Please read carefully before using the Elotype !

ELOTYPE-5

Item Nr. 00-58005

User Manual January 2018

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1 Introduction

The Elotype-5, called Elotype in this manual is a electronic Braille typewriter. It's equipped with electronic head- and paper feed and an electrical Braille keyboard.
Via a USB-connection you can emboss text and graphics. If you connect an USB keyboard (same as for a PC) you can easily enter text via this keyboard.
You can check the text written in Braille also on an LCD Display.

There are some restrictions for non German users. The USB Keyboard and the LCD Display works with all standard ASCII Characters. But special Characters are only supported in the German language. If you use the Elotype as a braille printer, it works with a Braille translator software like Duxbury.

2 Start-up

2.1. Parts provided

The Elotype is delivered with this parts:

- Braille Typewriter Elotype
- power supply with connection cable 100-240V AC / 27 V DC
- USB cable for embossing
- Driver CD
- protective cover
- Manual in German or English

Please check if this parts are provided.

Accessory:

- Noise dampening pad
- Tractor
- Serial cable
- Braille translation Software Duxbury DBT or RTFC
- Graphic software TaktileView
- Paper

2.2. Connecting the Elotype

Plug in the round power connector to the Elotype (see position 8 on the next page)
Connect the Power supply with the 110 – 240 V Power.
Switch on the Elotype by moving the power switch (position 6) to the front. Teh embossing head moves to the left position. You hear a beep.
To use the Elotype you should insert paper as described in chapter 4.1
The paper sensor checks if paper is inserted. If not, you hear 3 descending beeps.
The sensor didn't 'see' transparent paper or plastic film. By the command # p you can deactivate the paper sensor temporary.
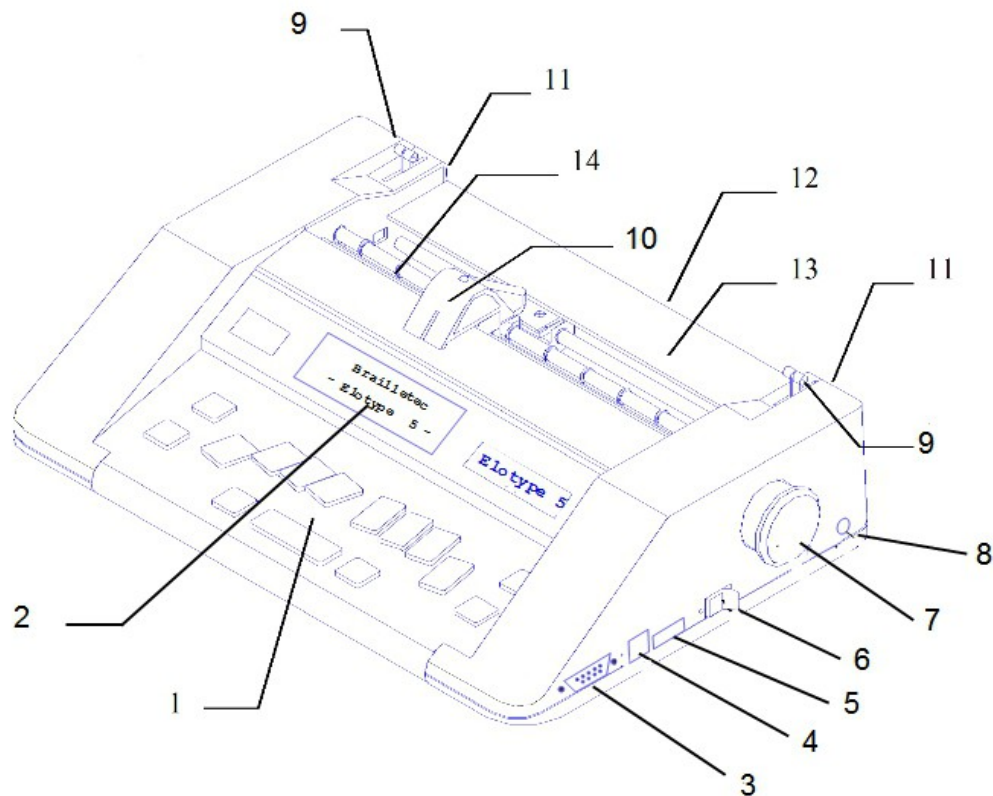
3 Using the Elotype

