EA01426C/66/EN/03.24
70222318

Installation Instructions

Firmware Upgrade

J22 and JT33 TDLAS gas analyzers

Endress+Hauser
People for Process Automation

Table of Contents

1 Symbols 4
1.1 Safety symbols 4
1.2 Symbols for certain types of information 4
2 Overview of the firmware upgrade 5
2.1 Download the updated firmware 5
2.2 Connect to the controller 6
2.3 Upgrade the firmware 7
3 Troubleshooting 9
3.1 Device connection lost 9
3.2 Firmware non-operational after installation 10
3.3 Service contact 10

1 Symbols

1.1 Safety symbols

Symbol	Description
	The High Voltage symbol that alerts people to the presence of electric potential large enough to cause injury or damage. In certain industries, high voltage refers to voltage above a certain threshold. Equipment and conductors that carry high voltage warrant special safety requirements and procedures.
	Failure to follow all directions may result in damage or malfunction of the analyzer and/or personnel.
	PROTECTIVE EARTH GROUND - Symbol indicates the connection point of the ground wire from the main power source.
	A sign that alerts people to the presence of visible and invisible radiation. Avoid direct exposure to the beam and to not disconnect the system while active.

1.2 Symbols for certain types of information

Structure of Information	Meaning
WARNING **Causes (/consequences)** Consequences of non-compliance (if applicable) ▸ Corrective action	This symbol alerts you to a dangerous situation. Failure to avoid the dangerous situation can result in a fatal or serious injury.
CAUTION **Causes (/consequences)** Consequences of non-compliance (if applicable) ▸ Corrective action	This symbol alerts you to a dangerous situation. Failure to avoid this situation can result in minor or more serious injuries.
NOTICE **Cause/situation** Consequences of non-compliance (if applicable) ▸ Action/note	This symbol alerts you to situations which may result in damage to property.

2 Overview of the firmware upgrade

This document provides instructions for upgrading the firmware for the J22 and JT33 TDLAS gas analyzers. Maintenance of Endress+Hauser analyzers must be performed only by trained personnel.

Upgrading the analyzer firmware consists of three main tasks:

- Downloading the updated firmware
- Connecting to the controller
- Upgrading the firmware on the device

WARNING

Technicians are expected to be trained and follow all safety protocols that have been established by the customer in accordance with the area hazard classification to service or operate the analyzer.

▶ This may include, but is not limited to, toxic and flammable gas monitoring protocols, lockout/tagout procedures, the use of personal protective equipment (PPE) requirements, hot work permits and other precautions that address safety concerns related to the use and operation of process equipment located in hazardous areas.

Hardware required

- Laptop computer or equivalent
- Standard Ethernet cable; CAT5E/6 with RJ-45 connector
- Computer with RJ-45 interface
- Web server (enabled; factory setting: ON)

Software required

- Supported web browsers:
  - Microsoft Edge
  - Microsoft Internet Explorer 7.x, 8.x, 9.x
  - Mozilla Firefox 4.x, 5.x, 8.x
  - Google Chrome 15.x
- Recommended operating systems:
  - Windows 10
  - Windows XP
- Administrative rights for TCP/IP settings
- JavaScript enabled
  If JavaScript cannot be enabled, enter http://192.168.1.212/basic.html in the address line of the web browser for a fully functional, simplified version of the operating menu structure.

