



TS TAXx  
Integrated Interactive Terminals

Installation Manual



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## **FCC NOTICE**

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by tuning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### **Canadian Compliance Statement**

This Class B Digital apparatus meets all the requirements of the Canadian Interference-Causing Equipment Regulations.

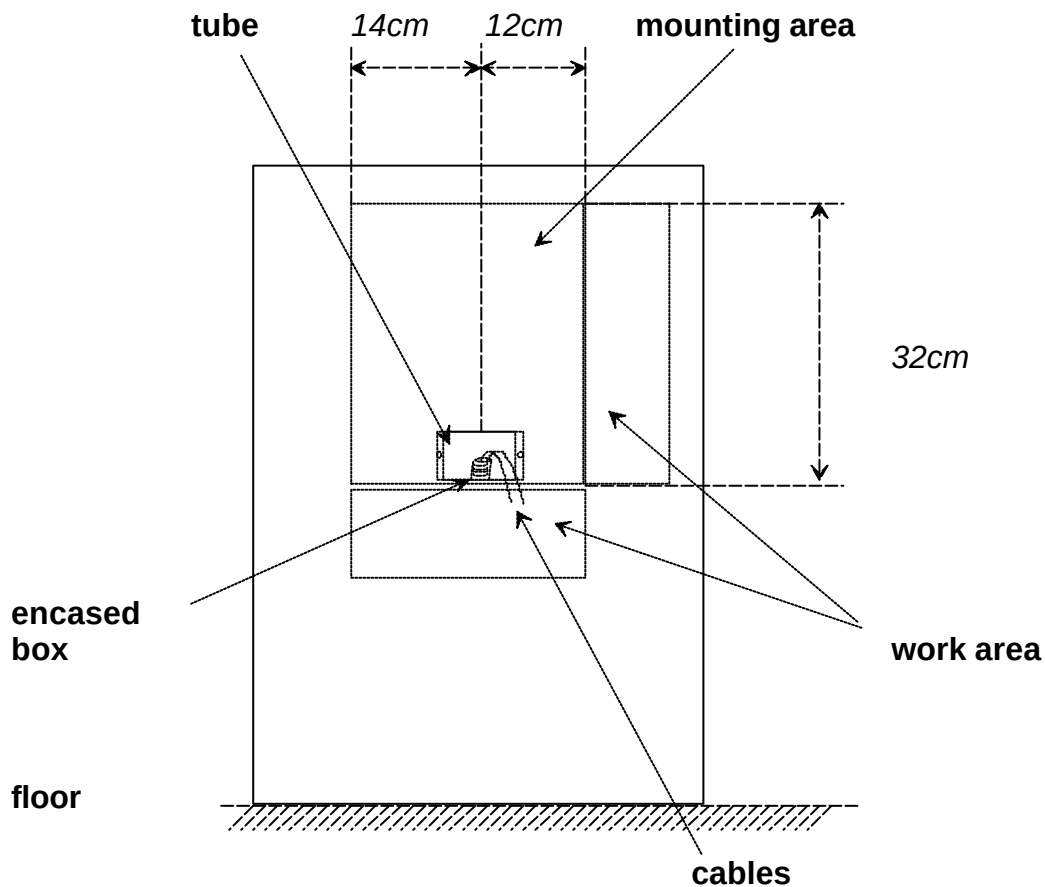
Cet appareil numérique de la classe B respecte les exigences du Règlement sur le matériel brouilleur du Canada.

# PRELIMINARY OPERATIONS

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## Mounting Instructions

It is recommended that you attach the cables to wall box. The position selected for mounting the box must satisfy the requirements laid down for the mounting area and allow the necessary space for opening the box (see Figure 1). In addition, there must be sufficient space to the right and rear of the unit to allow access to the box with a screwdriver.

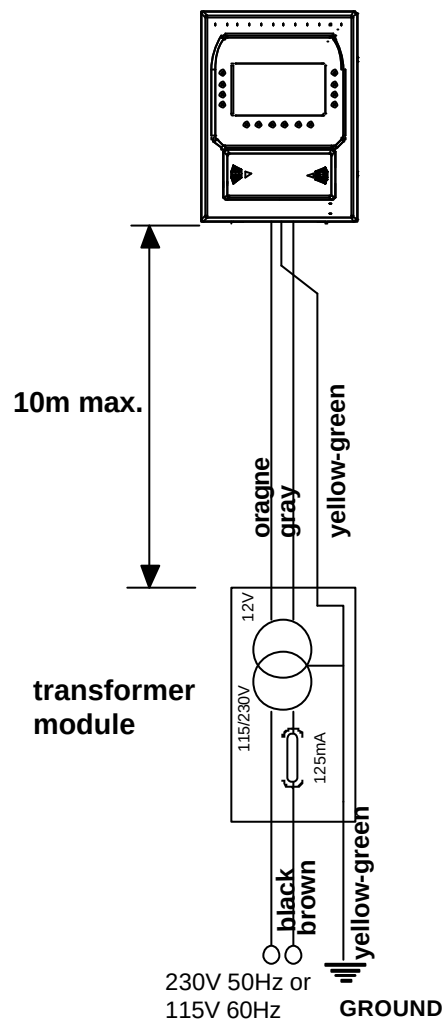


*Figure 1: Space requirements for mounting*

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## Electrical Connections

The TemaServer is powered at low voltage ( $12V_{AC}$ ) by means of a transformer connected to the 115/230V 50/60Hz network switch. This switch must be positioned prior to the TemaServer. The cables connecting the transformer and the TemaServer must be at least AWG20 and no more than 10m long (see Figure 2).



