

900TS | Programming and troubleshooting

ebm-papst - Commercial Plus

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**IMPORTANT**

In case of troubleshooting follow the flow chart in chapter 2 to guide you to the correct procedure!

1. Program 900TS firmware

Requirements for updating

To update the firmware on a touchscreen the following items are required:



- An USB stick (formatted according to the FAT-file system)
- A firmware installation package provided by ebm-papst

Firmware installation package

A zip-file with the new software is provided via the Web Portal, in your project folder, called *9xxTS00_x.x.x.x.zip* or *900TS02_x.x.x.x.zip* (dependent on your 900TS hardware version).

This zip-file contains the following files:

- A folder called 'tpcbakup'
- A file called 'ulog.txt'

Name	Type
 tpcbakup	File folder
 ulog.txt	Text Document

How to update the firmware

The following steps are required to program (update) the touchscreen firmware:

1. Download the Firmware Installation package from the Web Portal and extract it the (root of the) USB stick.
2. Eject the USB stick from your computer (safely remove it).
3. Insert the USB stick in the USB1 port on the backside of the touchscreen (marked green in Fig. 1) and power on the touchscreen (if it was not on already).

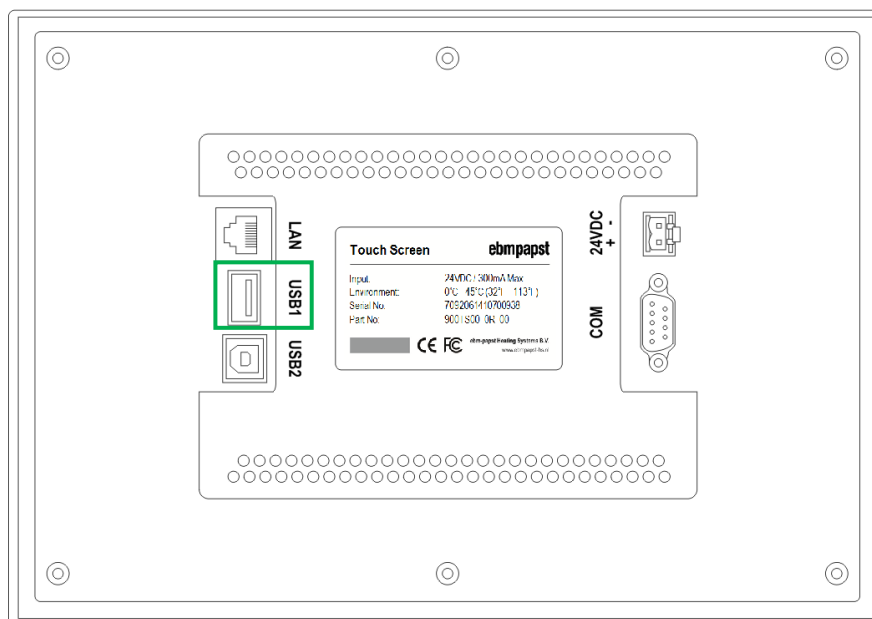


Fig. 1: USB1 port on the backside.

