

KELIO VISIO Terminal

Instructions



When you receive the product, make sure that it has not been damaged during transport and notify any reservations to the carrier.



BODET Software
B.P. 40211
Boulevard du Cormier
F - 49302 CHOLET Cedex
www.bodet-software.com
marketing@bodet-software.com



Ref. 640091 C

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1. INITIAL CHECK

Each terminal is supplied in its original package with two bags, each of them containing 2 screws, 2 dowel pins and 3 clamping collars pre-fastened to the back of the concentrator (these clamping collars are used to fasten the cables under dangerous voltage).

2. WARNING

Any use that does not comply with these instructions can cause irreversible damage to the electronic board of the device and voids the warranty.

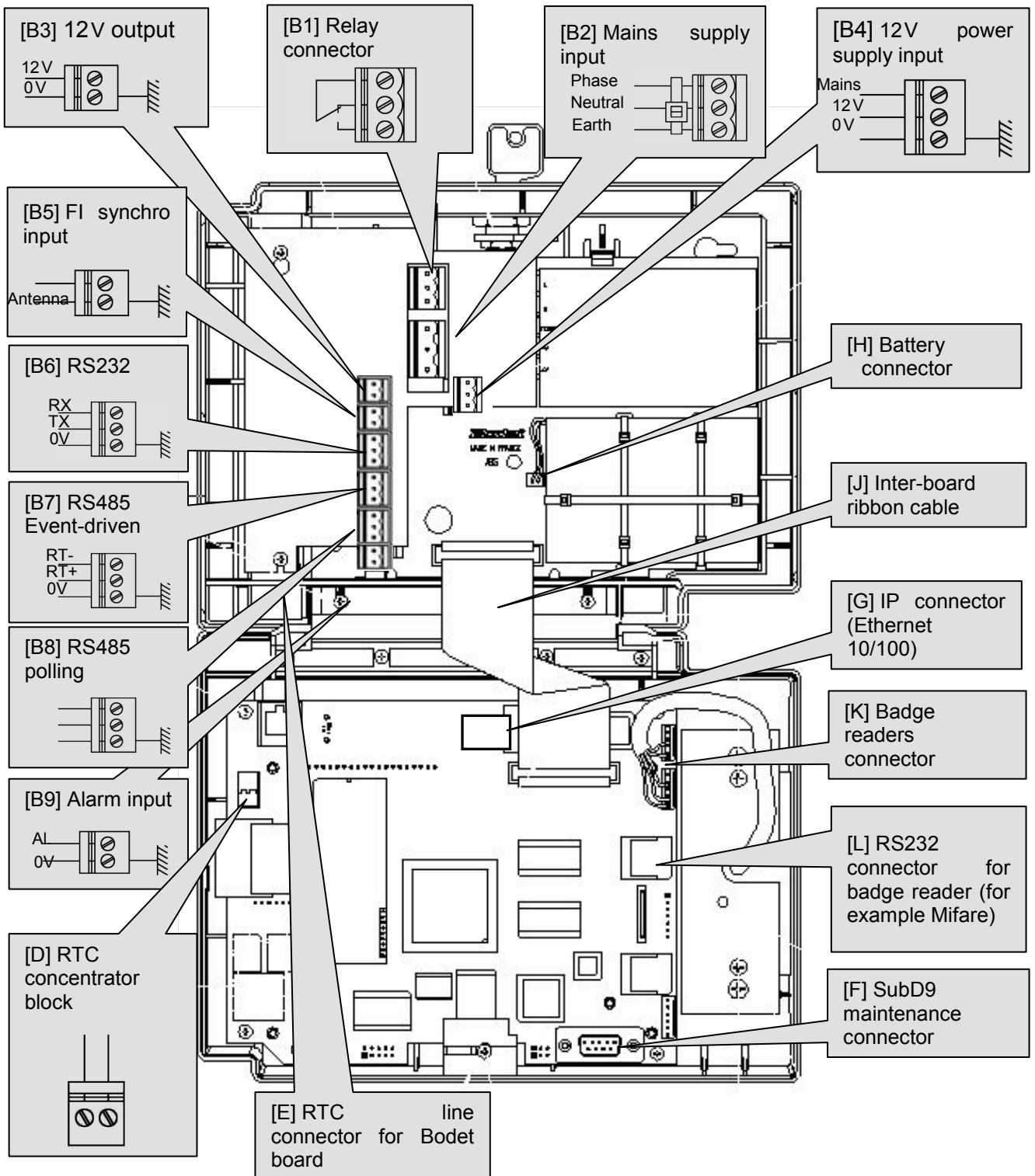
Before installing and using the terminal, please read and make sure you understand the safety instructions set out in paragraph "Consignes de sécurité et protection de l'appareil" of this manual.



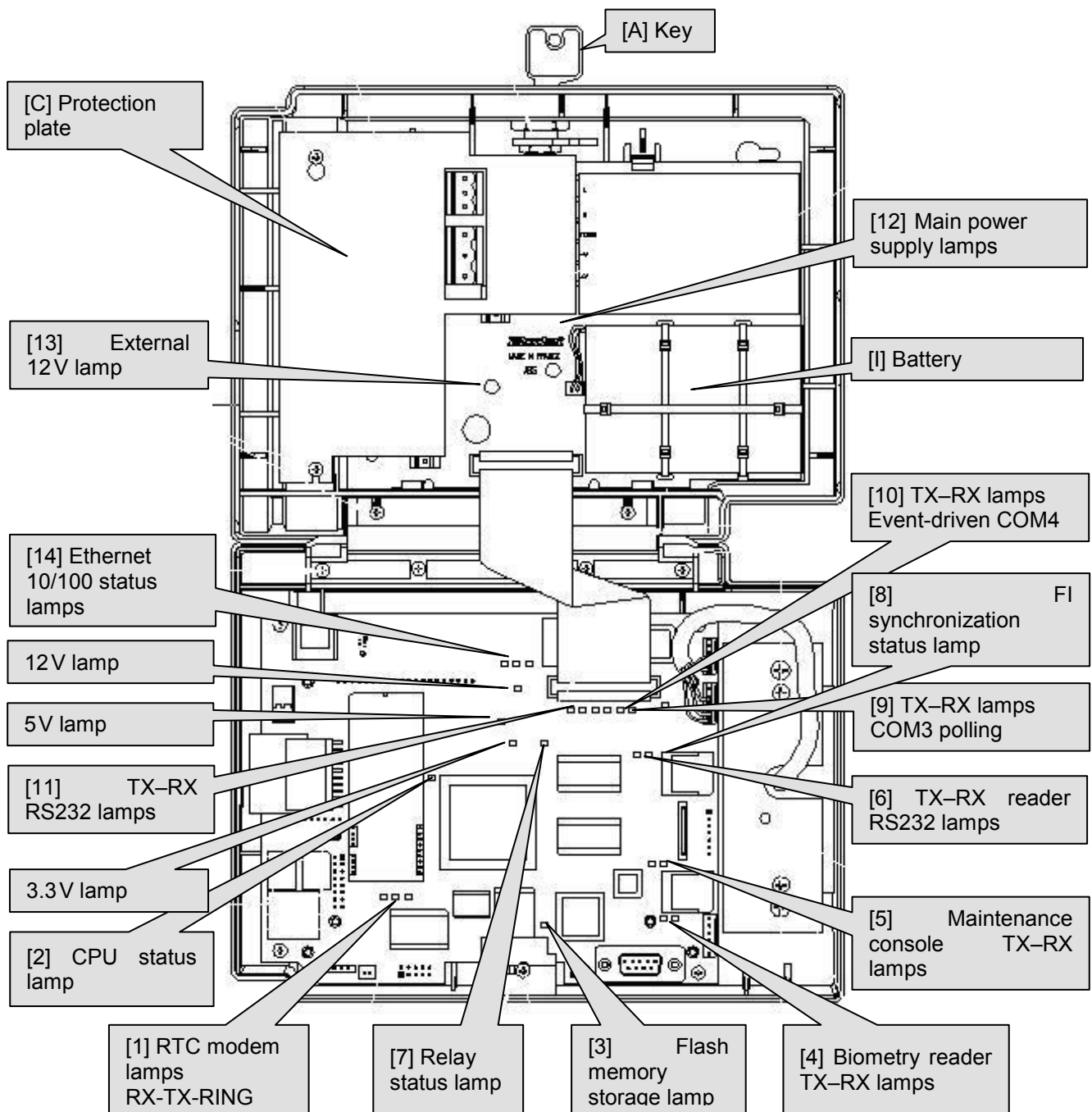
The terminal is a CLASS 1 device. As a result, the presence of a protective earth connection is mandatory (connector [B2])