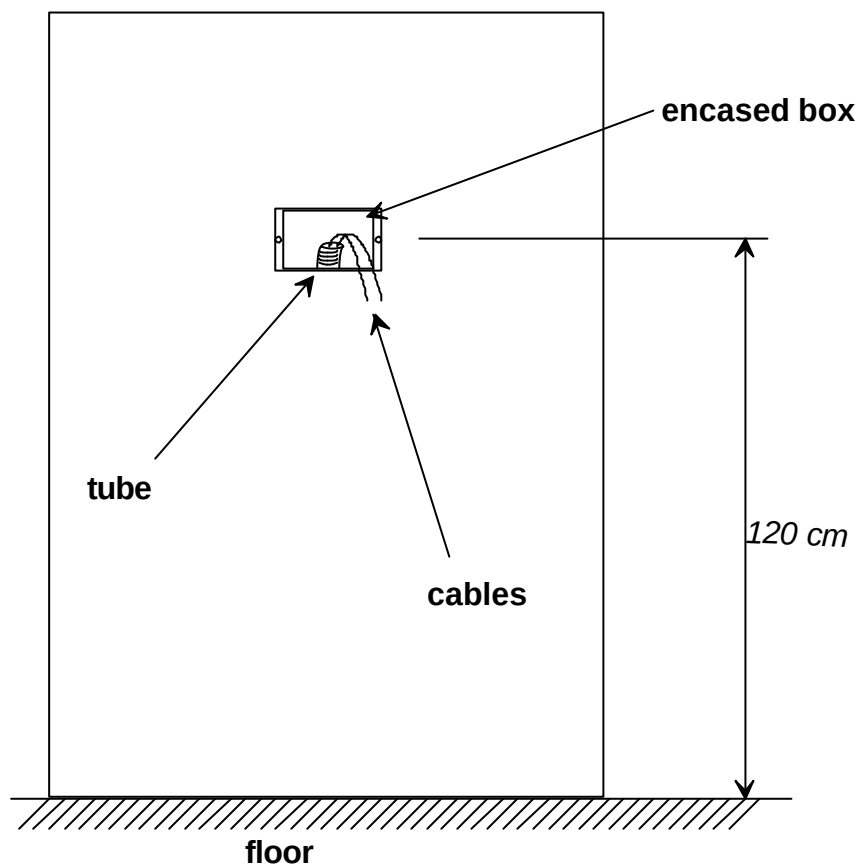
*Figure 2: Electrical connections*

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## Cabling Arrangements

It is recommended that you attach the cables to wall box. **The box must be placed 120cm from the ground** (see Figure 3).

It is strongly recommended that you run the LAN cable into a separate tube from the one used for the 12V~ power cable. If you wish to keep the LAN cable and the 12V~ power cable together, make sure that the 12V~ cable is shielded. You must not **on any account** attempt to route the LAN cable and the primary power cable (230V~) together.



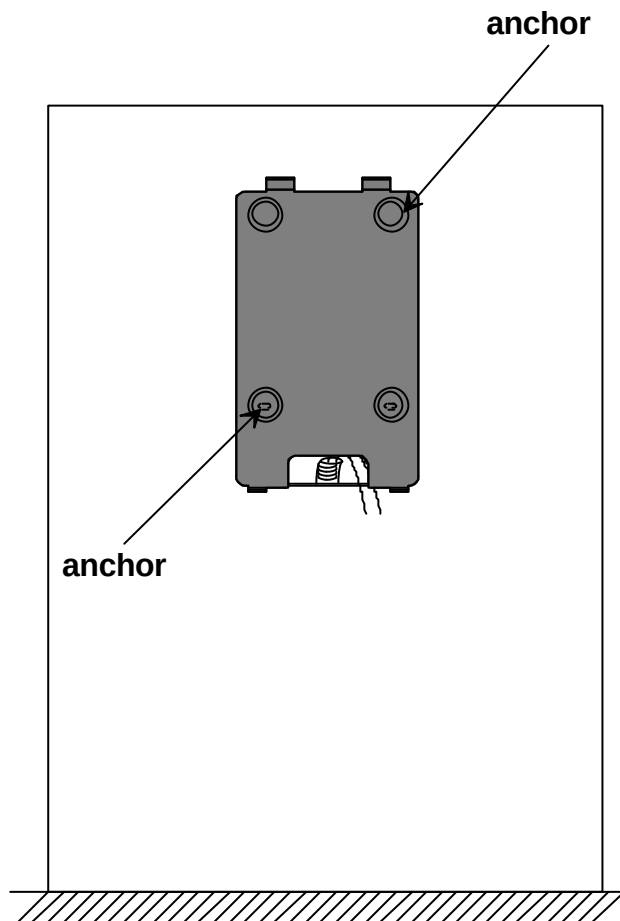
*Figure 3: Cabling arrangements*

# INSTALLATION

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## Attaching the Terminal Support Plate

To attach the terminal support plate, drill two holes in the wall in which to place the plastic anchors that hold up the support plate (see Figure 4). **Make sure that the box attached to the wall is aligned with the niche on the lower part of the support plate** (use a  $\varnothing$  6mm parallel tip flat head screwdriver).