4. On the touchscreen, the window (displayed at Fig. 2) will appear. Press the button on the left:

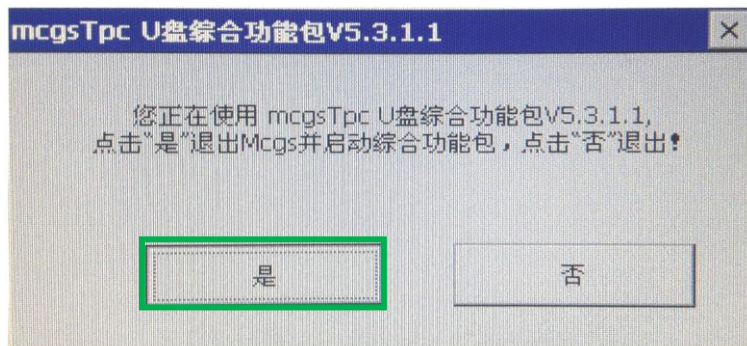


Fig. 2

5. In the following window, press the middle button (Fig. 3):



Fig. 3

6. In the following window, press the button on the left (Fig. 4):

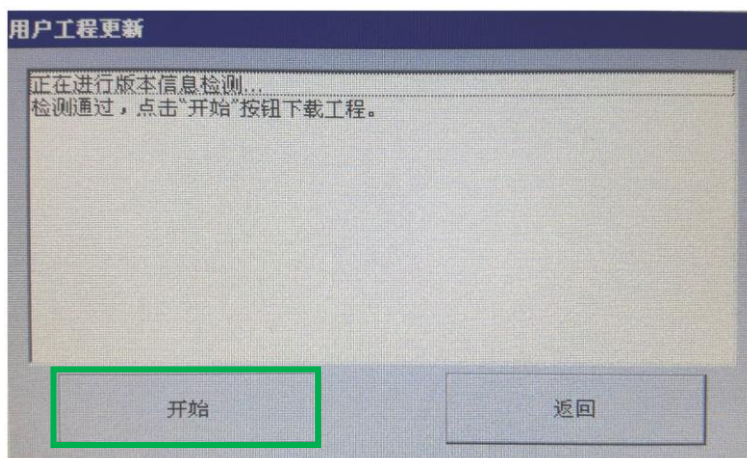


Fig. 4

7. Then press the button on the upper left side (Fig. 5) to start the firmware update (Fig. 6):

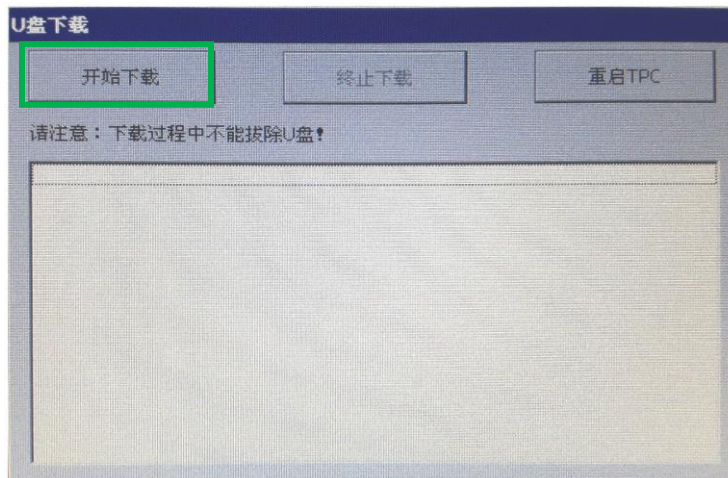


Fig. 5

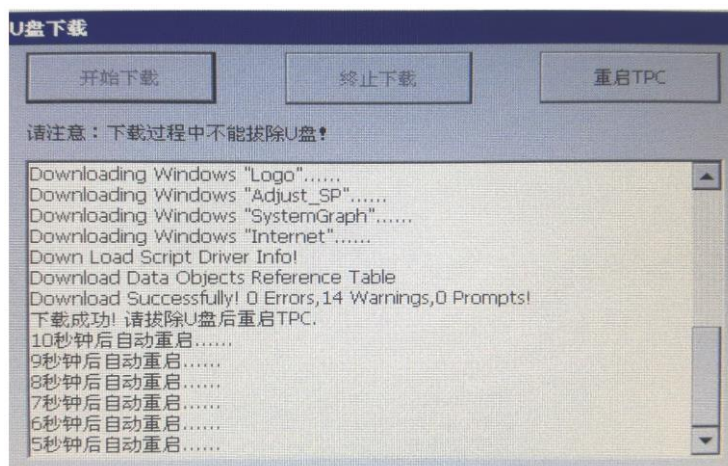


Fig. 6

After the firmware has successfully been updated, the touchscreen will reboot automatically. During rebooting unplug the USB stick from the touchscreen, otherwise the firmware-update process will start again (the window displayed at Step 4 - Fig. 2 will appear again).



NOTE

If an error appears on screen during the update-process, power OFF the touchscreen, wait a few seconds and power it back ON to retry. If the problem re-occurs please contact ebm-papst.

2. Troubleshooting

This chapter mentions various procedures to solve memory issues on the 900TS touchscreen versions.

Not all procedures are suitable for all touchscreen versions!

