TD750 - TD850 - TD900
PANEL PC TOUCH SCREEN

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1 Introduction

Thanks for choosing a Pixsys device.
TD750, TD850, TD900 are touch-screen Panel-PC based on Atom architecture and featuring Microsoft Windows XP and XP Embedded OS.

2 Model identification/ Ordering codes

**TD750-AEB-XPE**

| SOFTWARE CONFIGURATION | HARDWARE CONFIGURATION | PART NUMBER/MODEL |

2.1 Part numbers / Models

<table>
<thead>
<tr>
<th>PART NUMBER/MODEL</th>
<th>DETAILS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TD750</td>
<td>Panel PC 7.0&quot;, CPU Intel® Atom™ Z510 1.1Ghz, 512Mb RAM DDR2</td>
</tr>
<tr>
<td>TD850</td>
<td>Panel PC 10.4&quot;, CPU Intel® Atom™ Z530 1,6Ghz, 1Gb RAM DDR2</td>
</tr>
<tr>
<td>TD900</td>
<td>Panel PC 15.0&quot;, CPU Intel® Atom™ Z530 1,6Ghz, 1Gb RAM DDR2</td>
</tr>
</tbody>
</table>

2.2 Hardware configuration

<table>
<thead>
<tr>
<th>CONFIGURATION</th>
<th>DETAILS</th>
</tr>
</thead>
</table>
| -APC-XPE      | Power: 24V DC ±15%  HDD SATA 160Gb  
Windows XP Professional SP3  
Movicon SCADA pre-installed with DEMO license |
| -AEB-XPE      | Power: 24V DC ±15%  DOM SATA8Gb  
Windows XP Embedded SP3  
Movicon SCADA pre-installed with DEMO license |

2.3 Optional devices

<table>
<thead>
<tr>
<th>PART NUMBER / MODEL</th>
<th>DETAILS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETD884-AD</td>
<td>Expansion module for load cells, 8 digital I/O, 2 analogue outputs V/mA.</td>
</tr>
<tr>
<td>ETDWIF-AD</td>
<td>Expansion module Wi-Fi 802.11b,g,n</td>
</tr>
<tr>
<td>ETD2RS232-AD</td>
<td>Expansion module 2 x UART RS232</td>
</tr>
<tr>
<td>ETDLAN1G-AD</td>
<td>Expansion module 1 X LAN 10/100/1000T RJ45</td>
</tr>
<tr>
<td>ET DHCLEXP</td>
<td>Cover plate for hole of expansion module</td>
</tr>
<tr>
<td>2700.10.012</td>
<td>ALM-MDR-60-24 ( 24V 2,5A 60W )</td>
</tr>
</tbody>
</table>
3 Dimensions and installation
3.1 TD750-APC and TD750-AEB

- Dimensions and installation
- TD750-APC and TD750-AEB
- Dimensions:
  - 179 mm
  - 34 mm
- Suggested thickness:
  - 0-14 mm
- Memory Card (optional) Cod. CARD SD
- Expansion (optional) Cod. ETD884-AD
- Dissipatore (optional) Cod. SL-DISS-TD
- Frontal panel cut-out
- Dima di foratura
  - 180 x 144 mm
- Suggested thickness
- Memory Card insert
- Memory Card
- 32 mm insert
- Memory Card
3.2 TD850-APC and TD850-AEB

- Memory Card (optional)
  - Memory Card
  - Memory Card

- SD Card (optional)
  - SD Card
  - SD Card

- Heatsink (optional)
  - Heatsink

- Expansion In/Out (optional)
  - Expansion In/Out
  - Expansion In/Out

- Wireless Expansion (optional)
  - Wireless Expansion

- Suggested thickness 0.7 mm

- Frontal panel cut-out 302 x 242 mm

- Dima di foratura 302 x 242 mm
3.3 TD900-APC and TD900-AEB

- Dima di foratura 416 x 313 mm
  Frontal panel cut-out

- Spessore suggerito 0-10 mm
  Suggested thickness

- Expansione optional
  Expansion (optional)
  Cod. ET944+40

- Expansione wireless optional
  Wireless expansion (optional)
  Cod. ET944WF-40
3.4 Device installation

To fix the Terminal on the panel it is necessary to make a rectangular hole according to the dimensions indicated below and to use plastic hooks (see chapter 3.5).

3.4.1 TD750

It is suggested to use a panel with a max. 14mm thickness.

3.4.2 TD850

It is suggested to use a panel with a max. 10mm thickness.