Tools required

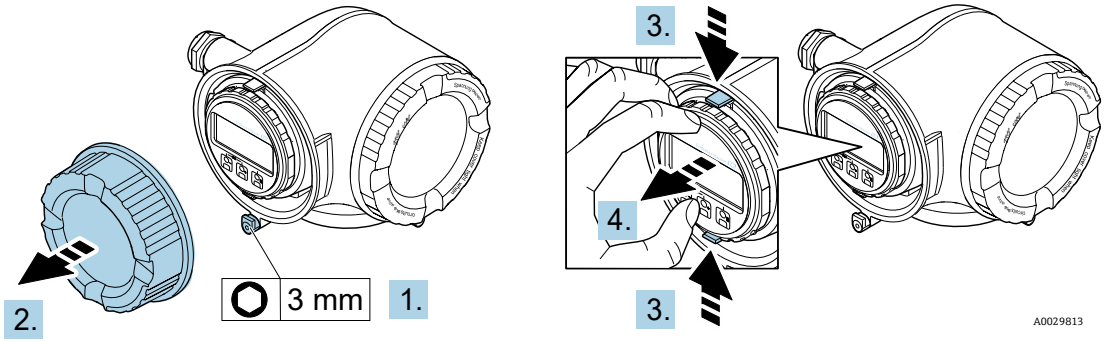
- 3mm hex key

2.1 Download the updated firmware

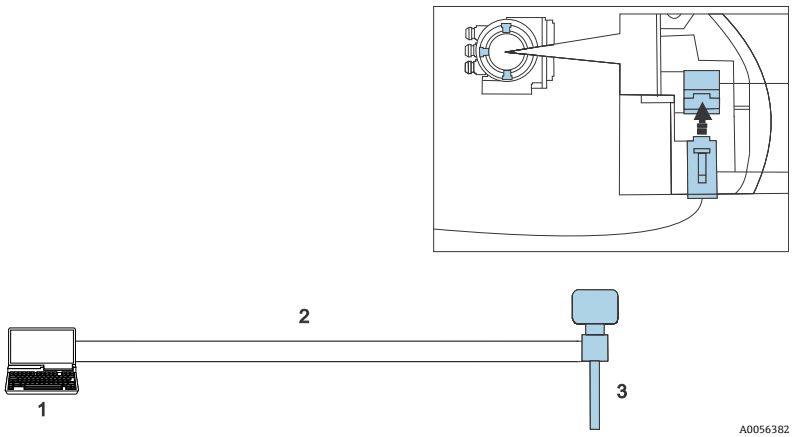
1. From the provided link, locate the updated firmware file.
2. Download the firmware file to a location on the laptop hard drive.
3. Before beginning the firmware upgrade, note the display values on the HMI to use as a reference point when confirming a successful upgrade.

2.2 Connect to the controller

1. Remove the cover from the controller using a 3 mm hex key.



2. Connect the laptop to the controller using an Ethernet cable. Confirm the cable is connected on the Service port - ecdi.

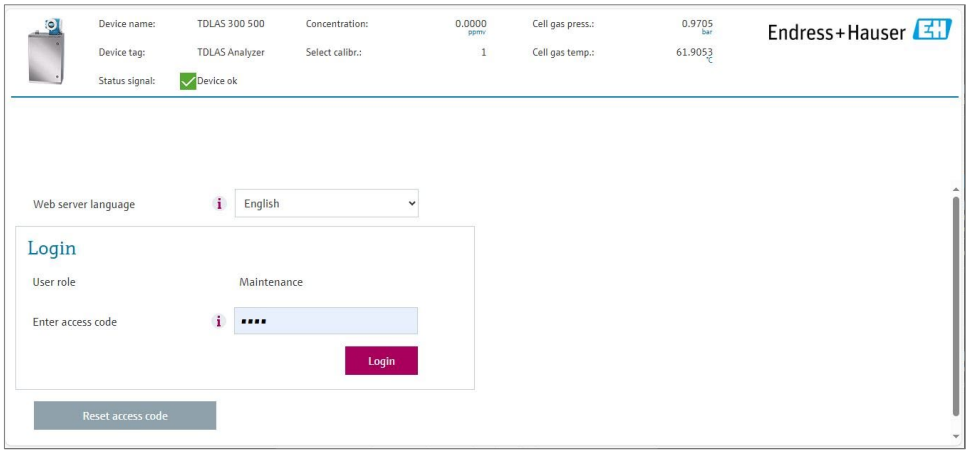


3. On the laptop, go to Settings. Enter **Ethernet settings**.
4. Under IP settings, click **Edit**.

   The Edit IP settings window displays.
5. Enter the following information:
   - IP address: 192.168.1.XXX; XXX represents all numerical values except 0, 212, and 255, e.g., 192.168.1.213.
   - Subnet mask: 255.255.255.0
   - Default gateway: 192.168.1.212 or 0.0.0.0.
6. Click **Save**.