3. TERMINAL OVERVIEW

3.1 Connectors



3.2 Pilot lamps



4. OPERATION OF PILOT LAMPS

PILOT LAMPS	OPERATION
RX/TX and RING [1] (RX-MOD TX-MOD RI)	Operation linked to RTC modem (when the option is installed). Ring LED signal as and when the telephone rings
CPU [2] (two-coloured)	10-second blinking as the concentrator is powered up or the CPU board is reset. During that period, access to the RS232 series console on the SUBD9 connector can be initiated.
FLASH [3]	Blinking as soon as data are stored in non volatile "flash" memory (memory with a file system)
Biometry reader [4] (TX-BIO RX-BIO)	Pilot LEDs from the RS232 link to the biometric reader
Maintenance console [5] (TX-C/D RX-C/D)	Pilot LEDs from the RS232 link to the configuration console (to the SUBD9)
RS232 reader [6] (MIFARE ...)	Pilot LEDs from the RS232 link to the MIFARE or iCLASS reader for example
Relay [7] (CMD-RL, red colour)	Light signal when the relay of the power-supply board is activated
France Inter synchro [8] (R F.I)	Light signal when receiving France Inter or DCF time information
RX/TX COM3 [9] (TX-POL RX-POL)	Pilot LEDs from the RS485 link COM3 of the power-supply board
RX/TX COM4 [10] (TX-EVE RX-EVE)	Pilot LEDs from the RS485 link COM4 of the power-supply board
RX/TX COM RS232 [11] (TX-COM RX-COM)	Pilot LEDs from the RS232 link COM4 of the power-supply board
Main power supply LED [12]	Green LED on as long as the CPU power supply is valid (mains supply 12V or external 12V or internal stand-alone battery 12V)
External main power supply 12V LED [13]	Green LED on as long as the CPU power supply is valid (valid mains supply or 12VDC input present or power supply fed by the internal stand-alone battery)
"Network" LEDs [14] (DUPLEX LINK SPEED)	Communication-driven duplex LED signal Link LED on if the network is detected Speed LED on if using a 100 Mb/s network (off if using a 10 Mb/s network)

5. INSTALLATION

5.1 Mechanical installation

- The terminal is designed for indoor installation only.
- Select premises with low temperature variations and far from any electromagnetic interference sources (contactors, motors, other badge swipe readers, etc.).
- Open the terminal with the key [A].
- Remove connector [J] and unclip the front panel of the terminal.
- Remove the the protection plate [C] by loosening the 2 screws and by sliding it upwards.
- Fasten the back of the terminal where selected, using the 4 dowel pins and 4 screws supplied.

5.2 Electrical installation

With the system de-energized, connect the contacts of the relay (230V, 4A_{max}) concentrator block [B1].

For mains supply:

After de-energizing the relevant circuit-breaker / disconnecting switch, connect the 230V $\pm 10\%$ 50Hz mains supply to the concentrator block [B2] (1.5 to 2.5mm² cross-section phase, neutral and earth wire, bare on a 5 mm length).

For low voltage power supply:

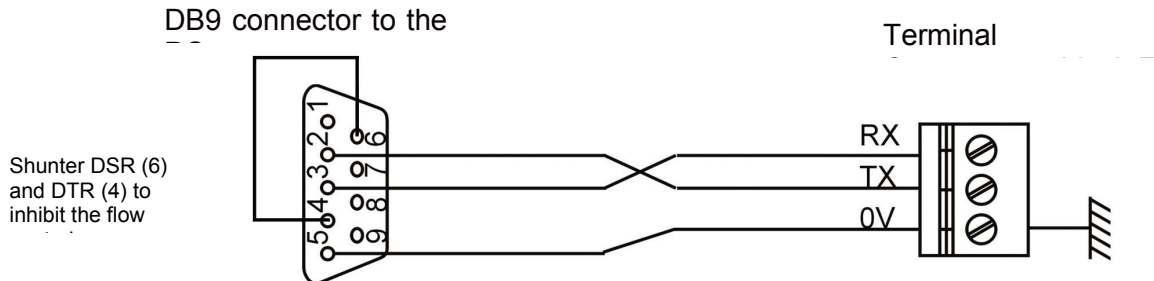
Connect a 12VDC (11.5 to 15VDC) power supply to the concentrator block [B4]. Should the external power supply be equipped with an off-mains operating battery, if necessary, connect the "mains supply" signal (12 VDC = mains supply, 0VDC = no mains supply).

Connect the low voltage power cord of concentrator block [B3] to the external electrical devices (typically BODET Kar readers). The amperage supplied by the terminal on this concentrator block is limited to 200mA. The maximum voltage supplied is 14.5VDC.

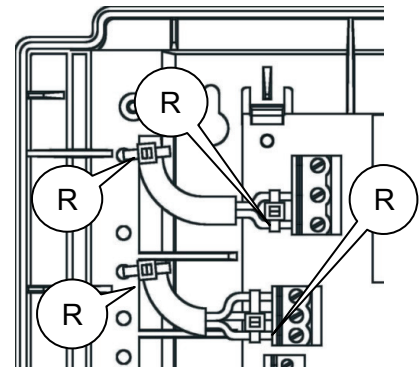
Plug connector [H] from back-up battery [I] to the power-supply board.

5.3 Connecting communication links

1. Connect the France-Inter/DCF radio-synchronization antenna to concentrator block [B5]. The link with the antenna is a 4-20mA current loop. The current supplied by the terminal is limited to 50mA. The maximum voltage supplied is 14.5VDC.
2. Connect the RS232 line from the PC to the terminal on concentrator block [B6] as shown on figure below:



3. Connect the event-driven RS485 line [B7] to the other peripherals such as Kelio Visio (depending on software configuration).
4. Connect the polling RS485 line [B8] to the peripherals such as attendance boards, Kar readers, GPS receiver (depending on software configuration).
5. Connect the alarm cable to concentrator block [B9]. The two contacts of the alarm signal are intended to be connected to an external dry contact (typically the contacts of a fire alarm system relay).
6. In the event of an RTC modem option, connect the telephone cable to RJ11 connector [D] or concentrator block [E].
7. Connect the Ethernet 10/100 Mb cable to concentrator block [G].
8. Secure the cables using the tightening collars [R].
9. Put the protection plate back into place [C].
10. Re-install the front panel at the back of the terminal.
11. If necessary and before closing the casing, power up to adjust/configure the terminal (see page 8 in these instructions).
12. Remove the protection sheet from the front.
13. The terminal is ready to be used.



5.4 Reader's connection

Wired reader

Connect the reader to the USB port on the activity VISIO.

Wireless reader

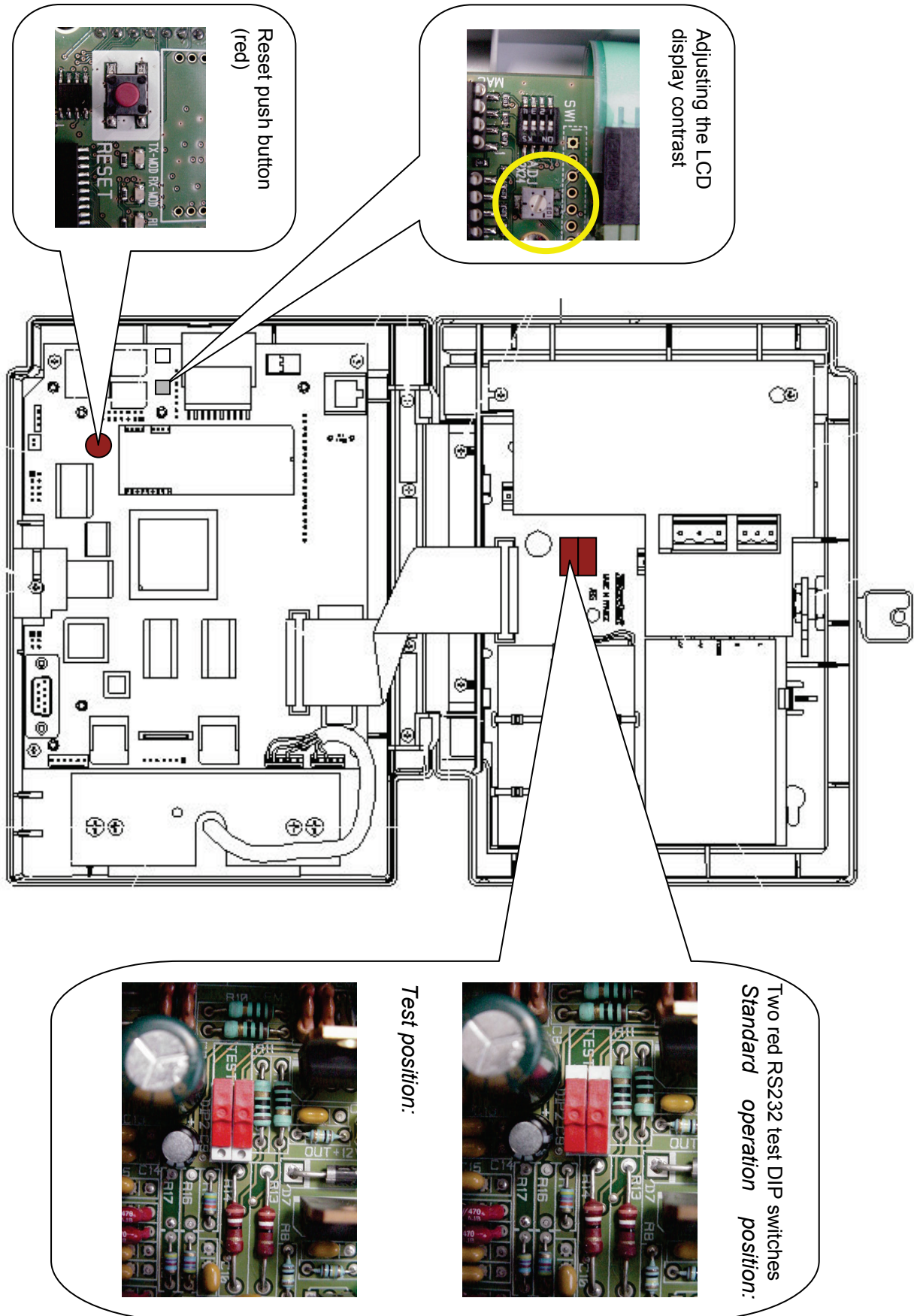
Connect the reader support to the USB port on the activity VISIO.
Follow the start-up instructions for the wireless reader provided with it.



