Control Performance Analyser 3.0

Installation Instruction

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Control Performance Analyzer is used for:
- Setup
- Operation
- Monitoring
- Diagnostics
- Graphical illustration of the pressure behavior
- Programming and recording of sequences
- Several possibilities for data analysis and process optimization
Imprint

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Part I
1 Introduction

<table>
<thead>
<tr>
<th>Version</th>
<th>Release</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>1.0.6</td>
</tr>
</tbody>
</table>

1.1 Use of product

Use this product for computers operated by a Windows® OS operating system. This software can be operated on following systems:

- Windows® XP Pro + home
- Windows® Vista Pro + home
- Windows® 7 Pro + home

This software provides control functions for these VAT-control valves, which are equipped by an integrated controller.

- Series 61.2 (Series 95.1 and 95.2)
- Series 61.5
- Series 64.2
- Series 65.0
- Series 65.1
- Series 65.2

Using this software, basic functions like “setup of controller”, “open valve”, “close valve”, “learn”, “up- download of learned data” can be executed, and many convenient functions like “monitoring pressure/position”, “analysis of pressure control performance”, “communication monitor”, etc) are available.
1.2 **Technical data**

This CPA software requires:

- 500 MB disk space
- 512 MB RAM
- RS232 serial port or USB-to-RS232 Converters / PCMCIA Cards
- 1024x768 minimum resolution for the display
- Administrator rights for your PC when you are using Windows®-XP; Windows®-Vista or Windows®-7
- Service cable refer to: «Connect Valve to PC»

This software has a self-detecting function which recognizes the type of the connected valve. According to this information, corresponding functions, screens and menus are provided.
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2 Installation

Control Performance Analyzer is available as download from VAT homepage:


**Note:** Save the Zip file CPA and the CPA Installation Instruction on your PC.

2.1 Installation onto your PC

**Note:** This software can only be installed, if the “logged-on” user owns Administrator privileges.

If your operating system is a Windows® NT, XP, Vista or 7 professional or home, you must have administrator privileges in order to install this software.

If you are not able to install this program, please contact your System Administrator or Help Desk.

2.2 Start Installation procedure

1. "Unzip" the CPA

   ![Zip file]

2. “Double-Click” the folder

   ![Folder]

3. “Double-Click” the icon “setup”

   ![Setup icon]

   After the install-program has been started, following dialog is displayed:

4. Select the primary installation directory.

5. Click the button [Next]...
6. Click the button [Next] to begin installation

7. Wait until "Overall Progress is 100% Complete"

8. Click the button [Next]
9. Click the button [Finish]

10. If this screen appears click the button [Restart] otherwise proceed with step 11.

After restart of your computer the “Control Performance Analyzer” is ready for use.

11. Connect your valve to the PC as described in «Connect Valve to PC»
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Part III
3 General

Note:

- The CPA 3.0 displays always the connected valve automatically.
- All window screen-shoots in this "Operating Manual" are examples!
- The windows of your installed CPA 3.0 depend to the connected valve and the installed valve firmware.
- The manual of CPA 3.0 you will find in CPA 3.0 folder: Help > Operating Manual

or in CPA 3.0 Status bar. Click [?] to open the Operating Manual.

3.1 Connect Valve to PC

Introducing
Connect the valve to your PC via a 'COM port', 'USB to RS232 converter' or 'Express card to RS232'. Use the supplied service cable, see in chapter: «Spare parts». The maximum cable length is 10m.

Connection overview

Note: If there is no RS232 port available on your computer, please use a 'USB to RS232 converter' or 'Express card to RS232' converter. Please use a converter that is supported by your PC and install the corresponding driver for the used converter.
3.2 Start up

Introducing
Check whether the PC is connected via the service port to your valve. Make sure, that the valve is supplied by 24VDC (see cable to connector marked "Power"). The display on the valve shows the version number for a short time and than the letters 'C' and '0', after self test is finished.

