azbil

CM2-CFS100-2001

Field Communication Software

Model: CFS100

(Common Edition)

User's Manual

Azbil Corporation

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NOTICE

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Azbil Corporation

You ("You") and Azbil Corporation ("Azbil") enter into this General Software License Agreement ("Agreement") to agree on the terms and conditions to Use the Software and Related Documents.

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For the purpose of this Agreement:
"Software" means the software set forth in Exhibit, which either You purchased from Azbil or its affiliate, or You downloaded from the website of Azbil or its affiliate. The Software is categorized into standard software, software products downloaded through the Internet and customized software developed in accordance with the specification agreed between You and Azbil.
"Related Documents" means a set of documents related to the Software.
"Use" means to install the Software in a storage device or memory, or to run it with a CPU.
"Exhibit" means the document sets forth the specific terms and conditions to Use the Software, which is to be submitted by Azbil to You. Exhibit is incorporated in this Agreement upon your receipt thereof.

Article 2. Grant of License

2-1 Subject to the terms and conditions of this Agreement, Azbil hereby grants to you a nonexclusive, non-transferable and non-sublicensable license ("License") to Use the Software to use the system set forth in Exhibit (the "System"). The function of the Software available under the License may be limited during the Trial Use Period set forth in Exhibit.

2-2 Azbil by no means allows You to copy, alter, modify or otherwise change the Software and Related Documents by the grant of the License, unless otherwise expressly provided in this Agreement.

2-3 Notwithstanding the foregoing, You may copy the Software for the sole purpose to make a backup file thereof and store it in the number of media set forth in Exhibit.

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2-5 In consideration of the grant of the License, You shall pay to Azbil the license fee in accordance with the terms set forth in Exhibit ("License Fee"). License Fee is not refundable unless otherwise explicitly provided in this Agreement or in Exhibit.

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You hereby acknowledge and agree that: (i) the Software may from time to time be updated at Azbil's discretion; (ii) Azbil may update the Software and add, modify or reduce certain function thereof, at its discretion; and (iii) the same terms conditions herein apply to the updated Software. You and Azbil shall enter into a software maintenance agreement, if necessary.

Article 4. Restrictions

You, without Azbil's prior written consent, shall not:

(i) Use the Software and/or Related Documents for the purpose other than to use the System;

(ii) Use the Software in the number of computers (whether actual or virtual) more than set forth in Exhibit;

(iii) Use the Software in a computer which functions as a cloud server (whether actual or virtual);

(iv) copy the Software in whole or in part for the purpose other than to make backup files of the Software;

(v) alter, modify or otherwise change the Software and/or Related Documents;

(vi) use the Software not in its entirety, but in part;

(vii) trace, debug, disassemble, decompile or otherwise attempt to analyze or reverse engineer the No Reverse Engineering Software set forth in Exhibit or attempt to discover any source code of the No Reverse Engineering Software;

(viii) sell, lease or license the Software or a storage device contains the Software and/or Related Documents (including a computer to which the Software is installed) to a third party;

(ix) sublicense the Software to a third party or assign the License to a third party;

(x) Use the Software and/or Related Documents together with a third party;

(xi) remove or change the proprietary notice of Azbil and/or a third party;

(xii) Use the Software and/or Related Documents at the location other than set forth in Exhibit;

(xiii) Publish the specification of the Software; or

(xiv) otherwise Use, copy, reproduce, sell, distribute, redistribute, assign, transfer, publicly transmit, lease, license or sublicense the Software and/or Related Documents beyond the extent expressly provided herein.

Article 5. Warranty Period of the Software

The warranty period of the Software commences from the delivery date of the Software (or, if the Software is delivered through the Internet, the date of such delivery) and continues for a period set forth in Exhibit: provided, however, if local adjustment work is necessary to operate the Software, the warranty period of the Software commences from the date Azbil begins such adjustment work and continues for a period set forth in Exhibit ("Warranty Period").
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Article 6. Warranty

6-1 Within the Warranty Period, Azbil warrants that the Software, if Used under the suitable environment designated by Azbil, duly functions in accordance with the specifications set forth in the Related Documents provided by Azbil: provided, however, that Azbil does not warrant that the Software will be free of all errors or operate without interruption ("Warranty"). The Warranty does not apply to third party software contained in the Software, which is warranted only by the third party who owns such software.

6-2 If any non-conformance to the Warranty is detected within the Warranty Period, You must promptly notify Azbil and provide Azbil with all available information in written or electronic form so that Azbil can reproduce the non-conformance. If in Azbil's opinion such non-conformance is attributable to Azbil, Azbil shall at no charge correct it or provide You with guidance to correct it. If the nonconformance of the Software is due to third party software, Azbil will only inform You of cautions to use the Software.

6-3 If a non-conformance to the Warranty is in Azbil's opinion irremediable or unavoidable, Azbil shall compensate the damage reasonably incurred by You.

6-4 The Warranty does not apply, if a non-conformance is caused:

(i) by natural disaster (including, without limitation, fire, earthquake, thunder, pollution), plague (including, without limitation, infectious disease), war, riots, civil commotion, labor disputes, lockouts, failure of electricity, gas or water supplies, dysfunction or network, transport accidents, traffic jams, enactm ent, amendment or abolishment of laws or regulations, order or request by governmental or quasi-government authorities, public health emergency or any other force majeure;

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(iii) because you or a third party modified, altered or otherwise changed the Software or other software (including update of the operating system) or installed other software without prior consent of Azbil;

(iv) because You failed to update the version of the Software not in compliance with Azbil's instruction;

(v) because You failed to provide necessary information and assistance to Azbil for maintenance of the Software;

(vi) because, by an update or version-up of the Software or other software, the Software has fallen out the scope of the operating environment recommended by Azbil;

(vii) by computer virus not attributable to Azbil;

(viii) because You Used the Software in combination with the application not recommended by Azbil, or You installed or maintained the Software not in compliance with Azbil's instruction, or You Use the Software under the hardware environment not recommended by Azbil; or

(ix) by reason not attributable to Azbil.

6-5 THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED, IMPLIED OR STATUTORY, AND AZBIL SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

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7-1 If a third party brings a claim or action against You alleging that the Software infringes any Intellectual Property Right owned by the third party, You shall promptly notify Azbil of such claim or action in a written form.

7-2 Azbil agrees to defend or settle any such claim or action brought against You alleging that the Software infringes any Intellectual Property Right owned by the third party, that was publicly both disclosed, and was legally enforceable as of the date that the Software was first made available to You pursuant to this Agreement.

7-3 Azbil will indemnify and hold You harmless from and against any damages reasonably incurred that are attributable to such claim or action, if (i) You promptly notify Azbil of such claim or action in accordance herewith, (ii) gives Azbil sole control and authority over the defense or settlement thereof, (iii) makes no compromise, settlement, or admission of liability and (iv) gives Azbil all available information and assistance to settle and/or defend any such claim or action.

7-4 If the Software becomes, or in the opinion of Azbil is likely to become, the subject of an infringement claim or action, Azbil may at its discretion: (i) procure, at no cost to You, the right to continue Using the Software; or (ii) replace or modify the Software to render it non-infringing, provided there is no material loss of functionality.

7-5 In no event Azbil is liable for any infringement claim or action not attributable to Azbil, such as a claim or action where (i) infringement would have been avoided but for use of the Software not in accordance with the manner set forth in Related Documents, (ii) infringement would have been avoided but for use of the Software or portions thereof in combination with other software not approved by Azbil, (iii) You continues allegedly infringing activity after being notified thereof or after being informed of modifications that would have avoided the alleged infringement; or (iv) Your use of the Software is not strictly in accordance with the terms of the Agreement.

7-6 THE FOREGOING PROVISIONS OF THIS ARTICLE SET FORTH AZBIL'S SOLE AND EXCLUSIVE REMEDY AND THE ENTIRE LIABILITY AND OBLIGATION OF AZBIL WITH RESPECT TO INFRINGEMENT OR CLAIMS OF INFRINGEMENT OF ANY INTELLECTUAL PROPERTY RIGHT BY THE SOFTWARE.

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Article 9. Confidentiality

9-1 For the purpose of this Agreement, "Confidential Information" means all technical and business information disclosed by Azbil to You with respect to the Software, including the Software itself, whether designated as confidential or not.

9-2 Notwithstanding the foregoing, Confidential Information does not include information that:

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(ii) was in Your possession prior to its disclosure by Azbil;

(iii) is lawfully acquired by You from a third party without restriction on disclosure; or

(iv) is independently developed by You;

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(i) not disclose any Confidential Information in whole or in part to any third party other than Your officers and employees who have a strict "need-to-know" to Use the Software and who have undertaken by employment agreement or otherwise to comply with the obligation undertaken by You without the prior written consent of Azbil: provided, however, that You may disclose Confidential Information subject to requirement of a governmental agency or any law requiring disclosure, if You provide prompt advance notice thereof to Azbil reasonably sufficient to enable Azbil to seek a protective order and otherwise prevent public disclosure of such Confidential Information.

(ii) not use Confidential Information beyond the extent necessary to perform the Purpose; or

(iii) not make any reproduction or copy of Confidential Information beyond the extent necessary to use the Software, without the prior written consent of Azbil; and

(iv) return or destroy all Confidential Information or all copies thereof, whether in written or other tangible form, upon Azbil's request or termination of this Agreement.

Article 10. Term

10-1 This Agreement becomes effective from the date when the Software is delivered to You and continues to be effective for a period set forth in Exhibit. If the Software is delivered to you via the Internet, this Agreement becomes effective from the date of such delivery and continues to be effective for a period set forth in Exhibit.

10-2 Notwithstanding the foregoing, You may terminate the Agreement by providing a written termination notice to Azbil at least three (3) months [one (1) month] prior to expiration of the above term.

Article 11. Termination for Cause

11-1 Either Azbil or You may terminate this Agreement in whole or in part without any prior notice:

(i) if the other party dishonors a bill or check drawn by it, manifests its inability to repay debts, becomes insolvent, has liabilities exceeding its assets, incurs a suspension of bank transactions, or suffers material deterioration of its credit standing; or if the occurrence of such event is expected;

(ii) if the other party is subject to seizure, provisional seizure, provisional disposition, compulsory enforcement, disposition for failure to pay taxes, or other similar disposition from a third party;

(iii) if a petition for the commencement of bankruptcy, civil rehabilitation, corporate rehabilitation, special liquidation or other similar proceedings is filed with respect to the other party; or if it is found to be no longer viable for the other party to perform its liabilities to the counterparty hereto due to downsizing of the business or for any other reasons;

(iv) if the other party incurs a disposition of business suspension or revocation or any other similar disposition of the competent authorities;

(v) if the other party attempts to dissolve itself or assign all or a significant part of its business to a third party.

(vi) if the other party conducts wrongful or unjust act with regard to performance of this Agreement; or

(vii) the other party breaches any provision of this Agreement.

11-2 In the event either Azbil or You breaches any provision of this Agreement, all amounts due hereunder shall be accelerated and deemed immediately due and payable to the other party.

11-3 Either Azbil or You may terminate this Agreement under special circumstance where it is not feasible to maintain this Agreement due to reason not attributable to either party.

11-4 Azbil may immediately terminate this Agreement in the event a third party acquires, directly or indirectly, (i) the power to control the management and policies of You, whether through the acquisition of voting securities, by contract or otherwise, or (ii) more than fifty percent (50%) of Your assets whether in a single transaction or series of transactions.

11-5 The termination of this Agreement hereunder will not prevent the terminating party from claiming damages against the other party.

Article 12. Effect of Termination

Upon expiration or termination of this Agreement, You shall delete the files related to the Software and Related Documents (including backup files) from all computers You possess and cease Using the Software in accordance with Azbil's instruction. If You received media which contains the Software and/or Related Documents from Azbil, You shall destroy it or return it to Azbil, in accordance with Azbil's instruction.

Article 13. Survival

The provisions of this Agreement that require or contemplate performance after the expiration or termination of this Agreement in accordance with Article 10 (Term) or 11 (Termination), including, Article 8 (Limitation of Liability), Article 9 (Confidentiality), Section 3 of Article 11 (Termination), Article 12 (Effect of Termination), this Article 13, Article 15 (Export Control) and Article 19 (Governing Law and Dispute Resolution) are enforceable notwithstanding such expiration or termination.

Article 14. Amendment

Azbil may amend this Agreement at any time by sending a notice to You in a manner Azbil deems appropriate. If You do not agree with the amendment, You shall inform so to Azbil and cease Using the Software before the amendment becomes effective. You are deemed to accept the amendment by Using the Software after the amendment becomes effective.

Article 15. Export Control

You agree to comply with all applicable export laws and restrictions and regulations of Japan and the United States of America or foreign agencies or authorities and take necessary steps, if You:

(i) export the Software (in whole or in part);

(ii) transmit the Software (in whole or in part) outside Your country;

(iii) have a person living outside Your country use the Software (in whole or in part); or

(iv) carry out any other acts under applicable export control laws and regulations.

Article 16. No Waiver

A waiver by either party of any term or condition of this Agreement or any breach thereof, in any one instance, does not mean waiver of such term or condition or any subsequent breach thereof.

Article 17. Injunctive Relief

You understand and agree that in the event of a breach or threatened breach by you of any term or provision of this Agreement will cause irreparable harm to Azbil and that damages or an action at law may not be an adequate remedy for any such breach. Accordingly, in the event of any such breach or threat of same, and notwithstanding any other provisions of this Agreement, Azbil is, in addition to all other remedies that may be available to it, be entitled to injunctive relief (including a temporary restraining order, a temporary or prohibitory injunction and a permanent mandatory or prohibitory injunction) to restrain and prohibit the continuation of any such breach, to compel compliance with the provisions of this Agreement, and to restrain and prohibit any threatened breach in order to protect the proprietary rights of Azbil.

Article 18. Severance

If any provision in this Agreement should be held illegal or unenforceable by a court having jurisdiction, such provision shall be modified to the extent necessary to render it enforceable without losing its intent, or severed from this Agreement if no such modification is possible, and the other provisions of this Agreement remains in full force and effect.

Article 19. Governing Law and Dispute Resolution

1. This Agreement is governed and construed in accordance with the laws of Japan without regard to choice of law rules, and excluding the United Nations Convention on Contracts for the International Sale of Goods.
2. Any dispute arising out of or in connection with this Agreement is subject to the exclusive jurisdiction of the Tokyo District Court in the first instance.

Article 20. Entire Agreement

This Agreement constitutes the entire agreement between the parties concerning the subject matter hereof.

Exhibit

Company Name	---
Location	---
Name of the System	---
Name of the Software	Model CFS100
Number of Computers	one computer
License Fees	to be agreed
Terms of Payment	to be agreed
No Reverse Engineering Software	Model CFS100
Term	This Agreement becomes effective as of the date of delivery of this software and remains effective until terminated in accordance with the written notice set forth in Article 10.
Trial Use Period	none
Warranty Period	12 months
Number of Media for Backup Purpose	as reasonably needed

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Safety precautions

Introduction

Proper installation, operation and maintenance are essential to ensure safety during the use of your Field Communication Software model CFS100 (CommStaff). Do not use CommStaff before completely reading and fully understanding the safety precautions explained in this manual, and be sure to follow the instructions on installation, operation and maintenance.

Verifying your order

Upon receiving Field Communication Software model CFS100 (CommStaff), check that the specifications match what you ordered, and check for any damage to the product that might have occurred during shipping.