6. ADJUSTING AND TESTING THE TERMINAL

The LCD's screen contrast can be adjusted (see below).

It must be noted that the RS232 serial link can be tested with two test DIP switches (see below).



7. PERFORMING ACTIONS DIRECTLY ON THE TERMINAL

Enter the menu with a technician code and click on **E** to validate.

If a connection has been previously established, you can enter in the menu with a code.



Click on **E** to validate this code. *This code is configured in the Installation Module of the Kelio software, HARDWARE > TERMINALS > SITES > MAINTENANCE*

Level					
Setup	COM	TEST			QUIT
Connection	ETH	SERI	MODEM	485	BACK
Setup Ethernet	IP	MASK	GW	PA	BACK
	192.168.1.222				BACK
Setup	COM	TEST			QUIT
Connection	ETH	SERI	MODEM	485	BACK
Setup Ethernet	IP	MASK	GW	PA	BACK
	255.255.255.000				BACK
Setup	COM	TEST			QUIT
Connection	ETH	SERI	MODEM	485	BACK
Setup Ethernet	IP	MASK	GW	PA	BACK
	000.000.000.000				BACK
Setup	COM	TEST			QUIT
Connection	ETH	SERI	MODEM	485	BACK
Setup Ethernet	IP	MASK	GW	PA	BACK
Ping the GW every 10mn	Yes*	No			
Setup	COM	TEST			QUIT
Connection	ETH	SERI	MODEM	485	BACK
Setup serial	IP	SPEED			BACK
	192.168.192.192		38400		BACK
Setup	COM	TEST			QUIT
Connection	ETH	SERI	MODEM	485	BACK
Setup Modem	IP	ring	LANG		BACK
	192.168.192.192	Number of rings	Modem country		BACK
Setup	COM	TEST			QUIT
Connection	ETH	SERI	MODEM	485	BACK
Setup RS485	IP				BACK
	192.168.222.001				BACK
Setup	COM	TEST			QUIT
Hardware control	TIME	DIAG	RST	PING	BACK
Set Date Time	DATE		TIME		BACK
	YYYY/MM/DD				BACK
Setup	COM	TEST			QUIT
Hardware control	TIME	DIAG	RST	PING	BACK
Set Date Time	DATE		TIME		BACK
	HH:MM:SS				BACK
Setup	COM	TEST			QUIT
Diagnostic	TIME	DIAG	RST	PING	BACK
	SYNC	ALIM			BACK
Setup	COM	TEST			QUIT
Hardware control	TIME	DIAG	RST	PING	BACK
Reset	HARD	DB/SID		MODEM	BACK
	YES	NO			BACK
Setup	COM	TEST			QUIT
Hardware control	TIME	DIAG	RST	PING	BACK
Ping host	Host IP + E				BACK

Press **E** to confirm.

8. MESSAGES ON THE TERMINAL

8.1 Initialization messages

These are the main messages that may be displayed by the terminal when starting the power supply:

```
1 5 / 0 4 / 2 0 1 2   1 7 : 4 8   - B O D E T -  
- - - - -
```

```
1 5 / 0 4 / 2 0 1 2   1 7 : 4 8   - B O D E T -  
B O O T I N G . . .
```

```
B O D E T L I N U X B O O T I N G  
P L E A S E   W A I T
```

```
J V M   I N I T I L I Z A T I O N  
P L E A S E   W A I T
```

```
M O N   1 5 / 0 4 / 2 0 1 2   1 7 : 4 8  
I D E N T I F Y   Y O U R S E L F
```

8.2 Error messages

These are the main error messages that may be displayed by the terminal:

This message indicates that this terminal is not set up by "Kelio" application:

```
I M   W A I T I N G   F O R   A   N E W  
P R O G R A M M E   ( T E R M I N A L   # 0 1 )
```

This message indicates a power failure. The terminal operates on battery power and saves the clockings:

```
M A I N S   F A I L U R E   1 0 : 3 2  
I D E N T I F Y   Y O U R S E L F
```

9. MODIFYING THE IP INTERFACE SETTING UP

9.1 On the terminal

1. Enter the menu with a technician code and click on **E** to validate.



If a connection has been previously established, you can enter in the menu with a code. Click on E to validate this code. This code is configured in the Installation module of Kelio Software, HARDWARE > TERMINALS > SITES > MAINTENANCE

2. IP address , , .
3. Sub-net mask , , , enter the mask and click on E to validate,
4. Gateway , .

9.2 On the Installation module

The reader must be connected to the local network and must be in the same sub-net mask as the server. It is pointless to put a router between the reader and the Kelio server.

Enter the IP address of the server from your browser address bar: `http://IP address of the server`

Ex `http://172.16.10.222`

Enter the "Communication and interface configuration" menu, modify the IP address then click on "Validate".

9.3 Via Telnet

The IP interface setting up can be modified from a computer connected to the Ethernet local network, via Telnet.

Manual setting up procedure of a Kelio Visio terminal via Telnet:

1. Starting the "Telnet" program.
2. Connecting to the IP interface of Kelio Visio terminal.
3. Enter the login "ROOT" and the password "ROOT" via Telnet.
4. The "ROOT" prompt appears, you are in command mode of the IP card.

NB: You can modify the IP address remotely if the terminal has already been connected correctly to the IP network.

9.4 Reset IP address

- Launch the identification in the TEST module, then in Hardware control.
- Enter the Rst module (Reset).

9.5 Connection

There are three ways to see and test the connection between Kelio Visio and the server/computer:

- Perform a communication test in INSTALLATION > TERMINALS MENU > MAINTENANCE > COMMUNICATION TEST > RUN
- Enter the work post number used to connect the reader in the browser address [http://workpost number:8089/term-server/homepage](http://workpostnumber:8089/term-server/homepage)

Ex <http://4279b:8089/term-serveur/homepage> click on « Go on On » to activate/deactivate the connection of your hardware/terminals with the server

- Enter the INSTALLATION MENU > TERMINAL SUPERVISION > HARDWARE STATE > FILTER

10. SAFETY INSTRUCTIONS AND EQUIPMENT PROTECTION

This equipment should be installed and maintained by authorized personnel.

Installation must comply with the current IEC364 standards (NFC15-100 in France). Since the device is class I, the protective earth connection is absolutely required at the mains concentrator block.

The Terminal must not be connected to the power supply until it is securely fitted.

Provide a circuit-breaker or fast accessible fuse disconnecting switch in the facility for the 230V mains supply, as well as for the connections to the relay contacts (if dangerous voltage).

In case of maintenance on the terminal and before opening the casing, shut off the mains supply circuit-breaker/disconnecting switch and do the same for relay-commutated dangerous voltages, if any.

Apart from the connection to the mains supply concentrator block and to the relay concentrator block if the case arises, all the devices or circuits connected to the terminal on the other concentrator blocks must be SELV (safety extra low voltage).

The use of clamping collars, particularly at the mains supply and relay is necessary (see paragraph "Installation").

For life safety purposes and for immunity to lightning effects, RS485 and RS232 junction cables and the alarm cable should not link two buildings that have protection earths independent from one another (the terminal cables must not be used to link the two potentials). These cables should not be run out of a building. If the case arises, it will be necessary to use the interfaces provided for this purpose (for RS485 and RS232 links: opto-insulated communication modules or modems shall be used for example)

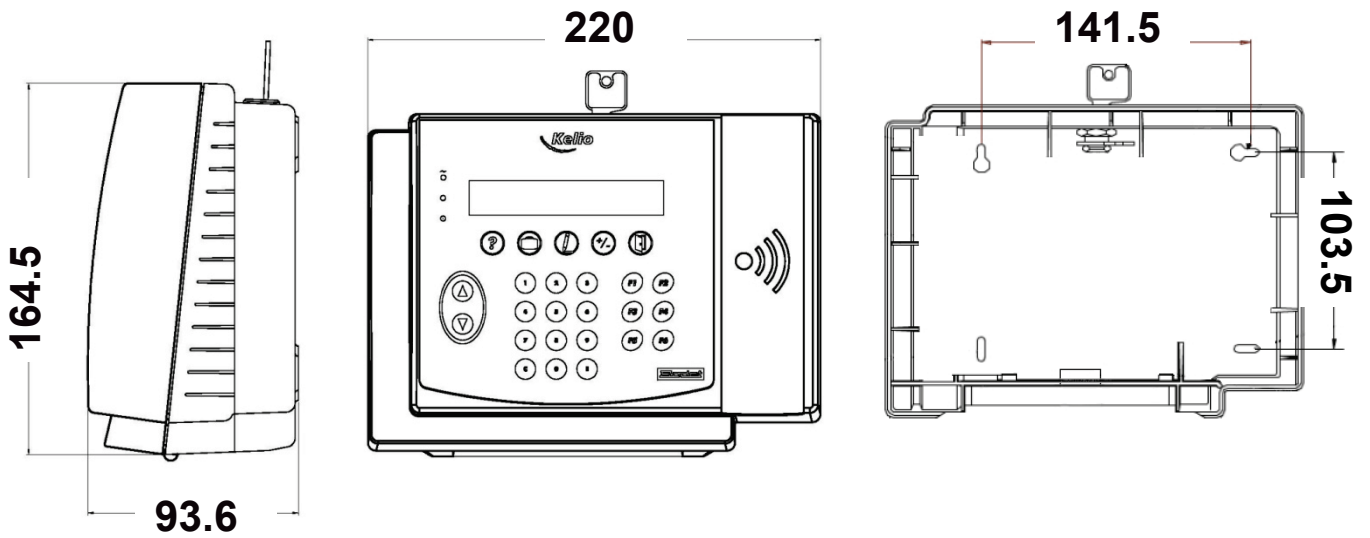
WARNING: There are explosion risks if internal batteries are replaced by batteries of incorrect type.



