### QUICK START GUIDE EASYSCAN DIAGNOSTICS AND SERVICE TOOL



### FOR EBERSPÄCHER **AIR AND WATER HEATERS**

Designation EasyScan diagnostics and service tool 22.1550.89.0000

Order No.



EN

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### **1 INTRODUCTION**

### 1.1 GENERAL INFORMATION

### 1.1.1 Please read first

Before beginning the diagnosis always read carefully through the quick start guide and the complete operating instructions. Both documents contain important information, which is necessary for the installation and for performing the diagnosis. The complete operating instructions are stored on the enclosed CD and are also available on the Eberspächer Partner Portal to view and to download.

#### 1.1.2 Designation

In the following the diagnostics adapter is named the VCI (Vehicle Communication Interface).

#### 1.1.3 Screen display

All displays of screen pages shown in this document are given as examples. The actual screen page displays depend on the software version and may differ.

### 1.1.4 Repair

Repairs are not permitted.



#### 1.1.5 Note on environmental protection

Electric and electronic devices as well as batteries must not be disposed of with household waste. Consumers are obliged by law to return electrical and electronic devices as well as batteries at the end of their service lives to the public collecting points set up for this purpose or at the point of sale. Details to this are defined by the national law of the respective country. The symbol on the product, the instruction manual or the package indicates that a product is subject to these regulations.

### 1.2 IMPORTANT INFORMATION

#### 1.2.1 Intended use

The EasyScan diagnostics and service tool can be used to read out the fault memory, general data and measured values from the control box of Eberspächer heaters with diagnostics capability. Furthermore, functions of individual heater components can be tested and logged.



- Use of the VCI for any purpose other than that given by the manufacturer is not permitted.
- The VCI is intended for commercial purposes only.
- $\rightarrow$  Use the VCI only for the specified purpose for heaters, for example:
  - Hydronic 1, from heaters with the "automatic altitude adjustment" function
  - Hydronic 2, Hydronic 2 Commercial, Hydronic M II, Hydronic S3, Hydronic L3
  - Airtronic 1, Airtronic 2, Airtronic 3, Airtronic M / Airtronic L, from heaters with the "automatic altitude adjustment" function

### **1 INTRODUCTION**

### 1.2.2 Operation

### 🛕 CAUTION

- Do not use the VCI in an environment in which flammable gases, fumes, liquids or dust are or could be present.
- To reduce the risk of an electrical short-circuit or damage, do not expose the VCI to moisture.
- Do not start up the VCI if a malfunction could cause a hazard and/or damage to property.
- Shut down the VCI immediately if it can be assumed that safe operation is no longer guaranteed.
  Take all processory measures to provide the doubtel starting we again
  - ightarrow Take all necessary measures to prevent accidental starting up again.

### 1.2.3 Liability and guarantee

- The manufacturer is not liable for damage caused by improper use or incorrect operation.
- Failure to comply with the safety instructions makes the guarantee null and void and excludes any liability of Eberspächer Climate Control Systems GmbH.

### 1.2.4 Accident prevention

Always follow all accident prevention regulations and shop and operating safety instructions.

### 1.3 EU DECLARATION OF CONFORMITY

We herewith declare that the version of the EasyScan diagnostics and service tool placed on the market by us conforms to the following EU Directives.

EU Directive 2014/30/EU EU Directive 2011/65/EU

# CE

The full Declaration of Conformity can be viewed and downloaded from the download centre at <u>www.eberspaecher.com</u>.

### 1.4 UKCA DECLARATION OF CONFORMITY

We herewith declare that the version of the EasyScan diagnostics and service tool placed on the market by us conforms to the following UK Directives.

Electromagnetic Compatibility, Statutory Instrument 2016, No. 1091 Restriction of hazardous substances, Statutory Instrument 2016, No. 1107

# UK CA

The full Declaration of Conformity can be viewed and downloaded from the download centre at <u>www.eberspaecher.com</u>.

### 2.1 ORDER NO.

EasyScan diagnostics and service tool Order No. 22.1550.89.0000

### 2.2 SCOPE OF SUPPLY

# I NOTE

An adapter cable is absolutely necessary for diagnosis using the EasyScan diagnostics and service tool. The table in Chapter 2.3 "Adapter cables" describes which adapter cable is required for which heater. The adapter cables are **not** included in the scope of supply of the EasyScan diagnostics and service tool.