Verify that the package contains the following items:

- Installation CD-ROM
- Quick start guide
- CFS100 SFN/DE communication interface (optional)

Transporting Model CFS100

To avoid damage, transport model CFS100 in its original packaging until it arrives at the installation site.

Storing Model CFS100

Select a storage site that satisfies the following conditions:

- Not exposed to rainwater
- Not subject to vibration or shock
- As close as possible to normal temperature and humidity (approx. 25 °C and 65 %RH)

Store model CFS100 in its original packaging if possible.

Use of cellular phone or radio transceiver

Using a cell phone or radio transceiver near model CFS100 (CommStaff) may affect model CFS100's performance due to radio interference, depending on the transmitting power and the frequency.

Cautions to Disposal of Electrical and Electronic Equipment

Disposal of Electrical and Electronic Equipment (for Environmental Protection)

This is an industrial product subject to the WEEE Directive.

Do not dispose of electrical and electronic equipment in the same way as household waste.

Old products contain valuable raw materials and must be returned to an authorized collection point for correct disposal or recycling.

China RoHS

基于 SJ/T11364-2014「电子电气产品有害物质限制使用标识要求」的表示式样

产品中有害物质的名称及含量

部件名称 CFS100	有害物质					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
印刷电路板	×	○	○	○	○	○
锁定螺母	×	○	○	○	○	○

本表格依据 SJ/T 11364 的规定编制。

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仅适用于型号：CFS100-U1-X、CFS100-U2-X，

型号：CFS100-UX-X 除外。

Chapter 1. Overview

1-1. Introduction

Field Communication Software model CFS100 (CommStaff) is a tool for communicating with Azbil Corporation's smart field devices (DSTJ and others) that enables configuration of device settings. It is a software product that operates on Windows PCs. CommStaff communicates with Azbil Corporation's smart field devices using a USB interface connected to a Windows PC, which is then connected by communications cable to the USB port of a device.

CommStaff supports Azbil Corporation's proprietary SFN/DE communication protocol as well as the HART communication protocol.

*HART is a registered trademark of the FieldComm Group.

1-2. Important Notes

- When changing connected devices

  Model CFS100 (CommStaff) continues communicating with the device when displaying dynamic values, such as pressure, so that it can continuously update these values. If you remove the communications cable to change the device during this communication, an error will occur.

  Exit CommStaff before detaching the communications cable from the device, and then start CommStaff again after connecting the communications cable to the new device.
- Do not use CommStaff while the PC is connected to AC power.
- If the plastic case of the communication interface becomes cracked, do not use CommStaff .
- Handling the communication interface cable clamp unnecessarily may lead to malfunction of the latch. Handle the cable clamp only as necessary.
- If the decimal point is set to a comma (,), CommStaff will not work correctly. If the decimal point is set to comma (,) by Windows, change the setting to a period (.) as the chapter 2-1-2.
- CommStaff may display it with "1.$". This is non-numerical value or an infinite meaning.

1-3. Package Contents and Part Names

The model CFS100 (CommStaff) product consists of the following items.

- Installation CD-ROM

  The CD-ROM contains an installer to install the CommStaff application on your Windows PC. It also includes the operating manual and the instruction manual of the device in PDF format.

  Store the CD-ROM away from direct sunlight.
- Quick start guide

  A simple guide for initial setup of CommStaff.
- CFS100 SFN/DE communication interface (optional)

  A USB-type SFN/DE communication interface. Connect this interface to a USB port on the PC.

Caution: Do not connect the communication interface before you have installed the CommStaff software on the PC. Otherwise, the interface will fail to find the driver and the program will not operate correctly.

1-4. Operating Environment

The product intends to be used in industrial environment.

- Use model CFS100 (CommStaff) within the following ranges.

  Environmental conditions (CFS100 SFN DE communication interface)

  Operating temperature 0 to 50 °C; operating humidity 5 to 95 %

Note: If the PC has a more limited operating environment range, use CommStaff within that range.

1-5. System Requirements

1-5-1. PC

Use a PC that meets the following requirements.

OS	Windows 10 Pro or Windows 11 Pro (32-bit or 64-bit, Japanese or English version)
Hard disk drive space	500 MB or more
Communication port	USB 2.0 or later

Do not install any application on the PC other than the software required by model CFS100 (CommStaff).

If the Windows user name is too long, or if any characters other than regular alphanumeric characters are used, installation may fail. The recommended Windows username is 8 alphanumeric characters (no double-width Asian characters).

1-5-2. Communication Interface

Use a communication module that meets the following requirements.

HART/ SFN/DE communication interface	Smart HART Modem model AZ-1SHM Azbil Corporation model number: AZ-1SHM-1
SFN/DE communication interface	CFS100 SFN DE Azbil Corporation model number: 80345962-001

Regarding the HART communication interface, although model CFS100 (CommStaff) was designed for use with other similar products, operation with other products has not been tested.

Chapter 2. Installing/Uninstalling Model CFS100

Installing model CFS100 (CommStaff) requires logging onto Windows as an administrator.

2-1. Preparation for Installation

2-1-1. Items Required

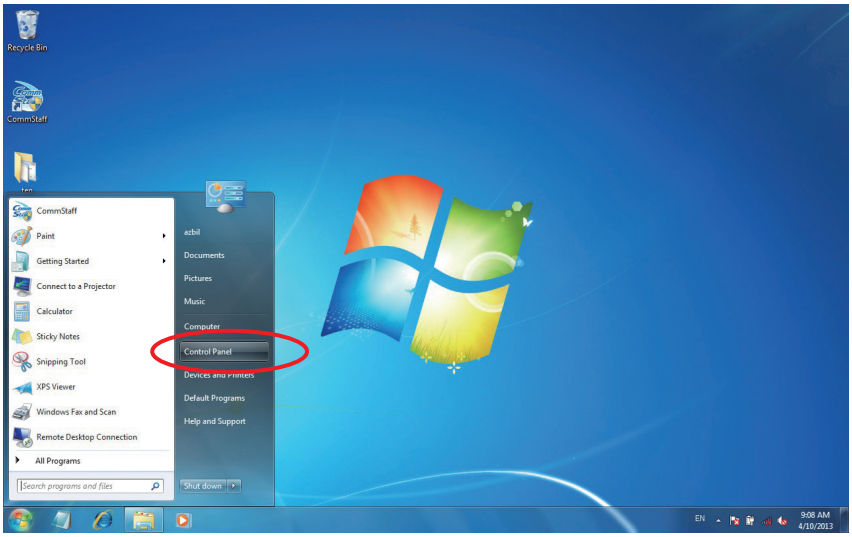
Have the following items on hand before beginning installation.

- PC
  - Check that it meets the system requirements described in Section 1-5-1.
  - A CD-ROM drive is necessary for installation.

2-1-2. Setting the Decimal Point

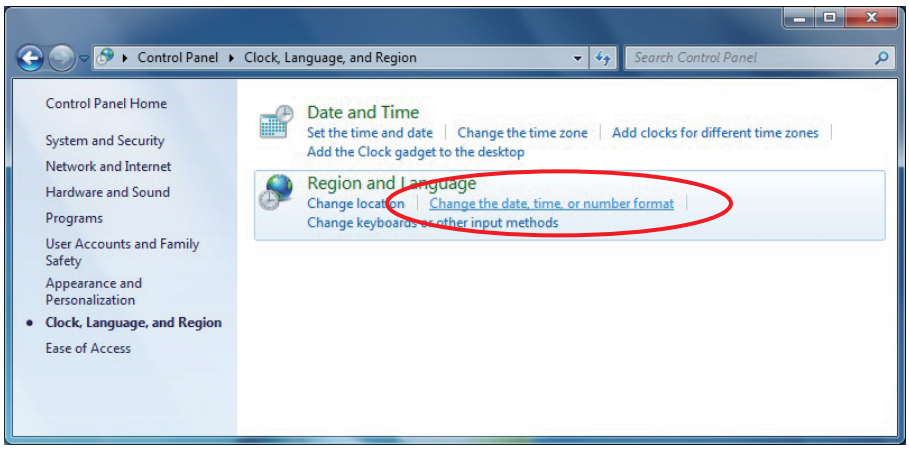
If the decimal point is set to a comma (,), CommStaff will not work correctly. If the decimal point was preset to comma by Windows, change the setting to a period (.) as described below.

Open Control Panel.

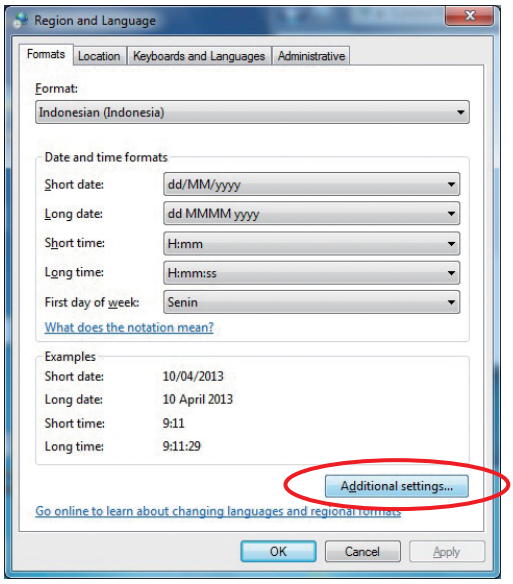


Select “Clock, Language, and Region.”

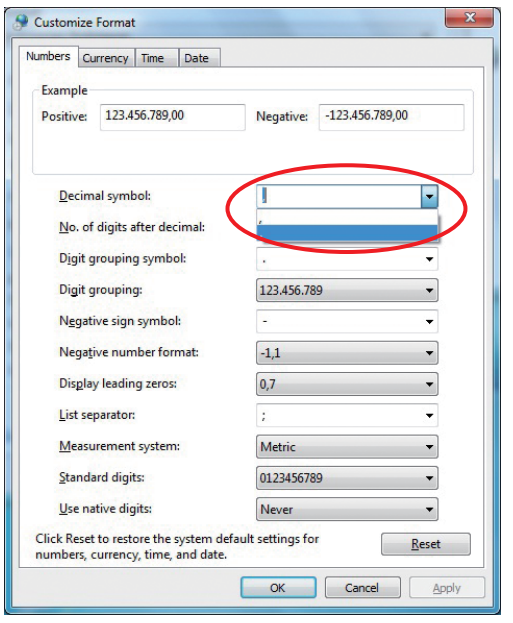
Select “Change the date, time, or number format.”



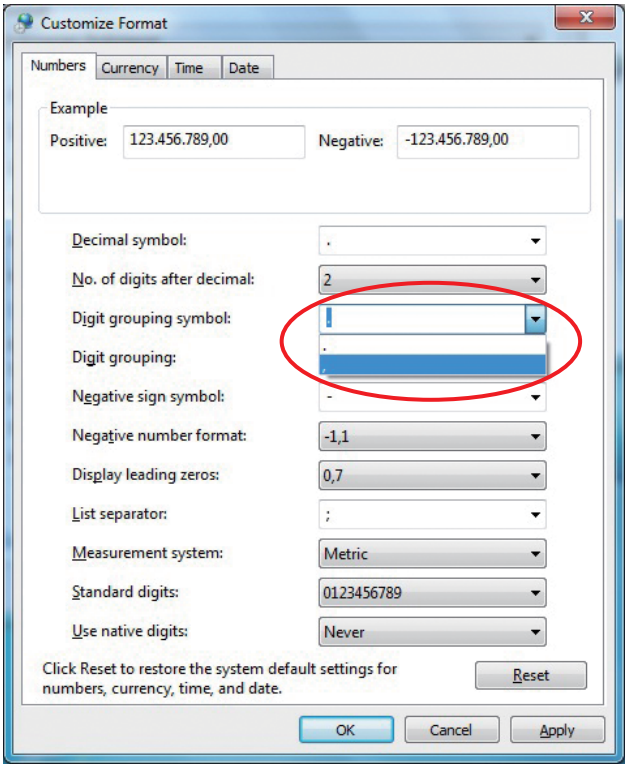
Select “Additional settings…”.



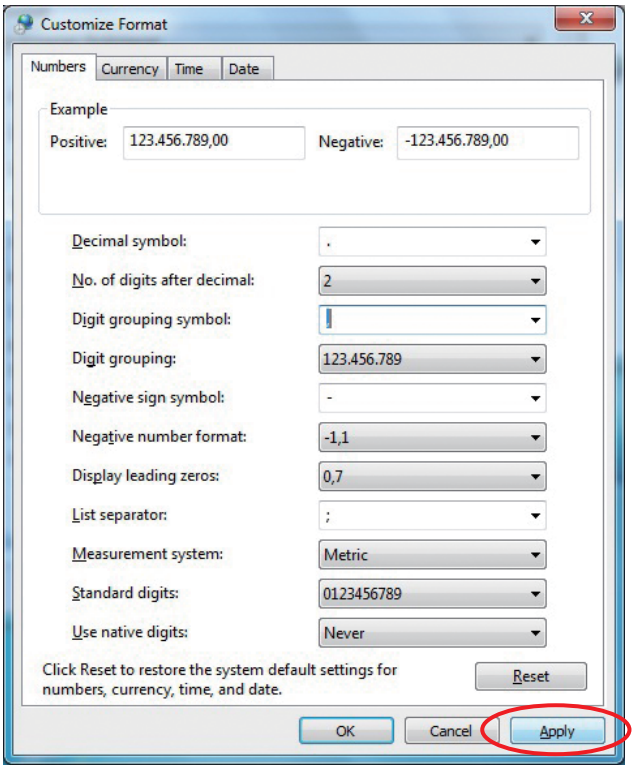
Set “Decimal symbol” to a period (.). If a period does not appear in the selection box, enter it directly using the keyboard.



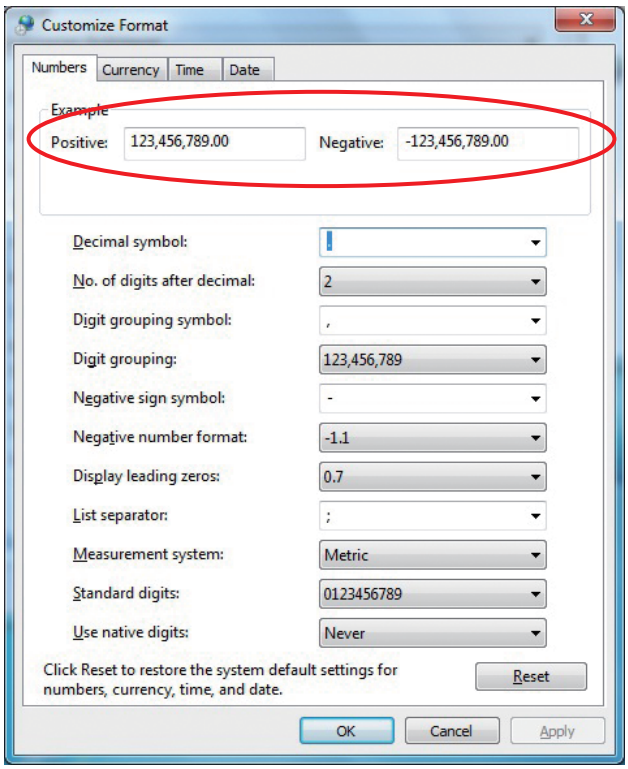
Set “Digit grouping symbol” to a comma (,). If a comma does not appear in the selection box, enter it directly using the keyboard.