This symbol means that the present instructions should be consulted.

11. TECHNICAL CHARACTERISTICS

11.1 Space requirements



11.2 Types of terminals

There are 2 types of terminals:



Terminals with proximity reader



Terminals with magnetic badge reader

The terminal is inserted in the Kelio system via a network connected to a computer.

Description	Features
Storage capacity	32Mo, 50.000 clockings
Autonomous operation	2 hours on internal battery
Clocking distance for 125kHz proximity badges	0.5 to 5 cm according to type of badge
Mains supply voltage Nominal current	230V +/- 50% 50 Hz 80 mA
Power supply class	Class 1 (protection earth is mandatory)
Mains supply diagram	TT or TN diagram
Type of power supply	Switching power supply
Low voltage supply input: Nominal current: Mains supply detection:	11.5 to 15 Vdc 1 A "Mains supply" input = 12V, no mains supply = 0V. The signal indicates whether the external power supply is mains- or battery-operated (using its own batteries).
Protection index	IP 20
Operating temperature	0° to +50°C
Relative humidity	15 to 90%, non-condensing
Cable on mains concentrator block	1.5-2.5mm ² , bare on a 5mm length
Alarm input	For dry contact connection. Typical connection to the output relay of a fire alarm station (commutated current <10mA)
Relay change-over (break, make, common)	230V 50Hz 4A _{max} break. Possibility of commutating a SELV (Safety Extra Low Voltage). Breaking capacity at minimum load = 10mA / 5V
Cable on relay concentrator block	1.5 to 2.5mm ² , bare on a 5 mm length
External power supply output	11.5 to 14.5V, 200mA _{max} . The voltage is commutated via the terminal firmware.
<u>France Inter/DCF time reception:</u> Type: Max. output current: Max. voltage:	4-20mA current loop 50mA 14.5Vdc
Clocking distance for MIFARE proximity badges (13.56MHz)	0.5 to 4cm according to type of badge and environment
PC serial link	RS232
COM3 and COM4 serial links	RS485
Internal protection	By internal, automatically resettable fuses.
Proximity reader weight Magnetic badge reader weight	1.7 kg 1.7 kg
Screen	2 line x 24 character LCD backlit display (blue)
Casing material	ABS plastic

KELIO VISIO BIO TERMINAL

Instructions



The document relates to the following products:

	KELIO VISIO IP/RS232	KELIO VISIO ACTIVITY IP/RS232	KELIO VISIO MODEM
926134	Biometric fingerprint + proximity HID reader	926114 Biometric fingerprint + proximity MIFARE Classic and Desfire (CSN and Bodet Number badge reader)	926142 Biometric fingerprint standalone reader
926133	Biometric fingerprint standalone reader	926116 Proximity MIFARE Classic and Desfire (CSN and Bodet Number badge reader)	926139 Biometric fingerprint + proximity MIFARE Classic (CSN and Bodet Number badge reader)
926138	Biometric fingerprint + proximity STID reader	926117 Biometric fingerprint standalone reader	
926151	Biometric fingerprint + proximity MIFARE Classic and Desfire (CSN and Bodet Number badge reader)	926144 Biometric fingerprint + proximity HID reader	
		926146 Biometric fingerprint + proximity STID reader	

Ref. 640201 D



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1. INITIAL CHECK

Each terminal is supplied in its original package with two bags, each of them containing 2 screws, 2 dowel pins and 3 clamping collars pre-fastened to the back of the concentrator (these clamping collars are used to fasten the cables under dangerous voltage).

2. WARNING

Any use that does not comply with these instructions can cause irreversible damage to the electronic board of the device and voids the warranty.

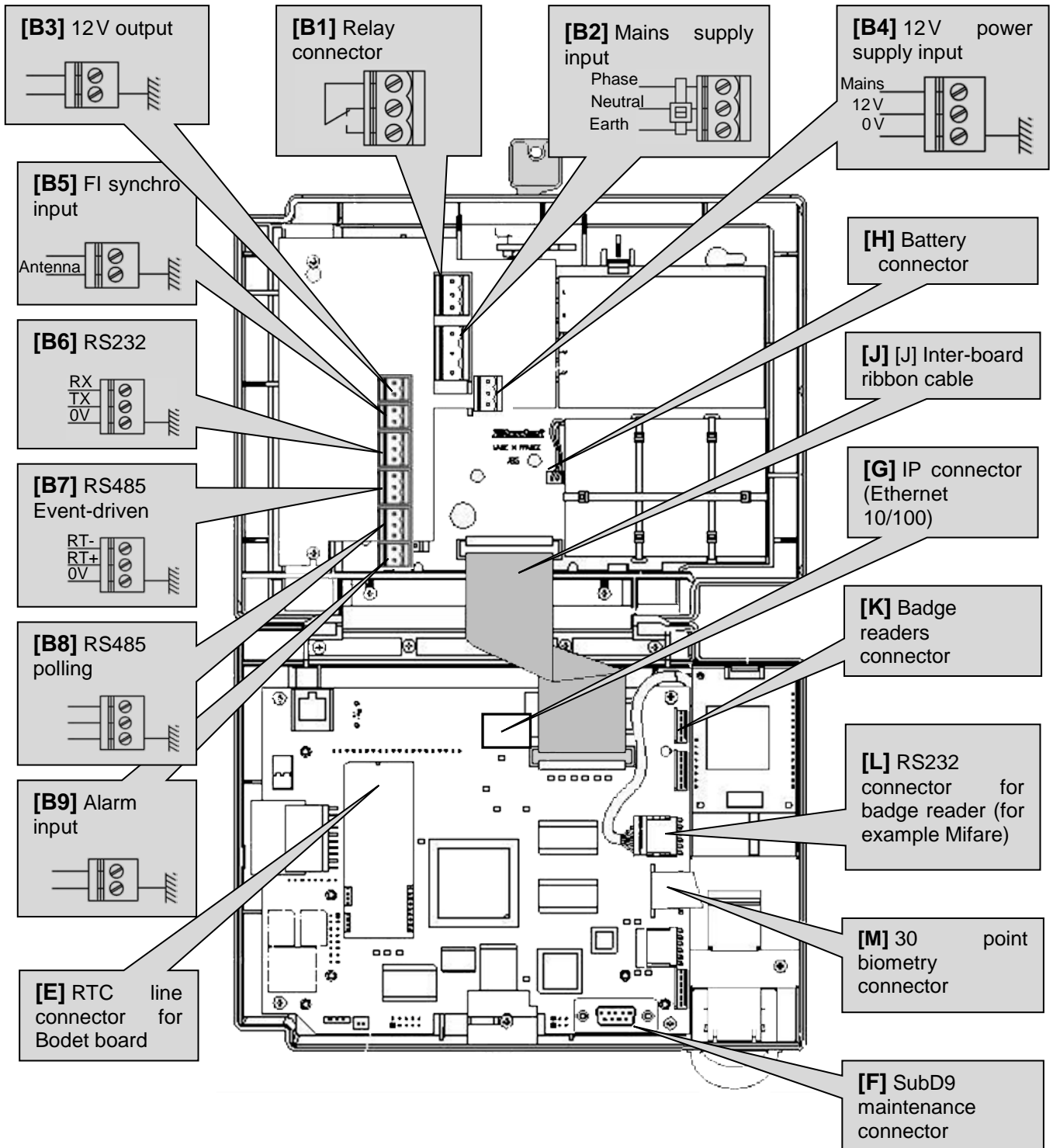
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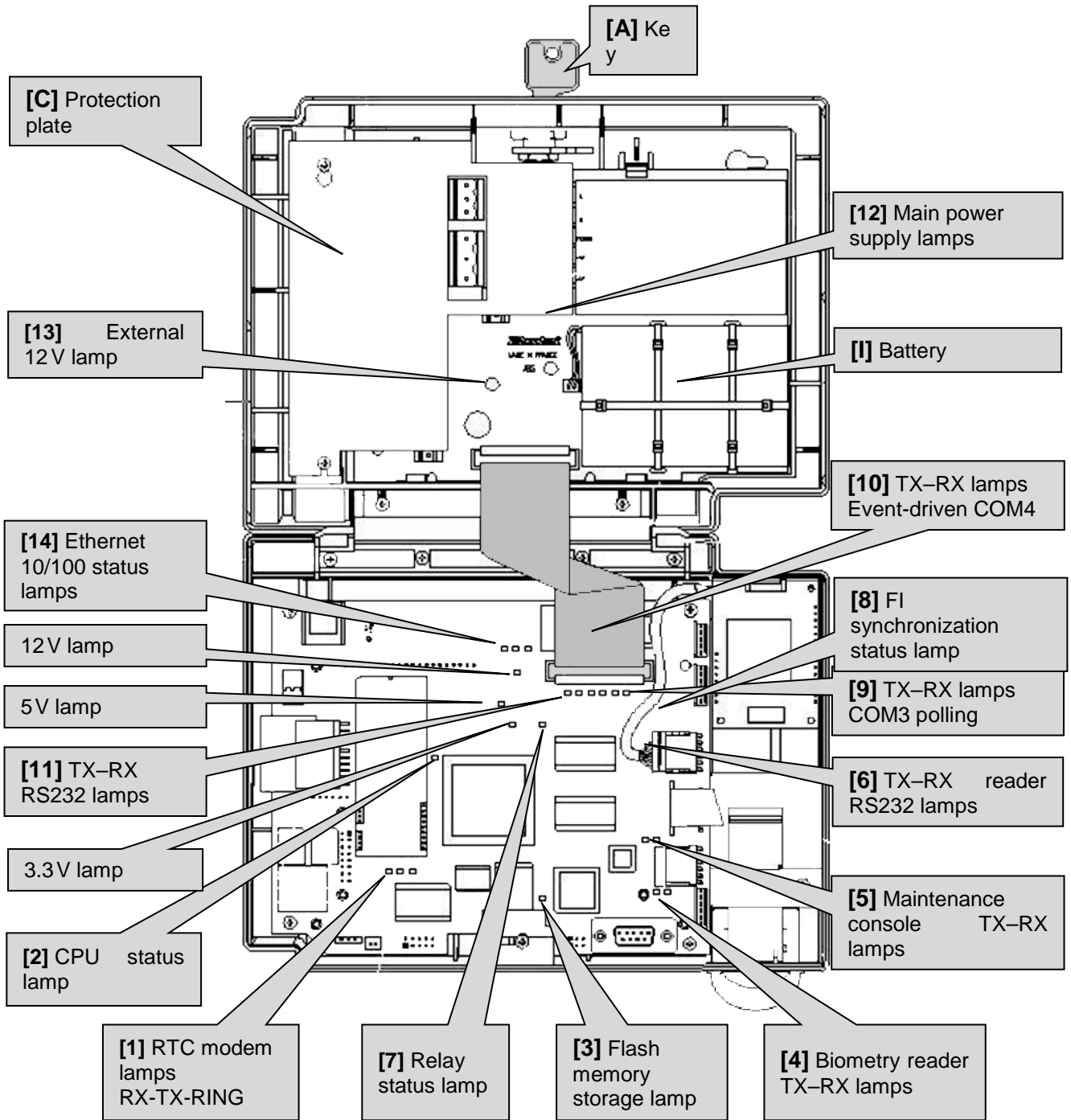
The terminal is a CLASS 1 device. As a result, the presence of a protective earth connection is mandatory (connector [B2])