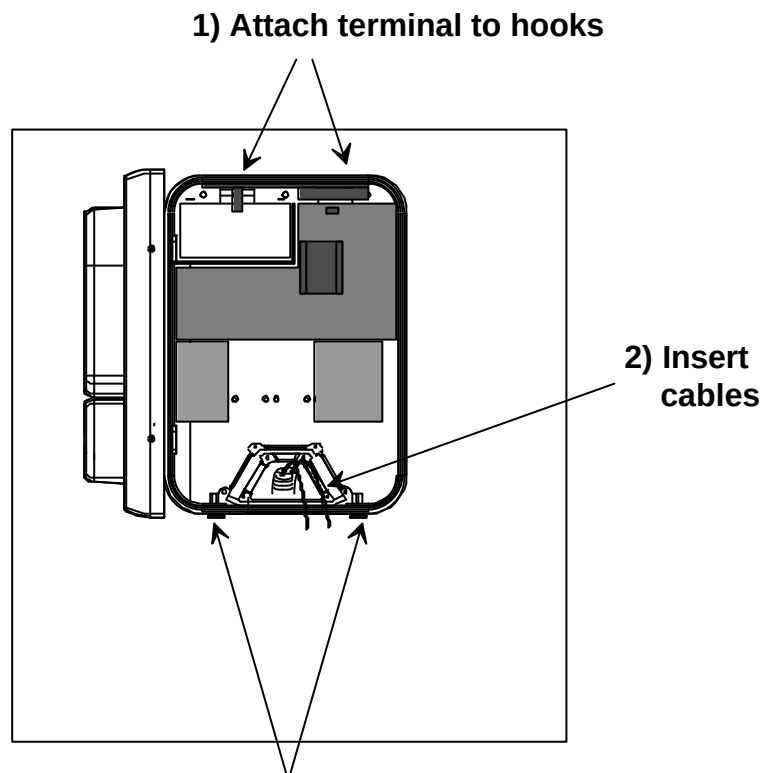
*Figure 4: Terminal support plate*

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## Hooking Up the Terminal

To hook up the terminal, follow the steps described below (see Figure 5):

1. Attach the upper part of the terminal to the upper hooks on the support plate.
2. Insert the cables into the terminal through the specified openings.
3. Tighten the two screws that secure the terminal to the support plate (use a  $\varnothing$  6mm parallel tip flat head screwdriver).



*Figure 5: Hooking up the terminal*

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## Connecting the Cables

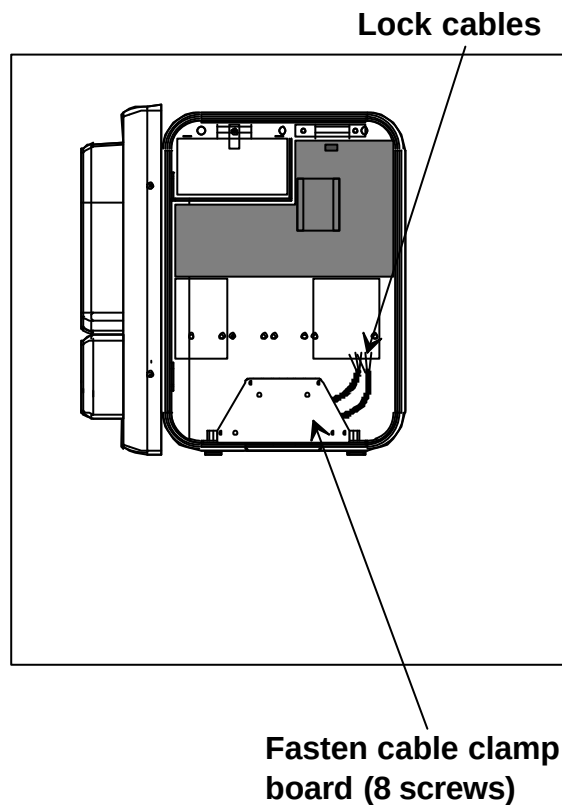
To connect the cables, follow these steps:

1. Before connecting the cables, insert the power supply jumpers.

### **WARNING**

**Do not press the anti-opening tamper during installation and/or maintenance of the unit.**

2. Line up the cables with the grooves at the back of the terminal (see Figure 6) and screw in the small plate which serves as a cable clamp (use a Ø 5mm Philips screwdriver).



*Figure 6: Connecting the cables*

3. Attach the wire pin connectors to the terminals located on the lower part of the terminal unit. (use a Ø 3mm flat head screwdriver).
4. Insert the cable in the corresponding connector (see Figure 7) to complete the connection to the LAN Ethernet 10BaseT (twisted pair).

Figure 9 illustrates the connections and settings of jumpers JP2 and JP3 on the display control board. Make sure that both jumpers are in the position shown in Figure 9 (MAG-TEK interface).

When 12V of electric current is supplied (see Figure 8), the terminal commences operation and the green “RUN” LED lights up (see Figure 7)