3.1. Operating elements of the Elotype

1   Braille Keyboard
2   Display
3   Serial Port
4   USB-Port
5   USB-Keyboard
6   Power Switch
7   Manual paper feed wheel
8   Power Supply
9   Rocker for Paper Roll
10   Embossing Head
11   Slot for Tractor
12   Paper feed entry
13   Reading table
14   Paper Roller

3.2. Position of the operating elements

In the front part of the machine the Braille Keyboard is placed. It has some additional keys. The long key in the middle is the space key K9. On the left and right of the space key K9 you find K- and K+. With this keys you can move the embossing head for- and backwards. Above this keys you'll find the 6 keys for the dots (K1-K6). Left of K3 you find K7. Right of K6 there is K8. On the left edge of the keyboard there are the Keys K10 (upper key) and K11 for the paper feed. On the right edge of the keyboard there are K12 (upper key) and K13. K12 moves the head 3 positions for reading the actual text, K13 is for margin release.

Behind the Braille Keyboard you'll find an display. Sighting people can read what is written on the Braille Keyboard. Behind this the embossing head is placed. It moves form the left to the right to emboss the Braille dots. In front of the Embossing head you find dots to determine the position of the head. Behind the head there is a reading table to check the Braille text. On the left and right side of this reading table there are two levers to fix or release the paper. For inserting paper pull one of the levers towards you. If the paper is inserted, push the lever back.

Backside of the Elotype

1 cm over the table you'll find the slot where you should insert the paper
A bit higher on the left and right side you find two small slots for the feeder for fanfold paper.

Right side of the Elotype

(Elements from front to back)
Serial port, USB port, Connector for USB Keyboard, Power switch and Power connector.
Above this there is the Hand wheel for manual movement of paper.

3.3. Braille Keyboard

Here the positions of all keys in as an image. You get additional information in the chapter 'Position of the operating elements'.
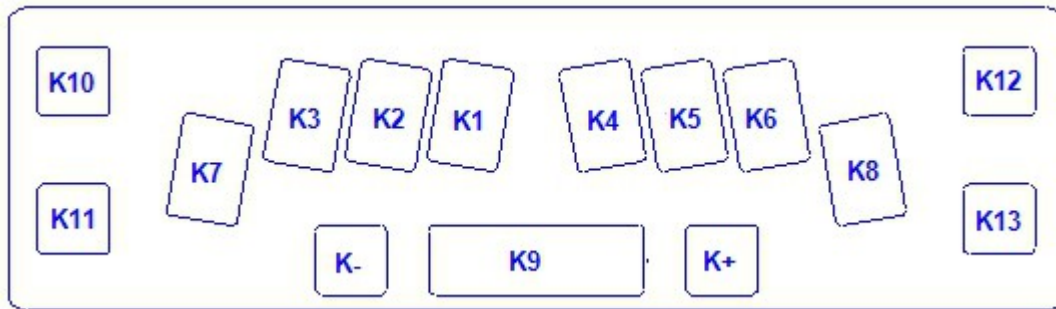
3.4. Functions of the keys

K1–K6 Keys for Braille dots:
With this keys you emboss the dots 1 – 6 in any combination. The dots are embossed after you release all keys.

K7 Tabulator / Dot 7:
With this key the embossing head moves to the next Tab position .
If you press this key together with any of the keys K1-K6, K8 or the space bar, dot 7 is embossed. (only in 8-Dot mode)

K8 Carriage Return and New Line of the embossing head / Dot 8:
K8 performs a carriage return / new line. The embossing head moves to the left margin of the next line.
If you press this key together with any of the keys K1-K6, K7 or the space bar, dot 8 is embossed. (only in 8-Dot mode)
While printing is paused, K8 continues printing.

K9 Space bar / pause printing:
this key moves the head one position to the right.
While embossing an print job you can pause embossing with K9. Pressing K8 continues embossing. (for older versions < serial no. 92096 use K9 for continuing)

K10 Paper feed one line:
With this key the paper moves one line forwards. The head remains on the same position.

K11 Paper back one line:
With this key the paper moves one line backwards. The head remains on the same position.

K12 Key for reading / Stop printing (in Printer mode)
Pressing K12 moves the head 3 char to the left or right. So you can read the latest letters you wrote. If you continue writing, the head goes back to the correct position before continue writing.

If the Elotype is doing a print job you can cancel printing with K12 after pressing K9 (pause)

T13 Margin release
If you want to write characters outside the margins, you can release the margins by pressing K13. This works until you press K8 for a new line.