3.4.3 TD900

It is suggested to use a panel with a max. 10mm thickness.
3.5 Fixing hooks
To fix the device on panel it is necessary to use the provided plastic hooks, as indicated in the figures below:
## 4 Hardware data

### 4.1 Mechanical features

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Front panel</strong></td>
<td>Dull Anodized alluminium 8mm. On TD750 the edge is depressed in order to stick out 4mm from the panel where it is fixed.</td>
</tr>
<tr>
<td><strong>Polyester Cover</strong></td>
<td>Resisting at most domestic cleanser detergents.</td>
</tr>
<tr>
<td><strong>Silicon cap</strong></td>
<td>Atoxic, hypoallergenic and resisting at most domestic cleanser detergents.</td>
</tr>
<tr>
<td><strong>Box</strong></td>
<td>Chromed steel, resisting at hydrocarbons and neutral detergents.</td>
</tr>
<tr>
<td><strong>Fixing hooks</strong></td>
<td>Plastics, resisting up to 90°C</td>
</tr>
</tbody>
</table>
4.2 STANDARD HARDWARE CONFIGURATION

| CPU | Intel® Atom™ Z530 @ 1,6GHz  
Intel® Atom™ Z510 @ 1,1GHz |
| Power supply | 24V DC ±15% |
| Absorbed power | See chapter 4.3 |
| Audio | Chipset PCM2606BDBR  
Jack stereo output 3,5mm |
| USB | 1 USB on frontal panel, and 2 USB compatible with standard USB 2.0 480Mbit.  
Max current available on USB connectors is 500mA. |
| Touch Controller | PenMount PM6000 |
| Ethernet | 1 port 10/100 Mbit  
Ethernet connector is electrically isolated from other communication ports and from power-supply except for the metal enclosure of the connector which is shield is connected to chassis. |
| Communication ports | 1 Port RS232 opto-isolated  
1 Port RS485 opto-isolated  
1 Port CAN opto-isolated  
Communication ports are isolated from power supply but not from each other. |
| Expansion modules | PIXSYS proprietary expansion port ETD-EXP  
Mini PCI-Express 1X full-size connector  
SD-MMC Memory Card connector |

For the whole series it is suggested to use a 24Vdc 2,5A 60W power supply unit (see code 2700.10.012).
4.3 POWER CONSUMPTION

4.3.1 UPS and Power consumption at start

At start-up the device charges the UPS internal accumulators, therefore power consumption is higher than in standard operating conditions.

<table>
<thead>
<tr>
<th>TD750 (1,1Ghz)</th>
<th>TD850 (1,6Ghz)</th>
<th>TD900 (1,6Ghz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>24V 0,8A 19W (-AEB)</td>
<td>24V 1,1A 26W (-AEB)</td>
<td>24V 1,5A 36W (-AEB)</td>
</tr>
<tr>
<td>24V 1A 24W (-APC)</td>
<td>24V 1,3A 31W (-APC)</td>
<td>24V 1,7A 40W (-APC)</td>
</tr>
</tbody>
</table>

4.3.2 Min. consumption

- CPU charge < 10% and LCD back-lighting OFF
- No USB device connected
- Ethernet cable disconnected

<table>
<thead>
<tr>
<th>TD750 (1,1Ghz)</th>
<th>TD850 (1,6Ghz)</th>
<th>TD900 (1,6Ghz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>24V 0,3A 7,2W (-AEB)</td>
<td>24V 0,3A 7,2W (-AEB)</td>
<td>24V 0,3A 7,2W (-AEB)</td>
</tr>
<tr>
<td>24V 0,4A 9,6W (-APC)</td>
<td>24V 0,4A 9,6W (-APC)</td>
<td>24V 0,4A 9,6W (-APC)</td>
</tr>
</tbody>
</table>

4.3.3 Typical consumption

- CPU charge approx. 50% and LCD back-lighting ON
- USB device (Mouse)
- Ethernet cable connected

<table>
<thead>
<tr>
<th>TD750 (1,1Ghz)</th>
<th>TD850 (1,6Ghz)</th>
<th>TD900 (1,6Ghz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>24V 0,4A 9,6W (-AEB)</td>
<td>24V 0,5A 12W (-AEB)</td>
<td>24V 0,7A 16W (-AEB)</td>
</tr>
<tr>
<td>24V 0,5A 12W (-APC)</td>
<td>24V 0,6A 14W (-APC)</td>
<td>24V 0,8A 18W (-APC)</td>
</tr>
</tbody>
</table>