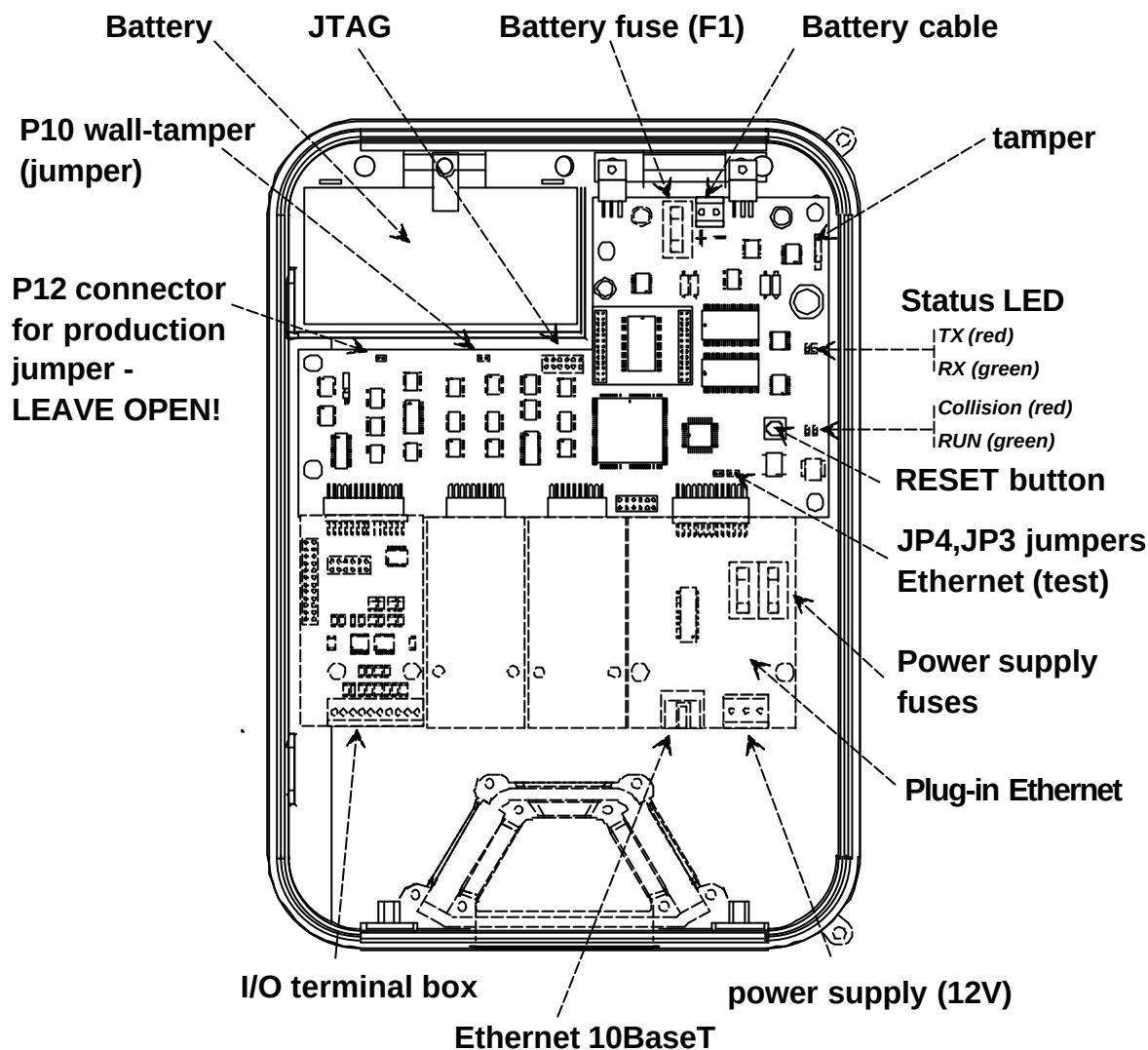


Figure 7: Main circuit components

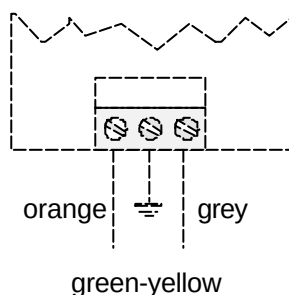
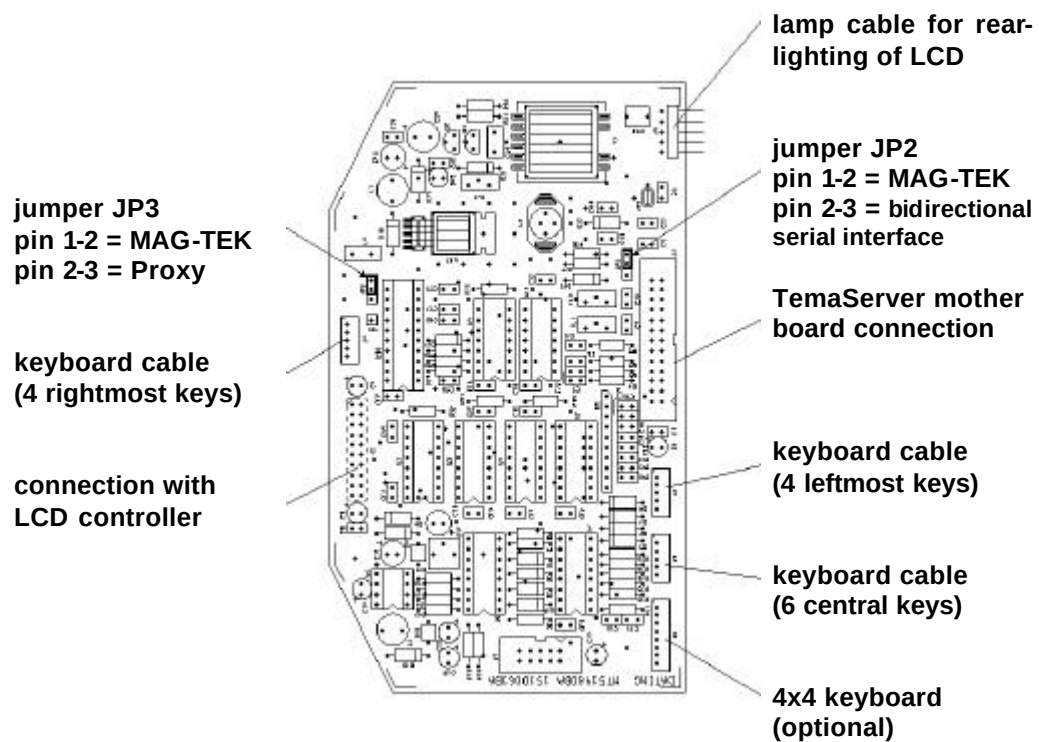


Figure 8: Close-up view of the 12V supply



*Figure 9: Display board details*

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## Jumpers

For normal operation, configure the jumpers on the main board as specified in Table 2.

| Jumper | Function                | Default state |
|--------|-------------------------|---------------|
| P10    | auxiliary tamper        | Inserted      |
| P12    | auto-update of firmware | Open          |
| JP3    | Ethernet full duplex    | Open          |
| JP4    | Ethernet loopback       | Inserted      |

*Table 1: Configuration of jumpers on main board*

Configure the jumpers on the display board as specified in Table 2.