K- his key moves the head one position to the left.

K+ this key moves the head one position to the right.

3.5. Moving the head

If you want to read the just written characters you can move the head 3 characters to the left or right by pressing K12. You also can move the head manually. In this case the head is repositioned if you continue writing.

3.6. Command Code

There are some commands for the set-up of the Elotype. You find the description of all commands in chapter 3.7 on the next page.
All commands are initiated with the command code. This code is displayed in the manual with this sign: #

You must enter the command code in the following way:
Press K1, K2, K3, K4, K5, K6 together with K9. After release all keys you hear a short 'beep'. The next keys are interpreted as a command (see command list).
If this code is allowed you hear a short positive sound sequence (2 beeps with rising frequency). Otherwise you hear a negative tone (longer beeps with lower frequency).

Examples:
- sets line spacing to 12,5 mm = # K5 K3
press # like described above. Then press and release K5. Then press and release K3
- set Elotype to the one hand mode = # e
press # like described above. Then press K1+K5 for the letter 'e'.

3.7. Command List

3.7.1 Set and delete tabulator # K7

The Elotype has 5 tab positions.
To set one tab move the head with keys K9 or by writing to the desired position.
Then press # K7. If you get a positive response (2 rising beeps) the tab is set.
If you get a negative response (2 falling beeps) the tab is deleted.
If you get only one negative lower beep it is not possible to set a tab here. (all 5 tabs are set) If you want to delete one tab, press K7 to move the head to the tab position that should be deleted and then press the command # K7

3.7.2 **Move left margin** # K13 K-

Move the head to the desired position (K9 or by writing). If the new margin is outside the actual margins, press K13 for margin release. Then enter the command # K13 K-
Now the left margin is on the new position.

3.7.3 **Move right margin** # K13 K+

Move the head to the desired position (K9 or by writing). If the new margin is outside the actual margins, press K13 for margin release. Then enter the command # K13 K+
Now the right margin is on the new position.

3.7.4 **Line spacing** # K5 followed by K1-K3

K5 K1   line spacing 7,5 mm
K5 K2   line spacing   10 mm
K5 K3   line spacing   12,5 mm

3.7.5 **Character spacing** # K6 followed by K1-K6

K6 K1 character spacing 5 mm
K6 K2 character spacing 6 mm standard
K6 K3 character spacing 8 mm
K6 K4 character spacing 10 mm
K6 K5 character spacing 12 mm
K6 K6 character spacing 18 mm

3.7.6 **paper length** # K4 followed by K1-K7

K4 K1 single sheet
K4 K2 8 Inch fanfold paper
K4 K3 9 Inch fanfold paper
K4 K4 10 Inch fanfold paper
K4 K5 11 Inch fanfold paper
K4 K6 12 Inch fanfold paper
K4 K7 13 Inch fanfold paper

3.7.7 **Deactivate Paper Sensor** # p (dots 1,2,3,4)
For transparent paper or plastic film the paper sensor can be deactivated.

3.7.8 **Multiple dots for thicker paper** # K3 followed by K1–K6

K3 K1   single shot (Standard)
K3 K2   2 times (thicker paper)
K3 K3   3 times
K3 K4   4 times
K3 K5   5 times
K3 K6   6 times
K3 K7   7 times
K3 K8   no one (for testing)

For thicker paper or plastic you can set multiple shots of the dots.
After switching on the Elotype always one shot is set.

3.7.9 **6-Dot Braille** # 6 (dots 1,2,4,6)
Choose this mode if you want to write in 6-dot Braille. Line spacing should be 10 or 12,5 mm.

3.7.10 8-Dot Braille # 8 (dots 1,2,5,6)

Choose this mode if you want to write in 8-dot Braille. Line spacing should be 12,5 mm.

3.7.11 New Page # K8

Paper goes to the next page. Single sheet paper will be ejected.

3.7.12 One Hand Mode # e (dots 1,5)

This command switches the one hand mode on or off. A positive sound sequence tells you that the mode is on, a negative sound sequence tells you that it is switched off. See chapter 'Using the Elotype in on hand mode'

3.7.13 Automatic Key repeat   # K10

Press a selection of keys K1-K8 after the command. This dots will be repeated until you press any key.

3.7.14 Auto CR on/off # K11

Positive response, automatic CR/LF at the end of the line.
Negative response, automatic CR/LF is off.