3. TERMINAL OVERVIEW

3.1 Connectors



3.2 Pilot lamps



3.3 Operation of pilot lamps

PILOT LAMPS	OPERATION
RX/TX and RING [1] (RX-MOD TX-MOD RI)	Operation linked to RTC modem (when the option is installed). Ring LED signal as and when the telephone rings
CPU [2] (two-coloured)	10-second blinking as the concentrator is powered up or the CPU board is reset. During that period, access to the RS232 series console on the SUBD9 connector can be initiated.
FLASH [3]	Blinking as soon as data are stored in non volatile "flash" memory (memory with a file system)
Biometry reader [4] (TX-BIO RX-BIO)	Pilot LEDs from the RS232 link to the biometric reader
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France Inter synchro [8] (R F.I)	Light signal when receiving France Inter or DCF time information
RX/TX COM3 [9] (TX-POL RX-POL)	Pilot LEDs from the RS485 link COM3 of the power-supply board
RX/TX COM4 [10] (TX-EVE RX-EVE)	Pilot LEDs from the RS485 link COM4 of the power-supply board
RX/TX COM RS232 [11] (TX-COM RX-COM)	Pilot LEDs from the RS232 link COM4 of the power-supply board
Main power supply LED [12]	Green LED on as long as the CPU power supply is valid (mains supply 12 V or external 12 V or internal stand-alone battery 12 V)
Main power supply LED [13]	Green LED on as long as the CPU power supply is valid (valid mains supply or 12 VDC input present or power supply fed by the internal stand-alone battery)
"Network" LEDs [14] (DUPLEX LINK SPEED)	Communication-driven duplex LED signal Link LED on if the network is detected Speed LED on if using a 100 Mb/s network (off if using a 10 Mb/s network)

4. INSTALLATION

4.1 Mechanical installation

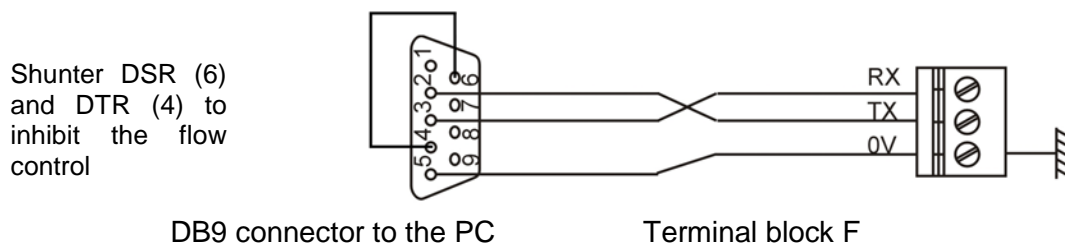
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- Select premises with low temperature variations and far from any electromagnetic interference sources (contactors, motors, other badge swipe readers, etc.).
- Open the terminal with the key [A].
- Remove connector [J] and unclip the front panel of the terminal.
- Remove the the protection plate [C] by loosening the 2 screws and by sliding it upwards.
- Fasten the back of the terminal where selected, using the 4 dowel pins and 4 screws supplied.

4.2 Electrical installation

- With the system de-energized, connect the contacts of the relay (230 V, 4A_{max}) concentrator block [B1].
- **For mains supply:** After de-energizing the relevant circuit-breaker / disconnecting switch, connect the 230Volt $\pm 10\%$ 50Hz mains supply to the concentrator block [B2] (1.5 to 2.5mm² cross-section phase, neutral and earth wire, bare on a 5mm length).
- **For low voltage power supply:** Connect a 12VDC (11,5 to 15VDC) power supply to the concentrator block [B4]. Should the external power supply be equipped with an off-mains operating battery, if necessary, connect the "mains supply" signal (12VDC = mains supply, 0VDC = no mains supply) to the upper part of the concentrator block [B4].
- Connect the low voltage power cord of concentrator block [B3] to the external electrical devices (typically BODET Kar readers). The amperage supplied by the terminal on this concentrator block is limited to 200mA. The maximum voltage supplied is 14.5VDC.
- Plug connector [H] from back-up battery [I] to the power-supply board.

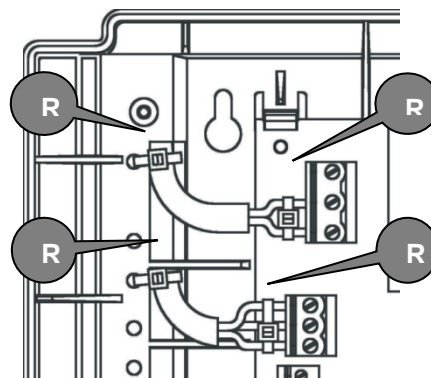
4.3 Connecting communication links

- Connect the France-Inter/DCF radio-synchronization antenna to concentrator block [B5]. The link with the antenna is a 4-20mA current loop. The current supplied by the terminal is limited to 50mA. The maximum voltage supplied is 14.5VDC.
- Connect the RS232 line from the PC to the terminal on concentrator block [B6] as shown on figure below.



- Connect the event-driven RS485 line [B7] to the other peripherals such as Kelio Visio (depending on software configuration).
- Connect the polling RS485 line [B8] to the peripherals such as attendance boards, Kar readers, GPS receiver (depending on software configuration).
- Connect the alarm cable to concentrator block [B9]. The two contacts of the alarm signal are intended to be connected to an external dry contact (typically the contacts of a fire alarm system relay).
- In the event of an RTC modem option, connect the telephone cable to RJ11 connector [D] or concentrator block [E].
- Connect the Ethernet 10/100Mb cable to concentrator block [G].

- Secure the cables using the tightening collars [R].
- Put the protection plate back into place [C].
- Re-install the front panel at the back of the terminal.
- If necessary and before closing the casing, power up to adjust/configure the terminal (see page 7 in these instructions).
- Remove the protection sheet from the front.
- The terminal is ready to be used.



4.4 Reader's connection

Wired reader

Connect the reader to the USB port on the activity VISIO.

Wireless reader

Connect the reader support to the USB port on the activity VISIO.
Follow the start-up instructions for the wireless reader provided with it.



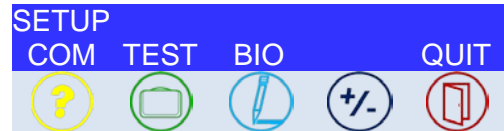
5. ENROLMENT

Before you can clock using the biometric sensor, you must “enrol” yourself. To do so, enter the 4-digit code using the biometric terminal keypad (configured in the Installation Module of the Kelio software, **HARDWARE > TERMINALS > SITES > MAINTENANCE**) menu, then press **E**.