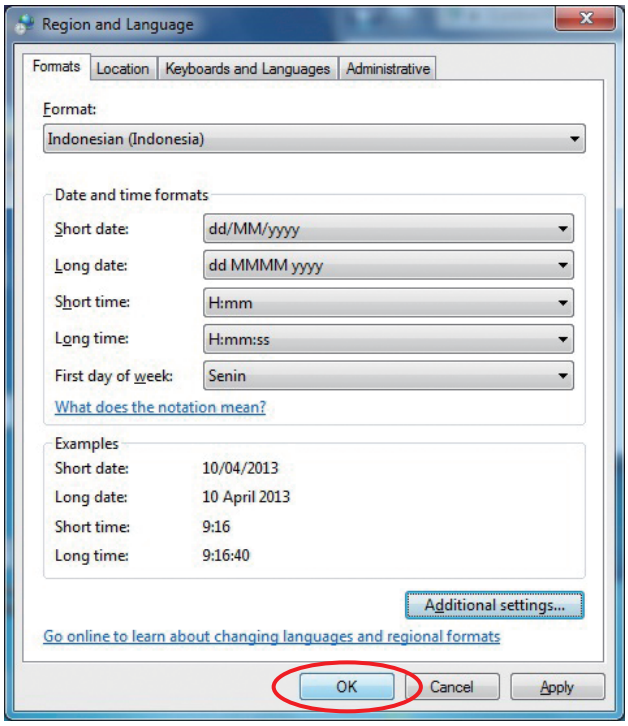
Click [Apply].



Check that the numbers shown under Example are correctly formatted, and click [OK].



Click [OK].



Setup is now complete.

2-2. Installation

2-2-1. Installation Overview

1. Put the model CFS100 (CommStaff) installer CD-ROM in the CD-ROM drive of the PC.
2. Execute the following two installers. (For correct installation in the case of an upgrade, first uninstall the old version and then install the new version.)

   1) CommStaff application installer

      Right-click setup.exe in the root directory of the installer CD-ROM and select "Run as administrator."

   2) SFN communication interface driver installer

      Right-click CFS100SFNInstaller.exe in the \CustomCFS100SFNDriverInstall subfolder of the installer CD-ROM and select "Run as administrator."

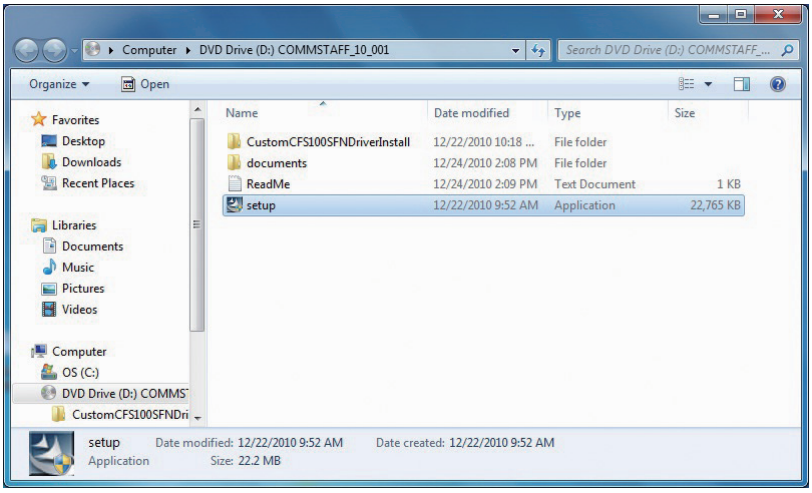
3. If using the HART communication interface, install the driver supplied with it.

This completes the installation.

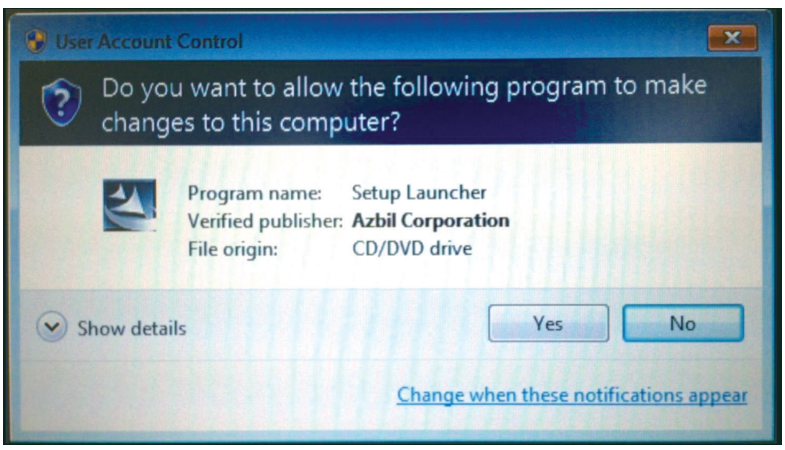
2-2-2. Installation in Detail

Installation of the model CFS100 (CommStaff) application

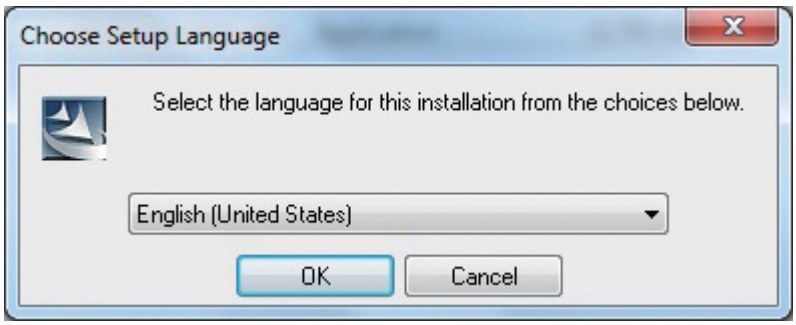
Right-click setup.exe in the root directory of the installer CD-ROM and select "Run as administrator."



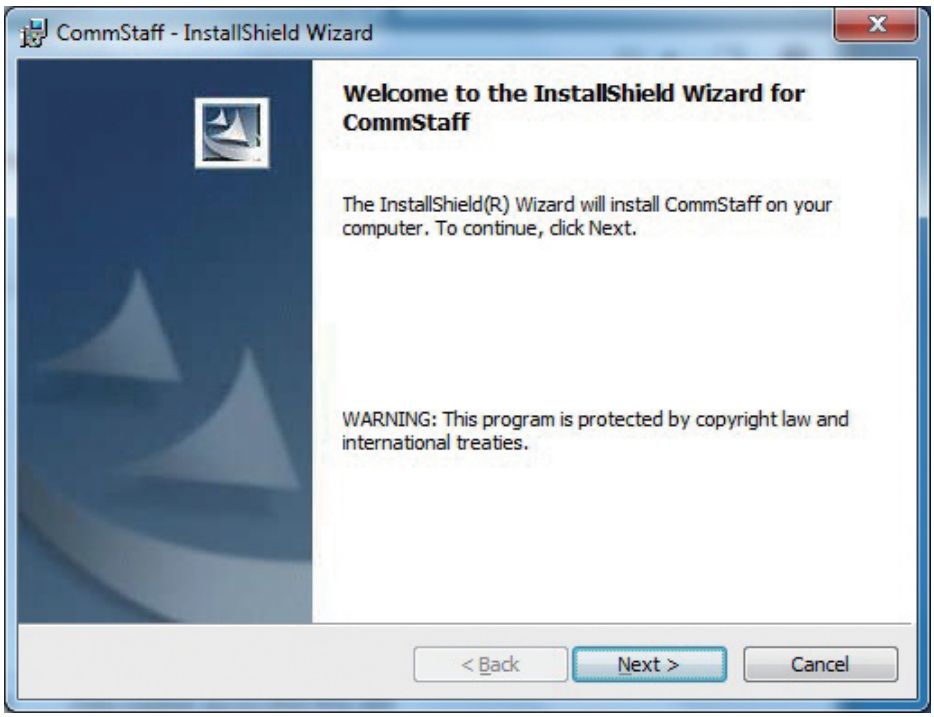
The message "Do you want to allow the following program to make changes to this computer? " appears. Click [Yes].



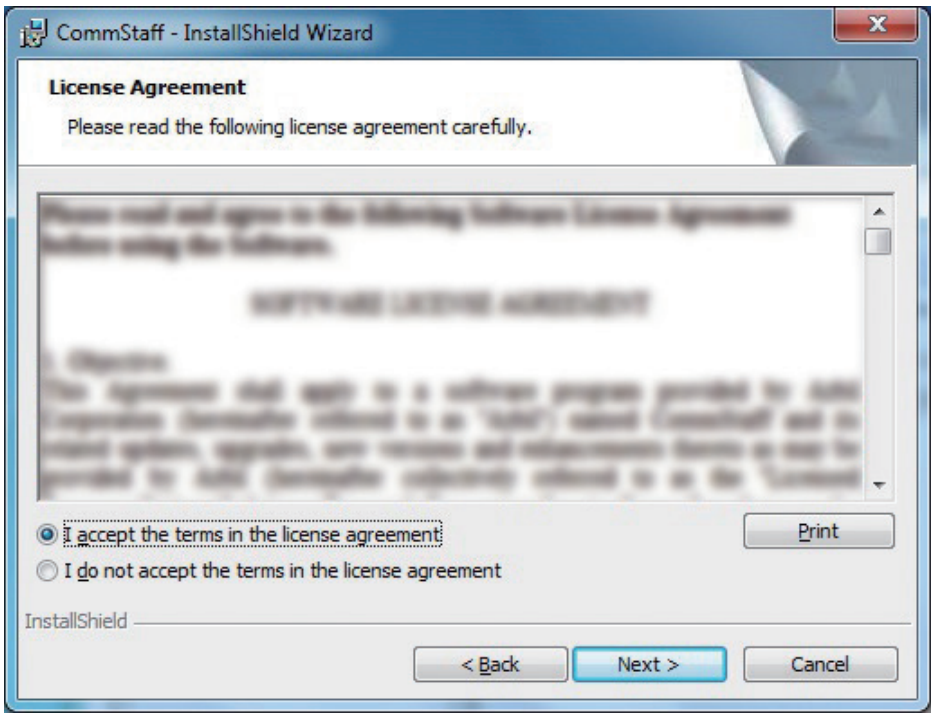
The language selection screen appears. Click [OK] to continue.



Click [Next].

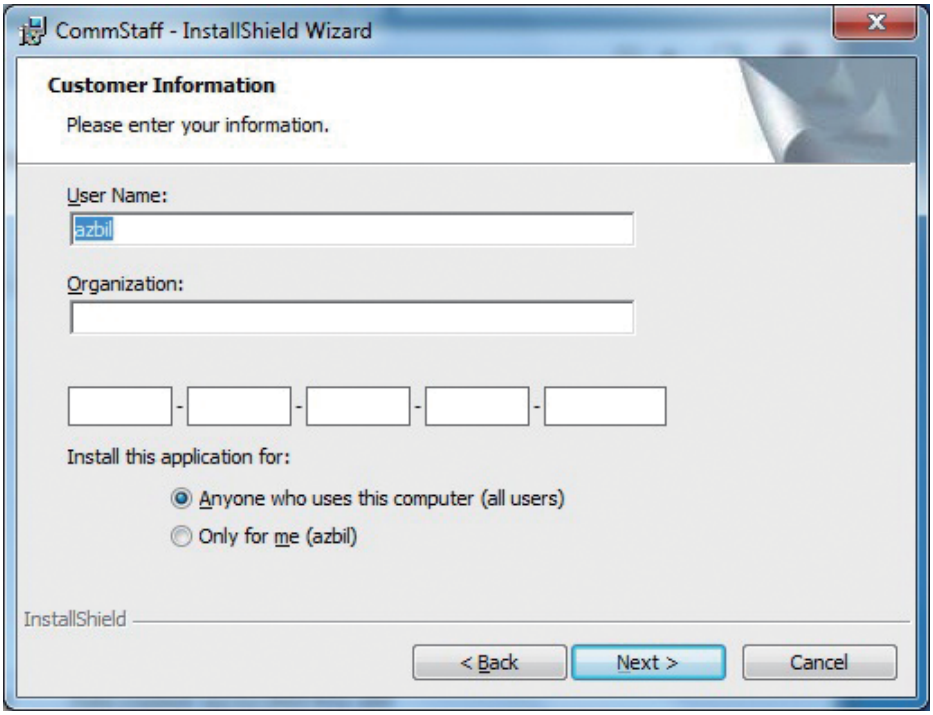


Read the License Agreement. If you accept the terms of the License Agreement, select "I accept the terms in the license agreement" and click [Next] to continue.

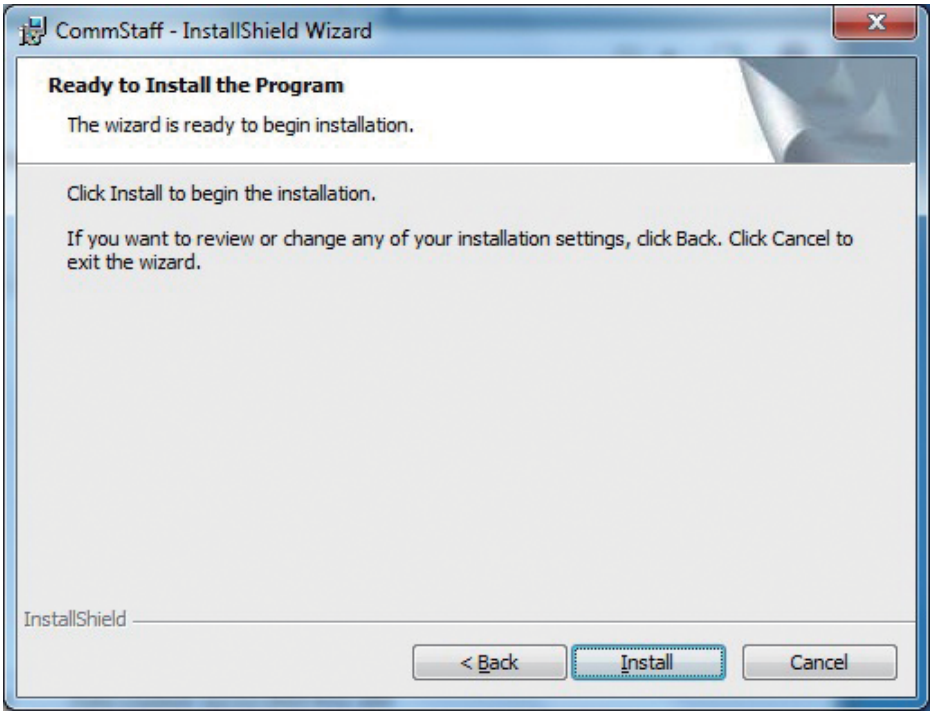


Enter the user name, organization, and license key, and click [Next] to continue.