3.7.15 Margin warning on/off # K13 K12

Positive response, warning 3 characters before the end of the line
Negative response, warning is off.

3.7.16 Key Click on/off   # c (dots 1,4)

Positive response, click on each key.
Negative response, click is off.

3.7.17 Emboss test page # t (dots2,3,4,5)

Emboss one test page with the actual settings

3.7.18 Print # d (dots1,4,5)

Start embossing an open print job. See chapter 5.

3.7.19 Bidirectional printing on/off # b (dots1,2)

Positive response, bidirectional is on.
Negative response, bidirectional is off.

3.7.20 Volume # K9

Modify the volume of the speaker in 8 steps. Press K9 as long as you have the desired volume. Press K8 to save the selected volume.

3.7.21 Clear LCD-Display # T1

After this command the LCD-Display is blank.

3.7.22 Restore default settings General Reset

You can restore the default settings in the following way:
Switch off the Elotype and wait 3 seconds.
Press K1, K3 and K5 and keep them pressed while switching on the Elotype. You hear several beeps. Release the keys.

The Elotype has the following default settings:

- Char spacing   6 mm
- Line spacing   10 mm
- Left margin   Position 1
- Right margin   Position 42
- Paper length   Single sheet
- 6 dot Braille   on
- Margin warning   on
- Automatic CR/LF   on
- Key click   on
- Volume   middle
- Tabulator 1   Position 8
- Tabulator 2   Position 16
- Tabulator 3   not set
- Tabulator 4   not set
- Tabulator 5   Position 41
- One hand mode   off
- Multiple dots   single
- Bidirectional Print   off
- Paper Sensor   activated

4 The Elotype as a Braille Writer

4.1. Insert paper

Pull one of the levers (left or right of the reading table towards you. Insert the paper from the backside into the paper slot until it reached it's position under the embossing head. Adjust it parallel to the reading table and against the left margin. After it's positioned correctly, push the lever back.

4.2. Tractor for fanfold paper

You can use fanfold paper with the tractor form the accessory.
You find left and right of the tractor levers form steel. On one side there is a small casi and cogwheel from plastic. Place the tractor with the plastic case to the left. The levers must be orientated to the front. Insert tractor for endless paper into slots on the back of the machine.
Open tractor hatches, then insert paper into feed from behind and place over tractor wheels, inserting tractor teeth. Then close tractor hatches. Transport paper manually with the manual feed wheel (Chapter 3 using the Elotype pos. 7) until the embossing head is just on the beginning of the first page.
Switch on the Elotype and set the correct paper length. It's mostly 12 Inch. (# K4 K6 = 12 Inch paper)

4.3. Set the margins

Set the left and right margin so that they fit to the inserted paper.
Commands: # K13 T- and # K13 T+

4.4. Using the Braille Keyboard

Now you can write 6 or 8 dot Braille, depending on the selected mode with the keys K1 – K8. Use K8 to go to the next line. At the end of the line the head automatically goes to the next line or it stops with a acoustic response depending on the settings of **Auto CR/LF #K11**.

4.5. Using the Elotype in one hand mode # e

In order to use the Elotype with one hand or one finger the function of the space bar (K9) and margin release K13 are extended. The function of K10 is modified.

Writing in 6 or 8 dot Braille:
To enter 6-dot Braille characters you can press the keys K1 to K6 one after the other or together. The character is embossed if you press the space bar (K9). If you want to write 8-dot Braille you must press one of the keys K1-K6 before you press K7 or K8.

Delete a character before it is embossed.
If you want to delete the keys before you embossed it, you can do this with K13.

Space:
If you want to enter a space, simply press the space bar (K9) without entering a dot key before.

One character to the right:
K+ moves the head one position to the right. If you entered dots before they will not be embossed.

One character to the left:
K- moves the head one position to the left. If you entered dots before they will not be embossed.