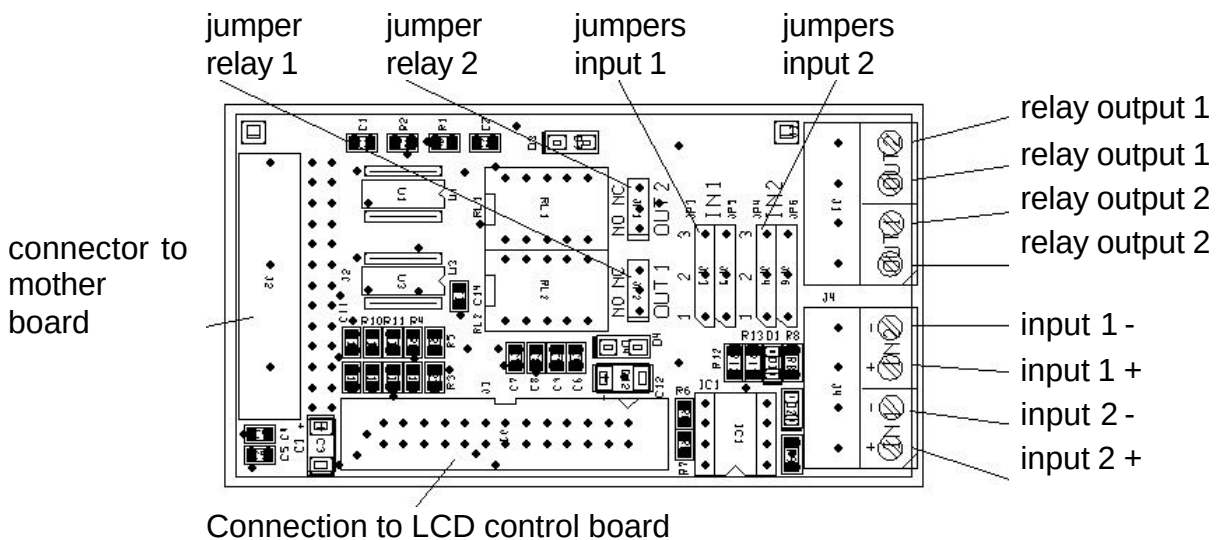
| Jumper | Function          | Default state                 |
|--------|-------------------|-------------------------------|
| JP2    | data transmission | inserted between pins 1 and 2 |
| JP3    | data receipt      | inserted between pins 1 and 2 |

*Table 2: Configuration of jumpers on display board*

---

## Auxiliary Connections

The I/O plug-in board features a connector that includes two opto-coupled inputs and two relay outputs, as illustrated in Figure 10.



*Figure 10: Auxiliary connections*

Note: When the cables go externally, shielded cables must be used. The cable's shield must be connected to ground connector

You can define the operational mode of each relay by positioning the appropriate jumpers as follows:

- Jumper «OUT1» between 12 (NO) for relay 1 normally open
- Jumper «OUT1» between 23 (NC) for relay 1 normally closed
- Jumper «OUT2» between 12 (NO) for relay 2 normally open
- Jumper «OUT2» between 23 (NC) for relay 2 normally closed

You can define the operational mode of each input by positioning the appropriate jumpers as follows:

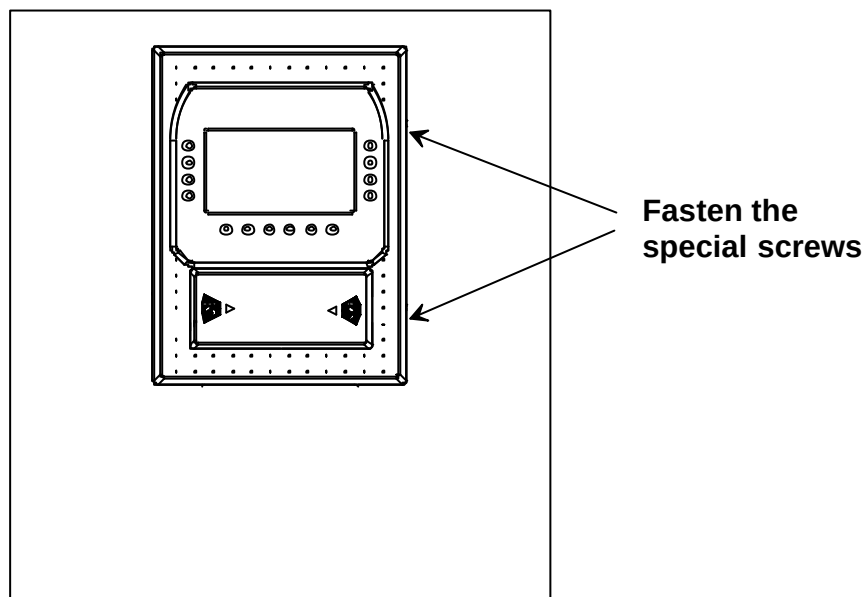
- Jumpers «IN1» between 12 for input 1 on dry contact
- Jumpers «IN1» between 23 for input 1 opto-coupled
- Jumpers «IN2» between 12 for input 2 on dry contact
- Jumpers «IN2» between 23 for input 2 opto-coupled

---

## Closing the Terminal

To close the terminal, follow these steps:

1. Connect both contacts of the battery cable to the battery
2. Make sure that the rubber gasket is correctly positioned.
3. Close the terminal cover by rotating it.
4. Fasten the cover with the two special screws (see Figure 11) located on the side of the terminal (use a TORX anti-tamper TX10 screwdriver).

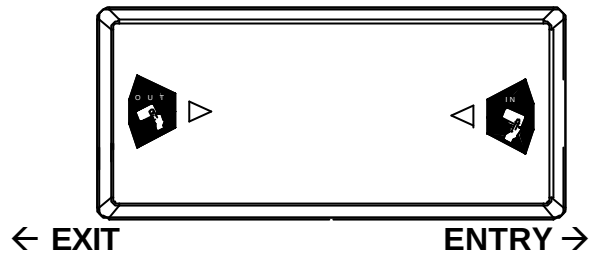


*Figure 11: Closing the terminal*

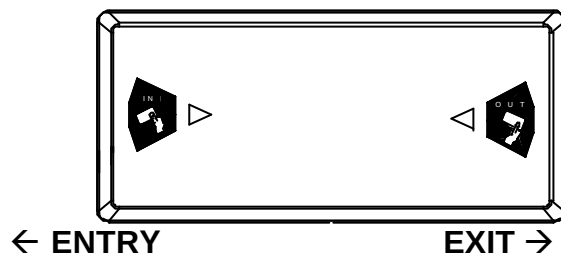
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## Applying the Entry/Exit Labels

Apply the two entry/exit labels to the magnetic reader according to the pre-configured transit direction. Make sure that you place the labels in the appropriate hollows (TS-Tax3/TS-Tax4: see details in Figure 12 and Figure 13).