2.3 Upgrade the firmware

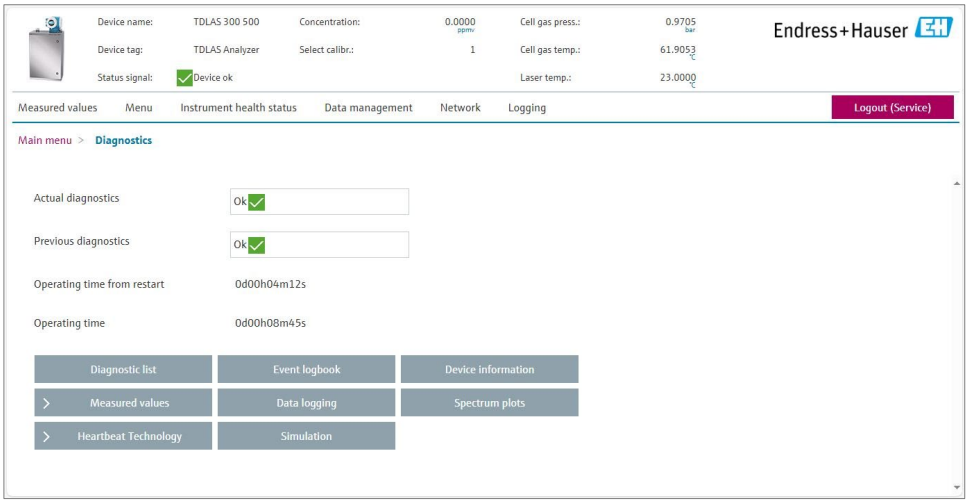
1. On the laptop, enter the web server IP address into the browser: 192.168.1.212. If you have changed the IP address of the web server, use the IP address you assigned.



A0056885

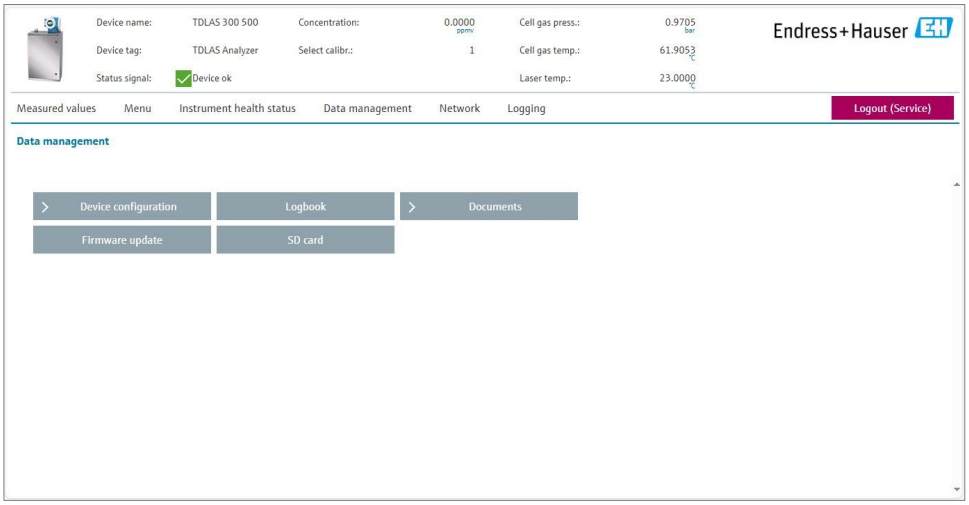
2. Log in with the default Maintenance password **0000**. If the Maintenance password has been updated, use the updated password for login.

   After successful login, the web server displays the **Diagnostics** screen.