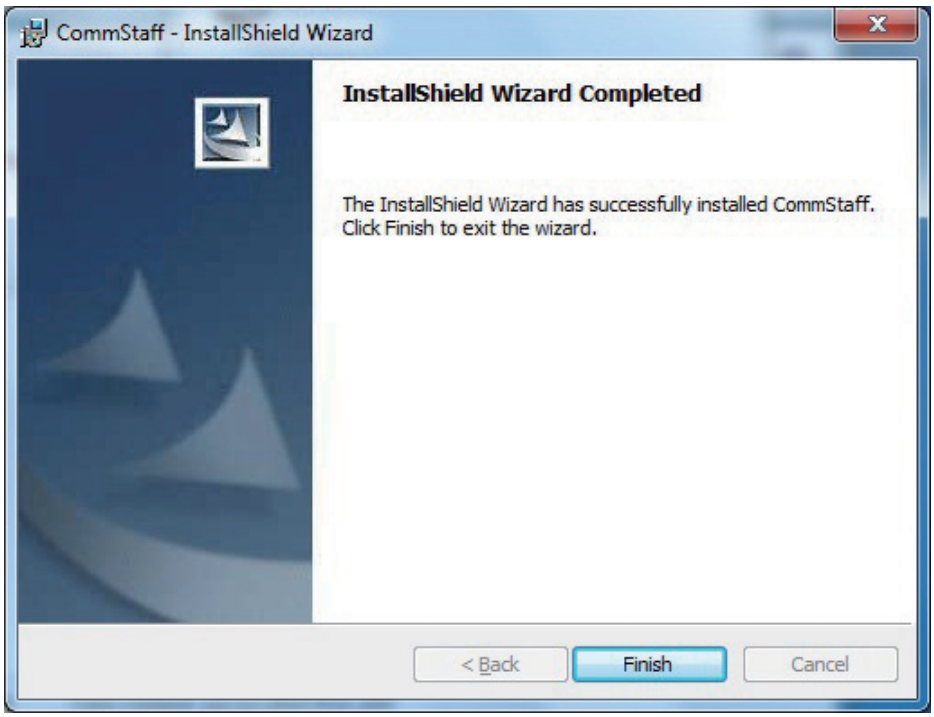
The serial number. is printed on the sticker on the CommStaff Installer CD-ROM case as a license key.



Click [Install].



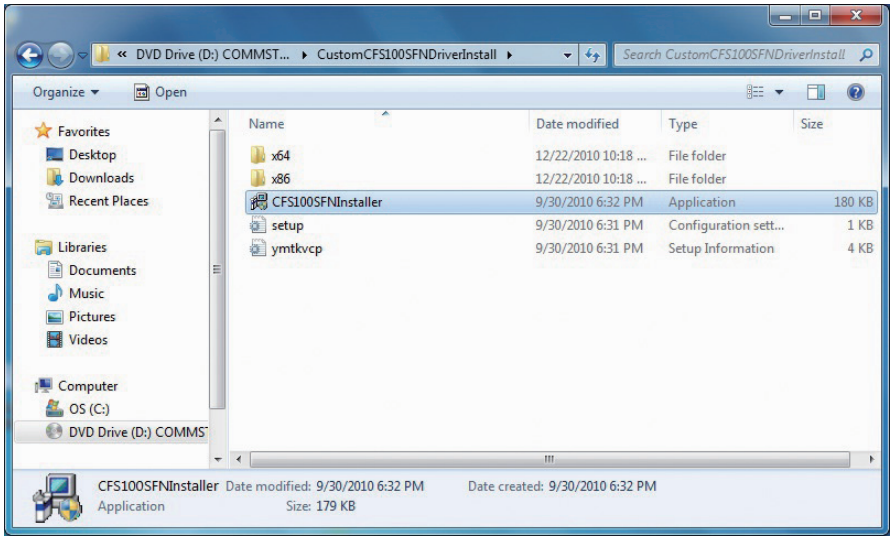
Click [Finish].



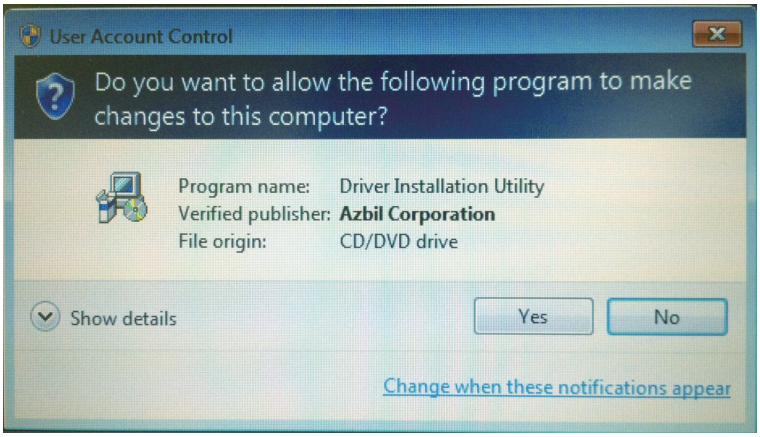
This completes installation of the CommStaff application.

Next, install the driver for the SFN communication interface.

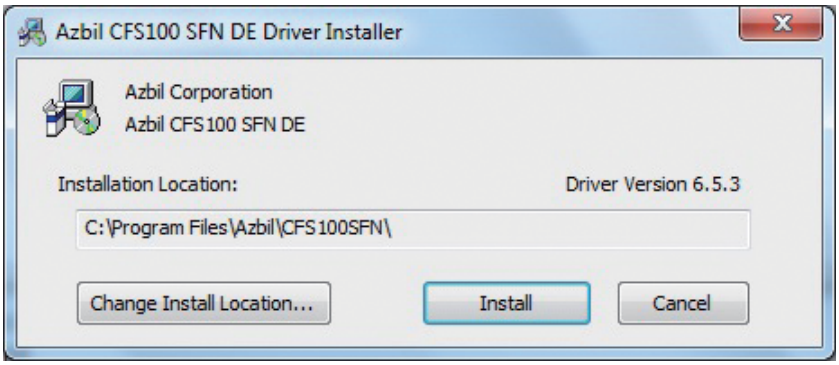
Right-click CFS100SFNInstaller.exe in the \CustomCFS100SFNDriverInstall subfolder of the installer CD-ROM and select “Run as administrator.”



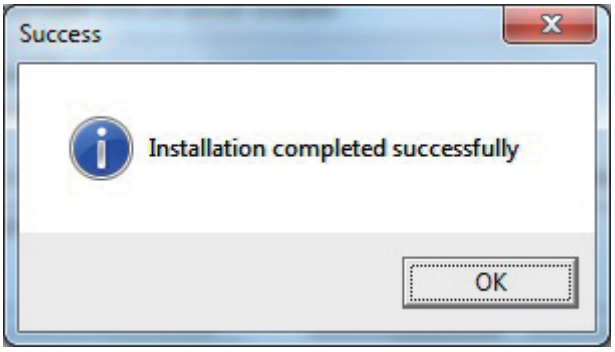
The message "Do you want to allow the following program to make changes to this computer?" appears. Click [Yes].



Click [Install].



Click [OK].



This completes installation of the SFN communication interface driver.

If using the HART communication interface, install the driver software supplied with it.

Note: If installation fails, refer to 7-3, "Reasons for installation failure".

2-3. Uninstalling Model CFS100

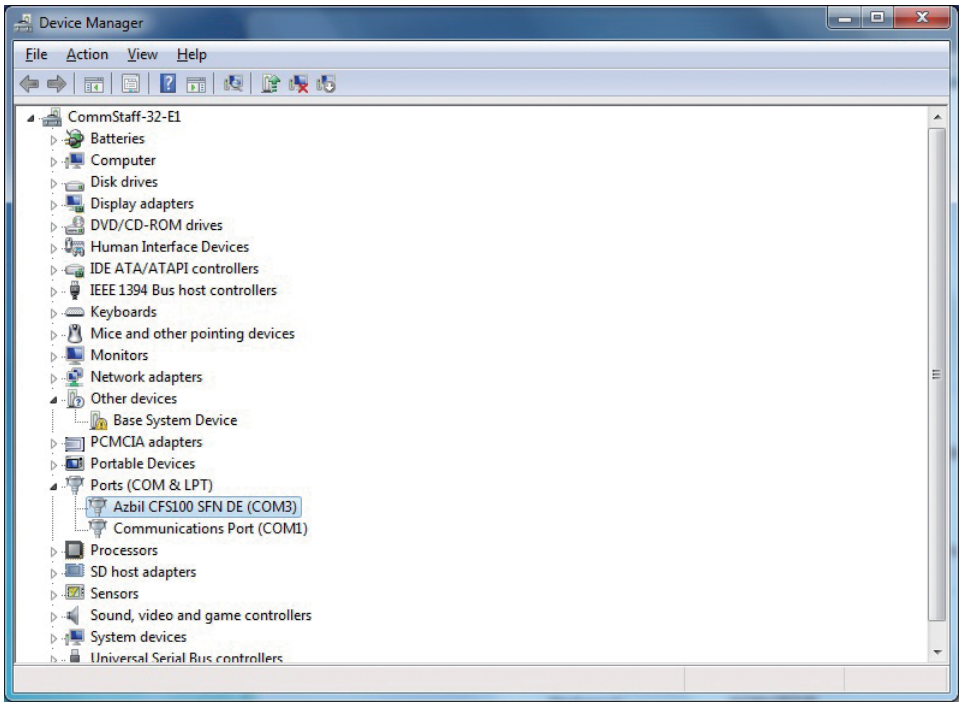
In the Windows Control Panel, go to Programs and Features and delete the target application program from the program list.

Chapter 3. Checking the Communication Interface Connection

On completion of software installation, check the communication interface connection.

1. Connect the communication interface to the USB port of the PC.
2. If the driver software was installed correctly, the PC recognizes the communication interface as a COM port.
3. In Control Panel, open the Device Manager and verify that the communication interface is recognized by the PC correctly.

Open the ports (COM and LPT) and check that the connected communication module is recognized correctly.

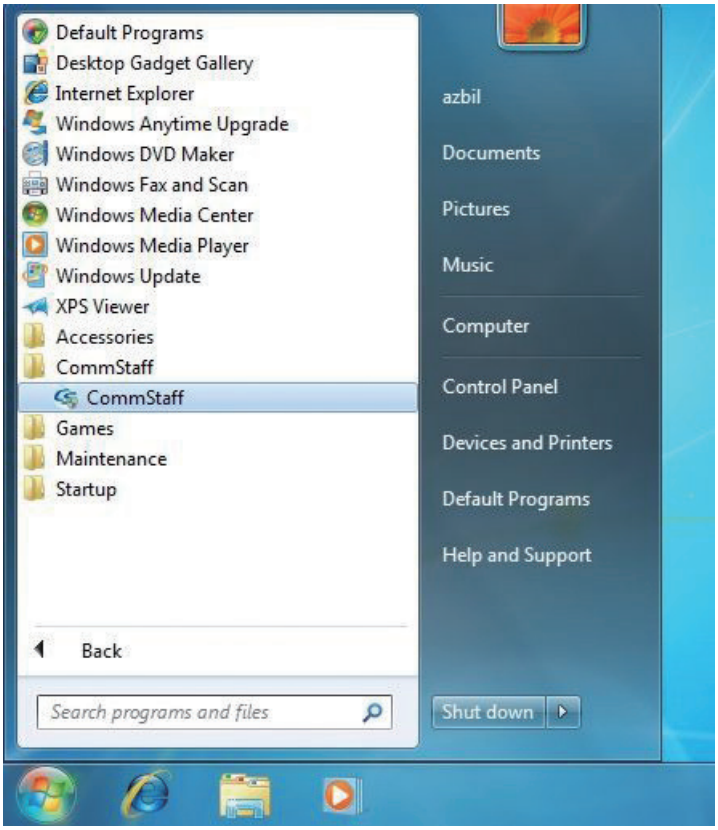


Chapter 4. Starting and Exiting the Application and Starting Communication

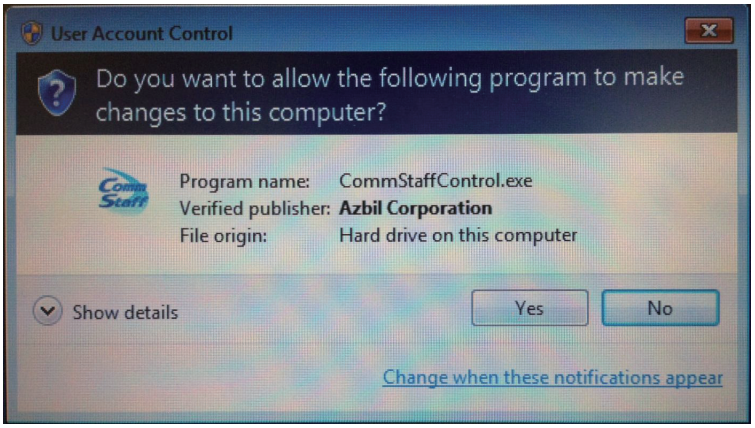
Using model CFS100 (CommStaff) requires logging onto Windows as an administrator.

4-1. Starting the Program

1. Select Start → All Programs → CommStaff → CommStaff to start the application.



2. The User Account Control screen appears. Click [Yes].



4-2. Exiting the Application

When your work is complete, exit the CommStaff application.

4-3. Starting Communication

When CommStaff starts, the following screen appears.

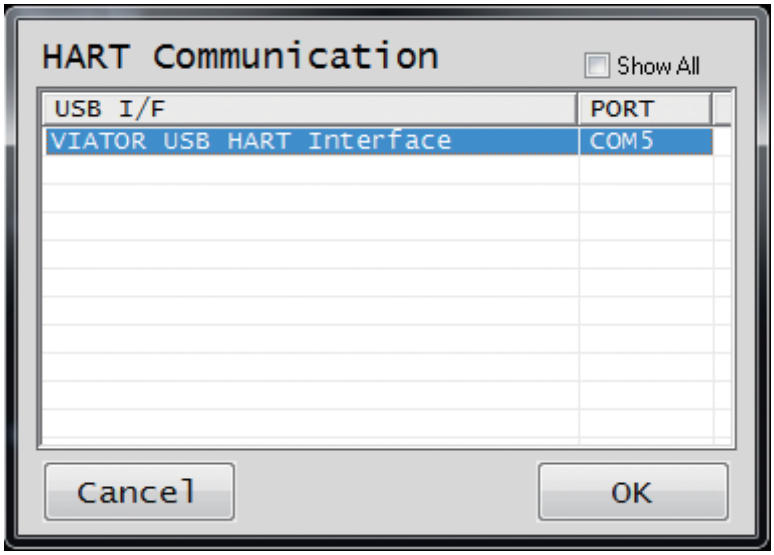
Note: If the communication protocol buttons are not displayed, resize the window by dragging the frame so that the buttons can be seen.

4-3-1. HART Communication

To start HART communication, click [HART Communication].

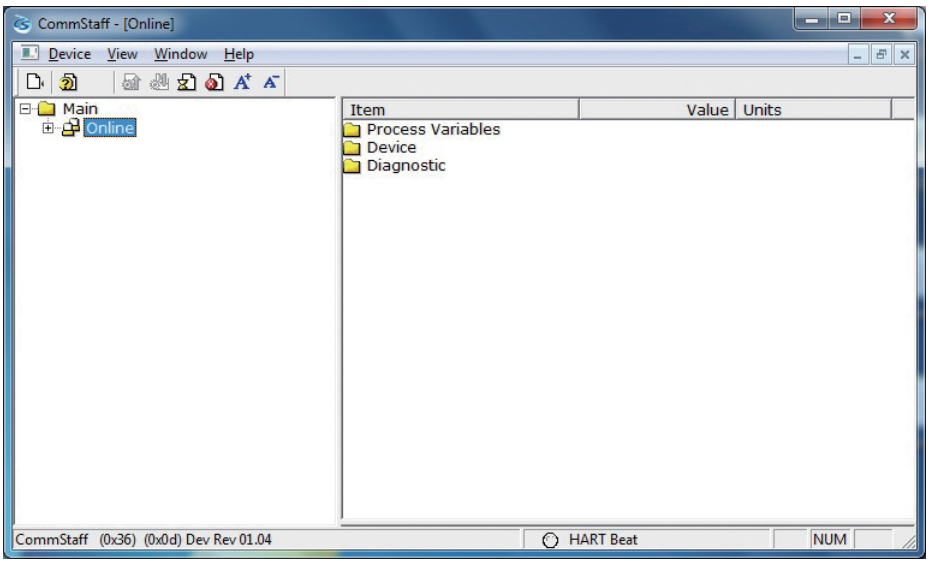
The HART-related COM ports that are currently connected are listed on the screen. Select the desired COM port and click [OK].