The scope of supply includes:

No. in	Quantity	Designation
sketch		
1	1	VCI
2	1	"Diagnostics interface" connection cable
3	1	"PC" connection cable
4	1	CD with software and complete operating instructions
5	1	Quick start guide



### 2.3 ADAPTER CABLE

The following adapter cables are absolutely necessary to connect the VCI.

## **I** NOTE

Heaters with the "automatic altitude adjustment" function are identifiable from production in summer 2008 by "H-Kit" marked on the nameplate.

No. in sketch	Quantity	Designation	Order No.
6	1	Adapter cable – Hydronic 2 / Hydronic 2 Commercial / Hydronic M II	22.1000.33.7800
7	1	Adapter cable – Hydronic 1	22.1000.31.6300
		from heaters with the "automatic altitude adjustment" function	
8	1	Adapter cable – Airtronic 1 / Airtronic M / Airtronic L	22.1000.31.8600
		from heaters with the "automatic altitude adjustment" function	



### 2.4 VCI DIMENSIONS



### DEVICE CONNECTIONS

KEY	Key function: Restore the software
•	Not used
Host PC	"PC" connection cable connection
DEVICE	"Diagnostics interface" connection cable connection

### LED DESCRIPTION

Designation	Colour	Signalling	Operating state	
	GREEN	dark	Power supply not connected or is outside the allowable range (VBAT $<$ 6V or VBAT $>$ 32 V)	
VDAT		illuminated	Power supply connected and is within the allowable range (VBAT $> 6V$ up to VBAT $< 32V$ )	
	YEL-	dark	No PC connection (USB not connected)	
PC / USB		Illuminated	VCI is connected with the PC (USB connected)	
	LOW	Flashing	Data is being transferred between the PC and the VCI	
		dark	Software in the VCI is not ready for use (fault condition)	
STATUS	GREEN	slow flashing (1 Hz)	Software in the VCI is ready for use (normal condition)	
514105		fast flashing (2 Hz)	The devices is in bootloader mode, the software in the VCI is faulty or has not been installed (fault condition)	
	RED	dark	On-cable for heating inactive	
DEVICE UN		Illuminated	On-cable for heating active	
		dark	Communication via CAN bus not in operation	
CAN	BLUE	flashing	CAN communication in operation. The flash frequency indicates the CAN bus load	
	BLUE	dark	Communication via LIN / K-LINE not in operation	
LIN / K-LINE		flashing	LIN / K-LINE communication in operation. The flash frequency indicates the bus load	

#### 2.5 TECHNICAL DATA

Compatibility	Water heaters Hydronic 1 (12V), Hydronic 2 (12V), Hydronic 2 Commercial (12/24V), Hydronic M II (12/24 V), Hydronic S3 (12/24 V), Hydronic L3 (24 V)		
	Air heaters Airtronic 1, Airtronic M, Airtronic L (12/24V), Airtronic 2 (12/24V), Airtronic 3 (12/24V)		
	all future heaters		
Temperature range [°C]	-40 °C to +70 °C		
Dimensions L×W×H [mm]	82×72×24		
Class of protection	IP 20		

### 2.6 SYSTEM REQUIREMENTS

#### Check before installing the software

- Is an operating system, which supports the software, installed on the PC or notebook?
- · Are the minimum hardware requirements for the supporting operating system met?

#### Supporting operating systems:

• Microsoft Windows 7 or newer versions.

#### Minimum hardware requirements:

- 1 gigahertz (GHz) 32-bit (x86) or 64-bit (x64) processor
- Hard drive: with at least 16 Gbyte (32-bit) or 20 Gbyte (64-bit) free memory
- · Working memory (RAM): at least 1 Gbyte (32-bit) or 2 Gbyte (64-bit)
- DirectX 9 graphics device with WDDM 1.0 or higher drivers
- CD ROM or DVD drive
- USB 2.0 interface (port)
- Screen: resolution min. 800×600 dots (recommended 1024×768 or higher), colour palette 65536 colours or more, small text



If the minimum requirements are **not** fulfilled, the EasyScan software **cannot** be installed.

#### 3.1 PREPARING FOR THE INSTALLATION

### **A** CAUTION

Eberspächer Climate Control Systems GmbH does not accept any liability whatsoever for any data loss on your PC.  $\rightarrow$  We recommend that you back up the data on an external hard drive before installing the software.

### **I** NOTE

- For the initial installation of the software the user who carries out the installation must be logged into the PC / notebook with administrator rights.
- Administrator rights are not required for all other actions.
- If the installation CD is not available, the software can be downloaded from the Eberspächer Partner Portal at partner.eberspaecher.com.
- The software contains all the drivers required for the VCI.
- Depending on the operating system and set language, the names of the system directories may differ from those used in this quick start guide.
- The names of the English installation of Windows 7 are used in this quick start guide.