4.3.4 Max. consumption

- CPU charge approx. 90% and LCD back-lighting ON
- USB device (Mouse)
- HDD USB device (reading/writing)
- Ethernet cable connected

<table>
<thead>
<tr>
<th>TD750 (1,1Ghz)</th>
<th>TD850 (1,6Ghz)</th>
<th>TD900 (1,6Ghz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>24V 0,5A 12W (-AEB)</td>
<td>24V 0,7A 16W (-AEB)</td>
<td>24V 0,9A 21,6W (-AEB)</td>
</tr>
<tr>
<td>24V 0,6A 14W (-APC)</td>
<td>24V 0,8A 18W (-APC)</td>
<td>24V 0,9A 21,6W (-AEB)</td>
</tr>
</tbody>
</table>
# 4.4 LCD FEATURES

## 4.4.1 DISPLAY AND LAMP TD750

<table>
<thead>
<tr>
<th>Type</th>
<th>LCD TFT touch-screen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>Active area 141x106mm 7.0” 4:3</td>
</tr>
<tr>
<td>Resolution</td>
<td>800 x 600</td>
</tr>
<tr>
<td>Pixel dimension</td>
<td>0.059 x 0.177 mm</td>
</tr>
<tr>
<td>Colors</td>
<td>262K colors (R,G,B 6 bit)</td>
</tr>
<tr>
<td>Back-lighting</td>
<td>LED 400cd/m²</td>
</tr>
<tr>
<td>Sight angle (vertical)</td>
<td>120°</td>
</tr>
<tr>
<td>Sight angle (horizontal)</td>
<td>140°</td>
</tr>
<tr>
<td>Lamp life</td>
<td>20000 h typical</td>
</tr>
<tr>
<td>Lamp power</td>
<td>2.1 W</td>
</tr>
</tbody>
</table>

## 4.4.2 DISPLAY AND LAMP TD850

<table>
<thead>
<tr>
<th>Type</th>
<th>LCD TFT touch screen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>Active area 211x158mm 10.4” 4:3</td>
</tr>
<tr>
<td>Resolution</td>
<td>800 x 600</td>
</tr>
<tr>
<td>Pixel dimension</td>
<td>0.088 x 0.264 mm</td>
</tr>
<tr>
<td>Colors</td>
<td>262K colors (R,G,B 6 bit)</td>
</tr>
<tr>
<td>Back-lighting</td>
<td>LED 320 cd/m²</td>
</tr>
<tr>
<td>Sight angle (vertical)</td>
<td>110°</td>
</tr>
<tr>
<td>Sight angle (horizontal)</td>
<td>130°</td>
</tr>
<tr>
<td>Lamp life</td>
<td>20000 h typical</td>
</tr>
<tr>
<td>Lamp power</td>
<td>2.3 W</td>
</tr>
</tbody>
</table>

## 4.4.3 DISPLAY AND LAMP TD900

<table>
<thead>
<tr>
<th>Type</th>
<th>LCD TFT touch screen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>Active area 304 x 228 mm 15.0” 4:3</td>
</tr>
<tr>
<td>Resolution</td>
<td>1024 x 768</td>
</tr>
<tr>
<td>Pixel dimension</td>
<td>0.297 x 0.297 mm</td>
</tr>
<tr>
<td>Colors</td>
<td>16.7M colors ( 6-bit with A-FRC )</td>
</tr>
<tr>
<td>Back-lighting</td>
<td>CCFL 500 cd/m2</td>
</tr>
<tr>
<td>Sight angle (vertical)</td>
<td>110°</td>
</tr>
<tr>
<td>Sight angle (horizontal)</td>
<td>130°</td>
</tr>
<tr>
<td>Lamp life</td>
<td>20000 h typical</td>
</tr>
<tr>
<td>Lamp power</td>
<td>16.24 Watt@500cd</td>
</tr>
</tbody>
</table>
5 Electrical wirings

Although this device has been conceived to resist noises in an industrial environment, please notice the following safety guidelines

- Separate control lines from power wires
- Avoid proximity of remote control switches, electromagnetic meters powerful engines
- Avoid proximity of power groups, especially those with phase control

6 Warranty terms

Pixsys S.r.l. warrants its electronic devices for 12 months from Invoice date. Pixsys liability shall be limited to repairing (or replacing at its option) any defective product which is returned with RMA (Return Material Authorization) priorly obtained from Pixsys and to be clearly marked on documents. Pixsys shall not be responsible for accident, neglect, misuse, damage to objects or people caused using the devices outside their specifications or outside any published performance data, including unauthorized and unqualified repairing or failure to provide proper environmental conditions. In no event shall Pixsys liability exceed the purchase price of the product(s).