Function keys:
Enter this keys without entering dot keys before.
K7   Go to the next tabulator position
K8   New line
K11   Move paper one line back
K12   Reading key
K13   Margin release
T-   One character back
T+   One character ahead

This keys are executed directly. You must not enter the key K9 additionally

Special key in one hand mode: K10
In one hand mode the Command code **#** (Keys K1 to K6 plus K9) is assigned to the key K10.
If you will enter a longer command, like # K3 K4 (4 times dot strike) you have to enter K9 after each part of the command, but not after the K10 key.
Keys for this command: K10 K3 **K9** K4 **K9**

4.6. Emboss Test and Info page

Insert a paper and adjust the margins.
Enter the command # t (dots 2,3,4,5)
The Elotype embosses a sheet with a frame and the following information:

line 4:   'ch' = nr. of char/line, 'li' = lines/page 'pl' = paperlength (in inch. 0 = singlesheet)
line 5:   'cs' = char spacing and 'ls' = line spacing. Values in 0,5 mm steps. (12 = 6 mm)
line 6:   'lm'= left margin, 'rm' = right margin. Info in mm
line 7:   'ta' = all positions of the tabulators.
line 8:   'dn= dot number . 6 or 8
line 9:   'mal' = Margin alarm on/off
line 10: 'acr' = Auto CR/LF on/off
line 11: 'clk' = Keyclick on/off
line 12: 'bd' = bidirectional on/off

4.7. LCD Display

On this display sighted people can read what is written on the Elotype. The display
has 2 lines with each 20 characters. A new line is marked by a slash. The latest
characters are shown in the second line on the right. The LCD Display works with all
standard ASCII Characters. Characters that are not ASCII are **only supported for
German language**.

4.8. Display written text via serial Port

Additional to the LCD display the written text is send via the serial port. You can use
a terminal software from Windows to display the text. (hyperterminal of free software
PUTTY) The COM (COM1, COM2 …) port must be set to 9600 Baud, 8 Bit, 1 stop
bit, no parity.

4.9. Enter characters via the USB keyboard

If you connect a USB-Keyboard on the right side ot the Elotype (Pos 5) you can enter
characters directly. They are embossed by the Elotype in Braille.
The USB Keyboard works with all standard ASCII Characters. Characters that
are not ASCII are **only supported for German language**.

Additional Commands of the USB-Keyboard

You can use the function keys F1 – F12 for some special functions. See the list
below.

 4.9.1 Function Key **F1** Letter-Number mode
Letter Mode
After switching on the Elotype you can enter characters via the USB-Keyboard. Only
the standard ASCII characters are supported correctly.

Number Mode
Toggle the number mode with the **F1** function key. If the number mode is selected
you hear a positive sound response. Otherwise you get a negative response.

If switched on, you can enter numbers on the USB-Keyboard. The Braille number sign is inserted automatically. If you press a key that's no number a space is inserted and the number is terminated.

4.9.2 Function Key **F2.** Start print job

If a print job is pending, you can start it with **F2**. Alternatively you can start the job with # d on the Braille keyboard.

4.9.3 Function Key **F3**. Delete print job

With this key you can delete the next pending print job.

4.9.4 Function Key **F4**. Delete the whole print buffer

With this key you can delete all pending print jobs

4.9.5 Function Key **F5** Print small graphic test file

With this key you can print a small rectangle graphic

The following commands are for service only.

4.9.6 Function Key **F9** Execute a memory check on the terminal only in Info Mode

4.9.7 Function Key **F10** Switch Info Mode for Display on / off

F10 toggles the LCD display between normal and info mode. In info mode you get additional infos about pressed keys, functions and the position of the head. Alternatively you can switch this mode with the command # i.
After the Elotype is switched on the display is in the normal mode (shows the typed characters)

4.9.8 Function Key **F11**

F11 displays a list of the print jobs on the terminal. The Elotype must be in the Info Mode. The info is send via the serial port

4.9.9 Function Key **F12** delete print job and show data.

Displays the data of the actual print job on the terminal and deletes this job. The Elotype must be in the Info Mode. The info is send via the serial port

5 Elotype as a Braille Printer

To use the Elotype as a printer, first install the USB-Driver on your Windows PC. You also need a Braille translator Software like Duxbury.

5.1. Installation of the USB-Driver

Connect the Elotype to the power supply. Connect the USB-Cable to the PC and to the Elotype. (Chapter 3.1 position 4). After a while Windows recognize a new USB-Device. In the dialogue for the driver choose the Elo5-CD and the folder "USB_driver". Select the file "Elo5_CDC_32_64bit.inf"
Confirm the installation.

Windows 8 accepts only certified Windows drivers. In this case go the following way to **disable the certification** for the installation (see chapter 6.3 **disable driver certification)**

Note the Port Number

After the installation the Elotype appears in the windows device manager in the section 'Ports'. If the Elotype is connected you see an entry like this: '**ELO5 VCP (COMx**)' Note the number of the COM Port. You need it if you will emboss form your translation software like Duxbury.