*Figure 12: Entry/exit labels*



*Figure 13: Entry/exit labels*

# TECHNICAL SPECIFICATIONS

## **TemaServer TS TAx3 (CTU-K03 code 1500064FA)**

| <b>Parameter</b>                                       | <b>Value</b>                                                                                |
|--------------------------------------------------------|---------------------------------------------------------------------------------------------|
| <b>DC power supply</b>                                 | 12V <sub>DC</sub> ±15% 500mA nominal (6W)<br>600mA max (for fast battery recharge)          |
| <b>AC power supply</b>                                 | 12V <sub>AC</sub> ±15% 50Hz<br>500mA (nominal)<br>600mA max (for fast battery recharge)     |
| <b>Power supply via TRN01 Transformer</b>              | 230V <sub>AC</sub> ±15% 50Hz<br>30mA nominal (7VA)<br>40mA max. (for fast battery recharge) |
| <b>Weight (including frame)</b>                        | 3.5kg (+ transformer TRN01 = 500g)                                                          |
| <b>Size</b>                                            | 220x305x80 mm                                                                               |
| <b>IP Protection Rating</b>                            | IP55                                                                                        |
| <b>Environmental temperature for correct operation</b> | 0...50 °C                                                                                   |
| <b>LAN Ethernet connection</b>                         | 10BaseT standard cable on RJ45                                                              |
| <b>Proxy antennae</b>                                  | Double antenna 125KHz for HID cards<br>Read distance 0...50mm                               |
| <b>Expansions</b>                                      | 2 slots for 1-unit plug-in cards<br>(or one 2-units plug-in card)                           |
| <b>Relay outputs</b>                                   | Number of outputs: 2<br>Max. load allowed:<br>50V <sub>DC</sub> 1A                          |

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inputs</b>                 | <p>Number of inputs: 2</p> <ul style="list-style-type: none"> <li>opto-coupled mode <ul style="list-style-type: none"> <li>resistance: 2.2 Kohm</li> <li>logic level high: <math>&gt;4 V_{DC}</math> (max. positive <math>+18 V_{DC}</math>)</li> <li>logic level low: <math>&lt;1 V_{DC}</math> (max. negative <math>-0.5 V_{DC}</math>)</li> </ul> </li> <li>self powered mode (dry contacts) <ul style="list-style-type: none"> <li>open contact: <math>&gt; 2Kohm</math></li> <li>closed contact: <math>&lt; 100 ohm</math> (10mA)</li> </ul> </li> </ul> |
| <b>Regulations compliance</b> | <p><b>CE</b> Directive EMC 89/336/EEC, 92/31/EEC,<br/>Directive Low Voltage 72/23/EEC, 93/68/EEC:<br/>EN60950, EN55024, EN55022, EN61000-3-2/3,<br/>EN 300 330</p>                                                                                                                                                                                                                                                                                                                                                                                            |
|                               | Includes a part with FCC-ID: HS9-CTU-K03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

### Spare Parts

|                |                                                                                     |
|----------------|-------------------------------------------------------------------------------------|
| <b>Fuses</b>   | <p>F1 : 2A 250V delayed</p> <p>F2 : 1A 250V delayed</p> <p>F3 : 1A 250V delayed</p> |
| <b>Battery</b> | 6V 1.2 Ah code 1801026                                                              |

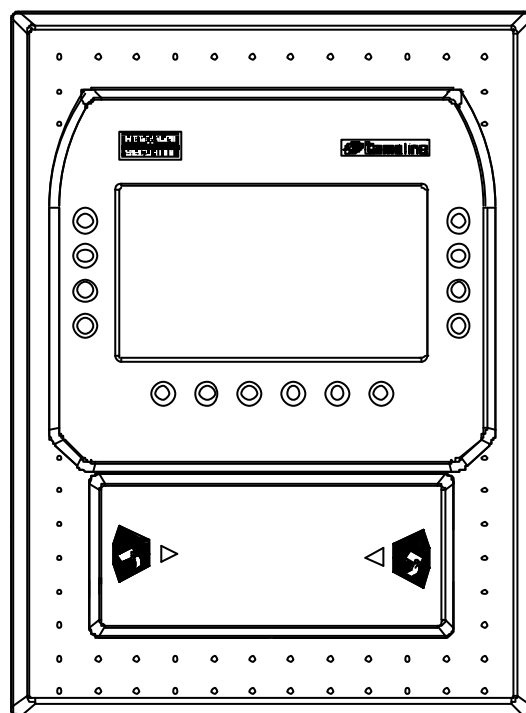


Figure 14: TemaServer TS TAx3

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**TemaServer TS TAx4** (CTU-K04 code 1500087DA)

| Parameter                                       | Value                                                                                       |
|-------------------------------------------------|---------------------------------------------------------------------------------------------|
| DC power supply                                 | 12V <sub>DC</sub> ±15% 500mA nominal (6W)<br>600mA max (for fast battery recharge)          |
| AC power supply                                 | 12V <sub>AC</sub> ±15% 50Hz<br>500mA (nominal)<br>600mA max (for fast battery recharge)     |
| Power supply via TRN01 Transformer              | 230V <sub>AC</sub> ±15% 50Hz<br>30mA nominal (7VA)<br>40mA max. (for fast battery recharge) |
| Weight (including frame)                        | 3.5kg (+ transformer TRN01 = 500g)                                                          |
| Size                                            | 220x305x80 mm                                                                               |
| IP Protection Rating                            | IP55                                                                                        |
| Environmental temperature for correct operation | 0...50 °C                                                                                   |
| LAN Ethernet connection                         | 10BaseT standard cable on RJ45                                                              |
| Proxy antenna                                   | Antenna 139KHz for WSE cards<br>Read distance 0...30mm                                      |
| Expansions                                      | 2 slots for 1-unit plug-in cards<br>(or one 2-units plug-in card)                           |
| Relay outputs                                   | Number of outputs: 2<br>Max. load allowed:<br>50V <sub>DC</sub> 1A                          |

