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1 MR-Tools

The tools described in this technical file can be obtained from Maschinenfabrik Reinhausen GmbH. These tools are used to simplify troubleshooting and rectification of errors in the event of problems. You can also launch MR_CopyMachine and MR_FlashTools tools using TAPCON®-trol. TAPCON®-trol must however be installed on your PC.

1.1 Manufacturer

The product is manufactured by:

Maschinenfabrik Reinhausen GmbH

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Fax: (+49) 9 41/40 90-7001
E-mail: sales@reinhausen.com

Further information on the product and copies of this technical file are available from this address if required.

1.2 Subject to change without notice

The information contained in this technical file comprises the technical specifications approved at the time of printing. Significant modifications will be included in a new edition of the technical file.

The document number and version number of this technical file are shown in the footer.

1.3 Completeness

This technical file is incomplete without the supporting documentation.

1.4 Safekeeping

This technical file and all supporting documents must be kept ready at hand and accessible for future use at all times.

1.5 Notation conventions

This section contains an overview of the symbols and textual emphasis used.

1.5.1 Information system

Information is designed to simplify and improve understanding of particular procedures. In this technical file it is laid out as follows:
Important information.
2 Preparation

Before launching the tools described in this document, please note the following:

- Connect PC and device with a 9 pin, uncrossed RS232 cable.
- Connect RS232 cable to COM1 port on the front of the device. This port is known as "COM2" on TAPCON® 250.
- To establish an FTP connection with the "CopyMachine" tool, you have to use the RJ45 connection on the SID/SID2 card (only possible on TAPGUARD® 260 with SID2 card or TRAFOGUARD® with SID card).
- The device must be switched on.
- Ensure that the COM port used on the PC is not being used by another application.
- The "CopyMachine", "MR_Flashtools", "TAPCON_Update" and "TAPGUARD260_Update" tools must be launched by a describable data carrier with at least 20 MB free memory.
- If the "CopyMachine", "MR_Flashtools", "TAPCON_Update" or "TAPGUARD260_Update" is located on a CD or DVD, copy onto the PC's hard disk.
- Take a note of the baud rate set in the device. This is needed for communication between the PC and device. To find out what baud rate is set in the device, please consult the corresponding operating instructions.
3 CopyMachine

You can download device data from the device using the CopyMachine. You can send this data to Maschinenfabrik Reinhausen for evaluation to remedy faults.

You can use the CopyMachine for the following devices:

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To obtain information about your version of the CopyMachine, proceed as follows:
1. Right-click on the file name in Windows Explorer.
2. Select Properties.
   ⇒ Information about your version of the CopyMachine is displayed.

If you are using the CopyMachine with TAPCON®-trol software, please read the TAPCON®-trol user guide relating to this subject.

You can download the following data with the CopyMachine:

- Receive Image: Download device image
- Receive Flashfile (only TAPGUARD® 260): Download the device configuration

When using the COM port: As soon as you start to back up the data, all device functions are stopped. Once the process of backing up data is complete, the device is automatically restarted. It is then ready for operation again.
To download the device data, proceed as follows:


2. Under Interface, select the interface of your PC (COM or (S)FTP) that you want to use. Depending on your choice, then select **Baud rate** or enter **IP address** and **port**.

   Select the baud rate which is configured in the device. Follow the operating instructions for the device. The IP address for (S)FTP is identical to the IP address of the SID/SID2 card. You can either set the IP address directly via the device or via TAPCON®-trol. Data transmission via (S)FTP is only available for TRAFOGUARD® (SID card) or TAPGUARD® 260 (SID2 card). The factory-set IP address of the SID2 card is 192.168.165.1. and the factory-set port is 1234.

3. For (S)FTP: Enter the SID password in the **Password** box or alternatively tick the **Default Password** checkbox (the password's factory setting is then used).

4. Click on the **Connect** button to establish a connection to the device.
   
   - The "Connected" message appears in the status bar when the connection has been successfully established.

5. Click on the **button to open the target directory.

6. Click on the **Receive Image** or **Receive Flash file** button to download the desired device data.

7. Confirm the prompt with **Yes**.
   
   - The device data is downloaded.