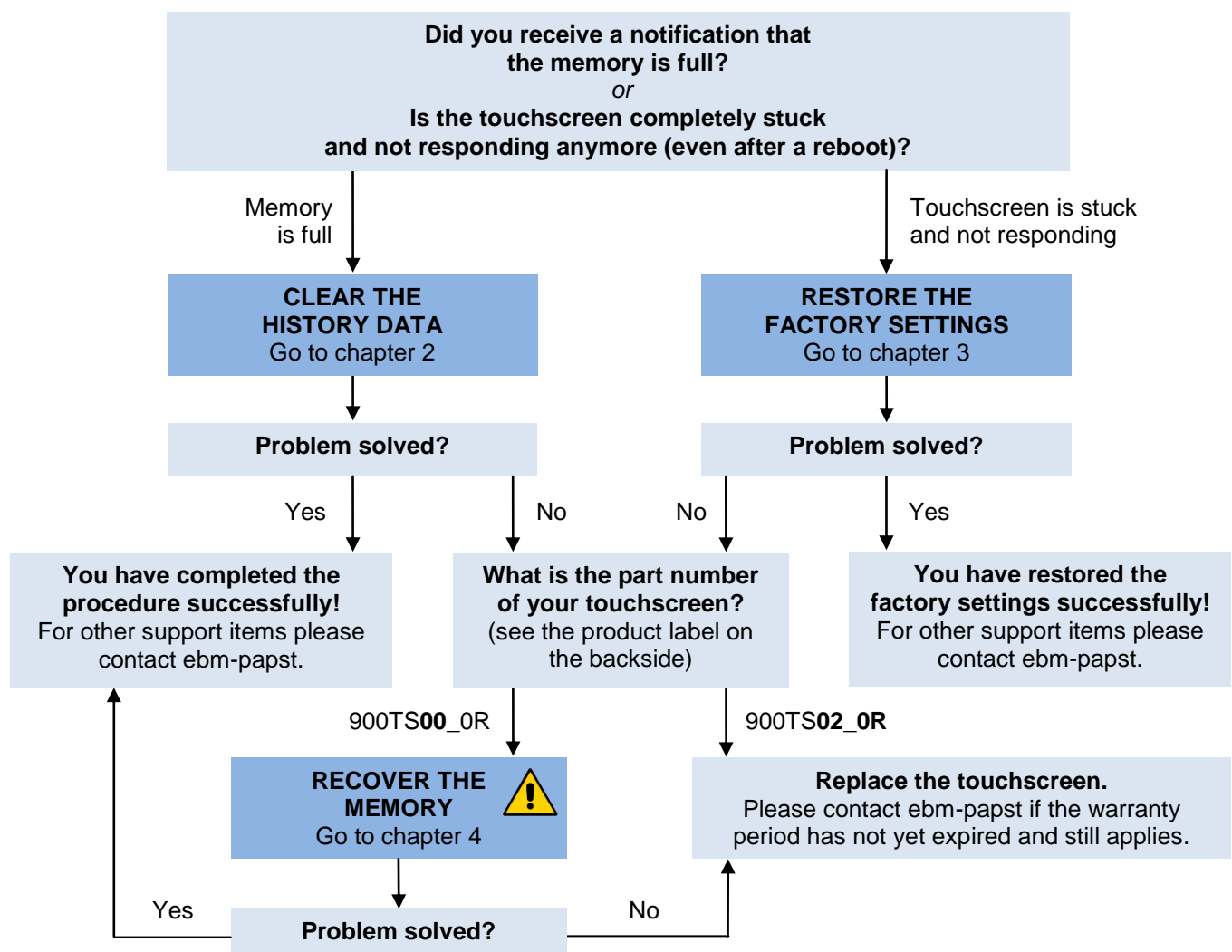
Performing a procedure that is not suitable for a certain touchscreen version can lead to a defective touchscreen! Carefully read this document and follow the flow chart (to guide you to the correct procedure) before you start.



IMPORTANT

- Carefully read the 'Installation and Safety instructions.pdf' (available on the Web Portal via *000/Instructions*).
- Ensure to check the power supply and cables before you start!

FLOW CHART



RECOVER THE MEMORY

This procedure is only suitable for a 900TS00_0R touchscreen.