### 3.2 INSTALLING THE SOFTWARE

#### 

Depending on the performance of the PC/notebook, several minutes may be required for the installation.

TIP: For faster installation, copy the program data from the CD onto the hard drive and start the installation from there.

During the installation, follow the instructions on the screen, accept all default paths and do not change them.

The installation process may take several minutes.

### 3.2.1 Start the installation

Start the program by clicking EasyScan.exe.

Select language

Installer Lang	uage X				
N	Please select the language of the installer				
	English 💌				
	OK Cancel				

Select "Next" button

EasyScan	
	Welcome to the EasyScan Setup Wizard
	This wizard will guide you through the installation of EasyScan.
	It is recommended that you close all other applications before starting Setup. This will make it possible to update relevant system files without having to reboot your computer.
	Click Next to continue.
Eberspächer	
	Next > Cancel

Installing the EasyScan testing software; the installation progress is indicated by a bar.



# i <sub>Note</sub>

If the Setup Wizard finds that programs required for execution of the software to be installed is not available it starts the necessary programs.

Follow the Wizard's instructions and click "Next" (do not click "Finish").

# I NOTE

After installing the "EasyScan testing software" the Connection Assistant starts.

#### 3.2.2 Automatic firmware update

The following instructions must be carried out:

- Check whether "PC" connection cable is connected to the VCI and to the PC / notebook.
- Check the power supply:
  - Status LED (green) on the VCI is lit -> power supply connected,
  - Status LED (green) on the VCI is not lit -> connect the power supply.
- Confirm completed instructions by clicking the "OK" button.

EasyScan
Lindate of V/T Firmware:
Please connect VCI 'HOST PC' to any available USB port on your PC.
2. Press ok
!! DO NOT disconnect the VCI from your PC in any circumstance !!
-> A pop up box will be displayed after the update of the VCI.
OK Abbrechen

# I NOTE

Do not disconnect the USB connection between the PC/notebook and VCI during the firmware update under any circumstance.

If no VCI is connected an error message appears.

EasyScan	×
! no VCI on any USB port detected !	
EITHER press 'Ok' to start updating the VCI	Firmware again
OR proceed with 'Cancel' to update VCI fin	mware via ConnectionAssistant afterwards.
	OK Abbrechen

# 

If the firmware is up-to-date a corresponding message appears.



#### 3.3 ENDING THE INSTALLATION

Finish the software installation by clicking the "Finish" button.



### I NOTE

After completing the installation or after clicking the EasyScan icon in the program bar or on the desktop, the **Home page** is displayed for the current heater generation.

#### 3.4 ACTIVATING EASYSCAN

# **I** NOTE

Activation is only necessary for the initial startup.



- Start the program by clicking the EasyScan icon in the program bar or on the Desktop.
- Select "Activate via VCI link" in the selection window.
- Click the "Next" button to continue the activation.

Softing TDX.workshop	
C	Activate product Softing TDX.workshop can now be activated. Once activated, you will only be able to use Softing TDX.workshop if you have connected a VCI with a license ID.
	Activate via VCI link Activate
. Pofting	< Back Next > Cancel

End the activation by clicking the "Activate" button, then exit the program by clicking the operating system button \_\_\_\_\_ (Close).

Restart the program by clicking the EasyScan icon in the program bar or on the Desktop. The Home page is displayed.

### 4 CONNECTING THE VCI

#### 4.1 CONNECT THE "PC" CONNECTION CABLE

Connect the "PC" connection cable (2) to an unused USB port of the PC/notebook and at the VCI.

#### 4.2 CONNECT THE "DIAGNOSTICS INTERFACE" CONNECTION CABLE AND THE ADAPTER CABLE

Connect the "diagnostics interface" connection cable (3) to the VCI.

#### Hydronic 2 / Hydronic 2 Commercial / Hydronic M II / Hydronic S3 / Airtronic 2

The adapter cable (6, see Chapter 2.3) is absolutely necessary: connect it to the 8-pin connector (5) of the "diagnostics interface" connection cable and to the diagnostics interface in the heater cable harness.

#### **Hydronic 1**

The adapter cable (7, see Chapter 2.3) is absolutely necessary; use it between the heater and heater cable harness and connect to the 8-pin connector (5) of the "diagnostics interface" connection cable.