This COM port number is assigned automatically to the CommStaff serial port number setting.



Note: If the desired COM port is not displayed, put a check in the [Show All] check box.

CommStaff screen appears and information about the connected device is displayed.



If communication fails due to some problem, such as no device being connected to the communications cable, the message "ERROR: Failed to acquire a device identity." appears on the status bar on the bottom left of the window.

Check the device connection.

For more information on the device in question, refer to the instruction manual of the device.

* When changing connected devices

CommStaff continues communicating with the device while it is operating. A communication error will occur if you remove the communications cable from the device in order to change to another device.

First, exit CommStaff and then remove the communications cable from the device. Start CommStaff again after you have connected the communications cable to the new device.

The following message appears if you remove the communications cable while CommStaff is operating.

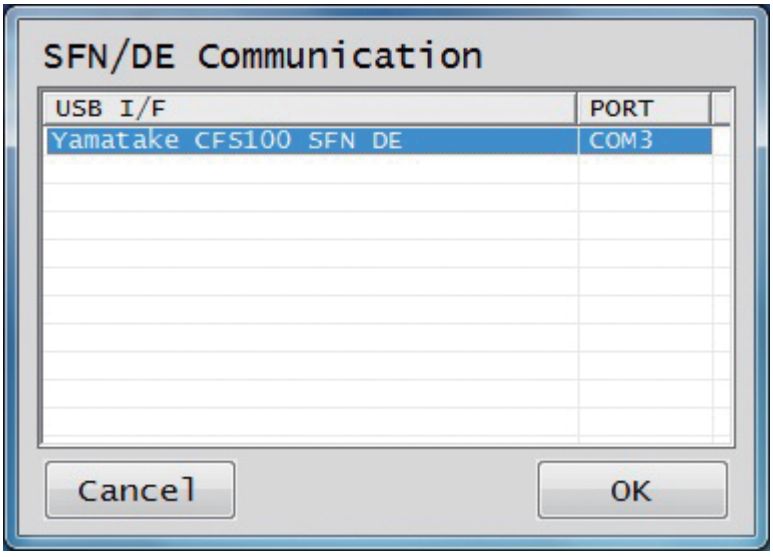
"Error In Communication with Device, Closing the Device…"

When [OK] is clicked, all displayed data disappears.

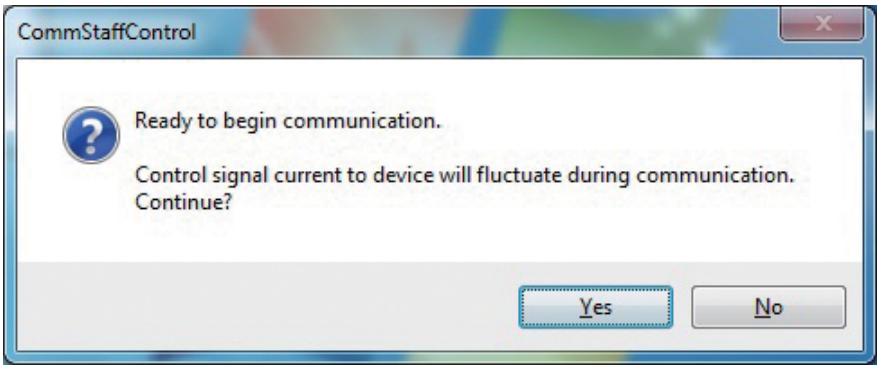
4-3-2. SFN/DE Communication

To start SFN/DE communication, click [SFN/DE Communication].

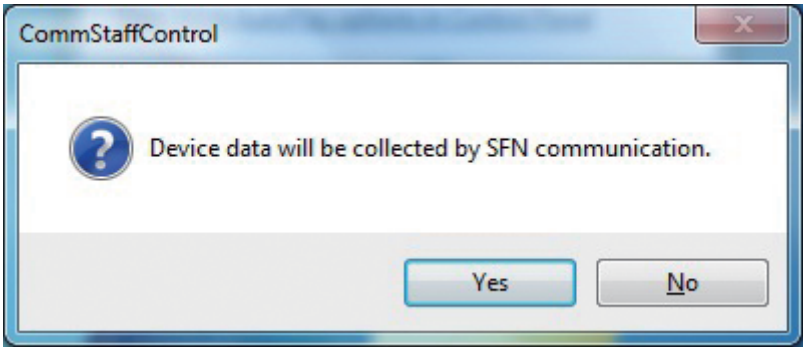
The SFN/DE-related COM ports that are currently connected are listed on the screen. Select the desired COM port and click [OK].



When using SFN/DE communication, the output current from devices that output current fluctuates. The following message appears asking you to confirm that you are aware of this fact. Click [Yes] to continue.



A message appears that asks you to confirm that data should be collected from the SFN device. Click [Yes] to continue.

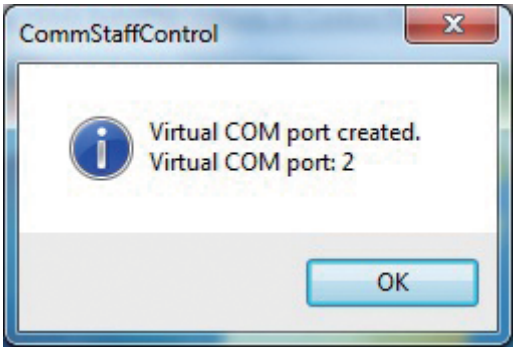


If communication fails due to some problem, such as no device being connected to the communications cable, the message “Procedure terminated because there was no response.” appears on the CommStaffControl screen.

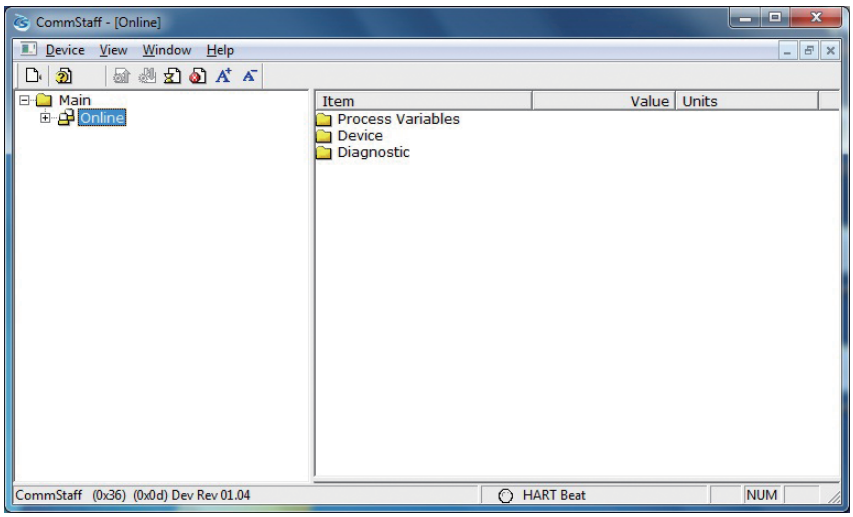
Check the device connection.

When using SFN/DE communication, CommStaffControl converts between the SFN/DE communication and HART communication protocols using a virtual communication port for relaying communication. The following message confirms that the virtual communication port has been created and displays the port number. Click [OK] to continue.

This COM port number is assigned automatically to the CommStaff serial port number setting.



CommStaff starts and information about the connected device is displayed.



For more information on the device in question, refer to the DD (Device Description) of the device.

* When changing connected devices

CommStaff continues communicating with the device while it is operating. A communication error will occur if you remove the communications cable from the device in order to change to another device.

First, exit CommStaff and then remove the communications cable from the device. Start CommStaff again after you have connected the communications cable to the new device.

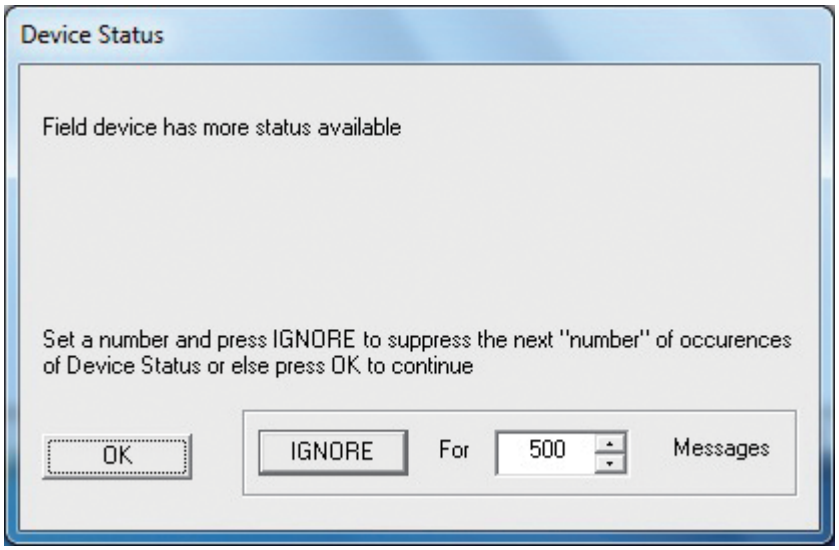
The following message appears if you remove the communications cable while CommStaff is operating.

“Error In Communication with Device, Closing the Device…”

When [OK] is clicked, all displayed data disappears.

4-4. When the device status is ON

When the device is ON, the following screen is displayed.Click the [Ignore] button.Next, check the device status details as necessary. —For details see section 6.1.2, “View Menu.”

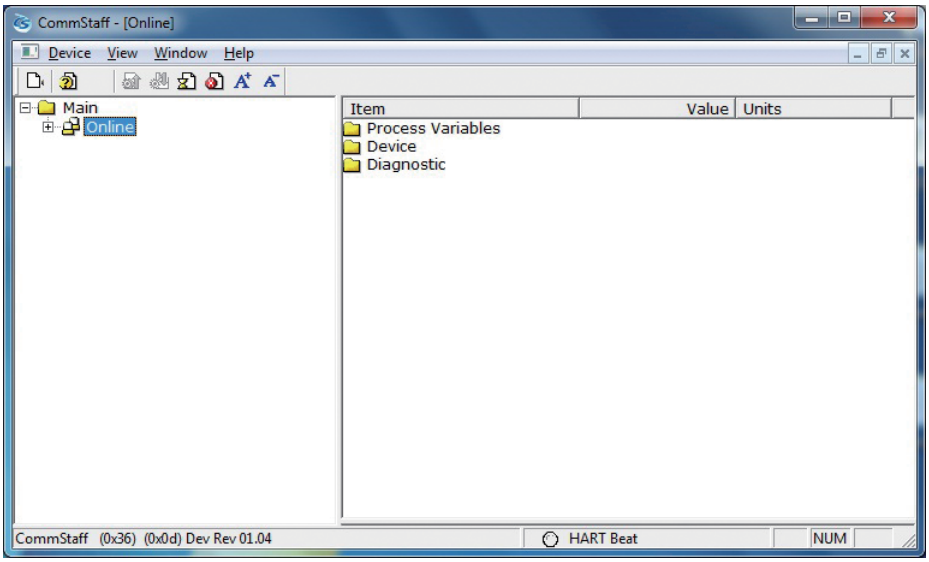


Chapter 5. Basic Operation of Model CFS100

This chapter describes the basic operation of model CFS100 (CommStaff).

CommStaff uses an Explorer-type screen configuration. A menu tree appears in the left pane and details of the item selected in the menu tree appear in the right pane.

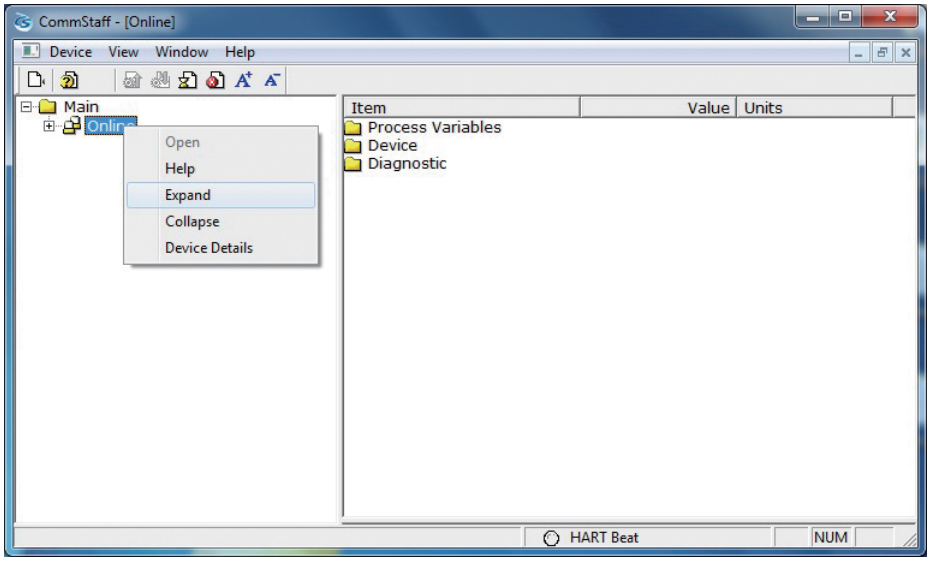
CommStaff has four menus (Device, View, Window, and Help) and eight icon functions.



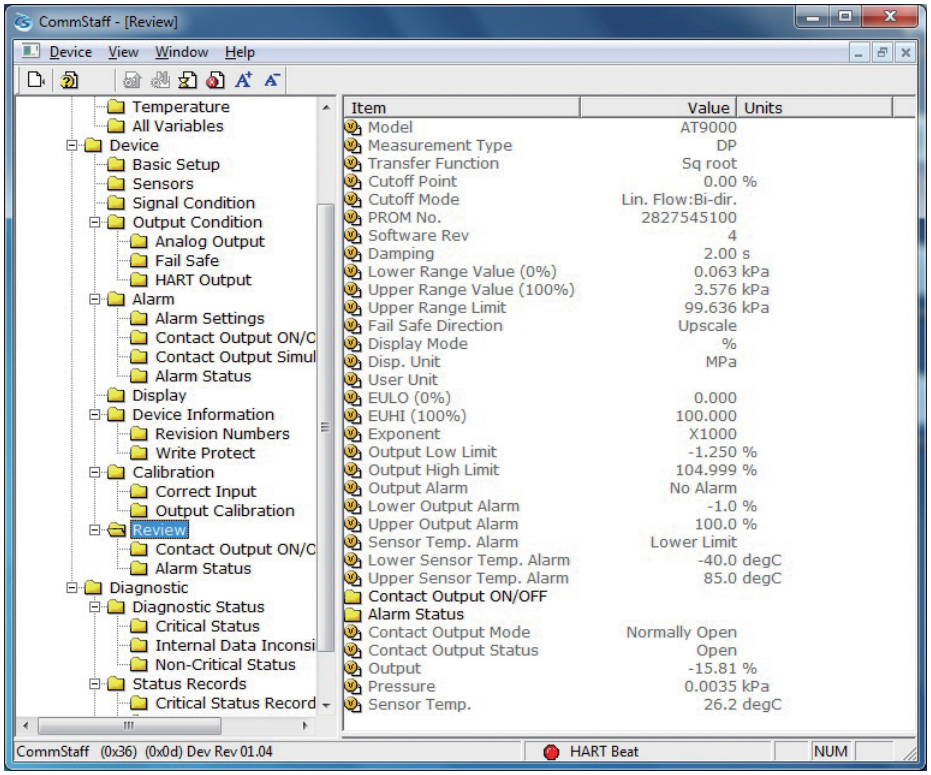
5-1. Displaying a List of Main Data Items

To display a list of main data items, select Review in the menu tree.