5.1 Authentication mode

The following display appears on the screen:

Press the **BIO** key.



The following display appears on the screen:

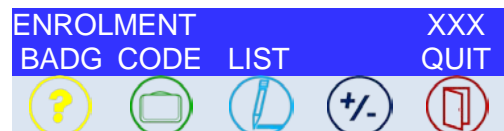
Press the **ENROLE** key.



The following display appears on the screen if the terminal does not have a Mifare reader:

Otherwise, the “BADG” mode is automatically selected. XXX is the number of fingerprints that can still be stored in the terminal.

Press the **BADGE** key.



The following display appears on the screen:

Swipe your badge.



The following display appears on the screen:

Press the **OK** key if your surname and your first name are displayed.



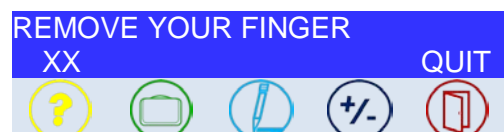
The following display appears on the screen:

Place your finger.



The following display appears on the screen:

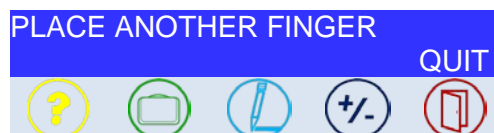
Remove your finger.



Place and remove the finger as many times as requested. XXX is the quality of the enrolment executed out of 100. If the score obtained is less than 85, it is recommended to re-enrol.

The following display appears on the screen:

Place another finger.



The following display appears on the screen:

Remove your finger.

Place and remove the finger as many times as requested.



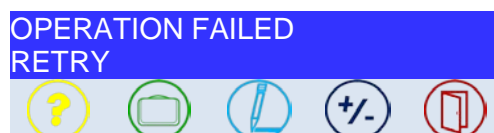
If the enrolment is successful, the following display appears on the screen:

Then press the **QUIT** key 3 times to exit the menu.



Otherwise, the following display appears on the screen:

Then restart the enrolment procedure;



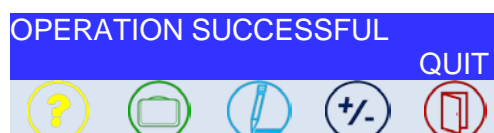
If the terminal is equipped with a Mifare badge reader and the fingerprints are stored in the badge memory and not in the terminal, the following step will be used to record the fingerprint in the badge.

The following display appears on the screen:

Place the badge against the reader as long as the message is displayed.

When the saving is complete, the following display appears on the screen:

Otherwise, restart the enrolment procedure.



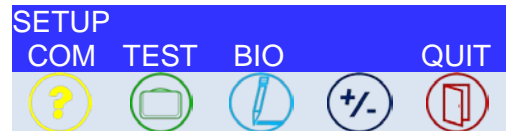
When an enrolled employee wants to clock in or out, you must:

- Swipe your badge,
- Place the finger on the reader.

5.2 Identification mode

The following display appears on the screen:

Press the **BIO** key.



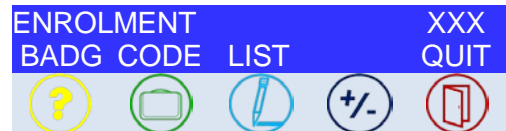
The following display appears on the screen:

Press the **ENROLL** key.



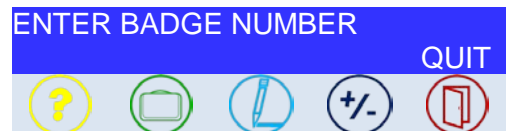
The following display appears on the screen if the terminal does not have a Mifare reader: Otherwise, the BADG mode is automatically selected. XXX is the number of fingerprints that can still be stored in the terminal.

Press the **CODE** key.



The following display appears on the screen:

Enter the employee's badge number (or ID number, depending on the option selected in the software configuration of the Installation module).



The following display appears on the screen:

Press the **E** key if your surname and your first name are displayed.



The following display appears on the screen:

Place your finger.



The following display appears on the screen:

Remove your finger.



Place and remove the finger as many times as requested. XXX is the quality of the enrolment executed out of 100. If the score obtained is less than 85, it is recommended to re-enrol.

The following display appears on the screen:

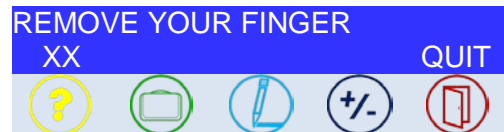
Place another finger.



The following display appears on the screen:

Remove your finger.

Place and remove the finger as many times as requested.

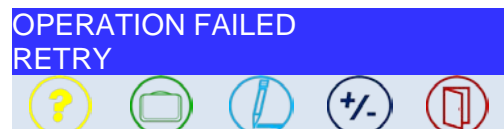


If the enrolment is successful, the following display appears on the screen:
Then press the **QUIT** key 3 times to exit the menu.



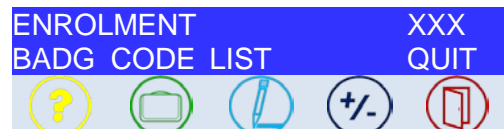
Otherwise, the following display appears on the screen:

Then restart the enrolment procedure.



You can also search for the employee to be enrolled in a list.

To do this, press the **LIST** key. You will see the list of the first 250 employees displayed. To select an employee, use the "arrows" key on the terminal, then click on **E** to validate. When an employee is enrolled, he disappears from this list.



When an enrolled employee wants to clock in or out, you must:

- Press the **E** key to switch on the reader
- Place the finger on the reader.



5.3 Enrolment recommendations

- It is strongly recommended to enrol the index fingers.
- It is strongly recommended to keep the fingers clean and dry to clock or enrol.
- You must not press too hard or too lightly on the sensor glass surface
- Keep the finger placed until the red light goes off.
- Every time a finger is placed on the glass surface, it leaves an impression. It is therefore recommended to clean the surface regularly in order to avoid any confusion by the sensor.

CAUTION: If you enrol your finger too quickly there is a risk it will not be saved. In this case, each clocking results in an error message: "Unauthenticated employee". You must therefore take your time when you enrol.

If you want to restart an enrolment, you must delete the enrolment of all the fingers of the employee and restart the entire procedure.

To do this, press the **DEL.** key in the BIO menu. The employee is selected in the same way as for enrolment in LIST mode but it is also possible to delete all fingerprints by pressing the **TOT.**

6. INFORMATION AND PRECAUTIONS TO TAKE IN RELATION TO BIOMETRIC IDENTIFICATION PROCESSES

6.1 *Biometric reading quality*

Our terminals are equipped with biometric fingerprint reader sensors.

Sensor technical characteristics:

- **False Rejection Rate***: from 0.1 % to 1.5 % according to the specific factors detailed below.
- **False Acceptance Rate**: from 0.001 % to 1 % according to the specific factors detailed below.

* Failure rate for three successive negative attempts

Specific false rejection and false acceptance rate variation factors:

- **Enrolment image quality**: Its score must be above 90. We recommend that you enrol the index fingers. Enrolment may be difficult if the fingers are thin. In this case, you must start again until you achieve sufficient quality.
- **Ambient brightness**: The brightness may cause the reading quality to vary. The reader must not be placed under any direct light source that may alter reading.
- **Clean fingers**: The finger to be read must be clean and not be excessively dry.
- **Clean reader**: Check that the reader is cleaned regularly to achieve good print reading.
- **Finger position on the reader**: See the biometric print guide attached to the explanatory manual (reference document 640341A).

As with all biometric processes, the reading performances depend on the reader quality, the conditions under which it is used, the nature of the biometric elements and the user's intention to achieve a correct recording.

Bodet Software cannot therefore guarantee constant, pre-determined performances.

6.2 *Data security*

The fingerprints are stored on the reader's electronic card. The fingerprints are encrypted by an algorithm and are called "templates". The fingerprints are not reproduced in any electronic files.

Each template is associated with a unique number which is stored in our software and in the electronic card.