5.2. Software for translating and printing

5.2.1 RTFC

Is a German software that supports German and English Braille translation. It's primary used in Germany.

5.2.2 Duxbury

Is a universal Braille translator that supports a lot of languages and can print with the Elotype.

5.2.3 TactileView

Is a Dutch software for creating precise graphics with Braille dots. It has a driver for the Elotype.

5.3. Printing

5.3.1 Send the print job to the Elotype

After you've created a print file with RTFC, Duxbury or TactileView you should prepare the Elotype. Switch on the Elotype, insert paper, set margins and connect the Elotype to the PC. Now you can print the file according to the used software. If the file is send, you hear one or two beeps from the Elotype. One beep for a text file, two for a graphic file. You can send up to 10 files to the Elotype. They are stored temporary in a print queue.

5.3.2 Start printing

To start the printing, enter the command (# d). After a short moment the printing starts. Alternatively you can start printing with the F2 function key on the USB keyboard.

5.3.3 Pause printing

To pause the print job, press K9 on the Elotype. To continue press K9 again.

5.3.4 Cancel printing

First pause the print job with K9 on the Elotype. Then press K12 to cancel printing.

6 Appendix

6.1. Accessory

- Noise absorbing felt mat
- Single sheets paper in packs of 250
- hard plastic case
- Duxbury Braille converter
- TactileView Graphic software

6.2. Technical Data

|		
-	Embossing size	Medium size embossing: 2.5mm dot spacing
-	Character spacing	Standard 6 mm. choose 5 / 6 / 8 / 10 / 12 / 18 mm
-	Line spacing	Standard 10 mm choose 7,5 / 10 / 12,5 mm
-	Maximum Paper width	300 mm
-	Maximum Char/Line	252 mm = 42 Char at 6 mm char spacing
-	Thickness of paper	maximum 160 g/m²
-	Power supply	100 - 240V 50 – 60 Hz; Secondary 28 V DC
-	Power consumption:	about 20 W, Standby 4 W
-	Total weight:	4,9 kg including Power supply
-	Size:	295*440*110mm (length*width*height)

6.3. Install an un-signed driver in Windows 8

First, press **win + I** to launch the charm bar, and click **Change PC Settings** at the bottom.
Then, go to **General**, and scroll to the bottom of the page, click **Restart Now** button under **Advanced Startup** section. Remember to save all your work first before clicking it.