First, right-click Online in the left pane and select “Expand.” The expanded menu tree is displayed in the left pane.



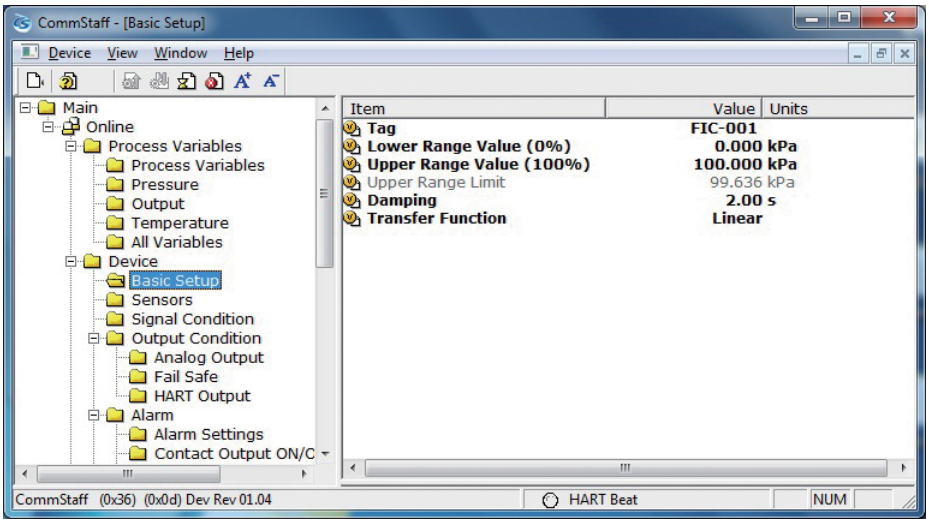
Select Review from the expanded menu tree. A list of main data items appears in the right pane.



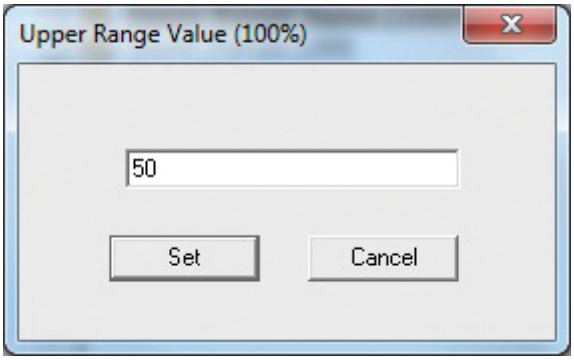
5-2. Changing Settings

To change data item settings, double-click the item in the right pane. Note, however, that only the settings of boldfaced data items can be changed. The settings of grayed-out data items cannot be changed. Also note that data settings cannot be changed in the Review pane.

For example, the basic data items for the AT9000 (GTX) device are contained in Basic Setup.

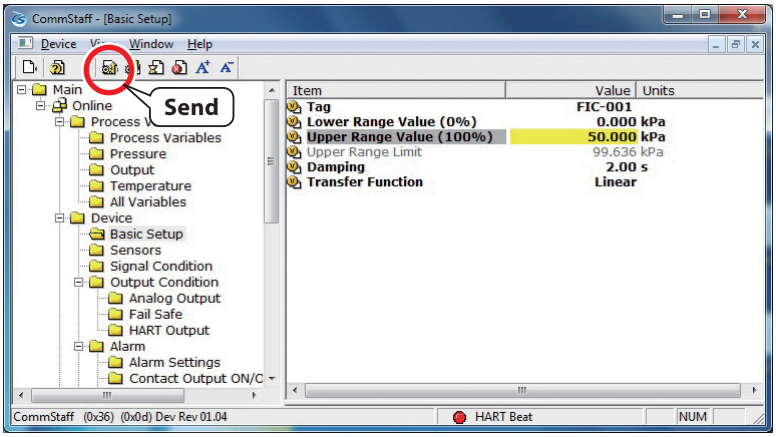


To change the setting for Upper Range Value (100 %), double-click that item in the right pane as shown above. A window opens for changing the setting. Enter the desired value and then click the Set button. Input the setting after deletion of the former setting.



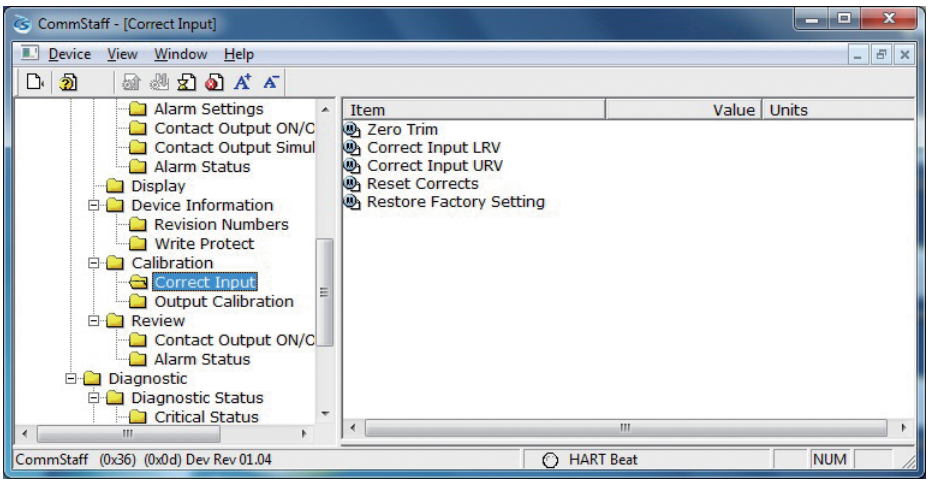
The changed value is highlighted in yellow. The value has not yet been applied in the connected device. To send the changed value to the device, click the send button. The send button has an icon containing an upward arrow and is third from the left in the icon menu.

When the changed value is sent to the device, the yellow highlighting disappears.



5-3. Adjustment, Calibration, and Loop Tests

Adjustment, calibration, and loop tests require method calls. For more information, refer to the instruction manual of the device in question.



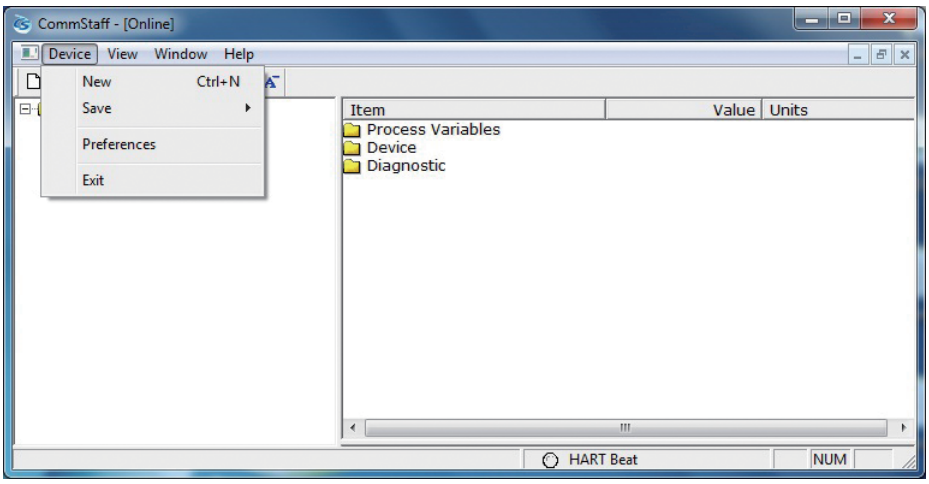
Chapter 6. Model CFS100 Functions

This chapter describes the menu functions and the icon menu functions in model CFS100 (CommStaff).

6-1. Description of Menu Functions

CommStaff has four menus: Device, View, Window, and Help.

6-1-1. The Device Menu



The Device menu contains the following items.

New	This function is not used in normal operation. It resends data that disappeared from the screen due to a communication error or other reason. (When changing connected devices, temporarily exit CommStaff and then restart it.)
Save	Saves device data to a file. The data can be saved in CSV or PDF format. For more information, refer to Section 6-1-1-1, "Save Function."
Config.	Configures communication settings. This function is not used in normal operation. For more information, refer to Section 6-1-1-2, "Config."
Exit	Exits CommStaff.

6-1-1-1. Save Function

This function saves device data to a file. Either of the following two file formats can be selected:

CSV format, PDF format

The default file names are as follows. The file name can be changed when saving.

CSV format: tag name_yyyymmddhhmmss.csv

PDF format: tag name_yyyymmddhhmmss.pdf

Example: FIC-001_20100804152348.csv

CSV stands for comma-separated values because in the CSV format, data is saved as plain text separated by commas. CSV files can be opened using spreadsheet software such as Excel. They can also be opened using a text editor such as Microsoft Notepad.

Example: PV LRV, 0.00, kPa
PV URV,1 00.00, kPa

To open PDF files, software for reading PDF files is required.

6-1-1-2. Config.

This function is not used in normal operation.

“Serial Port” is configured automatically when a communication interface is selected. Do not change this setting.

“Search by Poll Address” is used when the device is connected in a HART multidrop topology.

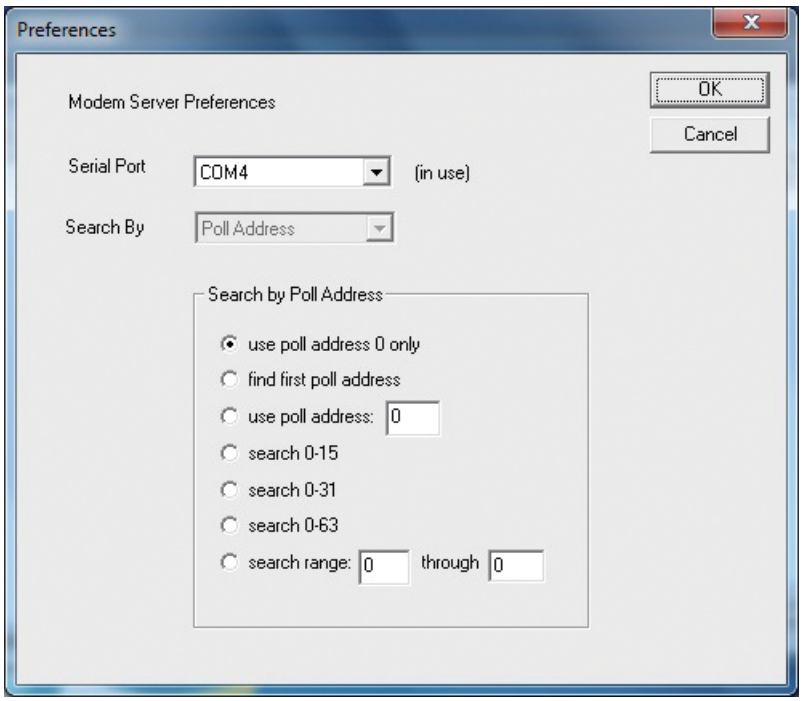
Multidrop topology is the HART communication specification that allows multiple devices to be connected to a single current loop.

In this case, only the device with the polling address “0” outputs 4–20 mA analog current.

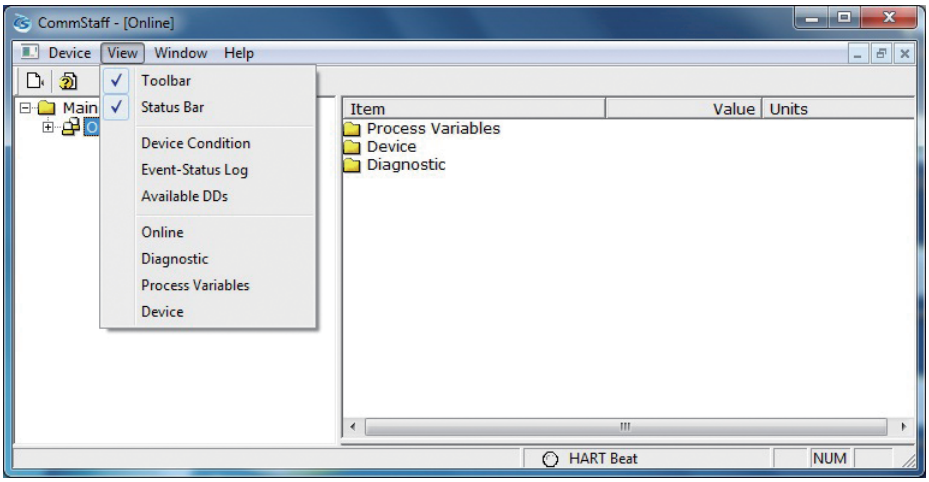
Devices with polling addresses other than 0 output a fixed current (usually 4 mA).

When not using the multidrop topology, be sure to select “use poll address 0 only.”

The search time increases as the number of search addresses increases.



6-1-2. View Menu



The View menu contains the following items.

Toolbar	Toggles display of the icon menu. Refer to Section 6-1-2-1, "Icon Menu."
Status Bar	Toggles display of the status bar at the bottom of the screen.
Device Condition	Displays the device status. For more information, refer to the instruction manual of the device in question.
Event-Status Log	Toggles display of the event status log. Refer to the event status log when an incompatibility issue or other similar problem occurs. This function is not used in normal operation.
Available DDs	Displays all available DDs. Refer to Section 6-1-2-2, "All Available DDs."

The items listed below "Online" depend on the contents of the DD of the connected device. Refer to the instruction manual of the device.

6-1-2-1. Icon Menu

The icon menu contains the following eight items.

	New	This function is not used in normal operation. It resends data that disappeared from the screen due to a communication error or other reason. (When changing connected devices, temporarily exit CommStaff and then restart it.)
	Version information	Displays information about CommStaff, such as the version.
	Send	Sends data items that have had settings changed to a device.
	Cancel	Cancels changed settings before they are sent, and restores them to the original settings.
	Status	Displays the device status.
	Event status log	Displays the event status log.
	Increase font size	Increases the font size in the menu tree display and the data display panes. This function is useful on PCs with small screens.
	Decrease font size	Decreases the font size in the menu tree display and the data display panes.