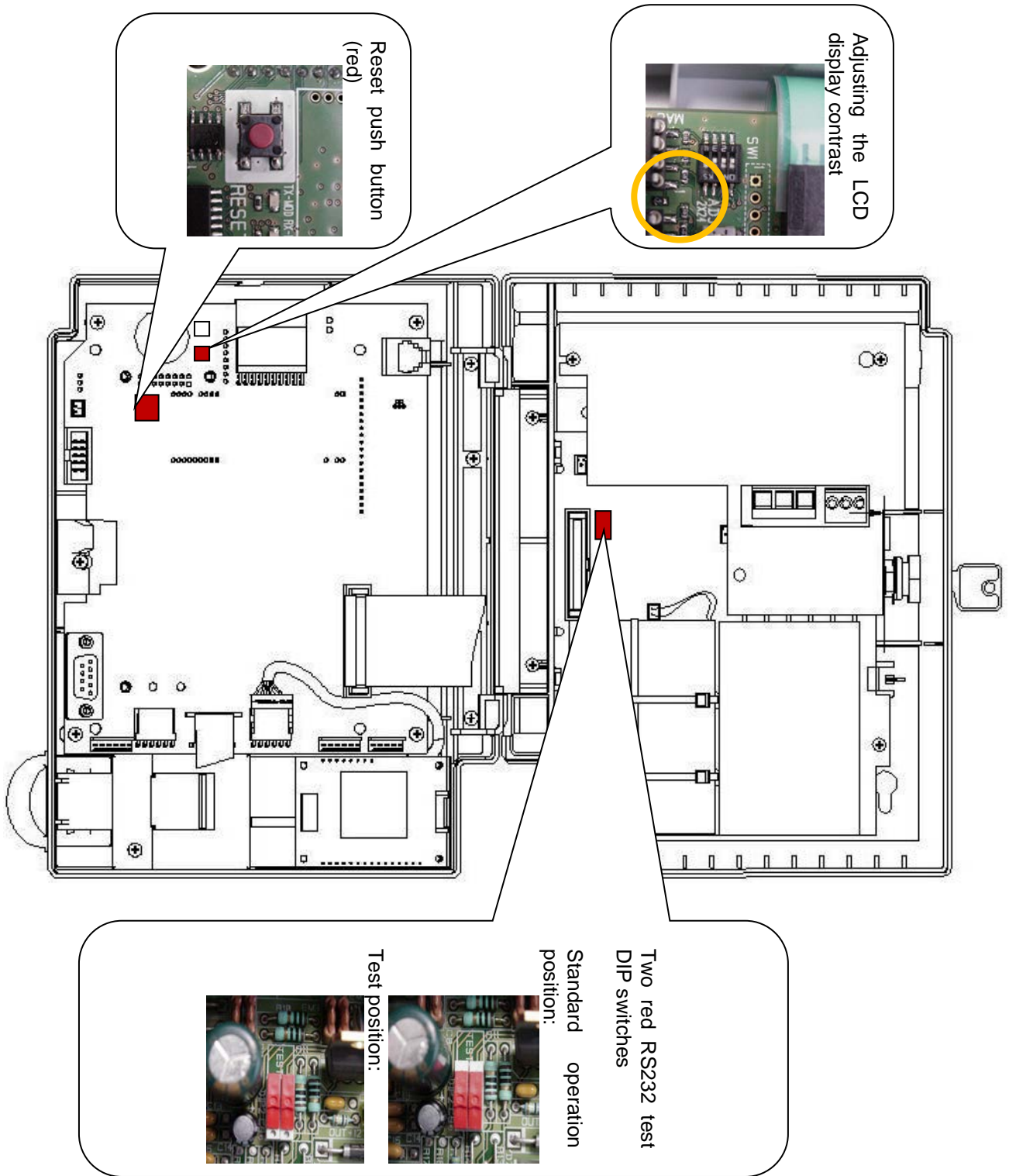
No electronics cards store both the templates and the owner's name in a legible format at the same time. In authentication mode, our software makes a logical link between the unique number and a person.

Fingerprint images cannot be recreated from the coded "template" file.

7. ADJUSTING AND TESTING THE TERMINAL

The LCD's screen contrast can be adjusted (see below).

It must be noted that the RS232 serial link can be tested with two test DIP switches (see below).



8. MESSAGES ON THE TERMINAL

These are the main messages that may be displayed by the terminal when starting the power supply:

```
15/07/2013 17:48 - BODET-  
- - - - -
```

```
15/07/2013 17:48 - BODET-  
BOOTING ...
```

```
BODET LINUX BOOTING  
PLEASE WAIT ...
```

```
JVM INITIALIZATION  
PLEASE WAIT ...
```

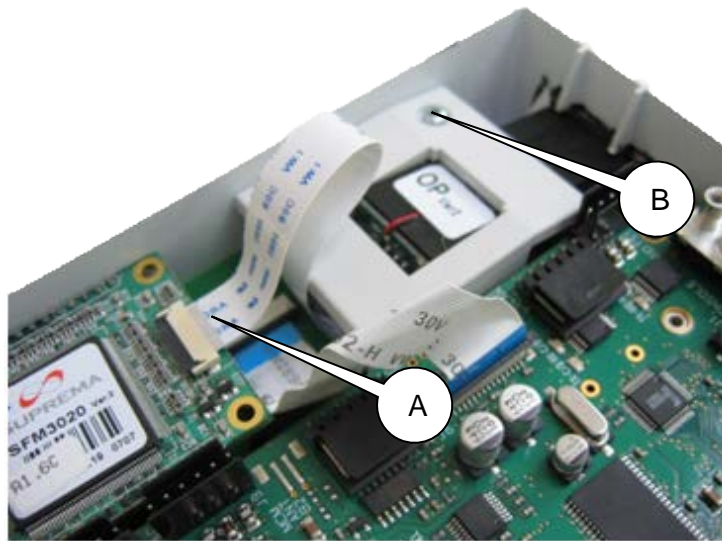
```
LUN 15/07/2013 17:48  
IDENTIFY YOURSELF
```

This message indicates a power failure. The terminal operates on battery power and saves the clockings:

```
MAINS FAILURE 17:48  
IDENTIFY YOURSELF
```

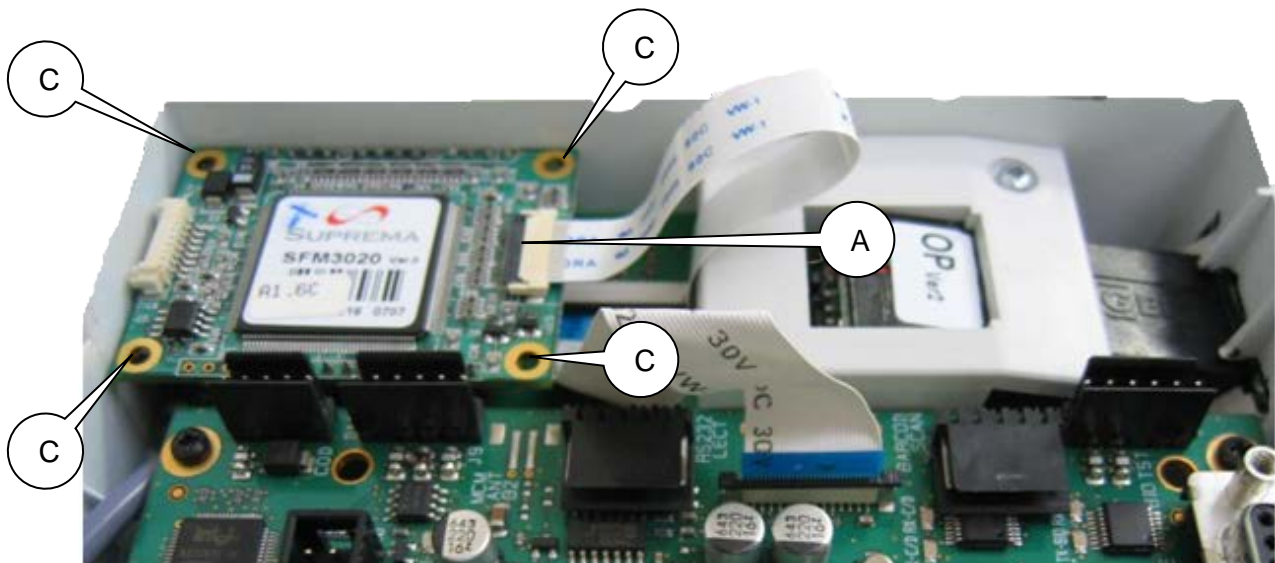
9. MAINTENANCE OF THE BIOMETRIC MODULE

9.1 Replacing the optical biometric sensor part



- Undo the ribbon cable situated between the sensor and the electronic board **[A]**, at the electronic biometric board level.
- Unscrew the retaining screw of the sensor **[B]**. The sensor is now disconnected from the terminal.
- Replace the new sensor, screw back the screw **[B]** and reconnect the ribbon cable **[A]**.

9.2 Replacing the electronic biometric board part



- Undo the ribbon cable situated between the sensor and the electronic board **[A]**, (above a copper coil).
- Hold the board and undo its connectors **[C]** (there are no retaining screws here). The electronic biometric board rests on a simple adaptor board (which also supports a badge reader). This adaptor board can be connected to the CPU board of the terminal.
- Replace the new board and put the ribbon cable back in place.

10. PERFORMING ACTIONS DIRECTLY ON THE TERMINAL

Enter the menu with a technician code and click on **E** to validate.



