</p> <p>NOTE: The previous general release of ST950 Firmware was Issue16 and upgrading to Issue24 can ONLY be done from Issues 11 or higher. The controller will refuse to upgrade from earlier versions.</p>
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Procedure

To upgrade to ST950 Firmware 46059 Issue24 please follow the following steps:

1. Prerequisites

The firmware package file **REL_46059_24_0_2.pkg** can be downloaded from [Siemens Traffic Downloads](#)

This file needs to be loaded onto the laptop or mobile device that will be used to access the web browser interface. It is recommended that the web browser interface rather than WIZ is used to perform the firmware upgrade and check the operation of the controller.

There are no known issues with this upgrade but as a precaution it is advisable to also have:

- Replacement ST950 CPU Card
- 667/HQ/46000/002 ST950 Replacement of CPU Card Quick Start Guide

Stratos and Plus+ require ST950 CPU board variant 667/1/46010/**101** not **/001**. Refer to 667/HQ/46000/009 if the CPU PCB needs to be changed.

The upgrade requires Issue11 (or higher) to be running for the upgrade to work. The controller will refuse to upgrade from any earlier versions. If you need to upgrade to Issue11 first, please refer to Technical Bulletin [STAB16-0106](#)

2. Before Upgrading

Check that there is no core dump in the controller log (found in the *Fault Table* page). If there is, then follow the on-screen instructions and delete it.

It is recommended that a restore point is saved before performing an upgrade so that it is possible to return to the existing system if desired in the future. Restore points are managed using the *Status and Configuration – Controller – Heart – Backup & Restore* web page.

The controller can automatically maintain a restore point; this is known as the latest restore point and is listed at the top of this web page. If the time of creation of this restore point is not suitable or timings / settings changes have been made since then, a new restore point can be created by pressing the [Refresh] button. This will take 30 minutes or more.

Press the [Retain] button so a backup of the system in the state before upgrade will always be available on the Heart SD Card. Retaining a backup should only take a few seconds. If problems occur during or after the upgrade, one option available will be to return the system to this Restore Point.

It is important not to turn off the controller while a requested operation is in progress or very soon after it completes as doing so will cause the requested operation to fail. Generally, the controller should never be switched off whilst the busy light (i.e., bottom Red LED on the CPU card) is flashing.

	<p>3. Performing the Upgrade</p> <p>It is recommended that the following sequence be used for this firmware upgrade:</p> <ul style="list-style-type: none"> • Use the <i>Status and Configuration – System – Upgrade</i> page to upgrade the firmware. The Package File named REL_46059_24_0_2.pkg is used for this upgrade. • If upgrading from v23: If a reserve state has not been configured or for safety reason there is concern for pedestrian safety the signals should be switched off and the <i>Signal Out of Order</i> boards put out. • If upgrading from any other version: The signals will need to be switched off so <i>Signal Out of Order</i> boards should be put out. • Following the on-screen instructions, the EFC will begin the upgrade. • The upgrade may take 20 minutes or more. <p>Do NOT switch off the power during the upgrade.</p> <p>4. Verify the Upgrade</p> <p>Use the <i>System</i> page to verify that the Package Version is displayed as: 24_0_2</p> <p>The <i>Fault Table</i> page may include entries that indicate that the firmware in other peripherals needs to be upgraded. To upgrade those peripherals, follow the instructions in the help associated with those Fault Table entries. When the firmware has been downloaded to all those peripherals, the Fault Table may indicate that power off/on is required.</p> <p>Use the <i>Fault Table</i> page to verify that no unexpected faults or notifications are present.</p> <p>It is recommended that a new restore point is created and retained on the Heart. Note that creating a new restore point (Refresh button) may take 30 minutes or more. Alternatively, wait for a new Restore Point to be created automatically overnight and log in remotely and Retain that Restore Point.</p>
<p>Related Documents</p>	<p>667/SU/46000/000 ST950 Compatibility Handbook Issue 18 (or later) for a list of all the changes.</p>