6.1 Software warranty terms

Warranty is not valid for problems caused installing software applications after sale, and in particular for damages caused by malware. Any Pixsys technical intervention to restore operative system or programs will be subjected to the assistance tariff in force.
6.2 Power supply hidden key

To force start/stop of the system, press the hidden key placed on the USB frontal connector (as indicated in the figure).

Depending on device status, a short pressure (250-500mSec) can produce:

- Switch-on (if device is off)
- Assisted shutdown (if the operating system is already started) and consequent automatic restart if the function is enabled by the appropriate DIP.

With operating system already started, a long pressure (approx. 4Sec) forces the device switch-off. If this function is enabled by the appropriate DIP the device will restart automatically.

**ATTENTION:** Forced switch-off is an emergency procedure which doesn't allow operating system to close correctly the open files and so it can cause data loss. **Use only if strictly necessary.**
6.3 View of connectors on TD750
6.4 View of connectors on TD850
6.5 View of connectors on TD900
ATTENTION: Do not release these screws (device can be damaged).
6.6 Terminal block M1

<table>
<thead>
<tr>
<th>M1</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Positive power supply of device</td>
</tr>
<tr>
<td>2</td>
<td>Ground power supply of device</td>
</tr>
<tr>
<td>3</td>
<td>Rs485+ opto-isolated</td>
</tr>
<tr>
<td>4</td>
<td>Rs485+ opto-isolated</td>
</tr>
<tr>
<td>5</td>
<td>Isolated ground for serial</td>
</tr>
<tr>
<td>6</td>
<td>CAN H opto-isolated serial</td>
</tr>
<tr>
<td>7</td>
<td>CAN L opto-isolated serial</td>
</tr>
</tbody>
</table>

6.7 Ethernet connection

RJ45 connector.

The Ethernet Connector 10/100 Base-T is available on the rear side of Terminal. It allows to connect the device to local network. Green led indicates that "link" is available and the device is connected to the network. Yellow led indicates that data transmission/receipt is in progress.
6.8 USB connections

The device is provided with 3 USB 2.0 connectors (one on the front and two on the rear side)

The connector located on the front panel is protected by a silicon cover, it allows to connect plug&play peripheral devices also when the Terminal is panel-mounted.
USB Peripheral devices include keyboards, mouse, serial converters, barcode readers etc.
The total max. current available on the 3 USB connectors is 500mA.
6.9 COM1 RS232 connector

<table>
<thead>
<tr>
<th>COM1 RS232</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>2 RX       Serial In or Receive Data</td>
</tr>
<tr>
<td>3 TX       Serial Out or Transmit Data</td>
</tr>
<tr>
<td>4 RS-      RS485 – (A)</td>
</tr>
<tr>
<td>5 GNDi     Serial isolated ground</td>
</tr>
<tr>
<td>6 RTS      Request To Send</td>
</tr>
<tr>
<td>7 CTS      Clear to Send</td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td>9 RS+      RS485 + (B)</td>
</tr>
</tbody>
</table>

6.10 Audio connector

Jack audio 3.5mm

A non-amplified audio stereo output is located on the right side of the device (standard connector 3.5mm).
6.11 SD/MMC connector

SD/MMC reader, push-pull type

This connector is located on the upper side of the device, beside the battery holder. It is a push-pull type connector, therefore enter the memory card till a click is produced and release it (see diagram below).

To extract the Memory, press it until a click is produced and pull it. The device can support SD and MMC memories (both standard and HC mode).
To store data the CPU uses a CR2032 lithium battery. Battery life is approx. of 4 years; once discharged some anomalies can be noticed (ex. incorrect time setting and/or wrong visualization on LCD).

To avoid these anomalies it is suggested to replace the battery (also with device connected to the power supply).

Device allows an easy battery replacement thanks to an extraction box which can be removed using a blade screwdriver:
Enter battery into the box as showed:

Check the entering side:

If a configuration loss is noticed consult "BIOS configuration" chapter to re-configure the instrument autonomously.
6.13 Installing data acquisition modules

It is possible to connect two different data acquisition modules:

- **ETD-EXP** expansion module on proprietary BUS
- **Mini PCI Express** expansion on proprietary BUS

A specific driver is required for **ETD-EXP** expansion on proprietary BUS and for the use of a **CAN** bus. For further informations contact Pixsys technical service.