Note that on Windows 8.1, the **Advanced Startup** option has moved to **Update and recovery** section under **Recovery**.
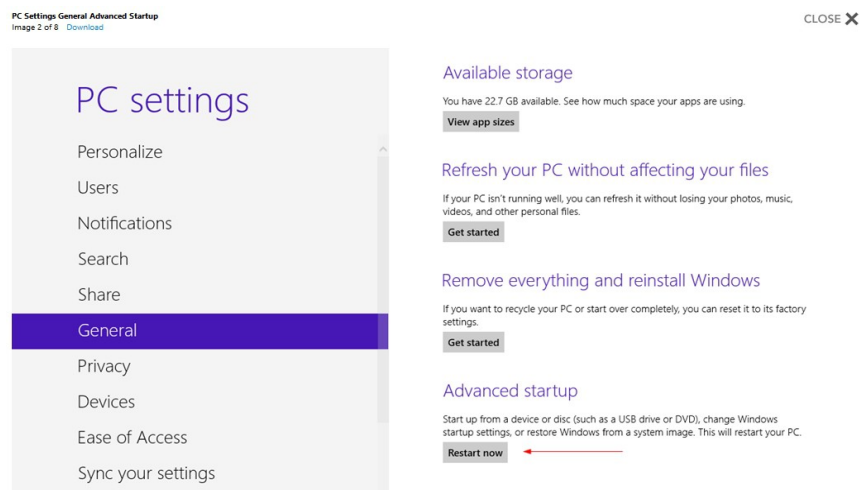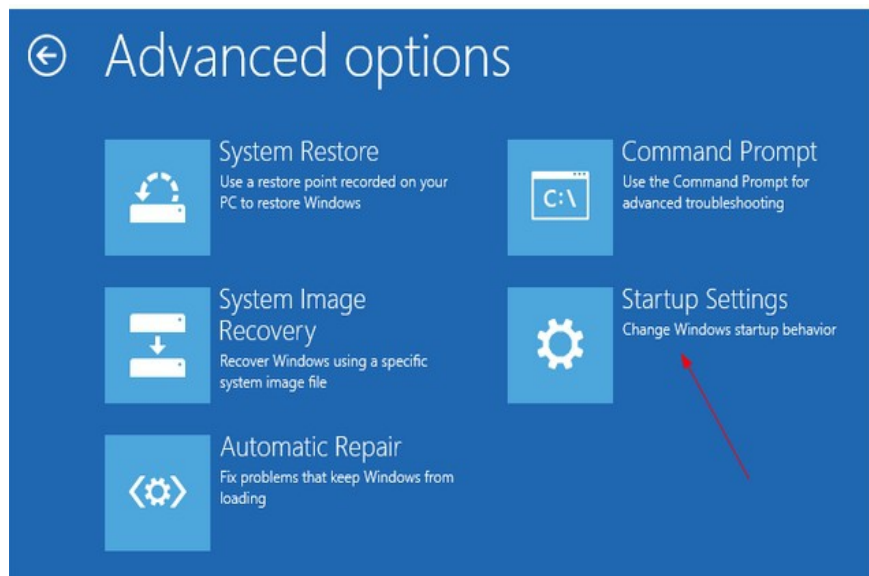
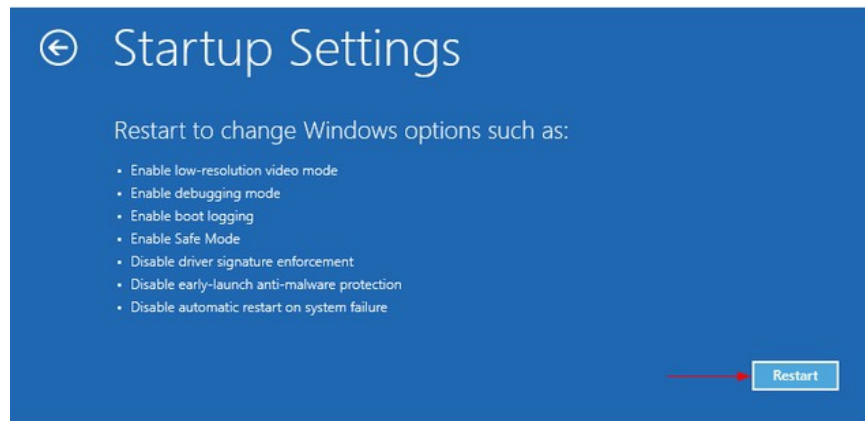The computer reboots to a start-up menu, in which click **Troubleshoot**.
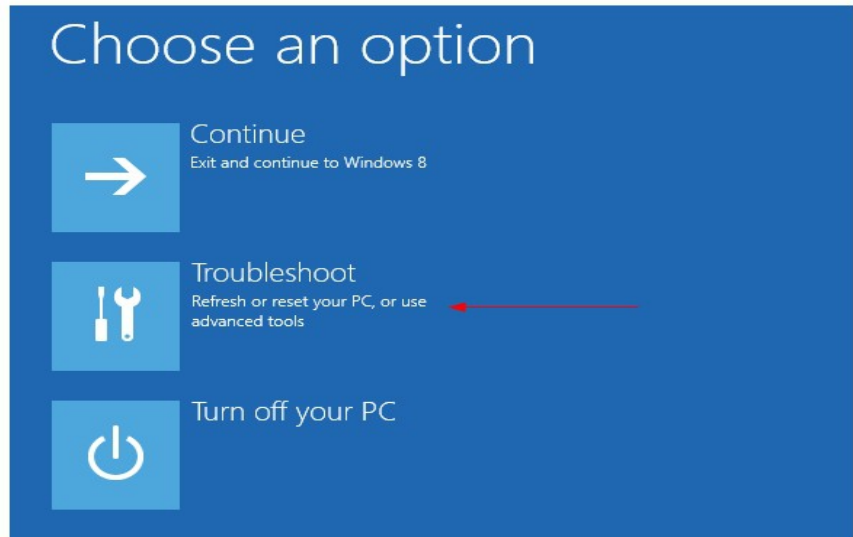
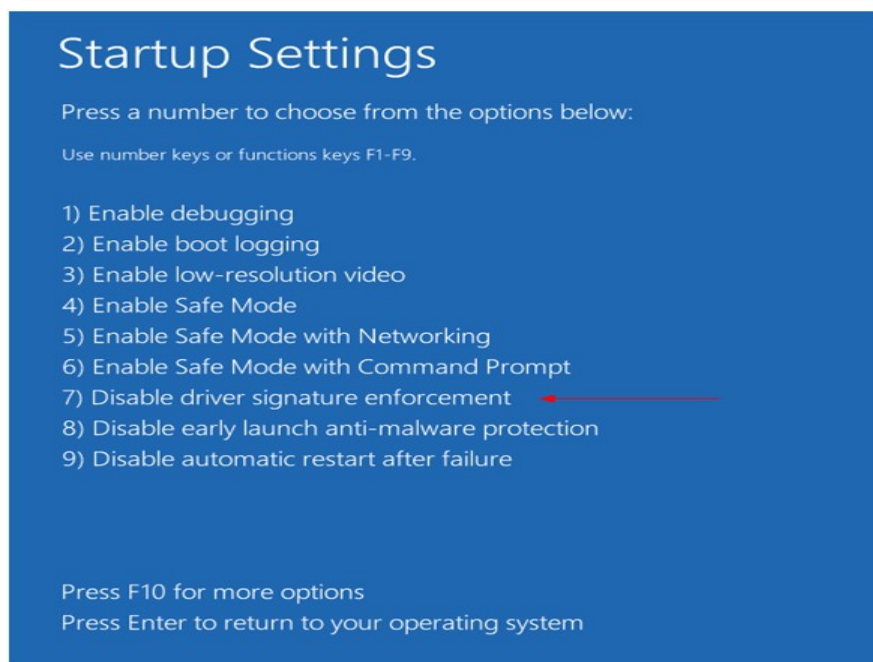And click **Advanced Options** at next screen.