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inputs</b>                 | <p>Number of inputs: 2</p> <ul style="list-style-type: none"> <li>• opto-coupled mode<br/>resistance: 2.2 Kohm<br/>logic level high:<br/>&gt;4 V<sub>DC</sub> (max. positive +18 V<sub>DC</sub>)<br/>logic level low:<br/>&lt;1 V<sub>DC</sub> (max. negative –0.5 V<sub>DC</sub>)</li> <li>• self powered mode (dry contacts)<br/>open contact: &gt; 2Kohm<br/>closed contact: &lt; 100 ohm (10mA)</li> </ul> |
| <b>Regulations compliance</b> | <p><b>CE</b> Directive EMC 89/336/EEC, 92/31/EEC,<br/>Directive Low Voltage 72/23/EEC, 93/68/EEC:<br/>EN60950, EN55024, EN55022, EN61000-3-2/3,<br/>EN 300 330</p>                                                                                                                                                                                                                                             |
|                               | Includes a part with FCC-ID: C4P DR4201                                                                                                                                                                                                                                                                                                                                                                        |

### Spare Parts

|                |                                                                               |
|----------------|-------------------------------------------------------------------------------|
| <b>Fuses</b>   | <p>F1 : 2A 250V delayed<br/>F2 : 1A 250V delayed<br/>F3 : 1A 250V delayed</p> |
| <b>Battery</b> | 6V 1.2 Ah code 1801026                                                        |

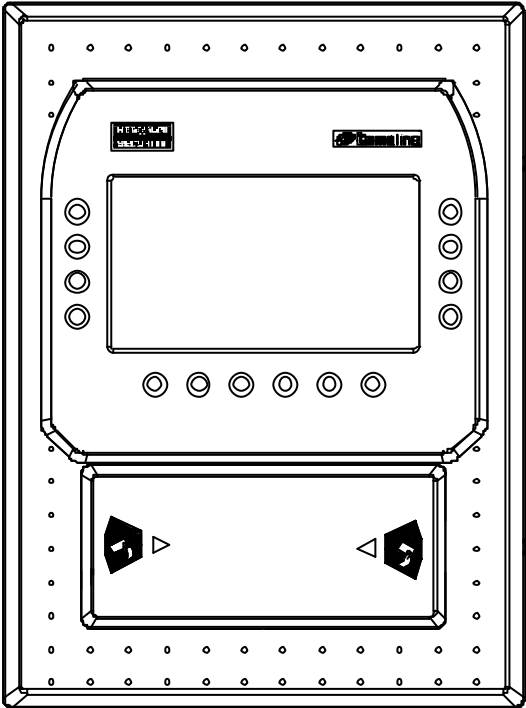


Figure 15: TemaServer TS TAx4

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**TemaServer TS Tax5** (CTU-K05 code 1500114DA)

| Parameter                                       | Value                                                                                                    |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| DC power supply                                 | 12V <sub>DC</sub> ±15% 500mA nominal (6W)<br>600mA max (for fast battery recharge)                       |
| AC power supply                                 | 12V <sub>AC</sub> ±15% 50Hz<br>500mA (nominal)<br>600mA max (for fast battery recharge)                  |
| Power supply via TRN01 Transformer              | 230V <sub>AC</sub> ±15% 50Hz<br>30mA nominal (7VA)<br>40mA max. (for fast battery recharge)              |
| Weight (including frame)                        | 3.5kg (+ transformer TRN01 = 500g)                                                                       |
| Size                                            | 220x305x80 mm                                                                                            |
| IP Protection Rating                            | IP55                                                                                                     |
| Environmental temperature for correct operation | 0...50 °C                                                                                                |
| LAN Ethernet connection                         | 10BaseT standard cable on RJ45                                                                           |
| Proxy antenna                                   | Antenna:<br>Exciter Field 125KHz<br>Receive 62.5Khz<br>For FlexPass Prox cards<br>Read distance 0...50mm |
| Expansions                                      | 2 slots for 1-unit plug-in cards<br>(or one 2-units plug-in card)                                        |
| Relay outputs                                   | Number of outputs: 2<br>Max. load allowed:<br>50V <sub>DC</sub> 1A                                       |

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inputs</b>                 | <p>Number of inputs: 2</p> <ul style="list-style-type: none"> <li>• opto-coupled mode<br/>resistance: 2.2 Kohm<br/>logic level high:<br/>&gt;4 V<sub>DC</sub> (max. positive +18 V<sub>DC</sub>)<br/>logic level low:<br/>&lt;1 V<sub>DC</sub> (max. negative –0.5 V<sub>DC</sub>)</li> <li>• self powered mode (dry contacts)<br/>open contact: &gt; 2Kohm<br/>closed contact: &lt; 100 ohm (10mA)</li> </ul> |
| <b>Regulations compliance</b> | <p><b>CE</b> Directive EMC 89/336/EEC, 92/31/EEC,<br/>Directive Low Voltage 72/23/EEC, 93/68/EEC:<br/>EN60950, EN55024, EN55022, EN61000-3-2/3,<br/>EN 300 330</p>                                                                                                                                                                                                                                             |
|                               | Includes a part with FCC-ID: HS9-CTU-K05                                                                                                                                                                                                                                                                                                                                                                       |