6.13.1 Expansion connection through ETD-EXP bus

The **ETD-EXP** connector allows to connect rapidly a proprietary data acquisition module.

**ETD-EXP** connector is showed in the figure:

To connect a data acquisition module which uses an **ETD-EXP** connector follow the steps below:

- switch the device off, disconnecting power supply
- enter the expansion module into the proper connector
- fix the four screws provided with the expansion
- connect the device to power supply
6.13.2 Mini PCI Express connection

Into the same place of ETD-EXP it is possible to install also Mini PCI Express modules like WiFi expansion ETDWIF-AD and expansion ETD2RS232-AD which allows to add two RS232 ports on DB9 connector.

To install Mini PCI Express it is necessary to found the proper connector cutting the metal box as indicated in the figure.

A cover plate ETDHCLEXP is available if expansion has to be removed.
To install the expansion modules follow the steps below:
1. Remove the **ETDHCLEXP** cover

2. Connect cables to the Mini PCI Express

3. Place the module on the connector and press to hook it on the support

4. Place expansion cover near fixing holes (**ATTENTION**: Do not pinch the cables)
5. Fix the cover with the provided screws

If expansion has to be removed, place the cover ETDHCEXP as indicated in the figure:
7 Setting of dip-switches

Device is provided with some internal dip-switches (which may be accessed through special holes on the box), allowing the user to configure some device functions.

N.B.: Switch the device off and disconnect the power supply before proceeding with any hardware setting.

7.1 DIP4 – Disconnecting RS485 line from DB9

DIP4 allows to disconnect RS485 line from DB9 connector and keep it connected only to the power supply connector.

<table>
<thead>
<tr>
<th>ON</th>
<th>OFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS485 line connected. Default settings.</td>
<td>RS485 line disconnected.</td>
</tr>
</tbody>
</table>
7.2 DIP3 – Serial lines terminations

DIP3, placed next to the terminal block, allows to select the configuration of serial lines terminations.

The following table shows dip-switch optional settings:

<table>
<thead>
<tr>
<th>Input type</th>
<th>Dip-switch</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disabled</td>
<td><strong>ON</strong></td>
<td>Default settings. Termination and polarizators of lines CAN and RS485 disabled.</td>
</tr>
</tbody>
</table>

**ON**

**OFF**
<table>
<thead>
<tr>
<th><strong>CAN Termination</strong></th>
<th><strong>RS485 Termination</strong></th>
<th><strong>RS485 Polarization</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OFF</strong></td>
<td><strong>OFF</strong></td>
<td><strong>OFF</strong></td>
</tr>
<tr>
<td><strong>ON</strong></td>
<td><strong>ON</strong></td>
<td><strong>ON</strong></td>
</tr>
<tr>
<td>Closes between lines CANH and CANL a termination resistor of 120 Ohm.</td>
<td>Closes a 330 Ohm termination resistor between RS485+ and RS485-. To be placed <em>if the device is used as Slave</em> and if it is the last device on RS485 line.</td>
<td>Closes polarization resistors on RS485 line. <em>If device is used as Master</em> on RS485 line.</td>
</tr>
</tbody>
</table>

Beside DIP3 there is a green led which indicates that data are being received on RS485. In this case the LED is ON only if dip 3 and 4 of DIP3 are set to ON, with consequent polarization of RS485 line.
7.3 POWER SUPPLY

7.3.1 Assisted shut-down

The assisted shut-down of the system ensures a correct terminal shutdown in case of power failure.
Device stops automatically when there is a power failure longer than 250mSec.
An internal accumulator allows device to manage correctly (within a 6Sec limit) all writing operations on disk before switching-off.
Installed operating system is configured to force closing of all applications and open files after 2Sec from power failure.

It is important to verify if the installed application is conceived to be closed correctly and to complete all writings on disk when systems stop signal is given.

7.3.2 Automatic restart

An internal circuitry restarts device automatically after a system stop.
The only way to stop device is removing the power supply.
It is possible to deactivate this function operating on the proper Dip-Switch.

7.3.3 DIP1 configuration

DIP1 is located on the lower back side of device beside the Jack audio hole.
This dip-switch allows to configure the hidden key placed on the frontal side of USB port and the automatic switching-on function.