Never perform this procedure on a 900TS02_0R: it will lead to an unrecoverable bricked state!

3. Clear history data procedure

When a 900TS touchscreen notifies the user that the memory is full, the logged data in the 900TS must be cleared as described in this chapter.



NOTE

This procedure suitable for the 900TS00_0R and 900TS02_0R touchscreen!



NOTE

This procedure deletes the following data and preferences:

- History graph
- User preferences (unit selection, interface language, etc.)
- Basic / Extended Modbus selection (if applicable to your project).

Clearing the memory (history data)

1. **Switch OFF the 900TS** (disconnect the power)
2. **Switch the power back ON the 900TS and enter the Start-up properties by touching the screen.**
During the boot process the 900TS will first show the ebm-papst logo (with 6 loading animation blocks). The following window (Fig. 1) will appear; press the screen to enter the 'Start properties' window (Fig. 2):

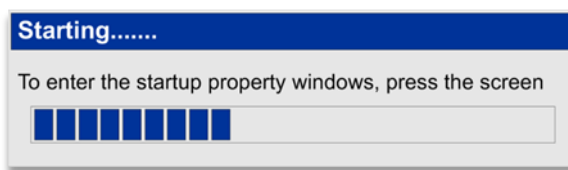


Fig. 1

The 'Start properties' window will then appear (Fig. 2).

Retry Step 1 and 2 if the normal application starts instead of the 'Start properties' window.

3. **Open the 'File operations' window**
Press the 'File operations' button (marked green in Fig. 2) to open the 'Disk file operations' window (Fig. 3):

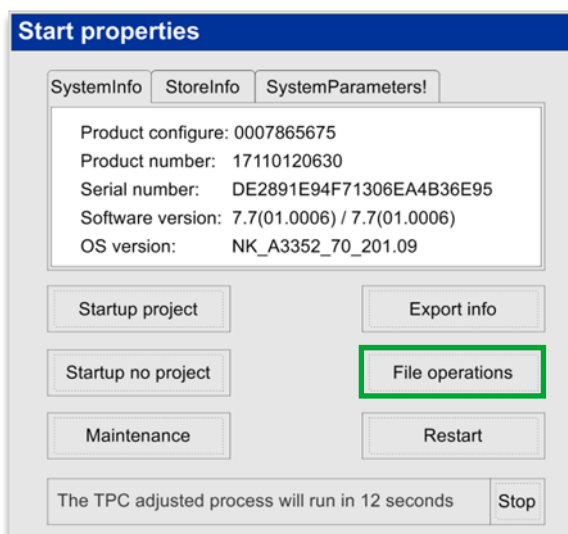


Fig. 2

NOTE

The touchscreen will continue to boot normally if you do not press any of the buttons within 30 seconds. Return to step 1 if this situation occurs.

4. Select data to be deleted

In the 'Disk file operations' window, check the 'Historical data', 'Alarm data' and 'Log data' checkboxes. Then press the 'Delete data' (marked green in Fig. 3) button and confirm you want to delete the selected data (in the confirmation window that pops up).

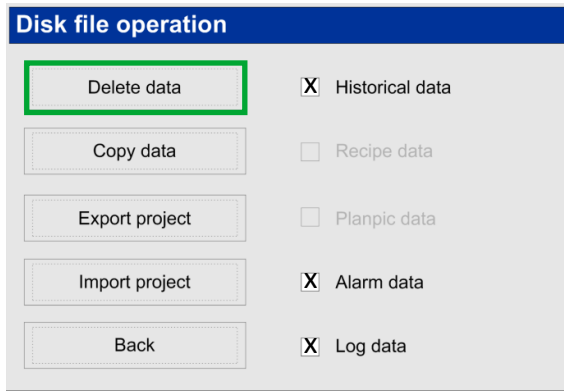


Fig. 3

The data stored in the 900TS memory will now be deleted. Please wait until the progress window (Fig. 4) closes automatically (and return to the 'Disk file operations' window). Then proceed with step 5.