You need not do any adjustments for the RS232 port in advance. Setup of the RS232-port for the PC is done automatically by Control Performance Analyzer Software.
1. Start the program on your Start-menu > All Programs > VAT Vacuum Valves >

2. After startup is finished, the Control Performance Analyzer displays its startup-screen. (example see below)
3. Proceed with: «Connect CPA to VAT valve»

Note: Control Performance Analyzer check which valve is connected to the PC. According to the type of valve (S61.2, S65IC, S65.1 etc.), slightly different screens and menus are displayed.
All necessary functions are provided to setup the valve and controller. Parameters are stored to the valve permanently.
3.3 Port Selection

*Introducing*

With this function it is possible to change the 'Software Mode'. (Connected to VAT valve or Stand-Alone Operation)

3.3.1 Connect CPA to VAT valve

1. In «Software Mode» select [Connect to VAT valve]

2. Click [Enter CPA]

*Note:* The "Control Performance Analyzer" is now ready for "Normal operation" use. Refer to: «Basic functions – use LOCAL MODE».
3.3.2 Stand alone operation

Introducing
In this operation mode it is possible to 'Load' existing data from PC to CPA for checking only. No valve is connected to CPA in this operation mode.

1. In «Software Mode» select [Stand-Alone Operation]

2. Click [Enter CPA]

Note: The "Control Performance Analyzer" is now ready for "Stand-Alone Operation" use.

Example:
### 3.4 Main screen of Control Performance Analyser

**Overview:**

<table>
<thead>
<tr>
<th>Area</th>
<th>Description</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>top bar</td>
<td>REMOTE / LOCAL Port Selection Version - Release</td>
</tr>
<tr>
<td>B</td>
<td>navigation</td>
<td>explorer menus, adjustment and control</td>
</tr>
<tr>
<td>C</td>
<td>valve status</td>
<td>display the valve status</td>
</tr>
<tr>
<td>D</td>
<td>position</td>
<td>monitor, open, close, hold, adjust and save position setpoint</td>
</tr>
<tr>
<td>E</td>
<td>pressure</td>
<td>monitor, adjust and save pressure setpoint</td>
</tr>
<tr>
<td>F</td>
<td>chart</td>
<td>record / analyze position and pressure in time</td>
</tr>
<tr>
<td>G</td>
<td>status bar</td>
<td>display com port, connected valve, connection status and scan-rate</td>
</tr>
</tbody>
</table>
3.5 CPA status bar

*Introducing*

There are two possible status of CPA. These are described in status bar on bottom of main screen.

**Connected to VAT valve:**

- Connected (CPA is connected to valve, communication is OK and operation possible)

**Stand-Alone Operation (only CPA without valve):**

- Disconnected (CPA is not connected to valve, no communication and no operation possible)
3.6  **Explanation of Button (window top bar)**

Example window:

<table>
<thead>
<tr>
<th><strong>Button</strong></th>
<th><strong>Function</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Save" /></td>
<td>Save changed settings to the valve controller</td>
</tr>
<tr>
<td><img src="image" alt="Default Settings" /></td>
<td>Set to default settings</td>
</tr>
<tr>
<td><img src="image" alt="Refresh" /></td>
<td>Reload changed settings from valve controller</td>
</tr>
<tr>
<td><img src="image" alt="Help" /></td>
<td>Open the Online Help for this window</td>
</tr>
<tr>
<td>Esc or <img src="image" alt="Close" /></td>
<td>Close the actual window</td>
</tr>
</tbody>
</table>
3.7 Basic functions – use LOCAL MODE

**Introducing**
Using the “Control Performance Analyzer” is only possible, when the valve is in the “LOCAL Mode”.

Click button [LOCAL]

Now the valve can be operated easily via “Control Performance Analyzer”.

First steps should be [OPEN], [CLOSE] etc.

**Note:** If “LOCAL operation is finished, please switch back to “REMOTE mode”.

Click button [REMOTE]
Top Level Intro

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4 Help

4.1 Visit VAT

http://www.vatvalve.com

4.2 Spare parts

*Introducing*
For ordering the 'Service cable' please specify the fabrication number of the valve (see label on valve) when ordering spare parts. This is to ensure that the appropriate spare parts are supplied.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Ordering No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Service cable 2 m (between computer and valve)</td>
<td>230327</td>
</tr>
<tr>
<td>2</td>
<td>Service cable 10 m (between computer and valve)</td>
<td>246056</td>
</tr>
</tbody>
</table>

For building the service cable by yourself, please use the following drawing.
You need a 5 line cable, 1 piece D-Sub 9pin female, 1 piece HD-Sub 15pin male (3 rows D-Sub).