The following table shows the optional DIP settings:
<table>
<thead>
<tr>
<th>Dip-switch</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON</td>
<td><strong>DIP1.1</strong> : If ON enables the automatic switch-on, if OFF the device has to be switched-on through the hidden frontal key.</td>
</tr>
<tr>
<td>OFF</td>
<td></td>
</tr>
</tbody>
</table>
| ON         | **DIP1.2** : Hidden frontal key used to force the device switch-on and the switch-off (ONLY TD750)  
*Don’t enable if DIP1.4=ON*  
On TD850/TD900 this setting is enabled and cannot be modified. |
| OFF        |      |
| ON         | **DIP1.3** : DO NOT USE, keep it on OFF |
| OFF        |      |
| ON         | **DIP1.4** : Hidden frontal key used to force the device RESET (ONLY TD750).  
*Don’t enable if DIP1.2=ON*  
On TD850/TD900 this setting is enabled and cannot be modified.  
For the key functioning make reference to the proper chapter. |
| OFF        |      |
8 SERIAL PORTS CONFIGURATION

To configure the two serial ports refer to the "Device Manager" configuration utility which can be entered through "System Properties".

The peripherals list at "Ports (COM & LPT)" shows the two communication ports as devices "USB Serial Port (COM1) and "USB Serial Port (COM4)".

As per default setting COM1 refers to the RS232 port, while COM4 refers to the RS485 port.
"Port Settings" on menu allows to configure the serial port default settings. This settings can be modified by the same program.
Pressing the key “Advanced” it is possible to modify the serial port advanced settings:

- **COM Port Number**: it is the name related to the port RS232 (COM1) and RS485 (COM4) and can be modified.
- **Latency Timer (mSec)**: it is the time elapsed between the data writing on the port and its transfer on the serial line.

Below the default settings:
9 TOUCHSCREEN

9.1 Touch-screen configuration
The device is provided with a touch-screen display.

To configure the touch-screen and its calibration it is necessary to enter the pre-installed control panel.
"Right click" on of windows task bar allows to open Control Panel.

Select “PenMount 6000 USB” device

Go to "Setting" window to configure different touch properties.

9.2 Touch-screen operation

Touch-screen works as a "Mouse", a short pressure on the desktop corresponds to the "Left click".

Otherwise, "Right click" can be created through a long pressure (2-3 Sec.) or thanks to a Mouse icon placed on the SystemTray.
These two modes can be enabled or disabled independently.

NB. Pressure duration and dimensions of selected area can be modified.
If the mouse icon is used, the driver allows to decide if keep it placed on the SystemTray or overlay on display.

Enabling "Right Button" from the menu which can be entered with a click on , a semi-transparent icon will appear on display or on the SystemTray.

A click on enables the next click as "Right click".

A right click will be generated after a long pressure on a desktop point (function configurable by Control Panel).

On the lower side of "Setting" window it is possible to:
- Enable/Disable double-click with a long pressure on a point.
- Establish time to be elapsed for an event creation.
- Define area where, after a pressure, it is possible to move without exit from "Right-click" mode (NB. A wide area is more comfortable to click but laying is less accurate).
9.2.1 “Mouse Emulation” or “Click on Touch”.
The upper side of "Setting" window allows to select some other different settings. Touch Mode includes "Mouse Emulation" and "Click on Touch".

**MOUSE EMULATION:** Touch works as a mouse allowing both area selection by dragging the layer and a single click on a point.

**CLICK ON TOUCH:** Layer cannot be dragged but it is moved rapidly on the pressed point.

9.3 Beep sound
Control Panel allows to enable a Beep Sound if touch is pressed.

![Beep Sound Control Panel]

Available options are:
- **Beep Sound**: Enable or disable beep sound.
- **Beep Mode**: Allows to choose if create a beep sound on pen down, on pen up or on both cases.
- **Kind of Sound**: Allows to produce a normal "Buzzer Beep" or a WAVE sound that can be addressed to the buzzer or to the system audio output.
- **Beep Frequency & Beep Duration**: Determinates frequency and duration of each produced beep.

9.4 Touch calibration
If the touch is not perfectly calibrated this operation can be done manually, by entering this configuration form.
Two calibration types are available:

- **Standard Calibration**: Allows to calibrate the touch using 4 measure points.
- **Advanced Calibration**: Pressing "Advanced Mode" it is possible to execute calibration using up to 25 measure points.

"Advanced Mode" calibration has to be enabled by "Tools" tab which can be entered from main page of configuration program (see "Tools" chapter).