#### Airtronic 1 / Airtronic M / Airtronic L

The adapter cable (8, see Chapter 2.3) is absolutely necessary; use it between the heater and heater cable harness and connect to the 8-pin connector (5) of the "diagnostics interface" connection cable.



### 1 VCI

- 2 "PC" connection cable
- 3 "Diagnostics interface" connection cable
- 4 Connection to the diagnostics interface in the heater cable harness (in preparation for the new heater generation)
- 5 8-pin connector for the adapter cable connection (see page 6 for adapter cable Order No.)

### 5 STARTING THE PROGRAM (CURRENT HEATER GENERATION)

#### 5.1 STARTING THE EASYSCAN PROGRAM

Start the program by clicking the EasyScan icon in the program bar or on the Desktop. The Home page is opened:



The top part of the Home page contains three buttons for navigation between the linked HTML pages on the Eberspächer Partner Portal, the button functions are:



Back to Home page





Go to the next HTML page.

# **I** NOTE

For further detailed information refer to the EasyScan diagnostics and service tool operating instructions. The instructions are saved as a PDF file on the CD included in the scope of supply.

### 5.2 LOGGING OUT OF THE PROGRAM

- You can log out on pages with the 于 🗤 button.
- On logging out all running diagnostic functions are ended.
- After the logout the program switches back to the Start or Login page.

### 5.3 EXIT THE PROGRAM

Exit the program by clicking the operating system button \_\_\_\_\_ (Close).

### 6 STARTING THE PROGRAM (NEW HEATER GENERATION)

### 6.1 STARTING THE EASYSCAN PROGRAM

# **I** NOTE

- The EasyScan program can be started with "Login" or "Skip Login".
- The user name and password are available through the national representative.
- Successful logging in is indicated in green.
- Any errors that occur are displayed in red under the input field.
- Exit the login page by clicking the "Login" or "Skip Login" button.

Start the program by clicking the EasyScan icon in the program bar or on the Desktop. The Login page is opened. Enter the user name and password in the Login window.

🛃 EasyScan	-				- 6 <b>- X</b> -
Collination Collinatio Collinatio Collinatio Collination Collination Collinati			gin se login using your user nam u leave this page with the bu nostic functions.	e and password. ton [Skip Login]; you will get only minimal user rights. You	may see only parts of the Diagnostic Selection Tree and the
			User name:	м	
			Password:	Z Remember my user name.	
				🕅 Remember my password.	
Eberspächer	Login	Skip Login			

### 6 STARTING THE PROGRAM (NEW HEATER GENERATION)

If no login window is displayed for entry of the user name and password, go to "Settings – General settings – User login" and deselect the selected option " $\square$  Do not display the user login page and always log in as a standard user.".

<b>A</b>	© Settings	
A muo	Language	Softing TDY project location
S. autom	General settings	CiProgramData/Softing/TOX workshop/1.0.35/Project
Selection	User data	S This directory is used as base location.
	OTX settings	User login
	OUX settings Undate settings	Don't show the page for the user login, and always login as a standard user. This setting is valid from the next restart of the Soliting TDX.workshop.
Report	Reset to delivery settings	Theme file
<u> </u>		C:/ProgramData/Softing/TDX.workshop/1.0.35/Project/Themesoni
Settings		Start page location
		C1ProgramData(Softing)TDX workshop),L0.35/Project(StartPage
? Help		Softing FLX project location
-		C1ProgramData(Softing)TDX:workshop),1.0.351Project/PhProject
Logout		XSL Style Sheet location
		Ct/ProgramData/Solfing\TDX:workshop\1.0.35/Project/SiRStyleSheets
		Current XSL Style Sheet
		Localized report
		User login
		Do not display the user login page and always log in as a standard user. This setting will be applied the next time Softing TDX.workshop is started.

6.1.1 Starting the program with "Login"

### **I** NOTE

If the program is used with "Login" unlimited functionality is available to the user while the program is running.

To log in, enter the user name and password.

Login

Click the "Login" button. Following successful logging in the program starts with the Home page.

### 6.1.2 Starting the program with "Skip Login"

#### 

- It is not necessary to enter a user name and password.
- Limited functionality only is available to the user while the program is running.

### Skip Login

Click the "Skip Login" button. The program starts with the Home page.

### 7 SERVICE

### 7.1 HOTLINE

If you have any technical questions or problems with the hardware and / or software, please dial the following service phone number within Germany.

Hotline: 0800-1234300 Fax hotline: 01805-262624

Outside of Germany, please contact the respective Eberspächer national representative.

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