If a connection has been previously established, you can enter in the menu with a code. Click on **E** to validate this code. *This code is configured in the Installation Module of the Kelio software, HARDWARE > TERMINALS > SITES > MAINTENANCE*

Level					
Setup	COM	TEST			QUIT
Connection	ETH	SERI	MODEM	485	BACK
Setup Ethernet	IP	MASK	GW	PA	BACK
	192.168.1.222				BACK
Setup	COM	TEST			QUIT
Connection	ETH	SERI	MODEM	485	BACK
Setup Ethernet	IP	MASK	GW	PA	BACK
	255.255.255.000				BACK
Setup	COM	TEST			QUIT
Connection	ETH	SERI	MODEM	485	BACK
Setup Ethernet	IP	MASK	GW	PA	BACK
	000.000.000.000				BACK
Setup	COM	TEST			QUIT
Connection	ETH	SERI	MODEM	485	BACK
Setup Ethernet	IP	MASK	GW	PA	BACK
Ping the GW every 10mn	Yes*	No			
Setup	COM	TEST			QUIT
Connection	ETH	SERI	MODEM	485	BACK
Setup serial	IP	SPEED			BACK
	192.168.192.192		38400		BACK
Setup	COM	TEST			QUIT
Connection	ETH	SERI	MODEM	485	BACK
Setup Modem	IP	RING	LANG		BACK
	192.168.192.192	Number of rings	Modem country		BACK
Setup	COM	TEST			QUIT
Connection	ETH	SERI	MODEM	485	BACK
Setup RS485	IP				BACK
	192.168.222.001				BACK
Setup	COM	TEST			QUIT
Hardware control	TIME	DIAG	RST	PING	BACK
Set Date Time	DATE		TIME		BACK
	YYYY/MM/DD				BACK
Setup	COM	TEST			QUIT
Hardware control	TIME	DIAG	RST	PING	BACK
Set Date Time	DATE		TIME		BACK
	HH:MM:SS				BACK
Setup	COM	TEST			QUIT
Diagnostic	TIME	DIAG	RST	PING	BACK
	SYNC	ALIM			BACK
Setup	COM	TEST			QUIT
Hardware control	TIME	DIAG	RST	PING	BACK
Reset	HARD	DB/SID		MODEM	BACK
	YES	NO			BACK
Setup	COM	TEST			QUIT
Hardware control	TIME	DIAG	RST	PING	BACK
Ping host	Host IP + E				BACK

Press **E** to confirm.

11. MODIFYING THE IP INTERFACE SETTING UP

11.1 On the terminal

1. Enter the menu with a technician code and click on **E** to validate.



If a connection has been previously established, you can enter in the menu with a code. This code is configured in the Installation module of Kelio Software.

HARDWARE > TERMINALS > SITES > MAINTENANCE

2. IP address , , , enter the address and click on **E** to validate.
3. Sub-net mask , , , enter the mask and click on **E** to validate,
4. Gateway , , , enter the gateway and click on **E** to validate.

11.2 From the clock's web page

The reader must be connected to the local network and must be in the same sub-net mask as the server. It is pointless to put a router between the reader and the Kelio server.

1. Enter the IP address of the terminal, followed by the 8008 port in our browser address bar:
e.g.: `http://192.168.1.222:8008`
2. Enter the technician code.
3. Enter the *Communication interface configuration* menu, modify the IP address then click on **Validate**.

11.3 From the Installation module

1. Open the Installation module.
2. Go to the TERMINALS > HARDWARE CONFIGURATION menu (select the terminal in question from the site's hardware architecture).
3. Enter the IP address or click on **Launch** to start searching for terminals on the local network.
 - a. Select the terminal whose address is to be changed.
 - b. Enter the new IP address and the technician code.
 - c. Confirm by clicking on **Save**.
4. Confirm the change again by clicking on **Save**.

11.4 Connection test

There are three ways to see and test the connection between Kelio Visio and the computer:

1. Perform a communication test in INSTALLATION > TERMINALS > MAINTENANCE > COMMUNICATION TEST > RUN.
2. Enter the INSTALLATION > TERMINAL SUPERVISION > HARDWARE STATE > FILTER.
3. Enter the Kelio server's IP address in your browser's address bar,
`http://@serverIP:8089/term-server/homepage`.
Click on **ON** to activate/deactivate the connection of your hardware/terminals with the server.

12. SAFETY INSTRUCTIONS AND EQUIPMENT PROTECTION

This equipment should be installed and maintained by authorized personnel.

Installation must comply with the current IEC364 standards (NFC15-100 in France). Since the device is class I, the protective earth connection is absolutely required at the mains concentrator block.

The Terminal must not be connected to the power supply until it is securely fitted.



Provide a circuit-breaker or fast accessible fuse disconnecting switch in the facility for the 230V mains supply, as well as for the connections to the relay contacts (if dangerous voltage).

In case of maintenance on the terminal and before opening the casing, shut off the mains supply circuit-breaker/disconnecting switch and do the same for relay-commutated dangerous voltages, if any.

Apart from the connection to the mains supply concentrator block and to the relay concentrator block if the case arises, all the devices or circuits connected to the terminal on the other concentrator blocks must be SELV (safety extra low voltage).

The use of clamping collars, particularly at the mains supply and relay is necessary (see paragraph Connecting communication links).

For life safety purposes and for immunity to lightning effects, RS485 and RS232 junction cables and the alarm cable should not link two buildings that have protection earths independent from one another (the terminal cables must not be used to link the two potentials). These cables should not be run out of a building. If the case arises, it will be necessary to use the interfaces provided for this purpose (for RS485 and RS232 links: opto-insulated communication modules or modems shall be used for example)

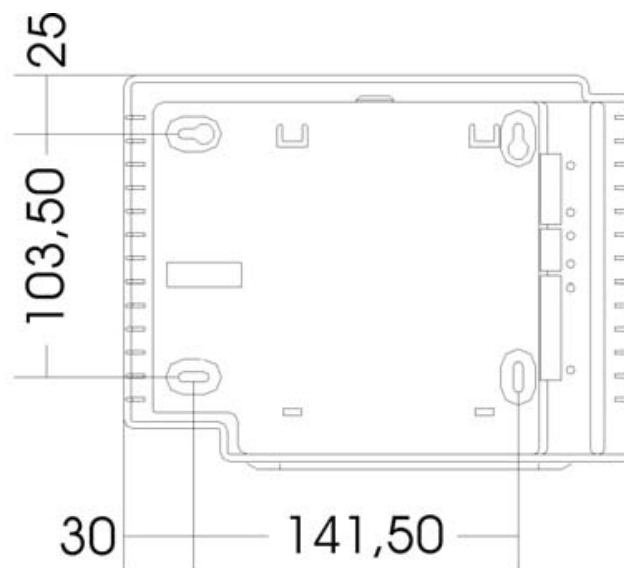
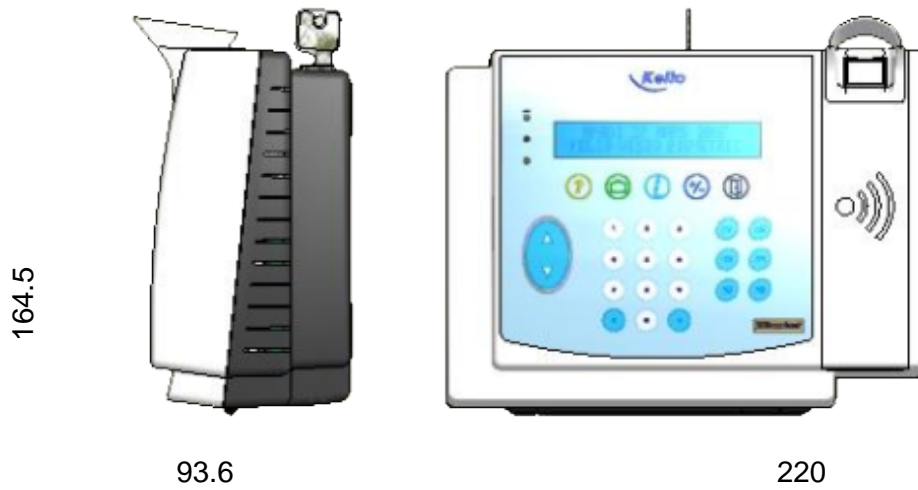
WARNING: There are explosion risks if internal batteries are replaced by batteries of incorrect type.



This symbol means that the present instructions should be consulted.

13. TECHNICAL CHARACTERISTICS

13.1 Space requirements



13.2 Types of terminals

There are 2 types of terminals, with or without badge reader.

The terminal is inserted in the Kelio system via a network connected to a computer.

Description	Features
Storage capacity	32 Mo
Autonomous operation	2 hours on internal battery
Clocking distance for 125 kHz proximity badges	0.5 to 5 cm according to type of badge
Mains supply voltage Nominal current	230V +/- 10% 50Hz 80 mA
Power supply category	Class 1 (protection earth is mandatory)
Mains supply diagram	TT or TN diagram
Type of power supply	Switching power supply
Low voltage supply input: Nominal current: Mains supply detection:	11.5 to 15 Vdc 1 A "Mains supply" input = 12 V, no mains supply = 0 V. The signal indicates whether the external power supply is mains- or battery-operated (using its own batteries).
Protection index	IP 20
Operating temperature	0° to +50 °C
Relative humidity	15 to 90 % without condensation
Cable on mains concentrator block	1.5-2.5 mm ² , stripped over 5 mm
Alarm input	For dry contact connection. Typical connection to the output relay of a fire alarm station (commutated current <10 mA)
Relay change-over (break, make, common)	Disconnection 230 V 50 Hz 4 A maximum. Possibility to switch a SELV voltage (Safety Extra Low Voltage). Breaking capacity at minimum load = 10 mA / 5 V
Cable on relay terminal block	1.5-2.5 mm ² , stripped over 5 mm
External power supply output	11,5 to 14,5 V, 200 mA _{max} . The voltage is commutated via the terminal firmware.
Clocking distance for MIFARE proximity badges (13.56 MHz)	0.5 to 4 cm according to type of badge and environment
France Inter/DCF time reception: Type: Max. output current: Max. voltage:	4-20 mA current loop 50 mA 14.5 VDC
PC serial link	RS232
COM3 and COM4 serial links	RS485
Internal protections	By internal, automatically resettable fuses.
Weight	1.7 kg
Screen	2 line x 24 character LCD backlit display (blue)
Casing material	ABS plastic