Choose Startup **Settings** next

And click **Restart** button.

The computer reboots and prompts another menu to choose. One of the items is to **Disable driver signature enforcement**. Press number **7** or **F7** to continue booting to Windows 8 with digital sign enforcement disabled.

Now you can install the unsigned driver as described in chapter 5.1

6.4. Maintenance and Troubleshooting

If the Elotype is not used for a while (overnight) please disconnect the powersupply from the power line.

If you have any problems with the settings or the Elotype didn't work correctly, do a General Reset as described in chapter 3.7.19

6.5. Command List

Margin release	K13
Tabulator	K7
Set Tabulator / delete Tabulator	# K7
Set left margin	# K13 K-
Set right margin	# K13 K+
Reading key / Cancel Printing	K12
New line	K8
New page	# K8
Space / Pause printing	K9
Line forward	K10
Line back	K11
Embossing head to right (same as space)	K+
Embossing head to left	K-
One hand Mode	# e (dots 1,5)
6-dot Braille	# 6 (dots 1,2,4,6)
8-dot Braille	# 8 (dots 1,2,5,6)
Emboss testpage	# t (dots 2,3,4,5)
Emboss	# d (dots 1,4,5)
Bidirectional embossing	# b (dots 1,2)
Debug mode (only for service)	# z
Repeat last keys	# K10
Auto CR on/off	# K11
Margin warning on/off	# K13 K12
Key click on/off	# c (dots 1,4)
Info Display	# i (dots 2,4)
Clear display	# a (PT 1)
Multiple dot emboss K1-K7 = 1-7 times, K8 no emb.	# K3 followed by K1–K8
Set Paper length	
Single sheet	# K4 K1
8 Inch paper	# K4 K2
9 Inch paper	# K4 K3
10 Inch paper	# K4 K4
11 Inch paper	# K4 K5
12 Inch paper	# K4 K6
13 Inch paper	# K4 K7
Deactivate paper sensor temporarily	# p (dots 1,2,3,4)
Line spacing 7,5 mm	# K5 K1
Line spacing 10 mm	# K5 K2
Line spacing 12,5 mm	# K5 K3
Char spacing 5 mm	# K6 K1
Char spacing 6 mm Standard	# K6 K2
Char spacing 8 mm	# K6 K3
Char spacing 10 mm	# K6 K4
Char spacing 12 mm	# K6 K5
Char spacing 18 mm	# K6 K6
Set volume	# K9 K9 ...K9
Store volume	# K8 (after K9 K9 ...K9)