“Turn off EEPROM storage” allows not to save calibration data into controller memory (useful during a test).
“Plot Calibration Data” at calibration end visualizes a graphic to determinate touch linearity.
Black lines indicate ideal linearity while blue lines indicate real linearity.
This form allows to:

- **Draw**: open a test window to verify touch functioning.
- **Advanced Calibration**: enable advanced calibration mode on "Calibrate" panel.
- **Right Button Icon**: enable right click pressing a mouse icon which can be moved on "system tray" (bar located on the lower right side of desktop beside the clock) or kept "free" on a desktop point.
Remote assistance

All Pixsys devices are provided with a software application which allows our technicians to access the PC for remote assistance. This type of access can be done only if there is an Internet connection. It is possible to uninstall this service following Windows standard procedure.

The program results active as system service and (if it is active) its icon appears on the SystemTray.

![SystemTray Icon]

With a double click on the icon this window will be opened:

![Remote Assistance Window]

Under "Your ID" the program visualizes a number which will be used by the operator to identify your terminal. If this window will appear, verify Internet connection.
With a "Right click" on the icon it is possible to enter program settings through "Options".

Into "General" window, "Visualized name" is the name which will be used to identify your terminal by our operator associated to the ID.

As per previous figures our operator will visualize a device with ID “973 935 063” and name “TD850-M680754”.

Into "Protection" window it is possible to enter a password which allows to a third user to enter the terminal from remote knowing its ID and Password.
11 AutorunDelay application

AutorunDelay application is preinstalled on the terminal. This program manages the start of the applications through the reading of the apposite configuration files.

After a predetermined time, the program executes the commands of all autorun.dsk files of the system.

The advancement bar indicates the time interval on which it is possible to realize the operations allowed by the visualized key. When time expires the application continues in background with the icon on the traybar.

The key "DISABLE Autorun.dsk" allows to lock temporarily, up to the next restart, the execution of the commands selected on all autorun.dsk files and also to lock the start of all the applications from the fixed units.

Once inserted the password (1234), press "SETUP" key to enter the configuration menu.
From this window it is possible to:

- choose how to start the AutorunDelay program, with or without windows desktop
- select/remove the protection on "C" disk writing (when allowed)
- restart the PC
- esc from configuration

Configuration files can reside in any fix or removable unit of the terminal, but imperatively on the unit root (ex. in c:\, in d:\ - not into a folder). These files can be different, according to the chosen execution mode.

**11.1 autorun.dsk**
The **autorun.dsk** file is read and executed only once at AutorunDelay start.

This type of file resides in a not removable peripherals and allows to start automatically the main application.

**11.2 autorun.usb**
The **autorun.usb** file is executed only once by AutorunDelay when it is noticed.

This type of file resides in USB keys or in removable peripherals and allows to start upgrade or backup procedures.
11.3 autorun.menu
Processing autorun.menu, AutorunDelay will show a window where to choose the starting application.

This file has to be placed on the root of the removable unit.

For any further information, refer to the AutorunDelay user manual, which can be accessed by the same program.

12 Software upgrade and restore

12.1.1 Restore default settings

This function, which can be done by USB key, allows to cancel all data saved on the terminal and to re-install the operative system. Useful when the hard-disk or the operating system have been damaged (ex. virus; user errors).

To start the procedure:
1. Switch the device OFF and hold the complete system stop.
2. Switch the device ON (with no USB key entered).
3. Enter the USB Key when the first digits are visualized on display (after 1-2 Sec.).
4. The USB key LED prolonged flashing indicates that data are being loaded.
5. At the end of loading, this window is showed:

![Image of window with 'RESTORE' button]

6. Press “RESTORE” and the follow program indications.
7. When procedure ends switch the device OFF, remove the USB key and restart it.

If this procedure has not been started correctly and device loads the operating system, it is necessary to disconnect the power supply and to repeat the procedure starting from point 2.
12.1.2 USB-KEY for software upgrade

An USB Key is available (and can be provided on demand) which allows to update the installed application through the AutorunDelay program preinstalled on the PC.

To start the updating procedure it is necessary to enter the USB Key on the apposite port of the terminal and follow the instructions on display.

For any further information, refer to the USB Key user manual.

12.2 Precautions

The operative system restore procedure will eliminate all user data, a preventive backup is suggested.

During the updating procedure it is necessary to follow the indications provided with the dedicated key. This procedure allows the data backup and the consequent system restore.

For any further information, contact our technical assistance.
BIOS (Basic Input-Output System) is a group of CUP Q7 softwares providing a series of basic functions which allow operating system and program to enter hardware and peripherals integrated on mother board. This program allows CPU to switch-on, recognize all system components and direct their interaction with the operating system.