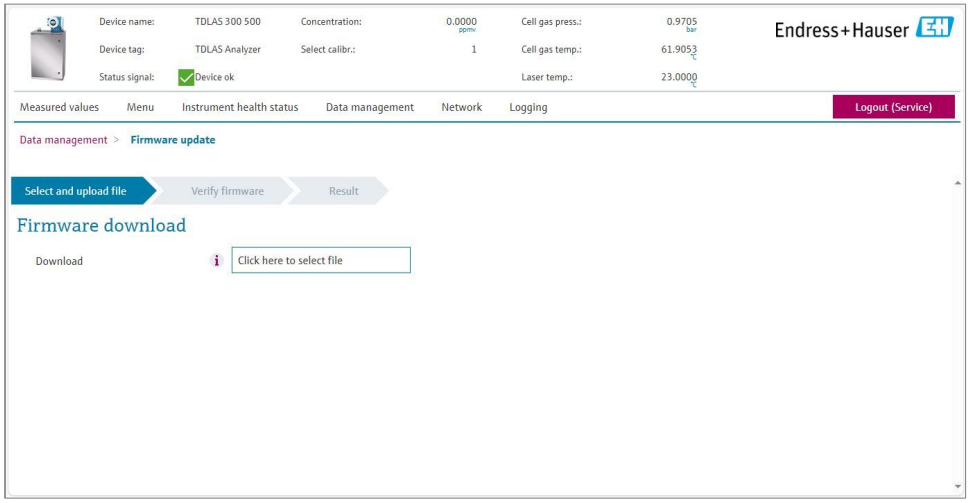
A0056886

3. Click the **Data management** tab.



A0056887

4. Click **Firmware update**.



A0056888

5. Click the **Download** field and select the saved firmware file on the laptop. Click **Open**.

   The file name displays in the Download field.

6. Click **Ok**.

   The buffer wheel displays as the upgrade downloads into the controller. The “Verify Firmware” function runs.

   The controller begins start up after the firmware download is completed. The HMI displays the updated firmware information and then the system reboots.

3 Troubleshooting

Refer to the following section for any issues encountered during or after the firmware update procedure.

3.1 Device connection lost

If the connection to the analyzer is lost (see below), the web server will restart.

Figure 1. Webserver when analyzer connection is unstable or disconnected.

After the analyzer restart is completed, the login screen displays to show the firmware is running successfully.

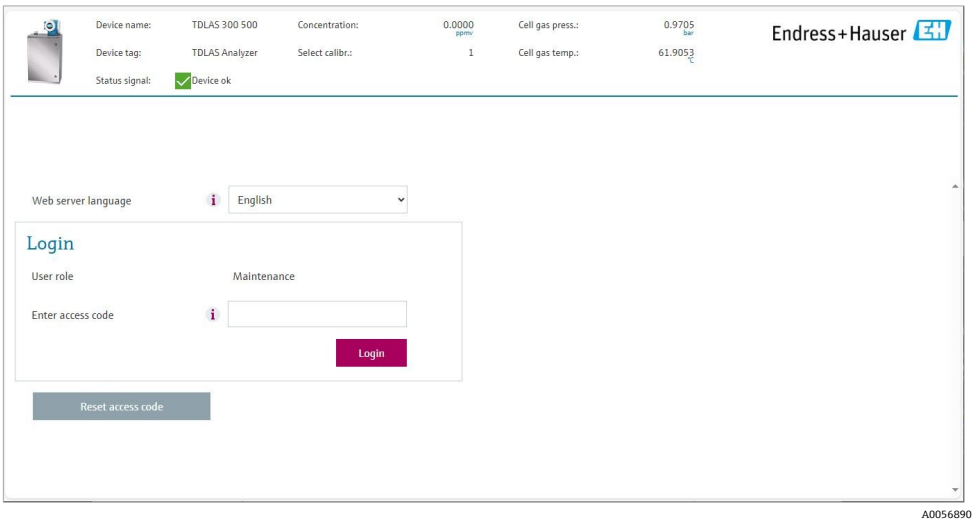


Figure 2: Web server login

To confirm the new firmware version, log in and click **Network**. The Network screen displays the new firmware version.