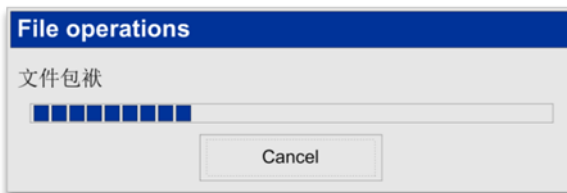


Fig. 4

5. Restart the touchscreen

In the 'Disk file operations' window (Fig. 3), press 'Back' to return to the 'Start properties' window. Press the 'Restart' button to restart and boot the touchscreen normally.



NOTE

After completing this procedure, you can restore user-setting such as unit selection, the interface language, Modbus selection (if applicable to your project, also see the 900TS manual).

4. Restore factory settings procedure

When a 900TS02_0R touchscreen is completely stuck and does not respond anymore to any user input, even after a reboot, the touchscreen can be recovered to factory state via the procedure described in this chapter.

Restoring factory settings

The following steps are required to restore to factory settings on a 900TS02_0R touchscreen:

1. **Switch OFF the 900TS** (disconnect the power)
2. **Switch the power back ON the 900TS and enter the Start-up properties by touching the screen.**
During the boot process the 900TS will first show the ebm-papst logo (with 6 loading animation blocks). The following window (Fig. 1) will appear; press the screen to enter the 'Start properties' window (Fig. 2):

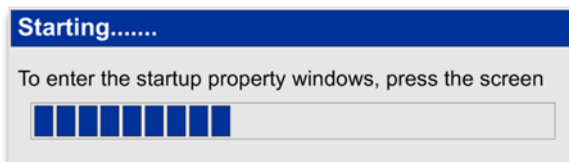


Fig. 1

The 'Start properties' window will then appear (Fig. 2).

Retry Step 1 and 2 if the normal application starts instead of the 'Start properties' window.

3. **Open the 'File operations' window**
Press the 'Maintenance' button (marked green in Fig. 2) to open the 'System Maintenance' window (Fig. 3):

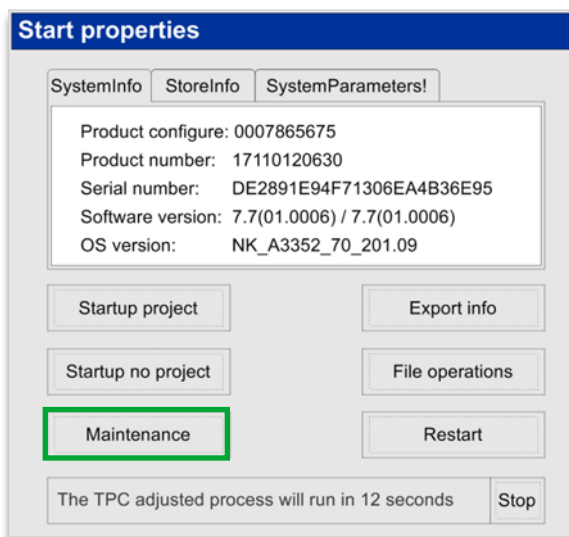


Fig. 2



NOTE

The touchscreen will continue to boot normally if you do not press any of the buttons within 30 seconds. Return to step 1 if this situation occurs.

4. Press the 'Initial settings...' button (marked green in Fig. 3).

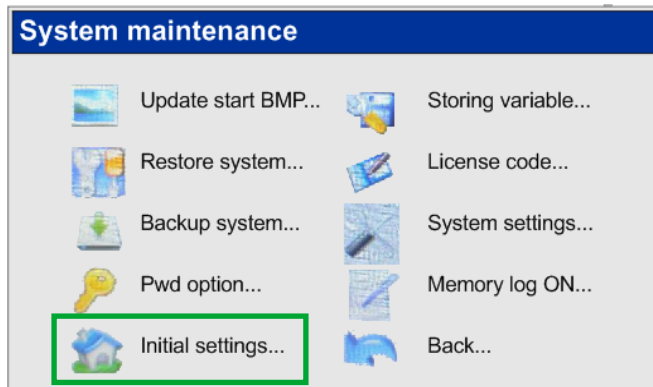


Fig. 3

5. In the pop-up window that appears (Fig. 4) press the 'Yes' button:

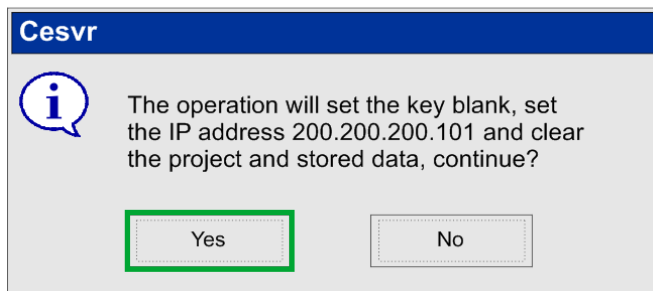


Fig. 4

The touchscreen will then be restored to Factory settings; the software will be cleared and the IP-address will automatically be modified the shown default value.