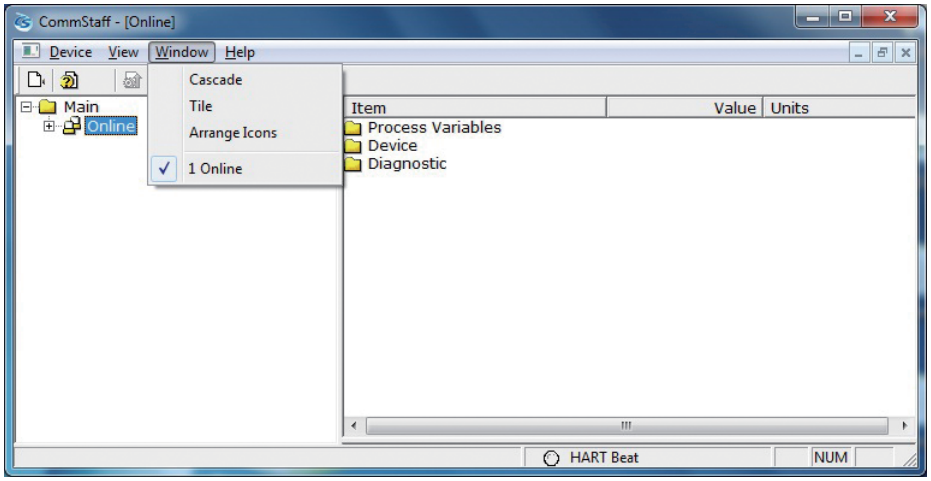
6-1-2-2. All Available DDs

DD is an abbreviation for Device Description. It is a file describing the parameters of a HART device.

The vendor code of Azbil Corporation (previously Yamatake Corporation) in HART FieldComm Group is 0x36 (in hexadecimal), so it is displayed as Yamatake (0x36).

0x00, 0x26, and 0xf9 contain default DDs provided by the HART FieldComm Group.

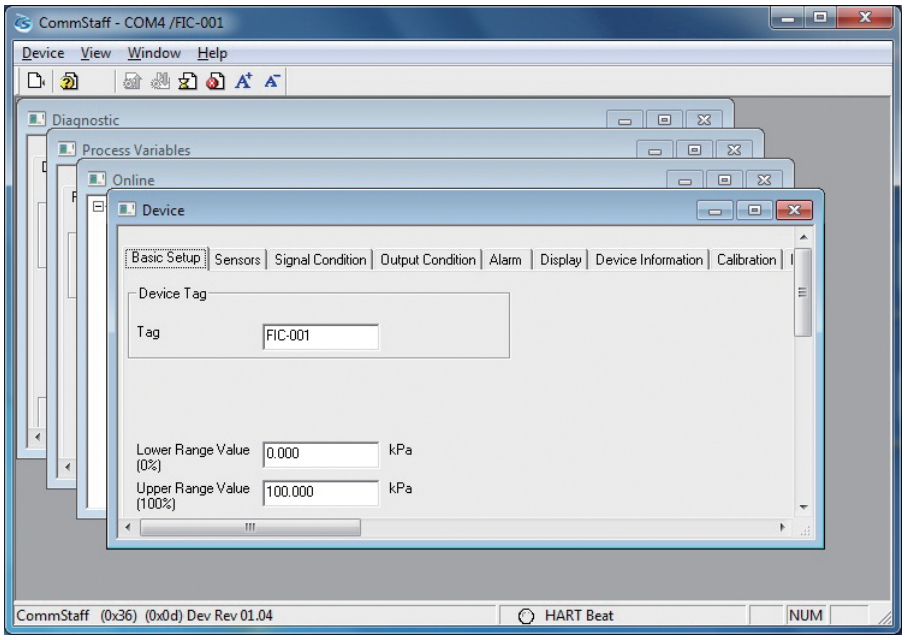
6-1-3. Window Menu



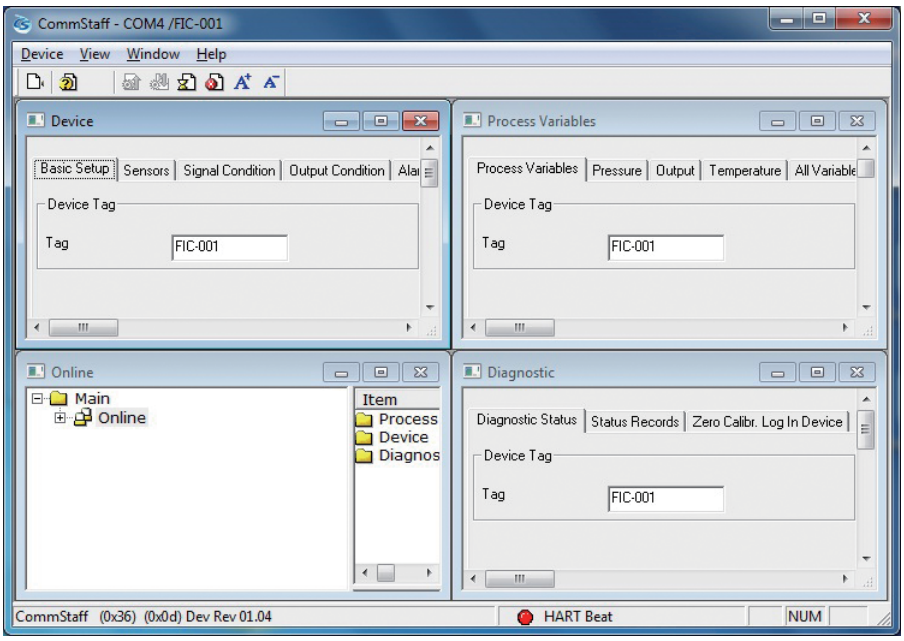
Cascade	Displays multiple open windows in a cascade. An example of cascade display is given in (1) below.
Tile	Displays multiple open windows in a tile arrangement. An example of tiled display is given in (2) below.
Arrange Icons	When windows are minimized, they are arranged as small icons at the bottom of the screen. An example of arranged icons is given in (3) below.

The items listed below “Online” are the currently open windows.

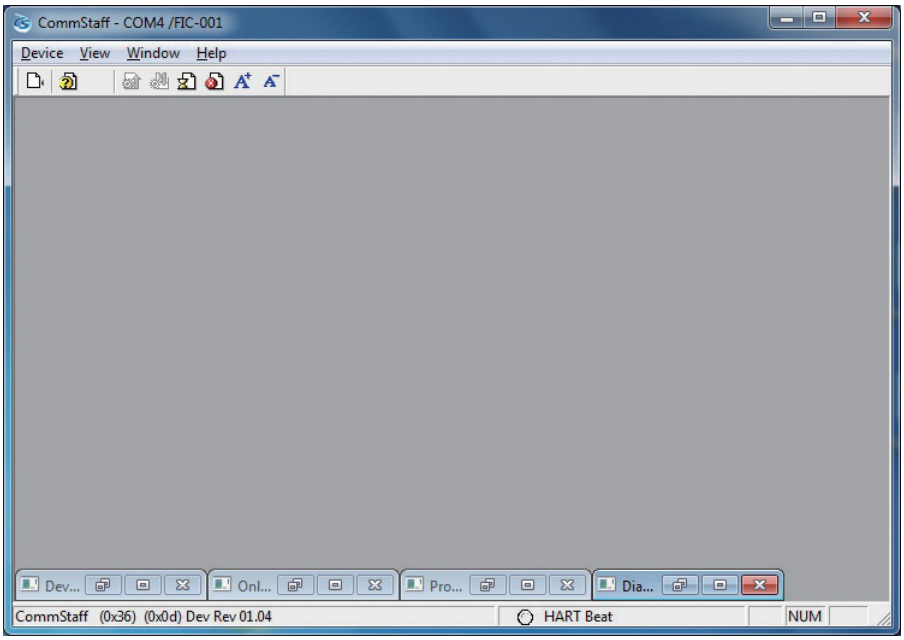
(1) Example of cascade display



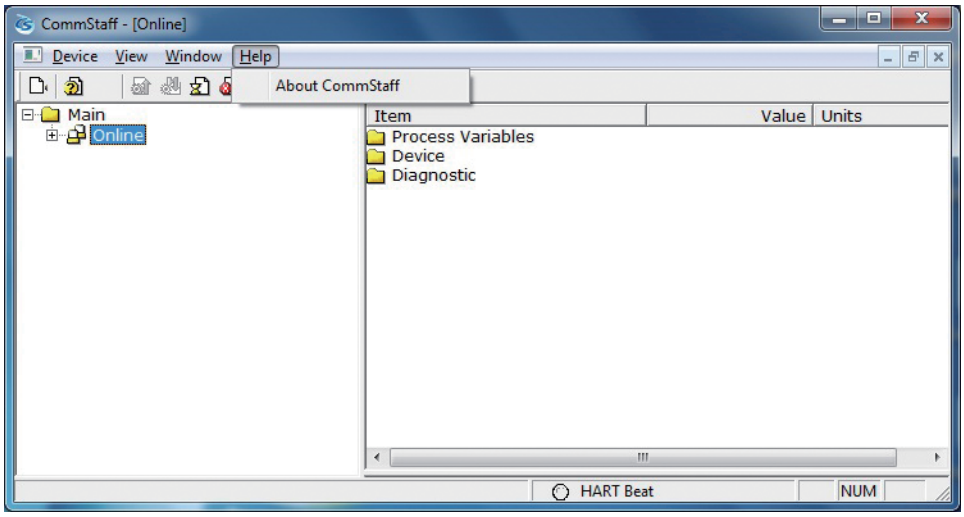
(2) Example of tiled display



(3) Example of arranged icons



6-1-4. Help Menu

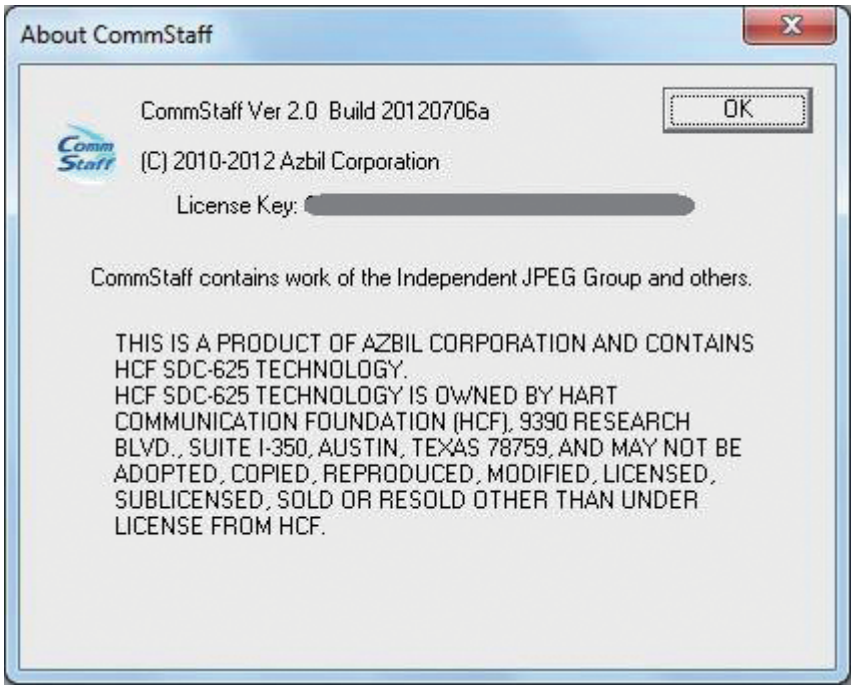


The Help menu contains the following items.

About CommStaff	Displays information about CommStaff, such as the version. Refer to Section 6-1-4-1, "About CommStaff."

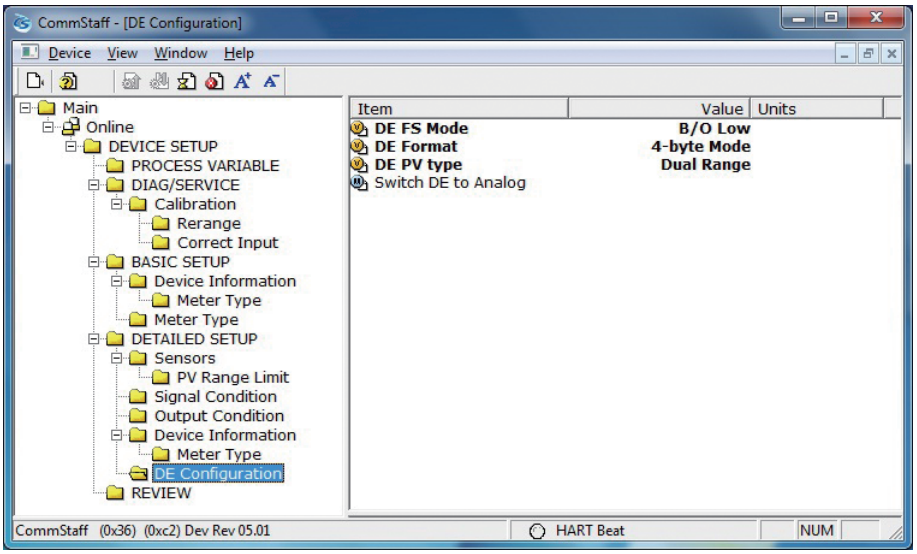
6-1-4-1. About CommStaff

This function displays the CommStaff version, copyright, license key, and other information.

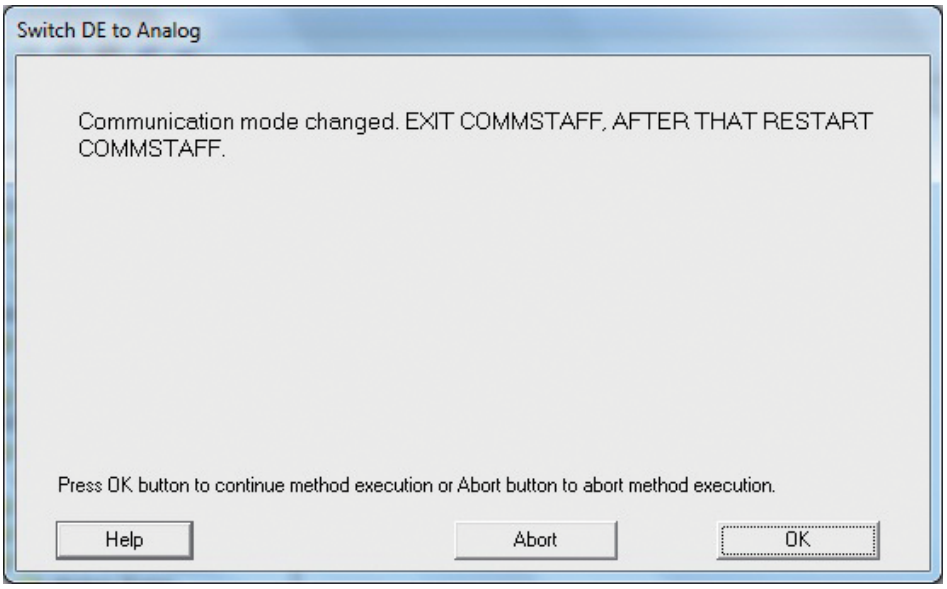


6-1-5. DE Setup Menu

Configure DE on the DE Configuration menu. Items available for setup are DE, FS Mode, DE Format, and DE PV type.



To change from DE Mode to Analog Mode (4–20 mA mode), execute the "Switch DE to Analog" method. After the changeover, the following screen is displayed. Be sure to exit CommStaff and restart it.



To change from Analog Mode (4–20 mA mode) to DE Mode, execute "Switch Analog to DE." In this case also, after the changeover, be sure to exit CommStaff and restart it.

Chapter 7. Troubleshooting

If you encounter a problem, please review the following "Troubleshooting Checklist" before contacting the azbil Group.

7-1. Troubleshooting Checklist

1. Is the connected device supported by (compatible with) model CFS100 (CommStaff)?
2. Does a similar problem occur when another device is connected? If a similar problem does not occur when another device is connected, there may be something wrong with the connected device or the connection loop.
3. Is the communication module connected correctly?
4. Does the PC meet the system requirements recommended by Azbil Corporation?
5. Are other application programs running at the same time? If so, exit the programs and restart CommStaff.
6. If the problem persists after checking the above items, restart the PC and then restart CommStaff.
7. Does the CommStaff application start up? If CommStaff does not start up, there may be a problem with the PC. If programs other than CommStaff do not start either, it is likely that the problem is the PC.