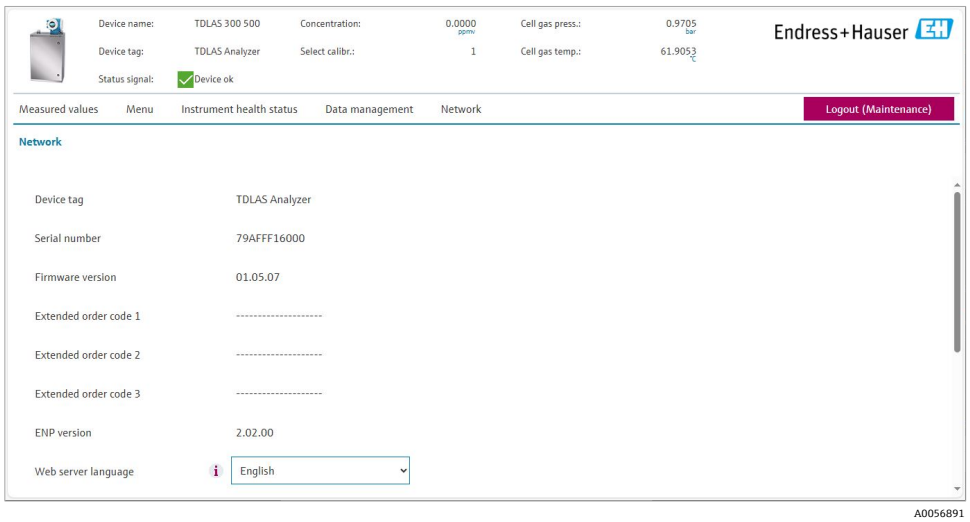


Figure 3: Firmware version information

3.2 Firmware non-operational after installation

If the firmware upgrade does not successfully complete, restart the analyzer.

1. Log in and click **Menu**, then click **Setup**.
2. Click **Advanced Setup**, then click **Administration**.
3. In the **Device Reset** field, select **Restart device**. Click **Ok**.

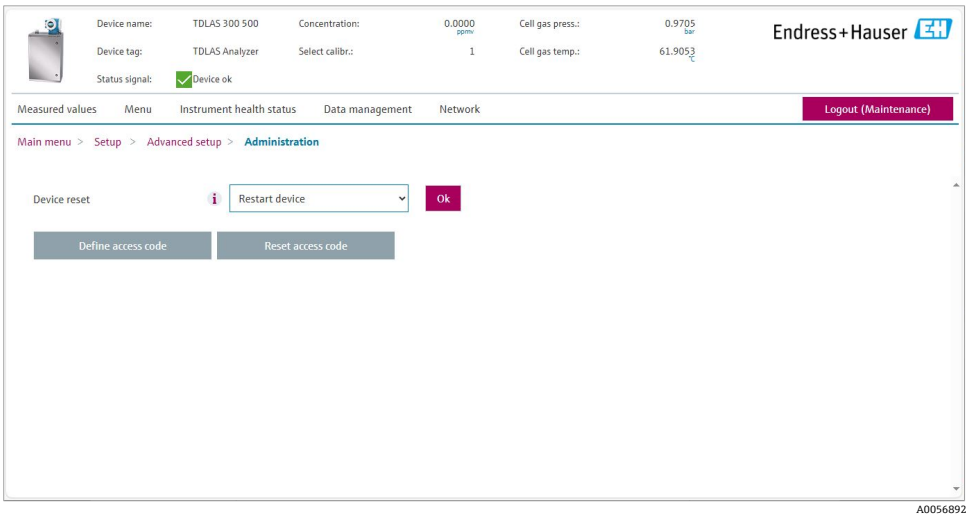


Figure 4: Analyzer restart

3.3 Service contact

For service, refer to our website (https://www.endress.com/contact) for the list of local sales channels in your area.

Before contacting service

Before contacting service, prepare the following information to send with your inquiry:

- Analyzer serial number (SN)
- Contact information
- Description of the problem or questions

Access to the information above will expedite the response to technical requests.

www.addresses.endress.com

Endress+Hauser

People for Process Automation