### Spare Parts

|                |                                                                               |
|----------------|-------------------------------------------------------------------------------|
| <b>Fuses</b>   | <p>F1 : 2A 250V delayed<br/>F2 : 1A 250V delayed<br/>F3 : 1A 250V delayed</p> |
| <b>Battery</b> | 6V 1.2 Ah code 1801026                                                        |

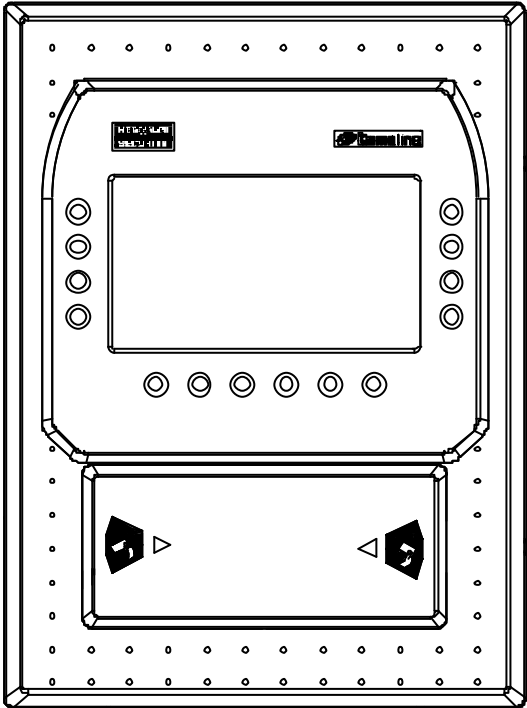


Figure 16: TemaServer TS Tax5

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**TemaServer TS Tax7** (CTU-K07 code 1500118AA)

| Parameter                                       | Value                                                                                       |
|-------------------------------------------------|---------------------------------------------------------------------------------------------|
| DC power supply                                 | 12V <sub>DC</sub> ±15% 500mA nominal (6W)<br>600mA max (for fast battery recharge)          |
| AC power supply                                 | 12V <sub>AC</sub> ±15% 50Hz<br>500mA (nominal)<br>600mA max (for fast battery recharge)     |
| Power supply via TRN01 Transformer              | 230V <sub>AC</sub> ±15% 50Hz<br>30mA nominal (7VA)<br>40mA max. (for fast battery recharge) |
| Weight (including frame)                        | 3.5kg (+ transformer TRN01 = 500g)                                                          |
| Size                                            | 220x305x80 mm                                                                               |
| IP Protection Rating                            | IP55                                                                                        |
| Environmental temperature for correct operation | 0...50 °C                                                                                   |
| LAN Ethernet connection                         | 10BaseT standard cable on RJ45                                                              |
| Proxy antenna                                   | Antenna 13.56MHz for Mifare cards<br>Read distance 0...30mm                                 |
| Expansions                                      | 2 slots for 1-unit plug-in cards<br>(or one 2-units plug-in card)                           |
| Relay outputs                                   | Number of outputs: 2<br>Max. load allowed:<br>50V <sub>DC</sub> 1A                          |

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inputs</b>                 | <p>Number of inputs: 2</p> <ul style="list-style-type: none"> <li>• opto-coupled mode<br/>resistance: 2.2 Kohm<br/>logic level high:<br/>&gt;4 V<sub>DC</sub> (max. positive +18 V<sub>DC</sub>)<br/>logic level low:<br/>&lt;1 V<sub>DC</sub> (max. negative –0.5 V<sub>DC</sub>)</li> <li>• self powered mode (dry contacts)<br/>open contact: &gt; 2Kohm<br/>closed contact: &lt; 100 ohm (10mA)</li> </ul> |
| <b>Regulations compliance</b> | <p><b>CE</b> Directive EMC 89/336/EEC, 92/31/EEC,<br/>Directive Low Voltage 72/23/EEC, 93/68/EEC:<br/>EN60950, EN55024, EN55022, EN61000-3-2/3,<br/>EN 300 330</p>                                                                                                                                                                                                                                             |
|                               | Includes a part with FCC-ID: HS9-CTU-K07                                                                                                                                                                                                                                                                                                                                                                       |

### Spare Parts

|                |                                                                               |
|----------------|-------------------------------------------------------------------------------|
| <b>Fuses</b>   | <p>F1 : 2A 250V delayed<br/>F2 : 1A 250V delayed<br/>F3 : 1A 250V delayed</p> |
| <b>Battery</b> | 6V 1.2 Ah code 1801026                                                        |

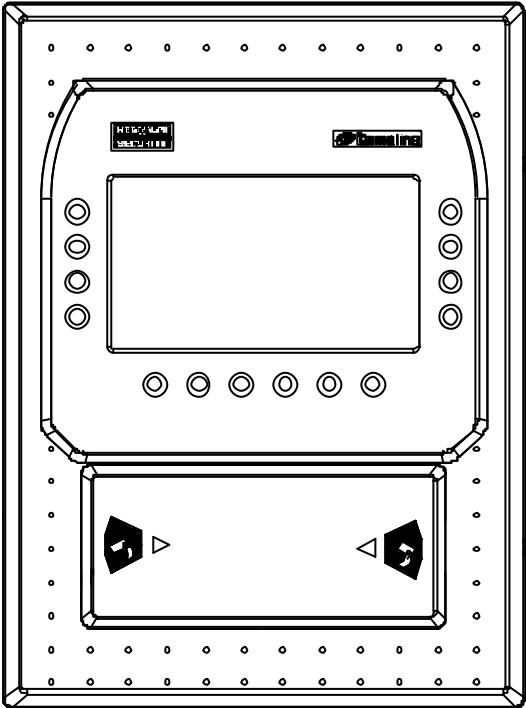


Figure 17: TemaServer TS Tax7

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## Optional Parts

|                       |                |
|-----------------------|----------------|
| TORX TX10 screwdriver | Code 1500108AA |
|-----------------------|----------------|





Ιντερνετ: <http://www.τεμαλινε.χομ>