8. After downloading, click on the **Close** button to close the CopyMachine. If you have used the COM connection, the device then restarts.
3.1 Preparation

Before launching the tools described in this document, please note the following:

- Connect PC and device with a 9 pin, uncrossed RS232 cable.
- Connect RS232 cable to COM1 port on the front of the device.

This port is known as "COM2" on TAPCON® 250.

- To establish an FTP connection with the "CopyMachine" tool, you have to use the RJ45 connection on the SID/SID2 card (only possible on TAPGUARD® 260 with SID2 card or TRAFOGUARD® with SID card).
- The device must be switched on.
- Ensure that the COM port used on the PC is not being used by another application.
- The "CopyMachine", "MR_Flashtools", "TAPCON_Update" and "TAPGUARD260_Update" tools must be launched by a describable data carrier with at least 20 MB free memory.
- If the "CopyMachine", "MR_Flashtools", "TAPCON_Update" or "TAPGUARD260_Update" is located on a CD or DVD, copy onto the PC's hard disk.
- Take a note of the baud rate set in the device. This is needed for communication between the PC and device. To find out what baud rate is set in the device, please consult the corresponding operating instructions.
4 MR-FlashTools

You can use the MR-FlashTools program to transfer updated device firmware to the device if need be.

Before you transfer updated device firmware to the device, you should save the device's current data using the CopyMachine [► 7] program. This allows you to restore the device’s previous status if there are any problems with the firmware update.

To upload data to the device proceed as follows:

1. Run the MR_FlashTools.exe file.

2. If necessary, select the language you want from the Choose Language drop-down list.

3. Disconnect device from mains.

4. Press and hold and and connect the device to the mains.

   The device is switched on, but no LED lights up and the display shows no text.

5. Under Select File, select the file to be transferred.
With a TAPGUARD® 260, you must select a *.mcf file. For all other devices, select a *.h86 file.

6. Under **Mode**, select the **Standard** option. With a TAPCON® 250, select "TAPCON250".

7. Under **Communication**, set the desired interface and baud rate. Select the baud rate which is configured in the device. Follow the device's user guide.

8. Activate the **Start TAPCON** option so that the device restarts automatically after the data transfer.

9. Click on the **Connect** button to load the firmware. All LEDs on the device light up and the data transfer is started.

You can follow the transfer's status on the progress bar. Once all data has been transferred, the device restarts automatically. Then proceed as follows:

1. Disconnect PC and device.

2. Go to the `<00> Info` display in the device to check whether the data has been transferred correctly.

The date and time under `Info` show when the last upload took place. If this data has changed, the upload was a success.
5 TAPCON Update

You can use the TAPCON Update program to update the device parameters. If you want to update the parameters as part of a firmware update, you first have to run the firmware update.

To update the device parameters, proceed as follows:
1. Run the **TAPCON_Update.exe** file.

![Figure 3: TAPCON Update](image)

2. Set the **COM port** and **baud rate**.

   Select the baud rate which is configured in the device. Follow the operating instructions for the device.

3. Press the **Send** button to transfer the data.
   - Once the data has been transferred, the new configuration is active.
6 TAPGUARD® 260 update

You can use the TAPGUARD260_Update.exe program to transfer the following data to the TAPGUARD® 260:

- Event list
- Device configuration (only for TAPGUARD® 260 matching serial number of program)

When you transfer the device configuration, all parameter values (such as operations counter, sooting, etc.) are overwritten.

To transfer the data, proceed as follows:

1. Run the TAPGUARD260_Update.exe file.

2. Set the COM port and baud rate.

   Select the baud rate which is configured in the device. Follow the operating instructions for the device.

3. Press the Send button to transfer the data.

   Once the data has been transferred, the device restarts and the new configuration is active.
7 TRAFOGUARD® update

You can use the TRAFOGUARD_Update.exe program to transfer the following data to the TRAFOGUARD®:

- Event list
- Device configuration (only for the TRAFOGUARD® matching the program's serial number)

To transfer the data, proceed as follows:

1. Run the file TRAFOGUARD_Update.exe.

2. Set the COM port and baud rate.
   
   Select the baud rate which is configured in the device. Follow the operating instructions for the device.

3. Press the Send button to transfer the data.
   
   During the update, the LEDs light up in turn (sequential lights). The update is complete when the LEDs are no longer flashing.
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