7-2. If CommStaff Freezes

If the screen freezes for some reason during operation and you cannot operate CommStaff, restart your PC.

7-3. Reasons for installation failure

1. If user access control (UAC) is operating, installation may fail. Please install after turning off UAC. After the installation, return UAC to the initial setting.
2. If the Windows user name is too long, or if any characters other than regular alphanumeric characters are used, installation may fail. The recommended Windows user name is 8 alphanumeric characters (no double-width Asian characters).
3. Installing or using model CFS100 requires logging onto Windows as an administrator.
4. To run setup.exe during installation, right-click it and select "Run as administrator."

7-4. Incompatibility

If a problem occurs due to incompatibility, contact your Azbil Corp. sales representative.

7-5. Known issues

We are already aware of the following problems and are working to solve them. Thank you for your understanding.

No.	Description	Countermeasures
1	CommStaff operates as primary master. Therefore it cannot operate as the secondary master of a multi-master. Specifically, while another host and a HART device are communicating continuously with each other, it is not possible to connect CommStaff and communicate with the HART device.	Do not use simultaneously with other HART hosts. This is corrected in Ver. 3.0.
2	The menu can be opened by double-clicking on the left side of the screen, but cannot be opened on the right side.	Open the menu on the left side of the screen. This is corrected in Ver. 3.0.
3	If CommStaff is displayed in full screen mode and then terminated, when it starts the next time, the screen will not be in full screen mode, and a very small screen appears instead.	Instead of using full screen mode, drag the right lower corner of the screen to enlarge it to the desired size.
4	In the SFN communication version, the Analog Output (current value) display of ±200 % is shown converted to the 4–20 mA range. This results in display of the erroneous values of –12 mA and 36 mA for –200 % and 200 % respectively.	Treat the Analog Output values (current values) that are converted from % output values as reference values only.
5	ATT HART communication version: The PV highest and PV lowest values are created when CommStaff starts, and are not updated while CommStaff operates.	To update to the latest values, restart CommStaff.
6	For all types of the SFN communication version: After adjustment or calibration, the message "NOTE-Loop may be returned to automatic control" is sometimes mistakenly shown as the completion message.	In the SFN communication version, the 4–20 mA current signal will be disrupted while CommStaff operates, so manual control must continue. Do not switch to automatic control.
7	In some SFN communication versions: In the four SFN communication version models listed below, during adjustment function procedures, the latest values are sometimes not shown. • ST3000-SFN: Apply values: • AT9000-SFN: Apply values: Zero, Span, LRV (Actual) • PTG-SFN: Apply values: • ALTJ-SFN: Apply values:	To retrieve and display the latest values, select and execute "Read new value" from the menu.
8	SFN version: When an SFN communication interface is connected to a PC, it will be recognized as a COM port and will be assigned a number such as COM9. For the CommStaff SFN version, the range of legal numbers is COM1 to COM16, so if the assigned number is COM17 or more, the interface will not function.	If COM17 or a higher a number is issued, change the setting to a value between COM1 and COM16 using the Windows Device Manager.

No.	Description	Countermeasures
9	Parameters are shown as blank until they are acquired via communication. Also, during this time double-clicking a parameter will show an initial value which is different from the device value. Moreover, saving files when a blank is displayed will save the initial value, which is not the correct value.	To change a parameter, wait until it is displayed. If the device has a Review menu, wait until the Review menu is completely displayed. Communication speed is slow with SFN communications (218 bps, while HART is 1200 bps), so for some models it takes a few minutes to read all the parameters.
10	When executing Auto setup for AVP or SVX, the screen may indicate that setup is complete even though the device is not actually fully set up.	When the control valve can execute control in response to the input signal, Auto setup is complete, so wait until that time.
11	MTG: If characters other than the ones specified below are used for the tag setting, the tag will be displayed as "XXXXXXXX" when it is checked on the local setting card. Allowable characters: letters (A to Z) numbers (0 to 9) , (comma) - (hyphen) . (period) / (slash) space ( )	When setting the tag, use only the characters specified at left.
12	If the Message was set using numbers only and saved as a CSV file, then the message will be recognized as a numeric value when the file is opened from a spreadsheet application like Excel, and will be displayed as exponential notation (example: 1.23457E+31).	Set the Message using at least one alphabetical character, or set the message as a character string when opening it from the spreadsheet application.
13	In MTG SFN communication, once auto zero adjustment has been made from the local setting card, auto zero adjustment via CommStaff cannot be made.	Turn the power to the MTG main unit off and on again, or make the auto zero adjustment via the local setting card.
14	On the AT9000 (GTX) SFN communication version, DE communication is not supported by transmitter version 3.0 or earlier, even though the DE Configuration appears on the menu. So even using the Switch Analog to DE method will not switch to DE communication.	On the transmitter version 3.0 or earlier, only analog output is available.
15	AVP702: If operation authority was obtained on the Device screen, it may not be possible to use the input box.	Please obtain operation authority from the Online screen. If you do so from the Device screen, redisplay the screen.
16	If the OS is Windows 8, it may take more than 5 minutes for CommStaff to shut down.	Please upgrade the OS to Windows 8.1 or higher.
17	The OK button on the dialog screen is not displayed in some cases.	Display the OK button with sliding the horizontal scrolling bar to the right.
18	When you open the plural screens, indication update and operation may take time.	Please operate the next after closing an opened screen.
19	The data in CommStaff is updated when CommStaff starts and when parameters are displayed on the CommStaff screen. Accordingly, when Save is executed, the device data saved may not be the latest.	To save the latest data, restart CommStaff or wait until all parameters are displayed on the CommStaff screen and all data are updated before executing the Save command.

No.	Description	Countermeasures
20	In SFN communication, there may be an error in displayed values depending on the resolution of the data communication. Ex.: When "25.00 kPa" is written, "24.99 kPa" is displayed.	Even in this case, the correct value is written to the device.
21	When device data is saved, if any of the following characters are in the device tag, they will be deleted when the file name is written: "/", "*", "?", """, "<", ">", "|","\" Ex.: If device tag "FT0001/1" is specified, the file name will be "FT00011_yyyyMMddHHmmss."	Not using these characters is recommended.
22	When CommStaff starts up, the message "Function: hartPutRecvFromSDC625 Message: Subscript out of range" may appear, and you may not be able to use the software.	This occurs if CommStaff is running on a PC whose virtual serial port module (VSPort.dll) version has been changed from 6.2 due to a conflict between VSPort.dll and other software. To use CommStaff, take the following steps in order: (1) Uninstall the software that conflicts with VSPort.dll and uninstall CommStaff. (2) Remove VSPort.dll from the registry, and then delete the file. (3) Reinstall CommStaff.

Terms and Conditions

We would like to express our appreciation for your purchase and use of Azbil Corporation's products.

You are required to acknowledge and agree upon the following terms and conditions for your purchase of Azbil Corporation's products (system products, field instruments, control valves, and control products), unless otherwise stated in any separate document, including, without limitation, estimation sheets, written agreements, catalogs, specifications and instruction manuals.

1. Warranty period and warranty scope

   1.1 Warranty period

   Azbil Corporation's products shall be warranted for one (1) year from the date of your purchase of the said products or the delivery of the said products to a place designated by you.

   1.2 Warranty scope

   In the event that Azbil Corporation's product has any failure attributable to azbil during the aforementioned warranty period, Azbil Corporation shall, without charge, deliver a replacement for the said product to the place where you purchased, or repair the said product and deliver it to the aforementioned place. Notwithstanding the foregoing, any failure falling under one of the following shall not be covered under this warranty:

   (1) Failure caused by your improper use of azbil product (noncompliance with conditions, environment of use, precautions, etc. set forth in catalogs, specifications, instruction manuals, etc.);
   (2) Failure caused for other reasons than Azbil Corporation's product;
   (3) Failure caused by any modification or repair made by any person other than Azbil Corporation or Azbil Corporation's subcontractors;
   (4) Failure caused by your use of Azbil Corporation's product in a manner not conforming to the intended usage of that product;
   (5) Failure that the state-of-the-art at the time of Azbil Corporation's shipment did not allow Azbil Corporation to predict; or
   (6) Failure that arose from any reason not attributable to Azbil Corporation, including, without limitation, acts of God, disasters, and actions taken by a third party.

   Please note that the term "warranty" as used herein refers to equipment-only-warranty, and Azbil Corporation shall not be liable for any damages, including direct, indirect, special, incidental or consequential damages in connection with or arising out of Azbil Corporation's products.

2. Ascertainment of suitability

   You are required to ascertain the suitability of Azbil Corporation's product in case of your use of the same with your machinery, equipment, etc. (hereinafter referred to as "Equipment") on your own responsibility, taking the following matters into consideration:

   (1) Regulations and standards or laws that your Equipment is to comply with.
   (2) Examples of application described in any documents provided by Azbil Corporation are for your reference purpose only, and you are required to check the functions and safety of your Equipment prior to your use.
   (3) Measures to be taken to secure the required level of the reliability and safety of your Equipment in your use
   Although azbil is constantly making efforts to improve the quality and reliability of Azbil Corporation's products, there exists a possibility that parts and machinery may break down. You are required to provide your Equipment with safety design such as fool-proof design,*1 and fail-safe design*2 (anti-flame propagation design, etc.), whereby preventing any occurrence of physical injuries, fires, significant damage, and so forth. Furthermore, fault avoidance,*3 fault tolerance,*4 or the like should be incorporated so that the said Equipment can satisfy the level of reliability and safety required for your use.

   *1. A design that is safe even if the user makes an error.
   *2. A design that is safe even if the device fails.
   *3. Avoidance of device failure by using highly reliable components, etc.
   *4. The use of redundancy.

3. Precautions and restrictions on application

   3.1 Restrictions on application

   Please follow the table below for use in nuclear power or radiation-related equipment.

	Nuclear power quality*5 required	Nuclear power quality*5 not required
Within a radiation controlled area*6	Cannot be used (except for limit switches for nuclear power*7)	Cannot be used (except for limit switches for nuclear power*7)
Outside a radiation controlled area*6	Cannot be used (except for limit switches for nuclear power*7)	Can be used

   *5. Nuclear power quality: compliance with JEAG 4121 required
   *6. Radiation controlled area: an area governed by the requirements of article 3 of "Rules on the Prevention of Harm from Ionizing Radiation," article 2 2 4 of "Regulations on Installation and Operation of Nuclear Reactors for Practical Power Generation," article 4 of "Determining the Quantity, etc., of Radiation-Emitting Isotopes,"etc.
   *7. Limit switch for nuclear power: a limit switch designed, manufactured and sold according to IEEE 382 and JEAG 4121.

   Any Azbil Corporation's products shall not be used for/with medical equipment.

   The products are for industrial use. Do not allow general consumers to install or use any Azbil Corporation's product. However, azbil products can be incorporated into products used by general consumers. If you intend to use a product for that purpose, please contact one of our sales representatives.

   3.2 Precautions on application

   you are required to conduct a consultation with our sales representative and understand detail specifications, cautions for operation, and so forth by reference to catalogs, specifications, instruction manual, etc. in case that you intend to use azbil product for any purposes specified in (1) through (6) below. Moreover, you are required to provide your Equipment with fool-proof design, fail-safe design, anti-flame propagation design, fault avoidance, fault tolerance, and other kinds of protection/safety circuit design on your own responsibility to ensure reliability and safety, whereby preventing problems caused by failure or nonconformity.

(1) For use under such conditions or in such environments as not stated in technical documents, including catalogs, specification, and instruction manuals
(2) For use of specific purposes, such as:
    * Nuclear energy/radiation related facilities
      [When used outside a radiation controlled area and where nuclear power quality is not required]
      [When the limit switch for nuclear power is used]
    * Machinery or equipment for space/sea bottom
    * Transportation equipment
      [Railway, aircraft, vessels, vehicle equipment, etc.]
    * Antidisaster/crime-prevention equipment
    * Burning appliances
    * Electrothermal equipment
    * Amusement facilities
    * Facilities/applications associated directly with billing
(3) Supply systems such as electricity/gas/water supply systems, large-scale communication systems, and traffic/air traffic control systems requiring high reliability
(4) Facilities that are to comply with regulations of governmental/public agencies or specific industries
(5) Machinery or equipment that may affect human lives, human bodies or properties
(6) Other machinery or equipment equivalent to those set forth in items (1) to (5) above which require high reliability and safety

4. Precautions against long-term use

Use of Azbil Corporation's products, including switches, which contain electronic components, over a prolonged period may degrade insulation or increase contact-resistance and may result in heat generation or any other similar problem causing such product or switch to develop safety hazards such as smoking, ignition, and electrification. Although acceleration of the above situation varies depending on the conditions or environment of use of the products, you are required not to use any Azbil Corporation's products for a period exceeding ten (10) years unless otherwise stated in specifications or instruction manuals.

5. Recommendation for renewal

Mechanical components, such as relays and switches, used for Azbil Corporation's products will reach the end of their life due to wear by repetitious open/close operations.

In addition, electronic components such as electrolytic capacitors will reach the end of their life due to aged deterioration based on the conditions or environment in which such electronic components are used. Although acceleration of the above situation varies depending on the conditions or environment of use, the number of open/close operations of relays, etc. as prescribed in specifications or instruction manuals, or depending on the design margin of your machine or equipment, you are required to renew any Azbil Corporation's products every 5 to 10 years unless otherwise specified in specifications or instruction manuals. System products, field instruments (sensors such as pressure/flow/level sensors, regulating valves, etc.) will reach the end of their life due to aged deterioration of parts. For those parts that will reach the end of their life due to aged deterioration, recommended replacement cycles are prescribed. You are required to replace parts based on such recommended replacement cycles.

6. Other precautions

Prior to your use of Azbil Corporation's products, you are required to understand and comply with specifications (e.g., conditions and environment of use), precautions, warnings/cautions/notices as set forth in the technical documents prepared for individual Azbil Corporation's products, such as catalogs, specifications, and instruction manuals to ensure the quality, reliability, and safety of those products.

7. Changes to specifications

Please note that the descriptions contained in any documents provided by azbil are subject to change without notice for improvement or for any other reason. For inquires or information on specifications as you may need to check, please contact our branch offices or sales offices, or your local sales agents.

8. Discontinuance of the supply of products/parts

Please note that the production of any Azbil Corporation's product may be discontinued without notice. After manufacturing is discontinued, we may not be able to provide replacement products even within the warranty period.

For repairable products, we will, in principle, undertake repairs for five (5) years after the discontinuance of those products. In some cases, however, we cannot undertake such repairs for reasons, such as the absence of repair parts. For system products, field instruments, we may not be able to undertake parts replacement for similar reasons.

9. Scope of services

Prices of Azbil Corporation's products do not include any charges for services such as engineer dispatch service. Accordingly, a separate fee will be charged in any of the following cases:

(1) Installation, adjustment, guidance, and attendance at a test run
(2) Maintenance, inspection, adjustment, and repair
(3) Technical guidance and technical education
(4) Special test or special inspection of a product under the conditions specified by you

Please note that we cannot provide any services as set forth above in a nuclear energy controlled area (radiation controlled area) or at a place where the level of exposure to radiation is equivalent to that in a nuclear energy controlled area.

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