NOTE

After you have completed this procedure, ensure to program the desired touchscreen firmware from your Project folder on the Web Portal (see Chapter 1).



NOTE

Restore the IP-address to the applicable IP-address via the Internet screen (also see the 900TS Manual).

5. Recover memory procedure

When a 900TS00_0R touchscreen is completely stuck and not responding anymore to any user input, even after a reboot, the touchscreen can be recovered to factory state via the procedure described in this chapter.



NOTE

This procedure can only be performed on a 900TS00_0R touchscreen!



WARNING

Do not attempt to perform this procedure on a 900TS02_0R touchscreen!

The 900TS02_0R touchscreen cannot be recovered from the bricked state if this procedure is performed on the device. For more information please contact ebm-papst.

Requirements

To recover the memory of a 900TS00_0R touchscreen the following items are required:

- A USB flash drive (formatted according to the FAT-file system)
- A 900TS00_0R Memory recovery software package.

900TS00_0R Memory recovery software package

A zip-file with the appropriate software (only suitable for 900TS00_0R) is provided by ebm-papst, which contains the following files items:

Name	Type
drivers	File folder
OneKey	File folder
CeSvr.exe	Application
cesvr15_english_ARMV4.drv	Device driver
context.dat	DAT File
EBOOTND.bin	BIN File
fs.ini	Configuration settings
index.dat	DAT File
LangSetup.ini	Configuration settings
mcgsce.exe	Application
mcgse.ini	Configuration settings
NK.bin	BIN File
Os.ini	Configuration settings
PS_mcg95x17_v0.2.bmp	Bitmap image
tpcupdate.exe	Application
update.ini	Configuration settings
UpSys.dll	Application extension
XLDRNAND.bin	BIN File

Recover the memory

The following steps are required to recover the memory on a 900TS00_0R touchscreen:

1. Connect the USB flash drive to your computer.
2. Download the zip-file with the Memory recovery software package and extract the folder to the (root of the) USB flash drive.
3. Once extracted to the (root of the) USB flash drive, eject the USB flash drive from your computer (safely remove it).
4. Insert the USB flash drive in the USB1 port on the touchscreen (Fig. 1).
Do not power on the touchscreen yet!

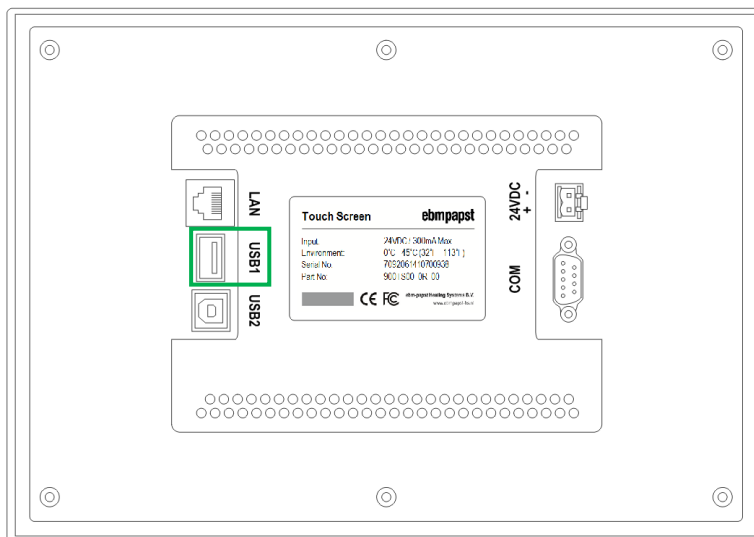


Fig.1

5. Press your finger (firmly) to the front panel of the touchscreen and hold it there. Then power on the touchscreen.
6. When the start-up screen appears (Fig. 2), immediately release your finger.