Some of these functions are configurable through a proper setup program which can be entered at starting pressing F2 on the keyboard.

Below are showed BIOS default settings windows.
### Keyboard Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Default</th>
<th>Help</th>
</tr>
</thead>
<tbody>
<tr>
<td>NumLock</td>
<td>[On]</td>
<td></td>
</tr>
<tr>
<td>Key Click</td>
<td>[Disabled]</td>
<td></td>
</tr>
<tr>
<td>Keyboard auto-repeat rate</td>
<td>[30/sec]</td>
<td></td>
</tr>
<tr>
<td>Keyboard auto-repeat delay</td>
<td>[1/2 sec]</td>
<td></td>
</tr>
</tbody>
</table>

### Boot Options

<table>
<thead>
<tr>
<th>Feature</th>
<th>Default</th>
<th>Help</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary screen</td>
<td>[Disabled]</td>
<td></td>
</tr>
<tr>
<td>Boot-time Diagnostic Screen</td>
<td>[Enabled]</td>
<td></td>
</tr>
<tr>
<td>QuickBoot Mode</td>
<td>[Disabled]</td>
<td></td>
</tr>
<tr>
<td>Hard Disk Pre-Delay</td>
<td>[Disabled]</td>
<td></td>
</tr>
<tr>
<td>Extended Memory Testing</td>
<td>[None]</td>
<td></td>
</tr>
<tr>
<td>POST Errors</td>
<td>[Enabled]</td>
<td></td>
</tr>
</tbody>
</table>

Display system configuration on boot
### PCI Express Control Sub-Menu

| PCI Express - Root Port 1: | [Enabled] | Control the PCI Express Port via this setup option. |
| PCI Express - Root Port 2: | [Enabled] |
| Root Port ASPM Support: | [Disabled] |
| Disabled - Port always disabled. |
| Auto - Only enable if card found. |
| Note that if Root Port 1 is disabled, Root Port 2 will be disabled as well. |

### PCI Control Sub-Menu

| PCI IRQ line 0: | [Auto Select] | Select which Interrupt should be assigned to this PCI Irq. |
| PCI IRQ line 1: | [Auto Select] |
| PCI IRQ line 2: | [Auto Select] |
| PCI IRQ line 3: | [Auto Select] |
| PCI IRQ line 4: | [Auto Select] |
| PCI IRQ line 5: | [Auto Select] |
| PCI IRQ line 6: | [Auto Select] |
| PCI IRQ line 7: | [Auto Select] |

| Devices: |
| PCIe Ports |
### ACPI Control Sub-Menu

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
<th>Item Specific Help</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passive Cooling Trip Point</td>
<td>63°C</td>
<td>This value controls the temperature of the ACPI Passive Trip Point - the point in which the OS will begin throttling the CPU.</td>
</tr>
<tr>
<td>Passive TC Value</td>
<td>[0]</td>
<td></td>
</tr>
<tr>
<td>Passive TC2 Value</td>
<td>[10]</td>
<td></td>
</tr>
<tr>
<td>Passive TSP Value</td>
<td>[2]</td>
<td></td>
</tr>
<tr>
<td>Critical Trip Point</td>
<td>[63°C]</td>
<td></td>
</tr>
<tr>
<td>FACP – RTC S4 Flag Value</td>
<td>[Enabled]</td>
<td></td>
</tr>
<tr>
<td>FACP – PM Timer Flag Value</td>
<td>[Enabled]</td>
<td></td>
</tr>
<tr>
<td>HPET Support</td>
<td>[Enabled]</td>
<td></td>
</tr>
<tr>
<td>HPET Base Address</td>
<td>[0xFED00000]</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** When the DTS is enabled, only values below 90°C are valid.

---

### Watchdog Options

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
<th>Item Specific Help</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watchdog delay</td>
<td>[30 seconds]</td>
<td>After watchdog is activated, it waits the selected delay time before starting to decrement the timeout period.</td>
</tr>
<tr>
<td>Watchdog timeout</td>
<td>[30 seconds]</td>
<td></td>
</tr>
<tr>
<td>Watchdog start on boot</td>
<td>[No]</td>
<td></td>
</tr>
</tbody>
</table>
Exit Saving Changes
Exit Discarding Changes
Load Setup Defaults
Discard Changes
Save Changes

Item Specific Help
Exit System Setup and save your changes to CMOS.
Read carefully the safety guidelines and programming instructions contained in this manual before using/connecting the device

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