Fig.2

If Chinese characters appear on the bottom of the screen (Fig. 3), proceed, otherwise retry step 5 and 6.



Fig.3

7. In the following screen that appears (Fig. 4) press '**Y: Click the touchscreen**' to confirm the recovery, A screen with a progress bar then appears (Fig. 5).

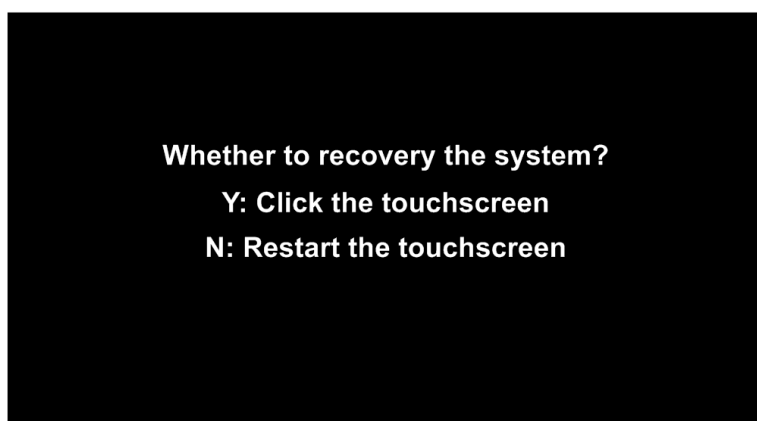


Fig.4



Fig.5

8. After completion, press the touchscreen to finalize the process (Fig. 6) and restore the system:

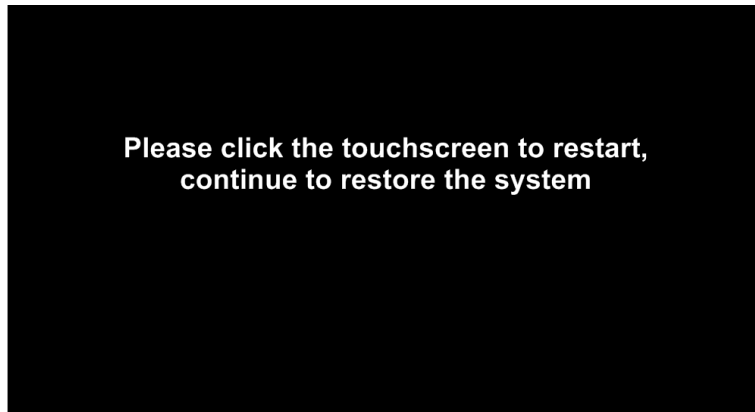


Fig.6

After the touchscreen has restarted, a progress-window will show (Fig. 7).

Once Chinese text appears at the bottom of the progress-window (marked green in Fig. 7) the touchscreen will beep continuously:

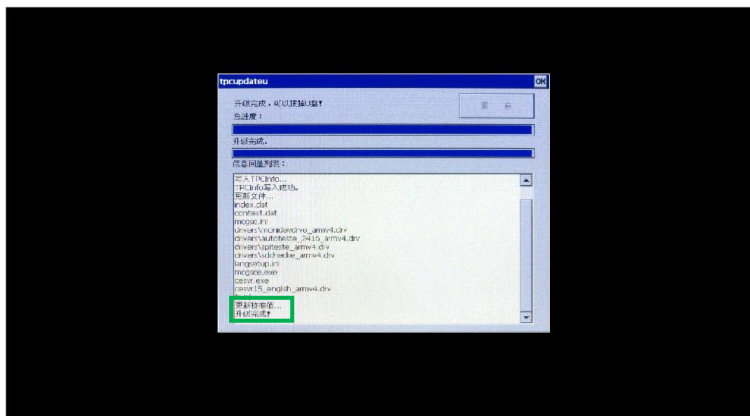


Fig.7

9. Power OFF the touchscreen and remove the USB flash drive from the USB1 port.
The process of recovering the memory is now complete.



NOTE

After you have completed this procedure, ensure to program the desired touchscreen firmware from your Project folder on the Web Portal (see Chapter 1).